Well, Obama is history, and gone with him any hope of a last-minute legalization. With the new president, all we can do is wait and see what happens. There may be some hope for legal medical use with Trump. "Marijuana is such a big thing. I think medical should happen — right? Don’t we agree? I think so. And then I really believe we should leave it up to the states."

I’m just sitting here looking at my 5 little clones on the window sill, hoping that legalization actually will be left up to the states, so everyone can the freedom that I have. As of today, over half of the states (28) have legalized some form of medical use, while 8 states, and interestingly, Washington DC, have legalized both medical and adult recreational use.

Eventually, our federal government must bow to reality, and the will of the people, and de-schedule cannabis. If it does not, it will be guilty of ignoring the voice of a clear majority of its citizens, as well as the medical facts.

So just how “free” are we, when the government can decree that we are not permitted to grow a safe and effective medicinal herb in our own backyards and homes? The laws prohibiting cannabis are certainly not due to any concerns over “public safety”, since we are perfectly free to grow ornamental plants that can kill, such as oleander, foxglove and castor bean plants.

Whether you approve of our new president and his actions, or not, becoming more politically, socially, and environmentally conscious, and more active on a local level, seems an appropriate reaction to his presidency. Reach out to others of a like mind. Without my friends helping me, this List would reach far fewer of you. (Hugs to “Old Hippie of the “Beyond Chronic” blog for much-needed technical assistance, and Anne Marie for creating the Facebook page.)

From that getting that annoying pothole fixed, to ending human trafficking, there are more than enough things on this earth that need fixing. Find your “good cause” and help heal the world.

Making it easy for you to learn more about cannabis is my goal. And don’t let the size of my List frighten you – it’s really quite easy to use. Everything has been sorted into categories to make it easier for you. Just start with the news articles, then move on to the studies as you learn more.

The List is here as a gateway to your education about cannabis, not an endpoint. Because of the irrational prohibition of cannabis, we are only beginning to understand the potential of this pleasant, healing herb. Already, our fascination with cannabis and its “high” has led to a completely new, major branch of medical science, the study of the endocannabinoid system.

Science is all about the facts. Our drug laws should be based on science, not racism, politics, religion, or personal bias. For 80 years, the truth about cannabis has been suppressed and ignored. And as my grandfather once said, “If the truth won’t do, then something is wrong!”

Granny Storm Crow

It Is Time for Marijuana to Be Reclassified as Something Other Than a Schedule I Drug! (article - 2005) (It’s been 12 years now. Just sayin’!)

NEWS ARTICLES - 2010 - 2017

CONDITIONS AND RELATED ITEMS

ARTICLES 2010 - 2017

ACNE

Cannabidiol as a treatment for acne? (article, p. 31 – 2010)

ACUPUNCTURE/ ELECTROACUPUNCTURE

Cannabis and Acupuncture, the Yin and Yang of Healing Pain (an ancient connection revealed) (news – 2016)
**ADD/ ADHD**


**ADDICTION/ CRAVING**

Indian hemp and the dope fiends of Old England  (article - undated)  [http://www.idmu.co.uk/indian.htm](http://www.idmu.co.uk/indian.htm)

Addictive Properties of Popular Drugs  (article – undated)  [http://www.drugwarfacts.org/cms/Addictive_Properties#sthash.6venLhQ8.dpbo](http://www.drugwarfacts.org/cms/Addictive_Properties#sthash.6venLhQ8.dpbo)

Teen Pot Smoking Won't Lead to Other Drugs as Adults  (news - 2010)
Marijuana is NOT like Alcohol. Please make a note of it. Thanks. (news – 2010)

Don’t send your kid to treatment (news - repost – 2010)

Cure for the Munchies? Exercise Cuts Marijuana Cravings (news – 2011)

Exercise can reduce cannabis use in persons who don’t want to stop (news – 2011)

Marijuana Mouth Spray: Will It Be Abused? (news – 2012)

'Cannabis' receptor discovery may help understanding of obesity and pain (news – 2012)


Why I changed my mind on weed (news – 2013)

Terpenes May Improve Effectiveness Of Medical Marijuana (news – 2013)

Scientists Have Found A Way To Make Marijuana Un-Fun (news – 2013)

4 Myths About Marijuana Addiction (news – 2013)

Science for stoners: What is marijuana “abuse?” (news – 2013)

Don’t Fear the Reefer (news – 2014)

Hormone shows promise at negating marijuana's high effect (news – 2014)

Active ingredient in pot sets off a feedback that reduces intoxication (news – 2014)
Muting Marijuana’s High: Pot Without the Impairment (news – 2014)
http://healthland.time.com/2014/01/03/muting-marijuanas-high-pot-without-the-impairment/

Surveys yet to link medical marijuana and teen drug abuse (news - 2014)

Legalizing Medical Marijuana Doesn't Lead To More Teens Smoking Pot: Study (news – 2014)
http://www.huffingtonpost.com/2014/04/25/medical-marijuana-teens_n_5214875.html

No link between tough penalties and drug use – report (news – 2014)

Marijuana Is Less Addictive Than Chocolate (news - 2014)
https://www.mainstreet.com/article/marijuana-less-addictive-chocolate

The role of marijuana in your coffee addiction (news – 2015)
http://blog.oup.com/2015/05/marijuana-coffee-addiction/

Withdrawal drug could help cannabis addicts kick the habit (news – 2015)

Substance abuse risk not greater in those using medical marijuana with prescribed opioids (news – 2015)

Marijuana Study Counters 'Gateway' Theory (news – 2015)

Many Anti-Pot Arguments Are Based On Weak Science, Say Researchers (news – 2015)
http://www.huffingtonpost.com/entry/marijuana-use-myths_55cb6f53e4b0923c12bed78d?ncid=txtlnkusaolp00000592&kvcommref=mostpopular

How genetic variation influences marijuana dependence (news – 2015)

Study identifies teens at risk for hashish use (news – 2015)

Marijuana Could Help Treat Drug Addiction and Mental Health Problems (news & abst – 2016)
http://neurosciencenews.com/addiction-mental-health-marijuana-5536/

Decreasing Nicotine Consumption by Flipping a Molecular ‘Switch’ (news & abst – 2016)
http://neurosciencenews.com/nicotine-consumption-genetics-3425/
One way to fight the opioid epidemic? Medical marijuana. (news – 2016)
http://www.vox.com/2016/1/20/10800248/medical-marijuana-opioids-heroin

Making or breaking habits: The endocannabinoids can do it (news – 2016)

How the brain makes, and breaks, a habit (news – 2016)
https://www.sciencedaily.com/releases/2016/05/160526185419.htm

Marijuana Use Rises in Iran, With Little Interference (news – 2016)

Maine could be first state to OK medical marijuana to treat addicts (news – 2016)

Mixing pot and tobacco increases dependence risk (news – 2016)

Does medical marijuana reduce need for other meds? (news – 2016)


Marijuana is not a gateway drug, admits Obama’s Attorney General (news – 2016)

Marijuana better alternative to painkillers (news – 2016)
http://www.technicianonline.com/sports/article_3bf18c14-910e-11e6-b5ca-9f48d5e1e2e3.html

Teens with Medical Marijuana Cards Much Likelier to Say They're Addicted, but Few Teens Have Them (news – 2016) http://www.newswise.com/articles/view/637617/?sc=rsmn

Marijuana Dependence Influenced by Genes, Childhood Sexual Abuse (news – 2016) http://www.newswise.com/articles/view/643766/?sc=rsmn

Aging baby boomers increasingly embrace marijuana, heavy alcohol use (news – 2016)

CDC: More people are using marijuana, but fewer are abusing it (news – 2016)
Cancer – Childhood neuroblastoma complete remission  (case report – undated)
http://cannabisclinicians.org/view-all-case-reports/entry/667/

Medical Marijuana is Entering the Classroom  (news – 2010)

Dr. Jean Talleyrand Says Marijuana Safer than Ritalin for ADHD Teens  (news – 2010)

Teen Pot Smoking Won't Lead to Other Drugs as Adults  (news - 2010)

Marijuana May Offset Alcohol-Induced Cognitive Impairment Among Teens  (news – 2010)

Fake Weed, Real Drug: K2 Causing Hallucinations in Teens  (news – 2010)

Don’t send your kid to treatment  (news - repost – 2010)

Medical marijuana laws creating pot fiends? What study shows  (news - 2011)

'Fake Marijuana' May Trigger Heart Trouble in Teens  (news – 2011)

Are smart kids more likely to use drugs?  (news – 2011)

High Childhood IQ Linked to Subsequent Illicit Drug Use, Research Suggests  (news – 2011)

Study: Legal Medical Marijuana Doesn't Encourage Kids to Smoke More Pot  (news – 2011)

Medical marijuana legalization won't boost teen pot use, study finds  (news – 2012)
http://www.cbsnews.com/8301-504763_162-57456999-10391704/medical-marijuana...
Marijuana’s 'historic' surge among teens: 4 theories  (news – 2012)  
http://theweek.com/article/index/222617/marijuanarsquos-historic-surge-among-teens-4-theories

Teen Marijuana Use May Show No Effect On Brain Tissue, Unlike Alcohol, Study Finds (news – 2012)  
http://www.huffingtonpost.com/2012/12/21/teens-marijuana-brain-tissue-alcohol_n_2331779.html

Why K2 is Pimps’ Choice for Controlling Young Sex Workers  (news – 2012)  


Link between pot smoking and IQ drop challenged  (news – 2013)  

Study: Depenalizing Drug Possession Offenses Associated With Lower Drug Consumption Rates Among Young People  (news – 2013)  

Marijuana Helped Teen Fight Leukemia, Say Doctors  (news – 2013)  

Is Medical Marijuana Safe For Children and Adolescents?  (news - 2013)  
http://www.wakingtimes.com/2013/05/27/is-medical-marijuana-safe-for-children-and-adolescents/

Legalise marijuana to deter teen binge drinking?  (news – 2013)  

Marijuana use on the rise among young adults, fiftysomethings  (news – 2013)  

Cannabis use among teens is on the rise in some developing countries  (news – 2013)  
http://www.medicalnewstoday.com/releases/269017.php


Why "Just Say No" Doesn't Work  (news – 2013)  

Teen Marijuana Use Hasn't Exploded Amid Boom in Legalization Support, Drug Survey Finds (news – 2013)  
Survey: Teens using synthetic drugs less often (news - 2013)
http://news.yahoo.com/survey-teens-using-synthetic-drugs-less-often-050311100.html;_ylt=AwrSyCRcGbJSkjYA1CTQtDMD

Harvard: Marijuana Doesn’t Cause Schizophrenia (news – 2013)

Smoking "spice" associated with stroke in healthy, young adults (news – 2013)
http://www.medicalnewstoday.com/releases/269132.php

Synthetic Marijuana Lands Thousands of Young People in the ER, Especially Young Males (news – 2013)

Pot-smoking students better at school than 'marginalized' tobacco-smoking peers (news – 2014)
http://www.ctvnews.ca/health/pot-smoking-students-better-at-school-than-marginalized-tobacco-smoking-peers-1.1745098#ixzz2x6lq4iMr

Surveys yet to link medical marijuana and teen drug abuse (news - 2014)

Alcohol and drugs put teens at increased risk for unsafe driving (news – 2014)

Legalizing Medical Marijuana Doesn't Lead To More Teens Smoking Pot: Study (news – 2014)
http://www.huffingtonpost.com/2014/04/25/medical-marijuana-teens_n_5214875.html

Study: Students better off saying 'no' to pot jobs (news – 2014)

Marijuana Users Have Better Cognitive Skills, Study Finds (news – 2014)
http://www.leafscience.com/2014/03/14/marijuana-users-better-cognitive-skills-study-finds/

UCSF-led study gathers data on safety, tolerability of purified cannabinoid for children with epilepsy (news – 2014)

Synthetic Drug Use Skyrocketing, Targeting Young Users (news – 2014)

CHART: College Lacrosse Athletes Are More Likely To Use Marijuana Than Any Other Sport (news – 2014)
Medical Marijuana Legalization: Pro-Pot Laws Do Not Lead To More Drug Use Among Teens, Study Finds  (news – 2014)

Foster teen says she drank bleach to mask cannabis  (news – 2014) (Old trick, may not work with new tests. You add a few drops of bleach to your urine sample- YOU DO NOT DRINK IT!) 

Alcohol, marijuana bad for teens in different ways  (news – 2014)

After California decriminalized marijuana, teen arrest, overdose and dropout rates fell  (news – 2014)

Pot Is the New Normal  (news – 2014)
http://time.com/3514137/marijuana-legalization-colorado-new-normal/

Marijuana: Occasional Cannabis Use in Teenagers Has 'No Relationship' with IQ or Exam Results  (news – 2014)


Treat or nasty trick? Denver police warn of pot-tainted candy  (news – 2014)
http://www.reuters.com/article/us-usa-marijuana-halloween-idUSKCN0I617B20141017

New Test Kit: Parents Can Screen Candy For Marijuana  (news – 2014)

No Halloween pot poisonings in Denver, hospital says  (news – 2014)

Medical marijuana opponents’ most powerful argument is at odds with a mountain of research  (news – 2014)

Teen marijuana use falls as more states legalize  (news – 2014)


One in three New York college students has gone to class high: study (news – 2015) http://www.nydailynews.com/life-style/health/ny-college-kids-class-high-study-article-1.2113316


Pediatrician decides: alcohol or marijuana (news – 2015) http://blog.sfgate.com/smellthetruth/2015/03/16/pediatrician-decides-alcohol-or-marijuana/

Study identifies teens at-risk for synthetic marijuana use (news – 2015) http://www.sciencedaily.com/releases/2015/03/150302091659.htm

Schools using out-of-school suspension drug policy show increased likelihood of marijuana use (news – 2015) http://www.sciencedaily.com/releases/2015/03/150319165342.htm


What is the scope of marijuana use in the United States? (news – 2015)
Cannabis: World-renowned researchers discuss a new frontier in therapeutics (news – 2015)

Talking to kids about legal marijuana (news – 2015)

Marijuana Study Counters 'Gateway' Theory (news – 2015)

Getting high in senior year: NYU study examines reasons for smoking pot (news – 2015)

Pediatrician Group Recommends Decriminalizing Marijuana For Youngsters (news – 2015)

The Science Of Decriminalizing Drugs (news – 2015)

How Legalizing Pot Affected 1M Teens (news – 2015)
https://www.yahoo.com/parenting/how-legalizing-pot-affected-1m-teens-121674072507.html

Do medical marijuana laws increase teen pot smoking? (news – 2015)

Drug warriors are still crying 'reefer madness.' The facts don't support them (news – 2015)

A huge new study finds that medical marijuana doesn’t “send the wrong message” to kids (news – 2015)

When Teens Have More Access to Marijuana, This is What Happens (news – 2015)
http://www.cheatsheet.com/culture/when-teens-have-more-access-to-marijuana-this-is-what-happens.html?
a=viewall

More Young People Want Cannabis To Be Legal Than Tobacco (news – 2015)
http://www.huffingtonpost.co.uk/2015/07/06/survey-states-young-people-want-cannabis-legal-over-tobacco_n_7736450.html?utm_hp_ref=uk&ir=UK

Study finds no link between teen marijuana use, mental health issues (news – 2015)
Teen marijuana use not linked to later depression, lung cancer, other health problems, study finds (news – 2015)
http://www.sciencedaily.com/releases/2015/08/150804093718.htm

Schools employ many different ways to test for drugs (news – 2015)
http://www.abqjournal.com/625738/sports/schools-employ-many-different-ways-to-test-for-drugs.html

Many Teens With Chronic Illnesses Use Alcohol, Pot (news – 2015)

Two Major Studies Blast Apart Decades of Lies About Marijuana and Teenage Brains (news – 2015)

One in every 17 college students smokes marijuana on daily or near-daily basis (news – 2015)
http://www.news-medical.net/news/20150901/One-in-every-17-college-students-smokes-marijuana-on-daily-or-near-daily-basis.aspx

Teen marijuana use down despite greater availability (news – 2015)
http://www.sciencedaily.com/releases/2015/09/150915141045.htm

How genetic variation influences marijuana dependence (news – 2015)

Alcohol and the teen brain: There’s evidence binge drinking is dangerous for the adolescent brain — but guess what substance gets the bad rap (news – 2015)
http://www.salon.com/2015/11/30/teens_and_binge_drinking_partner/

Legal weed having little effect on teen marijuana use, federal data shows (news – 2015)

Why legalizing weed is unlikely to turn your kid into a pothead (news – 2015)

Study identifies teens at-risk for synthetic marijuana use (news – 2015)

Study identifies teens at risk for hashish use (news – 2015)

College Kids Now Prefer ‘Funny’ Cigarettes (news – 2015)
Majority of young conservatives lean toward marijuana legalization  
http://www.dailytargum.com/article/2015/03/majority-of-young-conservatives-lean-toward-marijuana-legalization

Dose of Reality: The Effect of State Marijuana Legalizations  

The real ‘gateway drug’ is 100% legal  

Cannabis use in teens does not affect their IQ or educational performance  

Drug curbs marijuana use, but with tough side effects  

Cannabis ‘doesn’t lower IQ or school grades’ – but smoking tobacco does  
http://metro.co.uk/2016/01/12/cannabis-doesnt-lower-iq-or-school-grades-but-smoking-tobacco-does-5617875/#ixzz3xf2XAoDW

Study: Marijuana Use Not Predictive Of Lower IQ, Poorer Educational Performance  

Gambling Is Associated with 'Risk-Taking Behavior' in Young Teens, Study Finds  
http://www.newswise.com/articles/view/647427/

High Anxiety Risk in Adolescence Linked to One Gene  

Largest ever longitudinal twin study of adolescent cannabis use finds no relationship heavy use and IQ decline.  
http://news.meta.com/2016/01/18/twinsstudy/

Busted: France, Canada have most teen pot smokers  

Age When Marijuana Use Starts Impacts Brain Development Differently  

Drug testing at your fingertips: Unique test examines nail clippings because “kids aren’t honest”  
http://fox6now.com/2016/02/04/drug-testing-at-your-fingertips-unique-test-examines-nail-clippings-because-kids-arent-honest/
Legalization of marijuana in Washington had no effect on teens' access to drug (news – 2016) https://www.sciencedaily.com/releases/2016/04/160430100249.htm


As more states legalize marijuana, adolescents' problems with pot decline (news – 2016) http://www.eurekalert.org/pub_releases/2016-05/wuso-ams052416.php


Study uses diverse sample to examine childhood weight's link to age of first substance use (news – 2016) https://www.sciencedaily.com/releases/2016/06/160628110211.htm


American teenagers 'are MORE likely to smoke marijuana than binge drink', new maps reveal (news – 2016) http://www.dailymail.co.uk/health/article-3719979/American-teenagers-likely-smoke-marijuana-binge-drinks-new-maps-reveal.html?ixzz44GCZ0Lzu


Americans have radically changed their views on weed over 25 years (news – 2016) http://www.businessinsider.com/americans-changing-views-on-weed-over-25-years-2016-9
Delaying Pot Smoking Better for Teens’ Brains  

Colorado on marijuana: ER visits, poison-control calls down even as consumption rates remain steady  
[news – 2017](http://www.denverpost.com/2017/02/01/colorado-marijuana-er-visits-poison-control/)

**AGING** - also see OLDER ADULT CANNABIS USERS, MENOPAUSE

Pot for Grandma? Middle-Aged Adults Buying Weed for Ailing Parents  

Medical Marijuana Raises Tough Questions for Nursing Homes  

Cannabis Use in Nursing Homes – An Emerging Issue  

Endocannabinoid Signaling In Dietary Restriction And Lifespan Extension  
[news – 2011](http://www.medicalnewstoday.com/releases/225007.php)

Cannabinoid-1 Receptor Protects The Brain From Aging  
[news – 2011](http://www.medicalnewstoday.com/releases/230948.php)

Bodyguard for the Brain: Researchers Identify Mechanism That Seems to Protect Brain from Aging  

Israel pushing ahead in medical marijuana industry  

How Cannabinoids May Slow Brain Aging  
[news – 2012](http://healthland.time.com/2012/10/29/how-cannabinoids-may-slow-brain-aging/)

Monterey County seniors finding pain relief in medical marijuana  

4 Mind Blowing Ways Cannabis Can Help Your Brain  
[news – 2014](https://www.medicaljane.com/2014/12/14/4-mind-blowing-ways-marijuana-can-help-your-brain/)

Vaping weed is good for your skin  
[news – 2016](http://metro.co.uk/2016/03/18/vaping-weed-is-good-for-your-skin-5759607/)
Marijuana May Boost Brain Performance  (news – 2016)

This Is What Happens to Your Beauty on Marijuana  (news – 2016)
https://www.yahoo.com/beauty/this-is-what-happens-to-1411025717600310.html

Cannabinoids remove plaque-forming Alzheimer's proteins from brain cells
(news – 2016)

Is It Time To Get Grandma & Grandpa Some Weed?  (news – 2016)
http://herb.co/2016/07/06/seniors-and-cannabis/

CBD Science: How Cannabinoids Work at the Cellular Level to Keep You Healthy
(news – 2016)
http://www.alternet.org/drugs/cbd-science-mitochondria-mysteries-homeostasis-renewal-endocannabinoid-system

Aging baby boomers increasingly embrace marijuana, heavy alcohol use
(news – 2016)

**ALCOHOLISM /ALCOHOL**

Marijuana is NOT like Alcohol. Please make a note of it. Thanks.  (news – 2010)

Study shows direct cellular interaction between endocannabinoids and alcohol in the brain  (news - 2010)

Marijuana To Control Alcohol Abuse  (news - 2010)

Marijuana May Offset Alcohol-Induced Cognitive Impairment Among Teens
(news – 2010)

Study Overturns Decade-Old Findings in Neurobiology: Research Suggests Potential Target for Drugs to Combat Alcohol Addiction  (news - 2010)
http://www.sciencedaily.com/releases/2010/05/100512151549.htm
Cannabinoids: every body likes them, some bodies need them  (news – 2010)  
https://patients4medicalmarijuana.wordpress.com/2010/03/13/cannabinoids-every-body-likes-them-some-bodies-need-them/

Latest Studies Imply That Cannabinoids Are Protective Against Alcohol-Induced Brain Damage  (news – 2011)  
http://blog.norml.org/2011/09/06/latest-studies-imply-that-cannabinoids-are-protective-against-alcohol-induced-brain-damage/

Why Medical Marijuana Laws Reduce Traffic Deaths  (news - 2011)  

Do Harsh Pot Laws Create a Dangerous Drinking Culture? 5 Reasons to Get Stoned Instead of Drunk  (news – 2012)  
http://www.alternet.org/story/153870/do_harsh_pot_laws_create_a_dangerous_drinking_culture_5_reasons_to_get_stoned_instead_of_drunk

http://theweek.com/article/index/227026/marijuana-infused-wine-the-new-high

Teen Marijuana Use May Show No Effect On Brain Tissue, Unlike Alcohol, Study Finds  (news – 2012)  
http://www.huffingtonpost.com/2012/12/21/teens-marijuana-brain-tissue-alcohol_n_2331779.html

Secret “Sober” Pot Smokers  (news – 2013)  
http://www.thefix.com/content/secret-%E2%80%9Csober%E2%80%9D-pot-users2030

Legalise marijuana to deter teen binge drinking?  (news – 2013)  

Study: Medical Marijuana Laws Lead To Decrease In Alcohol-Related Deaths  (news – 2013)  
http://www.opposingviews.com/i/society/study-medical-marijuana-laws-lead-decrease-alcohol-related-deaths/

Alcohol or Cannabis? No Question Which Substance Poses a Greater Risk to Health  (news – 2013)  
http://www.huffingtonpost.com/paul-armentano/alcohol-or-cannabis_b_3799972.html

Marijuana Unlikely To Cause Violence, Study Finds  (news – 2013)  

New Study: Cannabis May Treat Brain Damage Caused by Heavy Alcohol Consumption  (news – 2013)  
http://thejointblog.com/new-study-cannabis-may-treat-brain-damage-caused-heavy-alcohol-consumption/

Which is more dangerous: marijuana or alcohol?  (news – 2014)  
http://www.abc15.com/dpp/news/local_news/water_cooler/which-is-more-dangerous-marijuana-or-alcohol

Where you’re most likely to get arrested for marijuana and DUI, in 2 maps
Alcohol and drugs put teens at increased risk for unsafe driving   (news – 2014)  

Colorado’s poster boy for ‘stoned driving’ was drunk off his gourd   (news – 2014)  
http://www.washingtonpost.com/news/the-watch/wp/2014/06/06/colorados-poster-boy-for-stoned-driving-was-drunk-off-his-gourd/

Poll: 47% in under-40 crowd say booze worse than weed   (news – 2014)  

Alcohol, marijuana bad for teens in different ways   (news – 2014)  

Research compares consequences of teen alcohol and marijuana use   (news – 2014)  

Does Legal Marijuana Help or Hurt the U.S. Health Care System?   (news – 2014)  
a=viewall

What Happens To Your Body When You Get Drunk And Stoned At The Same Time?  
(news – 2014)  

Daily pot use not associated with brain shrinkage: Colorado study   (news – 2015)  

The laws on alcohol and marijuana are totally out of sync with the science   (news – 2015)  

Stoned Drivers At Far Lower Risk Of Crash Than Drunken Drivers   (news – 2015)  
http://www.huffingtonpost.com/2015/02/11/stoned-driving-crash-risk_n_6654810.html

Pediatrician decides: alcohol or marijuana   (news – 2015)  
http://blog.sfgate.com/smellthetruth/2015/03/16/pediatrician-decides-alcohol-or-marijuana/

Ladies, you might want to swap the bourbon for a bong   (news – 2015)  

6 facts about marijuana   (news – 2015)  
http://www.pewresearch.org/fact-tank/2015/04/14/6-facts-about-marijuana/


Alcohol and the teen brain: There’s evidence binge drinking is dangerous for the adolescent brain — but guess what substance gets the bad rap (news – 2015)  http://www.salon.com/2015/11/30/teens_and_binge_drinking_partner/


Infographic: Pot smokers are skinnier than non-users (news – 2015) http://o.canada.com/health-2/infographic-pot-smokers-are-skinnier-than-non-users


Cannabis Compares Favorably to Conventional PTSD Treatments (news – 2016) http://www.prweb.com/releases/2016/03/prweb13244763.htm


American teenagers 'are MORE likely to smoke marijuana than binge drink', new maps reveal (news – 2016) http://www.dailymail.co.uk/health/article-3719979/American-teenagers-likely-smoke-marijuana-binge-drinks-new-maps-reveal.html#ixzz4GCZQ0Lzu


Serious researchers studied how sex is different when you’re high vs. when you’re drunk (news – 2016) https://www.washingtonpost.com/news/wonk/wp/2016/08/06/serious-researchers-studied-how-sex-is-different-when-youre-high-vs-when-youre-drunk/


Opinion: Legal marijuana is affecting the beer industry’s memory
Marijuana spending passes that of spirits  

Black drivers' cars searched more frequently on basis of drug, alcohol odor  
http://www.columbiamissourian.com/news/black-drivers-cars-searched-more-frequently-on-basis-of-drug/article_76c6279a-b63f-11e6-9c89-0ff7ad37d769.html

Aging baby boomers increasingly embrace marijuana, heavy alcohol use  

ALLERGIES TO CANNABIS

Marijuana Allergy: Fact or Fiction  
http://marijuanamythbusters.com/tag/cannabis-allergy/

Marijuana allergies a growing problem, study says  

Marijuana: The Allergen You Never Knew Existed  
http://www.newswise.com/articles/view/630525/?sc=rsmn

Allergy to Cannibis  

Study finds no link between teen marijuana use, mental health issues  
http://www.foxnews.com/health/2015/08/04/study-finds-no-link-between-teen-marijuana-use-mental-health-issues/

Teen marijuana use not linked to later depression, lung cancer, other health problems, study finds  
http://www.sciencedaily.com/releases/2015/08/150804093718.htm

Marijuana allergy can be triggered by toking  
**ALS / AMYOTROPHIC LATERAL SCLEROSIS/ LOU GEHRIG’S DISEASE**

ALS and Medical Marijuana (news – undated)
http://www.floridamarijuanainfo.org/als-and-medical-marijuana/

Marijuana May Extend Life Expectancy Of Lou Gehrig's Disease Patients, Study Says (news - 2010)
http://blog.norml.org/2010/05/19/marijuana-may-extend-life-expectancy-of-lou-gehrig%E2%80%99s-disease-patients-study-says/

Patient pitches medical marijuana at Fla. Capitol (news/anecdotal – 2013)
http://www.news4jax.com/news/Patient-pitches-medical-marijuana-at-Fla-Capitol/-/475880/19224748/-/format/rss_2.0/-/2c8l1rz/-/index.html

Cannabis Science: Finding The Optimal Therapeutic Ratio Of THC And CBD (news – 2014)

Treating Amyotrophic Lateral Sclerosis (ALS) Symptoms with Medical Marijuana (news – 2014)

**ALZHEIMER’S DISEASE**

Newly discovered mechanism controls levels and efficacy of a marijuana-like substance in the brain (news – 2010)

New metabolic pathway for controlling brain inflammation (news – 2011)


Scripps Research Scientists Discover Inflammation Is Controlled Differently in Brain and Other Tissues (news – 2011)

http://www.nextavenue.org/can-marijuana-save-aging-brain/

Marijuana Compound Found Superior To Drugs For Alzheimer's (news – 2012)
How Cannabinoids May Slow Brain Aging  
http://healthland.time.com/2012/10/29/how-cannabinoids-may-slow-brain-aging/

5 Marijuana Compounds That Could Help Combat Cancer, Alzheimers, Parkinsons (If Only They Were Legal)  
http://www.alternet.org/drugs/5-marijuana-compounds-could-help-combat-cancer-alzheimers-parkinsons-if-only-they-were-legal

Cannabinoid Receptor Stimulator Reverses Symptoms of Alzheimer's Disease in Animal Model  
http://www.biotechdaily.com/?option=com_article&Itemid=294742494

Researchers investigating potential drug for treatment of Alzheimer's disease  

Researchers investigating new therapeutic target for Alzheimer's disease  

LSUHSC research identifies new therapeutic target for Alzheimer's disease  

Preventing marijuana-induced memory problems with over-the-counter painkillers  

Medical marijuana helps senior sleep, contend with other problems of aging  
http://www.ottawacitizen.com/health/seniors/Medical+marijuana+helps+senior+sleep+contend+with+other/8439474/story.html

Terpenes May Improve Effectiveness Of Medical Marijuana  

Still Believe Nature Got It Wrong? Top 10 Health Benefits of Marijuana  
http://www.wakingtimes.com/2013/05/01/still-believe-nature-got-it-wrong-top-10-health-benefits-of-marijuana/

Marijuana may improve stamina, rejuvenate brain — study  

New Study Shows Cannabinoids Improve Efficiency Of Mitochondria And Remove Damaged Brain Cells  
http://www.collective-evolution.com/2013/05/30/new-study-shows-cannabinoids-improve-efficiency-of-mitochondria-and-remove-damaged-brain-cells/

Cannabis may help reverse dementia: study  
New Study Finds Marijuana Could Help Treat Alzheimer’s Disease (news – 2013)

Marijuana cannabinoids slow brain degradation and aging, reverse dementia: here's how (news – 2013)
http://www.naturalnews.com/040456_marijuana_cannabinoids_dementia.html

Marijuana's Memory Paradox (news - forum repost – 2013)
http://ehealthforum.com/health/interesting-t164409.html

Marijuana for Alzheimer’s Disease (news – 2014)
https://www.psychologytoday.com/blog/your-brain-food/201411/marijuana-alzheimer-s-disease

Blocking brain's 'internal marijuana' may trigger early Alzheimer's deficits, study shows (news – 2014)

Marijuana compound may offer treatment for Alzheimer's disease (news – 2014)

Marijuana fights Alzheimer’s disease, new study indicates (news – 2014)

Marijuana compound may halt Alzheimer's disease – study (news – 2014)

Alzheimer’s Caused By Loss of Cannabinoids, Study Shows (news – 2014)

Cannabis May Protect The Aging Brain, Say Experts (news – 2014)
http://www.leafscience.com/2014/05/07/cannabis-may-protect-aging-brain-say-experts/

Marijuana Compound May Offer Treatment for Alzheimer’s Disease (news – 2014)
http://neurosciencenews.com/alzheimers-progression-thc-neuropharmacology-1274/

4 Mind Blowing Ways Cannabis Can Help Your Brain (news – 2014)
https://www.medicaljane.com/2014/12/14/4-mind-blowing-ways-marijuana-can-help-your-brain/

How Medical Marijuana’s Chemicals May Protect Cells (news – 2015)
http://www.scientificamerican.com/article/how-medical-marijuana-s-chemicals-may-protect-cells/

What ailments does medical marijuana help? (news – 2015)

10 diseases where medical marijuana could have impact (news – 2015)

The Science Behind Sanjay Gupta’s WEED 3 (news – 2015)
AMOTIVATIONAL SYNDROME

Medical Cannabis and the Myth of Amotivational Syndrome (article – 2014)

Cannabis Reduces Short Term Motivation to Work For Money (news – 2016)
http://neurosciencenews.com/psychology-cannabis-work-4958/
ANECeDTAl / PERSONAL STORIES

Drug War Victims (news – undated)  http://www.drugwarrant.com/articles/drug-war-victim/

ALS and Medical Marijuana (news – undated)
http://www.floridamarijuanainfo.org/als-and-medical-marijuana/

Cannabis Sativa (Marijuana) for Fibromyalgia (anecdotal - 2007 - 2010)
http://www.fibromyalgia-reviews.com/drg_marijuana.cfm


Sam's Story: Medical Marijuana and Autism (news / anecdotal - 2010)

Why I Give My 9-Year-Old Pot, Part 3 (news/anecdotal - 2010)
http://www.slate.com/id/2251174/

The Cannabis Closet: Severe Eczema (anecdotal - 2010)
http://andrewsullivan.theatlantic.com/the_daily_dish/2010/05/the-cannabis-closet-severe-eczema.html

Cannabis and PTSD by Michael McKenna (anecdotal - 2010)
http://www.rxmarijuana.com/pstd.htm

Ehlers-Danlos Syndrome (anecdotal/news - 2010)
http://andrewsullivan.theatlantic.com/the_daily_dish/2010/05/the-cannabis-closet-chronic-joint-pain.html

Schneider: Lansing mom says son's legal marijuana use unfairly stigmatized (Ehlers-Danlos) (anecdotal/news - 2010)

Steamboat mom sees results from giving autistic son medical marijuana (anecdotal/news - 2010)

Up in smoke: 'Cannabis gave me my life back' (migraine) (anecdotal – 2010)

Weed Control Part 1: MS sufferer finds relief with medical marijuana (anecdotal/news - 2010)

January is Glaucoma Awareness Month: Can Marijuana save eyesight?  (news/forum repost/ anecdotal – 2011)

Cerebral Palsy Victim Sues City Over Medical Marijuana       (news/anecdotal – 2011)

Father: Medical marijuana eased pain of my cancer-battling son  (news/forum repost – 2011)

Isaacs' syndrome     (forum post/anecdotal - 2011)  

Teen says marijuana has been a lifesaver  (myoclonus diaphragmatic flutter)  (news/ anecdotal  – 2012)  
http://www.gazette.com/articles/seizes-134241-chaz-teen.html

Medical Marijuana and Lyme Disease…Alexis’ story   (news/anecdotal – 2012)  
http://www.doobons.com/blog/2012/02/22/medical-marijuana-and-lyme-disease-alexis-story/

This for That: Lyme Disease        (news/anecdotal – 2012)  
http://the420times.com/2012/01/this-for-that-lyme-disease/

Marijuana and Asperger's Syndrome     (anecdotal – 2012)  

Hashing It Out In Ohio With The Martha Stewart Of Marijuana        (interview – 2013)  

Multiple Sclerosis and Cannabis - A Conversation With Clark French    (news – 2013)  
http://www.huffingtonpost.co.uk/jason-reed/multiple-sclerosis-and-cannabis_b_1902151.html

Marijuana Put My Crohn’s Disease Into Remission and It’s Not A Joke (anecdotal – 2013)  

Checotah Man Credits Cannabis Oil For Improved Health  (COPD)   (news – 2014)  
http://www.newson6.com/story/26293519/checotah-man-credits-cannabis-oil-for-improved-health

Desperate Journey  (seizures)  (news – 2014)  
http://extras.denverpost.com/stateofhope/
Meet Stefanie LaRue: Cancer Survivor and Medical Marijuana Advocate (news – 2015) 
http://www.medicaljane.com/2015/02/03/stefanie-larue-cancer-survivor-and-advocate-credits-cannabis/

Why I chose to use cannabis (chemotherapy) (article – 2016) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4791147/

Medical marijuana saved the life of 8 year old boy with Angelman Syndrome (news – 2016) 

"try cannabis" (news – 2016) http://slow-mixmary.blogspot.com/

**ANGELMAN’S SYNDROME** – a genetic disorder with seizures, lack of speech, balance problems and developmental delays

Medical marijuana saved the life of 8 year old boy with Angelman Syndrome (news – 2016) 

**ANGIOGENESIS** – the formation of new blood vessels


**ANOREXIA NERVOSA** - also see APPETITE STIMULANT


San Francisco Medical Marijuana Clinic Says Cannabis is Effective for Many Women’s Medical Issues (news – 2011)

ANTI-BACTERIAL PROPERTIES - also see MRSA

Can Marijuana Combat The ‘Catastrophic’ Rise Of Drug Resistant Bacteria? (news – 2013)
http://www.leafscience.com/2013/09/18/can-marijuana-combat-catastrophic-rise-drug-resistant-bacteria/

5 Health Benefits Of Cannabichromene (CBC) (news – 2013)
http://www.leafscience.com/2013/09/21/5-health-benefits-of-cannabichromene-cbc/

ANTI-FUNGAL PROPERTIES

5 Health Benefits Of Cannabichromene (CBC) (news – 2013)
http://www.leafscience.com/2013/09/21/5-health-benefits-of-cannabichromene-cbc/

Foot Nail Fungus is Stubborn, Ugly, and Pernicious (news – 2016)

ANTI-PARASITIC PROPERTIES

Unconscious use of 'medical marijuana'? Hunter-gatherer cannabis use linked to fewer internal parasites (news – 2015)
http://www.sciencedaily.com/releases/2015/06/150601082721.htm

Cannabis and Intestinal Worms (news – 2016)
http://cannabishealthindex.com/cannabinoid-research/cannabis-and-intestinal-worms/

ANTIOXIDANT PROPERTIES

Cannabinoids Stop Radiation Therapy Oxidation (news & abst – undated)
Marijuana may improve stamina, rejuvenate brain — study (news - 2013)

New Study Shows Cannabinoids Improve Efficiency Of Mitochondria And Remove Damaged Brain Cells (news – 2013)
http://www.collective-evolution.com/2013/05/30/new-study-shows-cannabinoids-improve-efficiency-of-mitochondria-and-remove-damaged-brain-cells/

New Research Finds Marijuana May Combat Brain Damage (news – 2013)
http://thejointblog.com/new-research-finds-marijuana-may-combat-brain-damage/

Marijuana's Memory Paradox (news - forum repost – 2013)
http://ehealthforum.com/health/interesting-t164409.html

CBD Science: How Cannabinoids Work at the Cellular Level to Keep You Healthy (news – 2016)
http://www.alternet.org/drugs/cbd-science-mitochondria-mysteries-homeostasis-renewal-endocannabinoid-system

ANXIETY/ ANXIOLYTIC EFFECTS (anxiety reducing)

Echinacea makes you carefree (news – undated)

Endocannabinoids and psychiatric disorders: the road ahead (article – 2010)

New Findings on How the Brain’s Own Marijuana-Like Chemicals Suppress Pain (news – 2011)

Brain altering drug calms fears also (news – 2012)

Hashing It Out In Ohio With The Martha Stewart Of Marijuana (interview – 2013)

Potential new way to treat anxiety (news – 2013)
http://www.medicalnewstoday.com/releases/264392.php
Terpenes May Improve Effectiveness Of Medical Marijuana  (news – 2013)  


Discovery Sheds New Light on Marijuana’s Anxiety Relief Effects  (news – 2014)  
http://neurosciencenews.com/cannabinoid-receptors-amygdala-anxiety-833/

Marijuana's anxiety relief effects: Receptors found in emotional hub of brain  (news – 2014)  
http://www.sciencedaily.com/releases/2014/03/140306142803.htm

How Black Pepper relieves Cannabis Anxiety  (news – 2014)  
http://cannabisdigest.ca/black-pepper-relieves-cannabis-anxiety/

The surprising everyday ingredient that can reduce pot paranoia  (news – 2014)  
http://www.salon.com/2014/08/21/the_surprising_everyday_ingredient_that_can_reduce_pot_paranoia_par

Natural ‘high’ could avoid chronic marijuana use, Vanderbilt study finds  (news – 2014)  
http://news.vanderbilt.edu/2014/12/natural-high-could-avoid-chronic-marijuana-use-vanderbilt-study-finds/

Activating cannabinoid brain receptors could replace marijuana for anxiety treatment  (news – 2014)  
http://www.medicalnewstoday.com/articles/286482.php

DR ALLAN FRANKEL’S EARLY VERSION INITIAL DOSAGE AND ADMINISTRATION GUIDE  (news – 2014)  

Health Benefits Of Medical Marijuana: 3 Major Ways Cannabis Helps Sick People Live Normal Lives  (news – 2014)  

Cannabis Prevents the Negative Behavioral and Physiological Effects PTSD  (news – 2014)  
http://neurosciencenews.com/neuropharmacology-cannabinoids-ptsd-1300/

Cannabinoid Receptors May Control Aversive Memories  (news & abstract - 2015)  
http://neurosciencenews.com/habenula-cb1-receptors-memory-2742/

Marijuana Could Help Treat Drug Addiction and Mental Health Problems  (news & abst – 2016)  
http://neurosciencenews.com/addiction-mental-health-marijuana-5536/

Study finds no link between teen marijuana use, mental health issues  (news – 2015)  
http://www.foxnews.com/health/2015/08/04/study-finds-no-link-between-teen-marijuana-use-mental-health-issues/
Teen marijuana use not linked to later depression, lung cancer, other health problems, study finds  
(http://www.sciencedaily.com/releases/2015/08/150804093718.htm)

Is Anxiety Genetic?  
(http://www.quickanddirtytips.com/education/science/is-anxiety-genetic)

5 Prescription Drugs That Could Literally Replaced by Marijuana  
(http://blogs.naturalnews.com/5-prescription-drugs-literally-replaced-marijuana/)

Treating Depression in Alcoholics  
(http://neurosciencenews.com/alcoholism-depression-psychology-3541/)

Cannabis Compares Favorably to Conventional PTSD Treatments  
(http://www.prweb.com/releases/2016/03/prweb13244763.htm)

High Anxiety Risk in Adolescence Linked to One Gene  

Smoking cannabis DOESN'T cause clinical anxiety or depression, study finds  
(http://www.dailymail.co.uk/news/article-3456326/Smoking-cannabis-DOESN-T-cause-clinical-anxiety-depression.html#ixzz45lywpZ11)

How Cannabis Works to Control Pain and Anxiety  
(http://www.huffingtonpost.com/entry/how-cannabis-works-to-control-pain-and-anxiety_us_57d97a73e4b0d93d17700f63)

Pet owners try cannabis edibles, tinctures to ease animal anxiety, arthritis and more  
(http://www.thecannifornian.com/cannabis-health/pet-owners-try-edibles-ease-anxiety-arthritis/)

Marijuana Appears to Benefit Mental Health: Study  
(http://time.com/4573129/marijuana-cannabis-mental-health/)

Why Chauncey Billups was totally cool with NBA teammates smoking weed before games  
(http://www.thecannabist.co/2016/12/13/chauncey-billups-teammates-smoking-marijuana/69273/)

Cannabis Advice for the Novice Consumer  
(https://www.hellomd.com/health-wellness/cannabis-advice-for-the-novice-consumer)

Study Reveals Role of Spleen in Prolonged Anxiety After Stress  
(http://neurosciencenews.com/stress-anxiety-spleen-5507/)


Endocannabinoid Signaling In Dietary Restriction And Lifespan Extension  (news – 2011)  http://www.medicalnewstoday.com/releases/225007.php


Key Shift in Brain That Creates Drive to Overeat Identified  (news – 2013)  http://www.sciencedaily.com/releases/2013/04/130429154214.htm


Too little sleep may trigger the 'munchies' by raising levels of an appetite-controlling molecule  (news – 2013)  https://www.sciencedaily.com/releases/2013/06/130617110935.htm
Mangoes Elevate High From Smoking Marijuana: Are They A Healthier Alternative To The 'Munchies'? (news – 2013)  
http://www.medicaldaily.com/mangoes-elevate-high-smoking-marijuana-are-they-healthier-alternative-munchies-247892

Mechanism elucidated: How smell perception influences food intake (news – 2014)  
http://www.sciencedaily.com/releases/2014/02/140210114550.htm

The brain mechanism connecting the sense of smell with appetite is discovered (news – 2014)  

Smoking Cannabis 'Gives Men Munchies and Women Pain Relief' (news – 2014)  
https://uk.news.yahoo.com/smoking-cannabis-gives-men-munchies-women-pain-relief-113148055.html#Gnx9r03

Why so munchy? Cannabis shown to ramp up sense of smell (news – 2014)  

New study links marijuana use and low body weight among Nunavik Inuit (news – 2015)  
http://www.nunatsiaqonline.ca/stories/article/65674new_study_links_marijuana_use_and_low_body_weight_among_inuit/

Yale Scientists May Have Figured Out Why Pot Causes the Munchies (news – 2015)  
http://www.newsmax.com/US/yale-scientists-munchies-pot/2015/02/18/id/625389/#ixzz3Ta5r0rSG

Marijuana munchies are all in the brain, U.S. study finds (news – 2015)  
http://news.yahoo.com/marijuana-munchies-brain-u-study-finds-120525371.html;_ylt=AwrTWVUDzuRUazUA5BLQtDMD


Here’s How Weed Affects Your Body (news – 2015)  
http://www.popsci.com/heres-how-weed-affects-your-body

How The Brain Creates Marijuana-Fueled Munchies (news – 2015)  

https://www.sciencedaily.com/releases/2015/02/150204125558.htm

Cannabinoids may be responsible for weight gain associated with schizophrenia (news – 2015)  
Lady Health: Top 5 Strains to Curb Appetite  (news – 2015)  
http://www.ladybud.com/2015/05/12/lady-health-top-5-strains-to-curb-appetite/

Mulling the Marijuana Munchies: How the Brain Flips the Hunger Switch  
(news – 2015)  
http://neurosciencenews.com/hunger-neuroscience-cb1r-1776/

Why weed (and other cannabinoids) gives us—I mean, you—the munchies  
(news – 2015)  

Marijuana flips appetite switch in brain  
(news – 2015)  

Why I chose to use cannabis  
(article – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4791147/

Skimping on sleep may activate the 'munchies'  
(news – 2016)  

Sleep and 2-AG  
(news – 2016)  
http://www.beyondthe.com/21065-2/

Exercise Can Still Increase Hunger Even in Sleep Deprivation  
(news – 2016)  

Marijuana Users Have Lower Body Mass Index than Non-Users Says University of Miami Study  
(news – 2016)  
http://www.wflx.com/story/33139175/marijuana-users-have-lower-body-mass-index-than-non-users-says-university-of-miami-study

Why smoking pot makes food taste so delicious  
(news – 2016)  

**ARTHRITE**

Medical Marijuana For Rheumatoid Arthritis?  
(news – 2011)  

Benefits From Medical Marijuana  
(news – 2011)  
http://www.livestrong.com/article/98476-medical-reasons-marijuana/

Neuromodulators for pain management in rheumatoid arthritis  
(abst/summary – 2012)  

Reefer tokin' seniors in South Florida see pain go up in smoke  
(news – 2012)  
Can medical marijuana help rheumatoid arthritis? (news – 2012)  
http://www.health.com/health/condition-article/0,,20499017,00.html

Drugs Related to Cannabis Have Pain-Relieving Potential for Osteoarthritis (news – 2014)  
http://www.sciencedaily.com/releases/2014/01/140107092825.htm

Synthetic cannabinoid molecule created for osteoarthritis (news – 2014)  

Cannabis May Offer Relief for Connective Tissue Disorders (news – 2014)  
http://theleafonline.com/c/science/2014/05/cannabis-may-offer-relief-for-connective-tissue-disorders/

Study uncovers marijuana's potential to treat autoimmune diseases (news – 2014)  

Protection from osteoarthritis may lie in our own joints, study suggests (news – 2014)  
https://www.sciencedaily.com/releases/2014/05/140518092722.htm

http://www.theweedblog.com/could-cannabis-treat-rheumatoid-arthritis-new-study-says-it-may/

Study: Cannabinoid Use in the Treatment of Osteoarthritis Pain (news – 2015)  

Dalhousie researcher investigates use of marijuana for arthritis pain (news – 2015)  

What ailments does medical marijuana help? (news – 2015)  

10 diseases where medical marijuana could have impact (news – 2015)  

Family seeking cannabinoid spray prescription say many more could benefit (news – 2015)  

Why Doris, 73, puts cannabis in her sandwiches (news – 2015)  

Many Teens With Chronic Illnesses Use Alcohol, Pot (news – 2015)  

'Grandma's magic remedy:' Mexico's medical marijuana secret (news – 2015)  
Raid! National Guard, State Police descend on 81-year-old’s property to seize single pot plant (news – 2016)
http://www.gazettenet.com/MarijuanaRaid-HG-100116-5074664

Pet owners try cannabis edibles, tinctures to ease animal anxiety, arthritis and more (news – 2016)

Parents facing custody issues over marijuana see hope in Prop. 64 (news – 2016)

ASTHMA - also see LUNG FUNCTION

10 diseases where medical marijuana could have impact (news – 2015)

Study: Cannabidiol (CBD) as an Effective Asthma Treatment (news – 2015)
http://www.medicaljane.com/2015/06/17/research-suggests-cannabis-is-an-effective-asthma-treatment/

Teen marijuana use not linked to later depression, lung cancer, other health problems, study finds (news – 2015)
http://www.sciencedaily.com/releases/2015/08/150804093718.htm

Many Teens With Chronic Illnesses Use Alcohol, Pot (news – 2015)

ATAXIA - lack of muscle coordination during movements like walking, sometime hereditary - also see SPINOCEREBELLAR ATAXIA and PHARC

Medical marijuana: Is SD ready for legalization? (news – 2015)
http://rapidcityjournal.com/app/pages/marijuana/

ATHEROSCLEROSIS

High on Nano: Cannabinoid Nanoparticles to Treat the Primary Cause of Heart Attack (news – 2013)
How can medical marijuana help with... ARTERIOSCLEROTIC HEART DISEASE? (news – 2015)

AUTISM - also see FRAGILE X SYNDROME

Steamboat mom sees results from giving autistic son medical marijuana
(news/ anecdotal - 2010)

Sam's Story: Medical Marijuana and Autism (news / anecdotal - 2010)


Marijuana, autism, and failure: a true story (news – 2010)
http://www.alexneedshelp.com/marijuana-autism-and-failure-a-true-story#VOBDOC74Y5w

Marijuana madness (news – 2011)


Wayne Valley alum making a difference in autism research (news – 2011)
http://www.northjersey.com/news/119379944_Wayne_Valley_alum_making_a_difference_in_autism_resea rch.html


Cannabis Science And The Unconventional Foundation For Autism (UF4A) Partner To Advance Successful Cannabis-Based Autism Treatments (news/info-mercial - 2011)
http://www.medicalnewstoday.com/releases/219569.php


Would some cannabinoids ameliorate symptoms of autism? (news - 2012)

Marijuana cannabinoids found to help combat autism (news – 2012)

http://bigbudsmag.com/medical-marijuana-a-cure-for-autism/

Ryan’s Story: Medical Marijuana And Autism (news – 2012)
Controversial Cannabis Treatment Helps 9-Year-Old Boy Speak His First Words  
(news – 2015)  

'Love hormone' oxytocin mimics effects of marijuana  
(news – 2015)  
https://in.news.yahoo.com/love-hormone-oxytocin-mimics-effects-marijuana-074404829.html

Is Smoking Weed the Secret to a Successful Relationship?  
(news – 2015)  
http://ecosalon.com/is-smoking-weed-the-secret-to-a-successful-relationship/

New options for treating autism  
(news – 2015)  

'No-Buzz' Medical Pot Laws Prove Problematic for Patients, Lawmakers  
(news – 2016)  

Oregon family uses medical marijuana to manage son's autistic rage  
(news – 2016)  
http://www.wtoc.com/story/20660400/medical-marijuana-used-to-manage-autism#WNPoll126481

**BACK PAIN** - also see PAIN, SPASTICITY, SPINAL CORD INJURY

Pot a Common Remedy to Ease Back Pain  
(news – 2013)  
http://www.medpagetoday.com/MeetingCoverage/AdditionalMeetings/42228

Monterey County seniors finding pain relief in medical marijuana  
(news – 2014)  

DR ALLAN FRANKEL’S EARLY VERSION INITIAL DOSAGE AND ADMINISTRATION GUIDE  
(news – 2014)  

When Weed Is The Cure: A Doctor's Case for Medical Marijuana  
(interview – 2015)  
http://www.npr.org/sections/health-shots/2015/07/14/422876973/when-weed-is-the-cure-a-doctors-case-for-medical-marijuana?utm_medium=RSS&utm_campaign=authorinterviews

How can medical marijuana help with …. BACK PAIN?  
(news – 2015)  

Where Marijuana Is the Doctor’s Orders, Will Insurers Pay?  
(news – 2016)  

Parents facing custody issues over marijuana see hope in Prop. 64  
(news – 2016)
**BIPOLAR DISORDER**

Cannabis for Bipolar (news – 2014)
http://www.ladybud.com/2014/01/13/cannabis-for-bipolar/

Bipolar man's illness leads to acquittal on marijuana possession charge (news – 2015)

Science/Human: Cannabis showed beneficial effects in bipolar disorder in clinical study (news – 2016)
http://www.cannabis-med.org/english/bulletin/ww_en_db_cannabis_artikel.php?id=482#1

All In The Mind #5: Cannabis And Bipolar Disorder (news – 2016)
http://herb.co/2016/07/09/cannabis-bipolar-disorder/

Marijuana Appears to Benefit Mental Health: Study (news – 2016)
http://time.com/4573129/marijuana-cannabis-mental-health/

**BLADDER / URINARY FUNCTIONS**

The entourage effect: Synergistic actions of plant cannabinoids (letter – 2015)
https://www.researchgate.net/publication/268878607_Medical_marijuana_in_neurology

Can Medical Marijuana Treat Multiple Sclerosis? (news – 2015)

**BLOOD-BRAIN BARRIER**

New Drug Kills Pain by Boosting Body's Naturally Occurring Marijuana-Like Compound (news – 2010)

Your Runner’s High Is Similar to a Pot High (news – 2015)
http://www.thedailybeast.com/articles/2015/10/09/your-runner-s-high-is-similar-to-a-pot-high.html?ref=yfp
Temple researchers to explore ability of compounds to protect brain against HIV infection (news – 2016) http://www.eurekalert.org/pub_releases/2016-03/tuhs-trt032816.php

**BLOOD/ PLATELETS/ PLASMA**

Compounds That Stimulate The Cannabinoid Type 2 Receptor In White Blood Cells Can Weaken HIV-1 Infection (news – 2013)

**BLOOD PRESSURE/ VASORELAXATION**

Study finds no link between teen marijuana use, mental health issues (news – 2015)
http://www.foxnews.com/health/2015/08/04/study-finds-no-link-between-teen-marijuana-use-mental-health-issues/

Teen marijuana use not linked to later depression, lung cancer, other health problems, study finds (news – 2015)
http://www.sciencedaily.com/releases/2015/08/150804093718.htm

**BOWEL DISORDERS** - also see GERD, COLITIS, IBS, CROHN’S

Does Medical Marijuana Help Treat Diarrhea? (news – 2012)

Marijuana might be able to treat your terrible case of the runs (news – 2012)

Still Believe Nature Got It Wrong? Top 10 Health Benefits of Marijuana (news – 2013)
http://www.wakingtimes.com/2013/05/01/still-believe-nature-got-it-wrong-top-10-health-benefits-of-marijuana/

Study: Cannabinoid Could Potentially Cut Down On NSAID-Induced Hospitalizations (news – 2013)
http://blog.norml.org/2013/06/20/study-cannabinoid-could-potentially-cut-down-on-nsaid-induced-hospitalizations/

Herbal medicine may ease constipation (news – 2013)
Cannabis Superior To Drugs For Inflammatory Bowel Condition (Crohn's Disease) (news – 2015)

What ailments does medical marijuana help? (news – 2015)

How can medical marijuana help with …. GASTRITIS? (news – 2015)

Japan’s First Lady Ushers In New Era of Hemp Acceptance by Purchasing Elixinol CBD Hemp Oil Product (news – 2016)

"try cannabis" (news – 2016) http://slow-mixmary.blogspot.com/

I made my son cannabis cookies. They changed his life. (news – 2017)
https://www.washingtonpost.com/opinions/i-made-my-son-cannabis-cookies-they-changed-his-life/2017/01/06/699b1d20-d1ef-11e6-a783-cd3fa950f2fd_story.html?utm_term=.dd6a6531b7b2

BRAIN

How One Citizen Scientist is Taking On Parkinson’s-related Nightmares – and Winning (news – undated)
How One Citizen Scientist is Taking On Parkinson's-Related Nightmares — and Winning

Marijuana Compound Improves Brain And Liver Function In Animal Model Of Hepatic Encephalopathy (news – 2011)


Latest Studies Imply That Cannabinoids Are Protective Against Alcohol-Induced Brain Damage (news – 2011)
http://blog.norml.org/2011/09/06/latest-studies-imply-that-cannabinoids-are-protective-against-alcohol-induced-brain-damage/

Teen Marijuana Use May Show No Effect On Brain Tissue, Unlike Alcohol, Study Finds (news – 2012)
http://www.huffingtonpost.com/2012/12/21/teens-marijuana-brain-tissue-alcohol_n_2331779.html
New Study: Cannabis May Treat Brain Damage Caused by Heavy Alcohol Consumption (news – 2013)  
http://thejointblog.com/new-study-cannabis-may-treat-brain-damage-caused-heavy-alcohol-consumption/

Marijuana Protects Brain From Chronic Stress, Study Finds (news – 2013)  

4 Mind Blowing Ways Cannabis Can Help Your Brain (news – 2014)  
https://www.medicaljane.com/2014/12/14/4-mind-blowing-ways-marijuana-can-help-your-brain/

What Happens To Your Body When You Get Drunk And Stoned At The Same Time? (news – 2014)  

The brain mechanism connecting the sense of smell with appetite is discovered (news – 2014)  

Cannabis Prevents the Negative Behavioral and Physiological Effects PTSD (news – 2014)  
http://neurosciencenews.com/neuropharmacology-cannabinoids-ptsd-1300/

Researchers Discover How Key Protein Enhances Memory and Learning (news – 2014)  
http://neurosciencenews.com/fabp5-protein-memory-learning-1013/

Study: THC Reduces Methamphetamine-Induced Brain Damage (news – 2014)  
https://www.theweedblog.com/study-thc-reduces-methamphetamine-induced-brain-damage/

Nicotine Changes Marijuana’s Effect on the Brain (news & abstract - 2015)  

Medical pot doesn’t lead to impaired driving (news – 2015)  
http://www.abqjournal.com/524770/opinion/medical-pot-doesnt-lead-to-impaired-driving.html

Daily pot use not associated with brain shrinkage: Colorado study (news – 2015)  

Two Major Studies Blast Apart Decades of Lies About Marijuana and Teenage Brains (news – 2015)  

Here's how different drugs change your brain (news – 2015)  

Robotics And Medical Marijuana — A Joint Venture (news – 2015)  

Marijuana brain study offers new substance by including nicotine use
Uncovering the Neurological Differences Between the Sexes (news – 2015)
http://neurosciencenews.com/sex-differences-hippocampus-2421/

Harvesting Benefits from Cannabinoids. (article – 2016)
http://www.cell.com/cell/fulltext/S0092-8674(16)31675-0

Suppressing Schizophrenia Symptoms Without Side Effects: Mouse Study

Previously Unknown Function of a Cannabinoid Receptor Identified

Treating Depression in Alcoholics (news & abst – 2016)
http://neurosciencenews.com/alcoholism-depression-psychology-3541/

Temple researchers to explore ability of compounds to protect brain against HIV infection (news – 2016)

This Startup Uses Brain Scans to Help Patients Pick the Perfect Pot (news – 2016)
http://observer.com/2016/03/potbotics-brainbot/

Age When Marijuana Use Starts Impacts Brain Development Differently (news – 2016)

Marijuana May Boost Brain Performance (news – 2016)

Making or breaking habits: The endocannabinoids can do it (news – 2016)

How the brain makes, and breaks, a habit (news – 2016)
https://www.sciencedaily.com/releases/2016/05/160526185419.htm

Study shows cannabinoid type 2 receptor plays vital role in signal processing of the brain (news – 2016)

Cannabinoids remove plaque-forming Alzheimer's proteins from brain cells (news – 2016)

Seeing Green: Pot Changes Brain's Response to Money (news – 2016)
Marijuana and the Developing Brain (news – 2016)

McLean Hospital Study Finds That Medical Marijuana Use May Improve Cognitive Performance (news – 2016)

Marijuana Dependence Influenced by Genes, Childhood Sexual Abuse (news – 2016) http://www.newswise.com/articles/view/643766/?sc=rsmn

THC Stimulates Toxic Plaque Removal in the Brain, Blocks Inflammation, Finds Study (news – 2016)

Marijuana May Improve Cognitive Function (news – 2016)

---

**BRAIN TRAUMA** - also see CHRONIC TRAUMATIC ENCEPHALOPATHY

New metabolic pathway for controlling brain inflammation (news – 2011)

Scripps Research Scientists Discover Inflammation Is Controlled Differently in Brain and Other Tissues (news – 2011)

Novel compounds to activate cannabinoid receptors in immune system wins award for young Hebrew University researcher (news – 2012)
http://www.huji.ac.il/cgi-bin/dovrut/dovrut_search_eng.pl?mesge133966745705872560

New Study: Cannabis May Grow Stem Cells, Repair Brain After Injury (news – 2013)

Low Doses of THC (Cannabis) Can Halt Brain Damage, Study Suggests (news – 2013)
http://www.sciencedaily.com/releases/2013/05/130530132531.htm

THC Can Prevent Brain Damage – Study (news – 2013)
http://www.science20.com/news_articles/the_can_prevent_brain_damage_study-113512

Study: Cannabis Might Aid Brain Heal After Injury (news – 2013)
New Research Finds Marijuana May Combat Brain Damage
(news – 2013)
http://thejointblog.com/new-research-finds-marijuana-may-combat-brain-damage/

Marijuana Bowl: Leading Up To Football's Biggest Game, The NFL May Want to Consider Legalizing Weed As Way To Treat Concussions (news – 2014)


How Medical Marijuana’s Chemicals May Protect Cells (news – 2015)
http://www.scientificamerican.com/article/how-medical-marijuana-s-chemicals-may-protect-cells/

Is it time to legalize marijuana in sports? (news – 2015)

Can cousin of marijuana plant ease NFL's concussion problem? (news – 2016)

An elderly couple found help for a brain injury through marijuana — then police found 20 pot plants growing at their home (news – 2016)

Veterans’ cry: ‘I found marijuana, and it saved me’ (news – 2016)

Could a cannabinoid pill treat concussion? (news – 2016)

**BREASTFEEDING/ LACTATION/ INFANT APPETITE**

Cannabinoids: Common to Marijuana and Human Breast Milk (news – 2012)
http://www.naturalnews.com/036526_cannabinoids_breast_milk_THC.html

Cannabinoids, like those found in marijuana, occur naturally in human breast milk (news – forum repost – 2012)

The Common Link Between Breast Milk, Cannabis and Tea (news – 2014)
8 things you didn’t know about hemp  (news – 2015)
http://www.pbs.org/newshour/rundown/8-things-didnt-know-hemp/

BULIMIA

Do Deficits in Brain Cannabinoids Contribute to Eating Disorders?

Eating Disorders Tied to Absence of Brain Cannabinoids  (news – 2011)

BURN INJURIES

“A Little Dab Will Do Ya”: An Emergency Department Case Series Related to a New Form of “High-Potency” Marijuana Known as “Wax”  (article – 2014)
http://www.annemergmed.com/article/S0196-0644%2814%2901025-7/fulltext

Good News for Burn Victims and New Organ Recipients  (news – 2016)

BUSINESS OF CANNABIS / CANNABIS JOBS

Legal marijuana's all-cash business and secret banking  (news – 2013)

Study: Students better off saying 'no' to pot jobs  (news – 2014)
http://www.times-standard.com/rss/ci_25827244/?source=rss

Bid to Expand Medical Marijuana Business Faces Federal Hurdles  (news – 2014)

Grand Closing: America’s Pot Farmers Are Putting Mexican Cartels Out of Business  (news – 2014)
[Infographic] Marijuana’s Effect on Denver Tourism; Hotel Searches Up 25% in 3 Months & 73% During 4/20 Weekend

Legal Pot In The U.S. May Be Undercutting Mexican Marijuana

U.S. won't stop Native Americans from growing, selling pot on their lands

Cato Paper Highlights Marijuana Legalization’s Ho-Hum Impact in Colorado

Calculating the Enormous Potential of the Hemp Industry

Medical marijuana spawning many businesses

Pfizer, Eli Lilly Were The Original Medical Marijuana Sellers
http://www.forbes.com/sites/debraborchardt/2015/04/08/pfizer-eli-lilly-were-the-original-medical-marijuana-sellers/

Annual Marijuana Report: Jobs Boost, Medical Outnumbers Retail

Customers looking for a high ask a marijuana 'budtender' for advice

1 in 5 Small Businesses Would Allow Employees to Use Medical Marijuana While at Work, Study Finds - Three-Quarters of Small Businesses Do Not Require Employees to Take Drug Tests

Colorado hemp grows from novelty to industry with potential

As US marijuana legalization spreads, Mexican 'mota' takes a dive

9 Things A Cannabusiness Startup Needs To Consider That Other Startups Don't
Marijuana Businesses Can't File for Bankruptcy

Colorado Is Now Collecting More Tax Revenue From Marijuana Than From Alcohol
http://www.huffingtonpost.ca/2015/09/16/colorado-marijuana-tax-revenue_n_8147828.html

Annual Marijuana Report: Jobs Boost, Medical Outnumbers Retail

Medical cannabis producer Bedrocan lowers its prices to $5 a gram

Pot Dispensaries Flood California Tax Office With Weed-Smelling Cash

"Nuns" fight to keep their marijuana-based business in California

Marijuana industry brought to a standstill by new pesticide testing regulations

Murphy Seeks Possible Insurance Coverage For Medical Marijuana

Does that marijuana business have a license? You can check on Department of Revenue's website

Marijuana May Be Legal, but Good Luck Filing the Paperwork

Federal agency won't include pot in annual crop statistics

D.C. Department of Health Calls for Taxing and Regulating Marijuana
Market for legal pot could pass $20 billion
http://www.hartfordbusiness.com/article/20161111/NEWS02/311119983
(news – 2016)

Your brand-name bong might be bogus, trademark lawsuits charge
(news – 2016)

How Will Small Marijuana Businesses Fare in the Wake of Proposition 64?
(news – 2016)

Why captains of cannabis industry don't like the “M word
(news – 2016)

Here's who buys legal weed
(news – 2016)

4 Things I Learned Working in the Marijuana Industry
http://www.cheatsheet.com/money-career/4-things-i-learned-working-in-the-marijuana-industry.html/?a=viewall
(news – 2016)

Legal Advice for Cannabis Startups: First, Invest. Then, Stay out of Jail.
(news – 2016)

Two retirees create marijuana packaging business in Colorado
(news – 2016)

5 Tips for Breaking Into the 'Budding' Marijuana Industry
(news – 2016)

Israel: The Epicenter of Cannabis Research and Innovation
(news – 2016)

Medical marijuana legalization sparks business interests
(news – 2016)

Marijuana Money: How Much Do Cannabis Consumers Spend Annually?
http://www.cheatsheet.com/money-career/average-cannabis-consumer-spend.html/?ref=YF&yptr=yahoo
(news – 2017)

Bogus bongs or bogus lawsuits? Pipe maker sues over fakes
(news – 2017)

Copyright Case Shines a Light on the Changing Cannabis Industry
http://www.seattleweekly.com/food/copyright-case-shines-a-light-on-the-changing-cannabis-industry/
(news – 2017)
North Americans Spent Almost $7 Billion on Legal Marijuana in 2016, Report Finds
(news – 2017)

Marijuana and gender equity: Why cannabis industry is a magnet for women executives
(news – 2017)

'Ganjapreneurs' are rebranding cannabis as supermarket-friendly (news – 2017)

Apple just patented a vape (news – 2017)

California looks to build $7 billion legal pot economy (news – 2017)
http://newsok.com/california-looks-to-build-7-billion-legal-pot-economy/article/feed/1157993

CAFFEINE and the ENDOCANNABINOID SYSTEM

Don’t Fear the Reefer (news – 2014)

The role of marijuana in your coffee addiction (news – 2015)
http://blog.oup.com/2015/05/marijuana-coffee-addiction/

Quitting pot? Substitute a little coffee buzz (news – 2015)
http://blog.sfgate.com/smellthetruth/2015/05/11/quit_pot-substitute-a-little-coffee-buzz/

Spice up Your Coffee with Cannabis (news – 2015)
http://www.buydutchseeds.com/blog/spice-up-your-coffee-with-cannabis.html


CANCER - ADENOCARCINOMA

Can cannabis combat cancer? (news – 2016)
**CANCER – ANGIOSARCOMA**

Benton Mackenzie  (news – 2015)

Benton Mackenzie dies after fight with cancer  (news – 2015)

**CANCER – BILE DUCT**

Die or break the law: man illegally healed with medical marijuana identifies himself  (news – 2016)

**CANCER – BLADDER / URETHRAL**

Study claims marijuana tied to lower bladder cancer risk  (news – 2013)

Whole-Plant Cannabis Use Associated with Decreased Likelihood of Developing Bladder Cancer  (news – 2015)

Select Marijuana Users Could Be 45% Less Likely to Develop This Type of Cancer  (news/ ad – 2015)

Development of new inhibitors for N-acylethanolamine-hydrolyzing acid amidase as promising tool against bladder cancer  (abst – 2016)

Cannabis use linked to lower bladder cancer rate in men  (news + abst – 2016)
Cancer – Breast

Cannabidiol researchers discover the switch to turn off aggressive breast cancer gene (news - forum repost - 2010)

Medical marijuana news. Cannabidiol stops the spread of breast cancer. (news - forum repost - 2010)

Marijuana compound could stop aggressive cancer metastasis (news - 2012)

Pot compound seen as tool against cancer (news – 2012)
http://www.sfgate.com/health/article/Pot-compound-seen-as-tool-against-cancer-3875562.php#page-1

Is Marijuana the Cancer Cure We’ve Waited For? (news – 2012)
http://www.empowher.com/cancer/content/marijuana-cancer-cure-we-ve-waited

Marijuana And Cancer: Scientists Find Cannabis Compound Stops Metastasis In Aggressive Cancers (news – 2012)

Cannabis Cures Cancer: Look at me, I’m Cancer Free! (news – 2012)
http://www.tokeofthetown.com/2012/10/cannabis_cures_cancer_look_at_me_im_cancer_free.php

Fighting Cancer: Another Study Reveals the Cannabis and Cancer Link (news – 2013)
http://www.wakingtimes.com/2012/10/05/fighting-cancer-another-study-reveals-the-cannabis-and-cancer-link/

UEA research reveals how cannabis compound could slow tumour growth (news – 2014)
https://www.uea.ac.uk/about/media-room/press-release-archive/-/asset_publisher/a2jEGMiFHPbv/content/new-research-reveals-how-cannabis-compound-could-slow-tumour-growth

2,500-Year-Old ‘Siberian Princess’ Corpse Shows Breast Cancer, Medicinal Pot Use (news – 2014)

MEDICAL MARIJUANA : Out of the Shadows (news – 2014)

Cannabis and Cancer, Pt. 1: Can Cannabis Kill Cancer? (article – 2015)

How Medical Marijuana’s Chemicals May Protect Cells (news – 2015)
http://www.scientificamerican.com/article/how-medical-marijuana-s-chemicals-may-protect-cells/
Cannabis reduces tumor growth in study (news - 2015)
http://www.medicalnewstoday.com/articles/279571.php

Studies Show Cannabinoids May Help Fight Triple-Negative Breast Cancer (news – 2015)
https://www.medicaljane.com/2015/02/28/studies-suggest-cannabinoids-may-fight-certain-forms-of-breast-cancer

Meet Stefanie LaRue: Cancer Survivor and Medical Marijuana Advocate (news – 2015)
https://www.medicaljane.com/2015/02/03/stefanie-larue-cancer-survivor-and-advocate-credits-cannabis/

The U.S. Government’s Department of Health Finally Admits That Marijuana Kills Cancer (news- forum repost - 2015)

CANCER – CERVICAL


CANCER – CHOLANGIOCARCINOMA

Marijuana Compound Halts Spread of Biliary Cancers (news – 2012)
http://www.imarijuana.com/tag/biliary-tract-cancer

CANCER – COLON /COLORECTAL

How Weed Can Protect Us From Cancer and Alzheimer's (book excerpt – 2012)
http://www.alternet.org/story/156269/how-weed-can-protect-us-from-cancer-and-alzheimer%27s

Can Marijuana Stop The Growth Of Colon Cancer Cells? (news – 2012)
Marijuana Versus Leading Pharmaceuticals In The Treatment of Colon Cancer  
(news – 2013)  
http://www.wakingtimes.com/2013/05/06/marijuana-verses-leading-pharmaceuticals-in-the-treatment-of-colon-cancer/

CANCER – GASTRIC

New Study Finds THC Kills Stomach Cancer Cells  (news – 2013)  
http://thejointblog.com/new-study-finds-the-may-treat-stomach-cancer/  

New Colombia Resources, Inc. Announces their Sannabis Indica Essential Oil and Pure Extract Together Shrunk a Cancerous Tumor by 50% in Three Months in a Terminally Ill Cancer Patient  (news/ ad – 2017)  

CANCER – GLIOMA/ BRAIN CANCERS

Science: Cannabidiol enhances the anti-cancer effects of THC on human brain cancer cells  (news – 2010)  
http://www.cannabis-med.org/english/bulletin/ww_en_db_cannabis_artikel.php?id=313#3

Cannabinoids inhibit glioma cell invasion in brain cancer studies  
(news – forum repost 2010)  

Cannabis Rx: Cutting Through the Misinformation : Dr. Andrew Weil  (news - 2010)  
http://www.huffingtonpost.com/andrew-weil-md/can-cannabis-treat-cancer_b_701005.html

Cannabis Inhalation Associated With Spontaneous Tumor Regression  
(news - 2010)  

Drugs that reduce activity of ABDH6 enzyme can prevent brain damage: Study  
(news – 2010)  

Tumors Regressing — Thanks to Cannabis?  (news – 2011)  
http://cannabisclinicians.org/brain-tumors-regressing-thanks-to-cannabis/
Marijuana Compound Induces Cell Death In Hard-To-Treat Brain Cancer
(news – 2011)

Scientists find a new pharmacological target to modulate the effect of cannabinoids through their CB1 receptors (news – 2012)

Marijuana compound could stop aggressive cancer metastasis (news - 2012)

Marijuana And Cancer: Scientists Find Cannabis Compound Stops Metastasis In Aggressive Cancers (news – 2012)

Is Marijuana the Cancer Cure We’ve Waited For? (news – 2012)
http://www.empowher.com/cancer/content/marijuana-cancer-cure-we-ve-waited

Cannabis For Infant's Brain Tumor, Doctor Calls Child "A Miracle Baby" (news – 2012)
http://www.huffingtonpost.com/2012/12/01/cannabis-for-infants-brai_n_2224898.html

Cannabinoid May Treat Brain Cancer (news – 2012)
http://www.sciencedaily.com/releases/2012/09/120925142557.htm

Clinical trial evaluates synthetic cannabinoid as brain cancer treatment (news – 2012)
https://health.ucsd.edu/news/releases/Pages/2012-09-25-cannabinoids-may-treat-brain-cancer.aspx


As Anecdotal Reports of Anti-Cancer Effects from Cannabis 'Oil' Pile Up, Doctors Stress Need to Document Its Effects (news – 2013)

Buying Pot For My 11-Year-Old (news – 2013)
http://www.huffingtonpost.com/suzanne-leigh/buying-pot-for-my-11-year-old_b_3538543.html


e-Therapeutics announces continuation of ETS2101 phase I trial in brain cancer (news – 2014)
Inhaled Cannabis May Keep Brain Cancer in Remission  (news – 2014)  

Research Shows How Marijuana Compound Can Reduce Tumor Growth In Cancer Patients  (news – 2014)  
http://www.huffingtonpost.com/2014/07/16/marijuana-tumors_n_5588639.html

Winlock student with brain tumor credits cannabis for recent recovery  (news – 2014)  

Marijuana Drastically Shrinks Aggressive Form Of Brain Cancer, New Study Finds  (news – 2014)  

Cannabis extract can have dramatic effect on brain cancer, says new research  (news – 2014)  

Cannabis Extract, Radiation Shrink Brain Tumors in Mice  (news – 2014)  

Cannabis combined with radiotherapy can make brain cancer ‘disappear,’ study claims  (news – 2014)  

4 Mind Blowing Ways Cannabis Can Help Your Brain  (news – 2014)  
https://www.medicaljane.com/2014/12/14/4-mind-blowing-ways-marijuana-can-help-your-brain/

Cannabis and Cancer, Pt. 1: Can Cannabis Kill Cancer?  (article – 2015)  

Cannabis and Cancer, Pt. 2: The Triple Threat of THC, CBD, and Conventional Treatment on Cancer  (article – 2015)  

‘Major hypocrisy’: US govt-funded agency admits marijuana can kill cancer cells  (news – 2015)  
http://rt.com/usa/248581-us-admit-marijuana-cancer/

Science Seeks to Unlock Marijuana’s Secrets  (news – 2015)  (may need subscription)  
http://ngm.nationalgeographic.com/2015/06/marijuana/sides-text

Cannabis reduces tumor growth in study  (news - 2015)  
http://www.medicalnewstoday.com/articles/279571.php

CANCER - HEAD AND NECK
**CANCER – LEUKEMIA**

Marijuana compound could stop aggressive cancer metastasis  
(news - 2012)  

Is Medical Marijuana Safe for Children?  
(news – 2012)  

Marijuana Helped Teen Fight Leukemia, Say Doctors  
(news – 2013)  

Dad defends decision to give 7-year-old daughter with leukemia marijuana for the pain  
(news – 2013)  

Mother Investigated After Opting For Marijuana Over Chemotherapy  
(news – 2013)  

Cannabinoids Destroy Leukemia Cells, New Study Finds  
(news – 2013)  

Cannabis Extract Fights 'Incurable Form' of Leukemia  
(news – 2014)  
http://www.greenmedinfo.com/blog/cannabis-extract-fights-incurable-form-leukemia

Cannabis and Cancer, Pt. 3: How THC and CBD Work on Cancer Cells  
(article – 2015)  

**CANCER – LIVER**

Study: Cannabis Agonists Produce Anti-Cancer Effects In Human Liver Cancer Cells  
(news – 2012)  

Anti-Cancer Effects In Human Liver Cancer Cells Produced By Cannabis Agonists  
(news – 2012)  
http://www.imarijuana.com/tag/cannabinoid-agonists


CANCER – LUNG


Is Marijuana the Cancer Cure We’ve Waited For? (news – 2012)  http://www.empowher.com/cancer/content/marijuana-cancer-cure-we-ve-waited


The Inhibitory Effects of Cannabidiol on Systemic Malignant Tumors (letter – 2013)  http://www.jpsmjournal.com/article/S0885-3924%2813%2900115-2/fulltext


http://www.huffingtonpost.com/2014/07/16/marijuana-tumors_n_5588639.html

Cannabidiol (CBD) May Increase Lung Cancer’s Susceptibility To Specialized Killer Cells (news – 2014) 

Cannabis and Cancer, Pt. 1: Can Cannabis Kill Cancer? (article – 2015) 

Cannabis and Cancer, Pt. 3: How THC and CBD Work on Cancer Cells (article – 2015) 

http://thinkprogress.org/health/2015/01/22/3614459/new-pot-research/

Study: Smoking Marijuana Does Not Raise Lung Cancer Risk (news – 2015) 
http://cancer.about.com/od/smokingandcancer/f/marijuana.htm

UCLA Professor Finds Marijuana Is Safer to Smoke Than Tobacco (news – 2015) 

Teen marijuana use not linked to later depression, lung cancer, other health problems, study finds (news – 2015) 
http://www.sciencedaily.com/releases/2015/08/150804093718.htm

The U.S. Government’s Department of Health Finally Admits That Marijuana Kills Cancer (news- forum repost - 2015) 

Die or break the law: man illegally healed with medical marijuana identifies himself (news – 2016) 

More palliative care patients should get medical marijuana: doctors (news – 2016) 
http://www.ctvnews.ca/health/health-headlines/more-palliative-care-patients-should-get-medical-marijuana-doctors-1.2779014

A taste of his own medicine for Langley marijuana advocate (news – 2016) 

The Shocking Differences Between Cannabis and Tobacco Smoke (news – 2016) 
https://www.greenrushedaily.com/2016/01/10/differences-cannabis-tobacco-smoke/

Massive scientific report on marijuana confirms medical benefits (news – 2017)
CANCER – MELANOMA

Marijuana to fight skin cancer in major human trial  (news – 2016)
[link]

CANCER - MESOTHELIOMA

69-Year Old Says Cannabis Oil is Keeping Him Healthy and Strong Six Years After Mesothelioma Diagnosis  (news – 2016)
[link]

Suriving Mesothelioma Releases Second Installment in Cannabis Oil Series Detailing Patient’s Remarkable Survival Regimen  (news – 2016)
[link]

CANCER - MYELOMA

New Study Shows Marijuana May Help Fight Cancer  (news – 2015)
[link]

CANCER – NEUROBLASTOMA

Cancer – Childhood neuroblastoma complete remission  (case report – undated)
[link]

CANCER – ORAL
No Relief Yet for Brutal Oral Cancer Pain, but Cannabinoids May Offer Some Hope  
(news – 2014)  
http://www.newswise.com/articles/view/617125/?sc=rsmn

**CANCER – OVARIAN**

Marijuana compound could stop aggressive cancer metastasis  
(news - 2012)  

Why I chose to use cannabis  
(article – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4791147/

Cannabis oil a saving grace for Lake Country woman after end of life diagnosis  
(news – 2016)  

FDA OKs Cannabis-Based Ovarian Cancer Treatment  
(news – 2016)  

**CANCER – PANCREATIC**

Pancreatitis & Medical Marijuana  
(forum repost - 2011)  

Study: Cannabis Plays A Key Role In Pancreatic Cancer Treatment  
(news – 2014)  

**CANCER – PNET / PRIMITIVE NEUROECTODERMAL TUMOR**

Father: Medical marijuana eased pain of my cancer-battling son  
(news - forum repost – 2011)  

**CANCER – PROSTATE**

Is Marijuana the Cancer Cure We’ve Waited For?  
(news – 2012)  
http://www.empowher.com/cancer/content/marijuana-cancer-cure-we-ve-waited
Marijuana And Cancer: Scientists Find Cannabis Compound Stops Metastasis In Aggressive Cancers  (news – 2012)  

Tommy Chong Is "Cancer Free;" Claims Marijuana Cures Cancer  (news – 2013)  

Study: Medical Cannabis May Inhibit The Spread Of Prostate Cancer  (news – 2013)  

CANCER – SKIN

Cannabis Science Provides Physician’s Documentation That Confirms Successful Treatment of Skin Cancer  (news/ad – 2011)  

Marijuana May Turn Off DNA Linked To Skin Cancer And Other Diseases  (news – 2013)  

Anandamide May Serve Anticancer Role In Skin Cancer  (news – 2013)  

Cannabinoids Found to Reduce 90% of Skin Cancer in Just 20 Weeks, According to New Study  (news – 2013)  

Japanese Study Shows Cannabinoids Inhibit Tumor Growth  (news – 2014)  
https://www.medicaljane.com/2013/07/27/study-shows-cannabinoids-inhibit-tumor-growth/

Marijuana to fight skin cancer in major human trial  (news – 2016)  

CANCER – SQUAMOUS CELL CARCINOMA

Cannabis Oil Shrinks “One Of The Worst” Cancers  (news – infomercial – 2012)
CANCER - VARIOUS/ UNNAMED

Cannabis Rx: Cutting Through the Misinformation : Dr. Andrew Weil
(news - 2010)
http://www.huffingtonpost.com/andrew-weil-md/can-cannabis-treat-cancer_b_701005.html

Cannabis is used for first time in hospitals to relieve pain of terminal cancer patients
(news – 2011)

Benefits From Medical Marijuana (news – 2011)
http://www.livestrong.com/article/98476-medical-reasons-marijuana/

Ingredient in cannabis restores taste for cancer patients (news – 2011)

Worth Repeating: You Can’t Censor Cannabis Cancer Treatment (news – 2011)
http://www.tokeofthetown.com/2011/03/worth_repeating_you_cant_censor_cannabis_cancer_tr.php#more

Medical Marijuana: The Illegal Herb that Fights Cancer (news - 2011)

Another Study Confirms Anti-Cancer Effects of THC and CBD (news – 2011)
http://mamamojournal.blogspot.com/search?q=Another+Study+Confirms+Anti-Cancer+Effects+of+THC+and+CBD

Cannabinoid Shown Effective as Adjuvant Analgesic for Cancer Pain (news - 2012)
http://www.sciencedaily.com/releases/2012/06/120604142426.htm

Scientists find a new pharmacological target to modulate the effect of cannabinoids through their CB1 receptors (news – 2012)

Cannabinoid therapy helps provide effective analgesia for cancer patients with pain (news – 2012)

Marijuana compound could stop aggressive cancer metastasis (news - 2012)
Marijuana And Cancer: Scientists Find Cannabis Compound Stops Metastasis In Aggressive Cancers (news – 2012)  

Cannabis, cannabinoids and cancer – the evidence so far (news – 2012)  
http://cancerresearches.blogspot.com/2014/05/cannabis-cannabinoids-and-cancer.html

5 Marijuana Compounds That Could Help Combat Cancer, Alzheimers, Parkinsons (If Only They Were Legal) (news – 2012)  
http://www.alternet.org/drugs/5-marijuana-compounds-could-help-combat-cancer-alzheimers-parkinsons-if-only-they-were-legal

Hashing It Out In Ohio With The Martha Stewart Of Marijuana (interview – 2013)  


Federal Government Reports Marijuana Effective in Combatting Certain Cancers Reports ADSI (news – 2013)  

4 Examples of Alternative Cancer Therapies (news – 2013)  
http://www.wakingtimes.com/2013/05/23/cancer-therapies/

Hemp Could Free Us From Oil, Prevent Deforestation, Cure Cancer and It’s Environmentally Friendly – So Why Is It Illegal? (news – 2013)  

Still Believe Nature Got It Wrong? Top 10 Health Benefits of Marijuana (news – 2013)  
http://www.wakingtimes.com/2013/05/01/still-believe-nature-got-it-wrong-top-10-health-benefits-of-marijuana/

Fighting Cancer: Another Study Reveals the Cannabis and Cancer Link (news – 2013)  
http://www.wakingtimes.com/2012/10/05/fighting-cancer-another-study-reveals-the-cannabis-and-cancer-link/

New Study: THC May Treat Inflammatory Diseases and Cancer By Altering Genes (news – 2013)  

20 Medical Studies That Prove Cannabis Can Cure Cancer (news – 2013)  

Study shows non-hallucinogenic cannabinoids are effective anti-cancer drugs
New Study Proves Cannabinoids Have Cancer Fighting Properties (news – 2013)
http://www.opposingviews.com/i/society/drug-law/new-study-proves-cannabinoids-have-cancer-fighting-properties

http://www.gacareproject.com/flash-back-how-georgia-legalized-medical-marijuana/


Rick Simpson Oil (RSO)- learn about Rick Simpson and how to make RSO (news – 2013)

http://www.safeaccessnow.org/medical_cannabis_research_what_does_the_evidence_say

The Comprehensive Report on the Cannabis Extract Movement and the Use of Cannabis Extracts to Treat Diseases (link to upload - 2014)
http://www.slideshare.net/TheHempSolution/comprehensive-report-on-the-cannabis-extract-movement

UEA research reveals how cannabis compound could slow tumour growth (news – 2014)
https://www.uea.ac.uk/about/media-room/press-release-archive/-/asset_publisher/a2jiEGMiFHPhv/content/new-research-reveals-how-cannabis-compound-could-slow-tumour-growth

Georgia Medical Patients Apply for Marijuana Research Program (news – 2014)
http://www.gacareproject.com/georgia-medical-patients-apply-for-marijuana-research-program/

Cannabis Science: Finding The Optimal Therapeutic Ratio Of THC And CBD (news – 2014)

http://www.huffingtonpost.com/2014/07/16/marijuana-tumors_n_5588639.html

How marijuana shrinks cancerous tumours (news – 2014)
https://uk.news.yahoo.com/marijuana-shrinks-cancerous-tumours-122611456.html

Why so munchy? Cannabis shown to ramp up sense of smell (news – 2014)
Marijuana, Reconsidered: Dr. Lester Grinspoon On 45 Years Of Cannabis Science (interview – 2015)  

Cannabis and Cancer, Pt. 1: Can Cannabis Kill Cancer? (article – 2015)  

What ailments does medical marijuana help? (news – 2015)  

10 diseases where medical marijuana could have impact (news – 2015)  

'Major hypocrisy': US govt-funded agency admits marijuana can kill cancer cells (news – 2015)  
http://rt.com/usa/248581-us-admit-marijuana-cancer/

Synthetic drugs: evidence that they can cause cancer (news – 2015)  
https://www.sciencedaily.com/releases/2015/04/150416083746.htm

The Science Behind Sanjay Gupta’s WEED 3 (news – 2015)  

Marijuana Is a Wonder Drug When It Comes to the Horrors of Chemo (news – 2015)  

Indian Oncologists Want Cannabis Legalized To Fight Cancer (news – 2015)  

Illinois medical marijuana applicants trending female, older (news – 2015)  

Scientists reveal how THC – found in cannabis – ‘could slow cancer tumour growth’ (news – 2015)  

Cannabis reduces tumor growth in study (news - 2015)  
http://www.medicalnewstoday.com/articles/279571.php

The Outsourcing of American Marijuana Research (news – 2015)  

Cannabigerol (CBG): The Traffic Cop of Cannabinoids (news – 2015)
The U.S. Government’s Department of Health Finally Admits That Marijuana Kills Cancer


Using Medical Cannabis in an Oncology Practice

http://www.cancernetwork.com/oncology-journal/using-medical-cannabis-oncology-practice#sthash.CjT8fR9n.dpuf

Can cannabis combat cancer?


Native American Church Sues Postal Service Over Seizure of ‘Sacramental’ Marijuana


Santa Claus speaks out against North Pole ban of marijuana sales


Weeding out the truth: Cannabis-based medications for cancer patients


The Shocking Differences Between Cannabis and Tobacco Smoke

https://www.greenrushdaily.com/2016/01/10/differences-cannabis-tobacco-smoke/

Medical Cannabis in the Palliation of Malignant Wounds—A Case Report

http://www.jpsmjournal.com/article/S0885-3924(16)30328-1/abstract

**CANNABINOID HYPEREMESIS SYNDROME** – vomiting due to cannabinoid overdose

Marijuana use associated with cyclic vomiting syndrome in young males

http://www.eurekalert.org/pub_releases/2012-01/w-mua010912.php

Marijuana use may cause severe cyclic nausea, vomiting, a little-known, but costly effect
CARPAL TUNNEL SYNDROME

How can medical marijuana help with... CARPAL TUNNEL SYNDROME? (news – 2015)

CEREBRAL PALSY


Cerebral Palsy Victim Sues City Over Medical Marijuana (news/anecdotal – 2011)

Health Benefits Of Medical Marijuana: 3 Major Ways Cannabis Helps Sick People Live Normal Lives (news – 2014)

Treating Cerebral Palsy Symptoms With Medical Marijuana (news – 2014)

Disabled JeffCo student's cannabis medication confiscated, school cites federal law (news – 2015)

CHAGAS DISEASE/AMERICAN TRYPANOSOMIASIS – spread by kissing bug bites

Promising Treatment for Chagas Disease: Caryophyllene Oxide (a cannabinoid-based preparation) (news – 2016)
CHARCOT-MARIE-TOOTH DISEASE - an inherited neurological disorder
Charcot-Marie-Tooth Disease – Yvonne Poland (anecdotal – 2012)
http://www.hempoilhope.org/viewtopic.php?f=10&t=259&p=288&hilit=Charcot+Marie+Tooth+Disease+%E2%80%93+Yvonne+Poland#p288

CHEMICAL COMPOSITION
 Genome of Marijuana Sequenced and Published (news – 2011)


Cannabis Sequencing Study Explores Differences Between Marijuana, Hemp Producing Plants (news – 2011) (needs registration)
http://www.genomeweb.com/sequencing/cannabis-sequencing-study-explores-differences-between-marijuana-hemp-producing

The cannabis genome: How hemp got high (news – 2011)

10 Questions To Ask Your Cannabis Scientist (news - 2011)
http://www.pureanalytics.net/blog/2011/08/13/10-questions-to-ask-your-cannabis-scientist/

Hemp Biology - Industrial Hemp vs. Marijuana (article – 2012)


Cannabis Genome Uncloaked: Commentary on the Scientific Implications (article – 2012) http://www.icrs.co/content/Cannabis_Genome_Uncloaked.pdf

How Do You Know Which Medical Marijuana Strain Is Right For You? (news – 2012)
http://www.unitedpatientsgroup.com/blog/2012/01/31/how-do-you-know-which-medical-marijuana-strain-is-right-for-you/
Researchers identify cannabinoid-making pathway  

Development Of Marijuana Varieties To Produce Pharmaceuticals  
http://www.medicalnewstoday.com/releases/247908.php

Acidic versus Activated Cannabinoids- Tips on How to Choose the Therapy Regimen that is Right for You  
http://pureanalytics.net/blog/2012/05/09/acidic-versus-activated-cannabinoids-tips-on-how-to-choose-the-therapy-regimen-that-is-right-for-you/

What You Need to Know about Growing CBD-rich Cannabis from Seed  
http://pureanalytics.net/blog/2012/03/12/what-you-need-to-know-about-growing-cbd-rich-cannabis-from-seed/

Simple Method: Isolating & Extracting INDIVIDUAL Cannabinoids... from BadKittySmiles  

Young cannabis confirmed: Cannabinoid content discriminates between drug and hemp forms of cannabis seedlings  

Cannabis fractions: Separating cannabinoids from terpenoids  

High levels of THC in Australian cannabis  

Not That High  
http://www.slate.com/articles/health_and_science/science/2013/03/marijuana_potency_returning_smokers_want_mellower_pot_strains.html

Cannabis spp. (pistillate inflorescence and leaf)  
http://www.botanicalauthentication.org/index.php/Cannabis_spp._(pistillate_inflorescence_and_leaf)

Amber is Bad ?  
http://growhappyplants.com/look.html

Scientists Make Breakthrough In Genetic Screening For Cannabis  
http://www.leafscience.com/2014/03/06/scientists-make-breakthrough-in-genetic-screening-cannabis/

Monsanto plans to patent genetically modified marijuana in Uruguay  

Your Next Cooking Oil Could Come From Hemp  
http://www.popsci.com/article/science/your-next-cooking-oil-could-come-hemp
What is the difference between Indica and Sativa Marijuana Plants? (news - 2014)

Cannabinoid Breakdown (news – 2014)
http://www.bloomwellbend.com/cannabinoid-breakdown/

Cannabis Chemistry 101 (news – 2014)
http://www.greencultured.co/cannabis-chemistry-101/

The Bud Light-ification of Bud (news – 2014)

Cannabinoids (article – 2015) http://steephill.com/science/cannabinoids

World’s strongest weed? Potency testing challenged (news – 2015)


Robotics And Medical Marijuana — A Joint Venture (news – 2015)

Monsanto Creates First Genetically Modified Strain of Marijuana (news - 2015)
http://worldnewsdailyreport.com/monsanto-creates-first-genetically-modified-strain-of-marijuana/


Distribution Of Sugars Within Marijuana Plants (news – 2015)

Here's The Real Difference Between Sativa & Indica Pot Strains (news – 2015)
http://www.refinery29.com/difference-between-indica-and-sativa

http://www.truthonpot.com/2013/08/10/is-cannabigerol-cbg-the-ultimate-cannabinoid/

You can’t tell a pot from the label (news – 2015)
http://thechronicleherald.ca/metro/1308503-you-can%E2%80%99t-tell-a-pot-from-the-label?from=most_read&most_read=1308503&most_read_ref=%2Fnews

Growing Marijuana At A Cellular Level  (news – 2015)  
http://www.theweeklyweedonline.com/growing-marijuana-at-a-cellular-level/  

Finding the Right Strain of Medical Marijuana  (news – 2015)  

The Rise Of Tailor-Made Highs  (news – 2016)  

Marijuana's Mad Scientist Is Changing the Weed Game  (news – 2016)  

What Makes Each Marijuana Strain Unique?  (news – 2016)  
https://www.hellomd.com/health-wellness/what-makes-each-marijuana-strain-unique  

Cannabis and Cannabinoid Research Publishes Data Demonstrating the Degradation of Cannabidiol to Psychoactive Cannabinoids when Exposed to Simulated Gastric Fluid  (news – 2016)  


The Cannflavins Unique to Cannabis  (news – 2016)  
http://www.beyondthc.com/the-cannflavins-unique-to-cannabis/  

McLean Hospital Study Finds That Medical Marijuana Use May Improve Cognitive Performance  (news – 2016)  

How does cannabis get users “high”? Science explains.  (news – 2016)  
http://www.thecannifornian.com/cannabis-culture/cannabis-get-users-high-science-explains/  

Time To Put ‘Skunk’ Out Of Business  (news – 2016)  
http://volteface.me/features/skunk-out-of-business/  

Product Review: tCheck Cannabis Oil Potency Tester  (news/ad – 2016)  
http://beyondchronic.com/2016/10/product-review-tcheck-cannabis-oil-potency-tester/  

CHEMOTHERAPY  
Marijuana Extract Might Help Prevent Chemotherapy-Related Nerve Pain  (news – 2011)  

Cannabinoid 'Completely' Prevents Chemotherapy-Induced Neuropathy, Study Says
Ingredient in cannabis restores taste for cancer patients (news – 2011)  

Cannabidiol may help prevent paclitaxel-induced peripheral neuropathy (news – 2011)  
http://www.news-medical.net/news/20110926/Cannabidiol-may-help-prevent-paclitaxel-induced-
peripheral-neuropathy.aspx

Marijuana component could ease pain from chemotherapy drugs (news – 2011)  

Father: Medical marijuana eased pain of my cancer-battling son (news/forum repost – 2011)  
https://www.420magazine.com/forums/pain/180536-father-medical-marijuana-eased-pain-my-cancer-
battling-son-print.html

Reefer tokin' seniors in South Florida see pain go up in smoke (news – 2012)  

Cannabis as Painkiller (news – 2012)  
http://www.sciencedaily.com/releases/2012/08/120807101232.htm

Cannabis-based medications prove effective in relieving pain (news – 2012)  
http://www.news-medical.net/news/20120807/Cannabis-based-medications-prove-effective-in-relieving-
pain.aspx

Mother Investigated After Opting For Marijuana Over Chemotherapy (news – 2013)  
http://denver.cbslocal.com/2013/09/27/springs-mother-investigated-after-opting-for-marijuana-over-
chemotherapy/

http://www.safeaccessnow.org/medical_cannabis_research_what_does_the_evidence_say

Health Benefits Of Medical Marijuana: 3 Major Ways Cannabis Helps Sick People Live Normal Lives (news – 2014)  
http://www.medicaldaily.com/health-benefits-medical-marijuana-3-major-ways-cannabis-helps-sick-
people-live-normal-lives-283388

MEDICAL MARIJUANA : Out of the Shadows (news – 2014)  

Marijuana, Reconsidered: Dr. Lester Grinspoon On 45 Years Of Cannabis Science (interview – 2015)
An alternative to medical marijuana for pain? (news – 2015)

Marijuana Is a Wonder Drug When It Comes to the Horrors of Chemo

Is it safe to smoke pot during chemo and radiation? (news – 2015)
https://theholistichomestead.org/2015/11/05/is-it-safe-to-smoke-pot-during-chemo-and-radiation/

Why I chose to use cannabis (article – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4791147/

Die or break the law: man illegally healed with medical marijuana identifies himself
(news – 2016)

A taste of his own medicine for Langley marijuana advocate (news – 2016)

Insys Therapeutics Announces FDA Approval of Syndros™ (news – 2016)
http://syndros.com/

Weeding out the truth: Cannabis-based medications for cancer patients
(news – 2016)

Effects of Marijuana in Chemotherapy or Radiotherapy (news – 2016)

CHEST PAIN - NON CARDIAC

New Study Suggests THC Can Treat Non-Cardiac Chest Pain (news – 2014)
http://thejointblog.com/new-study-suggests-the-can-treat-non-cardiac-chest-pain/

Novel way for treating non-cardiac chest pain due to esophageal hypersensitivity
(news – 2014)
CHILDREN (2 to 12 years old) - also see ADOLESCENTS, and INFANTS

Cancer – Childhood neuroblastoma complete remission   (case report – undated)   http://cannabisclinicians.org/view-all-case-reports/entry/667/

12 Year Olds More Likely to Use Potentially Deadly Inhalants Than Cigarettes or Marijuana   (news - 2010)   http://www.sciencedaily.com/releases/2010/03/100312144534.htm


Marijuana is helping my 9-year-old   (news/anecdotal - 2010)   http://theweek.com/article/index/202109/Marijuana_is_helping_my_9yearold


The Kids Are All Right, Even if Their Parents Grow Pot   (news – forum repost – 2011)   https://www.medicalmarijuana.com/the-kids-are-all-right-even-if-their-parents-grow-pot/


Researchers study neuroprotective properties in cannabis   (news - 2012)   http://www.foxnews.com/health/2012/03/20/researchers-study-neuroprotective-properties-in-cannabis/


Can Medical Cannabis Stop The ADHD Epidemic?   (news - 2013)
Medical Marijuana for Kids? Some Praise Results While Others Worry About Risks (news – 2013) http://www.cnbc.com/id/100876423


Dad defends decision to give 7-year-old daughter with leukemia marijuana for the pain (news – 2013) http://www.dailymail.co.uk/news/article-2372317/Dad-defends-decision-7-year-old-daughter-leukemia-marijuana-pain.html?ITO=1490&ns_mchannel=rss&ns_campaign=1490


The Comprehensive Report on the Cannabis Extract Movement and the Use of Cannabis Extracts to Treat Diseases (link to upload - 2014) http://www.slideshare.net/TheHempSolution/comprehensive-report-on-the-cannabis-extract-movement

This Family Had To Fire Their Doctor To Get Medical Marijuana For Their Son
(news – 2014)
http://www.huffingtonpost.com/2014/03/25/epilepsy-medical-marijuana_n_5022008.html

Marijuana tested as treatment for children with epilepsy (news – 2014)

Changing pot laws prompt child-endangerment review (news – 2014)

UCSF-led study gathers data on safety, tolerability of purified cannabinoid for children with epilepsy (news – 2014)

Bid to Expand Medical Marijuana Business Faces Federal Hurdles (news – 2014)

The new faces of marijuana (news – 2014)
http://www.msnbc.com/hardball/the-new-faces-marijuana

Cannabis: World-renowned researchers discuss a new frontier in therapeutics (news – 2015)

Talking to kids about legal marijuana (news – 2015)

Controversial Cannabis Treatment Helps 9-Year-Old Boy Speak His First Words (news – 2015)

How the media used one tiny study to wildly exaggerate the threat of marijuana edibles (news – 2015)  http://www.vox.com/2015/6/22/8826011/pot-edibles-dangerous

How genetic variation influences marijuana dependence (news – 2015)

Marijuana influences visual development (news – 2015)

'Grandma's magic remedy:' Mexico's medical marijuana secret (news – 2015)
Pharmaceutical CBD (cannabidiol) Shows Promise for Children with Severe Epilepsy (news – 2015)  
https://www.aesnet.org/about_aes/press_releases/pharmaceuticalcbd2015#sthash.wL57kCVn.dpuf

Babies Exposed to Cannabis in the Womb Have Better Vision by Age 4, Finds New Study (news – 2015)  
http://thejointblog.com/babies-exposed-to-cannabis-in-the-womb-have-better-vision-by-age-4-finds-new-study/

FDA and Marijuana: Questions and Answers (article – 2016)  
http://www.fda.gov/NewsEvents/PublicHealthFocus/ucm421168.htm

Medical Marijuana Liquid Could Help Treat Severe Epilepsy in Children (news – 2015)  

Using Medical Marijuana to Stop Childhood Seizures (news & abstract – 2016)  

Utah mom in hiding, fears losing kids for treating daughter with cannabis oil (news – 2016)  

What life is like after police ransack your house (news – 2016)  

Father advocates for exemption to pot ordinance to treat son's severe epilepsy (news – 2016)  

Buying medical pot for your child? Look out (news – 2016)  
http://www.philly.com/philly/health/kidshealth/20160611_Buying_medical_pot_for_your_child_Look_ou t.html

2 years after CBD oils legalized in NC: How they work for the child the law is named for (news – 2016)  

Ganja break - Fewer children in custody since decriminalisation of the weed (news – 2016)  

Your kid is way more likely to be poisoned by crayons than by marijuana (news – 2016)  
Oregon family uses medical marijuana to manage son's autistic rage  

Here’s how legal pot changed Colorado and Washington  

Want to protect children? Legalize and lock down marijuana  
http://www.eastvalleytribune.com/arizona/article_d2716b90-9a38-11e6-b59e-63efcf71e6d.html

Marijuana butter eased her child's symptoms. Then her kids were taken away from her.  
(news – 2016)  

Health care refugees: Family flees Florida to save daughter's life  

Health care refugees: Medical marijuana and new hope  

Virginia school suspends an 11-year-old for one year over a leaf that wasn’t marijuana  
(news – 2016)  
http://www.tulsaworld.com/news/usworld/virginia-school-suspends-an--year-old-for-one-year/article_e43b6b74-17dc-54ec-9319-0f06cbb46e69.html

Beware: Children can passively 'smoke' marijuana, too  
https://www.sciencedaily.com/releases/2016/12/161207124123.htm

Marijuana Dependence Influenced by Genes, Childhood Sexual Abuse  
http://www.newswise.com/articles/view/643766/?sc=rsmn

Parents facing custody issues over marijuana see hope in Prop. 64  

Doctored marijuana gives relief to boy whose parents found no other way to help him  
(news – 2016)  

Equal access to our education system for children who are medical cannabis patients  
(news – 2017)  

I made my son cannabis cookies. They changed his life.  
https://www.washingtonpost.com/opinions/i-made-my-son-cannabis-cookies-they-changed-his-life/2017/01/06/699b1d20-d1ef-11e6-a783-cd3fa950f2fd_story.html?utm_term=.dd6a6531b7b2
**CHELSTEROL**

How marijuana could help cure obesity-related diseases  (news – 2012)

Study: Marijuana May Reduce Risk of Erectile Dysfunction  (news – 2013)
http://www.leafscience.com/2013/12/09/study-marijuana-may-reduce-risk-erectile-dysfunction/

Cholesterol Drug Might Work Better than Medical Marijuana  (news – 2015)
http://www.popsci.com/cholesterol-drug-targets-same-receptors-marijuana

Common cholesterol drug stimulates the same receptors as marijuana  (news – 2015)

**CHRONIC FATIGUE SYNDROME/ MYALGIC ENCEPHALOMYELITIS**

Myalgic Encephalomyelitis by Anonymous  (anecdotal – undated)
http://www.rxmarijuana.com/shared_comments/Myalgic_Encephalomyelitis.htm

Medical marijuana shows promise for pain  (news – 2012)
http://sacfs.asn.au/news/2012/01/01_08_medical_marijuana_shows_promise_for_pain.htm

Nabilone (Cesamet) For Fibromyalgia and Chronic Fatigue Syndrome  (news – 2013)
http://www.healthrising.org/drugs-for-fibromyalgia/nabilone-cesamet-fibromyalgia-chronic-fatigue-syndrome/

**Colds**

Diminishing Suffering from Colds and Flu with Medical Marijuana  (news – 2016)
http://drsircus.com/medicine/medical-marijuana/diminishing-suffering-colds-flu-medical-marijuana

Does Cannabis Cure the Common Cold?  (news – 2016)
https://www.hellomd.com/health-wellness/does-cannabis-cure-the-common-cold

**Colitis** – also see BOWEL DISORDERS

Study uncovers marijuana's potential to treat autoimmune diseases  (news – 2014)
How can medical marijuana help with… COLITIS? (news – 2015)

What ailments does medical marijuana help? (news – 2015)

Japan’s First Lady Ushers In New Era of Hemp Acceptance by Purchasing Elixinol CBD Hemp Oil Product (news – 2016)

COMPASSIONATE INVESTIGATIONAL NEW DRUG PROGRAM - The US government’s federal Medical Marijuana Program. Also see “2000-2009 studies” and the pre-2000 List

US Government Medical Cannabis Tins (news – undated)
http://www.herbmuseum.ca/content/us-government-medical-cannabis-tins

Federal IND Patients (article – undated)

Smoked Marijuana IS Medicine: Feds Still Distributing Rolled Joints (news – 2011)
http://www.tokeofthetown.com/2011/12/smoked_marijuana_is_medicine_feds_still_distributi.php


In decades-old program, Uncle Sam provides pot (news – 2011)

Federal Rx: Marijuana (news – 2011)

Free Govt. Marijuana Via “Compassionate” Drug Program (news – 2011)

Ole Miss home to medical marijuana lab (news – 2012)

Irv Rosenfeld’s 30th Anniversary of Getting Marijuana From the Feds (news – 2012)
http://blog.mpp.org/tag/compassionate-investigational-new-drug/
While Arresting Thousands Of Pot Smokers Daily, Feds Supply 4 Patients With Legal Marijuana  (news – 2013)

4 Americans get medical pot from the feds  (news – 2014)

Mississippi, home to federal government's official stash of marijuana  (news – 2014)

Pot-smoking stockbroker has a steady supplier: the feds  (news – 2015)

Two Floridians get free marijuana for life -- from the feds  (news – 2015)

ICYMI: The Feds Have Their Own Crop Of Whacky-Tobacky In The Heart Of Mississippi  (news – 2015)


COPD/ CHRONIC OBSTRUCTIVE PULMONARY DISEASE

Marijuana Smoke Not as Damaging as Tobacco, Says Study  (news - 2012)

Study: Smoking Marijuana Not Linked with Lung Damage  (news – 2012)
http://healthland.time.com/2012/01/10/study-smoking-marijuana-not-linked-with-lung-damage/


Checotah Man Credits Cannabis Oil For Improved Health (COPD)  (news – 2014)
http://www.newson6.com/story/26293519/checotah-man-credits-cannabis-oil-for-improved-health

Marijuana Smoking Not Linked to Chronic Breathing Problems  (news – 2014)
The Impact Of Smoking Marijuana Regularly On Your Lungs, According To Science  
(news – 2015) http://thinkprogress.org/health/2015/01/22/3614459/new-pot-research/

UCLA Professor Finds Marijuana Is Safer to Smoke Than Tobacco  

Spliffs Are Poison, Destroy Lungs  

The Shocking Differences Between Cannabis and Tobacco Smoke  

CROHN’S DISEASE – also see BOWEL DISORDERS

Science: Treatment of Crohn's disease with cannabis: an observational study  

Still Believe Nature Got It Wrong? Top 10 Health Benefits of Marijuana  

Choosing pot over pills may be the way to go for Crohn's sufferers  

Could Cannabis Cure Crohn's Disease?  
(news – 2013) http://www.huffingtonpost.co.uk/2013/05/21/cannabis-treatment-inflammatory-bowel-disease-crohns-n_3311278.html?just_reloaded=1

Marijuana Put My Crohn’s Disease Into Remission and It’s Not A Joke  

The Comprehensive Report on the Cannabis Extract Movement and the Use of Cannabis Extracts to Treat Diseases  
(link to upload - 2014) http://www.slideshare.net/TheHempSolution/comprehensive-report-on-the-cannabis-extract-movement

Marijuana, Reconsidered: Dr. Lester Grinspoon On 45 Years Of Cannabis Science  

Cannabis Superior To Drugs For Inflammatory Bowel Condition (Crohn's Disease)  
Boy Using Cannabis Oil: ‘I’d Rather Be Illegally Alive Than Legally Dead’
(news – 2015)

What ailments does medical marijuana help? (news – 2015)

10 diseases where medical marijuana could have impact (news – 2015)

NFL player using marijuana for Crohn's disease may press league over drug policy
(news – 2016)

CRPS/ RSD - COMPLEX REGIONAL PAIN SYNDROME/ REFLEX SYMPATHETIC DYSTROPHY/ CAUSALGIA

Research: Marijuana’s Cannabinoids Aid Nervous Center (news – 2012)
https://rsdscrpsnews.wordpress.com/2012/07/07/research-marijuanas-cannabinoids-aid-nervous-center/

Marijuana Pill Relieves MS and RSD/CRPS Symptoms Plus Pain (news – 2012)

How to use Palmitoylethanolamide (PEA) in CRPS? (news – 2013)

Does Medical Marijuana Relieve CRPS/RSD Pain? The Debate Continues
(news – 2016)

Patients, towns want relief from state's foggy pot rules (news – 2016)

CULTIVATION - not meant to be a “grow guide”, just a “fun” section with no restrictions.

What kind of fertilizer for hemp, at home (news – undated)
http://geomedia.top/what-kind-of-fertilizer-for-hemp-at-home/
How Far Should Your Grow Light Be to Marijuana Plants in Indoor Marijuana Grow Room? (news – undated)
http://bigbudsmag.com/how-close-should-marijuana-grow-lights-be-to-marijuana-plants/

Cold Weather Marijuana Growing Tips (news – undated)
http://bigbudsmag.com/cold-weather-marijuana-growing-tips/

Growing Marijuana: Drying & Curing for Perfect Buds (news – undated)
http://bigbudsmag.com/growing-marijuana-br-drying-curing-for-perfect-buds/

The Best Strains For Growing Monster Marijuana Plants (news – undated)
http://bigbudsmag.com/the-5-best-strains-for-br-growing-monster-marijuana-plants/

Observations on the raising and dressing of hemp (1789)
As text- http://memory.loc.gov/cgi-bin/query/r?ammem/faw:@field%28DOCID+icufawcbc0010%29

Observations on the raising and dressing of hemp (1789)


Influence of Environment on Sexual Expression in Hemp (1923)
http://www.jstor.org/stable/2469863?seq=1#page_scan_tab_contents

CARBOHYDRATE-NITROGEN RATIOS WITH RESPECT TO THE SEXUAL EXPRESSION OF HEMP (1934) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC439101/

TIME FACTOR IN UTILIZATION OF MINERAL NUTRIENTS BY HEMP by Sister Mary Etienne Tibeau (1936)

New Billion Dollar Crop (news – 1938)
http://www.hempfarm.org/BillionDollarCrop.html

New Billion Dollar Crop- Popular Mechanics (in original on page 239) (news – 1938)
https://books.google.com/books?id=e9sDAAAAAMBAJ&printsec=frontcover&dq=popular+mechanics+the+new+billion+dollar+crop&hl=e
GROWTH RESPONSES OF HEMP TO DIFFERENTIAL SOIL AND AIR TEMPERATURES. (full – 1944)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC438156/

Problems of modern hemp breeding, with particular reference to the breeding of varieties of hemp containing little or no hashish (full – 1956)

Auxin and Sexuality in Cannabis sativa (1st page – 1956)

Suppressive Effects of 2-thiouracil on Differentiation and Flowering in Cannabis Sativa. (abst – 1960)

Effects of Chronic Smoking of Cannabis in Jamaica (download – 1972)

Cannabinoid Profile and Elemental Uptake of Cannabis sativa L. as Influenced by Soil Characteristics (full - 1975)

Cannabinoid formation in Cannabis sativa grafted inter-racially, and with two Humulus species (abst - 1975)

Cannabinoid composition and gland distribution in clone of Cannabis sativa L. (Cannabaceae) (full – 1978)

CHEMOTAXONOMY OF CANNABIS 1. CROSSBREEDING BETWEEN CANNABIS SATIVA AND C. RUDERALIS, WITH ANALYSIS OF CANNABINOID CONTENT (link to download - 1978)

Influence of photoperiodism on cannabinoid content of Cannabis sativa L. (abst – 1978)

An investigation of procedures reported to increase potency of marijuana: a chemical analysis and psychological interpretation. (abst – 1978)

The role of roots in sex expression in hemp plants. (abst – 1978)


UV-B radiation effects on photosynthesis, growth and cannabinoid production of two Cannabis sativa chemotypes (link to download – 1987) DOWNLOAD PDF VERSION


Commercial Hemp Cultivation in Canada "An Economic Justification" (full – 1995) http://www.naihc.org/hemp_information/content/dmarcustx.html
The Volatile Oil Composition of Fresh and Air-Dried Buds of Cannabis sativa (full – 1996)  

Cannabis pests (full – 1996)  
http://www.internationalhempassociation.org/jiha/jiha03201.html

Effect of nitrogen on tetrahydrocannabinol (THC) content in hemp (Cannabis sativa L.) leaves at different positions (full - 1997)  
http://www.internationalhempassociation.org/jiha/jiha4207.html

Immonochemical localization of tetrahydrocannabinol (THC) in cryofixed glandular trichomes of Cannabis (Cannabaceae) (link to PDF – 1997)  
http://www.amjbot.org/content/84/3/336.full.pdf+html

Factors influencing the yield and the quality of hemp (Cannabis sativa L.) essential oil (full – 1998)  
http://www.druglibrary.org/olsen/hemp/jiha/jiha5107.html

Feasibility of Industrial Hemp Production in the United States Pacific Northwest (link to PDF – 1998)  
https://catalog.extension.oregonstate.edu/sb681

Agronomic characteristics of some hemp genotypes (full – 1999)  
http://www.druglibrary.org/olsen/hemp/jiha/jiha6201.html

Cannabis as an illicit crop: recent developments in cultivation and product quality (full – 1999)  

Development of a hemp (Cannabis sativa L.) simulation model. 2. The flowering response of two hemp cultivars to photoperiod (abst – 2000)  


Distortion of Teatree Stems by Twine As a Means to Determine the Number of Years That the Stems Have Been Used to Support Cannabis Plants. (abst – 2001)  

The inheritance of chemical phenotype in Cannabis sativa L. (full - 2002)  

HISTORICAL AND CULTURAL USES OF CANNABIS AND THE CANADIAN "MARIJUANA CLASH" (full – 2002)  
http://www.parl.gc.ca/content/sen/committee/371/ille/library/spicer-e.htm
http://www.thefrugallife.com/mildew.html

Hemp: A New Crop with New Uses for North America (news – 2002)
http://www.hort.purdue.edu/newcrop/nnc02/v5-284.html

http://www.nrcresearchpress.com/doi/abs/10.4141/P02-021#.V3IMUqJA76h

Comparing Hemp Seed Yields (Cannabis sativa L.) of an On-Farm Scientific Field Experiment to an On-Farm Agronomic Evaluation Under Organic Growing Conditions in Lower Austria (abst – 2004)
http://www.tandfonline.com/doi/abs/10.1300/J237v09n01_05

Cold - resistance of hemp (Cannabis Sativa L.) (full – 2004)
http://vir.nw.ru/hemp/hemp2.htm

US Patent Application 20070151149 - Methods for altering the level of phytochemicals in plant cells by applying wave lengths of light from 400 nm to 700 nm and apparatus therefore. (full - 2004)


Cover Me with Hemp (news – 2004)


Home remedies for powdery mildew (news – 2005)
http://www.growingformarket.com/articles/powdery-mildew-solutions


Seeding rate and row spacing effect on weed competition, yield and quality of hemp in the Parkland region of Saskatchewan (link to PDF – 2006)
http://www.nrcresearchpress.com/doi/abs/10.4141/P05-177#.V3ILRqJA76h
Yield of illicit indoor cannabis cultivation in the Netherlands. (abst – 2006)


Want shorter flowers? Just add liquor (news – 2006)

Apparent increase in biomass and see productivity in hemp (Cannabis sativa) resulting from branch proliferation caused by the European corn borer (Ostrinia nubilalis). (abst – 2007) http://www.agr.gc.ca/eng/abstract/?id=9561000000564

Detection method for the ability of hemp (Cannabis sativa L.) seed germination by the use of 2,3,5-triphenyl-2H-tetrazolium chloride (TTC) (full - 2008)


Photosynthetic response of Cannabis sativa L. to variations in photosynthetic photon flux densities, temperature and CO2 conditions. (link to PDF– 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3550641/


A PROPAGATION SYSTEM FOR CLONING OF HEMP (CANNABIS SATIVA L.) BY SHOOT TIP CULTURE (full – 2009)
http://www.pakbs.org/pibot/PDFs/41%282%29/PJB41%282%29603.pdf

Propagation through alginate encapsulation of axillary buds of Cannabis sativa L. - an important medicinal plant. (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3550375/

Cannabis Yields and Dosage (full – 2009)

A PROPAGATION SYSTEM FOR CLONING OF HEMP (CANNABIS SATIVA L.) BY SHOOT TIP CULTURE (full – 2009)
http://www.pakbs.org/pibot/PDFs/41%282%29/PJB41%282%29603.pdf

The Effect of Ultraviolet Radiation on the Accumulation of Medicinal Compounds in Plants (link to download – 2009) READ MORE


Effects of Gibberellic Acid on Primary Terpenoids and Delta-Tetrahydrocannabinol in Cannabis sativa at Flowering Stage. (abst - 2009) http://www.unboundmedicine.com/medline/ebm/record/19522814/abstract/Effects_of_Gibberellic_Acid_on_Primary_Terpenoids_and_Delta_Tetrahydrocannabinol_in_Cannabis_sativa_at_Flowering_Stage


Characteristics of Cannabis sativa L.: seed morphology, germination and growth characteristics, and distinction from Hibiscus cannabinus L (link to PDF – 2010) https://www.jstage.jst.go.jp/article/yakushi/130/2/130_2_237/_article

Patterns of Youth Participation in Cannabis Cultivation (link to download – 2010) http://jod.sagepub.com/content/40/2/263.abstract


The results of an experimental indoor hydroponic Cannabis growing study, using the 'Screen of Green' (ScrOG) method-Yield, tetrahydrocannabinol (THC) and DNA analysis. (abst – 2010) http://www.ncbi.nlm.nih.gov/pubmed/20462712


Propagation of Elite Cannabis sativa for the Production of Δ9-Tetrahydrocannabinol (THC) using Biotechnological Tools (abst – 2010)  


Cannabis sativa L. Micropropagation in Temporary Immersion Bioreactor System (abst – 2010)  

Hydroponics Cultivation Cannabis sativa L. Plants (abst – 2010)  

Variation in Δ9-THC and other Cannabinoids Content in Field Grown Cannabis sativa L. During Different Stages of Growth (abst – 2010)  

EVALUATION OF GROWTH INDICES OF HEMP (CANNABIS SATIVA L.) AND SESAME (SESAMUM INDICUM L.) IN INTERCROPPING WITH REPLACEMENT AND ADDITIVE SERIES (abst – 2010)  


Influence of agroclimatic conditions on content of main cannabinoids in industrial hemp (Cannabis sativa L.) (full – 2011)  

Photosynthetic response of Cannabis sativa L., an important medicinal plant, to elevated levels of CO2. (full– 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3550578/

Temperature response of photosynthesis in different drug and fiber varieties of Cannabis sativa L. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3550580/

WITCHES’ BROOM AND PHYLLODY LIKE SYMPTOMS OF DISEASES IN Acalypha indica L. AND Cannabis sativa L. - A NEW REPORT FROM CHAMPARAN, NORTH BIHAR (full – 2011)  
http://www.ijsr.in/upload/805707343Chapter_24.pdf

Characterization of Stolbur (16SrXII) Group Phytoplasmas Associated with Cannabis sativa Witches'-broom Disease in Iran (full – 2011)  

Changes of photosynthesis-related parameters and productivity of Cannabis sativa under different nitrogen supply (full – 2011)  
Influence of agroclimatic conditions on content of main cannabinoids in industrial hemp (Cannabis sativa L.) (full– 2011)  

Industrial Hemp (Cannabis sativa L.) – a High-Yielding Energy Crop (thesis – 2011)  
http://pub.epsilon.slu.se/8415/1/prade_t_111102.pdf

Variations in Photosynthesis, Transpiration, Water Use and Cannabinoid Contents in Field Grown Drug Type Varieties of Cannabis sativa L. (abst – 2011)  

Study on spectral reflectance characteristics of hemp canopies (abst – 2011)  

Factors determining yield and quality of illicit indoor cannabis (Cannabis spp.) production. (abst – 2011)  

The Effect of Electrical Lighting Power and Irradiance on Indoor-Grown Cannabis Potency and Yield. (abst – 2011)  

Cadmium Tolerance and Bioaccumulation of 18 Hemp Accessions. (abst – 2011)  

Molecular analysis of genetic fidelity in Cannabis sativa L. plants grown from synthetic (encapsulated) seeds following in vitro storage. (abst – 2011)  

Small-scale cannabis growers in Denmark and Finland. (abst – 2011)  

Investigations into the Hypothesis of Transgenic Cannabis (abst – 2011)  

Genetic Identification of Female Cannabis sativa Plants at Early Developmental Stage (abst – 2011)  


Biotechnology of Cannabis sativa L. (abst – 2011)  

Variations in Photosynthesis, Transpiration, Water Use and Cannabinoid Contents in Field Grown Drug Type Varieties of Cannabis sativa L. (abst – 2011)  
In vitro Germplasm Conservation of High THC Yielding Elite Clones of Cannabis sativa L. under Slow Growth Conditions (abst – 2011)  

Analysis of Genetic Diversity using SSR Markers and Cannabinoid Contents in Different Varieties of Cannabis sativa L. (abst – 2011)  

Botany of Cannabis sativa L.: Identification, Cultivation and Processing (abst – 2011)  

EVALUATION ALLELOPATHIC EFFECT OF HEMP (CANNABIS SATIVA L.) ON GERMINATION AND GROWTH OF THREE KINDS OF WEEDS (abst – 2011)  

Medicinal Genomics Sequences the Cannabis Genome to Assemble the Largest Known Gene Collection of this Therapeutic Plant. (news – 2011)  
http://www.thefreelibrary.com/Medicinal+Genomics+Sequences+the+Cannabis+Genome+to+Assemble+th...-a0264585240

Attack of the Clones (news – 2011)  

Genome of Marijuana Sequenced and Published (news – 2011)  

Miracle-Gro for marijuana? (news – 2011)  
http://theweek.com/article/index/216317/miracle-gro-for-marijuana

Feasibility of Using Mycoherbicides to Control Illicit Drug Crops Is Uncertain (news – 2011)  

What Medical Marijuana strain is best for your condition, Sativa or Indica? (forum repost – 2011)  

Cannabis sativa - An Important Subsistence Pollen Source for Apis mellifera (full – 2012)  

Tips On Selecting Cannabis Seeds (article – 2012)  
http://www.buydutchseeds.com/blog/tips-on-selecting-cannabis-seeds.html

Common Hemp Crop Pests (article – 2012)  

Growing Hemp (article – 2012)  
http://www.innvista.com/health/foods/hemp/growing-hemp/


Farmer starts 'accidental cannabis plantation' (news – 2012) 
http://www.thelocal.de/20120905/44777

What You Need to Know about Growing CBD-rich Cannabis from Seed (news/ad – 2012) 
http://pureanalytics.net/blog/2012/03/12/what-you-need-to-know-about-growing-cbd-rich-cannabis-from-seed/

The role of child protection in cannabis grow-operations. (full – 2013) 
www.canorml.org/child.welfare.pdf

Nematicidal activities of Cannabis sativa L. and Zanthoxylum alatum Roxb. against Meloidogyne incognita (abst – 2013) 

A review of the cultivation and processing of cannabis (Cannabis sativa L.) for production of prescription medicines in the UK. (abst – 2013) 

Ecophysiological Aspects of in vitro Propagated Cannabis sativa L. Plants During Acclimatization (abst – 2013) 

THE EFFECT OF ABA ON PIGMENTS AND TETRAHYDROCANNABINOL IN CANNABIS SATIVA AT FLOWERING STAGE (abst – 2013) 

Potential exposures associated with indoor marijuana growing operations. (abst – 2013) 

How to Harvest Cannabis Plants (news – 2013) 
http://www.weedist.com/2013/07/how-to-harvest-cannabis-plants/

Young cannabis confirmed: Cannabinoid content discriminates between drug and hemp forms of cannabis seedlings (news – 2013) 

Indoor Growing: Dirty Fingernails, Better Life (news – 2013) 
http://www.weedist.com/2013/09/indoor-growing-dirty-fingernails-better-life/

CBD strains from Europe Grown Out in California (news – 2013) 

Recommendations for Regulators – Cannabis Operations (full – 2014) 
www.a2la.org/appswb/ASA_PFC_2016.pdf

Let it grow—the open market solution to marijuana control (full – 2014) 
http://www.harmreductionjournal.com/content/11/1/32

Study of leaf metabolome modifications induced by UV-C radiations in representative Vitis, Cissus and Cannabis species by LC-MS based metabolomics and antioxidant assays. (full – 2014) http://www.mdpi.com/1420-3049/19/9/14004/htm

Hashish revival in Morocco. (full – 2014) http://www.iidp.org/article/S0955-3959%2814%2900003-6/fulltext

Molecular cytogenetic characterization of the dioecious Cannabis sativa with an XY chromosome sex determination system. (full – 2014) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0085118


Amber is Bad? (article – 2014) http://growhappyplants.com/look.html


Production, perceptions, and punishment: Restrictive deterrence in the context of cannabis cultivation. (abst – 2014)  

Cold acclimation induces distinctive changes in the chromatin state and transcript levels of COR genes in Cannabis sativa varieties with contrasting cold acclimation capacities. (abst – 2014)  

Cannabis micropropagation – Applications and updates (abst – 2014)  

EFFECT OF BIOFERTILIZER, UNDER SALINITY CONDITION ON THE YIELD AND OIL CONTENT OF THREE ECOTYPE OF HEMP (CANNABIS SATIVA L.) (abst – 2014)  

Allelopathic effect of fibre hemp (Cannabis sativa L.) on monocot and dicot plant species (abst – 2014)  

How to Use Dr. Bronners As Insecticidal Soap (news - 2014)  

Powdery Mildew On Marijuana Plants (news – 2014)  

Music to grow cannabis by (news – 2014)  
http://www.stuff.co.nz/national/crime/9637421/Music-to-grow-cannabis-by

Hemp growers cooperatives' report touts crop's benefits to coal (news – 2014)  

Weed’s Chronic Energy Use Becomes a Concern (news – 2014)  

Mississippi, home to federal government's official stash of marijuana (news – 2014)  

Before pot yield of their dreams, constant care for fickle plants (news – 2014)  

Why Chocolope? To sell marijuana, you need a clever name (news – 2014)  
http://www.latimes.com/business/la-fi-marijuana-names-20140711-story.html#page=1


Thomas Jefferson's Favorite Plant Is Back in American Soil (news - 2014)  
Federal marijuana bill would legalize some cannabis strains  

U.S. government to grow 30 times more marijuana this year  

Marijuana: Italian Army to Grow Cannabis for Medical Purposes  
https://uk.news.yahoo.com/marijuana-italian-army-grow-cannabis-medical-purposes-120852716.html#oZ9vNGz

Where Americans Smoke and Grow Marijuana (Maps)  

Legal Pot In The U.S. May Be Undercutting Mexican Marijuana  

U.S. won't stop Native Americans from growing, selling pot on their lands  

Money to burn  
http://mashable.com/2014/12/31/marijuana-farm-startup/?utm_campaign=Mash-Prod-RSS-Feedburner-All-Partial&utm_cid=Mash-Prod-RSS-Feedburner-All-Partial&utm_medium=feed&utm_source=rss

What is the difference between Indica and Sativa Marijuana Plants?  

Flowering Week by Week  
http://www.bloomwellbend.com/flowering-week-week/

Why Don’t We Grow Tomatoes in Basements? The Future of Cannabis Cultivation Is in Greenhouses  

Grass Fed - Should livestock eat cannabis?  

The globalisation of cannabis cultivation: A growing challenge  
http://www.ijdp.org/article/S0955-3959%2815%2900003-1/fulltext

Intrusive growth of primary and secondary phloem fibres in hemp stem determines fibre bundle formation and structure.  
http://aobpla.oxfordjournals.org/content/early/2015/05/27/aobpla.plv061.long

Global patterns of domestic cannabis cultivation: Sample characteristics and patterns of growing across eleven countries.  
http://www.ijdp.org/article/S0955-3959%2814%2900363-6/fulltext
The Genetic Structure of Marijuana and Hemp.  (full – 2015)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0133292

Comparative genomics of a cannabis pathogen reveals insight into the evolution of pathogenicity in Xanthomonas.  (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4468381/

Impacts of surface water diversions for marijuana cultivation on aquatic habitat in four northwestern California watersheds.  (full – 2015)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0120016

The globalisation of cannabis cultivation: A growing challenge  (full – 2015)  
http://www.ijdp.org/article/S0955-3959%2815%2900003-1/fulltext

Are Moroccan cannabis growers able to adapt to recent European market trend?  (full – 2015)  
http://www.ijdp.org/article/S0955-3959%2814%2900336-3/fulltext

Cannabinoids Production by Hairy Root Cultures of Cannabis sativa L.  (full – 2015)  
http://file.scirp.org/Html/21-2601738_58491.htm

Seized cannabis seeds cultivated in greenhouse: A chemical study by gas chromatography–mass spectrometry and chemometric analysis  
(link through Elsevier to get link to get full – 2015)  

CONTROLLED SUBSTANCES CHAOS: THE DEPARTMENT OF JUSTICE’S NEW POLICY POSITION ON MARIJUANA AND WHAT IT MEANS FOR INDUSTRIAL HEMP FARMING IN NORTH DAKOTA  
(link to download - 2015)  
controlled substances chaos: the department of justice's new policy ...

Assessing the harms of cannabis cultivation in Belgium.  (abst – 2015)  

Cannabis cultivation in Quebec: Between space-time hotspots and coldspots.  
(abst – 2015)  
http://www.ijdp.org/article/S0955-3959(14)00310-7/abstract

"Should I Buy or Should I Grow?" How drug policy institutions and drug market transaction costs shape the decision to self-supply with cannabis in the Netherlands and the Czech Republic.  
(abst – 2015)  

Effect of induced polyploidy on some biochemical parameters in Cannabis sativa L.  
(abst – 2015)  

Evaluation of elemental profiling methods, including laser-induced breakdown spectroscopy (LIBS), for the differentiation of Cannabis plant material grown in different nutrient solutions.  
(abst – 2015)  

Legal issues for German-speaking cannabis growers. Results from an online survey. (abst – 2015) http://www.ijdp.org/article/S0955-3959%2815%2900315-1/abstract


Regulating Pot to Save the Polar Bear: Energy and Climate Impacts of the Marijuana Industry (news – 2015)
Science Seeks to Unlock Marijuana’s Secrets (news – 2015) (may need subscription)
http://ngm.nationalgeographic.com/2015/06/marijuana/sides-text

The Pot Whisperer: Amherst master grower in demand for cultivation expertise (news – 2015)

Here's The Real Difference Between Sativa & Indica Pot Strains (news – 2015)
http://www.refinery29.com/difference-between-indica-and-sativa

Colombia Supreme Court: Cultivating Up To 20 Marijuana Plants Is Not A Crime (news – 2015)

Marijuana's Pesticide Problem (news – 2015)

Hein and Helsmoortel support proposed ‘kosher’ pot farm in Saugerties (news – 2015)

Mexico Police Bust Greenhouses With Genetically Modified Pot (news – 2015)

Marijuana Growing Strategies (news – 2015)
http://www.buydutchseeds.com/blog/marijuana-growing-strategies2.html

Water for grass not a big dip: Pot growing would use less than golf courses (news – 2015)

Natural pest control business gets boost from medical cannabis industry (news – 2015)

Judge: Missouri right-to-farm doesn't cover marijuana (news – 2015)

Deer devour hemp crops at southern Oregon farm (news – 2015)

In the land of towering pot plants, Pakistani farmers brace for a buzz-kill (news – 2015)

The Great Kentucky Hemp Experiment (news – 2015)

New Poll Finds Millions Would Like to "Grow Your Own" (news – 2015)

How LEDs Are Making Weed Better (news – 2015)
http://www.wired.com/2015/10/leds-upended-marijuana-growing-can-upend-agriculture/

Distribution Of Sugars Within Marijuana Plants (news – 2015)

Is marijuana a single species?: While you’re searching for the perfect high, scientists go deeper (news – 2015)
http://www.salon.com/2015/09/28/is_marijuana_a_single_species_while_youre_searching_for_the_perfect_high_scientists_go_deeper_partner/


Pot pesticides: What exactly are these chemicals, and why are they banned? (news – 2015)
http://www.denverpost.com/2015/12/07/pot-pesticides-what-exactly-are-these-chemicals-and-why-are-they-banned/

Growing Marijuana At A Cellular Level (news – 2015)
http://www.theweeklyweedonline.com/growing-marijuana-at-a-cellular-level/

Growing Medical Weed Is NOT a Crime, California Appeals Court Rules (news – 2015)

Indoor farming: Good for cannabis, not so good for food (news – 2015)
http://gigaom.com/2015/12/29/indoor-farming-good-for-cannabis-not-so-good-for-food/

Study: pot cultivation is hurting the environment (news – 2015)
http://www.upi.com/Science_News/2015/06/24/Study-pot-cultivation-is-hurting-the-environment/8731435178082/?spt=sec&or=sn

Neat “Trick” Could Save Michigan Marijuana Growers 66% On Electric Bills
Swedish man acquitted in court for growing medical marijuana (news – 2015)

Japan’s First Lady Wants To Be A Hemp Farmer (news – 2015)

Is It Better To Grow Marijuana Hydroponically Or In Soil? (news – 2015)
http://www.theweeklyweedonline.com/is-it-better-to-grow-marijuana-hydroponically-or-in-soil/

Marijuana Farmers VS Hemp Farmers Over Pollen (news – 2015)

Marijuana growers in the US are using up $6 billion a year in electricity (news – 2015)
http://qz.com/560496/marijuana-growers-in-the-us-are-using-up-6-billion-a-year-in-electricity/

We've got weed. The Oregonian's outdoor marijuana plant was harvested. | Pot Grow Diary (Day 115) (news – 2015)
http://www.oregonlive.com/marijuana/index.ssf/2015/10/weve_got_weed_the_oregonians_o.html

It's a _____! The Oregonian's marijuana seedlings' gender revealed. What should we name them? (Pot Grow Diary | Day 24) (news/ ad – 2015)
http://www.oregonlive.com/marijuana/index.ssf/2015/07/its_a_____the_oregonians_mari.html

Potency 101 (printable card set – 2015)
http://greenstyleconsulting.com/potency-101/

Cannabis sativa: The Plant of the Thousand and One Molecules (full – 2016)

High Time for Conservation: Adding the Environment to the Debate on Marijuana Liberalization. (full – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4776720/

A Belated Green Revolution for Cannabis: Virtual Genetic Resources to Fast-Track Cultivar Development. (full – 2016)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4965456/

Farming medical ganja in Jamaica. (click ELSEVIER for 1st page – 2016)

Hashish in Morocco and Lebanon: A comparative study (abst – 2016)

Medical use of cannabis products: Lessons to be learned from Israel and Canada. (abst – 2016)
Chapter 1 – The Botany of Cannabis sativa L. (abst – 2016)

Evolution of the Cannabinoid and Terpene Content during the Growth of Cannabis sativa Plants from Different Chemotypes. (abst – 2016)
http://pubs.acs.org/doi/abs/10.1021/acs.jnatprod.5b00949

The influences of cultivation setting on inflorescence lipid distributions, concentrations, and carbon isotope ratios of Cannabis sp. (abst – 2016)

In Vitro Propagation of Cannabis sativa L. and Evaluation of Regenerated Plants for Genetic Fidelity and Cannabinoids Content for Quality Assurance. (abst – 2016)

Monitoring Metabolite Profiles of Cannabis sativa L. Trichomes during Flowering Period Using 1H NMR-Based Metabolomics and Real-Time PCR. (abst – 2016)


Cannabis farmers hidden in India's Himalayas (news/photo essay – 2016)


The crazy, complicated world of “organic” weed (news – 2016)

Guy growing cannabis illegally is now a multi-millionaire and paying his taxes (news – 2016)
http://metro.co.uk/2016/05/22/guy-growing-cannabis-illegally-is-now-a-multi-millionaire-and-paying-his-taxes-5898100/#ixzz49PsHUFIX

Stoned sheep cause mayhem after eating marijuana plants (news – 2016)

Marijuana May Boost Brain Performance (news – 2016)

Science For Space Farming Is Also Being Used to Grow Weed (news – 2016)

Federal agency won't include pot in annual crop statistics (news – 2016)

This woman teaches you how to legally grow weed in your home (news – 2016)

Marijuana campaign tactic: Buy American, not Mexican (news – 2016)

The Latest: California lawmakers OK water for pot growers (news – 2016)

The Sweet Spot (news – 2016)
http://www.northcoastjournal.com/humboldt/the-sweet-spot/Content?oid=3836973

An elderly couple found help for a brain injury through marijuana — then police found 20 pot plants growing at their home (news – 2016)

Fake 'Organic' Pot Gardening Products Yanked From Oregon Stores (news – 2016)
Farmers are planting marijuana to clean up the land contaminated by Europe's biggest steel mill (news – 2016) http://www.businessinsider.com/italian-farmers-turning-to-hemp-2016-7


Marijuana industry brought to a standstill by new pesticide testing regulations (news – 2016) http://www.oregonlive.com/business/index.ssf/2016/12/marijuana_industry_brought_to.html

Marijuana’s ‘trimmigrant’ labor force poses conflicts for some North Coast towns
Hemp’s Forgotten American History (news – 2016)
http://www.huffingtonpost.com/entry/5834db44e4b050dfe618779f

Hemp growers may try to block federal ban on marijuana extracts (news – 2016)

Diagnosing Nutrient Deficiencies in Sick Cannabis Plants (news – 2016)

What are the Best Nutrients for Growing Cannabis? (news – 2016)

Weed Bill Legalizing Growth Gains Momentum in Dutch Parliament (news – 2016)

‘Pot fairy’ strikes Brown Avenue, again (news – 2016)
http://www.athensnews.com/news/local/pot-fairy-strikes-brown-avenue-again/article_8c60c6e8-859b-11e6-bdf6-33fca2b52f4b.html

How to Grow a Cannabis Farming Business in the Blazing Marijuana Economy (news - 2016)

Greenhouse Cannabis Cultivation: What are the Benefits? (news – 2016)

Did the Industrial Value of Hemp Spark Cannabis Prohibition? (news – 2016)

Costs of Growing Cannabis at Home vs. Buying Bud at a Dispensary (news – 2016)

Like Fine Wine, Pot Smoking Destinations Will Promote Appellations (news – 2017)

Finally, state gives medical marijuana licensees green light to cultivate (news – 2017)

California looks to build $7 billion legal pot economy (news – 2017)
http://newsok.com/california-looks-to-build-7-billion-legal-pot-economy/article/feed/1157993
**CYSTIC FIBROSIS**

Many Teens With Chronic Illnesses Use Alcohol, Pot  (news – 2015)

**CYSTITIS**

Severity of acute cystitis may be cut with cannabinoid agonist  (news – 2011)

How can medical marijuana help with… INTERSTITIAL CYSTITIS?  
(news – 2015)

**DEPRESSION**

Echinacea makes you carefree  (news – undated)

Deficiency of Dietary Omega-3 May Explain Depressive Behaviors  (news - 2011)
http://www.thefreelibrary.com/Deficiency+of+Dietary+Omega-3+May+Explain+Depressive+Behaviors.-a0248155576

Endocannabinoids: A healthy diet is good for LTD  (news – 2011)

What An Expectant Mother Eats Affects Children’s Psychology in Later Life  
(news – 2011)

A Brain Wrought Without Omega-3  (news – 2011)

Omega-3 deficiency disrupts cannibinoid receptor function in brain  (news – 2011)
http://cannabisculture.hanf.ws/2012/06/26/omega-3-deficiency-disrupts-cannibinoid-receptor-function-in-brain/

Natural Herbs That Increase Serotonin  (news – 2011)

Research provides new clues to understand link between deficits of AGPO-3, depression  
(news – 2011)
Smoking Cannabis Increases Risk of Depression in the Case of Genetic Vulnerability, Study Finds  

How Smoking Marijuana may Help Women to Fight Nasty Symptoms of Menopause?  

Study: THC Increases Brain Activity In Response To Positive Stimuli  

This bud’s for you: Marijuana identified as a buffer against loneliness, study suggests  

5 Health Benefits Of Cannabichromene (CBC)  

Activating cannabinoid brain receptors could replace marijuana for anxiety treatment  

Natural ‘high’ could avoid chronic marijuana use, Vanderbilt study finds  

Cannabinoid Receptors May Control Aversive Memories  

New Study Finds Marijuana To Be Effective Against Depression  

Marijuana Is Effective In Treating Depression -- Latest Study  

Here's What Marijuana Does to Your Stress  

Study finds no link between teen marijuana use, mental health issues  

5 Prescription Drugs That Could Literally Replaced by Marijuana  

Teen marijuana use not linked to later depression, lung cancer, other health problems, study finds


Cannabis Compares Favorably to Conventional PTSD Treatments (news – 2016) http://www.prweb.com/releases/2016/03/prweb13244763.htm

Smoking cannabis DOESN'T cause clinical anxiety or depression, study finds (news – 2016) http://www.dailymail.co.uk/news/article-3456326/Smoking-cannabis-DOESN-T-cause-clinical-anxiety-depression.html#ixzz45lywpZ11

An elderly couple found help for a brain injury through marijuana — then police found 20 pot plants growing at their home (news – 2016) http://www.nashvillescene.com/nashville/an-elderly-couple-found-help-for-a-brain-injury-through-marijuana-andmdash-then-police-found-20-pot-plants-growing-at-their-home/Content?oid=6798313

Marijuana Appears to Benefit Mental Health: Study (news – 2016) http://time.com/4573129/marijuana-cannabis-mental-health/


DERMATITIS


Marijuana May Turn Off DNA Linked To Skin Cancer And Other Diseases (news – 2013)

Adelmidrol: a novel glia modulator (news – 2015)

Cannabis can alleviate psoriasis or eczema (news – 2015)
http://420insight.com/medicinal/cannabis-can-alleviate-psoriasis/

Marijuana allergy can be triggered by toking (news – 2016)

**DIABETES**

Pot Compound Mitigates Diabetic Cardiomyopathy (news - 2010)

Cannabinoids inhibit and may prevent neuropathic pain in diabetes. (news - 2010)

Lab Notes: Pot Has Benefits for Diabetic Hearts (news - 2010)
http://www.medpagetoday.com/LabNotes/LabNotes/23853

Marijuana Smoking Associated with 66% Decrease in Diabetes Risk (news – 2010)

A Summary of Endocannabinoids and Obesity (news – 2011)

Study: Cannabis Use Associated With Decreased Prevalence Of Diabetes (news – 2012)

Synthetic cannabinoid could treat pain in diabetes patients (news – 2012)

Study: Synthetic THC Analogue Mitigates Diabetic Neuropathy, Is ‘Well Tolerated’ In Patients (news – 2012)

Encouraging anti-diabetic results for new cannabinoid drug (news – 2012)

New drug offers novel pain management therapy for diabetics. (news - 2012)
Drug offers new pain management therapy for diabetics (news – 2012)

Medicinal Cannabis and Painful Sensory Neuropathy (editorial – 2013)
http://journalofethics.ama-assn.org/2013/05/oped1-1305.html

Marijuana: The next diabetes drug? (news – 2013)

Regular Marijuana Use is Associated With Favorable Indices to Diabetic Control, Say Investigators (news – 2013)

Marijuana Users Have Better Blood Sugar Control (news – 2013)
http://www.sciencedaily.com/releases/2013/05/130515085208.htm

Study: Why Pot Smokers Are Skinnier (news – 2013)
http://www.theatlantic.com/health/archive/2013/05/study-why-pot-smokers-are-skinnier/275846/

Cannabis linked to prevention of diabetes (news – 2013)

Cannabis-Derived Drug Shows Promise in Treating Type 2 Diabetes (news – 2013)

Marijuana Extract Holds Promise as Diabetes Treatment (news – 2013)

Study: Marijuana Smokers Are Thinner And Healthier Than Non-Users (news – 2013)

GW Pharmaceuticals Provides Update on Cannabinoid Pipeline (news/ad – 2014)
http://ir.gwpharm.com/releasedetail.cfm?ReleaseID=833085

Marijuana may help blood sugar control, study says (news – 2014)
http://www.philly.com/philly/health/diabetes/Marijuana_may_help_blood_sugar_control_study_says.html

Novel drug target linked to insulin secretion and type 2 diabetes treatment (news – 2014)

Smoking Cannabis Reduces Diabetic Neuropathy Pain (news & abstract – 2015)
Marijuana Could Be the Answer to Fighting These 3 Diseases (news – 2015)  

New study links marijuana use and low body weight among Nunavik Inuit (news – 2015)  
http://www.nunatsiaqonline.ca/stories/article/65674new_study_links_marijuana_use_and_low_body_weight_among_inuit/

What ailments does medical marijuana help? (news – 2015)  

Nunavik Inuit health study from 2004 continues to churn out info (news – 2015)  
http://www.nunatsiaqonline.ca/stories/article/65674nunavik_inuit_health_study_from_2004_continues_to_churn_out_info/

Cannabis alleviates peripheral neuropathic pain in diabetes (news – 2015)  

Marijuana Gains Traction In Fight Against Diabetes And Obesity (news – 2015)  

Why THC Isn't The Only Thing In Weed That Matters (news – 2015)  

Synthetic cannabis compounds used to tackle diabetes linked kidney failure (news – 2015)  

Infographic: Pot smokers are skinnier than non-users (news – 2015)  
http://o.canada.com/health-2/infographic-pot-smokers-are-skinnier-than-non-users

Endogenous "cannabis" influences development of the fetal pancreas (news - 2015)  
https://www.sciencedaily.com/releases/2015/10/151023084458.htm

Foot Nail Fungus is Stubborn, Ugly, and Pernicious (news – 2016)  

**DRIVING AND CANNABIS**

Study: Marijuana Has Little Effect On Driving (news - 2010)  
http://www.wfsb.com/story/14787761/study-marijuana-has-little-effect-on-driving-6-07-2010

Hartford Hospital Studies Effects Of Marijuana Use On Driving Skills (news - 2010)  
http://www.ctnow.com/health/hc-marijuana-study0608-20100607.0.5896933.story
Psychomotor Impairing Effects Of Cannabis Are Nominal In Experienced Users, Study Says (news – 2010)

Cannabis electric car to be made in Canada (news - 2010)

THC blood test: Pot critic William Breathes nearly 3 times over proposed limit when sober (news – 2011)

Medical Marijuana Laws Shown to Reduce Traffic Fatalities - Well, that settles that (news – 2011)

Study shows medical marijuana laws reduce traffic deaths (news – 2011)

Why Medical Marijuana Laws Reduce Traffic Deaths (news - 2011)

It Turns Out That Smoking Marijuana May Actually Make You A Safer Driver (news – 2011)
http://www.businessinsider.com/it-turns-out-that-smoking-marijuana-may-actually-make-you-a-better-driver-2011-12

Cannabis and psychomotor performance: A rational review of the evidence and implications for public policy (article – 2012)

Marijuana Users Are Safer Drivers Than Non-Marijuana Users, New Study Shows (news – 2012)

Reasons Why Marijuana Users Are Safe Drivers (news – 2012)
http://www.4autoinsurancequote.com/uncategorized/reasons-why-marijuana-users-are-safe-drivers/

7% of California Drivers Test Positive for Marijuana, but Are They Impaired? (news – 2012)
http://healthland.time.com/2012/11/20/7-of-cal-drivers-test-positive-for-marijuana-but-are-they-impaired/#ixzz21Y4mBJet

Study: Imposition Of Per Se Limits For Drugs Don't Reduce Traffic Deaths (news – 2013)
http://norml.org/news/2013/01/17/study-imposition-of-per-se-limits-for-drugs-don-t-reduce-traffic-deaths

Michigan driver who uses medical marijuana wins appeal (news – 2013)
Pot smell isn't cause to arrest everyone in a car  (news - 2013)  

Study: Medical Marijuana Laws Lead To Decrease In Alcohol-Related Deaths  
(news – 2013)  
http://www.opposingviews.com/i/society/study-medical-marijuana-laws-lead-decrease-alcohol-related-deaths#

Cannabis driving claims 'don't stand up to evidence'  (news – 2013)  
http://www.scoop.co.nz/stories/PO1308/S00278/cannabis-driving-claims-dont-stand-up-to-evidence.htm

Hemp-seed muesli led to ACT drug-driving charge: Laws under fire  
(news – 2013)  

If Medical Marijuana Laws Cause A 'Surge in Drugged Driving Deaths,' Why Are Fatalities Falling?  
(news – 2014)  

Marijuana and driving: Field tests for impaired drivers  
(news – 2014)  

More drivers positive for pot in Washington  
(news – 2014)  

Alcohol and drugs put teens at increased risk for unsafe driving  
(news – 2014)  

Colorado’s poster boy for ‘stoned driving’ was drunk off his gourd  
(news – 2014)  
http://www.washingtonpost.com/news/the-watch/wp/2014/06/06/colorados-poster-boy-for-stoned-driving-was-drunk-off-his-gourd/

The Truth About Driving While Stoned  
(news – 2014)  
http://news.yahoo.com/truth-driving-while-stoned-094500653--politics.html

Research compares consequences of teen alcohol and marijuana use  
(news – 2014)  

Study: Prescription Drugs Cause More Fatal Car Crashes Than Marijuana  
(news – 2014)  
http://blogs.sfweekly.com/thesnitch/2014/06/study_prescription_drugs_cause.php

Since marijuana legalization, highway fatalities in Colorado are at near-historic lows  
(news – 2014)  
Arizona court rules on DUI law for marijuana users  (news – 2014)

Alcohol, marijuana bad for teens in different ways  (news – 2014)

Pot Is the New Normal  (news – 2014)
http://time.com/3514137/marijuana-legalization-colorado-new-normal/

Cato Paper Highlights Marijuana Legalization’s Ho-Hum Impact in Colorado

After California decriminalized marijuana, teen arrest, overdose and dropout rates fell
(news – 2014)
http://www.washingtonpost.com/blogs/wonkblog/wp/2014/10/15/after-california-decriminalized-weed-
teen-arrest-overdose-and-dropout-rates-fell/

Cannabis conundrum: Evidence of harm?: Opposition to marijuana use is often rooted in
arguments about the drug's harm to children and adults, but the scientific evidence is
seldom clear-cut  (article – 2015)

Peaceful feeling, or up in smoke? Medical marijuana in medicolegal context
(article – 2015)
http://www.mdedge.com/currentpsychiatry/article/102099/practice-management/peaceful-feeling-or-
smoke-medical-marijuana

Medical pot doesn’t lead to impaired driving  (news – 2015)
http://www.abqjournal.com/524770/opinion/medical-pot-doesnt-lead-to-impaired-driving.html

Feds: No link between pot and car crashes  (news – 2015)

Stoned Drivers At Far Lower Risk Of Crash Than Drunken Drivers  (news – 2015)
http://www.huffingtonpost.com/2015/02/11/stoned-driving-crash-risk _n_6654810.html

If Marijuana Causes Lots Of Crashes, Why Are They So Hard To Count?
(news – 2015)
http://www.forbes.com/sites/jacobsullum/2015/02/12/if-marijuana-causes-lots-of-crashes-why-are-they-so-
hard-to-count/

California Lawmakers Give Up On Marijuana DUIs — For Now  (news – 2015)
http://www.sfweekly.com/thesnitch/2015/03/12/california-lawmakers-give-up-on-marijuana-duis-for-now

Researchers develop first validated method of detecting drugs of abuse in exhaled breath

Pediatrician decides: alcohol or marijuana  (news – 2015)
Fed study: Booze impact greater than pot on driving (news – 2015)

How Driving While Stoned, Drunk Is Different (news – 2015)
https://www.yahoo.com/health/how-driving-while-stoned-drunk-is-different-122336380243.html

Did This Federal Study Just Imply That Marijuana Is Safer Than Alcohol? (news – 2015)
http://www.fool.com/investing/general/2015/07/05/did-this-federal-study-just-imply-that-marijuana-i.aspx?source=eogyholnk0000001

In US, 47% Say Legal Marijuana Will Make Roads Less Safe (news – 2015)
utm_source=tagrss&utm_medium=rss&utm_campaign=syndication

'Protein powder' claim required evidence in drug driving case, court rules (news – 2015)

High driver acquitted (news – 2015)
http://www.winnipegsun.com/2015/12/18/high-driver-acquitted

More drivers use marijuana, but link to crashes is murky (news – 2015)
http://www.iihs.org/iihs/sr/statusreport/article/50/4/3

Driving with a Marijuana High: How Dangerous Is It? (news – 2015)
http://www.livescience.com/51450-driving-on-marijuana-alcohol-dangerous.html

Car made of hemp makes Denver stop (news – 2015)

Dose of Reality: The Effect of State Marijuana Legalizations (report – 2016)

No magic number for driving under the influence of marijuana (news – 2016)
http://bangordailynews.com/2016/01/07/opinion/contributors/no-magic-number-for-driving-under-the-influence-of-marijuana/?ref=mostReadBoxOpinion

Study says marijuana doesn’t affect your biking (news – 2016)
http://www.grindtv.com/bike/study-says-weed-doesnt-affect-your-biking/#E75LjU8zXTpmolUT.99

Study: No scientific basis for laws on marijuana and driving (news – 2016)

California Lawmakers Working to Jail Sober Drivers Collide with Science (news – 2016)
High hopes riding on ‘Cannabis Car’ (news – 2016)

Blood THC levels after smoking pot are useless in defining “too high to drive” (news – 2016)

Criticism over NSW tripling roadside drug tests (news – 2016)

D.C. Department of Health Calls for Taxing and Regulating Marijuana (news – 2016)

Arbitrary Marijuana Limits Leave Drivers High and Dry (news – 2016)
http://www.huffingtonpost.com/nerdwallet/arbitrary-marijuana-limit_b_11321558.html

The Difficulty Of Enforcing Laws Against Driving While High (news – 2016)
http://www.npr.org/sections/health-shots/2016/09/06/492810932/the-difficulty-of-enforcing-laws-against-driving-while-high

Study of Fatal Car Accidents Suggests Medical Marijuana May Be Helping Curb Opioid Use (news – 2016)

Medical Marijuana Laws Linked to Fewer Opioid-Related Fatal Crashes (news – 2016)
http://www.insurancejournal.com/?p=426980

Here’s how legal pot changed Colorado and Washington (news – 2016)

Fentanyl maker fights pot legalization (news – 2016)

Don’t Hold Your Breath for a Marijuana “Breathalyzer” Test (news – 2016)
https://www.scientificamerican.com/article/don-t-hold-your-breath-for-a-marijuana-breathalyzer-test/

Marijuana legalization: Just because motorist looks stoned doesn't mean they're impaired, Mass. judge says (news – 2016)

Marijuana breathalyzer test under development, but questions remain over judging whether driver is actually impaired (news – 2016)
http://www.masslive.com/articles/19710976/legal_marijuana_as_massachusset.amp

Black drivers' cars searched more frequently on basis of drug, alcohol odor
Here’s what police might do if you’re stopped with marijuana
(news – 2016) (includes guidelines letter to the Mass. State Police)

This Car Is Made Out Of Cannabis Hemp (news – 2016)
http://nypost.com/2016/05/06/this-car-is-made-out-of-cannabis-hemp/

States with medical marijuana laws have lower traffic fatality rates, study reports

High hopes riding on ‘Cannabis Car’ (news – 2016)

Court: Medical marijuana law trumps law on transporting pot (news – 2016)

This Correlation Between Legal Medical Marijuana States and Traffic Fatalities Is Shocking (news – 2016)

When Are You Too Stoned to Drive? (news – 2017)

Va. bills would end license suspension for marijuana possession (news – 2017)

Senate bill would remove possession by ingestion charge for marijuana (news – 2017)

**DRUG TESTING**

What Drugs Are Tested for in a Urinalysis? (news – 2010)

Just Say ‘No’ to Drug Tests — Then Bargain (news - 2010)
http://labornotes.org/2010/02/just-say-no-drug-tests-then-bargain
New study casts doubts on effectiveness of drug testing students (news – 2014)
http://www.csmonitor.com/USA/USA-Update/2014/0113/New-study-casts-doubts-on-effectiveness-of-drug-testing-students

Arizona court rules on DUI law for marijuana users (news – 2014)

Foster teen says she drank bleach to mask cannabis (news – 2014) (Old trick, may not work with new tests. You add a few drops of bleach to your urine sample- DO NOT DRINK IT!) http://signal.baldwincity.com/news/2014/jun/22/foster-teen-says-she-drank-bleach-mask-cannabis/

DC bans pot testing of job applicants (news – 2014)


How Long Does THC Stay In Your System? (news – 2014)
http://www.leafscience.com/2014/04/22/how-long-thc-stay-system/

Cannabis is Increasingly Legal, Employers Need to Stop Screening for it (news – 2015)
http://thejointblog.com/cannabis-is-increasingly-legal-employers-need-to-stop-screening-for-it/

Motherisk review should be expanded: Innocence Project (news – 2015)
http://www.thestar.com/news/crime/2015/02/10/motherisk-review-should-be-expanded-innocence-project.html

Companies drug test a lot less than they used to — because it doesn’t really work (news – 2015)
http://www.washingtonpost.com/blogs/wonkblog/wp/2015/03/10/companies-drug-test-a-lot-less-than-they-used-to-because-it-doesnt-really-work/?wprrss=rss_business

http://thinkprogress.org/economy/2015/02/26/3624447/tanf-drug-testing-states/


When Might It Be Discriminatory to Fire a Medical Marijuana User? (news – 2015)
http://www.tlnt.com/2015/05/04/when-might-it-be-discriminatory-to-fire-a-medical-marijuana-user/

How Employee Drug Testing Targets the Poor and Minorities (news – 2015)
Will Cannabis Salves and Topicals Cause a Positive Drug Test? (news – 2015)

Colorado court: Workers can be fired for using pot off-duty (news – 2015)

Is it time to legalize marijuana in sports? (news – 2015)

'Protein powder' claim required evidence in drug driving case, court rules (news – 2015)

Schools employ many different ways to test for drugs (news – 2015)
http://www.abqjournal.com/625738/sports/schools-employ-many-different-ways-to-test-for-drugs.html

More job candidates failing drug screenings (news – 2015)
http://www.newspressnow.com/news/local_news/article_3281499b-993a-5d3e-a867-6a3f296a4191.html#user-comment-area

Cops: Man used 'Whizzinator' strap-on device to pass drug test (news – 2015)

Testing for secondhand marijuana exposure (news – 2015)

Leawood couple loses lawsuit over failed marijuana raid at their home (news – 2015)

DEA Employees Fail Drug Tests, Shockingly Face No Serious Consequences (news – 2015)
http://www.huffingtonpost.com/entry/dea-drug-tests_560abff4e4b0af3706de0211

CDC Guidelines Urge Doctors Not to Test for Marijuana (news – 2016)
http://www.painnewsnetwork.org/stories/2016/3/18/45g7l80k0vufyvhb06z2ttgxdj3yk

Drug-Testing Court Decisions Overwhelmingly Favor Employers, Institute for a Drug-Free Workplace Survey Reports (news – 2016)
http://www.prweb.com/releases/2016/04/prweb13304536.htm


A runner who calls himself the 'world's fastest stoner' once passed a drug test 36 hours after smoking marijuana (news – 2016)
Study: No scientific basis for laws on marijuana and driving  

California Lawmakers Working to Jail Sober Drivers Collide with Science  
(notes – 2016)  

Blood THC levels after smoking pot are useless in defining “too high to drive”  
(notes – 2016)  

More American workers are failing at this job requirement  
http://www.marketwatch.com/story/more-american-workers-are-failing-at-this-job-requirement-2016-05-18?siteid=rss&rss=1

Drug Test All of Us  

Police in South Dakota use catheters, force to collect urine samples  

Hugo Water Test Results Not Back Yet, Order Not To Drink It Remains  

Hugo water safe to drink after conclusive tests show no signs of THC  

The Difficulty Of Enforcing Laws Against Driving While High  
http://www.npr.org/sections/health-shots/2016/09/06/492810932/the-difficulty-of-enforcing-laws-against-driving-while-high

Unreliable and Unchallenged  
https://www.propublica.org/article/unreliable-and-unchallenged

Drug testing at work: Cannabis creates new digital divide  

Passing a marijuana drug test: What you need to know  
http://www.thecannifornian.com/cannabis-business/jobs/passing-marijuana-drug-test-need-know/

The Grass Is Looking Greener  

How To Flush Marijuana Out Of Your System  
http://herb.co/2016/04/07/how-to-flush-marijuana-out-of-your-system/

Senate bill would remove possession by ingestion charge for marijuana  
(notes – 2017)
DRUG TESTING – BLOOD/ PLASMA

Latest blood test detects 12 popular synthetic cannabinoids in "fake pot". (news – 2011)

THC blood test: Pot critic William Breathes nearly 3 times over proposed limit when sober (news – 2011)

Study: Imposition Of Per Se Limits For Drugs Don't Reduce Traffic Deaths
(news – 2013)
http://norml.org/news/2013/01/17/study-imposition-of-per-se-limits-for-drugs-don-t-reduce-traffic-deaths

Michigan driver who uses medical marijuana wins appeal (news – 2013)

One Toke, Many Hits: Exercise Could Trigger Additional High for Marijuana Users
(news – 2013)
http://healthland.time.com/2013/09/17/one-toke-many-hits-exercise-could-trigger-additional-high-for-marijuana-users/


Driving with a Marijuana High: How Dangerous Is It? (news – 2015)
http://www.livescience.com/51450-driving-on-marijuana-alcohol-dangerous.html

How Long Does Marijuana Stay in Our Systems? Here's Why There's No Definite Answer
(news – 2016)

Blood THC levels after smoking pot are useless in defining “too high to drive”
(news – 2016)

The Difficulty Of Enforcing Laws Against Driving While High (news – 2016)
http://www.npr.org/sections/health-shots/2016/09/06/492810932/the-difficulty-of-enforcing-laws-against-driving-while-high
**DRUG TESTING – BREATH TEST**

Breathalyzer Could Detect Drugs  (news – 2013)

Research closing in on a breathalyzer for marijuana — but there’s a problem  (news – 2013)

Law Enforcement May Soon Have A New Weapon In The Fight Against Drugged Drivers: Marijuana Breathalyzer  (news – 2014)

Breath test to detect pot is being developed at WSU  (news – 2014)


A Breathalyzer Test For All Sorts Of Drugs  (news – 2015)
http://www.popsci.com/breathalyzer-drugs

Pot Breathalyzer To Make Marijuana Legalization Safer  (news – 2015)

Inside the race to make the first breathalyzer for pot  (news – 2015)
http://www.foxnews.com/health/2015/07/20/inside-race-to-make-first-breathalyzer-for-pot/

Marijuana Breathalyzers Being Developed As Canada Looks To Legalize Pot  (news – 2016)

Don’t Hold Your Breath for a Marijuana “Breathalyzer” Test  (news – 2016)
https://www.scientificamerican.com/article/don-t-hold-your-breath-for-a-marijuana-breathalyzer-test/

Marijuana breathalyzer test under development, but questions remain over judging whether driver is actually impaired  (news – 2016)
http://www.masslive.com/articles/19710976/legal_marijuana_as_massachuset.amp

Cannabix Technologies Provides Update on Marijuana Breathalyzer Development  (news/ad – 2016)
DRUG TESTING – DIY CANNABINOID TESTING

DIY test to find high CBD plants grown from seeds  (forum post – 2015)

MyDx: A Personal, Handheld, Smartphone Enabled Cannabis Analyzer  (ad – 2016)
http://www.cannabisfn.com/mydx-a-personal-handheld-smartphone-enabled-cannabis-analyzer/

DRUG TESTING– EDIBLES

Tests show THC content in marijuana edibles is inconsistent  (news – 2014)

http://www.ibtimes.co.uk/marijuana-edibles-cannabis-testing-kit-released-by-us-company-cb-scientific-halloween-1471571

New Test Kit: Parents Can Screen Candy For Marijuana  (news – 2014)

No Halloween pot poisonings in Denver, hospital says  (news – 2014)

Medical Marijuana Is Often Less Potent Than Advertised  (news – 2015)
http://www.npr.org/sections/health-shots/2015/06/23/416791647/medical-marijuana-is-often-less-potent-than-advertised

DRUG TESTING – HAIR

Motherisk review should be expanded: Innocence Project  (news – 2015)
http://www.thestar.com/news/crime/2015/02/10/motherisk-review-should-be-expanded-innocence-project.html

Schools employ many different ways to test for drugs  (news – 2015)
http://www.abqjournal.com/625738/sports/schools-employ-many-different-ways-to-test-for-drugs.html

How Marijuana Can Get You Fired … Even If You Never Use It  (news – 2015)
Passing a marijuana drug test: What you need to know (news – 2016)  
http://www.thecannifornian.com/cannabis-business/jobs/passing-marijuana-drug-test-need-know/

DRUG TESTING - OTHER

Cannabis spp. (pistillate inflorescence and leaf) (article – 2014)  
http://www.botanicalauthentication.org/index.php/Cannabis_spp._(pistillate_inflorescence_and_leaf)

Will Cannabis Salves and Topicals Cause a Positive Drug Test? (news – 2015)  

Drug testing at your fingertips: Unique test examines nail clippings because “kids aren’t honest” (new – 2016)  
http://fox6now.com/2016/02/04/drug-testing-at-your-fingertips-unique-test-examines-nail-clippings-because-kids-arent-honest/

The crazy, complicated world of “organic” weed (news – 2016)  

Hugo Water Test Results Not Back Yet, Order Not To Drink It Remains (news - 2016)  

Hugo water safe to drink after conclusive tests show no signs of THC (news - 2016)  

Unreliable and Unchallenged (news – 2016)  
https://www.propublica.org/article/unreliable-and-unchallenged

DRUG TESTING - ORAL

7% of California Drivers Test Positive for Marijuana, but Are They Impaired? (news – 2012)  
http://healthland.time.com/2012/11/20/7-of-cal-drivers-test-positive-for-marijuana-but-are-they-impaired/#ixzz2IY4mBJet

Schools employ many different ways to test for drugs (news – 2015)  
http://www.abqjournal.com/625738/sports/schools-employ-many-different-ways-to-test-for-drugs.html

Passing a marijuana drug test: What you need to know (news – 2016)  
http://www.thecannifornian.com/cannabis-business/jobs/passing-marijuana-drug-test-need-know/
**DRUG TESTING – QUALITY CONTROL** - also see SAFETY-ADULTERANTS


Chemists Analyze Cannabis For Safety And Potency (article – 2013)
http://cen.acs.org/articles/91/i49/Chemists-Analyze-Cannabis-Safety-Potency.html

Why Marijuana Needs Chemical Quality Control Testing (news – 2014)

Inside a Colorado Lab That Tests Marijuana (news – 2014)

Ten Ways Marijuana Testing Can Go Wrong (news – 2015)
http://www.theweeklyweedonline.com/ten-ways-marijuana-testing-can-go-wrong/

New technique could more accurately measure cannabinoid dosage in marijuana munchies (news – 2016) https://www.sciencedaily.com/releases/2016/03/160315085618.htm

How Potent Is That Pot Brownie? Dry Ice And A Blender Might Crack The Case (news – 2016)

MyDx: A Personal, Handheld, Smartphone Enabled Cannabis Analyzer (ad – 2016)
http://www.cannabisfn.com/mydx-a-personal-handheld-smartphone-enabled-cannabis-analyzer/

US researchers call for re-evaluation of microbial testing of Cannabis (news – 2016)
http://www.eurekalert.org/pub_releases/2016-06/fo1-urc061416.php

Restrictions on pot-safety testing put public at risk, scientists warn (news – 2016)

Marijuana labs: Oregon pot tests safer than food (news – 2016)

**DRUG TESTING – URINE**

Now, There's a Test for That -- Norchem's "Fake Marijuana" Test Reveals Significantly Increased Abuse of Spice/K2 (news - 2010)


Study: Imposition Of Per Se Limits For Drugs Don't Reduce Traffic Deaths  (news – 2013)  http://norml.org/news/2013/01/17/study-imposition-of-per-se-limits-for-drugs-don-t-reduce-traffic-deaths


Schools employ many different ways to test for drugs  (news – 2015)  http://www.abqjournal.com/625738/sports/schools-employ-many-different-ways-to-test-for-drugs.html

CDC Guidelines Urge Doctors Not to Test for Marijuana  (news – 2016)  http://www.painnewsnetwork.org/stories/2016/3/18/45g7l80k0vufijyhb06z2tgxdj3vk

Police in South Dakota use catheters, force to collect urine samples (news – 2016)

Beware: Children can passively 'smoke' marijuana, too (news – 2016)
https://www.sciencedaily.com/releases/2016/12/161207124123.htm

Passing a marijuana drug test: What you need to know (news – 2016)
http://www.thecannifornian.com/cannabis-business/jobs/passing-marijuana-drug-test-need-know/

How To Flush Marijuana Out Of Your System (news – 2016)
http://herb.co/2016/04/07/how-to-flush-marijuana-out-of-your-system/

Does Second Hand Marijuana Smoke Affect a Drug Test? (news – 2017)

**DRUG TESTING – WASTEWATER/ SEWAGE**

Sewage test: Will you smoke pot now that it's legal? (news – 2014)

Federal government agrees to pay for sewer analysis to determine marijuana use in Washington (news – 2015)

Wastewater analysis and drugs — a European multi-city study (link to PDF – 2016)
http://www.emcdda.europa.eu/topics/pods/waste-water-analysis

How can THC contaminate a water supply system? We went to find out (news – 2016)

**DUPUYTREN'S CONTRACTURE**
Dupuytren's Contracture-Cannabis Can Help (news - undated)

Dupuytren's Contracture resolves with topical cannabis salve (news – undated)
http://cannabisclinicians.org/view-all-case-reports/entry/622/

DYSKINESIA - impairment of the power of voluntary movement

Tardive Dystonia and the Use of Cannabis (letter - forum repost - 2010)

DYSTONIA

Tardive Dystonia and the Use of Cannabis (letter - forum repost - 2010)

Marijuana Saved My Life: An Abbreviated Dope Diary (news – 2014)

Disabled JeffCo student's cannabis medication confiscated, school cites federal law (news – 2015)

EBOLA

CBD Protective Against Ebola Virus (article – 2014)
http://cannabisdigest.ca/cbd-protective-ebola-virus/

Cannabidiol: a potential treatment for post Ebola Syndrome?
http://www.thctotalhealthcare.com/category/ebola/

ECZEMA
Hemp Oil Benefits for Skin  (news – 2010)  
http://www.livestrong.com/article/137621-hemp-oil-benefits-skin/

Hemp Seed Oil for Skin  (news – 2010)  
http://www.livestrong.com/article/340189-hemp-seed-oil-for-skin/

The Cannabis Closet: Severe Eczema  (anecdotal - 2010)  
http://andrewsullivan.theatlantic.com/the_daily_dish/2010/05/the-cannabis-closet-severe-eczema.html

Hemp Seed Oil For Eczema – Cures From The Inside Out  (news/ anecdotal – 2012)  

Cannabis can alleviate psoriasis or eczema  (news – 2015)  
http://420insight.com/medicinal/cannabis-can-alleviate-psoriasis/

This Is What Happens to Your Beauty on Marijuana  (news – 2016)  
https://www.yahoo.com/beauty/this-is-what-happens-to-1411025717600310.html

**EDEMA**

Activation of cortical type 2 cannabinoid receptors ameliorates ischemic brain injury  (news – 2013)  
http://www.sciencedaily.com/releases/2013/02/130221141140.htm

Cannabinoid Trans-Caryophyllene Protects Brain Cells From Ischemia  (news – 2013)  
http://www.medicalnewstoday.com/articles/256799.php

**EHLERS-DANLOS SYNDROME**

Ehlers-Danlos Syndrome  (anecdotal/news- 2010)  
http://andrewsullivan.theatlantic.com/the_daily_dish/2010/05/the-cannabis-closet-chronic-joint-pain.html

The Cannabis Closet: Chronic Joint Pain  (anecdotal/news- 2010)  

Schneider: Lansing mom says son's legal marijuana use unfairly stigmatized  (anecdotal/news - 2010)  

Medicinal Marijuana: A Patient-Driven Phenomenon  (anecdotal/news - 2010)  
EMBRYOS/ FETAL DEVELOPMENT/ PLACENTAL DEVELOPMENT

Endogenous "cannabis" influences development of the fetal pancreas (news - 2015)
https://www.sciencedaily.com/releases/2015/10/151023084458.htm

ENDOMETRIOSIS

Cannabinoids May Provide Treatment for Endometriosis (news – 2011)
http://greencrosscenter.com/marijuana-card-doctor/2011/10/cannabinoids-may-provide-treatment-for-endometriosis/

ENTOURAGE EFFECT – the cannabinoids work best as a team

Terpenes and the "Entourage Effect" (news – undated)
https://www.projectcbd.org/terpenes-and-entourage-effect

How THC and CBD Work Together (news – 2012)
http://pureanalytics.net/blog/2012/02/19/how-thc-and-cbd-work-together/

https://www.whaxy.com/learn/what-is-cannabis-entourage-effect

Cannabis and Cancer, Pt. 2: The Triple Threat of THC, CBD, and Conventional Treatment on Cancer (article – 2015)

What is the Entourage Effect? (news – 2016)
https://www.hellomd.com/health-wellness/what-is-the-entourage-effect
>ENVIRONMENT - See POLLUTION

**EPILEPSY/ SEIZURES** also see EPIDIOLEX in the “PHYTOCANNABINOID” section

Marijuana, autism, and failure: a true story  (news – 2010)
http://www.alexneedshelp.com/marijuana-autism-and-failure-a-true-story#.VOBDOC74Y5w

Cannabis could be used to treat epilepsy  (news – 2011)

Pot Compound Exerts Anticonvulsant Effects In Animal Models Of Epilepsy (news - 2011)

New research provides hope for those with epilepsy  (news - 2011)

Science/UK: Antiepileptic efficacy of cannabidivarin will be tested in clinical studies (news – 2012)

'Hammer Head' 'incense' blamed for seizure of youth in Le Roy  (news – 2012)

How Medical Marijuana Is Giving a Six-Year-Old Boy New Life  (news – 2012)
http://thinkprogress.org/justice/2012/09/18/854811/how-medical-marijuana-is-giving-a-six-year-old-boy-new-life/?mobile=nc

Medical Marijuana Coverage Still Lost in the Legal Weeds  (article – 2013)
http://www.managedcaremag.com/linkout/2013/1/23

Epidiolex - GW Pharmaceuticals  (drug development page – 2013)
http://www.gwpharm.com/Epidiolex.aspx

Cannabis Anti-Convulsant Shakes up Epilepsy Treatment  (news – 2013)

New cannabis discovery could lead to better treatments for epilepsy  (news – 2013)
http://www.reading.ac.uk/news-and-events/releases/PR464765.aspx
Medical Marijuana for Kids? Some Praise Results While Others Worry About Risks (news – 2013)  http://www.cnbc.com/id/100876423


Toronto family hopes for access to controversial treatment to cure baby’s rare epilepsy (news – 2013)  http://globalnews.ca/news/714104/toronto-family-hopes-for-access-to-controversial-treatment-to-cure-babys-rare-epilepsy/


The Comprehensive Report on the Cannabis Extract Movement and the Use of Cannabis Extracts to Treat Diseases (link to upload - 2014)  http://www.slideshare.net/TheHempSolution/comprehensive-report-on-the-cannabis-extract-movement

Medical Marijuana in the UK: As a doctor, should I be able to prescribe cannabis to my patients? (article – 2014)
An Ingredient of Pot May Help People with Epilepsy  (news – 2014)  

Federal red tape ties up marijuana research  (news - 2014)  
http://www.nature.com/news/federal-red-tape-ties-up-marijuana-research-1.14926

This Family Had To Fire Their Doctor To Get Medical Marijuana For Their Son  
(news – 2014)  
http://www.huffingtonpost.com/2014/03/25/epilepsy-medical-marijuana_n_5022008.html

Marijuana tested as treatment for children with epilepsy  (news – 2014)  

UCSF-led study gathers data on safety, tolerability of purified cannabinoid for children with epilepsy  
(news – 2014)  

Bid to Expand Medical Marijuana Business Faces Federal Hurdles  
(news – 2014)  

Federal marijuana bill would legalize some cannabis strains  
(news – 2014)  

Low or No THC, High CBD Medical Marijuana Bills: Leaving Most Patients Behind  

Why CBD Is Not Enough: The Entourage Effect  

Desperate Journey  

Marijuana research hampered by access from government and politics, scientists say  
(news – 2014)  
http://www.washingtonpost.com/national/health-science/marijuana-research-hampered-by-access-from-government-and-politics-scientists-say/2014/03/21/6065eb88-a47d-11e3-84d4-559b1709222e_story.html

GW Pharmaceuticals Provides Update on Cannabinoid Pipeline  
(news/ad – 2014)  
http://ir.gwpharm.com/releasedetail.cfm?ReleaseID=833085
Cannabis, Medical Science, and Fundamental Human Rights, With Dr. Ethan Russo (article – 2015)

Medical Marijuana Liquid Could Help Treat Severe Epilepsy in Children (news – 2015)

How Medical Marijuana’s Chemicals May Protect Cells (news – 2015)
http://www.scientificamerican.com/article/how-medical-marijuana-s-chemicals-may-protect-cells/

Many States Mulling Medical Marijuana Bills (news – 2015)

Oshawa woman says marijuana helped curb her constant seizures (news – 2015)
http://toronto.ctvnews.ca/oshawa-woman-says-marijuana-helped-curb-her-constant-seizures-1.2246708

What ailments does medical marijuana help? (news – 2015)

10 diseases where medical marijuana could have impact (news – 2015)

The Science Behind Sanjay Gupta’s WEED 3 (news – 2015)

Big Pharma-Produced Cannabis Is Likely Coming to the U.S. (news - 2015)

Study confirms safety of cannabis drug CBD (news – 2015)

Science Seeks to Unlock Marijuana’s Secrets (news – 2015) (may need subscription)
http://ngm.nationalgeographic.com/2015/06/marijuana/sides-text

Could Marijuana Chemical Help Ease Epilepsy? (news – 2015)

Why THC Isn't The Only Thing In Weed That Matters (news – 2015)

Could medical marijuana help your dog? (news – 2015)

'Grandma's magic remedy:' Mexico's medical marijuana secret (news – 2015)

New Minnesota marijuana strain more potent, could cut costs (news – 2015)
9 Investigates availability of Charlotte’s Web for doctors (news – 2015)  

Pharmaceutical CBD (cannabidiol) Shows Promise for Children with Severe Epilepsy (news – 2015)  
https://www.aesnet.org/about_aes/press_releases/pharmaceuticalcbd2015#sthash.wL57kCVn.dpuf

Special Report: Georgia's medical marijuana treatment trials underway (news – 2015)  
http://www.41nbc.com/2015/02/05/special-report-georgias-medical-marijuana-treatment-trials-underway/

Marijuana Derivative Reduces Seizures in People With Treatment Resistant Epilepsy (news – 2015)  
https://www.sciencedaily.com/releases/2015/12/151223221532.htm

The Outsourcing of American Marijuana Research (news – 2015)  

FDA and Marijuana: Questions and Answers (article – 2016)  
http://www.fda.gov/NewsEvents/PublicHealthFocus/ucm421168.htm

Using Medical Marijuana to Stop Childhood Seizures (news & abstract – 2016)  

Can Cannabis Treat Epileptic Seizures? (news – 2016)  
http://www.scientificamerican.com/article/can-cannabis-treat-epileptic-seizures/

Buffington: I’m Growing Marijuana (news – 2016)  

Buffington: Medical Marijuana, Part 2 (news – 2016)  

Preliminary Results of Uab’s Cbd Oil Studies Show Promise (news – 2016)  
http://www.newswise.com/articles/view/649217/?sc=rsmn

Research Team Finds How CBD, a Component in Marijuana, Works Within Cells (news – 2016)  
http://www.newswise.com/articles/view/629638/

Father advocates for exemption to pot ordinance to treat son's severe epilepsy (news – 2016)  

'No-Buzz' Medical Pot Laws Prove Problematic for Patients, Lawmakers (news – 2016)  

Medical marijuana miracle gives an infant and family a fresh start (news – 2016)  
2 years after CBD oils legalized in NC: How they work for the child the law is named for (news – 2016)

An elderly couple found help for a brain injury through marijuana — then police found 20 pot plants growing at their home (news – 2016)

Oregon family uses medical marijuana to manage son's autistic rage (news – 2016)
http://www.wtoc.com/story/20660400/medical-marijuana-used-to-manage-autism#WN Poll126481

For the First Time Ever, Cannabis Oil Will Be Used in a Hospital — To Save a 2-Month Old Baby Girl (news – 2016)

Marijuana butter eased her child's symptoms. Then her kids were taken away from her. (news – 2016)

Minnesota doctor pushing the notion of cannabis for canines (news – 2016)

Veterans Meet in Austin to Demand Passage of an All-Inclusive Medical Marijuana Policy in Texas (news – 2016)

Health care refugees: Family flees Florida to save daughter's life (news – 2016)

Health care refugees: Medical marijuana and new hope (news – 2016)

Marijuana derivative CBD may help with hard-to-treat epilepsy (news – 2016)
http://www.upi.com/Health_News/2016/12/06/Marijuana-derivative-CBD-may-help-with-hard-to-treat-epilepsy/2141481059229/?spt=slh&or=10

CBD, Now A Schedule 1 Drug (news – 2016)
https://steemit.com/life/@gavicrane/cbd-schedual-1-drug

Doctored marijuana gives relief to boy whose parents found no other way to help him (news – 2016)
ESSENTIAL TREMOR

Retired Flint couple sees the light on medical marijuana (news – 2014)

EXERCISE and the ENDOCANNABINOID SYSTEM

Cure for the Munchies? Exercise Cuts Marijuana Cravings (news – 2011)

Exercise can reduce cannabis use in persons who don’t want to stop (news – 2011)

'Runner's High' may have played role in evolutionary history of humans (news – 2012)
http://in.news.yahoo.com/runners-high-may-played-role-evolutionary-history-humans-105030765.html

It hurts so good: the runner’s high (news – 2012)
http://blogs.scientificamerican.com/scicurious-brain/2012/03/12/it-hurts-so-good-the-runners-high/


Why resolutions about taking up physical activity are hard to keep. (news – 2013)
http://www.thefreelibrary.com/Why+resolutions+about+taking+up+physical+activity+are+hard+to+keep.-a0313904638

London Zoo: No runner’s high for ferrets (news – 2013)

Do Dogs Get Runner's High? (news – 2013)

Stoners beware: Exercising might lead to a positive drug test (news – 2013)

One Toke, Many Hits: Exercise Could Trigger Additional High for Marijuana Users (news – 2013)
http://healthland.time.com/2013/09/17/one-toke-many-hits-exercise-could-trigger-additional-high-for-marijuana-users/

Study: Memory Benefits Of Exercise Tied To Cannabinoid System (news – 2013)
Now that's a yoga high! Trippy new class pairs pot with relaxing poses to enhance meditative practice (news – 2014) http://www.dailymail.co.uk/femail/article-2883729/Now-s-yoga-high-Trippy-new-class-pairs-pot-relaxing-poses-enhance-meditative-practice.html#ixzz3iSNrVMek


These ‘420 Games’ Athletes Want to Change the Perception of Weed (news – 2015) http://time.com/3999710/weed-athletes-run/

Your Runner’s High Is Similar to a Pot High (news – 2015) http://www.thedailybeast.com/articles/2015/10/09/your-runner-s-high-is-similar-to-a-pot-high.html?ref=yfp


These famous athletes are advocating for marijuana as a workout tool (news – 2016) https://www.washingtonpost.com/lifestyle/wellness/these-famous-athletes-are-advocating-for-marijuana-as-a-workout-tool/2016/03/01/4611eaba-da07-11e5-925f-1d10062cc82d_story.html


This Gym Wants You to Get High While You Work Out (news – 2016)
http://time.com/4349628/marijuana-pot-gym-california/

Here's the real reason you get a 'runner’s high' after a long run (news – 2016)

Exercise Can Still Increase Hunger Even in Sleep Deprivation (news – 2016)

Natural Ways to Activate the Endocannabinoid System Without Marijuana (news – 2016)
https://www.merryjane.com/health/how-to-activate-endocannabinoid-system-without-marijuana

The three biggest questions about how marijuana affects athletic performance (news – 2016)


FERTILITY/ SEXUAL FUNCTION

San Francisco Medical Marijuana Clinic Says Cannabis is Effective for Many Women’s Medical Issues (news – 2011)

Study: Marijuana May Reduce Risk of Erectile Dysfunction (news – 2013)
http://www.leafscience.com/2013/12/09/study-marijuana-may-reduce-risk-erectile-dysfunction/

PMS, Menses, Menopause and Cannabis (news – 2014)

Women find sexual help...with cannabis? (news – 2014)
http://www.cnbc.com/id/101892786?__source=yahoonews&par=yahoonews#

Estrogen increases cannabis sensitivity (news – 2014)

Match.com's Recent Survey Explores The Relationship Between Singles And Weed (news – 2016)
http://aplus.com/a/match-survey-how-weed-affects-dating-relationships

Females Build Up Tolerance To Marijuana Faster Than Males, Study Finds (news – 2014)
FETAL ALCOHOL SPECTRUM DISORDER

Marijuana is NOT like Alcohol. Please make a note of it. Thanks.  (news – 2010)

Marijuana influences visual development  (news – 2015)

FIBROMYALGIA

Medical marijuana may help fibromyalgia pain  (news - 2010)

Inhaled Cannabis Beneficial For Fibromyalgia Patients, Study Says  (news – 2011)
http://norml.org/news/2011/05/19/inhaled-cannabis-beneficial-for-fibromyalgia-patients-study-says


One in 8 with fibromyalgia uses cannabis as medicine  (news – 2012)
http://www.reuters.com/article/2012/07/12/us-fibromyalgia-cannabis-idUSBRE86B1D620120712

1 in 10 fibromyalgia patients uses marijuana to ease pain  (news – 2012)
Pot Popular for Pain in Fibromyalgia (news – 2012)
http://www.medpagetoday.com/clinical-context/Fibromyalgia/33384

Reefer tokin' seniors in South Florida see pain go up in smoke (news – 2012)

Which Medical Marijuana Strains Are The Best For Fibromyalgia? (news – 2012)
http://www.theweedblog.com/which-medical-marijuana-strains-are-the-best-for-fibromyalgia/

Nabilone (Cesamet) For Fibromyalgia and Chronic Fatigue Syndrome (news – 2013)
http://www.healthrising.org/drugs-for-fibromyalgia/nabilone-cesamet-fibromyalgia-chronic-fatigue-syndrom/

The Fibromyalgia Drugs Your Doctor (Probably) Knows Nothing About (news – 2013)
http://www.prohealth.com/library/showArticle.cfm?libid=18225&site=articles

Fibromyalgia: Big Pharma vs Medical Cannabis (news – 2014)
http://www.unitedpatientsgroup.com/blog/2014/06/30/fibromyalgia-big-pharma-vs-medical-cannabis/

DR ALLAN FRANKEL’S EARLY VERSION INITIAL DOSAGE AND ADMINISTRATION GUIDE (news – 2014)

One family's medical-marijuana story (news – 2015)

Illinois medical marijuana applicants trending female, older (news – 2015)

Fibromyalgia and Medical Marijuana (news – 2015)
https://www.whaxy.com/learn/does-medica-marijuana-treat-fibromyalgia

**FLU / INFLUENZA**

Diminishing Suffering from Colds and Flu with Medical Marijuana (news – 2016)
http://drsircus.com/medicine/medical-marijuana/diminishing-suffering-colds-flu-medical-marijuana

**FRAGILE X SYNDROME** - also see AUTISM

Marijuana-like brain chemicals could be key to treating fragile X syndrome
How the endocannabinoid 2-AG may reduce symptoms of “Fragile X” autism  

Treating “Fragile X”  
(http://archive.newuniversity.org/2012/10/news/treating-fragile-x/)

New therapy for fragile X chromosome syndrome discovered  
(https://www.sciencedaily.com/releases/2013/04/130410082413.htm)

Marijuana Affects Autism, But Not How You’d Think [Study]  
(http://www.inquisitr.com/874575/marijuana-affects-autism-but-not-how-youd-think-study/)

'Fragile X Syndrome' Researchers Boost Social Skills in Mice  

**GAMBLING**

Gambling Is Associated with 'Risk-Taking Behavior' in Young Teens, Study Finds  
(http://www.newswise.com/articles/view/647427/)

Roll joints, not dice: Could cannabis be used to ‘cure’ problem gamblers?  
(http://metro.co.uk/2016/03/02/roll-joints-not-dice-could-cannabis-be-used-to-cure-problem-gamblers-5728367/)

**GATEWAY THEORY**

Marijuana as a Gateway Drug: The Myth That Will Not Die  
(http://healthland.time.com/2010/10/29/marijuana-as-a-gateway-drug-the-myth-that-will-not-die/#ixzz2s5nDwiDS)

Risk of Marijuana’s ‘Gateway Effect’ Overblown, New UNH Research Shows  
(https://scienceblog.com/38103/risk-of-marijuanass-gateway-effect-overblown-new-unh-research-shows/)

"Marijuana Is Gateway Drug" Theory Debunked, Again.  
(http://www.opposingviews.com/i/marijuana-is-gateway-drug-theory-debunked-again)
Marijuana a "Gateway" Drug? Scientists Call Theory Half-Baked. (news – 2010)

Study says marijuana no gateway drug (news – 2011)


Cannabis conundrum: Evidence of harm?: Opposition to marijuana use is often rooted in arguments about the drug's harm to children and adults, but the scientific evidence is seldom clear-cut (article – 2015) http://onlinelibrary.wiley.com/doi/10.1002/cncy.21516/full

Setting The Record Straight On The Phrase “Gateway Drug” (news – 2015)

Today is 4/20/2015. Is it finally time to stop calling marijuana a gateway drug? (news – 2015)

'Just Say No' to the Gateway Theory of Pot (news – 2015)

ncid=txtlnkusaolp00000592

Is Marijuana Really a ‘Gateway Drug’? (news – 2015)

Marijuana Might Actually be an Anti-Gateway Drug (news – 2015)

Marijuana Is Not, Repeat Not, a Gateway Drug (news – 2015)

Marijuana Study Counters 'Gateway' Theory (news – 2015)

Many Anti-Pot Arguments Are Based On Weak Science, Say Researchers (news – 2015)
http://www.huffingtonpost.com/entry/marijuana-use-myths_55cb6f53e4b0923c12bed78d?ncid=txtlnkusaolp00000592&kvcommtref=mostpopular
Prohibition Is the Real "Gateway Drug" (news – 2015)
http://www.huffingtonpost.com/inge-fryklund/prohibition-is-the-real-g_b_8210802.html

The real ‘gateway drug’ is 100% legal (news – 2016)

Study: Alcohol Is The Real Gateway Drug, Not Marijuana (news – 2016)
http://www.theweeklyweedonline.com/study-alcohol-is-the-real-gateway-drug-not-marijuana/

Viral Internet post prompts question: Does D.A.R.E. no longer consider marijuana a gateway drug? (news – 2016)

Is marijuana a gateway drug? Here's what the research says. (news – 2016)


Marijuana is not a gateway drug, admits Obama’s Attorney General (news – 2016)

Fentanyl maker fights pot legalization (news – 2016)

Is marijuana a gateway drug? Scientific research says no (news – 2016)
http://www.devilslakejournal.com/news/20161103/is-marijuana-gateway-drug-scientific-research-says-no

Massive scientific report on marijuana confirms medical benefits (news – 2017)

GENDER-BASED DIFFERENCES

Males, Females Respond Differently to Cannabinoids (news – 2013)
http://www.beyondthc.com/marijuana-as-the-womans-friend/

New Survey: Guys Are Bigger Potheads Than Gals (news – 2013)
Marijuana and the Modern Lady (news – 2013)

Synthetic Marijuana Lands Thousands of Young People in the ER, Especially Young Males (news – 2013)

Marijuana Use Results in Less Domestic Violence (news – 2014)

Smoking Cannabis ‘Gives Men Munchies and Women Pain Relief’ (news – 2014)
https://uk.news.yahoo.com/smoking-cannabis-gives-men-munchies-women-pain-relief-113148055.html#Gnx9r03

Estrogen increases cannabis sensitivity (news – 2014)

Females Build Up Tolerance To Marijuana Faster Than Males, Study Finds (news – 2014)
http://www.huffingtonpost.com/2014/09/10/females-tolerance-marijuana_n_5784022.html

Research compares consequences of teen alcohol and marijuana use (news – 2014)


Men, blacks most likely to get tickets for Seattle pot use (news – 2015)

Marijuana's Risky Reputation Is Wafting Away (news – 2015)

Illinois medical marijuana applicants trending female, older (news – 2015)

Why do men want to legalize pot more than women do? (news – 2015)

Uncovering the Neurological Differences Between the Sexes (news – 2015)
http://neurosciencenews.com/sex-differences-hippocampus-2421/

Infographic: Pot smokers are skinnier than non-users (news – 2015)
http://o.canada.com/health-2/infographic-pot-smokers-are-skinnier-than-non-users

COMPREHENSIVE MEDICAL MARIJUANA PATIENT STUDY
What Does the Average Cannabis Consumer Look Like?  (article – 2016)
https://docsend.com/view/kv9hgzy

Marijuana Users Have Lower Body Mass Index than Non-Users Says University of Miami Study  (news – 2016)
http://www.wflx.com/story/33139175/marijuana-users-have-lower-body-mass-index-than-non-users-says-university-of-miami-study

Here's who buys legal weed  (news – 2016)

GLAUCOMA - also see VISION

Canadian Ophthalmological Society policy statement on the medical use of marijuana for glaucoma.  (article - 2010)
http://www.canadianjournalofophthalmology.ca/article/S0008-4182%2810%2980129-2/abstract

Benefits From Medical Marijuana  (news – 2011)
http://www.livestrong.com/article/98476-medical-reasons-marijuana/

In decades-old program, Uncle Sam provides pot  (news – 2011)

Police Harass Federal Medical Marijuana Patient Elvy Musikka  (news – 2011)

January is Glaucoma Awareness Month: Can Marijuana save eyesight?  (forum repost / anecdotal – 2011)

Still Believe Nature Got It Wrong? Top 10 Health Benefits of Marijuana  (news – 2013)
http://www.wakingtimes.com/2013/05/01/still-believe-nature-got-it-wrong-top-10-health-benefits-of-marijuana/

Georgia Medical Patients Apply for Marijuana Research Program  (news – 2014)
http://www.gacareproject.com/georgia-medical-patients-apply-for-marijuana-research-program/

4 Americans get medical pot from the feds  (news – 2014)

Marijuana’s role in optometry and beyond  (article – 2015)
What ailments does medical marijuana help? (news – 2015)

10 diseases where medical marijuana could have impact (news – 2015)

Two Floridians get free marijuana for life -- from the feds (news – 2015)

Raid! National Guard, State Police descend on 81-year-old’s property to seize single pot plant (news – 2016)
http://www.gazettenet.com/MarijuanaRaid-HG-100116-5074664

Study suggests marijuana improves your night vision (news – 2016)

GOUT

Man ‘grew cannabis to ease gout pain’ (news/ anecdotal – 2012)
http://www.theboltonnews.co.uk/news/9970540.Man_grew_cannabis_to_ease_gout_pain_/ /

That’s Dope: Medical Marijuana Helps Relieve Man’s Gout (news/ anecdotal – 2012)
http://www.iexaminer.org/2012/01/thats-dope-medical-marijuana-helps-relieve-mans-gout/

GYNECOLOGY / FEMALE SEXUAL FUNCTION

Medical Marijuana is the New Midol? California Doc Pitch Cannabis to Fairer Sex (news – 2011)

San Francisco Medical Marijuana Clinic Says Cannabis is Effective for Many Women’s Medical Issues (news – 2011)

Still Believe Nature Got It Wrong? Top 10 Health Benefits of Marijuana (news – 2013)
http://www.wakingtimes.com/2013/05/01/still-believe-nature-got-it-wrong-top-10-health-benefits-of-marijuana/

Top Five Marijuana Strains For PMS (news – 2013)
http://www.theweedblog.com/top-five-marijuana-strains-for-pms/
PMS, Menses, Menopause and Cannabis (news – 2014)

Women find sexual help...with cannabis? (news – 2014)
http://www.cnbc.com/id/101892786?source=yahoo&par=yahoo&news#

9 Ways Women And Weed Go Together Like Mary And Jane (news – 2015)

Meet The Woman Making Aphrodisiac Weed (news/ad – 2015)

COMPREHENSIVE MEDICAL MARIJUANA PATIENT STUDY (link to PDF – 2016) 
https://www.hellomd.com/medical-marijuana-patient-survey

Weed-infused 'female suppositories' are a thing now (news – 2016)

Cannabis-based vagina suppositories the latest invention to help ease period pain (news – 2016)

Pot users twice as likely to report multiple orgasms, Match.com finds (news – 2016)

If You Love Weed, Chances Are You’re Great In Bed (news – 2016)
http://herb.co/2016/07/04/love-weed-great-in-bed/

Comparing sexual experiences related to alcohol and marijuana use among adults (news – 2016)

Serious researchers studied how sex is different when you’re high vs. when you’re drunk (news – 2016)

Marijuana tampons might mark end of period pain (news – 2016)

Pot for periods? Medical marijuana marketed as monthly pain relief (news – 2016)

Tantra THC: Using Cannabis to Make Sex Sacred (news – 2016)

Does Marijuana Help Period Cramps? (news – 2016)
https://www.theweedblog.com/marijuana-help-period-cramps/
Cannabinoid Receptor Activates Spermatozoa (news – 2016)
http://neurosciencenews.com/spermatozoa-cannabinoid-receptors-4935/

HAIR

The Benefits of Hemp Oil on Hair (news – 2010)
http://www.livestrong.com/article/189783-the-benefits-of-hemp-oil-on-hair/

This Is What Happens to Your Beauty on Marijuana (news – 2016)
https://www.yahoo.com/beauty/this-is-what-happens-to-1411025717600310.html

HEARING

- also see TINNITUS; also see AM-111 in SYNTHETICS SECTION

Otoprotective Effect of AM-111 Also Shown In Model of Cochlear Ischemia

Analysis: Drugmakers step up search for hearing loss medicines (news – 2012)
http://www.reuters.com/article/2012/12/02/us-hearing-medicines-idUSBRE8B102H20121202

HEART DISEASE/ CARDIOVASCULAR

Lab Notes: Pot Has Benefits for Diabetic Hearts (news - 2010)
http://www.medpagetoday.com/LabNotes/LabNotes/23853

Inhaled Incense “K2” May Cause Heart Damage (news – 2010)
http://drwes.blogspot.com/2010/08/inhaled-incense-k2-may-cause-heart.html

Suicides in other trials led to early termination of trial into effects of weight loss drug rimonabant on cardiovascular outcomes (CRESCENDO study) (news – 2010)

Pot Compound Mitigates Diabetic Cardiomyopathy (news - 2010)

Fake Weed, Real Drug: K2 Causing Hallucinations in Teens (news – 2010)

Marijuana Compounds Hold Promise In Treatment Of Cardiovascular Diseases (news – 2011)
Tachycardia followed by bradycardia after smoking the synthetic cannabinoid “K9” (news – 2012)

Study: Marijuana Smoking Not Associated With Greater Mortality Risk Among Heart Attack Survivors (news – 2013)

THC Can Prevent Brain Damage – Study (news – 2013)
http://www.science20.com/news_articles/the_can_prevent_brain_damage_study-113512

High on Nano: Cannabinoid Nanoparticles to Treat the Primary Cause of Heart Attack (news – 2013)

Could pot be good for your heart? (news – 2014)
http://bgr.com/2014/02/07/marijuana-health-benefits-cardiology/

Pot Smokers Show Less Inflammation (news – 2014)

Cannabis conundrum: Evidence of harm?: Opposition to marijuana use is often rooted in arguments about the drug's harm to children and adults, but the scientific evidence is seldom clear-cut (article – 2015)


How can medical marijuana help with… ARTERIOSCLEROTIC HEART DISEASE? (news – 2015)

Hemp for a Healthy Heart? (news – 2015)
http://blog.lifeextension.com/2014/02/hemp-for-healthy-heart.html

Many Anti-Pot Arguments Are Based On Weak Science, Say Researchers (news – 2015)
http://www.huffingtonpost.com/entry/marijuana-use-myths_55cb6f53e4b0923c12bed78d?ncid=txtlnkusaolp00000592&kvcommref=mostpopular

Science/Human: Pre-treatment with CBD did not influence effects of smoked cannabis (news – 2016)
**HEMP/ HEMP FIBER**

**Cannabis, Coca, & Poppy: Nature’s Addictive Plants - Cannabis**  
(article – undated)  
[http://www.deamuseum.org/ccp/cannabis/history.html](http://www.deamuseum.org/ccp/cannabis/history.html)

**Hemp in Religion (Japan)**  
(article - undated)  

**HEMPEN CULTURE IN JAPAN**  
(article - undated)  
[http://www.japanhemp.org/uncleweed/history.htm#religion](http://www.japanhemp.org/uncleweed/history.htm#religion)

**Hemp produces viable biodiesel, study finds**  
(news – 2010)  

**Hemp could be key to zero-carbon houses**  
(news – 2010)  

**Cannabis electric car to be made in Canada**  
(news - 2010)  

**Industrial Hemp (Cannabis sativa L.) – a High-Yielding Energy Crop**  
(thesis – 2011)  
[http://pub.epsilon.slu.se/8415/1/prade_t_111102.pdf](http://pub.epsilon.slu.se/8415/1/prade_t_111102.pdf)

**The cannabis genome: How hemp got high**  
(news – 2011)  

**History of Cannabis in Ancient China**  
(news – 2011)  

**Recycled Polyester, Organic Cotton or Hemp - Which is The Most Eco-Friendly Fiber?**  
(news – forum repost – 2011)  

**Could hemp help nuclear clean-up in Japan?**  
(news – 2011)  

**Hemp Around the World**  
(article – 2012)  

**Hemp Products Information**  
(article – 2012)
Hemp Food Storage (article – 2012)
http://www.innvista.com/health/foods/hemp/hemp-food-storage/

Hemp Biology - Industrial Hemp vs. Marijuana (article – 2012)

Hemp Species (article – 2012)
http://www.innvista.com/health/foods/hemp/hemp-species/

The potential of industrial hemp (Cannabis sativa L.) for biogas production (thesis – 2012)
http://lup.lub.lu.se/luur/download?func=downloadFile&recordOId=2856430&fileOId=2857088

Buy It Now, It’s Legal – Medical Marijuana Cannabidiol (CBD from Industrial Hemp) (news - 2012)

Farmer starts 'accidental cannabis plantation' (news – 2012)
http://www.thelocal.de/20120905/44777

Hemp Could Free Us From Oil, Prevent Deforestation, Cure Cancer and It’s Environmentally Friendly – So Why Is It Illegal? (news – 2013)

Citing hemp’s legitimate uses, growers seek freedom to cultivate it (news – 2013)

Zeoform: A New Plastic That Turns Hemp Into Almost Anything (news – 2013)

All You Need to Know About Hemp Seeds (news – 2013)

1914 Federal Reserve $10 Note Was Printed On Hemp Paper (news - 2013)
http://americankabuki.blogspot.nl/2013/01/1914-federal-reserve-10-note-was.html?
utm_source=feedburner&utm_medium=feed&utm_campaign=Feed:+AmericanKabuki+
%28American+Kabuki%29

Hemp is Effective in Cleaning Nuclear Disasters (news - 2013)

Could hemp nanosheets topple graphene for making the ideal supercapacitor? (news/ abst – 2014)

Your Next Cooking Oil Could Come From Hemp (news – 2014)
http://www.popsci.com/article/science/your-next-cooking-oil-could-come-hemp
Plant-Based Foods With the Highest Omega-3 Fatty Acids (news – 2014)

Hemp Prepares for Prime Time as Weed’s Sober Cousin (news – 2014)

Hemp growers cooperatives' report touts crop's benefits to coal (news – 2014)

With Legal Weed Comes Hemp Beer (news – 2014)

Hemp growing going legit after decades-long ban (news – 2014)

Can Legalizing Marijuana Help Appalachia? (news – 2014)
https://www.mainstreet.com/article/can-legalizing-marijuana-help-appalachia

https://indiancountrytodaymedianetwork.com/2014/09/26/people-hemp-part-1-losing-land-culture-tradition-157074

People of the Hemp, Part 2: Criminalizing Traditional Teachings (news – 2014)

Hemp-Based Batteries Could Change the Way We Store Energy Forever (news – 2014)

Calculating the Enormous Potential of the Hemp Industry (news - 2014)

Why Governments Promote Deadly Nuclear Energy and Ban Beneficial Hemp (news - 2014)
http://www.mintpressnews.com/MyMPN/governments-promote-deadly-nuclear-energy-ban-beneficial-hemp/442/

The Secret History of Cannabis in Japan (news – 2014)

Maligned and banned: The American comeback of industrial hemp (news – 2015)

Growing hemp for research? (news – 2015)
http://siouxcityjournal.com/business/local/1cb1b771-849b-5f0e-9634-3ffe37c122c3.html

What is Hemp? (news – 2015)
W.Va. looks to future of hemp farming (news – 2015)
http://www.wvgazette.com/article/20150328/GZ03/150329221

Tarpon Springs ‘hemp house’ owner an ambassador for the crop (news – 2015)

Science Seeks to Unlock Marijuana’s Secrets (news – 2015) (may need subscription)
http://ngm.nationalgeographic.com/2015/06/marijuana/sides-text

Hemp industry enters 2nd year with hazy market potential (news – 2015)

Colorado hemp grows from novelty to industry with potential (news – 2015)

Now, people can live in grass houses (news – 2015)

U of M study explains why hemp and marijuana are different (news – 2015)

Hemp in Oregon: In surprise move, Senate rejects bill to pause production in Oregon (news – 2015)

China to Banish Poverty By Using Hemp – Even In Cosmetics (news - 2015)

Federal lawmakers urge Oregon to speed up industrial hemp program (news - 2015)

Deer devour hemp crops at southern Oregon farm (news – 2015)

Hemp Homes Could Hit New High As Growing Cannabis Gets Legal (news – 2015)

How Hemp Can Clean Up Radiation From Fukushima Nuclear Disaster (news – 2015)

The Great Kentucky Hemp Experiment (news – 2015)
The House That Pot Built: Using Hemp For Construction

8 things you didn’t know about hemp

Car made of hemp makes Denver stop

Is marijuana a single species?: While you’re searching for the perfect high, scientists go deeper
http://www.salon.com/2015/09/28/is_marijuana_a_single_species_while_youre_searching_for_the_perfect_high_scientists_go_deeper_partner/ (news – 2015)

Hemp returning to North Carolina fields ... legally

Italian Ice Cream Maker Creates Hemp Gelato

Hemcrete®: Carbon Negative Hemp Walls

Legalizing Weed: Top Commercial Hemp Products Imported to the US

Japan’s First Lady Wants To Be A Hemp Farmer

Marijuana Farmers VS Hemp Farmers Over Pollen

Hemp as fibre and food? Regulatory developments and current issues
(news/ link to PDF – 2016)

Legalizing Weed: 5 Key Points Made in US Government Film 'Hemp for Victory'
(news – 2016)
http://www.newsmax.com/FastFeatures/legalizing-weed-hemp-hemp-for-victory/2016/01/06/id/708456/#ixzz3wbWYNDkp

Weed-infused vodka is here, but it's not what you think

Timeline: The hemp odyssey of Alex White Plume
This Car Is Made Out Of Cannabis Hemp  
http://nypost.com/2016/05/06/this-car-is-made-out-of-cannabis-hemp/  
(news – 2016)

High hopes riding on ‘Cannabis Car’  
(news – 2016)

Case of the munchies : Ag department cracks down on hemp-filled dog treats  
(news – 2016)  

Can Hemp, Long Overshadowed by Marijuana, Rise as an Industry?  
(news – 2016)  

Why This Grain-Free, Nut-Free, Gluten-Free, Vegan Protein Needs to Be Every Fitness Buff’s Best Friend  
(news – 2016)  

Farmers are planting marijuana to clean up the land contaminated by Europe's biggest steel mill  
(news – 2016)  
http://www.businessinsider.com/italian-farmers-turning-to-hemp-2016-7

Japan’s First Lady Ushers In New Era of Hemp Acceptance by Purchasing Elixinol CBD Hemp Oil Product  
(news – 2016)  

University of Nebraska-Lincoln launches hemp research  
(news – 2016)  

In remote Indian village, cannabis is its only livelihood  
(news – 2016)  
http://www.seattletimes.com/nation-world/in-remote-indian-village-cannabis-is-its-only-livelihood/

Hemp growers may try to block federal ban on marijuana extracts  
(news – 2016)  

Hemp’s Forgotten American History  
(news – 2016)  
http://www.huffingtonpost.com/entry/5834cb44e4b050dfe618779f

Did the Industrial Value of Hemp Spark Cannabis Prohibition?  
(news – 2016)  

DEA Announces Actions Related to Marijuana and Industrial Hemp  
(article – 2016)  

Hemp hits new high as building material on Dutch bridge  
(news – 2017)  
HEPATITIS

Cannabis Compound Induces Death Of Cells Associated With Liver Fibrosis (news – 2011)

Top 5 Most Innovative Uses For Hemp (news – 2013)

http://www.safeaccessnow.org/medical_cannabis_research_what_does_the_evidence_say

HEREDITARY MULTIPLE EXOTOSES

Fort Lauderdale legal pot smoker tells his story in new book (news – 2011)

Free Govt. Marijuana Via “Compassionate” Drug Program (news – 2011)

Irv Rosenfeld’s 30th Anniversary of Getting Marijuana From the Feds (news – 2012)
http://blog.mpp.org/tag/compassionate-investigational-new-drug/

Stockbroker with bone disease claims smoking 130,000 government-issued joints over 30 years has saved his life (news – 2013)

4 Americans get medical pot from the feds (news – 2014)

Medical marijuana use by student nixed by Saskatoon school board (news – 2015)

Pot-smoking stockbroker has a steady supplier: the feds (news – 2015)
Two Floridians get free marijuana for life -- from the feds  (news – 2015)

HICCUPS

Marijuana cures hiccups  (news – undated)
http://www.yourhealthbase.com/database/a77k.htm

Teen says marijuana has been a lifesaver (myoclonus diaphragmatic flutter) (news/ anecdotal – 2012)
http://www.gazette.com/articles/seizes-134241-chaz-teen.html

THE “HIGH”/ CANNABIMIMETIC EFFECTS

Is a Chocolate High Possible?  (news - undated)


Cannabis-enhancing plant to be marketed worldwide as new drug  (news – 2010)

THC blood test: Pot critic William Breathes nearly 3 times over proposed limit when sober  (news – 2011)

Water Curing Your Weed  (news – 2012)
http://www.hailmaryjane.com/wisdom-wednesday-water-curing-your-weed/

It hurts so good: the runner’s high  (news – 2012)
http://blogs.scientificamerican.com/scicurious-brain/2012/03/12/it-hurts-so-good-the-runners-high/

'Runner's High' may have played role in evolutionary history of humans  (news – 2012)
http://in.news.yahoo.com/runners-high-may-played-role-evolutionary-history-humans-105030765.html

Tailoring Your High: Intro to Temperature Control With a Vaporizer  (news – 2012)

How Do You Know Which Medical Marijuana Strain Is Right For You? (news – 2012)
http://www.unitedpatientsgroup.com/blog/2012/01/31/how-do-you-know-which-medical-marijuana-strain-is-right-for-you/

How Marijuana Impairs Memory (news – 2012)
http://neurosciencenews.com/marijuana-impairs-memory-astroglia-cb1r-thc/

A few of our favorite strains: 25 ranked reviews from our critics (news – 2014)
http://www.thecannabist.co/2014/05/27/25-top-marijuana-favorite-strains/12408/?obref=obinsite

Acidic versus Activated Cannabinoids- Tips on How to Choose the Therapy Regimen that is Right for You (news – 2012)
http://pureanalytics.net/blog/2012/05/09/acidic-versus-activated-cannabinoids-tips-on-how-to-choose-the-therapy-regimen-that-is-right-for-you/

Cannabis Strain Explorer (web page - 2012) http://www.leafly.com/explore

In 1884, A Popular Science Writer Got Way Too Stoned (news – 2013)

New Survey: Guys Are Bigger Potheads Than Gals (news – 2013)
http://www.thestreet.com/story/12159561/1/guys-are-bigger-potheads-than-gals.html?cm_ven=RSSFeed

Science for potheads: Why they love to get high (news – 2013)
http://www.salon.com/2013/09/08/science_for_potheads_why_they_love_to_get_high/

London Zoo: No runner’s high for ferrets (news – 2013)

Do Dogs Get Runner's High? (news – 2013)

Stoners beware: Exercising might lead to a positive drug test (news – 2013)

One Toke, Many Hits: Exercise Could Trigger Additional High for Marijuana Users (news – 2013)
http://healthland.time.com/2013/09/17/one-toke-many-hits-exercise-could-trigger-additional-high-for-marijuana-users/

Mangoes Elevate High From Smoking Marijuana: Are They A Healthier Alternative To The 'Munchies'? (news – 2013)
http://www.medicaldaily.com/mangoes-elevate-high-smoking-marijuana-are-they-healthier-alternative-munchies-247892
UEA scientists separate medical benefits of cannabis from unwanted side effects (news – 2015)
https://www.uea.ac.uk/about/-/uea-scientists-separate-medical-benefits-of-cannabis-from-unwanted-side-effects

U of M study explains why hemp and marijuana are different (news – 2015)


Finding the Right Strain of Medical Marijuana (news – 2015)

Potent joint wrapped in 24-karat gold creates a buzz (news – 2015)

Driving with a Marijuana High: How Dangerous Is It? (news – 2015)
http://www.livescience.com/51450-driving-on-marijuana-alcohol-dangerous.html

Customers looking for a high ask a marijuana 'budtender' for advice (news – 2015)

What are Cannabinoids? (news – 2015)
https://www.whaxy.com/learn/what-are-cannabinoids?
utm_source=mantis&utm_medium=referral&utm_campaign=mantis&muuid=622a55f7XXX8b3dXX X4f96XXX8217XXX5ee33cbb24b8

COMPREHENSIVE MEDICAL MARIJUANA PATIENT STUDY

In Defense of Working Out While High (news – 2016)

The Rise Of Tailor-Made Highs (news – 2016)

Your genes may predict how you react to smoking weed (news – 2016)
http://mashable.com/2016/03/09/genes-predict-how-you-get-high/#15VQciKFOaqE

This Startup Uses Brain Scans to Help Patients Pick the Perfect Pot (news – 2016)  http://observer.com/2016/03/potbotics-brainbot/

What Makes Each Marijuana Strain Unique? (news – 2016)
https://www.hellomd.com/health-wellness/what-makes-each-marijuana-strain-unique

Cannabis and Cannabinoid Research Publishes Data Demonstrating the Degradation of Cannabidiol to Psychoactive Cannabinoids when Exposed to Simulated Gastric Fluid (news – 2016)
Nobody knows How High You Are Right Now- It’s Really Hard to Measure (news – 2016)
http://www.wired.com/2016/04/nobody-knows-high-right-now-really-hard-measure/

Blood THC levels after smoking pot are useless in defining “too high to drive” (news – 2016)

Science/Human: Pre-treatment with CBD did not influence effects of smoked cannabis (news – 2016)

Epic Cop Fail: Burning Illegal Weed Got This Town High (news – 2016)
http://herb.co/2016/07/06/cops-burning-illegal-weed/

Comparing sexual experiences related to alcohol and marijuana use among adults (news – 2016)

Serious researchers studied how sex is different when you’re high vs. when you’re drunk (news – 2016)

Why Do We Always Compare Smoking Weed to Drinking Alcohol? (news – 2016)

Ganja Grows Up (news – 2016)
http://www.bendsource.com/bend/ganja-grows-up/Content?oid=2762480

Scientists Closer to Understanding Why Weed Gets Us High (news – 2016)

Marijuana legalization: Just because motorist looks stoned doesn't mean they're impaired, Mass. judge says (news – 2016)

Marijuana breathalyzer test under development, but questions remain over judging whether driver is actually impaired (news – 2016)
http://www.masslive.com/articles/19710976/legal_marijuana_as_massachusetts.amp

In remote Indian village, cannabis is its only livelihood (news – 2016)
http://www.seattletimes.com/nation-world/in-remote-indian-village-cannabis-is-its-only-livelihood/

Discover Your Subjective Therapeutic Window: Turning Cannabis Into A Precision (news – 2016)
http://cannabishealthindex.com/cannabis-safety/the-secret-about-cannabis-that-everyone-should-know/
How does cannabis get users “high”? Science explains.  
http://www.thecannifornian.com/cannabis-culture/cannabis-get-users-high-science-explains/

Cannabis strains today much stronger than your parents’ pot  

'Microdosing' is the future of marijuana  

Cannabis Advice for the Novice Consumer  
https://www.hellomd.com/health-wellness/cannabis-advice-for-the-novice-consumer

Will I Get Higher If I Hold In My Hit Longer?  
https://www.greenrushdaily.com/2016/10/21/will-get-higher-hold-hit-longer/

Time To Put ‘Skunk’ Out Of Business  
http://volteface.me/features/skunk-out-of-business/

When Are You Too Stoned to Drive?  

CBD can protect marijuana users from getting too stoned. Here’s how  

Senate bill would remove possesion by ingestion charge for marijuana  

**HISTORY - ANCIENT USE** - a “fun” section with no date restrictions

Ancient Psychoactive Incense and Preparations  

Ayurvedic Herbs – Cannabis  
http://www.indianmirror.com/ayurveda/cannabis.html

Hemp in Religion (Japan)  

HEMPEN CULTURE IN JAPAN  
http://www.japanhemp.org/uncleweed/history.htm#religion

An Overdose of Hasheesh  
http://www.popsci.com/archive-viewer?id=vCoDAAAAMBAJ&pg=509
The Unconstitutional Prohibition of Cannabis (as a forum post - full – undated)
https://www.thefarmer.com/community/threads/trolingers-history-of-cannabis.22328/

Marijuana - The First Twelve Thousand Years (book – 1980)
http://www.druglibrary.org/Schaffer/hemp/history/first12000/abel.htm

SCIENCE WATCH; Marijuana Medication (news – 1993)

Drugs clue to Shakespeare's genius (news – 2001)

Jesus Healed Using Cannabis (news - 2003)

Timeline: the use of cannabis (news – 2005)
http://news.bbc.co.uk/2/hi/programmes/panorama/4079668.stm

The Emperor Wears No Clothes (book - 2007)

The Big Bhang (article – 2009)
http://www.cannabisculture.com/content/2009/06/01/big-bhang

The Great Keneh Bosem Debate - Part 1 (article – 2009)

Part 2 of the Great Keneh Bosem Debate: (article – 2009)


A History of Marijuana (news – 2010)

Marijuana in the Bible (article - 2011)
https://patients4medicalmarijuana.wordpress.com/marijuana-info/marijuana-in-the-bible/

Ancient Egypt and Cannabis (news – 2011)
http://www.westcoastleaf.net/?p=2840

History of Cannabis in Ancient China (news – 2011)
https://www.psychologytoday.com/blog/the-teenage-mind/201105/history-cannabis-in-ancient-china

History of Hemp (article – 2012)
http://www.innvista.com/health/foods/hemp/history-of-hemp/
In 1884, A Popular Science Writer Got Way Too Stoned (news – 2013)

It's a story of highs and lows when talking marijuana (news – 2013) (nice timeline)

2,500-Year-Old ‘Siberian Princess’ Corpse Shows Breast Cancer, Medicinal Pot Use (news – 2014)

Marijuana: How one plant spread throughout the world (news – 2014)

Amazon Warriors Did Indeed Fight and Die Like Men (news – 2014)

Pakistan: Cannabis Discovered in Prehistoric Tomb (news – 2014)

The Secret History of Cannabis in Japan (news – 2014)

Marijuana in Nepal and the Myth of Purple Haze (news – 2014)

Jesus & Cannabis (article/ recipe – 2015)
https://patients4medicalmarijuana.wordpress.com/marijuana-info/marijuana-in-the-bible/jesus-cannabis/


Gold Artifacts Tell Tale of Drug-Fueled Rituals and "Bastard Wars" (news – 2015)


Was William Shakespeare high when he penned his plays? (news – 2015)

Weed has long history in Japan but now best avoided (news – 2015)

The Unexpected History of Ganja (news 2015)
Cannabis farmers hidden in India's Himalayas (news/photo essay – 2016)

Shavuot, The Bible, and Medical Marijuana (news – 2016)
http://www.huffingtonpost.com/entry/shavuot-the-bible-and-medical-marijuana_us_575edbf2e4b079c7cee5fe02

Stoned Age - Did pot dealers found Western civilization? (news – 2016)
http://www.bohemian.com/northbay/stoned-age/Content?oid=2975022

Ancient Cannabis 'Burial Shroud' Discovered in Desert Oasis (news – 2016)

In remote Indian village, cannabis is its only livelihood (news – 2016)
http://www.seattletimes.com/nation-world/in-remote-indian-village-cannabis-is-its-only-livelihood/

Hemp’s Forgotten American History (news – 2016)
http://www.huffingtonpost.com/entry/5834eb44e4b050dfe618779f

HISTORY - 1937 to present – a “fun” section with no date restrictions

VICTOR LICATA : A RUSH TO JUDGEMENT (ebook – undated)
http://reefermadnessmuseum.org/VictorLICata/Chap00_Index.htm

Indian hemp and the dope fiends of Old England (article - undated)
http://www.idmu.co.uk/indian.htm

Cannabis, Coca, & Poppy: Nature’s Addictive Plants - Cannabis (article – undated)
http://www.deamuseum.org/ccp/cannabis/history.html

The Unconstitutional Prohibition of Cannabis (as a forum post- full – undated)
https://www.thecfarmer.com/community/threads/trolingers-history-of-cannabis.22328/

THE LEGEND OF THE HOT TAMALE PEDDLER: What the Newspapers were saying: (news – undated)

STATEMENT OF DR. WILLIAM C. WOODWARD, LEGISLATIVE COUNSEL, AMERICAN MEDICAL ASSOCIATION, CHICAGO, ILL. (full – 1937)
http://www.druglibrary.org/schaffer/hemp/taxact/woodward.htm

New Billion Dollar Crop (news – 1938)
http://www.hempfarm.org/BillionDollarCrop.html

New Billion Dollar Crop- Popular Mechanics (in original on page 239) (news – 1938)  
https://books.google.com/books?id=e9sDAAAAMBAJ&printsec=frontcover&dq=popular+mechanics+the+new+billion+dollar+crop&hl=en&sa=X&ved=0CB0Q6AEwAGoVChMI3qOk3cHqxoIVBiqlChi19XAHE#v=onepage&q=billion%20dollar&f=false

Marijuana, the New Prohibition (link to PDF – 1970)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1501862/

Marijuana - The First Twelve Thousand Years (book – 1980)  
http://www.druglibrary.org/Schaffer/hemp/history/first12000/abel.htm

To Prescribe Or Not To Prescribe? (news – 1996)  
http://www.time.com/time/nation/article/0,8599,8599,7410.00.html

Green Light for Pot? (news – 1997)  
http://www.time.com/time/nation/article/0,8599,8599,9031.00.html

Reefer Madness -- The Federal Response to California's Medical-Marijuana Law (article- 1997)  
http://www.drugsense.org/tfy/nejm0897.htm

Bush: War On Drugs Aids War On Terror (news – 2001)  
http://www.cbsnews.com/news/bush-war-on-drugs-aids-war-on-terror/

Presidential Commission Shocks White House: Recommends Marijuana Should Be "Decriminalized" (news – 2002)  
http://www.csdp.org/publicservice/shafer.htm

Timeline: the use of cannabis (news – 2005)  
http://news.bbc.co.uk/2/hi/programmes/panorama/4079668.stm

Medical Marijuana, American Federalism, and the Supreme Court (news – 2005)  
http://www.maps.org/mmj/jama-federalism.pdf

Weed control (news – 2006)  
http://www.boston.com/news/globe/ideas/articles/2006/05/28/weed_control

Why I'm Not Against, Like, Oh Wow Man, Pot (news – 2006)  
http://www.time.com/time/nation/article/0,8599,1564430,00.html/iixzz211LOJvFE

The Emperor Wears No Clothes (book - 2007)  

Medi-Cal pays pot-related expenses (news – 2007)  
http://www.mapinc.org/norml/v07/n809/a08.htm

Op-Ed: US Government Holds Patent For Medical Marijuana, Shows Hypocrisy
The Army’s Conquest-by-Cannabinoid Fantasy
O’Shaughnessy’s in 2008

Can sick Californians be fired for smoking pot?
http://business.time.com/2008/01/29/can_sick_californians_be_fired/#ixzz21IKefhQD

An American Pastime: Smoking Pot
http://www.time.com/time/health/article/0,8599,1821697,00.html

A Brief History of Medical Marijuana
http://content.time.com/time/health/article/0,8599,1931247,00.html

Average Marijuana Potency by Year, 1975-2003

Did George Washington and Thomas Jefferson grow marijuana?

The State of Clinical Cannabis Research in the United States
http://cms.herbalgram.org/herbalgram/issue85/article3485.html?
ts=1468715296&signature=a485072466786218574b7813654eb818

While You Were Weekending: California Makes Pot an Infraction
http://newsfeed.time.com/2010/10/04/while-you-were-weekending-california-makes-pot-an-infraction/#ixzz21IPF25WV

No Medical Marijuana Limits: California Supreme Court

V.A. Easing Rules for Users of Medical Marijuana

A History of Marijuana

Pot Prices Go Viral: Crowdsourcing the Drug Deal?

Marijuana: Retired Cops, Judges and Lawyers Push to Legalize

UC studies show marijuana has therapeutic value, reports to legislature
In decades-old program, Uncle Sam provides pot (news – 2011)


Worth Repeating: You Can’t Censor Cannabis Cancer Treatment (news – 2011)
http://www.tokeofthetown.com/2011/03/worth_repeating_you_cant_censor_cannabis_cancer_tr.php#more

Nixon's Vengeful War on Marijuana (news – 2011)

Marijuana Grew Like Weeds in 1950s Brooklyn (news – 2011)

Former Supreme Court justice blasts minimum sentences for marijuana offenders. (article - 2012) http://www.cmaj.ca/content/184/8/E391

History of Hemp (article – 2012)
http://www.innvista.com/health/foods/hemp/history-of-hemp/

http://blog.norml.org/2012/07/02/scientific-journal-cannabis-schedule-i-classification-is-not-tenable/

Marijuana Now the Most Popular Drug in the World (news – 2012)

Pat Robertson: Marijuana Should Be Treated Like Alcohol (news – 2012)
http://newsfeed.time.com/2012/03/08/pat-robertson-marijuana-should-be-treated-like-alcohol/#ixzz21IJtJml

The cannabis conundrum (article – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3808660/

Adequate and Well-Controlled Studies Proving Medical Efficacy of Cannabis Exist but Are Ignored by Marijuana Schedulers (news – 2013)
http://www.huffingtonpost.com/sunil-kumar-aggarwal/marijuana-schedule-1_b_3071725.html

Marijuana Arrests Now Exceed Arrests For Violent Crime (news – 2013)
http://www.huffingtonpost.com/2013/01/17/marijuana-possession-arrests_n_2490340.html

How America Learned to Stop Worrying and Love Marijuana (news - 2013)

The notorious ‘pot brownie’ recipe from ‘The Alice B. Toklas Cookbook’ (news - 2013)
http://dangerousminds.net/comments/the_notorious_pot_brownie_recipe_from_the_alice_b_toklas_cookbo


Marijuana was criminalized in 1923, but why? (news - 2014) http://www.cbc.ca/news/health/marijuana-was-criminalized-in-1923-but-why-1.2630436


More than zero: reclassifying marijuana could have a significant impact on drug policy. (news - 2014) http://www.forbes.com/sites/jacobsullum/2014/02/07/more-than-zero-reclassifying-marijuana-would-have-a-significant-impact-on-drug-policy/

FDA to evaluate marijuana for potential reclassification as less dangerous drug (news – 2014) http://www.huffingtonpost.com/2014/06/24/fda-marijuana_n_5526634.html

Marijuana in Nepal and the Myth of Purple Haze (news – 2014)
Marijuana, Reconsidered: Dr. Lester Grinspoon On 45 Years Of Cannabis Science (interview – 2015)


Pfizer, Eli Lilly Were The Original Medical Marijuana Sellers (news – 2015)
http://www.forbes.com/sites/debraborchardt/2015/04/08/pfizer-eli-lilly-were-the-original-medical-marijuana-sellers/

Here’s What People Called Pot in the 1940s (news – 2015)
http://time.com/3815347/jazz-marijuana-history/

How Our War on Drugs Undermines Mexico (news – 2015)
http://time.com/3853971/1971-war-on-drugs/

History of marijuana in America (news – 2015)

Science Seeks to Unlock Marijuana’s Secrets (news – 2015) (may need subscription)
http://ngm.nationalgeographic.com/2015/06/marijuana/sides-text

Local History: Region's first marijuana arrests followed tougher laws in 1930s (news – 2015)

100 years after El Paso became first city in US to outlaw pot, debate remains the same (news – 2015)

Pot detecting drug dogs post legalization They will still have a job to do (news – 2015)
http://article.wn.com/view/2015/06/05/Pot_detecting_drug_dogs_post_legalization_They_will_still_ha/

Here's the real reason why marijuana is illegal in the US (news – 2015)
http://www.attn.com/stories/2116/reason-marijuana-illegal-united-states#ixzz3es6wnlQ4

Nebraska and Oklahoma Sue Colorado in Supreme Court Over Legal Recreational Pot (news – 2015)

At 82, he's the world's most eminent pot scientist  (news – 2015)
http://hemphealthytoday.blogspot.com/2013/08/at-82-hes-worlds-most-eminent-pot.html

Weed has long history in Japan but now best avoided  (news – 2015)

The Outsourcing of American Marijuana Research  (news – 2015)

The Unexpected History of Ganja  (news 2015)
http://www.bloomwellbend.com/weed-terms-history-ganja/

The Spread of Legalization Explained  (card set – 2015)

Cannabis in the United States  (report – 2016)
http://self.gutenberg.org/article/WHEBN0020566488/Cannabis%20in%20the%20United%20States

Dose of Reality: The Effect of State Marijuana Legalizations  (report – 2016)

20 Marijuana Statistics That Chronicle Its Expansion Over the Past 20 Years  (news – 2016)

Corporate Greed, Corruption & Racism: Marijuana Became Illegal  (news – 2016)

Marijuana Prohibition in Japan —Made in USA  (news – 2016)

The Science behind the DEA's Long War on Marijuana  (news – 2016)
https://www.scientificamerican.com/article/the-science-behind-the-dea-s-long-war-on-marijuana/

Pot Smokers Owe Last Night’s Historic Ballot Wins to This Man  (news – 2016)
mid=twitter-share-vindicated

Marijuana Myths That Just Won’t Die  (news – 2016)
http://www.seattleweekly.com/food/marijuana-myths-that-just-wont-die/

The man behind the marijuana ban for all the wrong reasons  (news – 2016)

Irish Government passes medicinal cannabis bill without vote  (news – 2016)
In remote Indian village, cannabis is its only livelihood  (news – 2016)
http://www.seattletimes.com/nation-world/in-remote-indian-village-cannabis-is-its-only-livelihood/

Montana Judge Rules to Re-open Marijuana Dispensaries Immediately
(news – 2016)
http://flatheadbeacon.com/2016/12/07/montana-judge-rules-re-open-marijuana-dispensaries-immediately/

Hemp’s Forgotten American History  (news – 2016)
http://www.huffingtonpost.com/entry/5834cb44e4b050df6618779f

Did the Industrial Value of Hemp Spark Cannabis Prohibition?   (news – 2016)

Cannabis farmers hidden in India's Himalayas  (news/photo essay – 2016)

---

HIV / AIDS

Cannabinoid Administration Halts Disease Progression, Decreases Mortality In Primate Version of Human Immunodeficiency Virus (HIV)  (news – 2011)

Science: Cannabis influences blood levels of appetite hormones in people with HIV  (news – 2011)

Marijuana-Like Chemicals Inhibit Human Immunodeficiency Virus (HIV) in Late-State AIDS  (news – 2012)  http://www.sciencedaily.com/releases/2012/03/120320195252.htm


Cannabinoid receptors give cells the tools they need to defend against HIV infection  (news – 2012)  http://www.naturalnews.com/035656_cannabinoids_HIV_marijuana.html


Medicinal Cannabis and Painful Sensory Neuropathy  (editorial – 2013)
http://journalofethics.ama-assn.org/2013/05/oped1-1305.html
Study: cannabis compound might have use as an HIV drug  (news – 2013)


http://www.safeaccesssnow.org/medical_cannabis_research_what_does_the_evidence_say

Marijuana may slow spread of HIV  (news – 2014)
http://www.upi.com/blog/2014/02/19/Marijuana-may-slow-spread-of-HIV/4561392843139/

Health Benefits Of Medical Marijuana: 3 Major Ways Cannabis Helps Sick People Live Normal Lives  (news – 2014)

What ailments does medical marijuana help?  (news – 2015)


10 diseases where medical marijuana could have impact  (news – 2015)

Temple researchers to explore ability of compounds to protect brain against HIV infection  (news – 2016)  http://www.eurekalert.org/pub_releases/2016-03/tuhs-trt032816.php

Insy Therapeutics Announces FDA Approval of Syndros™  (news – 2016)
http://syndros.com/

**HOMEOSTASIS** - keeping your body running like it should run.

Brief Overview of the Endocannabinoid System  (news – 2015)
http://www.medicaljane.com/2015/02/28/a-brief-overview-of-the-endocannabinoid-system/
CBD Science: How Cannabinoids Work at the Cellular Level to Keep You Healthy (news – 2016) 
http://www.alternet.org/drugs/cbd-science-mitochondria-mysteries-homeostasis-renewal-endocannabinoid-system

Dr. Ethan Russo: Endocannabinoid Nutrition (news – 2016) 
https://www.ganjapreneur.com/ethan-russo-endocannabinoid-nutrition/

**HORMONES**

Science: Cannabis influences blood levels of appetite hormones in people with HIV (news – 2011) 

Males, Females Respond Differently to Cannabinoids (news – 2013) 
http://www.beyondthc.com/marijuana-as-the-womans-friend/

Don’t Fear the Reefer (news – 2014) 

Active ingredient in pot sets off a feedback that reduces intoxication (news – 2014) 

Hormone shows promise at negating marijuana's high effect (news – 2014) 

Muting Marijuana’s High: Pot Without the Impairment (news – 2014) 
http://healthland.time.com/2014/01/03/muting-marijuanass-high-pot-without-the-impairment/

Estrogen increases cannabis sensitivity (news – 2014) 

Females Build Up Tolerance To Marijuana Faster Than Males, Study Finds (news – 2014) 
http://www.huffingtonpost.com/2014/09/10/females-tolerance-marijuana_n_5784022.html

Oxytocin Enhances Pleasure of Social Interactions by Stimulating Production of “Bliss Molecule” (news & abstract – 2015) 
http://neurosciencenews.com/oxytocin-anandamide-2926/

'Love hormone' oxytocin mimics effects of marijuana (news – 2015) 
https://in.news.yahoo.com/love-hormone-oxytocin-mimics-effects-marijuana-074404829.html

Why weed (and other cannabinoids) gives us—I mean, you—the munchies (news – 2015)
**HUNTINGTON'S DISEASE** - a progressive brain disorder caused by a defective gene

Drugs that reduce activity of ABDH6 enzyme can prevent brain damage: Study (news – 2010)

http://www.safeaccessnow.org/medical_cannabis_research_what_does_the_evidence_say

Cannabis May Protect The Aging Brain, Say Experts (news – 2014)
http://www.leafscience.com/2014/05/07/cannabis-may-protect-aging-brain-say-experts/

What ailments does medical marijuana help? (news – 2015)

Marijuana May Boost Brain Performance (news – 2016)

Arizona Spends Big Bucks to Keep Serious Diseases like Parkinson’s from Qualifying for Medical-Marijuana Program (news – 2016)
**IBS/ IBD** - also see BOWEL DISORDERS

Cannabis Use Common Among Patients With Inflammatory Bowel Disease, Study Says (news – 2011)

Still Believe Nature Got It Wrong? Top 10 Health Benefits of Marijuana (news – 2013)
http://www.wakingtimes.com/2013/05/01/still-believe-nature-got-it-wrong-top-10-health-benefits-of-marijuana/

Cannabis Superior To Drugs For Inflammatory Bowel Condition (Crohn's Disease) (news – 2015)

Many Teens With Chronic Illnesses Use Alcohol, Pot (news – 2015)

**IMMUNE SYSTEM**

Novel compounds to activate cannabinoid receptors in immune system wins award for young Hebrew University researcher (news – 2012)
http://www.huji.ac.il/cgi-bin/dovrut/dovrut_search_eng.pl?mesge133966745705872560

Targeting the Endocannabinoid System to Treat Sepsis (review – 2013)
http://www.signavitae.com/2013/05/targeting-the-endocannabinoid-system-to-treat-sepsis/

Cannabidiol (CBD) May Increase Lung Cancer’s Susceptibility To Specialized Killer Cells (news – 2014)

Can marijuana help transplant patients? New research says maybe (news – 2015)

3D Structure of Protein That Guides the Immune System Uncovered (news & abst – 2016)
http://neurosciencenews.com/trpv2-ion-channel-immune-system-3448/

New Study Proves THC Improves Organ Transplant Success (news – 2016)
http://herb.co/2016/07/09/thc-organ-transplant/

Good News for Burn Victims and New Organ Recipients (news – 2016)
INDICATIONS AND CLINICAL USES


Cannabis Rx: Cutting Through the Misinformation : Dr. Andrew Weil (news - 2010)
http://www.huffingtonpost.com/andrew-weil-md/can-cannabis-treat-cancer_b_701005.html

Marijuana (Cannabis sativa) Mayo Clinic (news – 2011)
http://www.mayoclinic.com/health/marijuana/NS_patient-marijuana/DSECTION=evidence

Benefits From Medical Marijuana (news – 2011)
http://www.livestrong.com/article/98476-medical-reasons-marijuana/

Patients Substitute Marijuana for Prescription Drugs (news – 2011)
http://www.internalmedicineonline.com/index.php?id=495&tx_ttnews[tt_news]=79267&cHash=e5e5aebf50e54e61a2ce81ca4ce05e24

Cannabis Strain Explorer (web page - 2012) http://www.leafly.com/explore

As Anecdotal Reports of Anti-Cancer Effects from Cannabis 'Oil' Pile Up, Doctors Stress Need to Document Its Effects (news – 2013)

Still Believe Nature Got It Wrong? Top 10 Health Benefits of Marijuana (news – 2013)
http://www.wakingtimes.com/2013/05/01/still-believe-nature-got-it-wrong-top-10-health-benefits-of-marijuana/

The Comprehensive Report on the Cannabis Extract Movement and the Use of Cannabis Extracts to Treat Diseases (link to upload - 2014)
http://www.slideshare.net/TheHempSolution/comprehensive-report-on-the-cannabis-extract-movement

http://www.safeaccessnow.org/medical_cannabis_research_what_does_the_evidence_say

Cannabinoid Breakdown (news – 2014)
http://www.bloomwellbend.com/cannabinoid-breakdown/
DR ALLAN FRANKEL’S EARLY VERSION INITIAL DOSAGE AND ADMINISTRATION GUIDE (news – 2014)

Cannabis, Medical Science, and Fundamental Human Rights, With Dr. Ethan Russo (article – 2015)

What ailments does medical marijuana help? (news – 2015)

Pfizer, Eli Lilly Were The Original Medical Marijuana Sellers (news – 2015)
http://www.forbes.com/sites/debraborchardt/2015/04/08/pfizer-eli-lilly-were-the-original-medical-marijuana-sellers/

U.S. policy keeps medical marijuana research funding low (news – 2015)
http://www.goerie.com/us-policy-keeps-medical-marijuana-research-funding-low

10 diseases where medical marijuana could have impact (news – 2015)

21 medical benefits of marijuana (news – 2015)

Doctors Struggle With Medical Marijuana Knowledge Gap (news – 2016)

INFANTS (0 to 2 years) also see GERMINAL MATRIX HEMORRHAGE

Pregnant Women Smoking Pot Could Reduce Infant Mortality (news - 2010)
http://www.opposingviews.com/i/pregnant-women-smoking-pot-could-reduce-infant-mortality

What An Expectant Mother Eats Affects Children’s Psychology in Later Life (news – 2011)

Cocaine, Opiate, and Cannabinoid Infant Mortality Study (news – 2011)

Cannabis For Infant's Brain Tumor, Doctor Calls Child "A Miracle Baby" (news – 2012)
http://www.huffingtonpost.com/2012/12/01/cannabis-for-infants-brain _n_2224898.html

Strange Reason for Baby's Positive Pot Test Found (news – 2012)
Montreal hospital changes drug-testing protocol after baby's seizure  (news – 2013)  

Toronto family hopes for access to controversial treatment to cure baby’s rare epilepsy  
(news – 2013)  

Babies Exposed to Cannabis in the Womb Have Better Vision by Age 4, Finds New Study  
(news – 2015)  
http://thejointblog.com/babies-exposed-to-cannabis-in-the-womb-have-better-vision-by-age-4-finds-new-study/

Pity the Poor Stormtroopers: Baby Bou-Bou Ambushed Them (Updated, May 21)  
(news – 2015)  
http://freedominourtime.blogspot.com/2015/05/pity-poor-stormtroopers-baby-bou-bou.html

Combination of marijuana and tobacco in pregnancy may compound risks  
(news – 2016)  
http://www.reuters.com/article/us-health-pregnancy-marijuana-tobacco-idUSKCN0YV2BN

Marijuana Use During Pregnancy Does Not Increase Birth Risk, Study Finds  
(news – 2016)  

Using Pot While Pregnant Not Tied to Birth Risks  
(news – 2016)  

For the First Time Ever, Cannabis Oil Will Be Used in a Hospital — To Save a 2-Month Old Baby Girl  
(news – 2016)  

Parents facing custody issues over marijuana see hope in Prop. 64  
(news – 2016)  

INFLAMMATION

Hemp Oil Benefits for Skin  
(news – 2010)  
http://www.livestrong.com/article/137621-hemp-oil-benefits-skin/


Scientists find a new pharmacological target to modulate the effect of cannabinoids through their CB1 receptors (news – 2012) http://www.ub.edu/web/ub/en/menu_eines/noticies/2012/07/017.html


Marijuana's Memory Paradox (news - forum repost – 2013) http://ehealthforum.com/health/interesting-t164409.html


Temple researchers to explore ability of compounds to protect brain against HIV infection  
(news – 2016)  

Marijuana May Boost Brain Performance  
( news – 2016)  

Cannabinoids remove plaque-forming Alzheimer's proteins from brain cells  
( news – 2016)  

Medical marijuana has potential as Alzheimer’s treatment, study says  
( news – 2016)  

Marijuana better alternative to painkillers  
( news – 2016)  
http://www.technicianonline.com/sports/article_3bf18c14-910e-11e6-b5ca-9f48d5c1e2e3.html

Marijuana may help delay Alzheimer’s symptoms  
( news – 2016)  

Study Reveals Role of Spleen in Prolonged Anxiety After Stress  
( news – 2016)  

THC Stimulates Toxic Plaque Removal in the Brain, Blocks Inflammation, Finds Study  
( news – 2016)  

The three biggest questions about how marijuana affects athletic performance  
( news – 2016)  

INTERACTIONS WITH OTHER DRUGS

Chocolate: The Good, the Bad and the Angry  
(news - 2010)  

Cannabis-enhancing plant to be marketed worldwide as new drug  
(news – 2010)  

Pharmaceutical Drug-Herb Interaction List  
(news – 2011)  
http://targetedcannabinoidtherapy.com/pharmaceutical-drug-herb-interaction-list

What Causes False Positives in Marijuana Drug Testing?  
(news – 2011)  
Hormone shows promise at negating marijuana's high effect  

Active ingredient in pot sets off a feedback that reduces intoxication  

Muting Marijuana’s High: Pot Without the Impairment  
http://healthland.time.com/2014/01/03/muting-marijuana-s-high-pot-without-the-impairment/

Alcohol and drugs put teens at increased risk for unsafe driving  

Medical marijuana laws may reduce painkiller overdoses  

States With Medical Marijuana Laws Have Fewer Opioid Overdose Deaths  

How Black Pepper relieves Cannabis Anxiety  
http://cannabisdigest.ca/black-pepper-relieves-cannabis-anxiety/

What Happens To Your Body When You Get Drunk And Stoned At The Same Time?  

Why growing numbers of pot smokers eat mango before lighting up  

Study: THC Reduces Methamphetamine-Induced Brain Damage  
https://www.theweedblog.com/study-thc-reduces-methamphetamine-induced-brain-damage/

Veterans Health Administration Policy on Cannabis as an Adjunct to Pain Treatment with Opiates  
http://journalofethics.ama-assn.org/2015/06/pfor2-1506.html

Nicotine Changes Marijuana’s Effect on the Brain  

Substance abuse risk not greater in those using medical marijuana with prescribed opioids  

Marijuana brain study offers new substance by including nicotine use  
Preliminary Results of Uab’s Cbd Oil Studies Show Promise    (news – 2016)
http://www.newswise.com/articles/view/649217/?sc=rsmn


Combination of marijuana and tobacco in pregnancy may compound risks     (news – 2016)
http://www.reuters.com/article/us-health-pregnancy-marijuana-tobacco-idUSKCN0YV2BN

Ebbu Announces Groundbreaking Scientific Research of "Entourage Effect"    (news – 2016)

Mixing pot and tobacco increases dependence risk     (news – 2016)

Does medical marijuana reduce need for other meds?    (news – 2016)

The Dangerous Side of Opioids and How Cannabis Can Tame the Beast    (news – 2016)
http://cannabishealthindex.com/cannabinoid-research/the-dangerous-side-of-opioids-and-how-cannabis-can-tame-the-beast/

Spliffs Are Poison, Destroy Lungs     (news – 2016)
https://www.greenrushdaily.com/2016/01/12/spliffs-poison-destroy-lungs/

Can Marijuana Cause Deadly Drug Interactions?    (news – 2016)

ISAACS’ SYNDROME/ ACQUIRED NEUROMYOTONIA

Isaacs' syndrome     (forum post/anecdotal - 2011)

IQ/ MEMORY/ COGNITIVE EFFECTS

Key ingredient staves off marijuana memory loss     (news - 2010)
Marijuana May Offset Alcohol-Induced Cognitive Impairment Among Teens

Are Stoners Really Dumb, or Do They Just Think They Are? (news – 2010)
http://healthland.time.com/2010/11/18/are-stoners-really-dumb-or-do-they-just-think-they-are/

Study: Marijuana Not Linked With Long Term Cognitive Impairment (news – 2011)

“Stoner Stupid” Myth Goes Up In Smoke (news – 2011)

Are smart kids more likely to use drugs? (news – 2011)

High Childhood IQ Linked to Subsequent Illicit Drug Use, Research Suggests (news – 2011)

Cannabinoid-1 Receptor Protects The Brain From Aging (news – 2011)
http://www.medicalnewstoday.com/releases/230948.php

Bodyguard for the Brain: Researchers Identify Mechanism That Seems to Protect Brain from Aging (news – 2011)

On Creativity, Marijuana and "a Butterfly Effect in Thought" (news – 2011)
http://www.huffingtonpost.com/jason-silva/on-creativity-marijuana-a-b_900701.html

Marijuana Use Associated With 'Superior' Cognitive Performance In Schizophrenic Patients, Study Says (news – 2011)

Cannabis and Creativity (news – 2012)
https://www.psychologytoday.com/blog/psychology-masala/201204/cannabis-and-creativity

The Science Behind Cannabis and Creativity (news – 2012)

Teen Marijuana Use May Show No Effect On Brain Tissue, Unlike Alcohol, Study Finds (news – 2012)
http://www.huffingtonpost.com/2012/12/21/teens-marijuana-brain-tissue-alcohol_n_2331779.html

Pot smoking not tied to middle-age mental decline (news – 2012)
http://www.reuters.com/article/2012/01/04/us-drugs-idUSTRE8030AE20120104


Low Doses of THC (Cannabis) Can Halt Brain Damage, Study Suggests (news – 2013) http://www.sciencedaily.com/releases/2013/05/130530132531.htm


Science for potheads: Why they love to get high (news – 2013) http://www.salon.com/2013/09/08/science_for_potheads_why_they_love_to_get_high/


Marijuana's Memory Paradox (news - forum repost – 2013)
http://ehealthforum.com/health/interesting-t164409.html

Discovery Sheds New Light on Marijuana’s Anxiety Relief Effects (news – 2014)
http://neurosciencenews.com/cannabinoid-receptors-amygdala-anxiety-833/

Pot-smoking students better at school than 'marginalized' tobacco-smoking peers (news – 2014)
http://www.ctvnews.ca/health/pot-smoking-students-better-at-school-than-marginalized-tobacco-smoking-peers-1.1745098#ixzz2x6lq4iMr

Cannabis, Creativity, & The Cortex (news – 2014)
http://neuwritesd.org/2014/01/16/cannabis-creativity-the-cortex/

Marijuana Users Have Better Cognitive Skills, Study Finds (news – 2014)
http://www.leafscience.com/2014/03/14/marijuana-users-better-cognitive-skills-study-finds/

Marijuana’s Effect on Memory Overstated, Study Finds (news – 2014)

Marijuana: Occasional Cannabis Use in Teenagers Has 'No Relationship' with IQ or Exam Results (news – 2014)

No, marijuana use doesn’t lower your IQ (news – 2014)

Alzheimer’s Caused By Loss of Cannabinoids, Study Shows (news – 2014)

Cannabis Prevents the Negative Behavioral and Physiological Effects PTSD (news – 2014)
http://neurosciencenews.com/neuropharmacology-cannabinoids-ptsd-1300/

Researchers Discover How Key Protein Enhances Memory and Learning (news – 2014)
http://neurosciencenews.com/fabp5-protein-memory-learning-1013/

Cannabis conundrum: Evidence of harm?: Opposition to marijuana use is often rooted in arguments about the drug's harm to children and adults, but the scientific evidence is seldom clear-cut (article – 2015)

Nicotine Changes Marijuana’s Effect on the Brain (news & abstract - 2015)
Cannabinoid Receptors May Control Aversive Memories (news & abstract - 2015)
http://neurosciencenews.com/habenula-cb1-receptors-memory-2742/

How Medical Marijuana’s Chemicals May Protect Cells (news – 2015)
http://www.scientificamerican.com/article/how-medical-marijuana-s-chemicals-may-protect-cells/

Daily pot use not associated with brain shrinkage: Colorado study (news – 2015)

Cannabis: World-renowned researchers discuss a new frontier in therapeutics (news – 2015)

Many Anti-Pot Arguments Are Based On Weak Science, Say Researchers (news – 2015)
http://www.huffingtonpost.com/entry/marijuana-use-myths_55cb6f53e4b0923c12bed78d?ncid=texlnkusaolp00000592&kvcommref=mostpopular

Should I stay or should I go? On the importance of aversive memories and the endogenous cannabinoid (news – 2015)


No addled brain for experienced medical marijuana users: study (news – 2015)

Alcohol and the teen brain: There’s evidence binge drinking is dangerous for the adolescent brain — but guess what substance gets the bad rap (news – 2015)
http://www.salon.com/2015/11/30/teens_and_binge_drinking_partner/

Harvesting Benefits from Cannabinoids. (article – 2016)
http://www.cell.com/cell/fulltext/S0092-8674(16)31675-0


Cannabinoids control memory through mitochondria (news & abst – 2016)

Cannabis use in teens does not affect their IQ or educational performance (news – 2016)

Cannabis ‘doesn’t lower IQ or school grades’ – but smoking tobacco does (news – 2016)
Study: Marijuana Use Not Predictive Of Lower IQ, Poorer Educational Performance (news – 2016)

Largest ever longitudinal twin study of adolescent cannabis use finds no relationship heavy use and IQ decline. (news – 2016) http://news.meta.com/2016/01/18/twinsstudy/

Age When Marijuana Use Starts Impacts Brain Development Differently (news – 2016)

Marijuana May Boost Brain Performance (news – 2016)

Marijuana and the Developing Brain (news – 2016)

Marijuana may help delay Alzheimer’s symptoms (news – 2016)

McLean Hospital Study Finds That Medical Marijuana Use May Improve Cognitive Performance (news – 2016)

Cannabis and Malaria: New Study Reveals CBD is Effective in Preventing Deaths (news – 2016)


Marijuana May Improve Cognitive Function (news – 2016)

Delaying Pot Smoking Better for Teens’ Brains (news – 2017)

KIDNEYS
Wyoming kidney failure outbreak linked to designer 'blueberry spice' drug, aka 'legal marijuana' (news – 2012)  

Outbreak of kidney failure in Wyoming linked to "Spice" (news – 2012)  
http://www.reuters.com/article/2012/03/03/us-spice-illness-wyoming-idUSTRE82204T20120303

Blueberry “spice” in Wyoming linked to cases of renal failure (news – 2012)  
http://www.thepoisonreview.com/2012/03/03/blueberry-spice-in-wyoming-linked-to-cases-of-renal-failure/

New health concerns about 'fake pot' in US (news – 2012)  

Synthetic Marijuana Dangerous for Kids (news – 2013)  
http://www.sciencedaily.com/releases/2013/02/130208124553.htm

Synthetic Marijuana Harms Kidneys of 16 Users, CDC Reports (news - 2013)  

Synthetic drugs carry risk of kidney damage (news – 2013)  

Synthetic cannabis compounds used to tackle diabetes linked kidney failure (news – 2015)  

Synthetic pot linked to kidney injury (news – 2015)  

Please, don't call it fake weed (news – 2016)  

LEISHMANIASIS  
A CB2 Activating Cannabinoid is the new potential weapon against horrific parasites (news – 2016)  
http://cannabishealthindex.com/cannabinoid-research/a-cb2-activating-cannabinoid-is-the-new-potential-weapon-against-horrific-parasites/

LIVER DISEASE - NON HEPATITIS/LIVER FUNCTIONS  
Cannabis Compound Induces Death Of Cells Associated With Liver Fibrosis (news – 2011)
Marijuana Compound Improves Brain And Liver Function In Animal Model Of Hepatic Encephalopathy  (news – 2011)

Scripps Research Scientists Discover Inflammation Is Controlled Differently in Brain and Other Tissues  (news – 2011)

New Study: Cannabis May Protect Liver From Alcohol Related Damage  (news – 2014)
https://thejointblog.com/new-study-cannabis-may-protect-liver-alcohol-related-damage/

**LONG TERM USE EFFECTS**

125 Year Old Woman Claimed Smoking Cannabis Everyday Was Her Secret to Long Life  (news – 2011)

Pot smoking not tied to middle-age mental decline  (news – 2012)
http://www.reuters.com/article/2012/01/04/us-drugs-idUSTRE8030AE20120104

One Joint a Week for 49 Years Doesn’t Harm Lungs, Research Finds  (news – 2012)

Chronic cannabis abuse, delta-9-tetrahydrocannabinol and thyroid function.  (letter – 2013)

Long-Term Cannabis Use Is Associated With Better Health Than Long-Term Tobacco use  (news – 2013)
http://hempedification.blogspot.com/2013_04_01_archive.html

Marijuana habit not linked to lung cancer  (news – 2013)

Marijuana has no adverse effects on health, BU study suggests  (news – 2013)
http://dailyfreepress.com/2013/09/25/marijuana-has-no-adverse-effects-on-health-bu-study-suggests/

Study: Recreational Marijuana Users Show No ‘Negative Health Outcomes’  (news – 2013)
http://www.leafscience.com/2013/09/24/study-recreational-marijuana-users-show-negative-health-outcomes/
No detectable association between frequency of marijuana use and health or healthcare utilization (news – 2013)  

Marijuana Use Results in Less Domestic Violence (news – 2014)  

Marijuana’s Effect on Memory Overstated, Study Finds (news – 2014)  

http://thinkprogress.org/health/2015/01/22/3614459/new-pot-research/

Daily pot use not associated with brain shrinkage: Colorado study (news – 2015)  

What It's Like To Smoke Pot Every Day For 50 Years (news – 2015)  
https://www.yahoo.com/health/what-its-like-to-smoke-pot-every-day-for-50-years-117780070001.html

No sign of safety risks with longterm pot use for chronic pain (news – 2015)  

No addled brain for experienced medical marijuana users: study (news – 2015)  

Teen marijuana use not linked to later depression, lung cancer, other health problems, study finds (news – 2015)  
http://www.sciencedaily.com/releases/2015/08/150804093718.htm

Marijuana - How Safe is it Really? (article - link to PDF – 2016)  
https://journals.mcmaster.ca/iScientist/article/download/1104/991

Study says long-term pot use causes poor gum health – but not much else (news – 2016)  

Marijuana Use Linked to Increased Gum Disease Risk (news – 2016)  
http://www.perio.org/consumer/marijuana-use

Largest ever longitudinal twin study of adolescent cannabis use finds no relationship heavy use and IQ decline. (news – 2016)  
http://news.meta.com/2016/01/18/twinsstudy/
Scripps Research Scientists Discover Inflammation Is Controlled Differently in Brain and Other Tissues  (news – 2011)

Marijuana doesn't harm lung function, study found  (news – 2012)

Study: Smoking Marijuana Not Linked with Lung Damage  (news – 2012)
http://healthland.time.com/2012/01/10/study-smoking-marijuana-not-linked-with-lung-damage/

Marijuana Smoke Not as Damaging as Tobacco, Says Study  (news - 2012)

One Joint a Week for 49 Years Doesn’t Harm Lungs, Research Finds  (news – 2012)

Pot smokers don't puff away lung health: study  (news – 2012)
http://www.reuters.com/article/2012/01/11/us-pot-health-idUSTRE8092BC20120111

Science Says: Lungs Love Weed  (news – 2012)
http://www.takepart.com/article/2012/01/11/marijuana-not-bad-your-lungs

Study: Cannabinoids Offer Treatment For Severe Lung Disease  (news – 2013)

Checotah Man Credits Cannabis Oil For Improved Health (COPD)  (news – 2014)
http://www.newson6.com/story/26293519/checotah-man-credits-cannabis-oil-for-improved-health

Does Legal Marijuana Help or Hurt the U.S. Health Care System?  (news – 2014)

Marijuana Smoking Not Linked to Chronic Breathing Problems  (news – 2014)

MEDICAL MARIJUANA : Out of the Shadows  (news – 2014)

Cannabis conundrum: Evidence of harm?: Opposition to marijuana use is often rooted in arguments about the drug's harm to children and adults, but the scientific evidence is seldom clear-cut  (article – 2015)

http://thinkprogress.org/health/2015/01/22/3614459/new-pot-research/
No smoke, no fire: What the initial literature suggests regarding vapourized cannabis and respiratory risk (news – 2015)

UCLA Professor Finds Marijuana Is Safer to Smoke Than Tobacco (news – 2015)

Study: Use Of Vaporizers Mitigates Pulmonary Risks Associated With Cannabis Smoking (news – 2015)

Marijuana Shown to Be Less Damaging to Lungs Than Tobacco (news – 2015)
http://www.ucsf.edu/news/2012/01/11282/marijuana-shown-be-less-damaging-lungs-tobacco

WHY SMOKING MOLDY WEED IS BAD, BAD NEWS (news – 2016)

https://www.hellomd.com/health-wellness/beginner-s-guide-finding-the-right-marijuana-vaporizer

Spliffs Are Poison, Destroy Lungs (news – 2016)
https://www.greenrushdaily.com/2016/01/12/spliffs-poison-destroy-lungs/

The Shocking Differences Between Cannabis and Tobacco Smoke (news – 2016)
https://www.greenrushdaily.com/2016/01/10/differences-cannabis-tobacco-smoke/

Will I Get Higher If I Hold In My Hit Longer? (news – 2016)
https://www.greenrushdaily.com/2016/10/21/will-get-higher-hold-hit-longer/

Massive scientific report on marijuana confirms medical benefits (news – 2017)

LUPUS ERYTHEMATOSUS —

LEGALISING CANNABIS (Marijuana) for MEDICINAL USE (news – 2010)

Medical Marijuana and Lupus: What You Need to Know (news – 2013)
http://www.medicaljane.com/2013/01/07/lupus-and-medical-marijuana/

Treating Lupus with Cannabis (news – 2013)


LYME DISEASE

Lyme Disease by Cynkay Morningstar (anecdotal – undated) http://rxmarijuana.com/shared_comments/Lyme_Disease.htm


This for That: Lyme Disease (news/anecdotal – 2012) http://the420times.com/2012/01/this-for-that-lyme-disease/


I moved across the country so weed could take the edge off my Lyme disease (news – 2016) http://www.sheknows.com/health-and-wellness/articles/1126764/marijuana-for-lyme-disease

MALARIA

Cannabidiol (CBD) in the Treatment of Cerebral Malaria  (news – 2015)

Cannabis and Malaria: New Study Reveals CBD is Effective in Preventing Deaths  (news – 2016)

MALE SEXUAL FUNCTION

Study: Marijuana May Reduce Risk of Erectile Dysfunction  (news – 2013)
http://www.leafscience.com/2013/12/09/study-marijuana-may-reduce-risk-erectile-dysfunction/


Cannabis and Male Sexual Performance  (news – 2016)

If You Love Weed, Chances Are You’re Great In Bed  (news – 2016)
http://herb.co/2016/07/04/love-weed-great-in-bed/

Comparing sexual experiences related to alcohol and marijuana use among adults  (news – 2016)

Serious researchers studied how sex is different when you’re high vs. when you’re drunk  (news – 2016)

Tantra THC: Using Cannabis to Make Sex Sacred  (news – 2016)

Cannabinoid Receptor Activates Spermatozoa  (news – 2016)
http://neurosciencenews.com/spermatozoa-cannabinoid-receptors-4935/

MARFAN’S SYNDROME
Regarding Marfan Syndrome  (forum post – 2010)

Marfan Syndrome-Cannabinoids Relieve Symptoms   (news – 2013)
http://medicalmarijuana.com/medical-marijuana-treatments/Marfan-Syndrome-

Cannabis May Offer Relief for Connective Tissue Disorders   (news – 2014)
http://theleafonline.com/c/science/2014/05/cannabis-may-offer-relief-for-connective-tissue-disorders/

MASSAGE

What’s Better Than a Massage? A Cannabis-Infused Massage   (news – undated)

I just got a weed-infused massage, and I feel GREAT   (news – 2014)

I Tried a Cannabis Massage and This Is What Happened   (news – 2015)

Cannabis Oil and the Massage Therapist’s Office: What You Need to Know to Make it Safe   (news – 2016)

MAST CELLS  - immune cells involved with allergies, wound healing, and fighting germs

Adelmidrol: a novel glia modulator   (news – 2015)

MCCUNE-ALBRIGHT SYNDROME

Grapevine girl heads west, hoping marijuana will ease her pain   (news – 2016)
MEDICAL MARIJUANA

Indian hemp and the dope fiends of Old England
http://www.idmu.co.uk/indian.htm

Cannabis, Coca, & Poppy: Nature’s Addictive Plants - Cannabis
http://www.deamuseum.org/ccp/cannabis/history.html

How to make Cannabis Oil (aka RSO or “Hemp Oil”)
https://patients4medicalmarijuana.wordpress.com/how-to-make-cannabis-oil-aka-rso-or-hemp-oil/

Federal IND Patients

US Government Medical Cannabis Tins
http://www.herbmuseum.ca/content/us-government-medical-cannabis-tins

Medical Marijuana - Medical Organizations Endorsing Marijuana
http://www.perkel.com/politics/issues/endorse.htm

Free pot? Federal program ships marijuana to four

The Faces Of Medical Marijuana: An Interview With Sarah Lovering
http://the420times.com/2010/04/the-faces-of-medical-marijuana/

Necessity or nastiness? The hidden law denying cannabis for medical use.

The State of Clinical Cannabis Research in the United States
http://cms.herbalgram.org/herbalgram/issue85/article3485.html?ts=1468715296&signature=a485072466786218574b7813654eb818

Medical Cannabis Use Doesn't Adversely Impact Substance Abuse Treatment Outcomes, Study Says

Oregon hospitals denying life saving organ transplants to legal medical marijuana patients
http://www.huffingtonpost.com/russ-belville/oregon-hospitals-denying_b_575965.html

Views, Policy Shifting on Medical Marijuana
Health Tragedy: Patients Denied Life-Saving Transplants for Their "Abuse of Illicit Substances" (news – 2010)
http://www.alternet.org/health/145432/health_tragedy%3A_patients_denied_life-saving_transplants_for_their_%22abuse_of_illicit_substances%22

Medical Marijuana Raises Tough Questions for Nursing Homes (news – 2010)

V.A. Easing Rules for Users of Medical Marijuana (news – 2010)

LAPD chief: Pot clinics not plagued by crime (news – 2010)

Medicinal Marijuana: A Patient-Driven Phenomenon (news - 2010)

Cannabinoids: every body likes them, some bodies need them (news – 2010)
https://patients4medicalmarijuana.wordpress.com/2010/03/13/cannabinoids-every-body-likes-them-some-bodies-need-them/

Why Medical Marijuana Laws Reduce Traffic Deaths (news - 2011)

Study shows medical marijuana laws reduce traffic deaths (news – 2011)

Medical Marijuana Laws Shown to Reduce Traffic Fatalities - Well, that settles that (news – 2011)

THC blood test: Pot critic William Breathes nearly 3 times over proposed limit when sober (news – 2011)

Cannabis is used for first time in hospitals to relieve pain of terminal cancer patients (news – 2011)

Cannabis Use in Nursing Homes – An Emerging Issue (news – 2011)

Smoked Marijuana IS Medicine: Feds Still Distributing Rolled Joints (news – 2011)

Medical marijuana laws creating pot fiends? What study shows (news – 2011)

Study: Legal Medical Marijuana Doesn't Encourage Kids to Smoke More Pot (news – 2011)

Does pot possession equal child neglect? (news – 2011)

Pot grows' kids in good health, study says (news - 2011)

The Denial of Organ Transplants to Medical Marijuana Patients (news – 2011)


Cedars-Sinai Denying Transplant To Medical Marijuana Patient With Inoperable Liver Cancer (news – 2011)

Federal Rx: Marijuana (news – 2011)

Medical Marijuana is the New Midol? California Doc Pitch Cannabis to Fairer Sex (news – 2011)

Patients Substitute Marijuana for Prescription Drugs (news – 2011)
http://www.internalmedicine.com/index.php?id=495&tx_ttnews[tt_news]=79267&cHash=e5e5aebf50e54e61a2ce81ca4ce05e24

History of Cannabis in Ancient China (news – 2011)
https://www.psychologytoday.com/blog/the-teenage-mind/201105/history-cannabis-in-ancient-china

Cerebral Palsy Victim Sues City Over Medical Marijuana (news/anecdotal – 2011)

The Kids Are All Right, Even if Their Parents Grow Pot (news – forum repost – 2011)
Georgia one of 1st states to allow medical marijuana  

Silver Tour: Wall Street Journal Looks At Seniors and Medical Marijuana Use  
(news – 2012)  

How Do You Know Which Medical Marijuana Strain Is Right For You?  
(news – 2012)  
http://www.unitedpatientsgroup.com/blog/2012/01/31/how-do-you-know-which-medical-marijuana-strain-is-right-for-you/ 

Israel pushing ahead in medical marijuana industry  
(news – 2012)  

Is Medical Marijuana Safe for Children?  

Medical marijuana legalization won't boost teen pot use, study finds  
http://www.cbsnews.com/8301-504763_162-57456999-10391704/medical-marijuana... 

Panelists debate state of medical marijuana in RI  
(news – 2012)  
http://www.browndailyherald.com/2012/04/05/panelists-debate-state-of-medical-marijuana-in-ri/ 

Irv Rosenfeld’s 30th Anniversary of Getting Marijuana From the Feds  
(news – 2012)  
http://blog.mpp.org/tag/compassionate-investigational-new-drug/ 

Acidic versus Activated Cannabinoids- Tips on How to Choose the Therapy Regimen that is Right for You  
(news – 2012)  
http://pureanalytics.net/blog/2012/05/09/acidic-versus-activated-cannabinoids-tips-on-how-to-choose-the-therapy-regimen-that-is-right-for-you/ 

Legalization of marijuana: unraveling quandaries for the addiction professional  
(article – 2013)  

‘Tis in our nature: taking the human-cannabis relationship seriously in health science and public policy  
(article – 2013)  

(Re)introducing medicinal cannabis  
(article – 2013)  

Hashing It Out In Ohio With The Martha Stewart Of Marijuana  
(interview – 2013)  
New Developments in Cannabinoid-Based Medicine: An Interview with Dr. Raphael Mechoulam (interview – 2013)

INTERVIEW : Martin Lee of Project CBD (interview – 2013)
http://www.ladybud.com/2013/11/12/interview-martin-lee-of-project-cbd/

While Arresting Thousands Of Pot Smokers Daily, Feds Supply 4 Patients With Legal Marijuana (news – 2013)


Adequate and Well-Controlled Studies Proving Medical Efficacy of Cannabis Exist but Are Ignored by Marijuana Schedulers (news – 2013)
http://www.huffingtonpost.com/sunil-kumar-aggarwal/marijuana-schedule-1-b_3071725.html

Sativex® rescheduled by the Home Office (news – 2013) (click “yes” if asked)

Arguments Over the "High" of Cannabis are Half-Baked (news – 2013)
http://blog.themobilityresource.com/blog/post/cannabis-it-never-killed-anyone

Legal marijuana's all-cash business and secret banking (news – 2013)

Marijuana research cut as support grows (news – 2013)
http://www.heraldnet.com/article/20130421/NEWS02/704219903/0/living02

Is Marijuana Booming Among Boomers? (news – 2013)
http://www.forbes.com/sites/nextavenue/2013/05/16/is-marijuana-booming-among-boomers/

Medical marijuana helps senior sleep, contend with other problems of aging (news – 2013)
http://www.ottawacitizen.com/health/seniors/Medical+marijuana+helps+senior+sleep+contend+with+other/8439474/story.html

Is Medical Marijuana Safe For Children and Adolescents? (news - 2013)
http://www.wakingtimes.com/2013/05/27/is-medical-marijuana-safe-for-children-and-adolescents/

How America Learned to Stop Worrying and Love Marijuana (news - 2013)
http://nation.time.com/2013/05/28/how-america-learned-to-stop-worrying-and-love-marijuana/#ixzz2Ui579pqQ

The Other IRS Scandal Outright War Against Marijuana Dispensaries (news – 2013)
http://www.wakingtimes.com/2013/05/18/the-other-irs-scandal-outright-war-against-marijuana-dispensaries/
Medical Marijuana: Consortium of Multiple Sclerosis Centers (news – 2013)  

Medical Marijuana Gets Blessing of Orthodox Rabbi — But Don't Get High (news – 2013)  

Medical Marijuana for Kids? Some Praise Results While Others Worry About Risks (news – 2013)  
http://www.cnbc.com/id/100876423

Medical marijuana users don't have protections from sub-par pot (news – 2013)  

THC Can Prevent Brain Damage – Study (news – 2013)  
http://www.science20.com/news_articles/thc_can_prevent_brain_damage_study-113512

Dad defends decision to give 7-year-old daughter with leukemia marijuana for the pain (news – 2013)  

Cannabis for Elders: A Precarious State (news – 2013)  

Buying Pot For My 11-Year-Old (news – 2013)  
http://www.huffingtonpost.com/suzanne-leigh/buying-pot-for-my-11-year-old_b_3538543.html

Longer waits for marijuana than cronuts (news – 2013)  

Study: Medical Marijuana Laws Lead To Decrease In Alcohol-Related Deaths (news – 2013)  
http://www.opposingviews.com/i/society/study-medical-marijuana-laws-lead-decrease-alcohol-related-deaths#

No detectable association between frequency of marijuana use and health or healthcare utilization (news – 2013)  

Father Of Weed Science Says Research Limits Are 'Tragic' (news – 2013)  

Why I changed my mind on weed (news – 2013)  

Mother Investigated After Opting For Marijuana Over Chemotherapy (news – 2013)  
http://blogs.ocweekly.com/navelgazing/2013/10/can_you_fly_the_friendly_skies.php

Light-up Nation: What Israel can teach America about medical marijuana (news – 2013)  
http://www.jewishjournal.com/cover_story/article/green_gold_israel_sets_a_new_standard_for_legal_medicinal_marijuana_reasearch

Senior Focus: Should marijuana be legalized for end of life care? (news – 2013)  
http://www.stltoday.com/lifestyles/health-med-fit/6814b63f-d758-5500-9507-a908a5b20e01.html

Medical Marijuana (news – 2013)  
http://www.webmd.com/pain-management/features/medical-marijuana-uses

Families of children with epilepsy moving to Colorado, drawn by success of marijuana oil (news – 2013)  

Few Problems With Cannabis for California (news – 2013)  

Marijuana Use Increased Over the Last Decade (news – 2013)  
http://www.pewresearch.org/daily-number/marijuana-use-increased-over-the-last-decade/

Survey: 76 percent of doctors approve of medical marijuana use (news – 2013)  

Most Docs OK With Medical Marijuana: Survey (news – 2013)  

"Why It's So Hard For Scientists To Study Medical Marijuana" (news – 2013)  

From Alive to Living: Disabilities Treated with Medical Marijuana (news – 2013)  

Pot-Smoking Quadriplegic’s Firing Shows Haze Over Rules (news - 2013)  

Off-the-clock pot use shouldn't be grounds for firing, poll finds (news - 2013)  

These Are The 9 Reasons That Sanjay Gupta Changed His Mind About Marijuana (news – 2013)  
Teen Marijuana Use Hasn't Exploded Amid Boom in Legalization Support, Drug Survey Finds (news – 2013) 

Drug War Blocking Potential Treatments for Cancer, Alzheimer’s, Journal Claims (news – 2013) 
http://healthland.time.com/2013/06/14/drug-war-blocking-potential-treatments-for-cancer-alzheimers-journal-claims/

Australian Doctors, Experts Join Call For Medical Marijuana (news – 2013) 

Athletes and Pot: Legalized marijuana in a league of its own (news – 2013) 

Michigan driver who uses medical marijuana wins appeal (news – 2013) 

http://www.gacareproject.com/flash-back-how-georgia-legalized-medical-marijuana/

Medical marijuana: certifying physicians must study regulations, science of treatment. (news – 2013) 

Science for stoners: What is marijuana “abuse?” (news – 2013) 
http://www.salon.com/2013/10/26/science_for_stoners_what_is_marijuana_abuse/

http://www.huffingtonpost.com/2013/04/20/marijuana-prohibition-costs_n_3123397.html

The DEA: Four Decades of Impeding And Rejecting Science (full – 2014) 
http://www.drugpolicy.org/sites/default/files/DPA-MAPS_DEA_Science_Final.pdf

Medical Marijuana in the UK: As a doctor, should I be able to prescribe cannabis to my patients? (article – 2014) 
http://www.independent.co.uk/voices/medical-marijuana-in-the-uk-as-a-doctor-should-i-be-able-to-prescribe-cannabis-to-my-patients-9791583.html

Marijuana Resource Center: State Laws Related to Marijuana (article – 2014) 
http://www.whitehouse.gov/ondcp/state-laws-related-to-marijuana
Medical Cannabis and the Myth of Amotivational Syndrome (article – 2014)

http://www.safeaccessnow.org/medical_cannabis_research_what_does_the_evidence_say

Medical marijuana: 4 experts on benefits vs. risks (article – 2014)
https://www.elsevier.com/connect/medical-marijuana-4-experts-on-benefits-vs-risks

A Review and Critique of Dr. Sanjay Gupta's Weed 2: Cannabis Madness on CNN (article – 2014)
http://cms.herbalgram.org/heg/volume11/04April/CNNGupataWEED2critique.html

In States With Medical Marijuana, Painkiller Deaths Drop by 25 Percent (news – 2014)

The Common Link Between Breast Milk, Cannabis and Tea (news – 2014)

The new faces of marijuana (news – 2014)
http://www.msnbc.com/hardball/the-new-faces-marijuana

Medical Marijuana Cuts Suicide Rates By 10% In Years Following Legalization (news – 2014)
http://www.medicaldaily.com/medical-marijuana-cuts-suicide-rates-10-years-following-legalization-268472

Seattle police: Can off-duty officers work pot shop security? (news – 2014)

Patients curious about medical marijuana treatments (news – 2014)

Canadian Hospitals Prepare To Allow Medical Marijuana (news – 2014)

It’s not your grandfather’s marijuana any more (news – 2014)

Scientists Know More About Marijuana as a Medicine Than Many FDA Approved Pharmaceuticals (news – 2014)
http://www.alternet.org/drugs/scientists-know-more-about-marijuana-medicine-many-fda-approved-pharmaceuticals

Georgia Medical Patients Apply for Marijuana Research Program (news – 2014)
http://www.gacareproject.com/georgia-medical-patients-apply-for-marijuana-research-program/

Marijuana’s rising acceptance comes after many failures. Is it now legalization’s time? (news – 2014)
If Medical Marijuana Laws Cause A 'Surge in Drugged Driving Deaths,' Why Are Fatalities Falling? (news – 2014)

DEA targets doctors linked to medical marijuana. (news – 2014)

Medical marijuana is legal here, but many docs don’t want to prescribe it. (news – 2014)

'I'm Going To Prison For Working At A Pot Shop That Was Legal In My State' (news – 2014)
http://www.huffingtonpost.com/2014/03/03/robert-duncan-marijuana_n_4877072.html?ncid=tthkusaolp00000592

Gupta: 'I am doubling down' on medical marijuana (news – 2014)
http://edition.cnn.com/2014/03/05/health/gupta-medical-marijuana/

Medical marijuana and 'the entourage effect' (news – 2014)

Doctors tell lawmakers medical marijuana is effective (news – 2014)
http://qctimes.com/news/local/government-and-politics/7d2eb47e-ab8d-5a0d-8025-5307d2adfec0.html

Marijuana Saved My Life: An Abbreviated Dope Diary (news – 2014)

Tests show THC content in marijuana edibles is inconsistent (news – 2014)

Does medical marijuana equal bad parenting? (news – 2014)

State Accidentally Releases Confidential Law Enforcement Info To Marijuana Activist (news – 2014)

Federal red tape ties up marijuana research (news - 2014)
http://www.nature.com/news/federal-red-tape-ties-up-marijuana-research-1.14926

Non-psychoactive CBD oil made from marijuana plants poised to be game-changer (news - 2014)
Surveys yet to link medical marijuana and teen drug abuse (news - 2014)

This Family Had To Fire Their Doctor To Get Medical Marijuana For Their Son (news – 2014)
http://www.huffingtonpost.com/2014/03/25/epilepsy-medical-marijuana_n_5022008.html

Retired Flint couple sees the light on medical marijuana (news – 2014)

A medical marijuana patient's determined search for relief (news – 2014)


Why Drs. Gupta, Oz and Besser changed stance on pot (news – 2014)
http://www.thecannabist.co/2014/05/13/changing-tide-drs-gupta-oz-bessner-changed-minds-medical-pot/11705/

Mississippi, home to federal government's official stash of marijuana (news – 2014)

Doctors Say DEA Blackmailed Them Over Medical Marijuana Ties (news – 2014)
http://www.huffingtonpost.com/2014/06/06/dea-doctors-medical-marijuana_n_5460077.html

Minnesota's New Medical Marijuana Law Blocks Research Treating Chronic Sickle Cell Pain (news – 2014)
http://www.huffingtonpost.com/2014/06/11/minnesota-medical-marijuana_n_5485383.html

Changing pot laws prompt child-endangerment review (news – 2014)

Let’s Clarify the State Laws on Cannabis: Who’s in, Who’s Out? (news - 2014)
http://www.unitedpatientsgroup.com/blog/2014/07/10/which-states-have-legal-marijuana-heres-the-latest/

Biohackers Are Engineering Yeast to Make THC (news - 2014)
http://motherboard.vice.com/read/biohackers-are-engineering-yeast-to-make-thc

Checotah Man Credits Cannabis Oil For Improved Health (COPD) (news – 2014)
http://www.newson6.com/story/26293519/checotah-man-credits-cannabis-oil-for-improved-health

Bid to Expand Medical Marijuana Business Faces Federal Hurdles (news – 2014)

Medical marijuana laws may reduce painkiller overdoses (news – 2014)
Federal marijuana bill would legalize some cannabis strains
(news – 2014)

States With Medical Marijuana Laws Have Fewer Opioid Overdose Deaths
(news – 2014)

No correlation between medical marijuana legalization, crime increase: Legalization may reduce homicide, assault rates
http://www.sciencedaily.com/releases/2014/03/140326182049.htm
(news – 2014)

Medical Marijuana's Legalization and Crime Rates
(news – 2014)

Monterey County seniors finding pain relief in medical marijuana
(news – 2014)

PMS, Menses, Menopause and Cannabis
(news – 2014)

Testing of Colorado marijuana for contaminants to begin this year
http://gazette.com/testing-of-pot-for-contaminants-to-begin-this-year/article/1536213
(news – 2014)

U.S. government to grow 30 times more marijuana this year
(news – 2014)

Marijuana: Italian Army to Grow Cannabis for Medical Purposes
https://uk.news.yahoo.com/marijuana-italian-army-grow-cannabis-medical-purposes-120852716.html/oZ9vNGz
(news – 2014)

Does Legal Marijuana Help or Hurt the U.S. Health Care System?
(news – 2014)

Colorado Court to Decide Whether Smoking Pot is a Fireable Offense
(news – 2014)

Marijuana research hampered by access from government and politics, scientists say
http://www.washingtonpost.com/national/health-science/marijuana-research-hampered-by-access-fromgovernment-and-politics-scientists-say/2014/03/21/6065eb88-a47d-11e3-84d4-e59b1709222c_story.html
(news – 2014)

92% of patients say medical marijuana works
(news – 2014) (nice chart)

Low or No THC, High CBD Medical Marijuana Bills: Leaving Most Patients Behind
https://www.mpp.org/low-or-no-thc-high-cbd-medical-marijuana-bills/
(news – 2014)
Medical Marijuana and the Workplace: What Employers Need to Know Now (news – 2014)

4 Americans get medical pot from the feds (news – 2014)

What it’s like inside a recreational marijuana dispensary (news – 2014)

Pot's a Pain for Painkillers (news – 2014)
http://www.northcoastjournal.com/humboldt/pots-a-pain-for-painkillers/Content?oid=2718796

Where Americans Smoke and Grow Marijuana (Maps) (news – 2014)

Why Marijuana Needs Chemical Quality Control Testing (news – 2014)

Medical marijuana opponents’ most powerful argument is at odds with a mountain of research (news – 2014)

Legalize Medical Marijuana, Doctors Say in Survey (news – 2014)

Doctors bone up on medical marijuana (news – 2014)
http://commonwealthmagazine.org/health-care/004-doctors-bone-up-on-medical-marijuana/

More than zero: reclassifying marijuana could have a significant impact on drug policy. (news - 2014)
http://www.forbes.com/sites/jacobsullum/2014/02/07/more-than-zero-reclassifying-marijuana-would-have-a-significant-impact-on-drug-policy/

From Demon Weed To God’s Plant (news - 2014)

Politicians’ prescriptions for marijuana defy doctors and data (news – 2014)

FDA to evaluate marijuana for potential reclassification as less dangerous drug (news – 2014)
http://www.huffingtonpost.com/2014/06/24/fda-marijuana_n_5526634.html
DR ALLAN FRANKEL’S EARLY VERSION INITIAL DOSAGE AND ADMINISTRATION GUIDE (news – 2014)

Health Benefits Of Medical Marijuana: 3 Major Ways Cannabis Helps Sick People Live Normal Lives (news – 2014)

MEDICAL MARIJUANA : Out of the Shadows (news – 2014)

Are Baby Boomers Ready To Give MJ a Second Chance? (news – 2014)

1 in 20 California Adults Have Used Medical Marijuana, 92 Percent Said It Helped, New Study Finds (news – 2014)


The Secret History of Cannabis in Japan (news – 2014)

Brazil Considering Medical Marijuana Legalization (news – 2014)

https://data.colorado.gov/Health/Medical-Marijuana-Statistics-Reported-Condition/5yqk-p422

Ending the U.S. government’s war on medical marijuana research (report – 2015)
https://www.brookings.edu/research/ending-the-u-s-governments-war-on-medical-marijuana-research/

With education, nurses can help to bridge the marijuana gap (article – 2015)

Cannabis, Medical Science, and Fundamental Human Rights, With Dr. Ethan Russo (article – 2015)

Veterans Health Administration Policy on Cannabis as an Adjunct to Pain Treatment with Opiates (article – 2015)
http://journalofethics.ama-assn.org/2015/06/pfor2-1506.html

Feds say marijuana has no medical value. Obama's new surgeon general seems to disagree. (news – 2015)

RCMP expert admits Mounties lacked data to back up medical pot affidavit (news – 2015)

Senators Introduce Historic Bill to Allow Medical Marijuana (news – 2015)
http://time.com/3738038/medical-marijuana-congress/

Disabled JeffCo student's cannabis medication confiscated, school cites federal law (news – 2015)

California Legislator Introduces Bill to End Organ Transplant Denials for Medical Marijuana Patients (news – 2015)
http://www.commondreams.org/newswire/2015/02/12/california-legislator-introduces-bill-end-organ-transplant-denials-medical

Pot-smoking stockbroker has a steady supplier: the feds (news – 2015)

Many States Mulling Medical Marijuana Bills (news – 2015)

Nevada Law Would Make 'Pot for Pets' Legal (news – 2015)

http://time.com/3726560/pot-dispensing-rabbi-d-c-residents-deserve-legal-access-to-marijuana/

Annual Marijuana Report: Jobs Boost, Medical Outnumbers Retail (news – 2015)

Growing hemp for research? (news – 2015)
http://siouxcityjournal.com/business/local/1cb1b771-849b-5f0e-9634-3ffe37c122c3.html

Medical marijuana spawning many businesses (news – 2015)

Medical marijuana users could help researchers define risks, benefits
Unconscious use of 'medical marijuana' Hunter-gatherer cannabis use linked to fewer internal parasites (news – 2015)
http://www.sciencedaily.com/releases/2015/06/150601082721.htm

Controversial Cannabis Treatment Helps 9-Year-Old Boy Speak His First Words (news – 2015)

Video: Santa Ana police raid pot shop, then eat its edibles, attorney says (news – 2015)

Warning Letters and Test Results (news – 2015)
http://www.fda.gov/NewsEvents/PublicHealthFocus/ucm435591.htm

Medical Marijuana Is Often Less Potent Than Advertised (news – 2015)
http://www.npr.org/sections/health-shots/2015/06/23/416791647/medical-marijuana-is-often-less-potent-than-advertised

Hein and Helsmoortel support proposed ‘kosher’ pot farm in Saugerties (news – 2015)

One family's medical-marijuana story (news – 2015)

Legitimate medical-marijuana use should not get you fired (news – 2015)

Marijuana ruled 'reasonable and necessary' for injured worker's pain relief (news – 2015)

Bipolar man's illness leads to acquittal on marijuana possession charge (news – 2015)


Citicoline: A Useful Supplement For Medical Cannabis Patients (news – 2015)
http://www.cannabiscure.info/files/citicoline.htm

Free, online resource introduced for patients and healthcare professionals in Canada (news – 2015)
White House Lifts Restriction on Medical Marijuana
(news – 2015)

Major Pot Research Barrier Goes Up in Smoke
http://www.usnews.com/news/articles/2015/06/22/major-pot-research-barrier-goes-up-in-smoke
(news – 2015)

Huge New Review Shows What Medical Marijuana May (and May Not) Help
(news – 2015)

How the media used one tiny study to wildly exaggerate the threat of marijuana edibles
http://www.vox.com/2015/6/22/8826011/pot-edibles-dangerous
(news – 2015)

Cholesterol Drug Might Work Better than Medical Marijuana
http://www.popsci.com/cholesterol-drug-targets-same-receptors-marijuana
(news – 2015)

Pediatrician Group Recommends Decriminalizing Marijuana For Youngsters
(news – 2015)

Do medical marijuana laws increase teen pot smoking?
(news – 2015)

Drug warriors are still crying 'reefer madness.' The facts don't support them
(news – 2015)

A huge new study finds that medical marijuana doesn’t “send the wrong message” to kids
(news – 2015)

World first: Launch of Quebec registry for users of medical cannabis
(news – 2015)

Medical Marijuana: Benefits, Risks & State Laws
(news – 2015)

U.S. policy keeps medical marijuana research funding low
http://www.goerie.com/us-policy-keeps-medical-marijuana-research-funding-low
(news – 2015)

Which U.S. States Accept Out-of-State Medical Marijuana Authorizations?
Is it time to legalize marijuana in sports?  

The DOJ 'Intended To Discourage' A Historic Medical Marijuana Bill  
http://www.huffingtonpost.com/entry/doj-medical-marijuana_55c382ade4b0d9b743db14fc  

How the Justice Department seems to have misled Congress on medical marijuana  

At 82, he's the world's most eminent pot scientist  
http://hemphealthytoday.blogspot.com/2013/08/at-82-hes-worlds-most-eminent-pot.html  

Indian Oncologists Want Cannabis Legalized To Fight Cancer  

Medical marijuana users face higher insurance rates, even if they don't smoke it  
https://ca.news.yahoo.com/medical-marijuana-users-face-higher-120000146.html  

Big Pharma-Produced Cannabis Is Likely Coming to the U.S.  

Dr. Sanjay Gupta: It's time for a medical marijuana revolution  

Marijuana: lower cost, more choice  

Israel Could Grow Into A Global Cannabis Startup Superpower  
http://techcrunch.com/2015/09/04/israel-sparks-up-cannabis-startups/  

How weed is being embraced by the wellness movement  

Many Teens With Chronic Illnesses Use Alcohol, Pot  

Medicinal marijuana: Patients battle stigma and misunderstanding  
http://www.sciencedaily.com/releases/2015/08/15082813011.htm  

Illinois medical marijuana applicants trending female, older  

CANNABIS ISSUE COVER FEATURE: LOBEL PRIZE  
https://digboston.com/cannabis-issue-cover-feature-lobel-prize/
Doctors pioneer pot as an opioid substitute
http://www.bostonherald.com/news_opinion/local_coverage/2015/10/doctors_pioneer_pot_as_an_opioid_s
ubstitute

Medical Marijuana Safe for Chronic Pain: Study

A first for the marijuana industry: A product liability lawsuit

1 in 5 Small Businesses Would Allow Employees to Use Medical Marijuana While at Work, Study Finds - Three-Quarters of Small Businesses Do Not Require Employees to Take Drug Tests
http://www.businesswire.com/news/home/20151014005730/en/1-5-Small-Businesses-Employees-Medical-
Marijuana

Croatia allows marijuana for medical use

The government is stifling medical marijuana research, major think tank declares
http://www.washingtonpost.com/news/wonkblog/wp/2015/10/20/the-federal-government-is-stifling-
medical-research-major-think-tank-declares/?wprrss=rss_business

CRA says you can claim medical marijuana on your taxes

Many Anti-Pot Arguments Are Based On Weak Science, Say Researchers
http://www.huffingtonpost.com/entry/marijuana-use-myths_55cb6f53e4b0923c12bed78d?ncid=ttxlnkusaolp00000592&kvcommref=mostpopular

Will Medical Marijuana Ever Be Covered By Medicare?
medicare.aspx#ixzz3szUr1qeo

New Minnesota marijuana strain more potent, could cut costs

Growing Medical Weed Is NOT A Crime, California Appeals Court Rules
http://www.eastbayexpress.com/LegalizationNation/archives/2015/12/18/growing-medical-weed-is-not-a-
crime-california-appeals-court-rules

Illinois medical pot users erroneously told to give up guns

First-of-its-kind survey 'great opportunity for the industry to gather data directly from
patients'
http://www.whig.com/article/20151222/ARTICLE/312229872
DEA eases requirements for natural cannabis-derived drug research
http://www.trust.org/item/20151223171611-xsa6u/

Finding the Right Strain of Medical Marijuana

Organization To Offer Kosher Medical Marijuana In New York State
http://newyork.cbslocal.com/2015/12/30/kosher-medical-marijuana/

Is Smoking Kosher for Passover — and What About Pot?
http://forward.com/articles/217811/is-smoking-kosher-for-passover-and-what-about-pot/?

9 Investigates availability of Charlotte’s Web for doctors

Which States Recognize Out Of State Medical Marijuana Cards/Patients?

Law coming to protect intellectual rights of ganja growers

Customers looking for a high ask a marijuana 'budtender' for advice

Canadian multicenter study examines safety of medical cannabis in the treatment of chronic pain

Painkiller Deaths Drop by 25 Percent in States Where Medical Marijuana is Legal

The State that Turns Pregnant Women Into Felons
http://www.alternet.org/drugs/when-womb-crime-scene

Perspective: Close the knowledge gap
http://cannadata.tech/engineering-the-future/perspective-close-the-knowledge-gap-cannabis/

The Outsourcing of American Marijuana Research

Medical marijuana: Showdown at the cannabis corral

Swedish man acquitted in court for growing medical marijuana
ICYMI: The Feds Have Their Own Crop Of Whacky-Tobacky In The Heart Of Mississippi (news – 2015)

Study: Patients Substitute Cannabis For Booze, Prescription Drugs (news – 2015)
http://norml.org/news/2015/10/08/study-patients-substitute-cannabis-for-booze-prescription-drugs

Seeking the Facts on Medical Marijuana (news – 2015)

California Senate Moves To End Discrimination Against Medical Marijuana Patients Seeking Organ Transplants (news – 2015)

Government restrictions, lack of funding slow progress on medical marijuana research (news – 2015)

DEA Chief Wrong on Medical Marijuana (news – 2015)


5 Prescription Drugs That Could Literally Replaced by Marijuana (news – 2015)
http://blogs.naturalnews.com/5-prescription-drugs-literally-replaced-marijuana/

Medical Marijuana May Help Transplant Patients (news – 2015)

What are Cannabinoids? (news – 2015)
https://www.whaxy.com/learn/what-are-cannabinoids?

Health Canada Authorizes Emerald Health to begin Production of Cannabis Oil and to Expand Production Space (news/ad – 2015)


COMPREHENSIVE MEDICAL MARIJUANA PATIENT STUDY

Why I chose to use cannabis (article – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4791147/

NIDA Drug Supply Program (article – 2016)
https://www.drugabuse.gov/researchers/research-resources/nida-drug-supply-program

NIDA's Role in Providing Marijuana for Research (article – 2016)
https://www.drugabuse.gov/drugs-abuse/marijuana/nidas-role-in-providing-marijuana-research

DEA Announces Actions Related to Marijuana and Industrial Hemp (article – 2016)

FDA and Marijuana: Questions and Answers (article – 2016)
http://www.fda.gov/NewsEvents/PublicHealthFocus/ucm421168.htm

http://cfamm.ca/patient-recommendations/

Cannabis in the United States (report – 2016)
http://self.gutenberg.org/article/WHEBN0020566488/Cannabis%20in%20the%20United%20States

Dose of Reality: The Effect of State Marijuana Legalizations (report – 2016)

Marijuana Could Help Treat Drug Addiction and Mental Health Problems (news & abst – 2016)
http://neurosciencenews.com/addiction-mental-health-marijuana-5536/

Migraine Frequency Decreased by Medical Marijuana (news & abst – 2016)
http://neurosciencenews.com/medical-marijuana-migraine-3440/

Physicians want robust studies on medical marijuana use (news – 2016)

Medical Marijuana Kosher? Doesn't Matter, Says Kashruth Council of Canada (news – 2016)
Latin America's biggest medical cannabis farm sprouts in Chile (news – 2016)

One way to fight the opioid epidemic? Medical marijuana. (news – 2016)
http://www.vox.com/2016/1/20/10800248/medical-marijuana-opioids-heroin

Medical cannabis producer Bedrocan lowers its prices to $5 a gram (news – 2016)

Ex-Bear Jim McMahon: Medical marijuana got me off narcotic pain pills (news – 2016)

Marijuana survey finds medical users more likely to consume edibles and vaporize (news – 2016)
http://www.sciencedaily.com/releases/2016/01/160128133040.htm

KILL BILL: LAW ENFORCEMENT CRACKS DOWN ON MEDICAL CANNABIS OILS (news – 2016)

Buffington: I’m Growing Marijuana (news – 2016)

Buffington: Medical Marijuana, Part 2 (news – 2016)

20 Marijuana Statistics That Chronicle Its Expansion Over the Past 20 Years (news – 2016)

What Gives Israel the Edge on Marijuana? For starters, the nation puts patients before politics (news – 2016)
http://observer.com/2016/03/what-gives-israel-the-edge-on-marijuana/

Mom and dad make up 45% of medical marijuana patients (news – 2016)

Massive loophole in New Zealand's cannabis laws (news – 2016)

Marijuana's Mad Scientist Is Changing the Weed Game (news – 2016)
Murphy Seeks Possible Insurance Coverage For Medical Marijuana

Marijuana inventory covered under commercial insurance policy (D. Colo)

CDC Guidelines Urge Doctors Not to Test for Marijuana

Will the Government Know If I Get a Marijuana Card?

The stoned soldiers of Santa Cruz

Poll: 3 out of 4 Ohio voters favor legalizing marijuana for medical purposes

Where Gray-Haired Aunties Push Weed

Medical marijuana: How a headache sufferer got his insurance to cover cannabis

My Visit To The Pot Shop

Grapevine girl heads west, hoping marijuana will ease her pain

Die or break the law: man illegally healed with medical marijuana identifies himself

Facebook cracks down on marijuana firms with dozens of accounts shut down

Lawmakers eye stricter medical marijuana rules for welfare recipients

Not Able To Get Medical Marijuana Through The VA, Veterans Struggle With Cost, Confusion

Pot Dispensaries Flood California Tax Office With Weed-Smelling Cash
Father advocates for exemption to pot ordinance to treat son's severe epilepsy

More palliative care patients should get medical marijuana: doctors
http://www.ctvnews.ca/health/health-headlines/more-palliative-care-patients-should-get-medical-marijuana-doctors-1.2779014

Medicinal cannabis: Towradgi's Ben Oakley supports tabling of new laws

A New Era in Medical Marijuana Research?

Passover's OK for Weed Smoking Because of Its "Healing" Scent, Says Extremely Chill Rabbi

'No-Buzz' Medical Pot Laws Prove Problematic for Patients, Lawmakers

10 Countries (Aside From the U.S.) Where Some Form of Medical Marijuana Is Legal
http://www.foxbusiness.com/markets/2016/05/15/10-countries-aside-from-u-s-where-some-form-medical-marijuana-is-legal.html

Seniors are filling their prescriptions -- at a pot shop

Meet Sue Taylor, the Black Grandmother Leading the Charge to Bring Marijuana to the Elderly
http://jezebel.com/meet-sue-taylor-the-black-grandmother-leading-the-char-177958324#

The FDA Is Cracking Down On CBD Oil

As more states legalize marijuana, adolescents' problems with pot decline

State Department: The DEA Has Been Lying About Research Pot
Sun Life first insurer to stop treating pot users as smokers as marijuana increasingly accepted as a medicine  
(http://www.bullfax.com/?q=node-sun-life-first-insurer-stop-treating-pot-users-smokers-

Cannabis producer starts shipping to Croatia  

The Rise of Medical Marijuana In Germany  
(http://marijuanapolitics.com/rise-medical-marijuana-germany/

Medical marijuana becomes legal in Macedonia  

Buying medical pot for your child? Look out  
(http://www.philly.com/philly/health/kidshealth/20160611_Buying_medical_pot_for_your_child__Look_ou-
t.html

US researchers call for re-evaluation of microbial testing of Cannabis  
(http://www.eurekalert.org/pub_releases/2016-06/fo1-urc061416.php

Shavuot, The Bible, and Medical Marijuana  
(http://www.huffingtonpost.com/entry/shavuot-the-bible-and-medical-
marijuana_us_575eddb2e4b079c7cee5e02

Time to remove marijuana from the Controlled Substances Act  
(http://thehill.com/blogs/pundits-blog/uncategorized/283710-time-to-remove-marijuana-from-the-
controlled-substances-act

California marijuana company beats police raid  
(http://blog.sfgate.com/smellthetruth/2016/06/20/california-marijuana-company-beats-police-raid/

Marijuana May Boost Brain Performance  
(http://www.worldhealth.net/news/marijuana-may-boost-brain-performance/

Medical marijuana patient rolls climb 44%  
(http://www.hartfordbusiness.com/article/20160622/NEWS01/160629976

2 years after CBD oils legalized in NC: How they work for the child the law is named for  

Poll shows deep opposition to City of Vancouver crackdown on marijuana dispensaries  
(http://www.straight.com/news/724351/poll-shows-deep-opposition-city-vancouver-crackdown-marijuana-
dispensaries

American Pain Society Offers Guidance on Medical Marijuana for Pain  
(http://www.newswise.com/articles/view/655977/?sc=rsmn
What the merger of recreational, medical pot means  
[news – 2016]  

Patients, towns want relief from state's foggy pot rules  
[news – 2016]  

Most medical marijuana users benefit from treatment, finds Ben-Gurion University study  
[news – 2016]  

Maine could be first state to OK medical marijuana to treat addicts  
[news – 2016]  

Can I stop my employee from smoking weed on the job?  
[news – 2016]  
http://www.theglobeandmail.com/report-on-business/rob-magazine/can-i-stop-my-employees-from-smoking-weed-on-the-job/article30520441/?cmpid=rss1

Pharmacists open to medical marijuana  
[news – 2016]  
http://www.ottawasun.com/2016/07/01/pharmacists-open-to-medical-marijuana

Remembering the Florence Nightingale of Medical Marijuana  
[news – 2016]  

Cannabis one piece in pain management puzzle  
[news – 2016]  

Many Bay Area women choosing careers in cannabis industry  
[news – 2016]  

Does medical marijuana reduce need for other meds?  
[news – 2016]  

Fake 'Organic' Pot Gardening Products Yanked From Oregon Stores  
[news – 2016]  

Average legal user spends $647 a year on marijuana  
[news – 2016]  

Publix Billionaire Donates $800,000 to Fight Medical Marijuana in Florida  
[news – 2016]  

Medical Marijuana: How Do You Get a Prescription?  
[news – 2016]  

Veterans’ cry: ‘I found marijuana, and it saved me’  
[news – 2016]
Reefer Madness! Medical Marijuana is Already Saving $165M Per Year for Medicare (news – 2016)

Big Pharma's Concerned About These Marijuana Stats (news – 2016)

Marijuana-munching cops fired after being caught on tape (news – 2016)

Japan’s First Lady Ushers In New Era of Hemp Acceptance by Purchasing Elixinol CBD Hemp Oil Product (news – 2016)

Is It Time To Get Grandma & Grandpa Some Weed? (news – 2016)

After medical marijuana legalized, Medicare prescriptions drop for many drugs (news – 2016)

Number of Legal Medical Marijuana Patients (as of Mar. 1, 2016) (news – 2016)

One striking chart shows why pharma companies are fighting legal marijuana (news – 2016)

A taste of his own medicine for Langley marijuana advocate (news – 2016)

Time for the Media to Correct Its Cannabis Lexicon (news – 2016)

One in Eight U.S. Adults Say They Smoke Marijuana (news – 2016)

A Campaign to Constrain Cannabis Clinicians (news – 2016)

VA hospital in Phoenix blocks Dr. Sue Sisley’s presentation on cannabis & PTSD (news – 2016)
90% Of Cannabis Patients Find Pain Relief With Any Marijuana Strain
(http://www.theimpactnetwork.org/cannabis-research-illinois/)

Arizona Spends Big Bucks to Keep Serious Diseases like Parkinson’s from Qualifying for Medical-Marijuana Program
(http://www.theimpactnetwork.org/arizona-spends-big-bucks-keep-serious-diseases-like-parkinsons-qualifying-medical-marijuana-program/)

State Department Says DEA Is Wrong on Marijuana Monopoly
(http://www.theimpactnetwork.org/dea-wrong-marijuana-monopoly/)

Gallup: More than 33 million American adults currently use marijuana

Marijuana and the Developing Brain
(http://www.beyondthc.com/marijuana-and-the-developing-brain-2/)

DEA, rejecting medical use of marijuana, to deny rescheduling petition
(http://www.denverpost.com/2016/08/10/dea-reduce-medical-marijuana-research-restrictions/)

DEA rejects marijuana reclassification, despite states' shifting acceptance

Middle-aged parents more likely to smoke weed than their teenaged kids
(http://www.nola.com/politics/index.ssf/2016/09/middle-aged_parents_more_likel.html#comments)

Study: Medical marijuana changes how employees use sick time

In New Jersey, patients say new marijuana lotions and oils 'surprisingly effective'

Study of Fatal Car Accidents Suggests Medical Marijuana May Be Helping Curb Opioid Use

This Marijuana Farmers' Market Proves That Weed Is the New Wine
(http://www.laweekly.com/restaurants/this-marijuana-farmers-market-proves-that-weed-is-the-new-wine-7325690)

5 Tips for Breaking Into the 'Budding' Marijuana Industry
McLean Hospital Study Finds That Medical Marijuana Use May Improve Cognitive Performance

FACT CHECK: Are VA doctors prohibited from recommending medical marijuana?

A casino magnate is spending millions to fight legal marijuana in three states

Study finds legalized marijuana does not affect crime or economics

Medical Marijuana Not a Lure for Kids: Study

Marijuana butter eased her child's symptoms. Then her kids were taken away from her.

Fentanyl maker fights pot legalization

Feds drop effort to shut down Berkeley marijuana dispensary

Woman loses job after doctor tells employer about marijuana use, lawsuit says

Is marijuana a gateway drug? Scientific research says no
http://www.devilslakejournal.com/news/20161103/is-marijuana-gateway-drug-scientific-research-says-no

Study: Medical Marijuana Laws Associated With Greater Workforce Participation Among Older Americans

Survey: NFL players say some teammates use marijuana before they play
The Science behind the DEA’s Long War on Marijuana  (news – 2016)
https://www.scientificamerican.com/article/the-science-behind-the-dea-s-long-war-on-marijuana/

Santa Claus speaks out against North Pole ban of marijuana sales  (news – 2016)

A New Test of Pot's Potential to Replace Painkillers  (news – 2016)

For Colorado veterans, marijuana a controversial treatment  (news – 2016)


Health care refugees: Family flees Florida to save daughter's life  (news – 2016)

Health care refugees: Medical marijuana and new hope  (news – 2016)

Marijuana doctors get new business buzz from legalization in California  (news – 2016)

This Company Thinks It’s High Time for a Medical Marijuana Inhaler  (news – 2016)

NFL player using marijuana for Crohn's disease may press league over drug policy  (news – 2016)

Weed inhalers may soon be available to folks who use medical marijuana  (news – 2016)

Some employers nod to medical marijuana while at work  (news – 2016)
http://www.businessinsurance.com/article/20151014/NEWS08/151019928?template=printart

Marijuana industry brought to a standstill by new pesticide testing regulations  (news – 2016)

OBAMA: It’s 'untenable' for government to enforce 'a patchwork of laws' on marijuana
Yes, most state employees can use marijuana off the job

The marijuana-initiative blunder that could cost California millions of dollars

Bonfires of moldy pot

Legality of raid on pot dispensary challenged

Irish Government passes medicinal cannabis bill without vote

UK certifies marijuana molecule CBD as medicine

Canadian Marijuana Market More Mature, Outperforms U.S. Market

Montana Judge Rules to Re-open Marijuana Dispensaries Immediately
http://flatheadbeacon.com/2016/12/07/montana-judge-rules-re-open-marijuana-dispensaries-immediately/

Teens with Medical Marijuana Cards Much Likelier to Say They're Addicted, but Few Teens Have Them
http://www.newswise.com/articles/view/637617/?sc=rsmn

DEA: 'media attention' is making it tough to put people in jail for marijuana
http://www.nola.com/articles/19800330/marijuana_pot_dea_jail.amp

Now you 'CanPay' for pot with this app

UGA expert available to discuss DEA decision on reclassifying marijuana
http://www.newswise.com/articles/view/658962

Cannabis convict Eddy Lepp free from prison

The Dangerous Side of Opioids and How Cannabis Can Tame the Beast
Tetra Bio-Pharma Looks to Make Cannabis Affordable -- CFN Media
http://finance.yahoo.com/news/tetra-bio-pharma-looks-cannabis-142803183.html;_ylt=AwrXgCPuHkdYIyoAeSHQtDMD;_ylu=X3oDMTByMXM3OWtoBGNbG8DZ3ExxHBBwcwM4BHIZ0aWQDBHNIYwNzeg--

Discover Your Subjective Therapeutic Window: Turning Cannabis Into A Precision Medication
http://cannabishealthindex.com/cannabis-safety/the-secret-about-cannabis-that-everyone-should-know/

It’s Time to Let Mary Jane Graduate: Reclassify Marijuana

Medical cannabis patients wonder about Prop. 64’s potential effects
http://www.thecannifornian.com/cannabis-health/medical-cannabis-patients-wonder-prop-64s-potential-effects/

Medical marijuana: How to get a card
http://www.thecannifornian.com/cannabis-culture/medical-marijuana-get-card/

'Microdosing' is the future of marijuana

Marijuana Appears to Benefit Mental Health: Study
http://time.com/4573129/marijuana-cannabis-mental-health/

Medical marijuana users sue to cut costs

Rule would bar use of telemedicine for marijuana
http://www.news4jax.com/health/rule-would-bar-use-of-telemedicine-for-marijuana

Why Chauncey Billups was totally cool with NBA teammates smoking weed before games
http://www.thecannabist.co/2016/12/13/chauncey-billups-teammates-smoking-marijuana/69273/

DEA Gives Cannabis Law Significant Tweak

Here's who buys legal weed

Parents facing custody issues over marijuana see hope in Prop. 64
3 Tips To Getting The Correct CBD Dosage
http://herb.co/2016/12/05/correct-cbd-dosage/

How Omega 3 Improves the Effectiveness of CBD Oil
https://www.highlandpharms.com/cbd-oil-effective-omega-3

Aging baby boomers increasingly embrace marijuana, heavy alcohol use

States with medical marijuana laws have lower traffic fatality rates, study reports

Cannabis Sativa, Inc. Awarded Patent for "Ecuadorian Sativa" Cannabis Plant

Marijuana should be treated like tobacco, alcohol, Obama says

Court: Medical marijuana law trumps law on transporting pot

Here’s How to Flush Your Marijuana Criminal Record
http://bigbudsmag.com/how-to-get-rid-of-your-marijuana-criminal-record/

How The Federal Government Limits Valid Scientific Research on Cannabis Sativa
http://neurosciencenews.com/cannabis-research-government-4562/

DEA Refuses to Change Classification of Marijuana as Dangerous Drug With No Medical Use

Doctors Struggle With Medical Marijuana Knowledge Gap

Cannabis Makes up 22% of Canadian Veteran Drug Payments

Cannabis: Israel's next big medical export?

Israel: The Epicenter of Cannabis Research and Innovation
Could Medical Cannabis Break the Painkiller Epidemic? (news – 2016)

Gupta: DEA’s missed opportunity on medical marijuana (news – 2016)

New Medical Marijuana Policy Is a Catch-22, Researchers Say (news – 2016)

Marijuana May Improve Cognitive Function (news – 2016)

New report shows Amendment 2 exceeded 60% in every congressional district, senate district and all but two house districts. (news – 2016)

This Correlation Between Legal Medical Marijuana States and Traffic Fatalities Is Shocking (news – 2016)

Medical marijuana legalization sparks business interests (news – 2016)

Five new facts about medical versus recreational pot users (news – 2016)

Cannabis Wins Big On Election Night (news – 2016)
http://beyondchronic.com/2016/11/cannabis-wins-big-on-election-night/

Massive scientific report on marijuana confirms medical benefits (news – 2017)

Brazil issues first license for sale of a cannabis-based drug (news – 2017)

German lawmakers green-light medical cannabis use (news – 2017)

Use of Marijuana for Medical Purposes Among Adults in the United States (abst – 2017)

Equal access to our education system for children who are medical cannabis patients (news – 2017)

Oregon bill would protect worker's right to use marijuana off the clock (news – 2017)

Israel takes steps to decriminalize marijuana use (news – 2017)
http://www.azfamily.com/story/34362307/israel-takes-steps-to-decriminalize-marijuana-use

I made my son cannabis cookies. They changed his life. (news – 2017)
https://www.washingtonpost.com/opinions/i-made-my-son-cannabis-cookies-they-changed-his-life/2017/01/06/699b1d20-d1ef-11e6-a783-cd3fa950f2fd_story.html?utm_term=.dd6a6531b7b2

MENIERE'S SYNDROME

Meniere’s Disease and Marijuana (anecdotal – 2012)
http://rxmarijuana.com/menieres_disease_and_marijuana.htm

MENOPAUSE - also see AGING, GYNOCOLOGY

Medical Marijuana is the New Midol? California Doc Pitch Cannabis to Fairer Sex (news – 2011)

San Francisco Medical Marijuana Clinic Says Cannabis is Effective for Many Women’s Medical Issues (news – 2011)

Medical Marijuana uses for menopause symptoms (anecdotal – 2011)
http://www.medhelp.org/posts/Menopause/Medical-Marijuana-uses-for-menopause-symptoms/show/1374545

How Smoking Marijuana may Help Women to Fight Nasty Symptoms of Menopause? (news – 2012)

PMS, Menses, Menopause and Cannabis (news – 2014)
METHODS OF USE – CAPSULES

How To Make Your Own Canna Caps  (news – 2011)
http://beyondchronic.com/2011/01/how-to-make-your-own-canna-caps/

Capsule Warning: The AVB Experiment That Went Wrong  (news – 2012)
http://beyondchronic.com/2012/08/capsule-warning-avb-experiment-wrong/

Old Hippie’s Medicine Chest (or, Canna Caps Revealed)  (news – 2012)

Warning: Do Not Vaporize Edible Cannabis Oil  (news – 2014)

Time-Release Capsules Make Medical Marijuana More Approachable  
(news/ad – 2015)

METHODS OF USE – “DABS”/ HASH OIL/CONCENTRATES

The Beginner’s Guide To Dabbing & Cannabis Concentrates  (news – 2013)

Philly420: Marijuana refined  (news – 2013)
http://www.philly.com/philly/columnists/philly420/Marijuana_refined_Hash_oil_cannabis_concentrates_and_dabbing_.html?c=r

Getting high goes high-tech  (news – 2013)
http://www.boulderweekly.com/article-11450-getting-high-goes-high-tech.html

To Dab, or Not To Dab  (news – 2013)
http://pureanalytics.net/blog/2013/08/24/to-dab-or-not-to-dab/
METHODS OF USE – DECARBOXYLATION – a method to increase potency

Decarboxilation (article – undated) http://theweedsscene.com/recipe/decarboxilation/


Decarboxylation of cannabis: scientific info about temps and times (news – 2012) http://cannabischris.com/2012/10/decarboxylation-of-cannabis/


Decarboxylating Marijuana: Why It's Important (news – 2016)
https://www.hellomd.com/health-wellness/decarboxylating-marijuana-why-it-s-important

How To Make and Use Cannabis-Infused Butter and Oil (news – 2016)
http://beyondchronic.com/2016/08/how-make-use-cannabis-infused-butter-oil/

METHODS OF USE - E-CIGARETTES/ VAPE PENS

E-Cigarettes: A How-To With Canna (forum post - 2010)

Are E-Cigarettes the Perfect Disguise to Smoke Pot in Public? (news – 2013)

More People Using E-Cigarettes to Smoke Marijuana (news – 2013)

Vaporizers, e-cigs of the pot world, are booming (news – 2014)
http://www.usatoday.com/story/money/business/2014/03/15/marijuana-vaporizing-gains/6042675/

Teens smoking highly potent 'dabs' or 'earwax' with e-cigarettes (news – 2014)

How To Make THC E-Cig Juice Using MBM Glycerin Tincture (news – 2014)

No Smoke, but Haze Around E-Joint (news – 2015)

Head in the clouds: The complete noob’s guide to ecigs and vaping (news – 2016)

https://www.hellomd.com/health-wellness/beginner-s-guide-finding-the-right-marijuana-vaporizer

METHODS OF USE – EDIBLES –GENERAL USE

Marijuana Fuels a New Kitchen Culture (news – 2010)
http://www.nytimes.com/2010/05/19/dining/19pot.html?8dpc=&pagewanted=all

Cannabis Club Culinary Offerings (news/ad – 2010)
Marijuana cannabinoids - oral and transdermal methods  (news – 2011)
http://www.naturalnews.com/034425_marijuana_cannabinoids_medicine.html


Crumbs of comfort: Cannabis cookies are kosher for Passover  (news - 2012)

Cannabis Decarboxylation – THC Preparation for Unheated Edibles  (news – 2012)

Beyond Pot Brownies: The New Cannabis Cuisine  (news – 2012)

Legalized Pot: Smoke It or Eat It?  (news – 2012)
http://news.yahoo.com/legalized-pot-smoke-eat-172706138.html;_ylt=A2KJjbzsZqJQ5CsAUXjQtDMD

Of Edibles And Overdosing  (news – 2012)
http://beyondchronic.com/2012/04/edibles-and-overdosing/#comment-2799


An Introduction To Marijuana Edibles: What You Should Know About Ingesting Cannabis  (news – 2013)
http://www.medicaljane.com/2013/02/05/an-introduction-to-marijuana-edibles-why-ingesting-cannabis-just-makes-sense/

Why Research is Right About Smoking vs. Eating Medicinal Marijuana  (news – 2013)
http://www.wakingtimes.com/2013/05/15/why-research-is-right-about-smoking-vs-eating-medicinal-marijuana/

High on Health: Cannabinoids in the Food Supply  (news – 2013)
http://www.wakingtimes.com/2013/04/25/high-on-health-cbd-in-the-food-supply/

My Life As A Professional Cannabis Baker  (news – 2013)
http://www.buzzfeed.com/emofly/my-life-as-a-professional-cannabis-baker

Should Your Aging Parent Try Medical Marijuana?  (news/ anecdotal – 2013)

Tests show THC content in marijuana edibles is inconsistent  (news – 2014)

Calculating THC dosage for weed-infused recipes  (news – 2014)
Maureen Dowd burned over pot op-ed (news – 2015)

Coffee and ganja provide a healthy income in Aceh (news – 2015)

The THC Levels in Marijuana Edibles Are Totally Unreliable (news – 2015)
http://www.grabstreet.com/2015/03/ths-levels-edibles.html

Five Tips for Buying Marijuana-Infused Food (news – 2015)
http://www.eastbayexpress.com/LegalizationNation/archives/2015/03/13/five-tips-for-buying-marijuana-infused-food

New frontier for marijuana products: kosher certification (news – 2015)

Users May Never Buy a Pot Laden Dunkin' Donut, But Psychoactive Ice Cream is Readily Available (news – 2015)

Lab: Edibles' potency more accurate than a year ago, still needs work (news – 2015)

Incredible Medibles: Marijuana Meets Culinary Innovation (news – 2015)
http://www.pastemagazine.com/articles/2015/05/incredible-medibles-marijuana-meets-culinary-innov.html


Marijuana-Infused Smoked Salmon Is The Future Of Breakfast (news – 2015)
http://www.huffingtonpost.com/2015/05/26/marijuana-smoked-salmon-rosenbergs-bagels_n_7444508.html

Medical Marijuana Is Often Less Potent Than Advertised (news – 2015)
http://www.npr.org/sections/health-shots/2015/06/23/416791647/medical-marijuana-is-often-less-potent-than-advertised

How the media used one tiny study to wildly exaggerate the threat of marijuana edibles (news – 2015)
http://www.vox.com/2015/6/22/8826011/pot-edibles-dangerous

Products infused with marijuana account for about 40 percent of all sales, but are they safe? (news – 2015)
http://www.ncsl.org/research/civil-and-criminal-justice/edibles-for-experts-only.aspx

How to Stay Healthy While You're High (news – 2015)

Colorado may ban 'candy' name on marijuana treats (news – 2015)
Colorado lawmakers target edible pot in fruit, animal shapes  
http://denver.cbslocal.com/2016/04/19/colorado-edible-pot-fruit-animal-shapes/  
(news – 2016)

Commissioners delay pot jerky decision  
(news – 2016)

Cooking with cannabis: ‘I have a fish guy, a meat guy and a weed guy’  
(news – 2016)

Artisanal marijuana crabcakes: Is this the future of getting high?  
https://www.washingtonpost.com/lifestyle/artisanal-marijuana-crabcakes-is-this-the-future-of-getting-high/2016/05/18/47189c60-1795-11e6-9e16-2e5a123aac62_story.html  
(news – 2016)

Mountain Town News: Yes to cannabis jerky, but still many worries  
(news – 2016)

The high life  
http://www.phnompenhpost.com/post-weekend/high-life  
(news – 2016)

Remembering the Florence Nightingale of Medical Marijuana  
(news – 2016)

Your kid is way more likely to be poisoned by crayons than by marijuana  
(news – 2016)

Marijuana-munching cops fired after being caught on tape  
(news – 2016)

Cannabis Counters Migraines (new old news)  
http://www.beyondthc.com/cannabis-counters-migraines-another-news-flash/  
(news – 2016)

Colorado gives marijuana candy a new look to avoid confusion  
(news – 2016)

Ganja Grows Up  
http://www.bendsource.com/bend/ganja-grows-up/Content?oid=2762480  
(news – 2016)

Want to protect children? Legalize and lock down marijuana  
http://www.eastvalleytribune.com/arizona/article_d2716b90-9a38-11e6-b59e-63efecf71e6d.html  
(news – 2016)
Marijuana Myths That Just Won’t Die  
http://www.seattleweekly.com/food/marijuana-myths-that-just-wont-die/  
(news – 2016)

A new era for cannabis extracts in California  
(news – 2016)

How Too Much Marijuana Can Cost You an Arm and a Leg  
(news – 2016)

Medical Marijuana ‘Edibles’ Mostly Mislabeled, Study Show  
http://www.newswise.com/articles/view/636034/?sc=rsmn  
(news – 2016)

Discover Your Subjective Therapeutic Window: Turning Cannabis Into A Precision  
http://cannabishealthindex.com/cannabis-safety/the-secret-about-cannabis-that-everyone-should-know/  
(news – 2016)

A trade school in Colorado is training foodies and weed enthusiasts to become pot 'sommeliers'  
(news – 2016)

Gourmet ganja? Marijuana dining is growing up, slowly  
(news – 2016)

The Early Bird Does Not Get the Legal Weed  
(news – 2016)

This Machine Was Made for Cannabis, But It Has Become My New Kitchen Essential  
(news/ad – 2016)

Product Review: tCheck Cannabis Oil Potency Tester  
http://beyondchronic.com/2016/10/product-review-tcheck-cannabis-oil-potency-tester/  
(news/ad – 2016)

I made my son cannabis cookies. They changed his life.  
https://www.washingtonpost.com/opinions/i-made-my-son-cannabis-cookies-they-changed-his-life/2017/01/06/699b1d20-d1ef-11e6-a783-cd3fa950f2fd_story.html?utm_term=.dd6a6531b7b2  
(news – 2017)

METHODS - EDIBLES- BEVERAGES - CANNABIS TEA

Health Benefits of Cannabis Tea  
(news – 2011)

How To Make Marijuana-Infused Tea  
http://www.leafscience.com/2014/07/05/make-marijuana-infused-tea/  
(news – 2014)
METHODS – EDIBLES - BEVERAGES – OTHER

How to Make Hemp Milk               (article – 2010)

Form of medical marijuana won't get you high, but it's creating a buzz       (news - 2010)
http://www.washingtonpost.com/wp-dyn/content/article/2010/05/31/AR2010053103231.html

Juiced Marijuana Offered to Medical Users as Alternative to Smoking       (news - 2010)

A sip replaces a toke with new marijuana soda       (news – 2011)

Forget Four Loko: The rise of marijuana soda       (news – 2011)

Raw Cannabis Juice and the Link to Clinical Cannabinoid Deficiency       (news – 2012)
http://bigbudsmag.com/raw-cannabis-juice-and-the-link-to-clinical-cannabinoid-deficiency/

http://theweek.com/article/index/227026/marijuana-infused-wine-the-new-high

The Chemistry of Nitrous-Powered, Pot-Infused Liquor       (news – 2013)

Got Hemp Milk? The Benefits of Hemp Milk       (news – 2013)

How to Make Canna-Milk       (news – 2013)
http://www.weedist.com/2013/08/how-to-make-cannamilk/

How-To Make A Cannabis Infused Blueberry Banana Smoothie       (news – 2014)

Marijuana infused coffee claims to give you a real morning buzz       (news – 2014)
http://www.foxnews.com/leisure/2014/06/03/marijuana-infused-coffee-claims-to-give-real-morning-buzz/
How to Make Weed Vodka, aka 'Green Dragon'  (recipe – 2014)

Coffee and ganja provide a healthy income in Aceh   (news – 2015)

The Next Hot Ingredient in Cocktails: Cannabis   (news – 2015)
http://www.bloomberg.com/news/articles/2015-02-11/is-it-time-to-take-cannabis-cocktails-seriously-

Mild-strength marijuana is the future of pot   (news – 2015)
http://blog.sfgate.com/smellthetruth/2015/03/31/mild-strength-marijuana-is-the-future-of-pot/


Marijuana coffee pods are here   (news – 2015)

Hemp for a Healthy Heart?   (news – 2015)
http://blog.lifeextension.com/2014/02/hemp-for-healthy-heart.html


Spice up Your Coffee with Cannabis   (news – 2015)
http://www.buydutchseeds.com/blog/spice-up-your-coffee-with-cannabis.html

Marijuana-infused wine: Cannabis adds flavor, structure to wine   (news – 2015)

The Latest Craze In Winemaking: Marijuana-Infused Wine   (news – 2015)

Canadian company's marijuana-infused coffee pods ready for brewing
(news – 2015)

Go Ask Alice: The History of Toklas’ Legendary Hashish Fudge
(news – 2015)

Weed-infused vodka is here, but it's not what you think   (news – 2016)


9 Marijuana Beers for 4/20   (news – 2016)
Making wine with biodynamically farmed grapes — and marijuana          (news – 2016)

This green wine is actually made out of marijuana—and it's available in the US (news – 2016)    http://www.businessinsider.com/cannabis-wine-infused-with-marijuana-2016-10

Cannabis coffee pods are a thing — and they're even compostable (news – 2016)    http://www.mnn.com/food/beverages/blogs/cannabis-coffee-pods-compostable

METHODS – EDIBLES – FOODS

CanChew Cannabinoid Gum Available to Patients Early 2013   (news – 2012)
https://www.medicaljane.com/2012/12/18/canchew-cannabinoid-gum/


Injured Soldiers Receive Cannabinoid Gum from Adopt-A-Soldier   (news – 2014)
utm_source=mantis&utm_medium=recommend&utm_campaign=mantis&muuid=622a55f7XXX8b3dXX
X4f96XXX8217XXX5ce33cbb24b8


Medical Marijuana Is Often Less Potent Than Advertised   (news – 2015)
http://www.npr.org/sections/health-shots/2015/06/23/416791647/medical-marijuana-is-often-less-potent-than-advertised


Marijuana labs: Oregon pot tests safer than food  (news – 2016)

Medical Marijuana ‘Edibles’ Mostly Mislabeled, Study Show  (news – 2016)
http://www.newswise.com/articles/view/636034/?sc=rsmn

AXIM bags pot discount for gum to treat multiple sclerosis  (news/ad – 2016)

METHODS - EDIBLES - RAW UNHEATED CANNABIS / JUICING

Form of medical marijuana won't get you high, but it's creating a buzz  (news - 2010)
http://www.washingtonpost.com/wp-dyn/content/article/2010/05/31/AR2010053103231.html

Juiced Marijuana Offered to Medical Users as Alternative to Smoking  (news - 2010)

Marijuana cannabinoids - oral and transdermal methods  (news – 2011)
http://www.naturalnews.com/034425_marijuana_cannabinoids_medicine.html

Raw Cannabis Juice and the Link to Clinical Cannabinoid Deficiency  (news – 2012)
http://bigbudsmag.com/raw-cannabis-juice-and-the-link-to-clinical-cannabinoid-deficiency/

Juicing medical marijuana the latest trend in amazing cures  (news – 2012)
http://www.naturalnews.com/034599_medical_marijuana_juicing_cures.html

The Amazing Health Benefits of Juicing Raw Cannabis Leaves  (news – 2012)

Juicing cannabis miraculously saves lives after physicians declare the battle lost  (news – 2012)
http://www.naturalnews.com/035400_juicing_cannabis_remedies.html

Cannabis Cures Cancer: Look at me, I’m Cancer Free!  (news – 2012)
http://www.tokeofthetown.com/2012/10/cannabis_cures_cancer_look_at_me_im_cancer_free.php

Acidic versus Activated Cannabinoids- Tips on How to Choose the Therapy Regimen that is Right for You  (news – 2012)
http://pureanalytics.net/blog/2012/05/09/acidic-versus-activated-cannabinoids-tips-on-how-to-choose-the-therapy-regimen-that-is-right-for-you/

Is Juicing Cannabis Better For Health Than Smoking It?  (news – 2013)
http://www.wakingtimes.com/2013/01/02/is-juicing-cannabis-better-than-smoking-it/

Some shocking results: A woman replaced 40 medications with raw cannabis juice…


Cannapple Ginger Juice (news – 2015) http://twicebakedinwashington.com/2015/01/01/cannapple-ginger-juice/


METHODS – EDIBLES – RECIPES – no date restrictions

Bhang Recipes for Holi (collection- undated) http://www.indiankitchenfood.com/bhang-recipes-holi/

Recipes from "Onlinepot" (collection- undated) http://www.onlinepot.org/recipes.htm

Hemp Seed Recipes (collection- undated) http://manitobaharvest.com/recipes.html

{{Easy}} How to prepare Bhang Receipes at home Easily. (collection- undated) http://www.theholi.com/2015/03/how-to-prepare-bhang-receipes.html

Edible Marijuana Recipes (collection - undated) http://theweedscape.com/edible-recipes/


Moroccan Majoun (recipe – 2008)
http://www.chowhound.com/recipes/moroccan-majoun-10415

IC Recipe Guide  (forum thread/ collection - 2008)

Cannabis Cooking Tips From Uncle Buck  (article– 2010)


Ask Old Hippie: What Can I Do With Marijuana Cooking Oil?  (article – 2010)

BadKat's CannaPharm: Canna Caps, UV Reactive GLOWING Hash Candy, Canna 'Bombs' & more  (forum post/ collection - 2011)

How To Blast Off With Nutella Firecrackers  (news/recipe – 2012)
http://beyondchronic.com/2012/01/how-to-blast-off-nutella-firecrackers/

Cannabis Decarboxylation – THC Preparation for Unheated Edibles
(news/recipe – 2012)

How To Blast Off With Nutella Firecrackers  (recipe – 2012)
http://beyondchronic.com/2012/01/how-to-blast-off-nutella-firecrackers/

Pineapple Express Upside Down Cake  (recipe – 2012)
http://www.foodrepublic.com/recipes/pineapple-express-upside-down-cake/

Kitchen Kush: The best cannabutter in America? Yep, in just 7 easy steps
(news - 2013)  http://www.thecannabist.co/2013/12/27/kitchenweed/1244/

Stoner Sundae: How to Make Weed Ice Cream  (news - 2013)
http://www.thefader.com/2013/07/03/stoner-sundae-how-to-make-weed-ice-cream/

The notorious ‘pot brownie’ recipe from ‘The Alice B. Toklas Cookbook’
(news - 2013)
http://dangerousminds.net/comments/the_notorious_pot_brownie_recipe_from_the_alice_b_toklas_cookbo

How To Make Quick & Easy Cannabutter  (recipe – 2013)
http://herb.co/recipes/quick-easy-cannabutter/

One Bunch of Fresh Cannabis Leaves (Underground Pop-Up Weed-Dinner Green Congee)  (news/recipe - 2013)
http://www.newyorker.com/culture/culture-desk/one-bunch-of-fresh-cannabis-leaves
Cooking with Cannabis: How to Make Weed Butter (recipe – 2014)
http://gizmodo.com/cooking-with-cannabis-how-to-make-weed-butter-1500453696

Cooking With Cannabis: 8 Delicious Marijuana Recipes (collection – 2014)

How To Make Cannabis Infused Sweet Potatoes That Are Vegan, Gluten-free (recipe – 2013)
http://www.medicaljane.com/2014/12/01/how-to-make-vegan-gluten-free-cannabis-infused-sweet-potatoes/

How-To Make A Cannabis Infused Blueberry Banana Smoothie (news – 2014)

Marijuana Spa Products You Can Make at Home (news – 2014)
https://www.mainstreet.com/article/marijuana-spa-products-you-can-make-home-0


Cooking with Cannabis – Ricotta Stuffed Mushrooms (news – 2014)
http://www.bloomwellbend.com/cooking-cannabis-ricotta-stuffed-mushrooms/


How to Make Non-Psychoactive Cannabis & Carrot Juice (news – 2015)
http://www.medicaljane.com/2015/01/14/non-psychoactive-cannabis-carrot-juice-recipe/

Cannapple Ginger Juice (news – 2015)
http://twicebakedinwashington.com/2015/01/01/cannapple-ginger-juice/

Medicated Coffee Creamer Recipe (forum post – 2015)

Not Your Mother’s Pot Brownie (news – 2015)
http://hereandnow.wbur.org/2015/05/25/pot-edibles-recipes?utm_medium=RSS&utm_campaign=storiesfromnpr

Mahjoun (Moroccan Hash Jam) (news – 2015)

Spice up Your Coffee with Cannabis (news – 2015)
http://www.buydutchseeds.com/blog/spice-up-your-coffee-with-cannabis.html

Cannabis Infused Sugar Cookies: Recipe (news – 2015)
https://www.hellomd.com/health-wellness/cannabis-infused-sugar-cookies-recipe

Go Ask Alice: The History of Toklas’ Legendary Hashish Fudge (news – 2015)

OH’s Law Of Cannabis Edible Potency (news – 2015)

12 Delicious Bhang Recipes That You Should Definitely Try Out This Holi (collection – 2016) https://www.scoopwhoop.com/bhang-recipes-for-holi/

Make your own cannabutter in seven easy steps [PHOTOS] (news – 2016)
http://www.denverpost.com/2016/05/26/cannabutter-marijuana-infused-butter/

Cannabis-Infused Dark Chocolate Coconut Balls (news – 2016)

Cannabis Cupcakes (news – 2016)

How to Make a Great-Tasting Cannabis Smoothie (news – 2016)

How To Make and Use Cannabis-Infused Butter and Oil (news – 2016)
http://beyondchronic.com/2016/08/how-make-use-cannabis-infused-butter-oil/

Jeff’s EZ “Light Tasting” CannaButter (news – 2016)
http://www.jeffthe420chef.com/single-post/56ba5bc70cf2dc1600ebd48e

Celebrate Danksgiving With These Marijuana Infused Turkey Day Treats (news – 2016)
http://www.laweekly.com/restaurants/celebrate-danksgiving-with-these-marijuana-infused-turkey-day-treats-7622744

5 Weed Brownie Recipes That Will Blow Your Mind (news – 2016)
http://herb.co/2016/12/08/weed-brownie-recipes-2/

Here’s how to make a marijuana-infused ‘weed turkey’ this Thanksgiving (news – 2017) http://fusion.net/story/236079/weed-turkey-thanksgiving-dinner/

Marijuana-smoked turkey now served in Denver at Cook’s Fresh Market (news – 2017)

METHODS OF USE – HASHISH

Making hash is easier than you think! (news - undated)
METHODS OF USE – INHALERS

PUFFiT Portable Inhaler Vaporizer Review (news/ad – 2013)
http://azmarijuana.com/vape/puffit-portable-inhaler-vaporizer-review/

Study: Cannabis Inhaler Delivers Effective Relief To Neuropathy Patients
(news – 2014)
http://blog.norml.org/2014/08/18/study-cannabis-inhaler-delivers-effective-relief-to-neuropathy-patients/

The Syqe Inhaler: 3D Printing Meets Medical Marijuana (news - 2014)

LaraPharm’s dry-powder inhaler delivers cannabis like a medicine (news – 2015)

This Company Thinks It’s High Time for a Medical Marijuana Inhaler (news – 2016)

Weed inhalers may soon be available to folks who use medical marijuana (news – 2016)

METHODS OF USE – NANOPARTICLES, etc.

High on Nano: Cannabinoid Nanoparticles to Treat the Primary Cause of Heart Attack
METHODS OF USE – RSO / RICK SIMPSON'S OIL/ HEMP OIL/ PHOENIX OIL

How to make Cannabis Oil (aka RSO or “Hemp Oil”) (article – undated) https://patients4medicalmarijuana.wordpress.com/how-to-make-cannabis-oil-aka-rso-or-hemp-oil/


Tommy Chong Is "Cancer Free;"Claims Marijuana Cures Cancer (news – 2013)

Rick Simpson Oil (RSO)- learn about Rick Simpson and how to make RSO (news – 2013)

Psoriasis - Treated with Cannabis Oil (anecdotal – 2013)

The Comprehensive Report on the Cannabis Extract Movement and the Use of Cannabis Extracts to Treat Diseases (link to upload - 2014)
http://www.slideshare.net/TheHempSolution/comprehensive-report-on-the-cannabis-extract-movement

Non-psychoactive CBD oil made from marijuana plants poised to be game-changer (news - 2014)

Checotah Man Credits Cannabis Oil For Improved Health (COPD) (news – 2014)
http://www.newson6.com/story/26293519/checotah-man-credits-cannabis-oil-for-improved-health

Bid to Expand Medical Marijuana Business Faces Federal Hurdles (news – 2014)

Cannabis Extract Fights 'Incurable Form' of Leukemia (news – 2014)
http://www.greenmedinfo.com/blog/cannabis-extract-fights-incurable-form-leukemia

Health Canada Authorizes Emerald Health to begin Production of Cannabis Oil and to Expand Production Space (news/ad – 2015)

Utah mom in hiding, fears losing kids for treating daughter with cannabis oil (news – 2016)

Study: Marijuana Extract Oil Mitigates Symptoms Of Alzheimer’s-Induced Dementia (news – 2016)

Cannabis oil a saving grace for Lake Country woman after end of life diagnosis (news – 2016)
Die or break the law: man illegally healed with medical marijuana identifies himself
(news – 2016)

69-Year Old Says Cannabis Oil is Keeping Him Healthy and Strong Six Years After Mesothelioma Diagnosis
(news – 2016)

Surviving Mesothelioma Releases Second Installment in Cannabis Oil Series Detailing Patient’s Remarkable Survival Regimen
(news – 2016)
http://www.prweb.com/releases/2016/04/prweb13368373.htm

"try cannabis"
(news – 2016)
http://slow-mixmary.blogspot.com/

New Colombia Resources, Inc. Announces their Sannabis Indica Essential Oil and Pure Extract Together Shrunk a Cancerous Tumor by 50% in Three Months in a Terminally Ill Cancer Patient
(news/ ad – 2017)

METHODS OF USE – SECOND-HAND SMOKE


Testing for secondhand marijuana exposure (news – 2015)

Beware: Children can passively 'smoke' marijuana, too (news – 2016)
https://www.sciencedaily.com/releases/2016/12/161207124123.htm

Does Second Hand Marijuana Smoke Affect a Drug Test? (news – 2017)
METHODS OF USE - SMOKING  - also see SMOKED CANNABIS AS MEDICINE

Study: Smoking pot may ease chronic pain (news - 2010)

Study Claims Cannabis Reduces Chronic Pain (news - 2010)

Smoking marijuana not linked to obesity: study (news – 2011)

Smoked Marijuana IS Medicine: Feds Still Distributing Rolled Joints (news – 2011)
http://www.tokeofthetown.com/2011/12/smoked_marijuana_is_medicine_feds_still_distributing.php

Pot smoking not tied to middle-age mental decline (news – 2012)
http://www.reuters.com/article/2012/01/04/us-drugs-idUSTRE8030AE20120104

Legalized Pot: Smoke It or Eat It? (news – 2012)


Why Research is Right About Smoking vs. Eating Medicinal Marijuana (news – 2013)
http://www.wakingtimes.com/2013/05/15/why-research-is-right-about-smoking-vs-eating-medicinal-marijuana/

Is Juicing Cannabis Better For Health Than Smoking It? (news – 2013)
http://www.wakingtimes.com/2013/01/02/is-juicing-cannabis-better-than-smoking-it/

Mangoes Elevate High From Smoking Marijuana: Are They A Healthier Alternative To The ‘Munchies’? (news – 2013)
http://www.medicaldaily.com/mangoes-elevate-high-smoking-marijuana-are-they-healthier-alternative-munchies-247892

Dermatologists: Marijuana Can Improve Your Skin, But Not If You Smoke It (news – 2013)

Science for stoners: What is marijuana “abuse?” (news – 2013)
http://www.salon.com/2013/10/26/science_for_stoners_what_is_marijuana_abuse/

The Truth About Marijuana Smoke: A Smelly Study (news/ad – 2013)

http://thinkprogress.org/health/2015/01/22/3614459/new-pot-research/

Hookah myth debunked: They don't filter out toxic chemicals (news – 2015)
Study: Smoking Marijuana Does Not Raise Lung Cancer Risk
http://cancer.about.com/od/smokingandcancer/f/marijuana.htm

Mild-strength marijuana is the future of pot
http://blog.sfgate.com/smellthetruth/2015/03/31/mild-strength-marijuana-is-the-future-of-pot/

Potent joint wrapped in 24-karat gold creates a buzz

10 Unique Rolling Papers You Don't Know Exist
http://maryjanesdiary.com/10-unique-rolling-papers-you-may-not-know-exist/

College Kids Now Prefer ‘Funny’ Cigarettes

How to Roll a Joint Perfectly Every Time

Which Is Worse For You – Marijuana Smoke Or Tobacco Smoke?
http://www.theweeklyweedonline.com/which-is-worse-for-you-marijuana-smoke-or-tobacco-smoke/

Cutting the Weed: Joints Have Less Marijuana Than Thought

Science Figures Out How Much Pot Is In a Joint
http://cw33.com/2016/07/19/scientists-determine-how-much-pot-is-in-a-joint/

Dear Stoner: What Is Thai Stick? + Should I stick with Zig-Zags?

How to Smoke Weed: A Beginner's Guide

Identifying Old or Bad Cannabis Past its Shelf Life

Teens Now Associate ‘Smoking’ With Marijuana, Not Cigarettes

Cannabis Advice for the Novice Consumer
https://www.hellomd.com/health-wellness/cannabis-advice-for-the-novice-consumer

The Shocking Differences Between Cannabis and Tobacco Smoke
https://www.greenrushdaily.com/2016/01/10/differences-cannabis-tobacco-smoke/

How to Make the World’s Best Sploof
https://www.greenrushdaily.com/2016/02/25/make-worlds-best-sploof/
Will I Get Higher If I Hold In My Hit Longer?  
https://www.greenrushedaily.com/2016/10/21/will-get-higher-hold-hit-longer/  
(news – 2016)

The Early Bird Does Not Get the Legal Weed  
(news – 2016)

**METHODS OF USE – SUPPOSITORIES**

The Cannabis Suppository Experience  
https://twicebakedinwashington.com/2014/02/13/the-cannabis-suppository-experience/  
(news – 2014)

Cannabis Suppositories: Is the Posterior Superior?  
http://unitedpatientsgroup.com/blog/2015/01/22/cannabis-suppositories-why-the-posterior-is-superior/  
(news – 2015)

Weed-infused 'female suppositories' are a thing now  
(news – 2016)

Cannabis-based vagina suppositories the latest invention to help ease period pain  
(news – 2016)

Do Cannabis-Infused Suppositories Actually Work? We Put One to the Test  
https://www.leafly.com/news/lifestyle/we-tried-a-vaginal-cannabis-suppository-so-you-dont-have-to  
(news – 2016)

The Butt of the Story: Why Rectal Cannabis is a Great Choice for Many Patients  
(news – 2016)

Breaking Taboo: The Rise Of Cannabis Suppositories  
(news – 2016)

Pot for periods? Medical marijuana marketed as monthly pain relief  
(news – 2016)

**METHODS OF USE – TINCTURES**

Marijuana Tincture  
http://patients4medicalmarijuana.wordpress.com/medical-use-of-cannabis-video/marijuana-tincture/  
(article & video – 2010)
WildWill's Glycerin Tincture HOW-TO (forum thread - 2010)

Extractum Cannabis (news – forum repost - 2010)

Ask Old Hippie: How Do You Make Green Dragon? (news – 2010)

Taming Tinctures – Liquid Cannabis (news – 2013)
http://www.weedist.com/2013/12/taming-tinctures-liquid-cannabis/

How to Make Glycerine Tincture (news – 2013)
http://www.weedist.com/2013/02/how-to-make-glycerine-tincture/

How to Brew Cannabis Tinctures (Eyedroppers Full of Happiness) (news – 2014)

Monterey County seniors finding pain relief in medical marijuana (news – 2014)

How to Make Weed Vodka, aka 'Green Dragon' (recipe – 2014)

DR ALLAN FRANKEL’S EARLY VERSION INITIAL DOSAGE AND ADMINISTRATION GUIDE (news – 2014)

'Grandma's magic remedy:' Mexico's medical marijuana secret (news – 2015)

What is a Cannabis Tincture? (news – 2015)
https://www.whaxy.com/learn/what-is-cannabis-tincture?
utm_source=mantis&utm_medium=recommend&utm_campaign=mantis&muuid=9d522039-9ba2-4356-a328-04a72a94e463

Why I chose to use cannabis (article – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4791147/

Weed-infused vodka is here, but it's not what you think (news – 2016)

Making wine with biodynamically farmed grapes — and marijuana (news – 2016)

A new era for cannabis extracts in California (news – 2016)
Cannabis concentrates lead new era in California (news – 2016)
http://www.thecannifornian.com/cannabis-health/cannabis-concentrates-lead-new-era-california/


**METHODS OF USE - TOPICAL OINTMENTS**

What’s Better Than a Massage? A Cannabis-Infused Massage (news – undated)


Cannabis Science Provides Physician’s Documentation That Confirms Successful Treatment of Skin Cancer (news/ info-mercials – 2011)

Psoriasis - Treated with Cannabis Oil (forum thread – 2013)

I just got a weed-infused massage, and I feel GREAT (news – 2014)
http://www.thecannabist.co/2014/06/04/marijuana-infused-massage-feel-great-the-topical-massages/13010/


Marijuana Lotion for Pain Relief: A Soothing Workaday Recipe (news/recipe – 2014)

How to Give Yourself a Cannabis Facial (news – 2014)
http://www.elle.com/the-pot-issue/hemp-facial-diy

Jesus & Cannabis (article/ recipe – 2015)
https://patients4medicalmarijuana.wordpress.com/marijuana-info/marijuana-in-the-bible/jesus-cannabis/

Cannabis Salve for Pain- Neuropathy – Yep, I had shingles. :( (news – 2015)

I Tried a Cannabis Massage and This Is What Happened (news – 2015)

'Grandma's magic remedy:' Mexico's medical marijuana secret (news – 2015)
In New Jersey, patients say new marijuana lotions and oils 'surprisingly effective'
(news – 2016)

**METHODS OF USE - TOPICAL OINTMENT RECIPES**

Topical Cannabis Healing Salve (recipe – 2010)
http://patients4medicalmarijuana.wordpress.com/2010/04/30/topical-cannabis-healing-salve/

Balm from canna roots (forum thread - 2010)
http://www.greenpassion.org/showthread.php?t=20879

Medical Marijuana Topical Balm Recipe for Eczema, Sore Joints, PMS Cramps (recipe – 2011)

Psoriasis - Treated with Cannabis Oil (forum thread – 2013)

Marijuana Lotion for Pain Relief: A Soothing Workaday Recipe (news/recipe – 2014)

Marijuana Spa Products You Can Make at Home (news – 2014)
https://www.mainstreet.com/article/marijuana-spa-products-you-can-make-home-0

How to Give Yourself a Cannabis Facial (news – 2014)
http://www.elle.com/the-pot-issue/hemp-facial-diy

Jesus & Cannabis (article/ recipe – 2015)
https://patients4medicalmarijuana.wordpress.com/marijuana-info/marijuana-in-the-bible/jesus-cannabis/

Cannabis Salve for Pain- Neuropathy – Yep, I had shingles. :( (news – 2015)


Comfrey Canna Salve Recipe For Aches & Pains (recipe – forum post – 2016)

Medical Cannabis in the Palliation of Malignant Wounds—A Case Report (article – 2017)
http://www.jpsmjournal.com/article/S0885-3924(16)30328-1/abstract
METHODS OF USE - TRANSDERMAL PATCH

Marijuana cannabinoids - oral and transdermal methods       (news – 2011)
http://www.naturalnews.com/034425_marijuana_cannabinoids_medicine.html

Seattle company to market medical marijuana patch to control pain in dogs, horses
(news – 2011)

Marijuana-infused patch maker seeks to open production facility in Aspen

Will Cannabis Salves and Topicals Cause a Positive Drug Test?       (news – 2015)

Is a pot-infused patch the newest way to get high? Colorado dispensary dishes on the

METHODS OF USE – VAPORIZERS - also see E-CIGARETTES/VAPE PENS

What is a Vaporizer?       (news/ad – undated)
http://www.vapornation.com/what-is-a-vaporizer?
utm_source=mantis&utm_medium=banner&utm_campaign=content

Tailoring Your High: Intro to Temperature Control With a Vaporizer   (news – 2012)

Capsule Warning: The AVB Experiment That Went Wrong   (news – 2012)
http://beyondchronic.com/2012/08/capsule-warning-avb-experiment-wrong/

California pot research backs therapeutic claims   (news – 2012)
http://www.sacbee.com/2012/07/12/4625608/california-pot-research-backs.html

Simple Method: Isolating & Extracting INDIVIDUAL Cannabinoids... from BadKittySmiles   (forum post – 2012)

The Best Temperature For A Vaporizer Is ...

http://www.eastbayexpress.com/LegalizationNation/archives/2013/09/16/the-best-temperature-for-a-vaporizer-is

The Advantages of Vaporizing Medical Marijuana


Study: Vaporized, Low-Potency Cannabis Mitigates Neuropathic Pain

http://blog.norml.org/2013/01/03/study-vaporized-low-potency-cannabis-mitigates-neuropathic-pain/

New Study: Vaporized Marijuana is a Safe and Effective Pain Treatment


Dermatologists: Marijuana Can Improve Your Skin, But Not If You Smoke It


Best Eight Vape Pens and Portable Vaporizers 2013


The Truth About Marijuana Smoke: A Smelly Study


3 Studies That Prove Vaporizers Are Good For Your Lungs

http://www.leafscience.com/2014/01/11/3-studies-prove-vaporizers-good-lungs/

Vaporizers, e-cigs of the pot world, are booming

http://www.usatoday.com/story/money/business/2014/03/15/marijuana-vaporizing-gains/6042675/

Vapourizing marijuana reaching trend status, Canadian doctor says

https://ca.news.yahoo.com/vapourizing-marijuana-reaching-trend-status-144153865.html

Vaporized medical marijuana study given green light

http://abc7news.com/health/vaporized-medical-marijuana-study-given-green-light/261437/

MEDICAL MARIJUANA : Out of the Shadows


Warning: Do Not Vaporize Edible Cannabis Oil


5 Portable Marijuana Vaporizers Worth Investing In

http://www.leafscience.com/2014/09/06/5-portable-marijuana-vaporizers-need-invest/

The Herbalizer Vaporizer “Herbie” – The Smartest Vaporizer Yet?

http://www.theweeklyweedonline.com/herbalizer-vaporizer/
Newest Vapor Pens Keep Selling For A Reason (news/ad – 2014)

Magic Flight Launch Box – MFLB (news / ad – 2014)
http://www.theweeklyweedonline.com/magic-flight-launch-box/

Confirmation of the trials and tribulations of vaping (article – 2015)

Study: Use Of Vaporizers Mitigates Pulmonary Risks Associated With Cannabis Smoking (news – 2015)

No smoke, no fire: What the initial literature suggests regarding vapourized cannabis and respiratory risk (news – 2015)

http://www.huffingtonpost.com/yura-bryant/the-growth-of-the-vaporiz_b_8338424.html?
ncid=txtlnkusaolp00000592

Dank Tanks: Convenient, Potent Cannabis Extracts For Your Vape Pen (news/ad – 2015)

5 Marijuana Vaporizers Offering a Better, Healthier High (news/ad – 2015)
http://www.cheatsheet.com/business/5-marijuana-vaporizers-offering-a-better-healthier-high.html/?a=viewall

Best vape pens 2015 – vaporizer and cartridge review (news/ad - 2015)

Top 5 Desktop Vaporizers of 2015 (news/ad - 2015)

Volcano Vaporizer (news/ad – 2015)
http://www.theweeklyweedonline.com/volcano-vaporizer-digit-classic/

Smoking Marijuana has been a life changer but it’s killing my lungs. I am a total newbie with vaporizers but need help choosing one. (forum post – 2015)
https://www.reddit.com/r/vaporents/comments/34jo7g/smoking_marijuana_has_been_a_life_changer_bu
is/

Marijuana survey finds medical users more likely to consume edibles and vaporize (news – 2016)
http://www.sciencedaily.com/releases/2016/01/160128133040.htm
Study: Vaporizers Deliver Safe And Reliable Doses Of Cannabinoids (news – 2016)

Vaping weed is good for your skin (news – 2016)
http://metro.co.uk/2016/03/18/vaping-weed-is-good-for-your-skin-5759607/

'Creative' stoners planted seed for safer medical marijuana: study (news – 2016)

The Best Vape Pen for Every Appetite (news/ad – 2016)
http://gizmodo.com/the-best-vape-pen-for-every-appetite-1652373346

This Is What Happens to Your Beauty on Marijuana (news – 2016)
https://www.yahoo.com/beauty/this-is-what-happens-to-1411025717600310.html

Science/Human: Inhaled cannabis reduces neuropathic pain in patients with spinal cord injury (news – 2016)
http://www.cannabis-med.org/english/bulletin/ww_en_db_cannabis_artikel.php?id=482#2

Head in the clouds: The complete noob’s guide to ecigs and vaping (news – 2016)

Discover Your Subjective Therapeutic Window: Turning Cannabis Into A Precision (news – 2016)
http://cannabishealthindex.com/cannabis-safety/the-secret-about-cannabis-that-everyone-should-know/

https://www.hellomd.com/health-wellness/beginner-s-guide-finding-the-right-marijuana-vaporizer

Medical Cannabis in the Palliation of Malignant Wounds—A Case Report (article – 2017)
http://www.jpsmjournal.com/article/S0885-3924(16)30328-1/abstract

Apple just patented a vape (news – 2017)

The Best Vaporizers (Some Expert Advice) (news – 2017)

METHODS OF USE – VARIOUS/ OTHER

Dosage & Routes of Cannabis and Cannabinoid Administration (article - forum repost - 2010)
Here's who buys legal weed (news – 2016)

The Early Bird Does Not Get the Legal Weed (news – 2016)

Google reveals what people really think about weed (news – 2016)
http://www.businessinsider.com/weed-trends-google-2016-9/#interest-in-cannabis-is-rising-in-the-us-note-were-looking-at-all-weed-related-searches-here-as-grouped-by-google-machine-learning-1

Middle-aged parents more likely to smoke weed than their teenaged kids (news – 2016)

Study: Medical marijuana changes how employees use sick time (news – 2016)

There’s Only One Demographic That Still Thinks Marijuana Should Be Illegal (news – 2016)
http://www.cheatsheet.com/culture/marijuana-legalization-survey.html/?ref=YF&vptr=yahoo

No highs or lows: Marijuana use holds steady among teens, young adults (news – 2016)

New analysis highlights patterns of adult medical marijuana use (news – 2016)

MIGRAINE/ HEADACHE

Up in smoke: 'Cannabis gave me my life back' (migraine) (anecdotal – 2010)
THE MILITARY and the CANNABINOIDs

V.A. Easing Rules for Users of Medical Marijuana (news – 2010)

Combat veterans testify that medical pot helps with their PTSD (news – 2013)
Synthetic Marijuana Added to Defense Department Drug Testing (news – 2013)

Marijuana: Italian Army to Grow Cannabis for Medical Purposes (news – 2014)

Injured Soldiers Receive Cannabinoid Gum from Adopt-A-Soldier (news – 2014)
utm_source=mantis&utm_medium=recommend&utm_campaign=mantis&muuid=622a55f7XXX8b3dXX
X4f96XXX8217XXX5ce33cbb24b8

Veterans Health Administration Policy on Cannabis as an Adjunct to Pain Treatment with Opiates (article – 2015)
http://journalofethics.ama-assn.org/2015/06/pfor2-1506.html

Medical Marijuana Vapour Room Set To Serve Veterans With PTSD (news – 2015)
http://www.huffingtonpost.ca/2015/01/21/marijuana-for-trauma-vapur-room-new-brunswick_n_6512026.html?utm_hp_ref=canada-business&ir=Canada+Business

http://outcoca.blogspot.com/2015/05/Cannabis-phantom-limb-veterans.html

Former U.S. Marine starts campaign to raise awareness of overmedication of veterans (news – 2015)

Granola bars contain hemp seeds, Army warns (news – 2015)

Legalized Marijuana Presents Recruiting Dilemma for US Military (news – 2015)
http://sanford.duke.edu/articles/legalized-marijuana-presents-recruiting-dilemma-us-military

Despite Support By Experts, Marijuana Still Unavailable To Most Veterans With PTSD (news – 2015)

Could Pot Help Veterans With PTSD? (news – 2015)
http://www.newsweek.com/pot-and-ptsd-358139

Not Able To Get Medical Marijuana Through The VA, Veterans Struggle With Cost, Confusion (news – 2016)
http://www.wbur.org/all-things-considered/2016/02/04/veterans-medical-marijuana

VA does to be able to recommend marijuana in some states (news – 2016)
http://www.militarytimes.com/story/veterans/2016/05/19/congress-votes-let-va-docs-recommend-marijuana-some-states/84589708/
Veterans’ cry: ‘I found marijuana, and it saved me’  (news – 2016)  

The stoned soldiers of Santa Cruz  (news – 2016)  
http://mashable.com/2016/04/04/veterans-cannabis-santa-cruz/#dFxkfmSakqO

Veterans are using pot to erase PTSD, despite scant research  (news – 2016)  

VA hospital in Phoenix blocks Dr. Sue Sisley’s presentation on cannabis & PTSD  
(news – 2016)  
http://www.theimpactnetwork.org/sue-sisley-ptsd-lecture-blocked/

Wild Bill Donovan’s Truth Drug: THC Acetate  (news – 2016)  

Marijuana and the Developing Brain  (news – 2016)  

Nonprofit provides free medical marijuana to California vets  (news – 2016)  

NJ veterans fight to use medical marijuana for treatment of PTSD  (news – 2016)  

Alaska soldiers barred from events promoting marijuana  (news – 2016)  

FACT CHECK: Are VA doctors prohibited from recommending medical marijuana?  
(news – 2016)  

Military weighing mellow marijuana restrictions for recruits  (news – 2016)  

For Colorado veterans, marijuana a controversial treatment  (news – 2016)  

Veterans Meet in Austin to Demand Passage of an All-Inclusive Medical Marijuana Policy in Texas  (news – 2016)  

Cannabis Makes up 22% of Canadian Veteran Drug Payments  (news – 2016)  
MISCELLANEOUS STUFF - NEWS - a “fun” section with no date restrictions

VICTOR LICATA : A RUSH TO JUDGEMENT    (ebook – undated)
http://reefermadnessmuseum.org/VictorLICata/Chap00_Index.htm

Drug War Victims    (news – undated)  http://www.drugwarrant.com/articles/drug-war-victim/

US Government Medical Cannabis Tins    (news – undated)
http://www.herbmuseum.ca/content/us-government-medical-cannabis-tins

THE LEGEND OF THE HOT TAMALE PEDDLER: What the Newspapers were saying:    (news – undated)

An Overdose of Hasheesh    (article – 1884)
http://www.popsci.com/archive-viewer?id=vCoDAAAAMBAJ&pg=509

New Billion Dollar Crop    (news – 1938)
http://www.hempfarm.org/BillionDollarCrop.html

New Billion Dollar Crop- Popular Mechanics    (in original on page 239)    (news – 1938)
https://books.google.com/books?
id=e9sDAAAAAMBAJ&printsec=frontcover&dq=popular+mechanics+the+new+billion+dollar+crop&hl=ene&sa=X&ved=0CB0Q6AEwAGoVChM13qOk3cHqzwVBiqICh19XAFE#v=onepage&q=billion%20dollar&f=false

Mr. X by Carl Sagan    (article - 1969)  http://marijuana-uses.com/mr-x/

Marijuana, the New Prohibition    (link to PDF – 1970)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1501862/

http://csp.org/chrestomathy/ganja_in.html

What's the origin of the words joint, roach, and stoned?    (news – 1979)

Marijuana - The First Twelve Thousand Years    (book – 1980)
http://www.druglibrary.org/Schaffer/hemp/history/first12000/abel.htm

Nature in the Rastafarian Consciousness    (news – 1989)

ON FURTHER RECONSIDERATION by Lester Grinspoon M.D.    (article – 1994)
http://rxmarijuana.com/FURTHER_RECONSIDERATION.htm

Preference for High- Versus Low-potency Marijuana.    (abst – 1994)
Ganja in Jamaica (editorial – 1996)
http://www.cedro-uva.org/lib/boekhout.ganja.en.html

Kaneh Bosm: Cannabis in the Old Testament (article – 1997)
http://www.cannabisculture.com/content/1996/05/01/1090

Hemp Oil Fuels & How to Make Them (article – 1997)

http://www.drugsense.org/tfy/nejm0897.htm

Have I got brews for you... Hemp beer's here to stay. (news – 1998)
http://www.thefreelibrary.com/Have+I+got+brews+for+you...+Hemp+beer%27s+here+to+stay.-a060746769

Canada OKs Medical Marijuana (news – 1999)

Marijuana Gets Research Nod (news – 1999)

A history of the Royal Grain (news - 1999)
http://www.cannabisculture.com/content/1999/01/01/1425

Marijuana: the ultimate sex drug (news - 1999)
http://www.cannabisculture.com/content/1999/11/01/77

Drugs clue to Shakespeare's genius (news – 2001)

What are the words to "La Cucaracha"? (news – 2001)
http://www.straightdope.com/columns/read/2315/what-are-the-words-to-la-cucaracha

Hemp: A New Crop with New Uses for North America (news – 2002)
http://www.hort.purdue.edu/newcrop/ncnu02/v5-284.html

This Bud's Not For You (news – 2002)
http://content.time.com/time/magazine/article/0,9171,201911,00.html

Presidential Commission Shocks White House: Recommends Marijuana Should Be "Decriminalized" (news – 2002)
http://www.csdp.org/publicservice/shafer.htm

Medical marijuana to sell for $5 per gram (article – 2003)
http://www.cmaj.ca/content/169/3/222.1.full

Cannabis linked to Biblical healing (news – 2003)
http://news.bbc.co.uk/2/hi/health/2633187.stm
Marijuana Research (news – 2004)
http://www.scientificamerican.com/article/marijuana-research/

'Info-mania' dents IQ more than marijuana (news – 2005)
http://www.newscientist.com/article/dn7298-infomania-dents-iq-more-than-marijuana.html#VZBFD0ZwtB8

Pot, Dogs, and the Constitution (news – 2005)

Ford And Deisel Never Intended Cars To Use Gasoline (news – 2005)
http://www.rense.com/general67/FORD.HTM

The Thin Green Line: Employers and Medical Marijuana (news – 2005)
http://www.safeaccessnow.org/asanews1623

Weed control (news – 2006)
http://www.boston.com/news/globe/ideas/articles/2006/05/28/weed_control

Taking a Leaf from 'Pot Docs' (news – 2006)
http://articles.latimes.com/2004/nov/06/local/me-potdocs6

Hemp Ethanol Saves the World (1) – The Economics of Hemp Fuels (article – 2008)

Hemp Ethanol Saves the World (2) - The History of Hemp Fuels (article – 2008)

Hemp Ethanol Saves the World (3) – The Politics of Hemp Fuels (article – 2008)

The Army’s Conquest-by-Cannabinoid Fantasy (article – 2008)
O’Shaughnessy’s in 2008

False Positives Equal False Justice (news - link to PDF – 2008)
https://www.mpp.org/issues/criminal-justice/false-positives/

The Significance of US Govt Cannabinoid Patent 6,630,507 (news – 2008)
http://stopthedrugwar.org/speakeasy/2008/jul/23/significance_us_govt_cannabinoid

Feds' pot grower talks shop--but who can get his weed? (news - 2008)

Cannabis Yields and Dosage (full – 2009)
The Great Keneh Bosem Debate - Part 1  (article – 2009)

Part 2 of the Great Keneh Bosem Debate:  (article – 2009)

A Brief History of Medical Marijuana  (news – 2009)
http://content.time.com/time/health/article/0,8599,1931247,00.html

Average Marijuana Potency by Year, 1975-2003  (news – 2009)

Kids who smoke pot like to listen to music that mentions it  (news – 2009)

Necessity or nastiness? The hidden law denying cannabis for medical use.  
(full/news – 2010)
http://prof davidnutt.wordpress.com/2010/12/13/necessity-or-nastiness-the-hidden-law-denying-cannabis-for-medicinal-use/

Pot for Grandma? Middle-Aged Adults Buying Weed for Ailing Parents  
(link to PDF – 2010)
Pot for Grandma? Middle-Aged Adults Buying Weed for Ailing...

The Budgetary Impact of Ending Drug Prohibition  (news- link to PDF- 2010)

The State of Clinical Cannabis Research in the United States  (article – 2010)
http://cms.herbalgram.org/herbalgram/issue85/article3485.html?ts=1468715296&signature=a485072466786218574b7813654eb818


Hemp produces viable biodiesel, study finds  (news – 2010)

Hemp could be key to zero-carbon houses  (news – 2010)

Scientists Find New Sources of Plant Cannabinoids Other than Medical Marijuana?  
(news – 2010)

Cannabis electric car to be made in Canada  (news - 2010)

Pot Prices Go Viral: Crowdsourcing the Drug Deal?  (news – 2010)
Don’t send your kid to treatment  (news - repost – 2010)

Medicinal Genomics Sequences the Cannabis Genome to Assemble the Largest Known Gene Collection of this Therapeutic Plant.  (news – 2011)
http://www.thefreelibrary.com/Medicinal+Genomics+Sequences+the+Cannabis+Genome+to+Assemble+the+Largest+Known+Gene+Collection+of+this+Therapeutic+Plant.-a0264585240

Drug Raids Based on "Smelling" Marijuana  (news – 2011)

Genome of Marijuana Sequenced and Published  (news – 2011)


Recycled Polyester, Organic Cotton or Hemp - Which is The Most Eco-Friendly Fiber?  (news – forum repost – 2011)

Part of placebo effect ascribed to cannabinoids  (news – 2011)

Report: Drug-Sniffing Dogs Are Wrong More Often Than Right  (news – 2011)

Pot growers' kids in good health, study says  (news - 2011)

125 Year Old Woman Claimed Smoking Cannabis Everyday Was Her Secret to Long Life  (news – 2011)

Could hemp help nuclear clean-up in Japan?  (news – 2011)
http://www.cannabisculture.com/content/2011/03/15/Could-Hemp-Help-Nuclear-Clean-Japan

10 Questions To Ask Your Cannabis Scientist  (news - 2011)
http://www.pureanalytics.net/blog/2011/08/13/10-questions-to-ask-your-cannabis-scientist/

Marijuana Slang Terms  (news – 2011)
http://www.theweedblog.com/list-of-marijuana-slang-terms/

BadKat's CannaPharm: Canna Caps, UV Reactive GLOWING Hash Candy, Canna 'Bombs' & more  (forum post - 2011)  (recommended by Granny)
Thank goats for best hashish  (news – 2012)
http://www.pakistantoday.com.pk/2012/06/03/news/national/thank-goats-for-best-hashish/

Marijuana Now the Most Popular Drug in the World  (news – 2012)

Farmer starts 'accidental cannabis plantation'  (news – 2012)
http://www.thelocal.de/20120905/44777

Don’t Eat Daddy’s Cookies: How to Talk to Your Kids About Pot  (news – 2012)
http://healthland.time.com/2012/12/13/dont-eat-daddys-cookies-how-to-talk-to-your-kids-about-pot/

Barack Obama's marijuana smoking days with the 'Choom Gang’  (news – 2012)

Hemp fuels- Environmentally friendly fuel sources  (news – 2012)

The cannabis conundrum  (article – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3808660/

Clinical decisions. Medicinal use of marijuana--polling results.  (article – 2013)

Cannabis in the Holy Anointing Oil? "Exodus 30:23"  (article – 2013)

Marijuana Arrests Now Exceed Arrests For Violent Crime  (news – 2013)
http://www.huffingtonpost.com/2013/01/17/marijuana-possession-arrests_n_2490340.html

1914 Federal Reserve $10 Note Was Printed On Hemp Paper  (news - 2013)
http://americankabuki.blogspot.nl/2013/01/1914-federal-reserve-10-note-was.html?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed:+AmericanKabuki+%28American+Kabuki%29

Sending Out Smoke Signals  (news – 2013)

Medical Marijuana Gets Blessing of Orthodox Rabbi — But Don't Get High  (news – 2013)  

Marijuana-Infused Faith Challenges the Definition of Religion  (news – 2013)
Cannabis psychosis admissions rose after drug reclassified to Class B  (news – 2013)
http://www.guardian.co.uk/science/sifting-the-evidence/2013/jul/18/cannabis-psychosis-uk-drug-class-c

Rules change on Olympic marijuana testing      (news – 2013)

UFC Raises Marijuana Testing Threshold       (news – 2013)
http://www.theweedblog.com/ufc-raises-marijuana-testing-threshold/

Swiss Study Reveals Cannabis Users Are More Health Literate Than Non-Users
(news – 2013)
http://www.opposingviews.com/i/society/swiss-study-reveals-cannabis-users-are-more-health-literate-non-users

Marijuana Sold and Smoked Freely In North Korea?         (news – 2013)

In 1981 STASH cologne for men attracted women as well as police and their dogs
(news – 2013)

'Stoner Mice' Eat Marijuana Evidence At Kansas Police Storage Facility     (news – 2013)
http://www.huffingtonpost.com/2013/01/25/stoner-mice-eat-marijuana_n_2552594.html

Mangoes Elevate High From Smoking Marijuana: Are They A Healthier Alternative To The 'Munchies'?   (news – 2013)
http://www.medicaldaily.com/mangoes-elevate-high-smoking-marijuana-are-they-healthier-alternative-munchies-247892

New Survey: Guys Are Bigger Potheads Than Gals          (news – 2013)
http://www.thestreet.com/story/12159561/1/guys-are-bigger-potheads-than-gals.html?cm_ven=RSSFeed

Science for potheads: Why they love to get high     (news – 2013)
http://www.salon.com/2013/09/08/science_for_potheads_why_they_love_to_get_high/

Athletes and Pot: Legalized marijuana in a league of its own      (news – 2013)

Cannabis use among teens is on the rise in some developing countries       (news – 2013)
http://www.medicalnewstoday.com/releases/269017.php

Marijuana Unlikely To Cause Violence, Study Finds   (news – 2013)

A Colorado marijuana guide: 64 answers to commonly asked questions  
http://www.denverpost.com/2013/12/31/a-colorado-marijuana-guide-64-answers-to-commonly-asked-questions/

Marijuana and the Modern Lady  

5 Biggest Lies from Anti-Pot Propagandist Kevin Sabet  
http://www.alternet.org/drugs/5-biggest-lies-anti-pot-propagandist-kevin-sabet?page=0%2C0

Zeoform: A New Plastic That Turns Hemp Into Almost Anything  

3D Printing Is Getting Stoned  
http://motherboard.vice.com/blog/3d-printing-is-getting-stoned

In 1884, A Popular Science Writer Got Way Too Stoned  

Hemp is Effective in Cleaning Nuclear Disasters  

Top 5 Most Innovative Uses For Hemp  

The DEA: Four Decades of Impeding And Rejecting Science  
http://www.drugpolicy.org/sites/default/files/DPA-MAPS_DEA_Science_Final.pdf

Could hemp nanosheets topple graphene for making the ideal supercapacitor?  
(news/ abst – 2014)  

Who Discovered THC? Setting the Record Straight  
http://cannabisdigest.ca/discovered-thc-setting-record-straight/

Hemp growers cooperatives' report touts crop's benefits to coal  

Active ingredient in pot sets off a feedback that reduces intoxication  

With Legal Weed Comes Hemp Beer  

Scientists Know More About Marijuana as a Medicine Than Many FDA Approved Pharmaceuticals  
(news – 2014)
Eskimos and stoners have impressive vocabularies (news – 2014)

Holy Cannabis: The Bible Tells Us So (news – 2014)
http://www.huffingtonpost.com/jane-marcus-phd/holy-cannabis-the-bible-t_b_4784309.html

Like, wow: Police chief is hoaxed on pot perils (news – 2014)

Does medical marijuana equal bad parenting? (news – 2014)

State Accidentally Releases Confidential Law Enforcement Info To Marijuana Activist (news – 2014)

Is marijuana the future of Big Tobacco? (news – 2014)
http://news.yahoo.com/marijuana-future-big-tobacco-063600237.html;_ylt=AwrSyCOiNCdTtUkAokzQtDMD

Marijuana Is Less Addictive Than Chocolate (news - 2014)
https://www.mainstreet.com/article/marijuana-less-addictive-chocolate

If You're Black and in Love With Mary Jane, You're 3.67 Times More Likely to Be Arrested (news – 2014)

Non-psychoactive CBD oil made from marijuana plants poised to be game-changer (news - 2014)

Where you’re most likely to get arrested for marijuana and DUI, in 2 maps (news – 2014)

The Official Recognition of Bob Marley’s Rastafarianism Gets Prison Inmates In Jovial Mood (news – 2014)

Monsanto plans to patent genetically modified marijuana in Uruguay (news – 2014)  

Study: Students better off saying 'no' to pot jobs (news – 2014)


Colorado’s poster boy for ‘stoned driving’ was drunk off his gourd (news – 2014) http://www.washingtonpost.com/news/the-watch/wp/2014/06/06/colorados-poster-boy-for-stoned-driving-was-drunk-off-his-gourd/


Biohackers Are Engineering Yeast to Make THC (news - 2014) http://motherboard.vice.com/read/biohackers-are-engineering-yeast-to-make-thc


Medical Marijuana Legalization: Pro-Pot Laws Do Not Lead To More Drug Use Among Teens, Study Finds (news – 2014)
More than zero: reclassifying marijuana could have a significant impact on drug policy. (news - 2014)
http://www.forbes.com/sites/jacobsullum/2014/02/07/more-than-zero-reclassifying-marijuana-would-have-a-significant-impact-on-drug-policy/

The Bud Light-ification of Bud (news – 2014)

FBI director: Zero tolerance pot policy kills our ability to hire cyber war programmers. Updated (news - 2014)
http://www.dailykos.com/story/2014/05/21/1301070/-FBI-director-Zero-tolerance-pot-policy-kills-our-ability-to-hire-cyber-war-programmers

Best Songs About Weed To Celebrate 4/20 (news - 2014)
http://www.huffingtonpost.ca/2014/04/17/420-best-songs-weed_n_5169898.html

Marijuana gears up for production high in US labs (article – 2015)
http://www.nature.com/news/marijuana-gears-up-for-production-high-in-us-labs-1.17129

Marijuana Research with Human Subjects (article – 2015)
http://www.fda.gov/newsevents/publichealthfocus/ucm421173.htm

https://data.colorado.gov/Health/Medical-Marijuana-Statistics-Reported-Condition/5yqk-p422

Tyler Markwart: The Case For GMO Cannabis (interview – 2015)
http://www.ganjapreneur.com/tyler-markwart-gmo-marijuana/

The Internet’s First Transaction Was For A Bag Of Marijuana (news – 2015)
http://www.theweedblog.com/the-internets-first-transaction-was-for-a-bag-of-marijuana/

NM Court of Appeals reaffirms that medical marijuana is covered by workers’ compensation (news – 2015)

Oops! FedEx Misdelivered Marijuana Package; Not Liable, Court Says (news – 2015)


Coffee and ganja provide a healthy income in Aceh (news – 2015)

World’s strongest weed? Potency testing challenged (news – 2015)
Marijuana's Surprising Effects On Athletic Performance (news – 2015)  

Up in smoke: Most D.C. marijuana citations go unpaid (news – 2015)  

Marijuana is medicine, Journal of the American Medical Association concludes (news – 2015)  

Inside the first ‘Marijuana of the Month” club shipment from Marvina (news – 2015)  


Feds say marijuana has no medical value. Obama's new surgeon general seems to disagree. (news – 2015)  

Cannabis is Increasingly Legal, Employers Need to Stop Screening for it (news – 2015)  
http://thejointblog.com/cannabis-is-increasingly-legal-employers-need-to-stop-screening-for-it/

RCMP expert admits Mounties lacked data to back up medical pot affidavit (news – 2015)  


Why pot legalization is also a fight for social justice (news – 2015)  
http://theweek.com/articles/542678/why-pot-legalization-also-fight-social-justice

Tinder-style dating app pairs marijuana users (news – 2015)  
http://www.upi.com/Odd_News/2015/02/05/Tinder-style-dating-app-pairs-marijuana-users/1041423187017/?st_rec=1401423762960

One in three New York college students has gone to class high: study (news – 2015)  
http://www.nydailynews.com/life-style/health/ny-college-kids-class-high-study-article-1.2113316
Apple decides marijuana app belongs in the App Store after all (news – 2015)
http://www.engadget.com/2015/02/14/massroots-back-in-the-app-store/?ncid=rss_truncated

Marijuana Laws Are 'Bizarre,' Says Cato Institute In Call For Feds To Reschedule Cannabis (news – 2015)

Pot-smoking stockbroker has a steady supplier: the feds (news – 2015)

A guide to smoking weed around the world (news – 2015)

DEA warns of stoned rabbits if Utah passes medical marijuana (news – 2015)

63% of Republican Millennials favor marijuana legalization (news – 2015)

4 Ways the Drug War Harms National Security (news – 2015)
http://www.huffingtonpost.com/james-carli/4-reasons-lawmakers-shoul_b_6762056.html

Regulating Pot to Save the Polar Bear: Energy and Climate Impacts of the Marijuana Industry (news – 2015)

Schools using out-of-school suspension drug policy show increased likelihood of marijuana use (news – 2015)
http://www.sciencedaily.com/releases/2015/03/150319165342.htm

Marijuana's Risky Reputation Is Wafting Away (news – 2015)

http://thinkprogress.org/economy/2015/02/26/3624447/tanf-drug-testing-states/

Growing hemp for research? (news – 2015)
http://siouxcityjournal.com/business/local/1cb1b771-849b-5f0e-9634-3ffe37c122c3.html

More than 100 Native American Tribes Consider Growing Marijuana (news – 2015)

Where You Can Legally Light a Joint in the Nation's Capital (news – 2015)
What to know before visiting your first pot shop (news – 2015)
http://mashable.com/2015/03/28/pot-shop-beginner/

Meet the Women Pushing Pot in D.C. (news – 2015)

I Thought Legalizing Pot Would Be a Disaster. But It Turned Out To Be Wonderful. (news – 2015)
http://time.com/3815608/marijuana-legalization/

'Major hypocrisy': US govt-funded agency admits marijuana can kill cancer cells (news – 2015)
http://rt.com/usa/248581-us-admit-marijuana-cancer/

6 facts about marijuana (news – 2015)
http://www.pewresearch.org/fact-tank/2015/04/14/6-facts-about-marijuana/

Here’s What People Called Pot in the 1940s (news – 2015)
http://time.com/3815347/jazz-marijuana-history/

Robotics And Medical Marijuana — A Joint Venture (news – 2015)


Legalized Marijuana Presents Recruiting Dilemma for US Military (news – 2015)
http://sanford.duke.edu/articles/legalized-marijuana-presents-recruiting-dilemma-us-military

9 Things A Cannabusiness Startup Needs To Consider That Other Startups Don't (news – 2015)
http://www.forbes.com/sites/julieweed/2015/05/01/8-things-a-cannabusiness-startup-needs-to-consider-that-other-startups-dont/

First Church of Cannabis Files Paperwork with Indiana Secretary of State (news – 2015)

Lawyers use 'Right to Farm' amendment to defend cultivation of marijuana (news – 2015)

Talking to kids about legal marijuana (news – 2015)

Colorado’s cannabis-friendly hotel (news – 2015)

Mock Ad For New DEA Chief Shows What It Takes To Be A 'Real' Drug Warrior (news – 2015)
The War on Drugs Costs Us All Big Money (news – 2015)
http://www.huffingtonpost.com/2015/05/12/mock-ad-seeking-new-dea-chief_n_7265814.html?ncid=txtlnkusao lp00000592

Legal Marijuana Cultivation Is Driving A Technology 'Revolution' In Industrial Agriculture (news – 2015)

America’s Marijuana Laws Give International Law the Middle Finger (news – 2015)


Unconscious use of 'medical marijuana? ' Hunter-gatherer cannabis use linked to fewer internal parasites (news – 2015)
http://www.sciencedaily.com/releases/2015/06/150601082721.htm

Marijuana Prices Move Toward $2,000 a Pound (news – 2015)

An Open Letter to Those Who Oppose Cannabis Clothes (news – 2015)
http://www.ladybud.com/2015/05/19/an-open-letter-to-those-who-oppose-cannabis-clothes/

Video: Santa Ana police raid pot shop, then eat its edibles, attorney says (news – 2015)

Federal government agrees to pay for sewer analysis to determine marijuana use in Washington (news – 2015)

Honey bees might be trained to replace drug-sniffing dogs (news – 2015)
http://metro.co.uk/2015/06/27/honey-bees-might-be-trained-to-replace-drug-sniffing-dogs-5269141/#ixzz3eHib43QZ


State Marijuana Laws Complicate Federal Job Recruitment (news – 2015)
China to Banish Poverty By Using Hemp – Even In Cosmetics (news - 2015)

Monsanto Creates First Genetically Modified Strain of Marijuana (news - 2015)
http://worldnewsdailyreport.com/monsanto-creates-first-genetically-modified-strain-of-marijuana/

How the media used one tiny study to wildly exaggerate the threat of marijuana edibles (news – 2015)  http://www.vox.com/2015/6/22/8826011/pot-edibles-dangerous


Nebraska and Oklahoma Sue Colorado in Supreme Court Over Legal Recreational Pot (news – 2015)


Pediatrician Group Recommends Decriminalizing Marijuana For Youngsters (news – 2015)

SD Indian tribe to begin selling recreational pot by Jan. 1 (news – 2015)

Drug warriors are still crying 'reefer madness.' The facts don't support them (news – 2015)

10 Reasons Why Federal Medical Marijuana Prohibition is about to Go Up in Smoke (news – 2015)
http://www.huffingtonpost.com/steph-sherer/10-reasons-why-federal-me_b_7851642.html
Is Marijuana Legal on Indian Reservations? (news – 2015)

More Than Four in 10 Americans Say They Have Tried Marijuana (news – 2015)
utm_source=tagrss&utm_medium=rss&utm_campaign=syndication

Ruling: Smell of marijuana can't be only basis for searches (news – 2015)
http://www.abqjournal.com/616608/news-around-the-region/ruling-smell-of-marijuana-cant-be-only-basis-
for-searches.html

SO YOU WANT TO OPEN A POT SHOP? (news – 2015)
http://www.mapinc.org/drugnews/v15/n446/a06.html?134

How the Justice Department seems to have misled Congress on medical marijuana (news – 2015)
http://www.washingtonpost.com/news/wonkblog/wp/2015/08/06/the-justice-department-says-it-misled-
congress-on-medical-marijuana/

Top 10 Songs About Weed and Pot To Get High To (news – 2015)

At 82, he's the world's most eminent pot scientist (news – 2015)
http://hemphealthytoday.blogspot.com/2013/08/at-82-hes-worlds-most-eminent-pot.html

DARE’s Accidental Pro-pot Stance Was Prescient (news – 2015)
http://nypost.com/2015/08/03/dares-accidental-pro-pot-stance-was-prescient/

State Lawmakers Want Feds To Respect Their Marijuana Laws (news – 2015)
http://www.huffingtonpost.com/entry/state-marijuana-laws_55c3a74de4b0d9b743db4985?
ncid=txtlnkusaolp00000592&kvcommref=mostpopular

New DEA Leader: ‘Pot Is Probably Not As Bad As Heroin’ (news – 2015)
http://www.mintpressnews.com/new-dea-leader-pot-probably-not-as-bad-as-heroin/208050/#comment-
86299

Was William Shakespeare high when he penned his plays? (news – 2015)
http://www.independent.co.uk/arts-entertainment/theatre-dance/features/william-shakespeare-high-
cannabis-marijuana-stoned-plays-hamlet-macbeth-romeo-juliet-stratford-10446510.html

Sheriffs are asking for armored trucks to wage war on marijuana. Yes, really. (news – 2015)
http://www.washingtonpost.com/news/wonkblog/wp/2015/08/11/sheriffs-are-asking-for-armored-trucks-to-
war-on-marijuana-yes-really/

Documents Reveal the Fearmongering Local Cops Use to Score Military Gear From the Pentagon (news – 2015)
http://www.motherjones.com/politics/2015/08/new-documents-reveal-fearmongering-local-cops-use-score-
military-gear-pentagon
Many Anti-Pot Arguments Are Based On Weak Science, Say Researchers (news – 2015)
http://www.huffingtonpost.com/entry/marijuana-use-myths_55cb6f53e4b0923c12bed78d?ncid=txtlnkusaoip00000592&kvcommref=mostpopular

Granola bars contain hemp seeds, Army warns (news – 2015)


Top 50 Most Influential Marijuana Consumers (news – 2015)
https://www.mpp.org/Top50/

How weed is being embraced by the wellness movement (news – 2015)

Judge: Missouri right-to-farm doesn't cover marijuana (news – 2015)

One in every 17 college students smokes marijuana on daily or near-daily basis (news – 2015)
http://www.news-medical.net/news/20150901/One-in-every-17-college-students-smokes-marijuana-on-daily-or-near-daily-basis.aspx

Medicinal marijuana: Patients battle stigma and misunderstanding (news – 2015)
http://www.sciencedaily.com/releases/2015/08/150828113011.htm

The rise of Jamaica's legalized ‘green rush’ (news – 2015)

Weed has long history in Japan but now best avoided (news – 2015)

Newly Risen From Yeast: THC (news – 2015)

Taxpayers are paying $60 for every pot plant the DEA destroys in Oregon (news – 2015)

In the land of towering pot plants, Pakistani farmers brace for a buzz-kill (news – 2015)
FBI: Marijuana arrests increase for first time since 2009 (news – 2015)

Quiz: Is this quote from Prohibition or marijuana legalization? (news – 2015)
http://www.oregonlive.com/business/index.ssf/2015/10/quiz_is_this_quote_from_prohib.html

Government of Canada has started spelling the drug it called ‘Marihuana’ as ‘Marijuana’ (sometimes) (news – 2015)

Marijuana Businesses Can't File for Bankruptcy (news – 2015)

Many Anti-Pot Arguments Are Based On Weak Science, Say Researchers (news – 2015)
http://www.huffingtonpost.com/entry/marijuana-use-myths_55cb6f53e4b0923c12bed78d?ncid=txtlnksaolp00000592&kvcommref=mostpopular


Prohibition Is the Real "Gateway Drug" (news – 2015)
http://www.huffingtonpost.com/inge-fryklund/prohibition-is-the-real-g_b_8210802.html

Seasonal workers flock to California to process marijuana (news – 2015)

Marijuana tourism’s reach expands (news – 2015)

Illinois medical pot users erroneously told to give up guns (news – 2015)

Is Smoking Weed the Secret to a Successful Relationship? (news – 2015)
http://ecosalon.com/is-smoking-weed-the-secret-to-a-successful-relationship/

Housing marijuana offenders costs how much? (news – 2015)

Lip balm containing pot ingredient thrown out at air base (news – 2015)

After two years, debate remains over marijuana legalization's impacts (news – 2015)
Weed’s Chronic Energy Use Becomes a Concern (news – 2015)  

Potent joint wrapped in 24-karat gold creates a buzz (news – 2015)  

DEA Employees Fail Drug Tests, Shockingly Face No Serious Consequences (news – 2015)  
http://www.huffingtonpost.com/entry/dea-drug-tests_560abff4e4b0af3706de0211

How the High Times Bonghitters Became the Yankees of New York Media Softball (news – 2015)  

No more high scores: ESL bans pot use during e-sports tournaments (news – 2015)  
http://arstechnica.com/gaming/2015/08/no-more-high-scores-esl-bans-pot-use-during-esports-tournaments/

Cory Booker on how America’s criminal justice system destroys the American dream (news – 2015)  
http://www.vox.com/2015/3/16/8205027/cory-booker-drug-war

Pity the Poor Stormtroopers: Baby Bou-Bou Ambushed Them (Updated, May 21) (news – 2015)  
http://freedominourtime.blogspot.com/2015/05/pity-poor-stormtroopers-baby-bou-bou.html

Life Insurance for Marijuana Smokers (news/ad – 2015)  
https://lifeinsurance.rocks/life-insurance-for-marijuana-smokers/

The Spread of Legalization Explained (card set – 2015)  


http://cfamm.ca/patient-recommendations/

What Does the Average Cannabis Consumer Look Like? (article – 2016)  
https://docsend.com/view/kv9hgzy

"Nuns" fight to keep their marijuana-based business in California (news – 2016)  

Why the ‘wet tea leaves’ drug raid was outrageous (news – 2016)  

20 Marijuana Statistics That Chronicle Its Expansion Over the Past 20 Years
Facebook cracks down on marijuana firms with dozens of accounts shut down (news – 2016)

Pot Dispensaries Flood California Tax Office With Weed-Smelling Cash (news – 2016)


Cannabis and Cannabinoid Research Publishes Data Demonstrating the Degradation of Cannabidiol to Psychoactive Cannabinoids when Exposed to Simulated Gastric Fluid (news – 2016)

British drug sniffing dogs are great at finding sausages, but not drugs (news – 2016)

Oregon ‘Cannabis Campus’ Lets Tourists See How Their Weed is Made (news – 2016)
http://time.com/4311245/cannabis-tourism-state-oregon/

This Car Is Made Out Of Cannabis Hemp (news – 2016)
http://nypost.com/2016/05/06/this-car-is-made-out-of-cannabis-hemp/

Guy growing cannabis illegally is now a multi-millionaire and paying his taxes (news – 2016)
http://metro.co.uk/2016/05/22/guy-growing-cannabis-illegally-is-now-a-multi-millionaire-and-paying-his-taxes-5898100/#ixzz49PsHUFIX

State Department: The DEA Has Been Lying About Research Pot (news – 2016)

'Stoned' sheep go on 'psychotic rampage' after eating cannabis plants dumped in Welsh village (news – 2016)

Working with weed: Meet a budtender (news – 2016)

Working with weed: Meet a public relations specialist (news – 2016)
http://www.ocregister.com/articles/simard-718962-industry-dinenberg.html

Working with weed: Meet a lab technician (news – 2016)
http://www.ocregister.com/articles/industry-718960-battacharya-labs.html
Working with weed: Meet a delivery coordinator
http://www.ocregister.com/articles/marijuana-718959-siegel-industry.html

Working with weed: Meet a technology developer
http://www.ocregister.com/articles/marijuana-718963-norris-industry.html

‘I don’t know it as cannabis, I know it as African tobacco weed’
http://www.irishexaminer.com/ireland/i-dont-know-it-as-cannabis-i-know-it-as-african-tobacco-weed-404723.html

Grass Fed - Should livestock eat cannabis?
http://www.bohemian.com/northbay/grass-fed/Content?oid=2966332

Science For Space Farming Is Also Being Used to Grow Weed

9 Marijuana Beers for 4/20

Finally, a pizza box you can use to smoke weed
http://mashable.com/2016/04/14/pizza-box-smoke-weed/#8wB9M_plIgql

The government spent $18 million destroying marijuana plants last year

Cannaphobia: What’s Up With Fear of Marijuana
http://www.huffingtonpost.com/laura-lagano/post_11378_b_9558388.html

Marijuana Use Rises in Iran, With Little Interference

Federal agency won't include pot in annual crop statistics

The high life
http://www.phnompenhpost.com/post-weekend/high-life

Hmong Community in Siskiyou County told not to vote or face felony prosecution
http://cannabusinesslaw.com/2016/06/hmong-community-in-siskiyou-county-told-not-to-vote-or-face-felony-prosecution/

Remembering the Florence Nightingale of Medical Marijuana

Jamaica to sell cannabis to tourists at airports
http://metro.co.uk/2016/07/02/jamaica-to-sell-cannabis-to-tourists-at-airports-5981263/#ixzz4DP7S4c9U

9 Terms For Weed From Around The World You Need To Know
http://herb.co/2016/06/07/9-terms-for-weed-from-around-the-world-you-need-to-know/
Many Bay Area women choosing careers in cannabis industry (news – 2016)

Seeing Green: Pot Changes Brain's Response to Money (news – 2016)

Police in South Dakota use catheters, force to collect urine samples (news – 2016)

Average legal user spends $647 a year on marijuana (news – 2016)

Your kid is way more likely to be poisoned by crayons than by marijuana (news – 2016)

How To Get Maximum Kief From Your Grinder (news – 2016)
http://herb.co/2016/06/28maximum-kief-grinder/

Big Pharma's Concerned About These Marijuana Stats (news – 2016)

Drug War is ‘Root Cause’ of Police Shooting Epidemic, says Libertarian Party Presidential Nominee Gary Johnson (news – 2016)

Hugo Water Test Results Not Back Yet, Order Not To Drink It Remains (news - 2016)

Hugo water safe to drink after conclusive tests show no signs of THC (news - 2016)

Stoned Age - Did pot dealers found Western civilization? (news – 2016)
http://www.bohemian.com/northbay/stoned-age/Content?oid=2975022

Marijuana-munching cops fired after being caught on tape (news – 2016)

Epic Cop Fail: Burning Illegal Weed Got This Town High (news – 2016)
http://herb.co/2016/07/06/cops-burning-illegal-weed/

Quiz: Do your neighbors think you’re running a marijuana operation? (news – 2016)

High Science: Tissue Culture Cultivation Is The Future Of Growing (news – 2016)
http://herb.co/2016/07/09/tissue-culture-cultivation/
If You Love Weed, Chances Are You’re Great In Bed  
http://herb.co/2016/07/04/love-weed-great-in-bed/

What Are the Side Effects of Marijuana on the Economy?  

Pot Not the New Almond  

Number of Legal Medical Marijuana Patients (as of Mar. 1, 2016)  

Time for the Media to Correct Its Cannabis Lexicon  
http://www.huffingtonpost.com/entry/time-for-the-media-to-correct-its-cannabis-lexicon_us_57a7e586e4b0c94bd3c9d608

One in Eight U.S. Adults Say They Smoke Marijuana  
http://www.gallup.com/poll/194195/adults-say-smoke-marijuana.aspx?g_source=Well-Being&g_medium=lead&g_campaign=tiles

Gallup: More than 33 million American adults currently use marijuana  

Wild Bill Donovan’s Truth Drug: THC Acetate  

Study: Medical marijuana changes how employees use sick time  

Study of Fatal Car Accidents Suggests Medical Marijuana May Be Helping Curb Opioid Use  

Dear Stoner: What Is Thai Stick? + Should I stick with Zig-Zags?  

This Marijuana Farmers' Market Proves That Weed Is the New Wine  
http://www.laweekly.com/restaurants/this-marijuana-farmers-market-proves-that-weed-is-the-new-wine-7325690

Humboldt County's Marijuana Boom Is Destroying Redwoods and Killing Rare Wildlife  

5 Tips for Breaking Into the 'Budding' Marijuana Industry  
Why captains of cannabis industry don't like the “M word  

Marijuana Myths That Just Won’t Die  
http://www.seattleweekly.com/food/marijuana-myths-that-just-wont-die/

Market for legal pot could pass $20 billion  
http://www.hartfordbusiness.com/article/20161111/NEWS02/311119983

Your brand-name bong might be bogus, trademark lawsuits charge  

How Will Small Marijuana Businesses Fare in the Wake of Proposition 64?  

Virginia school suspends an 11-year-old for one year over a leaf that wasn’t marijuana  

Ten Marijuana Books for the Weed Nerd in Your Life  

Marijuana’s ‘trimmigrant’ labor force poses conflicts for some North Coast towns  

Uruguay: 6 workers arrested for stealing state-grown pot  

Yes, most state employees can use marijuana off the job  

Californians are already having their marijuana charges downgraded  
http://www.scpr.org/programs/take-two/2016/11/16/53070/people-are-already-having-their-marijuana-convicti/

‘This is Your Brain on Drugs’ actor supports legalizing marijuana  
http://kdvr.com/2016/10/21/this-is-your-brain-on-drugs-actor-supports-legalizing-marijuana/

Can Legalized Weed Sales Help Ailing Record Stores Turn Over a New Leaf?  

Uruguay to have marijuana museum  

Willie Nelson Reserve Marijuana Commands 50% Price Premium  
Holiday food, wine and cannabis pairings (news – 2016)

Who can work in a marijuana shop? (news – 2016)
http://m.juneauempire.com/state/2016-10-24/who-can-work-marijuana-shop#gsc.tab=0

Punch the clock and pass the brownies (news – 2016)

He got life without parole for pot. And he was just denied clemency. (news – 2016)
http://www.newsday.com/opinion/he-got-life-without-parole-for-pot-and-he-was-just-denied-clemency-1.12731004

Finding marijuana residue in trash doesn’t justify search of the home for drugs, court rules (news – 2016)

DEA Gives Cannabis Law Significant Tweak (news – 2016)

Paraphernalia shops drop the smoke screen (news – 2016)

5 Reasons Weed Give Us The Giggles That You Might Not Know (news – 2016)
http://herb.co/2016/12/08/weed-give-giggles/

What a $20 Bag of Weed Looks Like in Jamaica (news – 2016)
http://herb.co/2016/01/26/20-bag-weed-looks-like-jamaica/

Marijuana should be treated like tobacco, alcohol, Obama says (news – 2016)

Here’s How to Flush Your Marijuana Criminal Record (news – 2016)
http://bigbudsmag.com/how-to-get-rid-of-your-marijuana-criminal-record/

Cannabis Reduces Short Term Motivation to Work For Money (news – 2016)
http://neurosciencenews.com/psychology-cannabis-work-4958/

http://neurosciencenews.com/cannabis-research-government-4562/

Legalized marijuana: What are the implications for worker's comp? (news – 2016)
http://blog.nj.com/stark_stark/2016/11/legalized_marijuana_what_are_t.html

Marijuana: 15 Cities With the Most Pot Users (news – 2016)
http://www.cheatsheet.com/culture/marijuana-cities-pot-users.html/?ref=YF&yptr=yahoo

Doctors Struggle With Medical Marijuana Knowledge Gap (news – 2016)
The Early Bird Does Not Get the Legal Weed

‘Pot fairy’ strikes Brown Avenue, again

Please, don’t call it fake weed

Cop Task Force Gets In The Weeds

Marijuana Money: How Much Do Cannabis Consumers Spend Annually?

Costs of Growing Cannabis at Home vs. Buying Bud at a Dispensary

MITOCHONDRIA — they act like a cell’s digestive system taking in nutrients for energy

New Study Shows Cannabinoids Improve Efficiency Of Mitochondria And Remove Damaged Brain Cells

Marijuana fights Alzheimer’s disease, new study indicates

Marijuana Compound May Offer Treatment for Alzheimer’s Disease

Why weed (and other cannabinoids) gives us—I mean, you—the munchies

Blocking body's endocannabinoids could be effective liver cancer treatment

Marijuana flips appetite switch in brain

Harvesting Benefits from Cannabinoids.
Cannabinoids control memory through mitochondria  

CBD Science: How Cannabinoids Work at the Cellular Level to Keep You Healthy  
(news – 2016)  
http://www.alternet.org/drugs/cbd-science-mitochondria-mysteries-homeostasis-renewal-endocannabinoid-system

**MORNING SICKNESS** - also see NAUSEA

Pregnant women turning to cannabis for morning sickness relief risk prosecution  
(news - 2010)  
http://michigandispensaries.us/news/pregnant-women-turning-to-cannabis-for-morning-sickness-relief-risk-prosecution

When Getting Baked Means More than Just a Bun in the Oven  
(news – 2010)  

Marijuana for Morning Sickness?  
(anecdotal/news – 2010)  
http://blogs.babycenter.com/mom_stories/marijuana-for-morning-sickness/

Medical Marijuana: Can Pot Help Pregnant Women With Vomiting and Nausea?  
(article – 2011)  

Medical Marijuana For Morning Sickness? Some Doctors Think It'll Help Pregnant Women Relieve Severe Nausea  
(news – 2015)  

Pot and Pregnancy: Marijuana for morning sickness  
(news – 2015)  

**MORTALITY RATES**

Pregnant Women Smoking Pot Could Reduce Infant Mortality  
(news - 2010)  
http://www.opposingviews.com/i/pregnant-women-smoking-pot-could-reduce-infant-mortality
Marijuana is NOT like Alcohol. Please make a note of it. Thanks. (news – 2010)

Annual Causes of Death in the United States (article – 2011)
http://drugwarfacts.org/cms/?q=node/30

Cocaine, Opiate, and Cannabinoid Infant Mortality Study (news – 2011)

Study: Marijuana Linked to Lower Mortality Rate for Patients with Psychotic Disorders (news – 2012)  http://www.alternet.org/story/155657/study%3A_marijuana_linked_to_lower_mortality_rate_for_patients_with_psychotic_disorders

Study: Marijuana Smoking Not Associated With Greater Mortality Risk Among Heart Attack Survivors (news – 2013)

Study: Imposition Of Per Se Limits For Drugs Don't Reduce Traffic Deaths (news – 2013)
http://norml.org/news/2013/01/17/study-imposition-of-per-se-limits-for-drugs-don-t-reduce-traffic-deaths

Study: Recreational Marijuana Users Show No ‘Negative Health Outcomes’ (news – 2013)
http://www.leafscience.com/2013/09/24/study-recreational-marijuana-users-show-negative-health-outcomes/

No detectable association between frequency of marijuana use and health or healthcare utilization (news – 2013)

Which Drugs Actually Kill Americans [Infographic]  Hint: not pot (news – 2013)


If Medical Marijuana Laws Cause A 'Surge in Drugged Driving Deaths,' Why Are Fatalities Falling? (news – 2014)

Medical marijuana laws may reduce painkiller overdoses (news – 2014)

States With Medical Marijuana Laws Have Fewer Opioid Overdose Deaths (news – 2014)
In States With Medical Marijuana, Painkiller Deaths Drop by 25 Percent  (news – 2014)

No correlation between medical marijuana legalization, crime increase: Legalization may reduce homicide, assault rates  (news – 2014)
http://www.sciencedaily.com/releases/2014/03/140326182049.htm

Medical Marijuana's Legalization and Crime Rates  (news – 2014)

Marijuana use associated with lower death rates in patients with traumatic brain injuries  (news – 2014)

Cannabis conundrum: Evidence of harm?: Opposition to marijuana use is often rooted in arguments about the drug's harm to children and adults, but the scientific evidence is seldom clear-cut  (article – 2015)

Pediatrician decides: alcohol or marijuana  (news – 2015)
http://blog.sfgate.com/smellthetruth/2015/03/16/pediatrician-decides-alcohol-or-marijuana/

7 possible deaths linked to spice  (news – 2015)
http://www.msnewsnow.com/story/28853152/7-possible-deaths-linked-to-spice

The laws on alcohol and marijuana are totally out of sync with the science  (news – 2015)

Deaths triple from synthetic marijuana in US  (news – 2015)

Doctors pioneer pot as an opioid substitute  (news – 2015)
http://www.bostonherald.com/news_opinion/local_coverage/2015/10/doctors_pioneer_pot_as_an_opioid SUBSTITUTE

Painkiller Deaths Drop by 25 Percent in States Where Medical Marijuana is Legal  (news – 2015)

French drug trial turns disastrous, leaving 1 brain dead and 5 hospitalized  (news – 2016)

One way to fight the opioid epidemic? Medical marijuana.  (news – 2016)
http://www.vox.com/2016/1/20/10800248/medical-marijuana-opioids-heroin
Overdose: How much cannabis would it take to kill you? (news – 2016)
http://blazedgeek.com/overdose-how-much-cannabis-would-it-take-to-kill-you/#sthash.HWHjYZ0T.dpuf

Science/Human: Cannabis use was associated with improved outcome after bleeding in the brain (news – 2016)


Marijuana better alternative to painkillers (news – 2016)
http://www.technicianonline.com/sports/article_3bf18c14-910e-11e6-b5ca-9f48d5c1e2e3.html

Countdown to legal pot: No one will ever die from too much marijuana (news – 2016)


Can Marijuana Cause Deadly Drug Interactions? (news – 2016)

MRSA/ METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS


Can Marijuana Combat The ‘Catastrophic’ Rise Of Drug Resistant Bacteria? (news – 2013)
http://www.leafscience.com/2013/09/18/can-marijuana-combat-catastrophic-rise-drug-resistant-bacteria/

Terpenes May Improve Effectiveness Of Medical Marijuana (news – 2013)

MULTIPLE SCLEROSIS/ MS

Drugs that reduce activity of ABDH6 enzyme can prevent brain damage: Study
Nature's (Legal) Cannabinoids (news - 2010)
http://www.mapinc.org/drugnews/v10/n126/a04.html?1194

Marijuana and MS--an unfinished story. (news - 2010)
http://www.thefreelibrary.com/Marijuana+and+MS--+an+unfinished+story.-a0237205183

Weed Control Part 1: MS sufferer finds relief with medical marijuana (anecdotal/news - 2010)

New metabolic pathway for controlling brain inflammation (news – 2011)

Scripps Research Scientists Discover Inflammation Is Controlled Differently in Brain and Other Tissues (news – 2011)

Smoked Cannabis Reduces Some Symptoms of Multiple Sclerosis (news – 2012)

Marijuana Helps Ease MS Symptoms, Study Finds (news – 2012)
http://www.healthline.com/health-blogs/study-roundup/marijuana-multiple-sclerosis-101112

Marijuana Pill Relieves MS and RSD/CRPS Symptoms Plus Pain (news – 2012)

Cannabis-based medications prove effective in relieving pain (news – 2012)

Medicinal Cannabis and Painful Sensory Neuropathy (editorial – 2013)
http://journalofethics.ama-assn.org/2013/05/oped1-1305.html

Sativex® rescheduled by the Home Office (news – 2013) (click “yes” if asked)

Adequate and Well-Controlled Studies Proving Medical Efficacy of Cannabis Exist but Are Ignored by Marijuana Schedulers (news – 2013)
http://www.huffingtonpost.com/sunil-kumar-aggarwal/marijuana-schedule-1_b_3071725.html

Still Believe Nature Got It Wrong? Top 10 Health Benefits of Marijuana (news – 2013)
http://www.wakingtimes.com/2013/05/01/still-believe-nature-got-it-wrong-top-10-health-benefits-of-marijuana/
Research shows marijuana can be effectively used to treat multiple sclerosis (news – 2013)

Medical Marijuana: Consortium of Multiple Sclerosis Centers (news – 2013)

Aylsham multiple sclerosis sufferer says cannabis-based drug ‘changed my life’ (news - 2013)
http://www.eveningnews24.co.uk/news/aylsham_multiple_sclerosis_sufferer_says_cannabis_based_drug_changed_my_life_1_2276182

Multiple Sclerosis and Cannabis - A Conversation With Clark French (news – 2013)
http://www.huffingtonpost.co.uk/jason-reed/multiple-sclerosis-and-cannabis_b_1902151.html

Sending multiple sclerosis up in smoke (news – 2013)

Chemicals in marijuana 'protect nervous system' against MS (news – 2013)
http://www.medicalnewstoday.com/articles/267161.php

http://www.safeaccessnow.org/medical_cannabis_research_what_does_the_evidence_say

Study uncovers marijuana's potential to treat autoimmune diseases (news – 2014)

Marijuana Benefits MS Patients as Other Remedies Fail (news – 2014)

Low or No THC, High CBD Medical Marijuana Bills: Leaving Most Patients Behind (news – 2014)
https://www.mpp.org/low-or-no-thc-high-cbd-medical-marijuana-bills/

Iowa’s Only Two Medical Marijuana Recipients May Lose Access (news – 2014)
http://www.thedailychronic.net/2014/30844/iowas-only-two-medical-marijuana-recipients-may-lose-access/

Health Benefits Of Medical Marijuana: 3 Major Ways Cannabis Helps Sick People Live Normal Lives (news – 2014)

The entourage effect: Synergistic actions of plant cannabinoids (letter – 2015)
https://www.researchgate.net/publication/268878607_Medical_marijuana_in_neurology
What ailments does medical marijuana help? (news – 2015)


Can Medical Marijuana Treat Multiple Sclerosis? (news – 2015)

MS patients may someday find relief in marijuana chewing gum (news – 2015)

Illinois medical marijuana applicants trending female, older (news – 2015)

AXIM bags pot discount for gum to treat multiple sclerosis (news/ad – 2016)

Massive scientific report on marijuana confirms medical benefits (news – 2017)

MULTIPLE SYSTEM ATROPHY

Cannabis treatment report (news – undated)
https://www.patientslikeme.com/treatments/show/4924-cannabis-side-effects-and-efficacy?condition_id=7#overview

Medical Marijuana and the Mainstream Media (news – 2012)
http://ireport.cnn.com/docs/DOC-760684

A medical marijuana patient's determined search for relief (news – 2014)

Medical marijuana works well for celebrity chef Kerry Simon (news – 2015)

MUSCLES/MUSCLE RELAXANT
Cannabinoids May Enhance Motor Function Recovery Following a Stroke [Study] (news – 2016)
https://www.theweedblog.com/cannabinoids-enhance-motor-function-recovery-stroke-study/

MUSCULAR DYSTROPHY/ MD

Cannabis Shows Promise for Treating Symptoms of Muscular Dystrophy (news – 2015)
http://www.medicaljane.com/2015/03/03/cannabis-shows-promise-for-treating-symptoms-of-muscular-dystrophy/

Can Medical Marijuana Provide Relief for Muscular Dystrophy? (news – 2015)
https://www.hellomd.com/health-wellness/can-medical-marijuana-provide-relief-for-muscular-dystrophy

Can Cannabis Treat Muscular Dystrophy? (news – 2016)
http://medicalmarijuananews.xyz/can-cannabis-treat-muscular-dystrophy-symptoms/

MYOCLONUS DIAPHRAGMATIC FLUTTER

Teen says marijuana has been a lifesaver (myoclonus diaphragmatic flutter) (news/ anecdotal – 2012)
http://www.gazette.com/articles/seizes-134241-chaz-teen.html

‘Without marijuana, I’d probably be dead’ (news – 2012)
http://www.chalkbeat.org/posts/co/2012/02/22/teen-without-marijuana-id-probably-be-dead/#.V574jqIA76g

NAIL-PATELLA SYNDROME

Medical Cannabis Conditions in other States (Part 2) (news – 2011)

Federal Rx: Marijuana (news – 2011)

Iowa’s Only Two Medical Marijuana Recipients May Lose Access (news – 2014)
http://www.thedailychronic.net/2014/30844/iowas-only-two-medical-marijuana-recipients-may-lose-access/
Nail-patella Syndrome – Medical Marijuana Research Overview  (news – 2014)

CANNABIS THE UNEXPECTED ANSWER TO NAIL-PATELLA SYNDROME IN MICHIGAN  (news – 2015)

**NAUSEA** - also see MORNING SICKNESS, MOTION SICKNESS, RADIATION-INDUCED NAUSEA

Medical Marijuana: Can Pot Help Pregnant Women With Vomiting and Nausea?  (article – 2011)

Cannabis as Painkiller  (news – 2012)
http://www.sciencedaily.com/releases/2012/08/120807101232.htm

Low or No THC, High CBD Medical Marijuana Bills: Leaving Most Patients Behind  (news – 2014)    https://www.mpp.org/low-or-no-the-high-cbd-medical-marijuana-bills/


UEA scientists separate medical benefits of cannabis from unwanted side effects  (news – 2015)
https://www.uea.ac.uk/about/-/uea-scientists-separate-medical-benefits-of-cannabis-from-unwanted-side-effects


Using Medical Cannabis in an Oncology Practice  (article – 2016)
(needs free registration)
http://www.cancernetwork.com/oncology-journal/using-medical-cannabis-oncology-practice/sthash.CjT8fR9n.uWvEhfSG.dpuf

Using Medical Cannabis in an Oncology Practice  (1st page – 2016)
http://www.cancernetwork.com/oncology-journal/using-medical-cannabis-oncology-practice/sthash.CjT8fR9n.dpuf

Insys Therapeutics Announces FDA Approval of Syndros™  (news – 2016)
http://syndros.com/

Weeding out the truth: Cannabis-based medications for cancer patients (news – 2016)

Massive scientific report on marijuana confirms medical benefits (news – 2017)

**NEUROGENESIS** - the formation of new neurons

Marijuana and Neurogenesis: What’s It All About? (news – 2013)
http://www.truthonpot.com/2013/03/30/marijuana-and-neurogenesis-whats-it-all-about/

Marijuana fights Alzheimer’s disease, new study indicates (news – 2014)

4 Mind Blowing Ways Cannabis Can Help Your Brain (news – 2014)
https://www.medicaljane.com/2014/12/14/4-mind-blowing-ways-marijuana-can-help-your-brain/

Cannabinoids May Enhance Motor Function Recovery Following a Stroke [Study] (news – 2016)
https://www.theweedblog.com/cannabinoids-enhance-motor-function-recovery-stroke-study/

**NEURONS/ BRAIN CELLS**

Endocannabinoids: Going retro with DAGLα (article – 2010)

Synaptic plasticity: A new partnership (article – 2011)

A Brain Wrought Without Omega-3 (news – 2011)

How Marijuana Impairs Memory (news – 2012)
http://neurosciencenews.com/marijuana-impairs-memory-astroglia-cb1r-thc/

5 Health Benefits Of Cannabichromene (CBC)  (news – 2013)
http://www.leafscience.com/2013/09/21/5-health-benefits-of-cannabichromene-cbc/

Discovery Sheds New Light on Marijuana’s Anxiety Relief Effects  (news – 2014)
http://neurosciencenews.com/cannabinoid-receptors-amygdala-anxiety-833/

Marijuana's anxiety relief effects: Receptors found in emotional hub of brain

Researchers Discover How Key Protein Enhances Memory and Learning

Oxytocin Enhances Pleasure of Social Interactions by Stimulating Production of “Bliss Molecule”

Cannabinoid Receptors May Control Aversive Memories  (news & abstract - 2015)
http://neurosciencenews.com/habenula-cb1-receptors-memory-2742/

Uncovering the Neurological Differences Between the Sexes  (news – 2015)
http://neurosciencenews.com/sex-differences-hippocampus-2421/

How The Brain Creates Marijuana-Fueled Munchies  (news – 2015)

Medical Marijuana’s Chemicals May Protect Cells  (news – 2015)
http://www.scientificamerican.com/article/how-medical-marijuana-s-chemicals-may-protect-cells/

Should I stay or should I go? On the importance of aversive memories and the endogenous cannabinoid

Mulling the Marijuana Munchies: How the Brain Flips the Hunger Switch
(news – 2015) http://neurosciencenews.com/hunger-neuroscience-cb1r-1776/

'Love hormone' oxytocin mimics effects of marijuana  (news – 2015)
https://in.news.yahoo.com/love-hormone-oxytocin-mimics-effects-marijuana-074404829.html

Why weed (and other cannabinoids) gives us—I mean, you—the munchies

Brief Overview of the Endocannabinoid System  (news – 2015)
http://www.medicaljane.com/2015/02/28/a-brief-overview-of-the-endocannabinoid-system/

Marijuana flips appetite switch in brain  (news – 2015)
Is Anxiety Genetic? (news – 2015)  
http://www.quickanddirtytips.com/education/science/is-anxiety-genetic

Harvesting Benefits from Cannabinoids. (article – 2016)  
http://www.cell.com/cell/fulltext/S0092-8674(16)31675-0

Previously Unknown Function of a Cannabinoid Receptor Identified (news & abst – 2016)  
http://neurosciencenews.com/cb2-cannabinoid-receptor-hippocampus-4147/

Suppressing Schizophrenia Symptoms Without Side Effects: Mouse Study (news & abst – 2016)  
http://neurosciencenews.com/schizophrenia-compound-striatum-5089/

Temple researchers to explore ability of compounds to protect brain against HIV infection (news – 2016)  

Cannabinoids remove plaque-forming Alzheimer's proteins from brain cells (news – 2016)  

Medical marijuana has potential as Alzheimer’s treatment, study says (news – 2016)  

How Cannabis Works to Control Pain and Anxiety (news – 2016)  
http://www.huffingtonpost.com/entry/how-cannabis-works-to-control-pain-and-anxiety_us_57d97a73e4b0d93d17700f63

CBD Science: How Cannabinoids Work at the Cellular Level to Keep You Healthy (news – 2016)  
http://www.alternet.org/drugs/cbd-science-mitochondria-mysteries-homeostasis-renewal-endocannabinoid-system

Cannabinoids Induce Memory Loss Through a Decrease in Energy in Neurons (news – 2016)  
http://neurosciencenews.com/neural-energy-cannabinoids-5477/

THC Stimulates Toxic Plaque Removal in the Brain, Blocks Inflammation, Finds Study (news – 2016)  

NEUROPATHIC PAIN

Study Claims Cannabis Reduces Chronic Pain (news - 2010)  

Study: Smoking pot may ease chronic pain (news - 2010)  
Cannabinoids inhibit and may prevent neuropathic pain in diabetes. (news - 2010)

Cannabinoid 'Completely' Prevents Chemotherapy-Induced Neuropathy, Study Says (news – 2011)

CBD: Marijuana Compound Has No High, But Relieves Pain (news – 2011)

Marijuana component may ease pain from chemo therapy drugs (news – 2011)
http://www.jpost.com/Health/Article.aspx?id=241299

Cannabidiol may help prevent paclitaxel-induced peripheral neuropathy (news – 2011)

California pot research backs therapeutic claims (news – 2012)
http://www.sacbee.com/2012/07/12/4625608/california-pot-research-backs.html

Marijuana Pill Relieves MS and RSD/CRPS Symptoms Plus Pain (news – 2012)

Cannabis as Painkiller (news – 2012)
http://www.sciencedaily.com/releases/2012/08/120807101232.htm

Study: Synthetic THC Analogue Mitigates Diabetic Neuropathy, Is ‘Well Tolerated’ In Patients (news – 2012)

New drug offers novel pain management therapy for diabetics. (news - 2012)
http://www.thefreelibrary.com/New+drug+offers+novel+pain+management+therapy+for+diabetics.-a0306899453

Synthetic cannabinoid could treat pain in diabetes patients (news – 2012)

Drug offers new pain management therapy for diabetics (news – 2012)

Cannabis-based medications prove effective in relieving pain (news – 2012)

Medicinal Cannabis and Painful Sensory Neuropathy (editorial – 2013)
http://virtualmentor.ama-assn.org/2013/05/oped1-1305.html


Study: Cannabis Inhaler Delivers Effective Relief To Neuropathy Patients (news - 2014) http://blog.norml.org/2014/08/18/study-cannabis-inhaler-delivers-effective-relief-to-neuropathy-patients/


NEUROPROTECTION


Researchers study neuroprotective properties in cannabis  (news - 2012)  http://www.foxnews.com/health/2012/03/20/researchers-study-neuroprotective-properties-in-cannabis/

Low Doses of THC (Cannabis) Can Halt Brain Damage, Study Suggests  (news – 2013)  http://www.sciencedaily.com/releases/2013/05/130530132531.htm

Activation of cortical type 2 cannabinoid receptors ameliorates ischemic brain injury  (news – 2013)  http://www.sciencedaily.com/releases/2013/02/130221141140.htm

Chemicals in marijuana 'protect nervous system' against MS  (news – 2013)  http://www.medicalnewstoday.com/articles/267161.php


New Study: Cannabis May Treat Brain Damage Caused by Heavy Alcohol Consumption  (news – 2013)  http://thejointblog.com/new-study-cannabis-may-treat-brain-damage-caused-heavy-alcohol-consumption/


Temple researchers to explore ability of compounds to protect brain against HIV infection (news – 2016)  

Microbes, Alzheimer’s Disease, and Cannabis (news – 2016)  
http://cannabishealthindex.com/cannabinoid-research/microbes-alzheimers-disease-and-cannabis/

THC Stimulates Toxic Plaque Removal in the Brain, Blocks Inflammation, Finds Study (news – 2016)  

---

**NUTRITION – GENERAL**  - also see OMEGA3/ CB 1 CONNECTION, METHODS OF USE- EDIBLES

Scientists Find New Sources of Plant Cannabinoids Other than Medical Marijuana? (news – 2010)  

Poor Diet Impairs Cannabinoid Receptors (forum repost – 2011)  

Hemp Food Storage (article – 2012)  
http://www.innvista.com/health/foods/hemp/hemp-food-storage/

Mangoes Elevate High From Smoking Marijuana: Are They A Healthier Alternative To The 'Munchies'? (news – 2013)  
http://www.medicaldaily.com/mangoes-elevate-high-smoking-marijuana-are-they-healthier-alternative-munchies-247892

How to Stay Healthy While You're High (news – 2015)  

Half-baked hog farm busted (news – 2014)  
http://www.phnompenhpost.com/national/half-baked-hog-farm-busted

http://www.bohemian.com/northbay/grass-fed/Content?oid=2966332

How Omega 3 Improves the Effectiveness of CBD Oil (news – 2016)  
https://www.highlandpharms.com/cbd-oil-effective-omega-3

Dr. Ethan Russo: Endocannabinoid Nutrition (news – 2016)  
https://www.ganjapreneur.com/ethan-russo-endocannabinoid-nutrition/
NUTRITION – HEMP SEED

Hemp Seeds are Full of Health (news - 2010)  
http://www.naturalnews.com/029729_hemp_seeds_health.html

Benefits of hemp protein (news – 2010)  

Hemp Food Storage (article – 2012)  
http://www.innvista.com/health/foods/hemp/hemp-food-storage/

Hemp Seed Protein (article – 2012)  

Hemp Seeds (article – 2012)  
http://www.innvista.com/health/foods/hemp/hemp-seeds/

Hemp Seeds as Medicine (article – 2012)  

Are Hemp Seeds Part of a Healthy Diet? (news – 2013)  
http://www.wakingtimes.com/2013/03/29/are-hemp-seeds-part-of-a-healthy-diet/

Herbal medicine may ease constipation (news – 2013)  
http://www.lifescript.com/health/centers/pain/alternative_treatments/traditional_chinese_herbal_medicine_articles/herbal_medicine_may_ease CONSTIPATION.aspx

Chew on This: Hemp is the New Health Food (news – 2013)  
http://www.lifescript.com/food/healthy_eating_guides/dinner/articles/chew_on_this_hemp_is_the_new_health_food.aspx

All You Need to Know About Hemp Seeds (news – 2013)  

Hemp-seed muesli led to ACT drug-driving charge: Laws under fire (news – 2013)  

New Study: Putting Chickens On Hemp Diet Increases Health Of Their Eggs (news - 2013)  
Hemp Prepares for Prime Time as Weed’s Sober Cousin       (news – 2014)

Plant-Based Foods With the Highest Omega-3 Fatty Acids         (news – 2014)

10 Birds That Love To Eat Hemp Seeds           (news - 2014)
http://www.hamiltonmediaarts.org/10-birds-that-love-to-eat-hemp-seeds/

High on the menu: cannabis spaghetti features at Italian foodfest        (news – 2015)

'Protein powder' claim required evidence in drug driving case, court rules
(news – 2015)

Hemp for a Healthy Heart?       (news – 2015)
http://blog.lifeextension.com/2014/02/hemp-for-healthy-heart.html


6 Reasons Why You Should Eat Hemp Seeds          (news - 2015)
http://ecowatch.com/2015/09/18/eat-hemp-seeds/#comments

Italian Ice Cream Maker Creates Hemp Gelato           (news - 2015)

Why This Grain-Free, Nut-Free, Gluten-Free, Vegan Protein Needs to Be Every Fitness Buff’s Best Friend
(news – 2016)

**NUTRITION – HEMP SEED OIL** - also see OMEGA 3/ CB1 CONNECTION

Hemp Seed Oil Vs. Flaxseed Oil (1)       (article – 2010)

Hemp Seed Oil for Skin          (news – 2010)
http://www.livestrong.com/article/340189-hemp-seed-oil-for-skin/
The Benefits of Hemp Oil on Hair  (news – 2010)
http://www.livestrong.com/article/189783-the-benefits-of-hemp-oil-on-hair/

Hemp Oil Vs. Flax Oil (2)  (news – 2011)
http://www.livestrong.com/article/413750-hemp-oil-vs-flax-oil/

Hemp Seed Oil For Eczema – Cures From The Inside Out  (news/ anecdotal – 2012)

Your Next Cooking Oil Could Come From Hemp  (news – 2014)
http://www.popsci.com/article/science/your-next-cooking-oil-could-come-hemp

Hempseed oil has healthy potential: study  (news – 2014)
http://news.yahoo.com/hempseed-oil-healthy-potential-study-195140602.html

How to Give Yourself a Cannabis Facial  (news – 2014)
http://www.elle.com/the-pot-issue/hemp-facial-diy

OBESITY/ ADIPOSE TISSUE

A Summary of Endocannabinoids and Obesity  (news – 2011)

Frequency Of Marijuana Use Associated With Lower Prevalence Of Obesity, Study Says  (news – 2011)

Smoking marijuana not linked to obesity: study  (news – 2011)

Body's natural marijuana-like chemicals make fatty foods hard to resist  (news – 2011)

'Cannabis' receptor discovery may help understanding of obesity and pain  (news – 2012)

How marijuana could help cure obesity-related diseases  (news – 2012)

Cannabis can help treat obesity  (news – 2012)

http://healthland.time.com/2011/09/08/marijuana-slims-pot-smoking-linked-to-lower-body-weight/#ixzz21IEZq1Lg
Fight obesity... with marijuana? (news – 2012)
http://theweek.com/article/index/218940/fight-obesity-with-marijuana

New Drug Could Help Maintain Long-Term Weight Loss (news – 2012)
http://www.sciencedaily.com/releases/2012/07/120726122116.htm

How Smoking Marijuana may Help Women to Fight Nasty Symptoms of Menopause? (news – 2012)

Regular Marijuana Use is Associated With Favorable Indices to Diabetic Control, Say Investigators (news – 2013)

Marijuana Users Have Better Blood Sugar Control (news – 2013)
http://www.sciencedaily.com/releases/2013/05/130515085208.htm

Study: Why Pot Smokers Are Skinnier (news – 2013)
http://www.theatlantic.com/health/archive/2013/05/study-why-pot-smokers-are-skinnier/275846/

Cannabis linked to prevention of diabetes (news – 2013)

Study: Marijuana Smokers Are Thinner And Healthier Than Non-Users (news – 2013)

Smoking Weed Linked To Lower BMI: Why Pot Smokers Tend To Be Skinnier (news – 2013)

Tetrahydrocannabivarin (THCV): A Cannabinoid Fighting Obesity (news – 2013)

Key Shift in Brain That Creates Drive to Overeat Identified (news – 2013)
http://www.sciencedaily.com/releases/2013/04/130429154214.htm

Tetrahydrocannabivarin (THCV): A Cannabinoid Fighting Obesity (news – 2013)

Marijuana Could Be the Answer to Fighting These 3 Diseases (news – 2015)
(may require free registration)

New study links marijuana use and low body weight among Nunavik Inuit (news – 2015)
http://www.nunatsiaqonline.ca/stories/article/65674new_study_links_marijuana_use_and_low_body_weight_among_inuit/
https://www.sciencedaily.com/releases/2015/02/150204125558.htm

Cannabinoids may be responsible for weight gain associated with schizophrenia (news – 2015)

Nunavik Inuit health study from 2004 continues to churn out info (news – 2015)
http://www.nunatsiaqonline.ca/stories/article/65674nunavik_inuit_health_study_from_2004_continues_to_churn_out_info/

Lady Health: Top 5 Strains to Curb Appetite (news – 2015)
http://www.ladybud.com/2015/05/12/lady-health-top-5-strains-to-curb-appetite/

Marijuana Gains Traction In Fight Against Diabetes And Obesity (news – 2015)

People Who Smoke Weed Are Losing Weight Because They're Not Drinking Booze (news – 2015)

Infographic: Pot smokers are skinnier than non-users (news – 2015)
http://o.canada.com/health-2/infographic-pot-smokers-are-skinnier-than-non-users

Skimping on sleep may activate the 'munchies' (news – 2016)

This Is What Happens to Your Beauty on Marijuana (news – 2016)
https://www.yahoo.com/beauty/this-is-what-happens-to-1411025717600310.html

Study uses diverse sample to examine childhood weight's link to age of first substance use (news – 2016)
https://www.sciencedaily.com/releases/2016/06/160628110211.htm

http://www.ibtimes.com/marijuana-makes-you-skinny-new-study-says-pot-may-lead-lower-body-mass-index-2414737

Your doctor is probably more worried about your weight than your marijuana use, study finds (news – 2016)
https://www.abqjournal.com/860979/your-doctor-is-probably-more-worried-about-your-weight-than-your-marijuana-use-study-finds.html

Exercise Can Still Increase Hunger Even in Sleep Deprivation (news – 2016)

Marijuana Users Have Lower Body Mass Index than Non-Users Says University of Miami Study (news – 2016)
http://www.wflx.com/story/33139175/marijuana-users-have-lower-body-mass-index-than-non-users-says-university-of-miami-study

**OBSESSIVE COMPULSIVE DISORDER/ OCD**

Making or breaking habits: The endocannabinoids can do it (news – 2016)

How the brain makes, and breaks, a habit (news – 2016)
https://www.sciencedaily.com/releases/2016/05/160526185419.htm

**OLDER ADULT CANNABIS USERS**

Pot for Grandma? Middle-Aged Adults Buying Weed for Ailing Parents (link to PDF – 2010)
Pot for Grandma? Middle-Aged Adults Buying Weed for Ailing....

Older Adults' Pot Use Up (news - 2010)

Medical Marijuana Raises Tough Questions for Nursing Homes (news – 2010)

Marijuana Use By Seniors Goes Up As Boomers Age (news - 2010)
http://www.mapinc.org/drugnews/v10/n136/a01.html?1189

Pot Breaks the Age Barrier (news - 2010)
http://www.mapinc.org/drugnews/v10/n233/a01.html?1190

Why Growing Numbers of Baby Boomers and the Elderly Are Smoking Pot (news – 2010)
http://www.alternet.org/story/145808/why_growing_numbers_of_baby_boomers_and_the_elderly_are_smoking_pot

125 Year Old Woman Claimed Smoking Cannabis Everyday Was Her Secret to Long Life (news – 2011)

Cannabis Use in Nursing Homes – An Emerging Issue (news – 2011)

Seniors’ Medical Pot Collective Faces Opposition in California (news – 2011)
Police Harass Federal Medical Marijuana Patient Elvy Musikka (news – 2011)

Seniors Benefit Most From Medical Marijuana (news – 2012)
http://www.doobons.com/blog/2012/04/18/seniors-benefit-most-from-medical-marijuana/


Pot smoking not tied to middle-age mental decline (news – 2012)
http://www.reuters.com/article/2012/01/04/us-drugs-idUSTRE8030AE20120104

Illicit Drug Use Rising For 50+ Crowd (news – 2012)

Reefer tokin' seniors in South Florida see pain go up in smoke (news – 2012)

Silver Tour: Wall Street Journal Looks At Seniors and Medical Marijuana Use (news – 2012)

Seniors having Trouble Getting Medical Marijuana (news – 2012)

Is Marijuana Booming Among Boomers? (news – 2013)
http://www.forbes.com/sites/nextavenue/2013/05/16/is-marijuana-booming-among-boomers/

Medical marijuana helps senior sleep, contend with other problems of aging (news – 2013)
http://www.ottawacitizen.com/health/seniors/Medical+marijuana+helps+senior+sleep+contend+with+other/8439474/story.html

Cannabis for Elders: A Precarious State (news – 2013)

Marijuana use on the rise among young adults, fiftysomethings (news – 2013)

Senior Focus: Should marijuana be legalized for end of life care? (news – 2013)
http://www.stltoday.com/lifestyles/health-med-fit/6814b63f-d758-5500-9507-a908a5b20c01.html

Not That High (news – 2013)
http://www.slate.com/articles/health_and_science/science/2013/03/marijuana_potency_returning_smokers_want_mellower_pot_strains.html
Should Your Aging Parent Try Medical Marijuana?  (news/ anecdotal – 2013)  

Retired Flint couple sees the light on medical marijuana  (news – 2014)  

Dealing with age  (news – 2014)  

Why marijuana's moment has arrived  (news – 2014)  

Monterey County seniors finding pain relief in medical marijuana  (news – 2014)  

Cannabis May Protect The Aging Brain, Say Experts  (news – 2014)  
http://www.leafscience.com/2014/05/07/cannabis-may-protect-aging-brain-say-experts/

Are Baby Boomers Ready To Give MJ a Second Chance?  (news – 2014)  

With education, nurses can help to bridge the marijuana gap  (article – 2015)  

(may need free registration)  

How Baby Boomers Get High  (news – 2015)  
http://fivethirtyeight.com/datalab/how-baby-boomers-get-high/

Substance abuse risk not greater in those using medical marijuana with prescribed opioids  (news – 2015)  

Gray hair goes green: Sun City marijuana clinic sees line out door  (news – 2015)  
http://www.ktar.com/?nid=22&sid=1836172

What It's Like To Smoke Pot Every Day For 50 Years  (news – 2015)  
https://www.yahoo.com/health/what-its-like-to-smoke-pot-every-day-for-50-years-117780070001.html

Seniors Are Seeking Out States Where Marijuana is Legal  (news – 2015)  
http://time.com/money/3967757/seniors-retire-marijuana-legal-states/?sid=yahoo_money

Retirees Represent Major Marijuana Market  (news – 2015)  
http://marijuana.heraldtribune.com/2015/08/13/retirees-represent-major-marijuana-market/

9 Ways Women And Weed Go Together Like Mary And Jane  (news – 2015)
Why Doris, 73, puts cannabis in her sandwiches (news – 2015)

Illinois medical marijuana applicants trending female, older (news – 2015)

New Poll Finds Millions Would Like to "Grow Your Own" (news – 2015)

'Grandma's magic remedy:' Mexico's medical marijuana secret (news – 2015)

More palliative care patients should get medical marijuana: doctors (news – 2016)
http://www.ctvnews.ca/health/health-headlines/more-palliative-care-patients-should-get-medical-marijuana-doctors-1.2779014

Seniors and marijuana (news – 2016)

Seniors are filling their prescriptions -- at a pot shop (news – 2016)

Meet Sue Taylor, the Black Grandmother Leading the Charge to Bring Marijuana to the Elderly (news – 2016)


An elderly couple found help for a brain injury through marijuana — then police found 20 pot plants growing at their home (news – 2016)

Reefer Madness! Medical Marijuana is Already Saving $165M Per Year for Medicare (news – 2016)
http://www.cannabisculture.com/content/2016/07/20/reefer-madness-medical-marijuana-is-already-saving-165m-per-year-for-medicare

Is It Time To Get Grandma & Grandpa Some Weed? (news – 2016)
http://herb.co/2016/07/06/seniors-and-cannabis/

After medical marijuana legalized, Medicare prescriptions drop for many drugs (news – 2016)
https://www.mprnews.org/story/2016/07/07/npr-medical-marijuana
Middle-aged parents more likely to smoke weed than their teenaged kids
(news – 2016)

Raid! National Guard, State Police descend on 81-year-old’s property to seize single pot plant
(news – 2016)
http://www.gazettenet.com/MarijuanaRaid-HG-100116-5074664

There’s Only One Demographic That Still Thinks Marijuana Should Be Illegal
(news – 2016)
http://www.cheatsheet.com/culture/marijuana-legalization-survey.html/?ref=YF&yptr=yahoo

Why Pa. seniors are getting high on marijuana in record numbers
(news – 2016)

Study: Medical Marijuana Laws Associated With Greater Workforce Participation Among Older Americans

Baby boomers on dope: Recreational marijuana use is on the rise among adults over 50

Here's who buys legal weed
(news – 2016)

Aging baby boomers increasingly embrace marijuana, heavy alcohol use
(news – 2016)

Two retirees create marijuana packaging business in Colorado
(news – 2016)

Use of Marijuana for Medical Purposes Among Adults in the United States
(abst – 2017)

**OMEGA-3/ CB1 CONNECTION**  - without Omega 3, new CB1 receptors are made imperfectly. Scientists recommend between a “1 to 1” to a “4 parts Omega 6 to 1 part Omega 3” ratio for the best health. Our modern diet can give us up to 50 parts Omega 6 to 1 part Omega 3. also see NUTRITION – HEMP SEED OIL, CBR- CB1 RECEPTORS

Omega 3s, Mice, and Receptors for Funny Cigarettes
(news – 2011)
Endocannabinoids: A healthy diet is good for LTD (news – 2011)

Omega-3 deficiency disrupts cannabinoid receptor function in brain (news – 2011)
http://cannabisculture.hanf.ws/2012/06/26/omega-3-deficiency-disrupts-cannabinoid-receptor-function-in-brain/

What An Expectant Mother Eats Affects Children’s Psychology in Later Life
(news – 2011)

A Summary of Endocannabinoids and Obesity (news – 2011)

A Brain Wrought Without Omega-3 (news – 2011)

Research provides new clues to understand link between deficits of AGPO-3, depression
(news – 2011)

Poor Diet Impairs Cannabinoid Receptors (forum repost – 2011)

All You Need to Know About Hemp Seeds (news – 2013)

Plant-Based Foods With the Highest Omega-3 Fatty Acids (news – 2014)

Hemp for a Healthy Heart? (news – 2015)
http://blog.lifeextension.com/2014/02/hemp-for-healthy-heart.html


Italian Ice Cream Maker Creates Hemp Gelato (news - 2015)

Endogenous "cannabis" influences development of the fetal pancreas (news - 2015)
https://www.sciencedaily.com/releases/2015/10/151023084458.htm

Enhancing Your Endocannabinoid System with Omega-3 Fatty Acids (news - 2015)
http://herb.co/2015/03/23/enhancing-your-endocannabinoid-system-with-omega-3-fatty-acids/

Boost Your Endocannabinoid System With Omega-3 Fatty Acids (news - 2016)
http://herb.co/2016/08/02/omega-3-fatty-acids/
OMEGA-6 / ENDOCANNABINOID CONNECTION - Endocannabinoids are made from Omega 6, so you do need it. But it is also pro-inflammatory, so too much is not good for you. Most folks get too much. Scientists recommend between a “1 to 1” to a “4 parts Omega 6 to 1 part Omega 3” ratio for the best health. Our modern diet can give us up to 50 parts Omega 6 to 1 part Omega 3.

OMEGA-9 – found in olive oil

Your Next Cooking Oil Could Come From Hemp (news – 2014)
http://www.popsci.com/article/science/your-next-cooking-oil-could-come-hemp
ORGAN TRANSPLANTS


California Medical Association Votes Unanimously Against Denying Organ Transplants for Medical Marijuana Patients (news – 2014) http://www.safeaccessnow.org/california_medical_association_votes_unanimously_against_denying_organ_transplants_for_medical_marijuana_patients


California Senate Moves To End Discrimination Against Medical Marijuana Patients Seeking Organ Transplants (news – 2015)

New Study Proves THC Improves Organ Transplant Success  (news – 2016)
http://herb.co/2016/07/09/thc-organ-transplant/

People Using This Health Remedy Are Often Denied Organ Transplants  (news – 2016)

Study: Marijuana Use Not Associated With Adverse Outcomes In Transplant Patients  (news – 2016)

Cannabis found to be possible 'cure' for organ transplant rejection  (news – 2016)
http://www.naturalnews.com/055164_organ_transplants_rejection_cannabis_treatment.html

OSTEOPOROSIS/ BONES and CARTILAGE

Cannabinoids as adjunct treatment for symptoms of OI  (news – undated)

How Smoking Marijuana may Help Women to Fight Nasty Symptoms of Menopause?  (news – 2012)

Protection from osteoarthritis may lie in our own joints, study suggests  (news – 2014)
https://www.sciencedaily.com/releases/2014/05/140518092722.htm

San Francisco Medical Marijuana Clinic Says Cannabis is Effective for Many Women’s Medical Issues  (news – 2011)

Weed: Good for the Bones?  (news – 2015)

Study: Cannabis helps to heal bone fractures  (news – 2015)

No bones about it: Cannabis may be used to treat fractures  (news – 2015)

Kalytera Therapeutics and Ramot at Tel Aviv University to Study Novel Approach to Treating Osteogenesis Imperfecta  (news – 2016)
OSCIEGENESIS IMPERFECTA

Cannabinoids as adjunct treatment for symptoms of OI  (news – undated)

Cannabis May Offer Relief for Connective Tissue Disorders  (news – 2014)
http://theflyonline.com/c/science/2014/05/cannabis-may-offer-relief-for-connective-tissue-disorders/

Smoking Marijuana has been a life changer but it’s killing my lungs. I am a total newbie with vaporizers but need help choosing one.  (forum post – 2015)
https://www.reddit.com/r/vaporents/comments/34jo7g/smoking_marijuana_has_been_a_life_changer_but_i_ts/

Kalytera Therapeutics and Ramot at Tel Aviv University to Study Novel Approach to Treating Osteogenesis Imperfecta  (news – 2016)
http://www.ramot.org/media-center/news-events/28055

OVERDOSES on CANNABINOIDS *Natural cannabinoid overdoses are NEVER fatal. Overdoses on SYNTHETIC cannabinoids CAN be fatal.  - also see CANNABINOID HYPEREMESIS

Of Edibles And Overdosing  (news – 2012)
http://beyondchronic.com/2012/04/edibles-and-overdosing/#comment-2799

In 1884, A Popular Science Writer Got Way Too Stoned  (news – 2013)

How Much Marijuana Does It Take For Someone To Overdose?  (news – 2013)

Scientists Explain Why Marijuana Users Never Overdose  (news – 2014)

Saturday Diary / Dumb and Dumber: getting a Mile High in Colorado  (news – 2014)
Hormone shows promise at negating marijuana's high effect (news – 2014)

Active ingredient in pot sets off a feedback that reduces intoxication
(news – 2014)

Don’t Harsh Our Mellow, Dude (news – 2014)

Why Eating A Marijuana Candy Bar Sent Maureen Dowd To Paranoia Hell
(news – 2014)

MEDICAL MARIJUANA : Out of the Shadows (news – 2014)


Pot ER admissions at valley hospitals measure in teens (news – 2016)
http://www.aspendailynews.com/section/home/171064

This is what a marijuana overdose is like (news – 2016)

Want to protect children? Legalize and lock down marijuana (news – 2016)
http://www.eastvalleytribune.com/arizona/article_d2716b90-9a38-11e6-b59c-63efecf71e6d.html

Countdown to legal pot: No one will ever die from too much marijuana (news – 2016)

How Too Much Marijuana Can Cost You an Arm and a Leg (news – 2016)

OVERDOSE PREVENTION- OPIOID/OPIATE

States With Medical Marijuana Laws Have Fewer Opioid Overdose Deaths (news – 2014)
In States With Medical Marijuana, Painkiller Deaths Drop by 25 Percent (news – 2014)


Doctors pioneer pot as an opioid substitute (news – 2015)
http://www.bostonherald.com/news_opinion/local_coverage/2015/10/doctors_pioneer_pot_as_an_opioid_substitute

One way to fight the opioid epidemic? Medical marijuana. (news – 2016)
http://www.vox.com/2016/1/20/10800248/medical-marijuana-opioids-heroin


The Dangerous Side of Opioids and How Cannabis Can Tame the Beast (news – 2016)
http://cannabishealthindex.com/cannabinoid-research/the-dangerous-side-of-opioids-and-how-cannabis-can-tame-the-beast/

Study of Fatal Car Accidents Suggests Medical Marijuana May Be Helping Curb Opioid Use (news – 2016)

Medical Marijuana Laws Linked to Fewer Opioid-Related Fatal Crashes (news – 2016)
http://www.insurancejournal.com/?p=426980

How legal weed could help end the drug overdose epidemic (news – 2016)

OVERVIEWS

Global Commission Drug Reports (links to full in various languages – 2011)
http://www.globalcommissionondrugs.org/Report

Introduction to the Endocannabinoid System (news – 2011)
http://norml.org/library/item/introduction-to-the-endocannabinoid-system

http://www.safeaccessnow.org/medical_cannabis_research_what_does_the_evidence_say
Cannabis conundrum: Evidence of harm?: Opposition to marijuana use is often rooted in arguments about the drug's harm to children and adults, but the scientific evidence is seldom clear-cut  (Part 1 of 2)  (article – 2015)  http://onlinelibrary.wiley.com/doi/10.1002/cncy.21516/full


Cannabis in the United States  (report – 2016)  http://self.gutenberg.org/article/WHEBN0020566488/Cannabis%20in%20the%20United%20States


FDA and Marijuana: Questions and Answers  (article – 2016)  http://www.fda.gov/NewsEvents/PublicHealthFocus/ucm421168.htm


**PAIN**

Study: Smoking pot may ease chronic pain (news - 2010)

Marijuana better than pharmaceuticals at treating chronic pain, improving mood (news - 2010)
http://www.naturalnews.com/029662_marijuana_chronic_pain.html

Painkilling System in Brain: Too Much of a Good Thing? (news - 2010)

Smoking cannabis relieves chronic pain (news – 2010)

Studies demonstrate analgesic properties of synthetic cannabinoid (news – 2010)

Marijuana, Narcotics Help Patients Reduce Chronic Pain, Study Finds (news – 2011)

New Way to Boost Potency of Natural Pain Relief Chemical in Body (news – 2011)

Medical Marijuana is the New Midol? California Doc Pitch Cannabis to Fairer Sex (news – 2011)

Part of placebo effect ascribed to cannabinoids (news – 2011)

Marijuana component could ease pain from chemotherapy drugs (news – 2011)

Stuttering, Pain and Battle Fatigue Part 1 (news – 2011)

Stuttering, Pain and Battle Fatigue Part 2 (news – 2011)

New Findings on How the Brain’s Own Marijuana-Like Chemicals Suppress Pain (news – 2011)

CBD: Marijuana Compound Has No High, But Relieves Pain (news – 2011)

Patients Substitute Marijuana for Prescription Drugs (news – 2011)
Father: Medical marijuana eased pain of my cancer-battling son
(news/forum repost – 2011)

Cannabinoid therapy helps provide effective analgesia for cancer patients with pain
(news – 2012)

Reefer tokin' seniors in South Florida see pain go up in smoke (news – 2012)

'Cannabis' receptor discovery may help understanding of obesity and pain

Cannabinoid Shown Effective as Adjuvant Analgesic for Cancer Pain (news - 2012)
http://www.sciencedaily.com/releases/2012/06/120604142426.htm

Cannabinoid formulation benefits opioid-refractory pain (news – 2012)

Cannabis as Painkiller (news – 2012)
http://www.sciencedaily.com/releases/2012/08/120807101232.htm

Cannabis can make pain less bothering (news – 2012)
http://in.news.yahoo.com/cannabis-pain-less-bothering-065147441.html

How Smoking Marijuana may Help Women to Fight Nasty Symptoms of Menopause? (news – 2012)

Cannabis-based medications prove effective in relieving pain (news – 2012)

Hashing It Out In Ohio With The Martha Stewart Of Marijuana (interview – 2013)

New Study: Vaporized Marijuana is a Safe and Effective Pain Treatment (news – 2013)

BC Man gets off painkillers with marijuana (news – 2013)
New therapy for fragile X chromosome syndrome discovered  
[https://www.sciencedaily.com/releases/2013/04/130410082413.htm](https://www.sciencedaily.com/releases/2013/04/130410082413.htm)

Pot a Common Remedy to Ease Back Pain  
[http://www.medpagetoday.com/MeetingCoverage/AdditionalMeetings/42228](http://www.medpagetoday.com/MeetingCoverage/AdditionalMeetings/42228)

5 Health Benefits Of Cannabichromene (CBC)  

Should Your Aging Parent Try Medical Marijuana?  

The Comprehensive Report on the Cannabis Extract Movement and the Use of Cannabis Extracts to Treat Diseases  
[http://www.slideshare.net/TheHempSolution/comprehensive-report-on-the-cannabis-extract-movement](http://www.slideshare.net/TheHempSolution/comprehensive-report-on-the-cannabis-extract-movement)

Report on Medical Cannabis Research History- What the Science Says  
[article – 2014]  
[http://www.safeaccessnow.org/medical_cannabis_research_what_does_the_evidence_say](http://www.safeaccessnow.org/medical_cannabis_research_what_does_the_evidence_say)

Marijuana Lotion for Pain Relief: A Soothing Workday Recipe  
[news/recipe – 2014]  

Drugs Related to Cannabis Have Pain-Relieving Potential for Osteoarthritis  
[news – 2014]  
[http://www.sciencedaily.com/releases/2014/01/140107092825.htm](http://www.sciencedaily.com/releases/2014/01/140107092825.htm)

Synthetic cannabinoid molecule created for osteoarthritis  
[news – 2014]  

No Relief Yet for Brutal Oral Cancer Pain, but Cannabinoids May Offer Some Hope  
[news – 2014]  
[http://www.newswise.com/articles/view/617125/?sc=rsmn](http://www.newswise.com/articles/view/617125/?sc=rsmn)

Monterey County seniors finding pain relief in medical marijuana  
[news – 2014]  

Smoking Cannabis 'Gives Men Munchies and Women Pain Relief'  
[news – 2014]  

Low or No THC, High CBD Medical Marijuana Bills: Leaving Most Patients Behind  
[news – 2014]  
[https://www.mpp.org/low-or-no-thc-high-cbd-medical-marijuana-bills/](https://www.mpp.org/low-or-no-thc-high-cbd-medical-marijuana-bills/)

Medical marijuana could treat pain caused by sickle cell disease  
[news – 2014]  


Medical marijuana seems to help chronic pain patients, appears to be safe: study (news – 2015) http://health.usnews.com/health-news/articles/2015/10/07/medical-marijuana-seems-safe-for-chronic-pain-patients-study-finds


Dabbing for Health: CBD Dabs Have Instant Relief (news – 2015) http://sfevergreen.com/dabbing-for-health/

Using Medical Cannabis in an Oncology Practice (article – 2016) (needs free registration) http://www.cancernetwork.com/oncology-journal/using-medical-cannabis-oncology-practice/sthash.CjT8fR9n.uWvEhfSG.dpuf

Using Medical Cannabis in an Oncology Practice (1st page – 2016) http://www.cancernetwork.com/oncology-journal/using-medical-cannabis-oncology-practice/sthash.CjT8fR9n.dpuf
Marijuana May Help Treat, Prevent Migraines, Study Says  
[News – 2016]

One way to fight the opioid epidemic? Medical marijuana.  
[News – 2016]
http://www.vox.com/2016/1/20/10800248/medical-marijuana-opioids-heroin

Ex-Bear Jim McMahon: Medical marijuana got me off narcotic pain pills  
[News – 2016]

Weed-infused 'female suppositories' are a thing now  
[News – 2016]

Cannabis-based vagina suppositories the latest invention to help ease period pain  
[News – 2016]

Should You Smoke Marijuana After a Workout? Weed May Help You Recover, Perform Better  
[News – 2016]

Grapevine girl heads west, hoping marijuana will ease her pain  
[News – 2016]

Not Able To Get Medical Marijuana Through The VA, Veterans Struggle With Cost, Confusion  
[News – 2016]
http://www.wbur.org/all-things-considered/2016/02/04/veterans-medical-marijuana

More palliative care patients should get medical marijuana: doctors  
[News – 2016]
http://www.ctvnews.ca/health/health-headlines/more-palliative-care-patients-should-get-medical-marijuana-doctors-1.2779014

American Pain Society Offers Guidance on Medical Marijuana for Pain  
[News – 2016]
http://www.newswise.com/articles/view/655977/?sc=rsmn

Patients, towns want relief from state's foggy pot rules  
[News – 2016]

Science/Human: Inhaled cannabis reduces neuropathic pain in patients with spinal cord injury  
[News – 2016]
http://www.cannabis-med.org/english/bulletin/ww_en_db_cannabis_artikel.php?id=482#2

Cannabis one piece in pain management puzzle  
[News – 2016]

90% Of Cannabis Patients Find Pain Relief With Any Marijuana Strain
Acetaminophen or Paracetamol: Pain Relief and Precautions
https://healdove.com/health-care-industry/Acetaminophen-or-Paracetamol-How-Does-it-Provide-Pain-Relief

How Cannabis Works to Control Pain and Anxiety
http://www.huffingtonpost.com/entry/how-cannabis-works-to-control-pain-and-anxiety_us_57d97a73e4b0d93d17700f63

Marijuana better alternative to painkillers
http://www.technicianonline.com/sports/article_3bf18c14-910e-11e6-b5ca-9f48d5e1e2e3.html

Survey: NFL players say some teammates use marijuana before they play

A New Test of Pot's Potential to Replace Painkillers

Minnesota doctor pushing the notion of cannabis for canines

The Dangerous Side of Opioids and How Cannabis Can Tame the Beast
http://cannabishealthindex.com/cannabinoid-research/the-dangerous-side-of-opioids-and-how-cannabis-can-tame-the-beast/

Cannabis and Acupuncture, the Yin and Yang of Healing Pain (an ancient connection revealed)

Pot for periods? Medical marijuana marketed as monthly pain relief

Cannabis Advice for the Novice Consumer
https://www.hellomd.com/health-wellness/cannabis-advice-for-the-novice-consumer

Does Marijuana Help Period Cramps?
https://www.theweedblog.com/marijuana-help-period-cramps/

Compound suggests pain treatment without opioid or medical marijuana side effects

Cannabis Makes up 22% of Canadian Veteran Drug Payments
Could Medical Cannabis Break the Painkiller Epidemic? (news – 2016)

The three biggest questions about how marijuana affects athletic performance (news – 2016)

Medical Cannabis in the Palliation of Malignant Wounds—A Case Report (article – 2017)
http://www.jpsmjournal.com/article/S0885-3924(16)30328-1/abstract

Massive scientific report on marijuana confirms medical benefits (news – 2017)

**PANCREAS/ PANCREATITIS**

How can medical marijuana help with… Chronic Pancreatitis? (news – 2015)

Endogenous "cannabis" influences development of the fetal pancreas (news - 2015)
https://www.sciencedaily.com/releases/2015/10/151023084458.htm

**PANHYPOPITUITARISM**

Utah mom in hiding, fears losing kids for treating daughter with cannabis oil (news – 2016)

Sweet Small Remedy: A Mother’s Bitter Fight to Save Her Child (news – 2016)
http://www.thecannabisreporter.com/sweet-small-remedy-a-mothers-bitter-fight/

**PARKINSON'S DISEASE**

How One Citizen Scientist is Taking On Parkinson’s-related Nightmares – and Winning (news – undated)
New metabolic pathway for controlling brain inflammation  

Scripps Research Scientists Discover Inflammation Is Controlled Differently in Brain and Other Tissues  

Scientists find a new pharmacological target to modulate the effect of cannabinoids through their CB1 receptors  

5 Marijuana Compounds That Could Help Combat Cancer, Alzheimers, Parkinsons (If Only They Were Legal)  
http://www.alternet.org/drugs/5-marijuana-compounds-could-help-combat-cancer-alzheimers-parkinsons-if-only-they-were-legal

Smoking Pot Eases Tremors in Parkinson's  
http://www.medpagetoday.com/MeetingCoverage/MDS/39933

Report on Medical Cannabis Research History- What the Science Says  
http://www.safeaccessnow.org/medical_cannabis_research_what_does_the_evidence_say

Health Benefits Of Medical Marijuana: 3 Major Ways Cannabis Helps Sick People Live Normal Lives  

Cannabis May Protect The Aging Brain, Say Experts  
http://www.leafscience.com/2014/05/07/cannabis-may-protect-aging-brain-say-experts/

Marijuana May Boost Brain Performance  

Arizona Spends Big Bucks to Keep Serious Diseases like Parkinson’s from Qualifying for Medical-Marijuana Program  

Ex-Cop With Parkinson's Uses Medical Marijuana (Video)  
http://www.opposingviews.com/i/health/man-parkinsons-uses-medical-marijuana-video
PATENTS RELATED TO CANNABINOIDS


Emerging from shadows, pot industry tries to build brands  (news – 2015)

Law coming to protect intellectual rights of ganja growers  (news – 2015)

Marijuana's Role in the Pursuit of Patent Rights  (news – 2016)

Want Your Marijuana Startup to Succeed? Study Patent Law  (news – 2016)
https://www.wired.com/2016/11/wanna-make-weed-startup-better-patent-stash/


Marijuana brands can trademark almost anything, except marijuana  (news – 2017)

PHANTOM LIMB SYNDROME - also see NEUROPATHIC PAIN

Cannabis Strains That Help With Phantom Limb Pain  (chart – undated)
https://www.leafly.com/explore/conditions-phantom-limb-pain

http://outcoca.blogspot.com/2015/05/Cannabis-phantom-limb-veterans.html

https://www.hellomd.com/health-wellness/can-medical-marijuana-ease-phantom-limb-pain

Residual Limb Pain – Medical Marijuana Research Overview  (news – 2015)
https://medicalmarijuanainc.com/residual-limb-pain-medical-marijuana-research-overview/

How I Stopped My Phantom Limb Pain  (news – 2016)
https://www.hellomd.com/health-wellness/how-i-stopped-my-phantom-limb-pain
PLACEBO EFFECT

Part of placebo effect ascribed to cannabinoids (news – 2011)

Endocannabinoids Pitch In for Placebo Effect (news – 2011)

POISONING- INSECTICIDE

How One Citizen Scientist is Taking On Parkinson’s-related Nightmares – and Winning (news – undated)
How One Citizen Scientist is Taking On Parkinson's-Related Nightmares — and Winning

POLLS and SURVEYS

Record-High 50% of Americans Favor Legalizing Marijuana Use (news – 2011)

Identity formation, marijuana and “the self”: a study of cannabis normalization among university students (article – 2013)

Statistics on cannabis users skew perceptions of cannabis use (article – 2013)

Survey: 76 percent of doctors approve of medical marijuana use (news – 2013)

Most Docs OK With Medical Marijuana: Survey (news – 2013)

Teen Marijuana Use Hasn't Exploded Amid Boom in Legalization Support, Drug Survey Finds (news – 2013)
Off-the-clock pot use shouldn't be grounds for firing, poll finds  (news - 2013)

New Survey: Guys Are Bigger Potheads Than Gals  (news – 2013)
http://www.thestreet.com/story/12159561/1/guys-are-bigger-potheads-than-gals.html?cm_ven=RSSFeed

Marijuana Use Increased Over the Last Decade  (news – 2013)
http://www.pewresearch.org/daily-number/marijuana-use-increased-over-the-last-decade/

Majority of Canadians want to loosen marijuana laws: polls  (news – 2013)

For First Time, Americans Favor Legalizing Marijuana- Support surged 10 percentage points in past year, to 58%  (news - 2013)

Synthetic Marijuana Lands Thousands of Young People in the ER, Especially Young Males  (news – 2013)

CNN Poll: Support for legal marijuana soaring  (news – 2014)
http://politicaltickerblogs.cnn.com/2014/01/06/cnn-poll-support-for-legal-marijuana-soaring/


Majority of Americans now support legal pot, poll says  (news – 2014)

Poll: Marijuana legalization inevitable  (news – 2014)

Bill O'Reillys Marijuana Legalization Poll Completely Backfires  (news – 2014)

Poll: 47% in under-40 crowd say booze worse than weed  (news – 2014)

Getting High: Public Opinion on Marijuana Legalization in 4 Charts  (news - 2014)
Even Republicans Support Colorado's Marijuana Legalization Law  
(news – 2014)  
http://www.huffingtonpost.com/2014/07/15/marijuana-poll_n_5588147.html

Marijuana Smokers Are Moral And Selfless In Romantic Relationships, Survey Suggests  
(news – 2014)  

Legalize Medical Marijuana, Doctors Say in Survey  
(news – 2014)  

More people think cannabis should be legal than tobacco  
(poll results – 2015)  
http://www.studentmoneysaver.co.uk/article/more-people-think-cannabis-should-be-legal-than-tobacco/

More Americans Want to Ban Unpasteurized Milk Than Marijuana  
(news – 2015)  
http://time.com/3676131/marijuana-pot-unpasteurized-milk/

New Poll Finds Millions Would Like to "Grow Your Own"  
(news – 2015)  

The Marijuana Middle: Americans Ponder Legalization  
(news – 2015)  
http://www.thirdway.org/report/the-marijuana-middle-americans-ponder-legalization

Majority of Americans now support marijuana legalization, survey shows  
(news – 2015)  

One in three New York college students has gone to class high: study  
(news – 2015)  
http://www.nydailynews.com/life-style/health/ny-college-kids-class-high-study-article-1.2113316

The stereotype of the college-educated pot smoker is wrong  
(news – 2015)  
http://www.washingtonpost.com/blogs/wonkblog/wp/2015/03/12/the-stereotype-of-the-college-educated-pot-smoker-is-wrong/?wprss=rss_business

Survey Finds Strong Majority In Support Of Marijuana Legalization And Decriminalization  
(news – 2015)  
http://www.huffingtonpost.com/2015/03/18/support-marijuana-legalization_n_6895270.html?ncid=txthkusaolp00000592

63% of Republican Millennials favor marijuana legalization  
(news – 2015)  

Marijuana's Risky Reputation Is Wafting Away  
(news – 2015)  

6 facts about marijuana  
(news – 2015)  
http://www.pewresearch.org/fact-tank/2015/04/14/6-facts-about-marijuana/
Marijuana by the Numbers: 10 numbers about pot in Colorado that don't include 4-20 (news – 2015)

More Young People Want Cannabis To Be Legal Than Tobacco (news – 2015)
http://www.huffingtonpost.co.uk/2015/07/06/survey-states-young-people-want-cannabis-legal-over-tobacco_n_7736450.html?utm_hp_ref=uk&ir=UK

In US, 47% Say Legal Marijuana Will Make Roads Less Safe (news – 2015)

A huge new study finds that medical marijuana doesn’t “send the wrong message” to kids (news – 2015)

More Than Four in 10 Americans Say They Have Tried Marijuana (news – 2015)

Chris Christi, Newfound Drug Warrior, Is Too Late To Stop Pot (news – 2015)

Why do men want to legalize pot more than women do? (news – 2015)

1 in 5 Small Businesses Would Allow Employees to Use Medical Marijuana While at Work, Study Finds - Three-Quarters of Small Businesses Do Not Require Employees to Take Drug Tests (news – 2015)


What life with pot looks like in a country where it’s been basically legal for 40 years (news – 2015)

As many as seven million possible customers for legal weed in Canada as support hits new heights: Poll (news – 2015)
US Marijuana Use Has More Than Doubled in a Decade (news – 2015)  

Increasing Percentages of Americans are Ready for Legal Marijuana (news – 2015)  

Infographic: Pot smokers are skinnier than non-users (news – 2015)  
http://o.canada.com/health-2/infographic-pot-smokers-are-skinnier-than-non-users

Legal weed having little effect on teen marijuana use, federal data shows (news – 2015)  

First-of-its-kind survey 'great opportunity for the industry to gather data directly from patients' (news – 2015)  
http://www.whig.com/article/20151222/ARTICLE/312229872

Finding the Right Strain of Medical Marijuana (news – 2015)  

Driving with a Marijuana High: How Dangerous Is It? (news – 2015)  
http://www.livescience.com/51450-driving-on-marijuana-alcohol-dangerous.html

Majority of young conservatives lean toward marijuana legalization (news – 2015)  
http://www.dailytargum.com/article/2015/03/majority-of-young-conservatives-lean-toward-marijuana-legalization

The Spread of Legalization Explained (card set – 2015)  

COMPREHENSIVE MEDICAL MARIJUANA PATIENT STUDY (link to PDF– 2016)  
https://www.hellomd.com/medical-marijuana-patient-survey

What Does the Average Cannabis Consumer Look Like? (article – 2016)  
https://docsend.com/view/kv9hgzy

The real ‘gateway drug’ is 100% legal (news – 2016)  

Cannabis Compares Favorably to Conventional PTSD Treatments (news – 2016)  
http://www.prweb.com/releases/2016/03/prweb13244763.htm

20 Marijuana Statistics That Chronicle Its Expansion Over the Past 20 Years (news – 2016)  

Mom and dad make up 45% of medical marijuana patients (news – 2016)
Largest ever longitudinal twin study of adolescent cannabis use finds no relationship heavy use and IQ decline. (news – 2016) http://news.meta.com/2016/01/18/twinsstudy/


Poll: 3 out of 4 Ohio voters favor legalizing marijuana for medical purposes (news – 2016) http://www.norwalkreflector.com/Health-Care/2016/02/22/Poll-3-out-of-4-Ohio-voters-favor-legalizing-marijuana-for-medical-purposes.html?ci=stream&lp=2&p=1

Smoking cannabis DOESN'T cause clinical anxiety or depression, study finds (news – 2016) http://www.dailymail.co.uk/news/article-3456326/Smoking-cannabis-DOESN-T-cause-clinical-anxiety-depression.html#ixzz45lywpZ11


7 in 10 Canadians support marijuana legalization: Nanos poll  (news – 2016)
http://www.ctvnews.ca/canada/7-in-10-canadians-support-marijuana-legalization-nanos-poll-1.2968953


Number of Legal Medical Marijuana Patients (as of Mar. 1, 2016)  (news – 2016)

One in Eight U.S. Adults Say They Smoke Marijuana  (news – 2016)
http://www.gallup.com/poll/194195/adults-say-smoke-marijuana.aspx?g_source=Well-Being&g_medium=lead&g_campaign=tiles

90% Of Cannabis Patients Find Pain Relief With Any Marijuana Strain  (news – 2016)
http://www.theimpactnetwork.org/cannabis-research-illinois/

Gallup: More than 33 million American adults currently use marijuana  (news – 2016)

Middle-aged parents more likely to smoke weed than their teenaged kids  (news – 2016)

CDC: Young People Say Marijuana Is Becoming Less Available  (news – 2016)
http://blog.norml.org/2016/09/02/cdc-young-people-say-marijuana-is-becoming-less-available/

Poll: 61 percent of Coloradans say legal pot has had positive impact on economy  (news – 2016)

American teenagers 'are MORE likely to smoke marijuana than binge drink', new maps reveal  (news – 2016)
http://www.dailymail.co.uk/health/article-3719979/American-teenagers-likely-smoke-marijuana-binge-drinks-new-maps-reveal.html#ixzz4GCZQ0Lzu

Support for marijuana legalization rises among U.S. adults: poll  (news – 2016)

There’s Only One Demographic That Still Thinks Marijuana Should Be Illegal  (news – 2016)
http://www.cheatsheet.com/culture/marijuana-legalization-survey.html/?ref=YF&yptr=yahoo

No highs or lows: Marijuana use holds steady among teens, young adults  (news – 2016)
Survey: NFL players say some teammates use marijuana before they play (news – 2016)

Baby boomers on dope: Recreational marijuana use is on the rise among adults over 50 (news – 2016)
https://www.sciencedaily.com/releases/2016/12/161205091216.htm

Marijuana Users Have Lower Body Mass Index than Non-Users Says University of Miami Study (news – 2016)
http://www.wflx.com/story/33139175/marijuana-users-have-lower-body-mass-index-than-non-users-says-university-of-miami-study

Smoke signals Teen drug use is declining, according to a new national survey (news – 2016)

Here's who buys legal weed (news – 2016)

Aging baby boomers increasingly embrace marijuana, heavy alcohol use (news – 2016)

Survey: Two-thirds of cops say marijuana laws should be relaxed (news – 2016)

The Early Bird Does Not Get the Legal Weed (news – 2016)

Google reveals what people really think about weed (news – 2016)
http://www.businessinsider.com/weed-trends-google-2016-9/#interest-in-cannabis-is-rising-in-the-us-note-were-looking-at-all-weed-related-searches-here-as-grouped-by-google-machine-learning-1

Please, don't call it fake weed (news – 2016)

What Does the Average Cannabis Consumer Look Like? (news – 2016)
https://docsend.com/view/kv9hgzy

New report shows Amendment 2 exceeded 60% in every congressional district, senate district and all but two house districts. (news – 2016)

CDC: More people are using marijuana, but fewer are abusing it (news – 2016)
Gallup: More than 33 million American adults currently use marijuana  

Five new facts about medical versus recreational pot users  
(http://blog.sfgate.com/smellthetruth/2016/01/29/five-interesting-facts-about-medical-and-recreational-pot-users/)

Marijuana Money: How Much Do Cannabis Consumers Spend Annually?  
(http://www.cheatsheet.com/money-career/average-cannabis-consumer-spend.html/?ref=YF&yptr=yahoo)

Use of Marijuana for Medical Purposes Among Adults in the United States  

Colorado on marijuana: ER visits, poison-control calls down even as consumption rates remain steady  
(http://www.denverpost.com/2017/02/01/colorado-marijuana-er-visits-poison-control/)

**POLLUTION /ENVIRONMENT**

Rastafari and the Environment  
(http://caribbeanreligionuvm.wordpress.com/)

Farmers are planting marijuana to clean up the land contaminated by Europe's biggest steel mill  
(http://www.businessinsider.com/italian-farmers-turning-to-hemp-2016-7)

Hugo Water Test Results Not Back Yet, Order Not To Drink It Remains  
(http://denver.cbslocal.com/2016/07/22/test-results-of-hugo-water-wont-be-available-today/)

Hugo water safe to drink after conclusive tests show no signs of THC  
(http://www.denverpost.com/2016/07/23/hugo-water-safe-no-the/)

Humboldt County's Marijuana Boom Is Destroying Redwoods and Killing Rare Wildlife  
(http://www.ecowatch.com/humboldt-marijuana-1954674793.html)

Is marijuana farming hurting the environment?  

Will the Marijuana Industry Ever Go Green?  
(http://www.fool.com/investing/2016/12/04/will-the-marijuana-industry-ever-go-green.aspx)
**PORPHYRIA**

Porphyria by Colin (anecdotal – undated)
http://rxmarijuana.com/shared_comments/Porphyria.htm

Porphyria by Sharon Place (anecdotal – undated)
http://www.rxmarijuana.com/shared_comments/Porphyria2.htm

Porphyria—Alternative Symptom Treatments (news – 2011)
https://www.medicalmarijuana.com/medical-marijuana-treatments-cannabis-uses/porphyria
%C2%97alternative-symptom-treatments/

Porphyria (news – 2013)
http://www.canabud.ca/blog/item/porphyria

**POST-OPERATIVE PAIN**

Compound boosts marijuana-like chemical in the body to relieve pain at injury site (news - 2010)

CANNABIS ISSUE COVER FEATURE: LOBEL PRIZE (news – 2015)
https://digboston.com/cannabis-issue-cover-feature-lobel-prize/

**POST POLIO SYNDROME**

Medical Marijuana and Post Polio Syndrome (PPS) (news/ad – undated)
https://www.marijuanadoctors.com/content/ailments/view/54?ailment=post-polio-syndrome-pps-

Medical Marijuana Coverage Still Lost in the Legal Weeds (article – 2013)
http://www.managedcaremag.com/linkout/2013/1/23

Doctors tell lawmakers medical marijuana is effective (news – 2014)
http://qctimes.com/news/local/government-and-politics/7d2eb47e-ab8d-5a0d-8025-5307d2adfec0.html

'I know how it helps me' (news – 2015)
http://qctimes.com/lifestyles/health-med-fit/bfb4c3d1-3210-52d1-8c8e-23ae4f501835.html
POST-TRAUMATIC STRESS DISORDER/ FEAR EXTINCTION

Endocannabinoids and psychiatric disorders: the road ahead (article – 2010)

V.A. Easing Rules for Users of Medical Marijuana (news – 2010)

Cannabis and PTSD by Michael McKenna (anecdotal - 2010)

Marijuana Administration After a Traumatic Experience May Prevent Post-Traumatic Stress Symptoms, Rat Study Suggests (news – 2011)

Marijuana blocks PTSD symptoms in rats: study (news - 2011)

Stuttering, Pain and Battle Fatigue Part 1 (news – 2011)

Stuttering, Pain and Battle Fatigue Part 2 (news – 2011)

Brain altering drug calms fears also (news – 2012)

Israel pushing ahead in medical marijuana industry (news – 2012)

Toward Rational Pharmacotherapy for Posttraumatic Stress Disorder: Reprise (editorial – 2013)

Hashing It Out In Ohio With The Martha Stewart Of Marijuana (interview – 2013)

Study: THC Increases Brain Activity In Response To Positive Stimuli (news – 2013)

Combat veterans testify that medical pot helps with their PTSD (news – 2013)

Brain-Imaging Study Links Cannabinoid Receptors to Post-Traumatic Stress Disorder: First Pharmaceutical Treatment for PTSD Within Reach (news – 2013)
http://www.sciencedaily.com/releases/2013/05/130514085016.htm
Researchers discover connection between CB1 receptors and PTSD  (news – 2013)  

Study Links PTSD and Brain Receptors Activated by Marijuana   (news – 2013)  

Marijuana May Cure PTSD   (news – 2013)  

Marijuana-like compound could lead to first-ever medication for PTSD  (news – 2013)  
http://www.foxnews.com/health/2013/05/14/marijuana-like-compound-could-lead-to-first-ever-medication-for-ptsd/

Poor Sleep Quality Makes It Harder To Quit Marijuana — Here’s Why   (news – 2013)  

Neurotransmitters Studied as Way to Enhance PTSD Treatment   (news – 2013)  

Science for stoners: Here’s how pot works   (news – 2013)  
http://www.salon.com/2013/08/17/science_for_stoners_heres_how_pot_works/

Study “Substantiates” Benefits Of Cannabinoids For Post Traumatic Stress   (news – 2013)  

Marijuana can prevent PTSD   (news – 2014)  
https://in.news.yahoo.com/marijuana-prevent-ptsd-120957703.html

Marijuana research hampered by access from government and politics, scientists say   (news – 2014)  

Cannabis effects on PTSD: Can smoking medical marijuana reduce symptoms?  
(news – 2014)  
http://www.sciencedaily.com/releases/2014/05/140522104850.htm

Cannabis Prevents the Negative Behavioral and Physiological Effects PTSD   (news – 2014)  
http://neurosciencenews.com/neuropharmacology-cannabinoids-ptsd-1300/

Injured Soldiers Receive Cannabinoid Gum from Adopt-A-Soldier   (news – 2014)  

Cannabis Prevents the Negative Behavioral and Physiological Effects PTSD   (news – 2014)  
http://neurosciencenews.com/neuropharmacology-cannabinoids-ptsd-1300/
Cannabinoid Receptors May Control Aversive Memories (news & abstract - 2015)
http://neurosciencenews.com/habenula-cb1-receptors-memory-2742/

Medical Marijuana Vapour Room Set To Serve Veterans With PTSD (news – 2015)
http://www.huffingtonpost.ca/2015/01/21/marijuana-for-trauma-vapour-room-new-brunswick_n_6512026.html?utm_hp_ref=canada-business&ir=Canada+Business

Marijuana May Hold Promise As Treatment For PTSD (news – 2015)
http://www.huffingtonpost.com/2014/11/22/cannabis-ptsd_n_6199254.html

The Science Behind Sanjay Gupta’s WEED 3 (news – 2015)

Here's What Marijuana Does to Your Stress (news – 2015)
http://www.attn.com/stories/855/marijuana-depression-research-mental-health

Former U.S. Marine starts campaign to raise awareness of overmedication of veterans (news – 2015)


Despite Support By Experts, Marijuana Still Unavailable To Most Veterans With PTSD (news – 2015)

Could Pot Help Veterans With PTSD? (news – 2015)
http://www.newsweek.com/pot-and-ptsd-358139

Finding the Right Strain of Medical Marijuana (news – 2015)

What are Cannabinoids? (news – 2015)
https://www.whaxy.com/learn/what-are-cannabinoids?utm_source=mantis&utm_medium=recommend&utm_campaign=mantis&muuid=622a55f7XXX8b3dXX X4f96XXX8217XXX5ce33cbb24b8

Marijuana Could Help Treat Drug Addiction and Mental Health Problems (news & abst – 2016)
http://neurosciencenews.com/addiction-mental-health-marijuana-5536/

Cannabis Compares Favorably to Conventional PTSD Treatments (news – 2016)
http://www.prweb.com/releases/2016/03/prweb13244763.htm

Veterans are using pot to erase PTSD, despite scant research (news – 2016)
The stoned soldiers of Santa Cruz  (news – 2016)
http://mashable.com/2016/04/04/veterans-cannabis-santa-cruz/#dFxkfm5akqO

Not Able To Get Medical Marijuana Through The VA, Veterans Struggle With Cost, Confusion  (news – 2016)
http://www.wbur.org/all-things-considered/2016/02/04/veterans-medical-marijuana

VA does to be able to recommend marijuana in some states  (news – 2016)
http://www.militarytimes.com/story/veterans/2016/05/19/congress-votes-let-va-docs-recommend-marijuana-some-states/84589708/

Veterans’ cry: ‘I found marijuana, and it saved me’  (news – 2016)

VA hospital in Phoenix blocks Dr. Sue Sisley’s presentation on cannabis & PTSD  (news – 2016)
http://www.theimpactnetwork.org/sue-sisley-ptsd-lecture-blocked/

Arizona Spends Big Bucks to Keep Serious Diseases like Parkinson’s from Qualifying for Medical-Marijuana Program  (news – 2016)

NJ veterans fight to use medical marijuana for treatment of PTSD  (news – 2016)

For Colorado veterans, marijuana a controversial treatment  (news – 2016)

Veterans Meet in Austin to Demand Passage of an All-Inclusive Medical Marijuana Policy in Texas  (news – 2016)

Marijuana Appears to Benefit Mental Health: Study  (news – 2016)
http://time.com/4573129/marijuana-cannabis-mental-health/

Study Reveals Role of Spleen in Prolonged Anxiety After Stress  (news – 2016)

Cannabis Makes up 22% of Canadian Veteran Drug Payments  (news – 2016)

POTENCY - also see DECARBOXYLATION
Cannabis Strain Explorer (web page - 2012) http://www.leafly.com/explore

Smoked Marijuana IS Medicine: Feds Still Distributing Rolled Joints (news – 2011)
http://www.tokeofthetown.com/2011/12/smoked_marijuana_is_medicine_feds_still_distributing_rolled_joints.php

How Do You Know Which Medical Marijuana Strain Is Right For You? (news – 2012)
http://www.unitedpatientsgroup.com/blog/2012/01/31/how-do-you-know-which-medical-marijuana-strain-is-right-for-you/

http://www.alternet.org/drugs/148510/michael_pollan:_what_do_marijuana_and_catnip_have_in_common/

Mangoes Elevate High From Smoking Marijuana: Are They A Healthier Alternative To The 'Munchies'? (news – 2013)
http://www.medicaldaily.com/mangoes-elevate-high-smoking-marijuana-are-they-healthier-alternative-munchies-247892

High levels of THC in Australian cannabis (news – 2013)

Not That High (news – 2013)
http://www.slate.com/articles/health_and_science/science/2013/03/marijuana_potency_returning_smokers_want_mellower_pot_strains.html

What is the difference between Indica and Sativa Marijuana Plants? (news - 2014)

The Bud Light-ification of Bud (news – 2014)

3 Things You Should Remember (But Probably Won't) If You Get Too High On Marijuana Edibles (news – 2014)
http://www.huffingtonpost.com/2014/06/04/high-on-marijuana-edibles_n_5446062.html

Marijuana gears up for production high in US labs (article – 2015)
http://www.nature.com/news/marijuana-gears-up-for-production-high-in-us-labs-1.17129

World’s strongest weed? Potency testing challenged (news – 2015)

What is the scope of marijuana use in the United States? (news – 2015)

Pot industry’s predicament: How to measure potency (news – 2015)

The THC Levels in Marijuana Edibles Are Totally Unreliable (news – 2015)
http://www.grubstreet.com/2015/03/thc-levels-edibles.html
Girl Scout Cookies, or California’s Most Notorious Strain of Cannabis  (news – 2015)
http://gizmodo.com/girl-scout-cookies-or-californias-most-notorious-strai-1689966240


Inside the first ‘Marijuana of the Month” club shipment from Marvina  (news – 2015)

Marijuana far more potent than it used to be, tests find  (news – 2015)

Legalizing marijuana and the new science of weed  (news – 2015)

Colorado's legal pot is potent, and a little dirty  (news – 2015)

From Stoned Bunnies to Cannabis-Based Pet Care: What's the Effect of Pot on Animals?  (news – 2015)

Mild-strength marijuana is the future of pot  (news – 2015)
http://blog.sfgate.com/smellthetruth/2015/03/31/mild-strength-marijuana-is-the-future-of-pot/

America’s Quality Pot Is Changing the Drug War  (news – 2015)

Medical Marijuana Is Often Less Potent Than Advertised  (news – 2015)
http://www.npr.org/sections/health-shots/2015/06/23/416791647/medical-marijuana-is-often-less-potent-than-advertised

Many Anti-Pot Arguments Are Based On Weak Science, Say Researchers  (news – 2015)
http://www.huffingtonpost.com/entry/marijuana-use-myths_55cb6f53e4b0923e12bed78d?ncid=txtlnkusaolp00000592&kvcommref=mostpopular

You can’t tell a pot from the label  (news – 2015)
http://thechronicleherald.ca/metro/1308503-you-can%E2%80%99t-tell-a-pot-from-the-label?from=most_read&utm_read=1308503&utm_read_ref=%2Fnews

New Minnesota marijuana strain more potent, could cut costs  (news – 2015)

Potent joint wrapped in 24-karat gold creates a buzz  (news – 2015)
Products infused with marijuana account for about 40 percent of all sales, but are they safe?  (news – 2015)  
http://www.ncsl.org/research/civil-and-criminal-justice/edibles-for-experts-only.aspx

OH’s Law Of Cannabis Edible Potency  (news – 2015)  

Meet The Woman Making Aphrodisiac Weed  (news/ad – 2015)  

New technique could more accurately measure cannabinoid dosage in marijuana munchies  (news – 2016)  
https://www.scienceDaily.com/releases/2016/03/160315085618.htm

How Potent Is That Pot Brownie? Dry Ice And A Blender Might Crack The Case  (news – 2016)  

What is the Best Way to Cure Cannabis Flowers?  (news – 2016)  

Ebbu Announces Groundbreaking Scientific Research of "Entourage Effect"  (news – 2016)  

Science/Human: Pre-treatment with CBD did not influence effects of smoked cannabis  (news – 2016)  

DEA, rejecting medical use of marijuana, to deny rescheduling petition  (news – 2016)  
http://www.denverpost.com/2016/08/10/dea-reduce-medical-marijuana-research-restrictions/

Colorado marijuana's potency five times US average  (news – 2016)  
http://www.click2houston.com/health/colorado-marijuanas-potency-five-times-us-average

McLean Hospital Study Finds That Medical Marijuana Use May Improve Cognitive Performance  (news – 2016)  

Marijuana legalization may have an unexpected result: Drug smuggling into Mexico  (news – 2016)  

Marijuana labs: Oregon pot tests safer than food  (news – 2016)  

Cannabis strains today much stronger than your parents’ pot  (news – 2016)  
'Microdosing' is the future of marijuana  (news – 2016)

Product Review: tCheck Cannabis Oil Potency Tester  (news/ad – 2016)
http://beyondchronic.com/2016/10/product-review-tcheck-cannabis-oil-potency-tester/

PREGNANCY/ PRENATAL EXPOSURE  -  also see PERINATAL HYPOXIC-ISCHEMIC INJURY, CHILDREN

Pregnant Women Smoking Pot Could Reduce Infant Mortality  (news - 2010)
http://www.opposingviews.com/i/pregnant-women-smoking-pot-could-reduce-infant-mortality

Pregnant women turning to cannabis for morning sickness relief risk prosecution  (news - 2010)
http://michigananddispensaries.us/news/pregnant-women-turning-to-cannabis-for-morning-sickness-relief-risk-prosecution

When Getting Baked Means More than Just a Bun in the Oven  (news – 2010)

Cocaine, Opiate, and Cannabinoid Infant Mortality Study  (news – 2011)

Endocannabinoids: A healthy diet is good for LTD  (news – 2011)

Researchers study neuroprotective properties in cannabis  (news - 2012)
http://www.foxnews.com/health/2012/03/20/researchers-study-neuroprotective-properties-in-cannabis/

Cannabis conundrum: Evidence of harm??: Opposition to marijuana use is often rooted in arguments about the drug's harm to children and adults, but the scientific evidence is seldom clear-cut  (article – 2015)

Marijuana influences visual development  (news – 2015)

The State that Turns Pregnant Women Into Felons  (news – 2015)
http://www.alternet.org/drugs/when-womb-crime-scene

Study links effects of prenatal alcohol and drug exposure with placental development  (news – 2016)

Lawmakers eye stricter medical marijuana rules for welfare recipients  (news – 2016)
Combination of marijuana and tobacco in pregnancy may compound risks (news – 2016)
http://www.reuters.com/article/us-health-pregnancy-marijuana-tobacco-idUSKCN0YV2BN

Marijuana Use During Pregnancy Does Not Increase Birth Risk, Study Finds (news – 2016)

Using Pot While Pregnant Not Tied to Birth Risks (news – 2016)

Pot and Pregnancy: Marijuana for morning sickness (news – 2015)

Massive scientific report on marijuana confirms medical benefits (news – 2017)

**PSORIASIS**

Cannabinoid Treatment for Psoriasis Symptoms (article – 2012)

Dermatologists: Marijuana Can Improve Your Skin, But Not If You Smoke It (news – 2013)

Psoriasis - Treated with Cannabis Oil (forum post – 2013)

This for That: Cannabidiol and Psoriasis (news – 2014)
http://the420times.com/2014/09/this-for-that-cannabidiol-and-psoriasis/

Cannabis can alleviate psoriasis or eczema (news – 2015)
http://420insight.com/medicinal/cannabis-can-alleviate-psoriasis/

This Is What Happens to Your Beauty on Marijuana (news – 2016)
https://www.yahoo.com/beauty/this-is-what-happens-to-1411025717600310.html
QUITTING CANNABIS - also see ADDICTION, WITHDRAWAL

Cure for the Munchies? Exercise Cuts Marijuana Cravings  (news – 2011)  

Exercise can reduce cannabis use in persons who don’t want to stop  (news – 2011)  

Supplement Helps Teens Kick Pot Habit  (news – 2012)  
http://www.medpagetoday.com/Psychiatry/Addictions/33286?utm_content=&utm_medium=email&utm_campaign=DailyHeadlines&utm_source=WC&eun=g522321d0r&userid=522321&email=tconnolly@wtis1110.com&mu_id=

Anticonvulsant Drug Helps Marijuana Smokers Kick the Habit  (news – 2012)  
http://www.sciencedaily.com/releases/2012/04/120424095651.htm

Taking Note of Over-the-Counter Remedies for Adolescents With Cannabis Dependence (editorial – 2013)  

Poor Sleep Quality Makes It Harder To Quit Marijuana — Here’s Why  (news – 2013)  

Marijuana Tolerance Breaks” 5 Ways to Pass the Time With Ease and in Better Health  (news – 2013)  

Hormone shows promise at negating marijuana's high effect  (news – 2014)  

Active ingredient in pot sets off a feedback that reduces intoxication  (news – 2014)  

Muting Marijuana’s High: Pot Without the Impairment  (news – 2014)  
http://healthland.time.com/2014/01/03/muting-marijuanas-high-pot-without-the-impairment/

Citicoline: A Useful Supplement For Medical Cannabis Patients  (news – 2015)  
http://www.cannabiscure.info/files/citicoline.htm

Withdrawal drug could help cannabis addicts kick the habit  (news – 2015)  

Quitting pot? Substitute a little coffee buzz  (news – 2015)  
http://blog.sfgate.com/smellthetruth/2015/05/11/quitting-pot-substitute-a-little-coffee-buzz/

The role of marijuana in your coffee addiction  (news – 2015)
Drug curbs marijuana use, but with tough side effects  (news – 2016)

Mixing pot and tobacco increases dependence risk  (news – 2016)

QUITTING OTHER DRUGS

Medical Cannabis Use Doesn't Adversely Impact Substance Abuse Treatment Outcomes, Study Says  (news – 2010)

Oaklanders Quitting Oxycontin with Cannabis  (news - 2010)

Marijuana To Control Alcohol Abuse  (news - 2010)

Study shows direct cellular interaction between endocannabinoids and alcohol in the brain  (news - 2010)

Marijuana could be an “exit drug”  (news - forum repost - 2010)

Study: Marijuana compound helps mitigate cocaine addiction in mice  (news – 2011)

Why Medical Marijuana Laws Reduce Traffic Deaths  (news - 2011)

Can marijuana curb cocaine addiction?  (news – 2011)
http://theweek.com/article/index/217709/can-marijuana-curb-cocaine-addiction

Patients Substitute Marijuana for Prescription Drugs  (news – 2011)
http://www.internalmedicineonews.com/index.php?id=495&tx_ttnews[tt_news]=79267&cHash=e5e5aebf50e54e61a2ce81ca4ce05e24
Is Marijuana an 'Exit Drug'? Study Suggests Some Are Taking It as a Substitute for Prescription Drugs and Alcohol (news – 2012)  
http://www.alternet.org/drugs/marijuana-exit-drug-study-suggests-some-are-taking-it-substitute-prescription-drugs-and

Hashing It Out In Ohio With The Martha Stewart Of Marijuana (interview – 2013)  

From Alive to Living: Disabilities Treated with Medical Marijuana (news – 2013)  

Secret “Sober” Pot Smokers (news – 2013)  
http://www.thefix.com/content/secret-%E2%80%9Csober%E2%80%9D-pot-users2030

Colombia’s controversial cure for coke addicts: Give them marijuana (news – 2013)  
http://www.thestar.com/news/world/2013/06/03/colombias_controversial_cure_for_coke_addicts_give_the_m_marijuana.html

Arguments Over the "High" of Cannabis are Half-Baked (news – 2013)  
http://blog.themobilityresource.com/blog/post/cannabis-it-never-killed-anyone

BC Man gets off painkillers with marijuana (news – 2013)  

Study: Cannabis Compound Reduces Cigarette Consumption In Tobacco Smokers (news – 2013)  

Can Marijuana Help You Quit Cigarettes? Study Says Yes (news – 2013)  
http://www.leafscience.com/2013/11/01/can-marijuana-help-quit-cigarettes-study-says-yes/

CANNABIS ISSUE COVER FEATURE: LOBEL PRIZE (news – 2015)  
https://digboston.com/cannabis-issue-cover-feature-lobel-prize/

Is it time to legalize marijuana in sports? (news – 2015)  

Marijuana Might Actually be an Anti-Gateway Drug (news – 2015)  

Doctors pioneer pot as an opioid substitute (news – 2015)  
http://www.bostonherald.com/news_opinion/local_coverage/2015/10/doctors_pioneer_pot_as_an_opioid_substitute

People Who Smoke Weed Are Losing Weight Because They're Not Drinking Booze (news – 2015)  
Study: Patients Substitute Cannabis For Booze, Prescription Drugs  
http://norml.org/news/2015/10/08/study-patients-substitute-cannabis-for-booze-prescription-drugs

Ex-Bear Jim McMahon: Medical marijuana got me off narcotic pain pills  

Patients, towns want relief from state's foggy pot rules  

Maine could be first state to OK medical marijuana to treat addicts  

Cannabis one piece in pain management puzzle  

Mixing pot and tobacco increases dependence risk  

Big Pharma's Concerned About These Marijuana Stats  

After medical marijuana legalized, Medicare prescriptions drop for many drugs  
http://www.mprnews.org/story/2016/07/07/npr-medical-marijuana

McLean Hospital Study Finds That Medical Marijuana Use May Improve Cognitive Performance  

Fentanyl maker fights pot legalization  

Cannabis Advice for the Novice Consumer  
https://www.hellomd.com/health-wellness/cannabis-advice-for-the-novice-consumer

How I Stopped My Phantom Limb Pain  
https://www.hellomd.com/health-wellness/how-i-stopped-my-phantom-limb-pain

Cannabis Makes up 22% of Canadian Veteran Drug Payments  

Could Medical Cannabis Break the Painkiller Epidemic?  
RACE/ ETHNICITY and CANNABIS

Tribune analysis: Drug-sniffing dogs in traffic stops often wrong (news – 2011)

ACLU Targets East Texas Law Enforcement Agencies for Racial Bias in Marijuana Arrests (news – 2013)

If You're Black and in Love With Mary Jane, You're 3.67 Times More Likely to Be Arrested (news – 2014)

https://indiancountrytodaymedianetwork.com/2014/09/26/people-hemp-part-1-losing-land-culture-tradition-157074

People of the Hemp, Part 2: Criminalizing Traditional Teachings (news – 2014)

Seattle police: Homeless arrested most for pot (news - 2014)

NYPD Still Arresting Large Numbers Of Minorities For Low-Level Marijuana Offenses (news – 2014)
http://www.huffingtonpost.com/2014/10/20/new-york-marijuana-arrest_n_6016700.html

Race Matters: Marijuana Cases Flood Court System (news – 2015)

Men, blacks most likely to get tickets for Seattle pot use (news – 2015)

More than 100 Native American Tribes Consider Growing Marijuana (news – 2015)

SD Indian tribe to begin selling recreational pot by Jan. 1 (news – 2015)

How Employee Drug Testing Targets the Poor and Minorities (news – 2015)
Whites Just 8% of New York City's Marijuana Arrests  

Marijuana-related summonses on the rise in NYC, East New York; minority nabe's feeling the heat: report  

Casualties of the War on Drugs  
http://www.huffingtonpost.com/donna-a-patterson/casualties-of-the-war-on- b_8374030.html

The growing racial divide in Virginia’s war on pot  

Infographic: Pot smokers are skinnier than non-users  
http://o.canada.com/health-2/infographic-pot-smokers-are-skinnier-than-non-users

Cory Booker on how America's criminal justice system destroys the American dream  
http://www.vox.com/2015/3/16/8205027/cory-booker-drug-war

Weed Legalization Can’t Seem to Fix One Thing: Racial Gaps in Drug Arrests  

Meet Sue Taylor, the Black Grandmother Leading the Charge to Bring Marijuana to the Elderly  

Corporate Greed, Corruption & Racism: Marijuana Became Illegal  

Marijuana Related Arrests Skyrocket In Colorado For Black And Latino Minors  
http://www.vibe.com/2016/05/marijuana-arrests-colorado-skyrocket-black-latino/#

REPORT: More than 90% of marijuana arrests in NYC are people of color  

New York police are getting even more aggressive on marijuana  


D.C. Department of Health Calls for Taxing and Regulating Marijuana  
Native American Church Sues Postal Service Over Seizure of ‘Sacramental’ Marijuana (news – 2016)

Drug War is ‘Root Cause’ of Police Shooting Epidemic, says Libertarian Party Presidential Nominee Gary Johnson (news – 2016)

Blacks Locked Out Of Legal Marijuana Industry In Maryland & Many Other States (news – 2016)

Here’s how legal pot changed Colorado and Washington (news – 2016)

Why are more Americans in jail for marijuana use than violent crime? (news – 2016)


Timeline: The hemp odyssey of Alex White Plume (news – 2016)

Black drivers' cars searched more frequently on basis of drug, alcohol odor (news – 2016)
http://www.columbiamissourian.com/news/black-drivers-cars-searched-more-frequently-on-basis-of-drug/article_76c6279a-b63f-11e6-9c89-0ff7ad37d769.html

He got life without parole for pot. And he was just denied clemency. (news – 2016)
http://www.newsday.com/opinion/he-got-life-without-parole-for-pot-and-he-was-just-denied-clemency-1.12731004

RADIATION THERAPY

Cannabinoids Stop Radiation Therapy Oxidation (news & abst – undated)


RADIATION SICKNESS/ CONTAMINATION


RECREATIONAL USE

Indian hemp and the dope fiends of Old England (article - undated) http://www.idmu.co.uk/indian.htm

Former Supreme Court justice blasts minimum sentences for marijuana offenders. (article - 2012) http://www.cmaj.ca/content/184/8/E391
http://www.huffingtonpost.com/2013/04/20/marijuana-prohibition-costs_n_3123397.html

Study: Marijuana legalization doesn’t increase crime (news – 2014)
http://www.msnbc.com/all/does-marijuana-lower-the-crime-rate

College Kids Now Prefer ‘Funny’ Cigarettes (news – 2015)

Cory Booker on how America's criminal justice system destroys the American dream (news – 2015)
http://www.vox.com/2015/3/16/8205027/cory-booker-drug-war

Is Smoking Kosher for Passover — and What About Pot? (news – 2015)

Majority of young conservatives lean toward marijuana legalization (news – 2015)
http://www.dailytargum.com/article/2015/03/majority-of-young-conservatives-lean-toward-marijuana-legalization


Cannabis in the United States (report – 2016)
http://self.gutenberg.org/article/WHEBN0020566488/Cannabis%20in%20the%20United%20States

Dose of Reality: The Effect of State Marijuana Legalizations (report – 2016)

Marijuana Legalization and Taxes: Lessons for Other States from Colorado and Washington (report – 2016)

More American workers are failing at this job requirement (news – 2016)
http://www.marketwatch.com/story/more-american-workers-are-failing-at-this-job-requirement-2016-05-18?siteid=rss&rss=1

Oregon marijuana market growing thousands of jobs (news – 2016)
http://www.usatoday.com/story/money/nation-now/2016/05/19/oregon-marijuana-jobs/84633414/

Marijuana tax in Louisiana could add $128 million in revenue, report says (news – 2016)
http://www.nola.com/politics/index.ssf/2016/05/marijuana_tax_in_louisiana_cou.html

As more states legalize marijuana, adolescents' problems with pot decline (news – 2016)

Oregon issues guidelines on marijuana 'gifting' and giveaways (news – 2016)
http://www.oregonlive.com/marijuana/index.ssf/2016/05/oregon_issues_rules_on_marijuana.html
Survey: Czech Republic has most young cannabis users in Europe  (news – 2016)

Ganja on the go - Ports to be outfitted to issue medical cards to tourists to legally purchase the weed  (news – 2016)

Another Survey Finds Legal Pot Hasn't Sent Teen Use Higher  (news – 2016)

Teen marijuana use in Colorado found lower than national average  (news – 2016)

Marijuana Use Rises in Iran, With Little Interference  (news – 2016)

What the merger of recreational, medical pot means  (news – 2016)

D.C. Department of Health Calls for Taxing and Regulating Marijuana  (news – 2016)

Ghana is 3rd consumer of marijuana globally - Report  (news – 2016)

7 in 10 Canadians support marijuana legalization: Nanos poll  (news – 2016)
http://www.ctvnews.ca/canada/7-in-10-canadians-support-marijuana-legalization-nanos-poll-1.2968953

Study uses diverse sample to examine childhood weight's link to age of first substance use  (news – 2016)  https://www.sciencedaily.com/releases/2016/06/160628110211.htm

Diane Dimond: Recruiting Your Child as a Narc  (news – 2016)
https://www.noozhawk.com/article/diane_dimond_recruiting_your_child_as_a_narc

Average legal user spends $647 a year on marijuana  (news – 2016)

American teenagers 'are MORE likely to smoke marijuana than binge drink', new maps reveal  (news – 2016)
http://www.dailymail.co.uk/health/article-3719979/American-teenagers-likely-smoke-marijuana-binge-drinks-new-maps-reveal.html#ixzz4GCZQ0Lzu
Cutting the Weed: Joints Have Less Marijuana Than Thought  (news – 2016)


Comparing sexual experiences related to alcohol and marijuana use among adults  (news – 2016)

Serious researchers studied how sex is different when you’re high vs. when you’re drunk  (news – 2016)

One in Eight U.S. Adults Say They Smoke Marijuana  (news – 2016)
http://www.gallup.com/poll/194195/adults-say-smoke-marijuana.aspx?g_source=Well-Being&g_medium=lead&g_campaign=tiles

Gallup: More than 33 million American adults currently use marijuana  (news – 2016)

DEA rejects marijuana reclassification, despite states' shifting acceptance  (news – 2016)

Anti-marijuana campaign's biggest donor? Chandler pharma company  (news – 2016)

Middle-aged parents more likely to smoke weed than their teenaged kids  (news – 2016)

CDC: Young People Say Marijuana Is Becoming Less Available  (news – 2016)
http://blog.norml.org/2016/09/02/cdc-young-people-say-marijuana-is-becoming-less-available/

Study: Medical marijuana changes how employees use sick time  (news – 2016)

Canada to press U.S. on 'ludicrous' marijuana border policy  (news – 2016)
Jamaica decriminalizes small amounts of ‘ganja’ (news – 2016)

5 Tips for Breaking Into the 'Budding' Marijuana Industry (news – 2016)

Nigeria: Inside Story of Abuja Elite Female Marijuana Smokers (news – 2016)
http://allafrica.com/stories/201608190213.html

More people are smoking weed every day, ‘like cigarettes’, study reveals (news – 2016)
http://metro.co.uk/2016/08/15/more-people-are-smoking-weed-every-day-like-cigarettes-study-reveals-6068652/

Cannabis Consumers Spend Annually? (news – 2016)
http://www.cheatsheet.com/money-career/average-cannabis-consumer-spend.html/?ref=YF&ypt=yahoo

Legal Weed Spurs Real Estate Boom In U.S. States (news – 2016)
http://www.huffingtonpost.ca/2016/08/15/marijuana-real-estate-boom_n_11529824.html?
utm_hp_ref=canada-business&ir=Canada+Business

Americans have radically changed their views on weed over 25 years (news – 2016)
http://www.businessinsider.com/americans-changing-views-on-weed-over-25-years-2016-9


Marijuana is not a gateway drug, admits Obama’s Attorney General (news – 2016)

Alaska soldiers barred from events promoting marijuana (news – 2016)

Marijuana farms could join pear orchards and vineyards as Rogue Valley mainstays (news – 2016)

Study says legalized marijuana does not affect crime or economics (news – 2016)

Identifying Old or Bad Cannabis Past its Shelf Life (news – 2016)

Colorado gives marijuana candy a new look to avoid confusion
Your doctor is probably more worried about your weight than your marijuana use, study finds
https://www.abqjournal.com/860979/your-doctor-is-probably-more-worried-about-your-weight-than-your-marijuana-use-study-finds.html

Goodman: Never was a good reason to outlaw marijuana

Here’s how legal pot changed Colorado and Washington

Police arrest more people for marijuana use than for all violent crimes — combined
http://mgazette.com/police-arrest-more-people-for-marijuana-use-than-for-all-violent-crimes-combined/article/1587703

Support for marijuana legalization rises among U.S. adults: poll

There’s Only One Demographic That Still Thinks Marijuana Should Be Illegal
http://www.cheatsheet.com/culture/marijuana-legalization-survey.html/?ref=YF&yptr=yahoo

Why are more Americans in jail for marijuana use than violent crime?

No highs or lows: Marijuana use holds steady among teens, young adults

McLean Hospital Study Finds That Medical Marijuana Use May Improve Cognitive Performance

A casino magnate is spending millions to fight legal marijuana in three states

Old marijuana joint found at nuclear power plant
Study finds legalized marijuana does not affect crime or economics
(news – 2016)

Marijuana legalization may have an unexpected result: Drug smuggling into Mexico
(news – 2016)

Marijuana labs: Oregon pot tests safer than food (news – 2016)

Colorado lawmakers: Arizona anti-pot ads are inaccurate (news – 2016)

Military weighs mellower marijuana restrictions for recruits (news – 2016)

Strict Pot Restrictions for Applicants Is A ‘Death Sentence,’ Baltimore Comm. Says
(news – 2016)
http://baltimore.cbslocal.com/2016/10/31/md-to-mull-over-more-lenient-pot-restrictions-for-cops/

Countdown to legal pot: No one will ever die from too much marijuana
(news – 2016)

How Too Much Marijuana Can Cost You an Arm and a Leg (news – 2016)

Marijuana doctors get new business buzz from legalization in California

Opinion: Legal marijuana is affecting the beer industry’s memory
(news – 2016)

A tip sheet for workers and workplaces where marijuana is legal (news – 2016)
http://gazette.com/article/1591346

Marijuana industry brought to a standstill by new pesticide testing regulations
(news – 2016)

OBAMA: It’s 'untenable' for government to enforce 'a patchwork of laws' on marijuana
(news – 2016)
Yes, most state employees can use marijuana off the job (news – 2016)  http://juneauempire.com/state/2016-11-28/yes-most-state-employees-can-use-marijuana-job


The marijuana-initiative blunder that could cost California millions of dollars (news – 2016)  

Californians are already having their marijuana charges downgraded (news – 2016)  http://www.scpr.org/programs/take-two/2016/11/16/53070/people-are-already-having-their-marijuana-convicts/


Baby boomers on dope: Recreational marijuana use is on the rise among adults over 50 (news – 2016)  https://www.sciencedaily.com/releases/2016/12/161205091216.htm

Marijuana Users Have Lower Body Mass Index than Non-Users Says University of Miami Study (news – 2016)  http://www.wflx.com/story/33139175/marijuana-users-have-lower-body-mass-index-than-non-users-says-university-of-miami-study

Teens with Medical Marijuana Cards Much Likelier to Say They're Addicted, but Few Teens Have Them (news – 2016)  http://www.newswise.com/articles/view/637617/?sc=rsmn

DEA: 'media attention' is making it tough to put people in jail for marijuana
Now you 'CanPay' for pot with this app (news – 2016)

Medical cannabis patients wonder about Prop. 64’s potential effects (news – 2016)
http://www.thecannifornian.com/cannabis-health/medical-cannabis-patients-wonder-prop-64s-potential-effects/

Punch the clock and pass the brownies (news – 2016)

A trade school in Colorado is training foodies and weed enthusiasts to become pot 'sommeliers' (news – 2016)

Ravalli County drug case could change school searches in Montana (news – 2016)

Smoke signals  Teen drug use is declining, according to a new national survey (news – 2016)

Here's who buys legal weed (news – 2016)

Here’s what police might do if you’re stopped with marijuana (news – 2016) (includes guidelines letter to the Mass. State Police)

Tantra THC: Using Cannabis to Make Sex Sacred (news – 2016)

Teens Now Associate ‘Smoking’ With Marijuana, Not Cigarettes (news – 2016)
http://nymag.com/thecut/2016/12/more-teens-smoke-marijuana-than-cigarettes-or-e-cigs.html?
mid=twitter_cut

Calif. city to require name, address and $141 to grow pot at home (news – 2016)

Aging baby boomers increasingly embrace marijuana, heavy alcohol use (news – 2016)
5 Reasons Weed Give Us The Giggles That You Might Not Know  (news – 2016)  
http://herb.co/2016/12/08/weed-give-giggles/

What a $20 Bag of Weed Looks Like in Jamaica  (news – 2016)  
http://herb.co/2016/01/26/20-bag-weed-looks-like-jamaica/

Marijuana should be treated like tobacco, alcohol, Obama says  (news – 2016)  

Here’s How to Flush Your Marijuana Criminal Record  (news – 2016)  
http://bigbudsmag.com/how-to-get-rid-of-your-marijuana-criminal-record/

The DEA spent $73,000 to eradicate marijuana plants in Utah. It didn’t find any.  (news – 2016)  

Marijuana: 15 Cities With the Most Pot Users  (news – 2016)  
http://www.cheatsheet.com/culture/marijuana-cities-pot-users.html/?ref=YF&yptr=yahoo

The Early Bird Does Not Get the Legal Weed  (news – 2016)  

Google reveals what people really think about weed  (news – 2016)  
http://www.businessinsider.com/weed-trends-google-2016-9/#interest-in-cannabis-is-rising-in-the-us-note-were-looking-at-all-weed-related-searches-here-as-grouped-by-google-machine-learning-1

What Does the Average Cannabis Consumer Look Like?  (news – 2016)  
https://docsend.com/view/kv9hgzy

Cop Task Force Gets In The Weeds  (news – 2016)  
http://www.newhavenindependent.org/index.php/archives/entry/marijuana_police/

CDC: More people are using marijuana, but fewer are abusing it  (news – 2016)  

Gallup: More than 33 million American adults currently use marijuana  (news – 2016)  

Five new facts about medical versus recreational pot users  (news – 2016)  

Cannabis Wins Big On Election Night  (news – 2016)  
http://beyondchronic.com/2016/11/cannabis-wins-big-on-election-night/
Marijuana Money: How Much Do Cannabis Consumers Spend Annually?  
(news – 2017)  
http://www.cheatsheet.com/money-career/average-cannabis-consumer-spend.html/?ref=YF&yptr=yahoo

Use of Marijuana for Medical Purposes Among Adults in the United States  
(abst – 2017)  

North Americans Spent Almost $7 Billion on Legal Marijuana in 2016, Report Finds  
(news – 2017)  

Recreational marijuana: Changes could be coming  
(news – 2017)  

NFLPA eyes 'less punitive' approach to recreational weed  
(news – 2017)  
http://www.sportingnews.com/amp/nfl/news/nfl-marijuana-testing-policy-weed-nflpa-union-changes-demaurice-smith/1q3yk9qiv22mg1bhlho7ykt4ld

Oregon bill would protect worker's right to use marijuana off the clock  
(news – 2017)  

Delaying Pot Smoking Better for Teens’ Brains  
(news – 2017)

Colorado on marijuana: ER visits, poison-control calls down even as consumption rates remain steady  
(news – 2017)  
http://www.denverpost.com/2017/02/01/colorado-marijuana-er-visits-poison-control/

**RELIGION and CANNABIS**

Marijuana in the Bible with cognate study of KNH, BSM & MKNH in the literal Word with Genesis 4:1; 14:19,22; 1st Kings 14:15, Ezekiel 31:9, Matthew 11:7, Luke 7:24 for the revelatory Word  
(article – undated)  

Hemp in Religion (Japan)  
(article - undated )  

Judge Rejects Marijuana as Holy Sacrament  
(news – 2010)  

Marijuana in the Bible  
(article - 2011)  
https://patients4medicalmarijuana.wordpress.com/marijuana-info/marijuana-in-the-bible/
Comment on "Did Jesus use cannabis?" (forum post – 2011)

Crumbs of comfort: Cannabis cookies are kosher for Passover (news - 2012)

Religious Marijuana Lawsuit Gets New Life in 9th Cir. (news - 2012)

Rastafari and the Environment (news – 2012)
https://caribbeanreligionuvm.wordpress.com/

Cannabis in the Holy Anointing Oil? "Exodus 30:23" (article – 2013)

Marijuana-Infused Faith Challenges the Definition of Religion (news – 2013)

Shiva, Lord of Bhang (news – 2013)

The Official Recognition of Bob Marley’s Rastafarianism Gets Prison Inmates In Jovial Mood (news – 2014)

Holy Cannabis: The Bible Tells Us So (news – 2014)
http://www.huffingtonpost.com/jane-marcus-phd/holy-cannabis-the-bible-t_b_4784309.html

'Thank God for Marijuana,' Says Episcopal Priest in 'One Love' YouTube Video (news – 2014)

From Demon Weed To God’s Plant (news - 2014)

The Secret History of Cannabis in Japan (news – 2014)

Marijuana in Nepal and the Myth of Purple Haze (news – 2014)

Jesus & Cannabis (article/ recipe – 2015)
https://patients4medicalmarijuana.wordpress.com/marijuana-info/marijuana-in-the-bible/jesus-cannabis/
SAVE EARTH WITH LORD SHIVA'S WONDER CANNABIS MAGIC IN THC OF CANNABIS, HEMP OIL, MEDICAL MARIJUANA  (article – 2015)

(may need free registration)

Pot-Dispensing Rabbi: D.C. Residents Deserve Legal Access to Marijuana
(news – 2015)
http://time.com/3726560/pot-dispensing-rabbi-d-c-residents-deserve-legal-access-to-marijuana/

David Simpson: Pot is not God's mistake for government to fix  (news – 2015)

Babylon Backs Down  (news – 2015)
http://www.slate.com/articles/news_and_politics/roads/2015/03/jamaica_is_decriminalizing_marijuana_but_rastafarians_are_still_wary.single.html

New frontier for marijuana products: kosher certification  (news – 2015)

Is Smoking Kosher for Passover — and What About Pot?  (news – 2015)

Geeky Pot Testing Pioneers Seek To Leverage Colorado's Jewish Marijuana Connection  (news – 2015)

First Church of Cannabis Files Paperwork with Indiana Secretary of State

Indiana’s Church Of Marijuana Granted Tax-Exempt Status From IRS  (news – 2015)
http://www.huffingtonpost.com/2015/06/02/indianas-church-of-marijuana_n_7496084.html

Church plans to use marijuana in service at Rhode Island memorial  (news – 2015)

Hein and Helsmoortel support proposed ‘kosher’ pot farm in Saugerties  (news – 2015)

http://www.huffingtonpost.com/2015/05/29/bible-christianity-marijuana_n_7461290.html

Pro-marijuana church group crashes in Trenton during 40-day, Jesus-style retreat
(news – 2015)
Religious marijuana use by 'medicine man' no defense to federal charge  (news – 2015)  

Bible study group in Colorado combines love for God and marijuana: 'Bible didn't say you couldn't smoke weed'  (news – 2015)  
http://www.christiantoday.com/article/bible.study.group.in.colorado.combines.love.for.god.and.marijuana.bible.didnt.say.you.couldnt.smoke.weed/72759.htm

Asherah: The Tree of Life  (news – 2015)  

Organization To Offer Kosher Medical Marijuana In New York State  
(news – 2015)  
http://newyork.cbslocal.com/2015/12/30/kosher-medical-marijuana/

The Unexpected History of Ganja  (news 2015)  
http://www.bloomwellbend.com/weed-terms-history-ganja/

"Nuns" fight to keep their marijuana-based business in California  (news – 2016)  

Medical Marijuana Kosher? Doesn't Matter, Says Kashruth Council of Canada  
(news – 2016)  

What Gives Israel the Edge on Marijuana? For starters, the nation puts patients before politics  
(news – 2016)  
http://observer.com/2016/03/what-gives-israel-the-edge-on-marijuana/

Maha Shivaratri: Devotees celebrate the god Shiva in one of the most important Hindu festivals  
(news – 2016)  
http://www.ibtimes.co.uk/maha-shivaratri-devotees-celebrate-god-shiva-one-most-important-hindu-festivals-1548041

'Weedman' says closing pot temple violates religious freedom  (news – 2016)  

Shiva Is A God Who Likes Marijuana — And So Do Many Of His Followers  
(news – 2016)  

Cannabis Chapel brings a different kind of love for 4/20  (news – 2016)  
http://www.unlvrebelyell.com/cannabis-chapel-brings-a-different-kind-of-love-for-420/

Where Gray-Haired Aunties Push Weed  (news – 2016)  
Native American church is fighting for the right to use weed as a ‘sacrament’
(http://metro.co.uk/2016/02/08/native-american-church-is-fighting-for-the-right-to-use-weed-as-a-sacrament-5668623/#ixzz45mWpZKLN)

Native American Church Sues Postal Service Over Seizure of ‘Sacramental’ Marijuana
(http://www.oregonlive.com/marijuana/index.ssf/2016/01/native_american_church_sues_po.html)

Passover's OK for Weed Smoking Because of Its "Healing" Scent, Says Extremely Chill Rabbi

Marijuana: Arab Smokers, Religious Scholars Weigh In

US appeals court upholds Hawaii pot ministry convictions

Shavuot, The Bible, and Medical Marijuana
(http://www.huffingtonpost.com/entry/shavuot-the-bible-and-medical-marijuana_us_575edbf2e4b079c7cee5fc02)

Cannabis Church to hold first service, combats marijuana stigma
(http://www.freep.com/story/news/local/michigan/2016/06/24/cannabis-church-lansing/86341200/)

Jamaica decriminalizes small amounts of ‘ganja’

Damian Marley Is Converting a California Prison into a Pot Farm: Exclusive

Ancient Cannabis 'Burial Shroud' Discovered in Desert Oasis

Cannabis convict Eddy Lepp free from prison
(http://www.mercurynews.com/2016/12/07/cannabis-convict-eddy-lepp-free-after-long-prison-term/)

Supreme Court rejects church's appeal over marijuana laws

Cannabis: Israel's next big medical export?
(http://money.cnn.com/2016/03/08/news/cannabis-israel-medical-exports/)
Israel takes steps to decriminalize marijuana use *(news – 2017)*
http://www.azfamily.com/story/34362307/israel-takes-steps-to-decriminalize-marijuana-use

**REM SLEEP BEHAVIOR DISORDER**

How One Citizen Scientist is Taking On Parkinson’s-related Nightmares – and Winning *(news – undated)*
How One Citizen Scientist is Taking On Parkinson's-Related Nightmares — and Winning

**RETINITIS PIGMENTOSA**

Synthetic Form of Active Marijuana Ingredient Preserves Vision in Rats with RP *(news – 2014)*

Study Shows THC In Cannabis May Help Delay Retinal Degeneration, Vision Loss *(news – 2014)*
http://www.medicaljane.com/2014/02/17/spanish-study-cannabis-may-help-delay-retinal-degeneration-vision-loss/

Marijuana May Prevent Blindness In Retinitis Pigmentosa Sufferers *(news – 2014)*
http://www.huffingtonpost.com/2014/02/21/marijuana-blindness-prevent-study-retinitis-pigmentosis_n_4833183.html

Study suggests marijuana improves your night vision *(news – 2016)*

**SAFETY AS A MEDICINE**

Alcohol 'Most Harmful Drug', According to Multicriteria Analysis *(news - 2010)*

Annual Causes of Death in the United States *(article – 2011)*
http://drugwarfacts.org/cms/?q=node/30

Is Medical Marijuana Safe for Children? *(news – 2012)*
Cannabis conundrum: Evidence of harm?: Opposition to marijuana use is often rooted in arguments about the drug's harm to children and adults, but the scientific evidence is seldom clear-cut (article – 2015)

Peaceful feeling, or up in smoke? Medical marijuana in medicolegal context (article – 2015)


6 facts about marijuana (news – 2015) http://www.pewresearch.org/fact-tank/2015/04/14/6-facts-about-marijuana/
Huge New Review Shows What Medical Marijuana May (and May Not) Help
(news – 2015)

Study confirms safety of cannabis drug CBD           (news – 2015)

What is the scope of marijuana use in the United States?       (news – 2015)

The Science Of Decriminalizing Drugs           (news – 2015)

How the media used one tiny study to wildly exaggerate the threat of marijuana edibles

No sign of safety risks with longterm pot use for chronic pain       (news – 2015)

Medical Marijuana Safe for Chronic Pain: Study           (news – 2015)

Medical marijuana seems to help chronic pain patients, appears to be safe: study
(news – 2015)

Canadian multicenter study examines safety of medical cannabis in the treatment of
chronic pain           (news – 2015)

Pharmaceutical CBD (cannabidiol) Shows Promise for Children with Severe Epilepsy
(news – 2015)
https://www.aesnet.org/about_aes/press_releases/pharmaceuticalcbd2015#sthash.wL57kCVn.dpuf

French drug trial leaves one brain dead and five critically ill       (news – 2015)

Products infused with marijuana account for about 40 percent of all sales, but are they safe?
(news – 2015)
http://www.ncsl.org/research/civil-and-criminal-justice/edibles-for-experts-only.aspx

Marijuana - How Safe is it Really?       (article - link to PDF – 2016)
https://journals.mcmaster.ca/iScientist/article/download/1104/991

French drug trial turns disastrous, leaving 1 brain dead and 5 hospitalized
(news – 2016)

Will Death in French Drug Trial Lead to Tighter Phase 1 Rules? (news – 2016)

Study: Vaporizers Deliver Safe And Reliable Doses Of Cannabinoids (news – 2016)

Which Is Worse For You – Marijuana Smoke Or Tobacco Smoke? (news – 2016)
http://www.theweeklyweedonline.com/which-is-worse-for-you-marijuana-smoke-or-tobacco-smoke/

'Creative' stoners planted seed for safer medical marijuana: study (news – 2016)

Overdose: How much cannabis would it take to kill you? (news – 2016)
http://blazedgeek.com/overdose-how-much-cannabis-would-it-take-to-kill-you/#sthash.HWHjYZ0T.dpuf

Your kid is way more likely to be poisoned by crayons than by marijuana
(news – 2016)

Americans have radically changed their views on weed over 25 years
(news – 2016)
http://www.businessinsider.com/americans-changing-views-on-weed-over-25-years-2016-9

Your doctor is probably more worried about your weight than your marijuana use, study finds
(news – 2016)
https://www.abqjournal.com/860979/your-doctor-is-probably-more-worried-about-your-weight-than-your-marijuana-use-study-finds.html

Here’s how legal pot changed Colorado and Washington (news – 2016)

Weeding out the truth: Cannabis-based medications for cancer patients
(news – 2016)

The Dangerous Side of Opioids and How Cannabis Can Tame the Beast
(news – 2016)
http://cannabishealthindex.com/cannabinoid-research/the-dangerous-side-of-opioids-and-how-cannabis-can-tame-the-beast/

Discover Your Subjective Therapeutic Window: Turning Cannabis Into A Precision
(news – 2016)
http://cannabishealthindex.com/cannabis-safety/the-secret-about-cannabis-that-everyone-should-know/
SAFETY- ADULTERANTS/ CONTAMINANTS


Contamination – Now we have some real evidence (news – 2010)
http://ukcia.org/wordpress/?p=296

Medical marijuana tested for toxins and impurities (news - 2010)

Can medical marijuana help rheumatoid arthritis? (news – 2012)
http://www.health.com/health/condition-article/0,,20499017,00.html

Medical marijuana users don't have protections from sub-par pot (news – 2013)

http://www.cnbc.com/id/100678723

Legalized marijuana states draft laws on purity of pot (news – 2013)

Marijuana Pesticide Contamination Becomes Health Concern As Legalization Spreads (news – 2013)
http://www.huffingtonpost.com/2013/05/24/marijuana-pesticides-contamination_n_3328122.html

Marijuana may be contaminated with mold, mildew. (news – 2013)

To Dab, or Not To Dab (news – 2013)
http://pureanalytics.net/blog/2013/08/24/to-dab-or-not-to-dab/
Testing of Colorado marijuana for contaminants to begin this year (news – 2014)
http://gazette.com/testing-of-pot-for-contaminants-to-begin-this-year/article/1536213

Why Marijuana Needs Chemical Quality Control Testing (news – 2014)

Colorado's legal pot is potent, and a little dirty (news – 2015)


Marijuana's Pesticide Problem (news – 2015)

A first for the marijuana industry: A product liability lawsuit (news – 2015)

Pot pesticides: What exactly are these chemicals, and why are they banned? (news – 2015)
http://www.denverpost.com/2015/12/07/pot-pesticides-what-exactly-are-these-chemicals-and-why-are-they-banned/

State Regulators Weigh in on Pesticides Like Never Before (news – 2016)

Which Pesticides Are Allowed on Marijuana? (news – 2016)
http://www.eastbayexpress.com/LegalizationNation/archives/2016/03/15/which-pesticides-are-allowed-on-marijuana

More Products on Shelves at Recreational Marijuana Stores Have Tested Positive for Sketchy Pesticides (news – 2016)
http://www.thestranger.com/slog/2016/03/17/23720675/25-more-products-on-shelves-at-recreational-marijuana-stores-have-tested-positive-for-illegal-pesticides

The crazy, complicated world of “organic” weed (news – 2016)

US researchers call for re-evaluation of microbial testing of Cannabis (news – 2016)
http://www.eurekalert.org/pub_releases/2016-06/fo1-urc061416.php

Marijuana May Boost Brain Performance (news – 2016)

Marijuana Use Rises in Iran, With Little Interference (news – 2016)
Fake 'Organic' Pot Gardening Products Yanked From Oregon Stores (news – 2016)

Restrictions on pot-safety testing put public at risk, scientists warn (news – 2016)

WHY SMOKING MOLDY WEED IS BAD, BAD NEWS (news – 2016)

Identifying Old or Bad Cannabis Past its Shelf Life (news – 2016)

Ganja Grows Up (news – 2016)
http://www.bendsource.com/bend/ganja-grows-up/Content?oid=2762480

Marijuana labs: Oregon pot tests safer than food (news – 2016)

Bonfires of moldy pot (news – 2016)

Marijuana May Boost Brain Performance (news – 2016)

Marijuana industry brought to a standstill by new pesticide testing regulations (news – 2016)

SCHIZOPHRENIA/ MENTAL DISORDERS

Endocannabinoids and psychiatric disorders: the road ahead (article – 2010)

Tardive Dystonia and the Use of Cannabis (letter - forum repost - 2010)

Oral THC Reduces Aggressive Behavior In Patients With Refractory Psychosis, Study Says (news - 2010)

Risk of suicide spurs rimonabant trial to end. (news – 2010)
http://www.thefreelibrary.com/Risk+of+suicide+spurs+rimonabant+trial+to+end.-a0238838571
Fake Weed, Real Drug: K2 Causing Hallucinations in Teens  (news – 2010)

Marijuana Use Associated With 'Superior' Cognitive Performance In Schizophrenic Patients, Study Says  (news – 2011)

A Brain Wrought Without Omega-3  (news – 2011)

Debunking the Myth of a Link Between Marijuana and Mental Illness  (news – 2011)
http://www.alternet.org/drugs/151776

COMT; another “wrong” result for the reefer madness hype  (news – 2011)
http://ukcia.org/wordpress/?p=924

Synthetic cannabis linked to extended psychosis  (news – 2011)

The Link Between Marijuana and Schizophrenia  (news – 2011)
http://www.time.com/time/health/article/0,8599,2005559,00.html

'Cannabis' receptor discovery may help understanding of obesity and pain  (news – 2012)

Study: Marijuana Linked to Lower Mortality Rate for Patients with Psychotic Disorders  (news – 2012)
http://www.alternet.org/newsandviews/article/936220/study%3A_marijuana_linked_to_lower_mortality_rate_for_patients_with_psychotic_disorders/

Marijuana Compound Treats Schizophrenia with Few Side Effects: Clinical Trial  (news – 2012)
http://healthland.time.com/2012/05/30/marijuana-compound-treats-schizophrenia-with-few-side-effects-clinical-trial/

Marijuana Compound May Beat Antipsychotics at Treating Schizophrenia  (news – 2012)

Cannabis-Induced Psychosis May Be in the Genes  (news – 2012)

High K2 use rate among psych unit patients  (news – 2013)

GABA deficits disturb endocannabinoid system  (news – 2013)
Cannabis psychosis admissions rose after drug reclassified to Class B (news – 2013)
http://www.guardian.co.uk/science/sifting-the-evidence/2013/jul/18/cannabis-psychosis-uk-drug-class-c

Harvard: Marijuana Doesn’t Cause Schizophrenia (news – 2013)

DR ALLAN FRANKEL’S EARLY VERSION INITIAL DOSAGE AND ADMINISTRATION GUIDE (news – 2014)

Is Medical Marijuana Destined to Become a Top Schizophrenia Treatment? (news – 2014) (requires free registration)

GW Pharmaceuticals Provides Update on Cannabinoid Pipeline (news/ad – 2014)
http://ir.gwpharm.com/releasedetail.cfm?ReleaseID=833085

Cannabis conundrum: Evidence of harm?: Opposition to marijuana use is often rooted in arguments about the drug's harm to children and adults, but the scientific evidence is seldom clear-cut (article – 2015)

Marijuana, Reconsidered: Dr. Lester Grinspoon On 45 Years Of Cannabis Science (interview – 2015)

Marijuana Could Be the Answer to Fighting These 3 Diseases (news – 2015) (may require free registration)

https://www.sciencedaily.com/releases/2015/02/150204125558.htm

Cannabinoids may be responsible for weight gain associated with schizophrenia (news – 2015)

Study finds no link between teen marijuana use, mental health issues (news – 2015)
http://www.foxnews.com/health/2015/08/04/study-finds-no-link-between-teen-marijuana-use-mental-health-issues/

Two Major Studies Blast Apart Decades of Lies About Marijuana and Teenage Brains (news – 2015)
Teen marijuana use not linked to later depression, lung cancer, other health problems, study finds (news – 2015)
http://www.sciencedaily.com/releases/2015/08/150804093718.htm

Cannabis drug shows promise in treating schizophrenia (news – 2015)
http://www.reuters.com/article/us-gw-pharma-study-idUSKCN0RF1LV20150915

Brain researcher cautions against suggestions cannabis causes schizophrenia (news – 2015)

Why THC Isn't The Only Thing In Weed That Matters (news – 2015)

Debunking the Latest Pathetic Fear Smear Campaign Against Marijuana (news – 2015)
http://www.alternet.org/drugs/debunking-latest-pathetic-fear-smear-campaign-against-marijuana

Alcohol and the teen brain: There’s evidence binge drinking is dangerous for the adolescent brain — but guess what substance gets the bad rap (news – 2015)
http://www.salon.com/2015/11/30/teens_and_binge_drinking_partner/

Cannabis drug shows promise in treating schizophrenia (news – 2015)
http://www.reuters.com/article/us-gw-pharma-study-idUSKCN0RF1LV20150915

Suppressing Schizophrenia Symptoms Without Side Effects: Mouse Study (news & abst – 2016)
http://neurosciencenews.com/schizophrenia-compound-striatum-5089/

Your genes may predict how you react to smoking weed (news – 2016)
http://mashable.com/2016/03/09/genes-predict-how-you-get-high/#15VOcjKFOaqF

A new antipsychotic mechanism of action for cannabidiol (news – 2016)

SCHINZEL-GIEDION SYNDROME- a rare congenital condition with seizures, bone and heart malformations

Pot med is life changer for tiny Sadie (news – 2015)

Medical marijuana miracle gives an infant and family a fresh start (news – 2016)
California Girl Seeking "Make-A-Wish" To Meet With Donald Trump To Advocate For Medical Marijuana (news – 2017)

**SCLERODERMA**

Cannabis May Offer Relief for Connective Tissue Disorders (news – 2014)
http://theleafonline.com/c/science/2014/05/cannabis-may-offer-relief-for-connective-tissue-disorders/

Corbus Pharmaceuticals’ Investigational Scleroderma Drug Takes Novel Approach To Treating Inflammation (news – 2016)

**SEPTIC SHOCK/ SEPSIS**

Targeting the Endocannabinoid System to Treat Sepsis (review – 2013)
http://www.signavitae.com/2013/05/targeting-the-endocannabinoid-system-to-treat-sepsis/

Study Finds Cannabis Protects Against Sepsis (news – 2013)
http://thejointblog.com/study-finds-cannabis-protects-sepsis/

**SHINGLES**

Medical marijuana for shingles (news – undated)
http://www.thetruthaboutshingles.com/2013/02/smoking-pot-no-help-for-shingles.html

Cannabis Salve for Pain- Neuropathy – Yep, I had shingles. :( (news – 2015)

Cannabis and Shingles (news – 2015)
http://www.naturesalternativepdx.com/cannabis-and-shingles/

Can you treat shingles with cannabis? (news – 2015)
Can You Treat Shingles with Cannabis?

Medical Marijuana Helps Patients with Shingles (news – 2016)
http://www.unitedpatientsgroup.com/PatientsRoom-Shingles-Documents
SICKLE CELL DISEASE

Cannabinoids Offer Novel Treatment for Pain in Sickle Cell Disease, Study Suggests (news - 2010)  

UM researcher identifies novel treatment for pain in sickle cell disease (news – 2010)  

Minnesota's New Medical Marijuana Law Blocks Research Treating Chronic Sickle Cell Pain (news – 2014)  
http://www.huffingtonpost.com/2014/06/11/minnesota-medical-marijuana_n_5485383.html

Medical marijuana could treat pain caused by sickle cell disease (news – 2014)  

Vaporized medical marijuana study given green light (news – 2014)  
http://abc7news.com/health/vaporized-medical-marijuana-study-given-green-light/261437/

The Science Behind Sanjay Gupta’s WEED 3 (news – 2015)  

http://sicklecellwarriors.com/should-you-use-marijuana-for-sickle-cell/

How Can Cannabis Help People with Sickle Cell Anemia? (news – 2016)  

SJOGREN’S SYNDROME - an immune system disorder causing pervasive dry eyes and dry mouth.

Treating Sjogren’s Syndrome with Cannabis (news – 2015)  
http://www.midwestcompassion.org/2015/05/15/treating-sjogrens-syndrome-with-cannabis/

Sjogren’s Syndrome and Medical Marijuana (news – 2017)  
SLEEP APNEA

Can cannabinoid drug used for nausea in chemotherapy relieve sleep apnea? (news – 2012)

Science/Human: THC reduces sleep apnoea in small clinical study (news – 2013)

5 Ways Marijuana Affects Your Sleep (news – 2013)
http://www.leafscience.com/2013/11/25/5-ways-marijuana-affects-sleep/

SLEEP MODULATION

How One Citizen Scientist is Taking On Parkinson’s-related Nightmares – and Winning (news – undated)
How One Citizen Scientist is Taking On Parkinson's-Related Nightmares — and Winning

Study: Smoking pot may ease chronic pain (news - 2010)

Neuromodulators for pain management in rheumatoid arthritis (abst/summary – 2012)

Marijuana Helps Ease MS Symptoms, Study Finds (news – 2012)
http://www.healthline.com/health-blogs/study-roundup/marijuana-multiple-sclerosis-101112

How Smoking Marijuana may Help Women to Fight Nasty Symptoms of Menopause? (news – 2012)

Hashing It Out In Ohio With The Martha Stewart Of Marijuana (interview – 2013)

Federal Government Reports Marijuana Effective in Combatting Certain Cancers Reports ADSI (news – 2013)

Medical marijuana helps senior sleep, contend with other problems of aging (news – 2013)
http://www.ottawacitizen.com/health/seniors/Medical+marijuana+helps+senior+sleep+contend+with+other/8439474/story.html

Poor Sleep Quality Makes It Harder To Quit Marijuana — Here’s Why (news – 2013)
SMELL / ODOR DETECTION

Drug Raids Based on "Smelling" Marijuana  (news – 2011)

In 1981 STASH cologne for men attracted women as well as police and their dogs  (news – 2013)

The Truth About Marijuana Smoke: A Smelly Study  (news/ad – 2013)

Mechanism elucidated: How smell perception influences food intake  (news – 2014)
http://www.sciencedaily.com/releases/2014/02/140210114550.htm


Why so munchy? Cannabis shown to ramp up sense of smell  (news – 2014)

Ruling: Smell of marijuana can't be only basis for searches  (news – 2015)


Passover's OK for Weed Smoking Because of Its "Healing" Scent, Says Extremely Chill Rabbi  (news – 2016)


5 Unbeatable Ways You Can Get Rid Of The Smell Of Smoke  (news – 2016)
http://herb.co/2016/06/21/smoke-out-spray/
Black drivers' cars searched more frequently on basis of drug, alcohol odor (news – 2016)
http://www.columbiamissourian.com/news/black-drivers-cars-searched-more-frequently-on-basis-of-drug/article_76c6279a-b63f-11e6-9c89-0ff7ad37d769.html

https://www.hellomd.com/health-wellness/beginner-s-guide-finding-the-right-marijuana-vaporizer

SMOKED CANNABIS AS A MEDICATION  – also see METHODS OF USE- SMOKING

Canadian Ophthalmological Society policy statement on the medical use of marijuana for glaucoma.  (article - 2010)
http://www.canadianjournalofophthalmology.ca/article/S0008-4182%2810%2980129-2/abstract

Cannabis Inhalation Associated With Spontaneous Tumor Regression  (news - 2010)

Study: Smoking pot may ease chronic pain  (news - 2010)

Smoking cannabis relieves chronic pain  (news – 2010)

Smoked cannabis reduces chronic pain  (news – 2010)
http://phys.org/news202360294.html

Marijuana better than pharmaceuticals at treating chronic pain, improving mood (news - 2010)  http://www.naturalnews.com/029662_marijuana_chronic_pain.html

Marijuana Smoking Associated with 66% Decrease in Diabetes Risk  (news – 2010)

Smoked Marijuana IS Medicine: Feds Still Distributing Rolled Joints  (news – 2011)
http://www.tokeofthetown.com/2011/12/smoked_marijuana_is_medicine_feds_still_distributing.php

Inhaled Cannabis Beneficial For Fibromyalgia Patients, Study Says  (news – 2011)
http://norml.org/news/2011/05/19/inhaled-cannabis-beneficial-for-fibromyalgia-patients-study-says

Smoked Cannabis Reduces Some Symptoms of Multiple Sclerosis  (news – 2012)

Medical Marijuana Coverage Still Lost in the Legal Weeds  (article – 2013)
Medicinal Cannabis and Painful Sensory Neuropathy  (editorial – 2013)
http://virtualmentorman.org/2013/05/oped1-1305.html

From Alive to Living: Disabilities Treated with Medical Marijuana  (news – 2013)

Study claims marijuana tied to lower bladder cancer risk  (news – 2013)

Smoking Pot Eases Tremors in Parkinson's  (news – 2013)
http://www.medpagetoday.com/MeetingCoverage/MDS/39933

The Truth About Marijuana Smoke: A Smelly Study  (news/ad – 2013)

How Smoking Marijuana Might Be The Best Way To Prevent Alzheimer’s Disease  (interview – 2014)

Inhaled Cannabis May Keep Brain Cancer in Remission  (news – 2014)

Pot Smokers Show Less Inflammation  (news – 2014)

Marijuana use associated with lower death rates in patients with traumatic brain injuries  (news – 2014)

Marijuana In A Pill? Why Patients Might Be Better Off Smoking It  (news – 2014)
http://www.leafscience.com/2014/01/19/marijuana-pill-patients-might-better-smoking/

Marijuana may slow spread of HIV  (news – 2014)
http://www.upi.com/blog/2014/02/19/Marijuana-may-slow-spread-of-HIV/4561392843139/

Cannabis effects on PTSD: Can smoking medical marijuana reduce symptoms?  (news – 2014)
http://www.sciencedaily.com/releases/2014/05/140522104850.htm

Smoking Cannabis Reduces Diabetic Neuropathy Pain  (news & abstract - 2015)

Substance abuse risk not greater in those using medical marijuana with prescribed opioids  (news – 2015)

How Medical Marijuana’s Chemicals May Protect Cells  (news – 2015)
http://www.scientificamerican.com/article/how-medical-marijuana-s-chemicals-may-protect-cells/
Whole-Plant Cannabis Use Associated with Decreased Likelihood of Developing Bladder Cancer (news – 2015)

No addled brain for experienced medical marijuana users: study (news – 2015)

Select Marijuana Users Could Be 45% Less Likely to Develop This Type of Cancer (news/ ad – 2015)

Marijuana May Help Treat, Prevent Migraines, Study Says (news – 2016)

Ex-Bear Jim McMahon: Medical marijuana got me off narcotic pain pills (news – 2016)

Should You Smoke Marijuana After a Workout? Weed May Help You Recover, Perform Better (news – 2016)

Can cousin of marijuana plant ease NFL's concussion problem? (news – 2016)

Passover's OK for Weed Smoking Because of Its "Healing" Scent, Says Extremely Chill Rabbi (news – 2016)

Science/Human: Cannabis showed beneficial effects in bipolar disorder in clinical study (news – 2016)
http://www.cannabis-med.org/english/bulletin/ww_en_db_cannabis_artikel.php?id=482#1

Most medical marijuana users benefit from treatment, finds Ben-Gurion University study (news – 2016)

Science/Human: Pre-treatment with CBD did not influence effects of smoked cannabis (news – 2016)

Cannabis Counters Migraines (new old news) (news – 2016)
http://www.beyondthc.com/cannabis-counters-migraines-another-news-flash/

Survey: NFL players say some teammates use marijuana before they play
SOCIAL ADJUSTMENT/ BEHAVIOR

Are Stoners Really Dumb, or Do They Just Think They Are?     (news – 2010)
http://healthland.time.com/2010/11/18/are-stoners-really-dumb-or-do-they-just-think-they-are/

The Kids Are All Right, Even if Their Parents Grow Pot
(news – forum repost – 2011)
https://www.medicalmarijuana.com/the-kids-are-all-right-even-if-their-parents-grow-pot/

Cannabinoid 2 receptors regulate impulsive behavior       (news – 2012)

Does Cannabis Boost Creativity?      (news – 2012)
http://www.wakingtimes.com/2012/03/14/does-cannabis-boost-creativity/

Cannabis and Creativity       (news – 2012)
https://www.psychologytoday.com/blog/psychology-masala/201204/cannabis-and-creativity

The Science Behind Cannabis and Creativity     (news – 2012)

Identity formation, marijuana and “the self”: a study of cannabis normalization among university students     (article – 2013)

This bud's for you: Marijuana identified as a buffer against loneliness, study suggests     (news – 2013)  http://o.canada.com/life/marijuana-can-act-as-buffer-against-loneliness-study-suggests/

Why "Just Say No" Doesn't Work      (news – 2013)


Marijuana Unlikely To Cause Violence, Study Finds     (news – 2013)

Marijuana Smokers Are Moral And Selfless In Romantic Relationships, Survey Suggests (news – 2014)

Marijuana Use Results in Less Domestic Violence (news – 2014)

10 percent of Americans admit to illicit drug use (news – 2014)

Research compares consequences of teen alcohol and marijuana use (news – 2014)

After California decriminalized marijuana, teen arrest, overdose and dropout rates fell (news – 2014)

Pot Is the New Normal (news – 2014)
http://time.com/3514137/marijuana-legalization-colorado-new-normal/

Harvard Potheads: Then and Now (news – 2014)
http://www.thecrimson.com/flyby/article/2014/9/12/harvard-potheads-then-and-now/

Cato Paper Highlights Marijuana Legalization’s Ho-Hum Impact in Colorado (news - 2014)

Pediatrician decides: alcohol or marijuana (news – 2015)
http://blog.sfgate.com/smellthetruth/2015/03/16/pediatrician-decides-alcohol-or-marijuana/

An Open Letter to Those Who Oppose Cannabis Clothes (news – 2015)
http://www.ladybud.com/2015/05/19/an-open-letter-to-those-who-oppose-cannabis-clothes/

Getting high in senior year: NYU study examines reasons for smoking pot (news – 2015)

http://www.huffingtonpost.com/2015/05/12/texas-marijuana-ad_n_7261626.html

Medicinal marijuana: Patients battle stigma and misunderstanding (news – 2015)
http://www.sciencedaily.com/releases/2015/08/150828113011.htm
Is Smoking Weed the Secret to a Successful Relationship? (news – 2015)  
http://ecosalon.com/is-smoking-weed-the-secret-to-a-successful-relationship/

Feeling very happy? It's in your genes (news – 2016)  
http://www.aol.co.uk/news/2016/01/15/feeling-very-happy-its-in-your-genes/

Marijuana smokers luckier in love: Survey (news – 2016)  

Match.com's Recent Survey Explores The Relationship Between Singles And Weed (news – 2016)  
http://aplus.com/a/match-survey-how-weed-affects-dating-relationships

As more states legalize marijuana, adolescents' problems with pot decline (news – 2016)  

Seeing Green: Pot Changes Brain's Response to Money (news – 2016)  

Study: Cannabis Exposure Diminishes Feelings Of Aggression (news – 2016)  

Study: Medical marijuana changes how employees use sick time (news – 2016)  

Nigeria: Inside Story of Abuja Elite Female Marijuana Smokers (news – 2016)  
http://allafrica.com/stories/201608190213.html

Study finds legalized marijuana does not affect crime or economics (news – 2016)  

DEA: 'media attention' is making it tough to put people in jail for marijuana (news – 2016)  
http://www.nola.com/articles/19800330/marijuana_pot_dea_jail.amp

5 Reasons Weed Give Us The Giggles That You Might Not Know (news – 2016)  
http://herb.co/2016/12/08/weed-give-giggles/

Cannabis Reduces Short Term Motivation to Work For Money (news – 2016)  
http://neurosciencenews.com/psychology-cannabis-work-4958/

SOCIAL MEDIA/ INTERNET

The Internet’s First Transaction Was For A Bag Of Marijuana (news – 2015)  
http://www.theweedblog.com/the-internets-first-transaction-was-for-a-bag-of-marijuana/
Pro-Marijuana ‘Tweets’ Are Sky-High on Twitter (news – 2015)
http://www.newswise.com/articles/view/628717/?sc=e22.66

Americans are searching for weed more than ever, according to Google (news – 2016)
http://www.businessinsider.com/americans-google-marijuana-2016-9

DEA: 'media attention' is making it tough to put people in jail for marijuana (news – 2016)
http://www.nola.com/articles/19800330/marijuana_pot_dea_jail.amp

Now you 'CanPay' for pot with this app (news – 2016)

Google reveals what people really think about weed (news – 2016)
http://www.businessinsider.com/weed-trends-google-2016-9/#interest-in-cannabis-is-rising-in-the-us-note-
were-looking-at-all-weed-related-searches-here-as-grouped-by-google-machine-learning-1

Cannabist surpasses High Times in unique visitors for first time, Denver Post digital growth continues (news – 2016)
shared=email&msg=fail

SPASTICITY

Smoked Cannabis Reduces Some Symptoms of Multiple Sclerosis (news – 2012)
http://health.ucsd.edu/news/releases/Pages/2012-05-14-smoked-cannabis-reduces-symptoms-of-multiple-
sclerosis.aspx

Cannabis as Painkiller (news – 2012)
http://www.sciencedaily.com/releases/2012/08/120807101232.htm

From Alive to Living: Disabilities Treated with Medical Marijuana (news – 2013)
http://thelionline.com/c/lifestyle/2013/12/from-alive-to-living-disabilities-treated-with-medical-
marijuana/


Can Medical Marijuana Treat Multiple Sclerosis? (news – 2015)
src=RSS_PUBLIC
**SPINAL CORD INJURY**

Medicinal Cannabis and Painful Sensory Neuropathy (editorial – 2013)
http://journalofethics.ama-assn.org/2013/05/oped1-1305.html

From Alive to Living: Disabilities Treated with Medical Marijuana (news – 2013)

http://www.safeaccesssnow.org/medical_cannabis_research_what_does_the_evidence_say

Illinois medical marijuana applicants trending female, older (news – 2015)

Science/Human: Inhaled cannabis reduces neuropathic pain in patients with spinal cord injury (news – 2016)
http://www.cannabis-med.org/english/bulletin/ww_en_db_cannabis_artikel.php?id=482#2

**SPLEEN**

Study Reveals Role of Spleen in Prolonged Anxiety After Stress (news – 2016)

**SPORTS** - also see EXERCISE

Broncos Linebacker Failed Two Drug Tests By Providing 'Non-Human Urine' (news – 2012)

Athletes and Pot: Legalized marijuana in a league of its own (news – 2013)

Rules change on Olympic marijuana testing (news – 2013)

UFC Raises Marijuana Testing Threshold (news – 2013)
http://www.theweedblog.com/ufc-raises-marijuana-testing-threshold/
Marijuana Bowl: Leading Up To Football's Biggest Game, The NFL May Want to Consider Legalizing Weed As Way To Treat Concussions (news – 2014)

CHART: College Lacrosse Athletes Are More Likely To Use Marijuana Than Any Other Sport (news – 2014)

Marijuana's Surprising Effects On Athletic Performance (news – 2015)

CANNABIS ISSUE COVER FEATURE: LOBEL PRIZE (news – 2015)
https://digboston.com/cannabis-issue-cover-feature-lobel-prize/

Is it time to legalize marijuana in sports? (news – 2015)

Schools employ many different ways to test for drugs (news – 2015)
http://www.abqjournal.com/625738/sports/schools-employ-many-different-ways-to-test-for-drugs.html

These ‘420 Games’ Athletes Want to Change the Perception of Weed (news – 2015)
http://time.com/3999710/weed-athletes-run/

How the High Times Bonghitters Became the Yankees of New York Media Softball (news – 2015)

No more high scores: ESL bans pot use during e-sports tournaments (news – 2015)
http://arstechnica.com/gaming/2015/08/no-more-high-scores-esl-bans-pot-use-during-esports-tournaments/

Ex-Bear Jim McMahon: Medical marijuana got me off narcotic pain pills (news – 2016)

Should You Smoke Marijuana After a Workout? Weed May Help You Recover, Perform Better (news – 2016)

Can cousin of marijuana plant ease NFL's concussion problem? (news – 2016)

These famous athletes are advocating for marijuana as a workout tool (news – 2016)
https://www.washingtonpost.com/lifestyle/wellness/these-famous-athletes-are-advocating-for-marijuana-as-a-workout-tool/2016/03/01/4611caba-da07-11e5-925f-1d10062cc82d_story.html
A runner who calls himself the 'world's fastest stoner' once passed a drug test 36 hours after smoking marijuana (news – 2016)

Skateboarding at the 2020 Olympics may have one big problem: Weed (news – 2016)

Marijuana better alternative to painkillers (news – 2016)
http://www.technicianonline.com/sports/article_3bf18c14-910e-11e6-b5ca-9f48d5c1e2e3.html

Survey: NFL players say some teammates use marijuana before they play (news – 2016)

NFL player using marijuana for Crohn's disease may press league over drug policy (news – 2016)

The Grass Is Looking Greener (news – 2016)

Why Chauncey Billups was totally cool with NBA teammates smoking weed before games (news – 2016)
http://www.thecannabist.co/2016/12/13/chauncey-billups-teammates-smoking-marijuana/69273/

The three biggest questions about how marijuana affects athletic performance (news – 2016)


NFLPA eyes 'less punitive' approach to recreational weed (news – 2017)
http://www.sportingnews.com/amp/nfl/news/nfl-marijuana-testing-policy-weed-nflpa-union-changes-demaurice-smith/1q3yk9qiy22mg1bhlo7ykt4ld

STEM CELLS

New Study: Cannabis May Grow Stem Cells, Repair Brain After Injury (news – 2013)
STIFF-PERSON SYNDROME / HYPEREKPLEXIA DISEASE


Stiff Person Syndrome (news – 2012)  (needs registration)  
http://www.inspire.com/groups/rare-disease/discussion/stiff-person-syndrome-18/

The torture of Stiff Person Syndrome (news – 2015)  

Medicinal cannabis: Towradgi's Ben Oakley supports tabling of new laws (news – 2016)  

STORAGE of CANNABIS

Storing Medical Cannabis (news – undated)  
http://www.shopharborside.com/learn/storing-medical-cannabis.html

Does Weed Go Bad? (1) (news – undated)  http://redeyesonline.net/does-weed-go-bad/

Temperature and Moisture Content for Storage Maintenance of Germination Capacity of Seeds of Industrial Hemp, Marijuana, and Ditchweed Forms of Cannabis sativa. (abst – 2012)  
http://www.agr.gc.ca/eng/abstract/?id=25355000000564

Keep Your Marijuana Fresh With This Long-Term Storage Option (news/ad – 2012)  
http://www.weedist.com/2012/07/keep-your-marijuana-fresh-with-this-long-term-storage-option/

Identifying Old or Bad Cannabis Past its Shelf Life (news – 2016)  

Does Weed Go Bad? (2) (news – 2016)  
https://www.merryjane.com/health/does-weed-go-bad

Proper Medical Cannabis Storage (news – 2016)  
http://medical-medicinals.com/storage.html

Properly Store Medical Cannabis For Safety And Freshness (news – 2016)  
https://peacenaturals.com/how-to-properly-store-medical-cannabis/
Cannabis Strains That Help With Phantom Limb Pain (chart – undated)  
https://www.leafly.com/explore/conditions-phantom-limb-pain

The Best Strains For Growing Monster Marijuana Plants (news – undated)  
http://bigbudsmag.com/the-5-best-strains-for-br-growing-monster-marijuana-plants/

What Medical Marijuana strain is best for your condition, Sativa or Indica?  
(forum repost – 2011)  

Which Medical Marijuana Strains Are The Best For Fibromyalgia? (news – 2012)  
http://www.theweedblog.com/which-medical-marijuana-strains-are-the-best-for-fibromyalgia/

How Do You Know Which Medical Marijuana Strain Is Right For You?  
(news – 2012)  
http://www.unitedpatientsgroup.com/blog/2012/01/31/how-do-you-know-which-medical-marijuana-strain-is-right-for-you/

Cannabis Strain Explorer (web page - 2012)  
http://www.leafly.com/explore

Not That High (news – 2013)  
http://www.slate.com/articles/health_and_science/science/2013/03/marijuana_potency_returning_smokers_want_mellower_pot_strains.html

CBD strains from Europe Grown Out in California (news – 2013)  

Top Five Marijuana Strains For PMS (news – 2013)  
http://www.theweedblog.com/top-five-marijuana-strains-for-pms/

A few of our favorite strains: 25 ranked reviews from our critics (news – 2014)  
http://www.thecannabist.co/2014/05/27/25-top-marijuana-favorite-strains/12408/?obref=obinsite

Federal marijuana bill would legalize some cannabis strains (news – 2014)  

Best Buds: The Top 12 Strains of 2014 (news – 2014)  

DNA Genetic’ L.A. Confidential strain used on childhood autism (news – 2014)  
http://blog.sfgate.com/smellthetruth/2014/10/30/dna-genetics-l-a-confidential-strain-used-on-childhood-autism/

Marijuana in Nepal and the Myth of Purple Haze (news – 2014)  
Monsanto Creates First Genetically Modified Strain of Marijuana (news - 2015)
http://worldnewsdailyreport.com/monsanto-creates-first-genetically-modified-strain-of-marijuana/


Is marijuana a single species?: While you’re searching for the perfect high, scientists go deeper (news – 2015)
http://www.salon.com/2015/09/28/is_marijuana_a_single_species_while_youre_searching_for_the_perfect_high_scientists_go_deeper_partner/

Finding the Right Strain of Medical Marijuana (news – 2015)

You can’t tell a pot from the label (news – 2015)
http://thechronicleherald.ca/metro/1308503-you-can%E2%80%99t-tell-a-pot-from-the-label?from=most_read&most_read=1308503&most_read_ref=%2Fnews

Customers looking for a high ask a marijuana ‘budtender’ for advice (news – 2015)

New Minnesota marijuana strain more potent, could cut costs (news – 2015)

Monsanto Creates First Genetically Modified Strain of Marijuana (news - 2015)
http://worldnewsdailyreport.com/monsanto-creates-first-genetically-modified-strain-of-marijuana/

Lady Health: Top 5 Strains to Curb Appetite (news – 2015)
http://www.ladybud.com/2015/05/12/lady-health-top-5-strains-to-curb-appetite/

Girl Scout Cookies, or California’s Most Notorious Strain of Cannabis (news – 2015)
http://gizmodo.com/girl-scout-cookies-or-californias-most-notorious-strain-1689966240

Here's The Real Difference Between Sativa & Indica Pot Strains (news – 2015)
http://www.refinery29.com/difference-between-indica-and-sativa


What are Cannabinoids? (news – 2015)
https://www.whaxy.com/learn/what-are-cannabinoids?utm_source=mantis&utm_medium=recommend&utm_campaign=mantis&utmuuid=622a55f7XXX8b3dXX X4f96XXX8217XXX5ce33cbb24b8

Cannabigerol (CBG): The Traffic Cop of Cannabinoids (news – 2015)

90% Of Cannabis Patients Find Pain Relief With Any Marijuana Strain  
(news – 2016) http://www.theimpactnetwork.org/cannabis-research-illinois/

Cannabis strains today much stronger than your parents’ pot  

Grow Your Own Medicine: Strain Advice from Industry Professional Edward Clarizio  

What Makes Each Marijuana Strain Unique?  

Cannabis Sativa, Inc. Awarded Patent for "Ecuadorian Sativa" Cannabis Plant  

Cannabis: Israel's next big medical export?  

Time To Put ‘Skunk’ Out Of Business  
(news – 2016) http://volteface.me/features/skunk-out-of-business/

Like Fine Wine, Pot Smoking Destinations Will Promote Appellations  

Why Colorado Tokers Love White 99  

CBD can protect marijuana users from getting too stoned. Here’s how  

STRESS - also see ANXIETY, POST TRAUMATIC STRESS DISORDER

Echinacea makes you carefree  
Receptors triggered by pot may lessen hit from chronic stress  (news – 2010)  

New Findings on How the Brain’s Own Marijuana-Like Chemicals Suppress Pain  
(news – 2011)  

Why resolutions about taking up physical activity are hard to keep.  (news – 2013)  
http://www.thefreelibrary.com/Why+resolutions+about+taking+up+physical+activity+are+hard+to+keep.-a0313904638

Marijuana Protects Brain From Chronic Stress, Study Finds  (news – 2013)  

Marijuana's anxiety relief effects: Receptors found in emotional hub of brain  
(news – 2014)  
http://www.sciencedaily.com/releases/2014/03/140306142803.htm

Health Benefits Of Medical Marijuana: 3 Major Ways Cannabis Helps Sick People Live Normal Lives  
(news – 2014)  

4 Mind Blowing Ways Cannabis Can Help Your Brain  
(News – 2014)  
https://www.medicaljane.com/2014/12/14/4-mind-blowing-ways-marijuana-can-help-your-brain/

Marijuana Is Effective In Treating Depression -- Latest Study  
(news – 2015)  
http://au.ibtimes.com/marijuana-effective-treating-depression-latest-study-1419071

Here's What Marijuana Does to Your Stress  
(news – 2015)  
http://www.attn.com/stories/855/marijuana-depression-research-mental-health

Is Anxiety Genetic?  
(news – 2015)  
http://www.quickanddirtytips.com/education/science/is-anxiety-genetic

This Is What Happens to Your Beauty on Marijuana  
(news – 2016)  
https://www.yahoo.com/beauty/this-is-what-happens-to-1411025717600310.html

Exercise Can Still Increase Hunger Even in Sleep Deprivation  
(news – 2016)  

Marijuana Dependence Influenced by Genes, Childhood Sexual Abuse  
(news – 2016)  
http://www.newswise.com/articles/view/643766/?sc=rsmn

Study Reveals Role of Spleen in Prolonged Anxiety After Stress  
(news – 2016)  
**STROKE** - also see PERINATAL HYPOXIC-ISCHEMIC INJURY

“A Marijuana Bud a Day Keeps the Stroke Away” (news – 2012)
http://www.tokeofthetown.com/2012/04/a_marijuana_bud_a_day_keeps_the_stroke_away.php

Activation of cortical type 2 cannabinoid receptors ameliorates ischemic brain injury (news – 2013) http://www.sciencedaily.com/releases/2013/02/130222141140.htm

Cannabinoid Trans-Caryophyllene Protects Brain Cells From Ischemia (news – 2013)
http://www.medicalnewstoday.com/articles/256799.php

Cannabis compounds may limit stroke damage (news – 2013)

Smoking "spice" associated with stroke in healthy, young adults (news – 2013)
http://www.medicalnewstoday.com/releases/269132.php

Science/Human: Cannabis use was associated with improved outcome after bleeding in the brain (news – 2016)

Cannabinoids May Enhance Motor Function Recovery Following a Stroke [Study] (news – 2016)
https://www.theweedblog.com/cannabinoids-enhance-motor-function-recovery-stroke-study/

**STUTTERING**

Marihuana and Stuttering (anecdotal – undated)
http://rxmarijuana.com/shared_comments/stuttering.htm

Stuttering, Pain and Battle Fatigue Part 1 (news – 2011)

Stuttering, Pain and Battle Fatigue Part 2 (news – 2011)

**SUICIDE**

Suicides in other trials led to early termination of trial into effects of weight loss drug rimonabant on cardiovascular outcomes (CRESCENDO study) (news – 2010)
Risk of suicide spurs rimonabant trial to end.  (news – 2010)
http://www.thefreelibrary.com/Risk+of+suicide+spurs+rimonabant+trial+to+end.-a0238838571

Medical Marijuana May Prevent Suicides, Study Finds  (news – 2013)

Medical Marijuana Cuts Suicide Rates By 10% In Years Following Legalization  (news – 2014)
http://www.medicaldaily.com/medical-marijuana-cuts-suicide-rates-10-years-following-legalization-268472

After California decriminalized marijuana, teen arrest, overdose and dropout rates fell  (news – 2014)

Dose of Reality: The Effect of State Marijuana Legalizations  (report – 2016)

Veterans’ cry: ‘I found marijuana, and it saved me’  (news – 2016)

SYSTEMIC MASTOCYTOSIS

Systemic mastocytosis and medical marijuana  (case report- undated)
http://cannabisclinicians.org/view-all-case-reports/entry/645/

TASTE - also see APPETITE

Endocannabinoid Modulation Of Tongue Sweet Taste Receptors May Help Control Feeding Behavior  (news – 2010)
http://www.medicalnewstoday.com/releases/174683.php

Sweet taste and (AAT)12 repeat in the cannabinoid receptor gene in obese females  (letter – 2011)

Ingredient in cannabis restores taste for cancer patients  (news – 2011)

Cannabis Ingredient Can Help Cancer Patients Regain Their Appetites and Sense of Taste, Study Finds  (news – 2011)
http://www.sciencedaily.com/releases/2011/02/110222192830.htm
Why smoking pot makes food taste so delicious (news – 2016)

TAXONOMY/ GENETICS OF CANNABIS

The cannabis genome: How hemp got high (news – 2011)

Genome of Marijuana Sequenced and Published (news – 2011)

“Skunk” is not “genetically engineered” (news – 2011)
http://ukcia.org/wordpress/?p=697

Medicinal Genomics Sequences the Cannabis Genome to Assemble the Largest Known Gene Collection of this Therapeutic Plant. (news – 2011)
http://www.thefreelibrary.com/Medicinal+Genomics+Sequences+the+Cannabis+Genome+to+Assemble+the+Largest+Known+Gene+Collection+of+this+Therapeutic+Plant.-a0264585240

Hemp Biology - Industrial Hemp vs. Marijuana (article – 2012)


Cannabis Genome Uncloaked: Commentary on the Scientific Implications (article – 2012) http://www.icrs.co/content/Cannabis_Genome_Uncloaked.pdf

Researchers identify cannabinoid-making pathway (news – 2012)

Development Of Marijuana Varieties To Produce Pharmaceuticals (news – 2012)
http://www.medicalnewstoday.com/releases/247908.php

What You Need to Know about Growing CBD-rich Cannabis from Seed (news/ad – 2012)
http://pureanalytics.net/blog/2012/03/12/what-you-need-to-know-about-growing-cbd-rich-cannabis-from-seed/

Scientists Make Breakthrough In Genetic Screening For Cannabis (news – 2014)
http://www.leafscience.com/2014/03/06/scientists-make-breakthrough-genetic-screening-cannabis/

Uruguay to track pot by genetic markers (news – 2014)
http://news.yahoo.com/uruguay-track-pot-genetic-markers-182507433.html;_ylt=AwrSyCWECTZTYUMAXgvOtDMD

Monsanto plans to patent genetically modified marijuana in Uruguay
Biohackers Are Engineering Yeast to Make THC (news - 2014)
http://motherboard.vice.com/read/biohackers-are-engineering-yeast-to-make-the

DNA Genetic’ L.A. Confidential strain used on childhood autism (news – 2014)
http://blog.sfgate.com/smellthetruth/2014/10/30/dna-genetics-l-a-confidential-strain-used-on-childhood-autism/

Potency 101 (printable card set – 2015)
http://greenstyleconsulting.com/potency-101/

Tyler Markwart: The Case For GMO Cannabis (interview – 2015)
http://www.ganjapreneur.com/tyler-markwart-gmo-marijuana/

What are ‘feminized’ marijuana seeds? (news - 2015)
http://blog.sfgate.com/smellthetruth/2015/01/28/what-are-feminized-marijuana-seeds/

Science Seeks to Unlock Marijuana’s Secrets (news – 2015) (may need subscription)
http://ngm.nationalgeographic.com/2015/06/marijuana/sides-text

Monsanto Creates First Genetically Modified Strain of Marijuana (news - 2015)
http://worldnewsdailyreport.com/monsanto-creates-first-genetically-modified-strain-of-marijuana/


U of M study explains why hemp and marijuana are different (news – 2015)

Mexico Police Bust Greenhouses With Genetically Modified Pot (news – 2015)

You can’t tell a pot from the label (news – 2015)
http://thechronicleherald.ca/metro/1308503-you-can%E2%80%99t-tell-a-pot-from-the-label?from=most_read&most_read=1308503&most_read_ref=%2Fnews


Is marijuana a single species?: While you’re searching for the perfect high, scientists go deeper (news – 2015)
http://www.salon.com/2015/09/28/is_marijuana_a_single_species_while_youre_searching_for_the_perfect_high_science/article/


TEETH/ DENTISTRY


Marijuana Use Linked to Increased Gum Disease Risk (news – 2016) https://www.perio.org/consumer/marijuana-use

THYROID FUNCTION


TIETZE'S SYNDROME – an inflammation of the chest cartilage


**TIME PERCEPTION**


Marijuana and the slowdown of time perception  (news – 2013)


**TOBACCO and CANNABIS/ NICOTINE**

Differences Between Smoking Cigarettes & Marijuana  (news – 2011)

Marijuana Smoke Not as Damaging as Tobacco, Says Study  (news - 2012)

Long-Term Cannabis Use Is Associated With Better Health Than Long-Term Tobacco use  (news – 2013)
http://hemptedification.blogspot.com/2013_04_01_archive.html

Study: Cannabis Compound Reduces Cigarette Consumption In Tobacco Smokers  (news – 2013)

Can Marijuana Help You Quit Cigarettes? Study Says Yes  (news – 2013)
http://www.leafscience.com/2013/11/01/can-marijuana-help-quit-cigarettes-study-says-yes/

Pot-smoking students better at school than 'marginalized' tobacco-smoking peers  (news – 2014)
http://www.ctvnews.ca/health/pot-smoking-students-better-at-school-than-marginalized-tobacco-smoking-peers-1.1745098#ixzz2x6lq4iMv

Is marijuana the future of Big Tobacco?  (news – 2014)
http://news.yahoo.com/marijuana-future-big-tobacco-063600237.html_vfl=AwrSyCOiNCdTfUiAokzQfTDMD
Does Legal Marijuana Help or Hurt the U.S. Health Care System? (news – 2014)  

Nicotine Changes Marijuana’s Effect on the Brain (news & abstract - 2015)  

Setting The Record Straight On The Phrase “Gateway Drug” (news – 2015)  

Drug warriors are still crying 'reefer madness.' The facts don't support them (news – 2015)  

UCLA Professor Finds Marijuana Is Safer to Smoke Than Tobacco (news – 2015)  

More Young People Want Cannabis To Be Legal Than Tobacco (news – 2015)  
http://www.huffingtonpost.co.uk/2015/07/06/survey-states-young-people-want-cannabis-legal-over-tobacco_n_7736450.html?utm_hp_ref=uk&ir=UK

Marijuana brain study offers new substance by including nicotine use (news – 2015)  

Marijuana Shown to Be Less Damaging to Lungs Than Tobacco (news – 2015)  
http://www.ucsf.edu/news/2012/01/11282/marijuana-shown-be-less-damaging-lungs-tobacco

College Kids Now Prefer ‘Funny’ Cigarettes (news – 2015)  

Is Smoking Kosher for Passover — and What About Pot? (news – 2015)  

Decreasing Nicotine Consumption by Flipping a Molecular ‘Switch’ (news & abst – 2016)  
http://neurosciencenews.com/nicotine-consumption-genetics-3425/

The real ‘gateway drug’ is 100% legal (news – 2016)  

Cannabis ‘doesn’t lower IQ or school grades’ – but smoking tobacco does (news – 2016)  
http://metro.co.uk/2016/01/12/cannabis-doesnt-lower-iq-or-school-grades-but-smoking-tobacco-does-5617875/#ixzz3xf2XAoDW

Which Is Worse For You – Marijuana Smoke Or Tobacco Smoke? (news – 2016)  
http://www.theweeklyweedonline.com/which-is-worse-for-you-marijuana-smoke-or-tobacco-smoke/

Combination of marijuana and tobacco in pregnancy may compound risks
Mixing pot and tobacco increases dependence risk

Using Pot While Pregnant Not Tied to Birth Risks

Is marijuana a gateway drug? Scientific research says no
http://www.devilslakejournal.com/news/20161103/is-marijuana-gateway-drug-scientific-research-says-no

Teens Now Associate ‘Smoking’ With Marijuana, Not Cigarettes
http://nymag.com/thecut/2016/12/more-teens-smoke-marijuana-than-cigarettes-or-e-cigs.html?
mid=twitter_cut

Spliffs Are Poison, Destroy Lungs
https://www.greenrushedaily.com/2016/01/12/spliffs-poison-destroy-lungs/

The Shocking Differences Between Cannabis and Tobacco Smoke
https://www.greenrushedaily.com/2016/01/10/differences-cannabis-tobacco-smoke/

http://www.weedist.com/2012/07/marijuana-tolerance-break/

Marijuana Tolerance Breaks” 5 Ways to Pass the Time With Ease and in Better Health (news – 2013)

Estrogen increases cannabis sensitivity (news – 2014)

Females Build Up Tolerance To Marijuana Faster Than Males, Study Finds (news – 2014)
http://www.huffingtonpost.com/2014/09/10/females-tolerance-marijuana_n_5784022.html

http://www.theweedblog.com/what-is-a-marijuana-tolerance-break-and-should-you-take-one/

Medical pot doesn’t lead to impaired driving (news – 2015)
http://www.abqjournal.com/524770/opinion/medical-pot-doesnt-lead-to-impaired-driving.html

TOURETTE'S SYNDROME

Science: Cannabis effective in the treatment of TOURETTE Syndrome and attention deficit hyperactivity disorder (ADHD) (news – 2010)

A New Use for Medical Marijuana? (news – 2010)

Cannabinoids improve driving ability in a Tourette's patient. (news – 2011)

Still Believe Nature Got It Wrong? Top 10 Health Benefits of Marijuana (news – 2013)
http://www.wakingtimes.com/2013/05/01/still-believe-nature-got-it-wrong-top-10-health-benefits-of-marijuana/

What ailments does medical marijuana help? (news – 2015)

TRICHOTILLOMANIA - compulsive hair pulling – also see OBSESSIVE-COMPULSIVE DISORDER

Science: THC effective in trichotillomania symptoms in a pilot study (news – 2011)

I Have Trichotillomania (anecdotal – 2012)
http://www.experienceproject.com/stories/Have-Trichotillomania/2673008

Medical Marijuana and Trichotillomania (news – 2013)
https://www.marijuanadoctors.com/content/ailments/view/138? ailment=trichotillomania

TUBEROUS SCLEROSIS - a genetic disease causing non-malignant tumors in the brain and other organs, and retardation - also see AUTISM, EPILEPSY
Marijuana, autism, and failure: a true story (news – 2010)
http://www.alexneedshelp.com/marijuana-autism-and-failure-a-true-story#_VOBDOC74Y5w

‘It’s the one medicine we have seen work’: Oregon parents use medical marijuana to help severely autistic son (news – 2013)

Perth mum uses hemp oil medicinal cannabis to treat daughter with rare disease (news – 2013)

GW Pharma's cannabis drug gets orphan drug status (news/ad – 2016)

VETERINARY USE/ANIMALS

BIRDS

Michel Rouyer, French Farmer, Fined After Feeding Ducks Marijuana (news - 2010)
http://www.huffingtonpost.com/2010/11/22/michel-rouyer-french-farm_n_786973.html#comments

New Study: Putting Chickens On Hemp Diet Increases Health Of Their Eggs (news - 2013)

10 Birds That Love To Eat Hemp Seeds (news - 2014)
http://www.hamiltonmediaarts.org/10-birds-that-love-to-eat-hemp-seeds/

Feed The Birds Hempseed – an interview with Finn Hemingway (news - 2014)

CATS

How CBD Oil Changed Everything for a Dying Cat (news – 2015)

Can Medical Marijuana Help Cats? (news – 2015)

DEER

Deer devour hemp crops at southern Oregon farm (news – 2015) 

DOGS

Seattle company to market medical marijuana patch to control pain in dogs, horses (news – 2011) 

Report: Drug-Sniffing Dogs Are Wrong More Often Than Right (news – 2011) 

Vets see more dogs snarfing humans’ medical pot (news – 2011) 
http://www.durangoherald.com/article/20111218/NEWS01/712189903/Vets-see-more-dogs-snarfing-humans%E2%80%99-medical-pot

Tribune analysis: Drug-sniffing dogs in traffic stops often wrong (news – 2011) 

Toxicities from Illicit and Abused Drugs (dogs) (article – 2012) 
http://www.merckmanuals.com/vet/toxicology/toxicities_from_human_drugs/toxicities_from_illicit_and_abused_drugs.html

Do You Think Medical Marijuana Should Be Legalized for Dogs? (news – 2013) 
http://www.dogster.com/lifestyle/medical-marijuana-for-dogs

Do Dogs Get Runner's High? (news – 2013) 


Medical Marijuana for Dogs? Vet Says it Could Help Some Pets Cope with Pain and Serious Illness (news – 2013) 

Marijuana cookies for ailing dogs (news – 2015)

How Medical Marijuana Saved A Dog’s Life (news – 2015)

http://www.buzzfeed.com/alexlee/politicians-claim-the-drug-dogs-dont-work#cjR4elN5e

Pot detecting drug dogs post legalization They will still have a job to do (news – 2015)
http://article.wn.com/view/2015/06/05/Pot_detecting_drug_dogs_post_legalization_They_will_still_ha/

Berkeley pet owners claim pot-based dog treats cure pets of ailments (news – 2015)

Could medical marijuana help your dog? (news – 2015)

British drug sniffing dogs are great at finding sausages, but not drugs (news – 2016)


Case of the munchies: Ag department cracks down on hemp-filled dog treats (news – 2016)

Pot, dogs and fireworks: Is doggie 'pot' the answer to calming dogs this Fourth of July? (news – 2016)

Minnesota doctor pushing the notion of cannabis for canines (news – 2016)

Pets on Pot: Cannabis for animals takes off in California (news – 2016)
http://www.pasadenastarnews.com/general-news/20161123/pets-on-pot-cannabis-for-animals-takes-off-in-california

Pet owners try cannabis edibles, tinctures to ease animal anxiety, arthritis and more (news – 2016)
INSECTS/ SPIDERS

What Does Marijuana Do to Spiders? (news – 2013)

Honey bees might be trained to replace drug-sniffing dogs (news – 2015)
http://metro.co.uk/2015/06/27/honey-bees-might-be-trained-to_replace-drug_sniffing_dogs-5269141/#ixzz3eHib43QZ

Man Trains Bees to Make Honey From Marijuana (news – 2016)
http://countercurrentnews.com/2016/03/man-trains-bees-to-make-honey-from-herb/


OTHER MAMMALS

Seattle company to market medical marijuana patch to control pain in dogs, horses (news – 2011)

London Zoo: No runner’s high for ferrets (news – 2013)

'Stoner Mice' Eat Marijuana Evidence At Kansas Police Storage Facility (news – 2013)
http://www.huffingtonpost.com/2013/01/25/stoner-mice-eat-marijuana_n_2552594.html

Marijuana waste helps turn pot-eating pigs into tasty pork roast (news – 2013)
http://www.reuters.com/article/2013/05/20/us-usa-marijuana-pigs-idUSBRE94J0PL20130520

Half-baked hog farm busted (news – 2014)
http://www.phnompenhpost.com/national/half-baked-hog-farm-busted

http://www.bohemian.com/northbay/grass-fed/Content?oid=2966332

RABBITS

Drugs plot raid reveals old woman feeding rabbits with cannabis (news – 2011)
http://www.thelocal.de/20110625/35889
DEA warns of stoned rabbits if Utah passes medical marijuana  (news – 2015)  

From Stoned Bunnies to Cannabis-Based Pet Care: What's the Effect of Pot on Animals?  (news – 2015)  

**REPTILES**

Man who smoked pot with chameleon is cleared of animal cruelty  (news – 2015)  

**SHEEP**

Stoned sheep cause mayhem after eating cannabis plants  (news – 2016)  

'Stoned' sheep go on 'psychotic rampage' after eating cannabis plants dumped in Welsh village  (news – 2016)  

**VARIOUS ANIMALS**

People Using Medical Marijuana for Their Pets  (news – 2013)  
http://www.opposingviews.com/i/society/animal-rights/people-using-medical-marijuana-their-pets


Nevada Law Would Make 'Pot for Pets' Legal  (news – 2015)  

Warning Letters and Test Results  (news – 2015)  
http://www.fda.gov/NewsEvents/WarningLettersAndTestResults/ucm3973849.htm

Vet says pet pot could fix one of most common owner complaints  (news – 2015)  
VIOLENCE / AGGRESSION

Oral THC Reduces Aggressive Behavior In Patients With Refractory Psychosis, Study Says (news - 2010)

Marijuana Unlikely To Cause Violence, Study Finds (news – 2013)

Marijuana Arrests Now Exceed Arrests For Violent Crime (news – 2013)
http://www.huffingtonpost.com/2013/01/17/marijuana-possession-arrests_n_2490340.html


Marijuana Use Results in Less Domestic Violence (news – 2014)

Legalising Marijuana 'Reduces Murder and Assault Rates' (news - 2014)

No correlation between medical marijuana legalization, crime increase: Legalization may reduce homicide, assault rates (news – 2014)
http://www.sciencedaily.com/releases/2014/03/140326182049.htm

Pity the Poor Stormtroopers: Baby Bou-Bou Ambushed Them (Updated, May 21) (news – 2015)
http://freedominourtime.blogspot.com/2015/05/pity-poor-stormtroopers-baby-bou-bou.html

Study: Cannabis Exposure Diminishes Feelings Of Aggression (news – 2016)

Do Not Resist: new film shows how US police have become an occupying army
I made my son cannabis cookies. They changed his life.  
https://www.washingtonpost.com/opinions/i-made-my-son-cannabis-cookies-they-changed-his-life/2017/01/06/699b1d20-d1ef-11e6-a783-cd3fa950f2fd_story.html?utm_term=.dd6a6531b7b2

**VISION** - also see GLAUCOMA, RETINITIS PIGMENTOSA

Marijuana May Prevent Blindness In Retinitis Pigmentosa Sufferers  
http://www.huffingtonpost.com/2014/02/21/marijuana-blindness-prevent-study-retinitis-pigmentosis_n_4833183.html

Marijuana’s role in optometry and beyond  

Marijuana influences visual development  

Babies Exposed to Cannabis in the Womb Have Better Vision by Age 4, Finds New Study  
http://thejointblog.com/babies-exposed-to-cannabis-in-the-womb-have-better-vision-by-age-4-finds-new-study/

Researchers show how cannabinoids affect vision  

Researchers find new role for cannabinoids in vision  

Study suggests marijuana improves your night vision  

A New Role For Cannabinoids in Vision  
http://neurosciencenews.com/vision-cannabinoids-neuroscience-4906/

**WAR ON DRUGS / LEGALIZATION**

VICTOR LICATA : A RUSH TO JUDGEMENT  
http://reefermadnessmuseum.org/VictorLicata/Chap00_Index.htm

Drug War Victims  
http://www.drugwarrant.com/articles/drug-war-victim/
Medical Marijuana - Medical Organizations Endorsing Marijuana
(news – undated) http://www.perkel.com/politics/issues/endorse.htm

THE LEGEND OF THE HOT TAMALE PEDDLER: What the Newspapers were saying:

The Budgetary Impact of Ending Drug Prohibition (news - link to PDF- 2010)

The State of Clinical Cannabis Research in the United States (article – 2010)
http://cms.herbalgram.org/herbalgram/issue85/article3485.html?ts=1468715296&signature=a485072466786218574b7813654eb818

Smoked Marijuana IS Medicine: Feds Still Distributing Rolled Joints (news – 2011)
http://www.tokeofthetown.com/2011/12/smoked_marijuana_is_medicine_feds_still_distributing.php

Police Harass Federal Medical Marijuana Patient Elvy Musikka (news – 2011)

Tribune analysis: Drug-sniffing dogs in traffic stops often wrong (news – 2011)

THC blood test: Pot critic William Breathes nearly 3 times over proposed limit when sober (news – 2011)

Go to Trial: Crash the Justice System (news – 2012)

Important Facts About Marijuana Legalization (news – 2012)
http://www.huffingtonpost.com/2012/07/12/facts-about-marijuana-legalization_n_1660361.html

Mexican Drug Smugglers Are Launching Pot Into The U.S. With A Huge Pneumatic Cannon (news – 2012)

Cannabis most widely used drug on Earth (news – 2012)

Ten worst sentences for marijuana-related crimes (news – 2012)
http://www.salon.com/2012/10/29/ten_worst_sentences_for_marijuana_related_crimes/

Do Harsh Pot Laws Create a Dangerous Drinking Culture? 5 Reasons to Get Stoned Instead of Drunk (news – 2012)
Don’t Eat Daddy’s Cookies: How to Talk to Your Kids About Pot  (news – 2012)
http://healthland.time.com/2012/12/13/dont-eat-daddys-cookies-how-to-talk-to-your-kids-about-pot/#ixzz21Y4CrXZ3

The War on Marijuana in Black and White  (full – 2013)


(Re)introducing medicinal cannabis  (article – 2013)

While Arresting Thousands Of Pot Smokers Daily, Feds Supply 4 Patients With Legal Marijuana  (news – 2013)

Marijuana Arrests Now Exceed Arrests For Violent Crime  (news – 2013)
http://www.huffingtonpost.com/2013/01/17/marijuana-possession-arrests_n_2490340.html

Former Supreme Court justice blasts minimum sentences for marijuana offenders.  (article - 2012)  http://www.cmaj.ca/content/184/8/E391

Adequate and Well-Controlled Studies Proving Medical Efficacy of Cannabis Exist but Are Ignored by Marijuana Schedulers  (news – 2013)
http://www.huffingtonpost.com/sunil-kumar-aggarwal/marijuana-schedule-1_b_3071725.html

Hemp Could Free Us From Oil, Prevent Deforestation, Cure Cancer and It’s Environmentally Friendly – So Why Is It Illegal?  (news – 2013)


Police Made One Marijuana Arrest Every 42 Seconds in 2012  (news – 2013)

Grand Rapids marijuana decriminalization: No spike in cases  (news – 2013)

Few Problems With Cannabis for California  (news – 2013)


Marijuana Use Increased Over the Last Decade (news – 2013) http://www.pewresearch.org/daily-number/marijuana-use-increased-over-the-last-decade/


5 Biggest Lies from Anti-Pot Propagandist Kevin Sabet (news – 2013) http://www.alternet.org/drugs/5-biggest-lies-anti-pot-propagandist-kevin-sabet?page=0%2C0


Marijuana Prohibition Now Costs The Government $20 Billion A Year: Economist
The DEA: Four Decades of Impeding And Rejecting Science        (full – 2014)
http://www.drugpolicy.org/sites/default/files/DPA-MAPS_DEA_Science_Final.pdf

Medical Marijuana in the UK: As a doctor, should I be able to prescribe cannabis to my patients?              (article – 2014)
http://www.independent.co.uk/voices/medical-marijuana-in-the-uk-as-a-doctor-should-i-be-able-to-prescribe-cannabis-to-my-patients-9791583.html

Marijuana Resource Center: State Laws Related to Marijuana   (article – 2014)
http://www.whitehouse.gov/ondcp/state-laws-related-to-marijuana

Medical marijuana: 4 experts on benefits vs. risks (article – 2014)
https://www.elsevier.com/connect/medical-marijuana-4-experts-on-benefits-vs-risks

A Review and Critique of Dr. Sanjay Gupta's Weed 2: Cannabis Madness on CNN (article – 2014)
http://cms.herbalgram.org/heg/volume11/04April/CNNGupataWEED2critique.html

New study casts doubts on effectiveness of drug testing students     (news – 2014)
http://www.csmonitor.com/USA/USA-Update/2014/0113/New-study-casts-doubts-on-effectiveness-of-drug-testing-students

Why Legalizing Marijuana Is a Smart Fiscal Move        (news – 2014)

Hemp growing going legit after decades-long ban     (news – 2014)

Can Legalizing Marijuana Help Appalachia?                 (news – 2014)
https://www.mainstreet.com/article/can-legalizing-marijuana-help-appalachia

The federal catch-22 of cannabis and banking (news – 2014)

Obama Confused About Power to Reschedule Pot, Advocates Say (news – 2014)

A Marijuana Economy Primer: Reefer Briefer       (news – 2014)

Marijuana Legalization Progress: Members of Congress Call on President Obama to Use His Authority to Reclassify Marijuana    (news – 2014)
Marijuana’s rising acceptance comes after many failures. Is it now legalization’s time? (news – 2014)

America's Best Cities for Stoners (news – 2014)

'I'm Going To Prison For Working At A Pot Shop That Was Legal In My State' (news – 2014)
http://www.huffingtonpost.com/2014/03/03/robert-duncan-marijuana_n_4877072.html?ncid=txtlnksusap00000592

Like, wow: Police chief is hoaxed on pot perils (news – 2014)

State Accidentally Releases Confidential Law Enforcement Info To Marijuana Activist (news – 2014)

Is marijuana the future of Big Tobacco? (news – 2014)
http://news.yahoo.com/marijuana-future-big-tobacco-063600237.html;_ylt=AwrSyCOiNCdtUlAokzQtDMD

If You're Black and in Love With Mary Jane, You're 3.67 Times More Likely to Be Arrested (news – 2014)

Federal red tape ties up marijuana research (news - 2014)
http://www.nature.com/news/federal-red-tape-ties-up-marijuana-research-1.14926

Legalising Marijuana 'Reduces Murder and Assault Rates' (news - 2014)

Non-psychoactive CBD oil made from marijuana plants poised to be game-changer (news - 2014)

Grand Closing: America’s Pot Farmers Are Putting Mexican Cartels Out of Business (news – 2014)

[Infographic] Marijuana’s Effect on Denver Tourism; Hotel Searches Up 25% in 3 Months & 73% During 4/20 Weekend (news – 2014)

Where you’re most likely to get arrested for marijuana and DUI, in 2 maps
Doing the Math on the Drug War (news – 2014)
https://www.mainstreet.com/article/doing-math-drug-war

Study: Students better off saying 'no' to pot jobs (news – 2014)


Mississippi, home to federal government's official stash of marijuana (news – 2014)

Changing pot laws prompt child-endangerment review (news – 2014)

The Impact of Recreational Marijuana Use on a Denver Neighborhood (news – 2014)
https://www.mainstreet.com/article/impact-recreational-marijuana-use-denver-neighborhood

Let’s Clarify the State Laws on Cannabis: Who’s in, Who’s Out? (news - 2014)
http://www.unitedpatientsgroup.com/blog/2014/07/10/which-states-have-legal-marijuana-heres-the-latest/

Getting High: Public Opinion on Marijuana Legalization in 4 Charts (news - 2014)

5 things to know about drug laws, prison sentences (news - 2014)

Seattle police: Homeless arrested most for pot (news - 2014)

How legalizing marijuana on Indian reservations could end the prohibition on pot (news – 2014)

Repeal Prohibition, Again (news – 2014)

Medical Marijuana Legalization: Pro-Pot Laws Do Not Lead To More Drug Use Among Teens, Study Finds (news – 2014)

National Marijuana Legalization: How Much Tax Revenue Could It Bring In?
The White House is spending billions to combat drugs. But drug use keeps rising.  
(http://www.washingtonpost.com/blogs/wonkblog/wp/2014/08/29/the-white-house-is-spending-billions-to-combat-drugs-but-drug-use-keeps-rising/)

Why marijuana's moment has arrived  

No correlation between medical marijuana legalization, crime increase: Legalization may reduce homicide, assault rates  
(http://www.sciencedaily.com/releases/2014/03/140326182049.htm)

Medical Marijuana's Legalization and Crime Rates  

Testing of Colorado marijuana for contaminants to begin this year  
(http://gazette.com/testing-of-pot-for-contaminants-to-begin-this-year/article/1536213)

Life In Prison For Pot And Other Travesties Of Marijuana Prohibition  

10 percent of Americans admit to illicit drug use  

Marijuana Taxes Are Upheld, But Paying Them Could Incriminate You  

Colorado Court to Decide Whether Smoking Pot is a Fireable Offense  
(http://time.com/3449214/colorado-pot-supreme-court-marijuana/)

After California decriminalized marijuana, teen arrest, overdose and dropout rates fell  

Pot Is the New Normal  
(http://time.com/3514137/marijuana-legalization-colorado-new-normal/)

No link between tough penalties and drug use – report  
(http://www.bbc.com/news/uk-29824764)

The Secret History of Cannabis in Japan  

More than zero: reclassifying marijuana could have a significant impact on drug policy. (news - 2014)
http://www.forbes.com/sites/jacobssullum/2014/02/07/more-than-zero-reclassifying-marijuana-would-have-a-significant-impact-on-drug-policy/

FDA to evaluate marijuana for potential reclassification as less dangerous drug (news – 2014)
http://www.huffingtonpost.com/2014/06/24/fda-marijuana_n_5526634.html

FBI director: Zero tolerance pot policy kills our ability to hire cyber war programmers. Updated (news - 2014)
http://www.dailykos.com/story/2014/05/21/1301070/-FBI-director-Zero-tolerance-pot-policy-kills-our-ability-to-hire-cyber-war-programmers

Why Is Legal Marijuana So Expensive In Colorado? (news – 2014)

Weed’s Chronic Energy Use Becomes a Concern (news – 2014)


Study: Marijuana legalization doesn’t increase crime (news – 2014)
http://www.msnbc.com/all/does-marijuana-lower-the-crime-rate

The Real Reason Pot Is Still Illegal (news – 2014)
https://www.thenation.com/article/anti-pot-lobbys-big-bankroll/

Brazil Considering Medical Marijuana Legalization (news – 2014)

Considering Marijuana Legalization (free e-book- link to download – 2015)
http://www.rand.org/pubs/research_reports/RR864.html

Ending the U.S. government’s war on medical marijuana research (report – 2015)
https://www.brookings.edu/research/ending-the-u-s-governments-war-on-medical-marijuana-research/

Cannabis, Medical Science, and Fundamental Human Rights, With Dr. Ethan Russo (article – 2015)
Veterans Health Administration Policy on Cannabis as an Adjunct to Pain Treatment with Opiates  (article – 2015)  http://journalofethics.ama-assn.org/2015/06/pfor2-1506.html

Marijuana gears up for production high in US labs  (article – 2015)  http://www.nature.com/news/marijuana-gears-up-for-production-high-in-us-labs-1.17129

Marijuana Research with Human Subjects  (article – 2015)  http://www.fda.gov/newsevents/publichealthfocus/ucm421173.htm


Inside the first ‘Marijuana of the Month” club shipment from Marvina (news – 2015)

Cannabis is Increasingly Legal, Employers Need to Stop Screening for it (news – 2015)
http://thejointblog.com/cannabis-is-increasingly-legal-employers-need-to-stop-screening-for-it/

RCMP expert admits Mounties lacked data to back up medical pot affidavit (news – 2015)

The economic case for legalising cannabis (news – 2015)

Why pot legalization is also a fight for social justice (news – 2015)
http://theweek.com/articles/542678/why-pot-legalization-also-fight-social-justice

Bill Clinton Apologizes To Mexico For War On Drugs (news – 2015)
http://www.huffingtonpost.com/2015/02/13/bill-clinton-apology-drug-war-mexico_n_6680412.html

Apple decides marijuana app belongs in the App Store after all (news – 2015)
http://www.engadget.com/2015/02/14/massroots-back-in-the-app-store/?ncid=rss_truncated

Marijuana Laws Are 'Bizarre,' Says Cato Institute In Call For Feds To Reschedule Cannabis (news – 2015)

http://www.fool.com/investing/general/2015/03/08/7-stunning-figures-that-sum-up-colorados-marijuana.aspx

California Lawmakers Give Up On Marijuana DUIs — For Now (news – 2015)
http://www.sfweekly.com/thesnitch/2015/03/12/california-lawmakers-give-up-on-marijuana-duis-for-now

DEA warns of stoned rabbits if Utah passes medical marijuana (news – 2015)

http://time.com/3726560/pot-dispensing-rabbi-d-c-residents-deserve-legal-access-to-marijuana/

Two House Bills Would End Federal Prohibition Of Marijuana (news – 2015)
http://www.huffingtonpost.com/2015/02/20/marijuana-legalization-congress_n_6722686.html?ncid=txinlkusai0p00000592

63% of Republican Millennials favor marijuana legalization (news – 2015)
Rep. Rohrabacher: Pot Prohibition Has Bred 'Police State'  

Legalized Marijuana Presents Recruiting Dilemma for US Military  
http://sanford.duke.edu/articles/legalized-marijuana-presents-recruiting-dilemma-us-military

9 Things A Cannabusiness Startup Needs To Consider That Other Startups Don't  
http://www.forbes.com/sites/julieweed/2015/05/01/8-things-a-cannabusiness-startup-needs-to-consider-that-other-startups-dont/

First Church of Cannabis Files Paperwork with Indiana Secretary of State  

When Might It Be Discriminatory to Fire a Medical Marijuana User?  
http://www.tlnt.com/2015/05/04/when-might-it-be-discriminatory-to-fire-a-medical-marijuana-user/

Lawyers use 'Right to Farm' amendment to defend cultivation of marijuana  

Talking to kids about legal marijuana  

Colorado’s cannabis-friendly hotel  

Report paints picture of legal marijuana as a growth industry  

How Our War on Drugs Undermines Mexico  
http://time.com/3853971/1971-war-on-drugs/

Mock Ad For New DEA Chief Shows What It Takes To Be A 'Real' Drug Warrior  
http://www.huffingtonpost.com/2015/05/12/mock-ad-seeking-new-dea-chief_n_7265814.html?ncid=txlnkusaolp00000592

The War on Drugs Costs Us All Big Money  

Legal Marijuana Cultivation Is Driving A Technology 'Revolution' In Industrial Agriculture  

America’s Marijuana Laws Give International Law the Middle Finger  

How Employee Drug Testing Targets the Poor and Minorities  (news – 2015)

Indiana’s Church Of Marijuana Granted Tax-Exempt Status From IRS  (news – 2015)
http://www.huffingtonpost.com/2015/06/02/indianas-church-of-marijuana_n_7496084.html

America’s Quality Pot Is Changing the Drug War  (news – 2015)

Whites Just 8% of New York City's Marijuana Arrests  (news – 2015)

10 Countries Leading the Push for International Marijuana Legalization  (news – 2015)
http://www.cheatsheet.com/politics/10-countries-that-have-or-will-see-marijuana-legalization.html/?a=viewall

Video: Santa Ana police raid pot shop, then eat its edibles, attorney says  (news – 2015)

Federal government agrees to pay for sewer analysis to determine marijuana use in Washington  (news – 2015)

Honey bees might be trained to replace drug-sniffing dogs  (news – 2015)
http://metro.co.uk/2015/06/27/honey-bees-might-be-trained-to-replace-drug-sniffing-dogs-5269141/#ixzz3eHib43QZ


Legitimate medical-marijuana use should not get you fired  (news – 2015)

State Marijuana Laws Complicate Federal Job Recruitment  (news – 2015)

Race Matters: Marijuana Cases Flood Court System  (news – 2015)

How the media used one tiny study to wildly exaggerate the threat of marijuana edibles  (news – 2015)  http://www.vox.com/2015/6/22/8826011/pot-edibles-dangerous
What is the scope of marijuana use in the United States? (news – 2015)

Nebraska and Oklahoma Sue Colorado in Supreme Court Over Legal Recreational Pot (news – 2015)


Pediatrician Group Recommends Decriminalizing Marijuana For Youngsters (news – 2015)

The Science Of Decriminalizing Drugs (news – 2015)


SD Indian tribe to begin selling recreational pot by Jan. 1 (news – 2015)

Drug warriors are still crying 'reefer madness.' The facts don't support them (news – 2015)

Men, blacks most likely to get tickets for Seattle pot use (news – 2015)

10 Reasons Why Federal Medical Marijuana Prohibition is about to Go Up in Smoke (news – 2015)
http://www.huffingtonpost.com/steph-sherer/10-reasons-why-federal-me_b_7851642.html

Is Marijuana Legal on Indian Reservations? (news – 2015)

When Teens Have More Access to Marijuana, This is What Happens (news – 2015)
http://www.cheatsheet.com/culture/when-teens-have-more-access-to-marijuana-this-is-what-happens.html/?a=viewall

Ruling: Smell of marijuana can't be only basis for searches (news – 2015)

SO YOU WANT TO OPEN A POT SHOP? (news – 2015)
The DOJ 'Intended To Discourage' A Historic Medical Marijuana Bill (news – 2015)
http://www.huffingtonpost.com/entry/doj-medical-marijuana_55c382ade4b0d9b743db14fc

How the Justice Department seems to have misled Congress on medical marijuana (news – 2015)

State Lawmakers Want Feds To Respect Their Marijuana Laws (news – 2015)
http://www.huffingtonpost.com/entry/state-marijuana-laws_55c3a74de4b0d9b743db4985?ncid=txtlnkusaolp00000592&kvcommref=mostpopular

http://www.huffingtonpost.com/2015/01/26/marijuana-industry-fastest-growing_n_6540166.html

New DEA Leader: ‘Pot Is Probably Not As Bad As Heroin’ (news – 2015)

Marijuana could be a $35 billion market by 2020 (news – 2015)

Man Who Was Serving Life In Prison For Marijuana To Be Set Free (news – 2015)
http://www.huffingtonpost.com/entry/jeff-mizanskey-marijuana-parole_55c92395e4b0923c12bdf3ae?ncid=txtlnkusaolp00000592&kvcommref=mostpopular

Sheriffs are asking for armored trucks to wage war on marijuana. Yes, really. (news – 2015)

Documents Reveal the Fearmongering Local Cops Use to Score Military Gear From the Pentagon (news – 2015)

Many Anti-Pot Arguments Are Based On Weak Science, Say Researchers (news – 2015)
http://www.huffingtonpost.com/entry/marijuana-use-myths_55cb66f53e4b0923c12bed78d?ncid=txtlnkusaolp00000592&kvcommref=mostpopular

FBI: Marijuana arrests increase for first time since 2009 (news – 2015)

Quiz: Is this quote from Prohibition or marijuana legalization? (news – 2015)
Why do men want to legalize pot more than women do? (news – 2015)

A first for the marijuana industry: A product liability lawsuit (news – 2015)

Government of Canada has started spelling the drug it called ‘Marihuana’ as ‘Marijuana’ (sometimes) (news – 2015)

The Great Kentucky Hemp Experiment (news – 2015)

New Poll Finds Millions Would Like to "Grow Your Own" (news – 2015)

1 in 5 Small Businesses Would Allow Employees to Use Medical Marijuana While at Work, Study Finds - Three-Quarters of Small Businesses Do Not Require Employees to Take Drug Tests (news – 2015)

The government is stifling medical marijuana research, major think tank declares (news – 2015)


Religious marijuana use by 'medicine man' no defense to federal charge (news – 2015)

Marijuana Businesses Can't File for Bankruptcy (news – 2015)

Many Anti-Pot Arguments Are Based On Weak Science, Say Researchers (news – 2015)

Marijuana Grow Closet: Interviewing the Mastermind Behind D.C.’s Next Best Amenity
Casualties of the War on Drugs (news – 2015)
http://www.huffingtonpost.com/donna-a-patterson/casualties-of-the-war-on- _b_ 8374030.html

The growing racial divide in Virginia’s war on pot (news – 2015)

What life with pot looks like in a country where it’s been basically legal for 40 years (news – 2015)

New report: In tough times, police start seizing a lot more stuff from people (news – 2015)

US Marijuana Use Has More Than Doubled in a Decade (news – 2015)

Prohibition Is the Real "Gateway Drug" (news – 2015)
http://www.huffingtonpost.com/inge-fryklund/prohibition-is-the-real-g_b_8210802.html

Debunking the Latest Pathetic Fear Smear Campaign Against Marijuana (news – 2015)
http://www.alternet.org/drugs/debunking-latest-pathetic-fear-smear-campaign-against-marijuana

Bank Will Accept Medical Marijuana Money (news – 2015)

Marijuana tourism’s reach expands (news – 2015)

‘White females’ and other reasons the war on marijuana must end in America (news – 2015)

Illinois medical pot users erroneously told to give up guns (news – 2015)

U.S. Postal Service to newspapers: your marijuana ads are illegal (news – 2015)
http://www.foxnews.com/politics/2015/12/04/u-s-postal-service-to-newspapers-your-marijuana-ads-are-illegal.html

Drug cops will spend even more money on taking people’s stuff next year
Housing marijuana offenders costs how much? (news – 2015)

'Grandma's magic remedy:' Mexico's medical marijuana secret (news – 2015)

Colombia Supreme Court: Cultivating Up To 20 Marijuana Plants Is Not A Crime (news – 2015)

Growing Medical Weed Is NOT a Crime, California Appeals Court Rules (news – 2015)

Legal weed having little effect on teen marijuana use, federal data shows (news – 2015)

Increasing Percentages of Americans are Ready for Legal Marijuana (news – 2015)

Leawood couple loses lawsuit over failed marijuana raid at their home (news – 2015)

DEA eases requirements for natural cannabis-derived drug research (news – 2015)
http://www.trust.org/item/20151223171611-xsa6u/

After two years, debate remains over marijuana legalization's impacts (news – 2015)

Emerging from shadows, pot industry tries to build brands (news – 2015)

We already know how to win the war on drugs (news – 2015)
http://www.smh.com.au/comment/we-already-know-how-to-win-the-war-on-drugs-20151230-glx5gp.html#ixzz3vrlMGITuI

9 ways the disastrous war on drugs has eroded this year (news – 2015)
http://www.saloon.com/2015/12/30/war_on_drugs_2_partner/
Legal weed in Colorado doesn't curb alcohol sales (news – 2015)

Colorado Is Now Collecting More Tax Revenue From Marijuana Than From Alcohol (news – 2015)

9 Investigates availability of Charlotte’s Web for doctors (news – 2015)

Law coming to protect intellectual rights of ganja growers (news – 2015)

Customers looking for a high ask a marijuana 'budtender' for advice (news – 2015)

Why legalizing weed is unlikely to turn your kid into a pothead (news – 2015)

DEA Employees Fail Drug Tests, Shockingly Face No Serious Consequences (news – 2015)
http://www.huffingtonpost.com/entry/dea-drug-tests_560abff4e4b0af3706de0211

South Dakota Sioux to open nation's 1st pot resort; idea could offer tribes new income source (news – 2015)

Pot Arrests Up: 1 Every 45 Seconds Last Year (news – 2015)

The State that Turns Pregnant Women Into Felons (news – 2015)
http://www.alternet.org/drugs/when-womb-crime-scene

Perspective: Close the knowledge gap (news – 2015)
http://cannadata.tech/engineering-the-future/perspective-close-the-knowledge-gap-cannabis/

Medical marijuana: Showdown at the cannabis corral (news – 2015)
http://cannadata.tech/innovative-minds/medical-marijuana-showdown-at-the-cannabis-corral/

Colorado report describes, in detail, first year of recreational marijuana (news – 2015)
http://www.thecannabist.co/2015/02/27/marijuana-report-colorado-pot-med/30604/

Swedish man acquitted in court for growing medical marijuana (news – 2015)
UN attempt to decriminalise drugs foiled (news – 2015)

Supreme Court: Holding Motorists To Wait For Drug Dog Is Unconstitutional (news – 2015)

Government restrictions, lack of funding slow progress on medical marijuana research (news – 2015)

DEA Chief Wrong on Medical Marijuana (news – 2015)


Cory Booker on how America's criminal justice system destroys the American dream (news – 2015)
http://www.vox.com/2015/3/16/8205027/cory-booker-drug-war

Marijuana growers in the US are using up $6 billion a year in electricity (news – 2015)
http://qz.com/560496/marijuana-growers-in-the-us-are-using-up-6-billion-a-year-in-electricity/

The Unexpected History of Ganja (news - 2015)
http://www.bloomwellbend.com/weed-terms-history-ganja/

Pity the Poor Stormtroopers: Baby Bou-Bou Ambushed Them (Updated, May 21) (news – 2015)
http://freedominourtime.blogspot.com/2015/05/pity-poor-stormtroopers-baby-bou-bou.html

Majority of young conservatives lean toward marijuana legalization (news – 2015)
http://www.dailytargum.com/article/2015/03/majority-of-young-conservatives-lean-toward-marijuana-legalization

The Spread of Legalization Explained (card set – 2015)

Hemp as fibre and food? Regulatory developments and current issues (news/ link to PDF – 2016)

http://cfanm.ca/patient-recommendations/
Marijuana Legalization and Taxes: Lessons for Other States from Colorado and Washington (report – 2016)

Cannabis in the United States (report – 2016)
http://self.gutenberg.org/article/WHEBN0020566488/Cannabis%20in%20the%20United%20States

Dose of Reality: The Effect of State Marijuana Legalizations (report – 2016)

NIDA Drug Supply Program (article – 2016)
https://www.drugabuse.gov/researchers/research-resources/nida-drug-supply-program

NIDA's Role in Providing Marijuana for Research (article – 2016)
https://www.drugabuse.gov/drugs-abuse/marijuana/nidas-role-in-providing-marijuana-research

DEA Announces Actions Related to Marijuana and Industrial Hemp (article – 2016)

FDA and Marijuana: Questions and Answers (article – 2016)
http://www.fda.gov/NewsEvents/PublicHealthFocus/ucm421168.htm

"Nuns" fight to keep their marijuana-based business in California (news – 2016)

Physicians want robust studies on medical marijuana use (news – 2016)

Judge: Pot credit union can’t access nation’s banking system (news – 2016)

Why the ‘wet tea leaves’ drug raid was outrageous (news – 2016)

Students in Colorado will have access to $2 million in extra scholarship money — thanks to marijuana (news – 2016)

Old, White Drug Warriors Are Suing to Protect Pot Prohibition — and Their Profits (news – 2016)
http://www.eastbayexpress.com/LegalizationNation/archives/2016/01/19/old-white-drug-warriors-are-suing-to-protect-pot-prohibition-and-their-profits

ELECTION 2016: Legalized pot could bring state $1 billion, analysis finds (news – 2016)
http://www.pe.com/articles/marijuana-792110-california-state.html

It’s counterintuitive, but war on drugs leads to harder ones (news – 2016) http://www.abqjournal.com/710243/opinion/its-counterintuitive-but-war-on-drugs-leads-to-harder-ones.html


Legal pot taxes could add $5B a year to government coffers, CIBC says (news – 2016) http://www.cbc.ca/news/politics/pot-revenue-government-5-billion-1.3423705


Lyons: Officers are cheating at a pointless game (news – 2016) http://www.heraldtribune.com/article/20160224/article/160229818


Marijuana industry helping some small towns survive (news – 2016) http://kdvr.com/2016/03/10/marijuana-industry-helping-some-small-towns-survive/

What Gives Israel the Edge on Marijuana? For starters, the nation puts patients before politics (news – 2016)
http://observer.com/2016/03/what-gives-israel-the-edge-on-marijuana/

'Weedman' says closing pot temple violates religious freedom (news – 2016)

Massive loophole in New Zealand's cannabis laws (news – 2016)

Murphy Seeks Possible Insurance Coverage For Medical Marijuana (news – 2016)

Florida judge ends surprise-conviction practice (news – 2016)

Struggling California desert towns seek tax bonanza with pot farms (news – 2016)

Americans like legalized pot a lot more than Girl Scout cookies (news – 2016)
http://nypost.com/2016/03/14/americans-like-legalized-pot-a-lot-more-than-girl-scout-cookies/

When police brutality is declared 'a victory': JR Ball (news – 2016)

Marijuana inventory covered under commercial insurance policy (D. Colo) (news – 2016)
http://www.lexology.com/library/detail.aspx?g=22069d25-79e8-41de-85e4-6864f03bb5bb

Weed Legalization Can’t Seem to Fix One Thing: Racial Gaps in Drug Arrests (news – 2016)

Does that marijuana business have a license? You can check on Department of Revenue's website (news – 2016)

Will the Government Know If I Get a Marijuana Card? (news – 2016)
http://blogs.findlaw.com/blotter/2016/03/will-the-government-know-if-i-get-a-marijuana-card.html#sthash.3x5PbcQa.dpuf

Experts call for global drug policy reform as evidence shows 'war on drugs' has harmed public health and human rights (news – 2016)

6 incredible things that happened when Portugal decriminalized all drugs (news – 2016)
What life is like after police ransack your house (news – 2016)

Cannabiz: Can I Sell Marijuana to Dispensaries? (news – 2016)

Timeline: The hemp odyssey of Alex White Plume (news – 2016)
http://rapidcityjournal.com/news/local/timeline-the-hemp-odyssey-of-alex-white-plume/article_795bf1a4-
260f-5a62-b7b1-c73dbc869f48.html

Corporate Greed, Corruption & Racism: Marijuana Became Illegal (news – 2016)

Pot fences make good neighbors (news – 2016)

Africa: Outflanking the War on Drugs? (news – 2016)
http://allafrica.com/stories/201603071689.html

Drug-Testing Court Decisions Overwhelmingly Favor Employers, Institute for a Drug-Free Workplace Survey Reports (news – 2016)
http://www.prweb.com/releases/2016/04/prweb13304536.htm

Where Gray-Haired Aunties Push Weed (news – 2016)

Pondering pot: Oakland museum marijuana exhibit delves into the debatable bud (news – 2016)
http://www.eastbaytimes.com/my-town/ci_29749376/pondering-pot-oakland-museum-marijuana-exhibit-
delves-into?source=rss

Grapevine girl heads west, hoping marijuana will ease her pain (news – 2016)

Marijuana May Be Legal, but Good Luck Filing the Paperwork (news – 2016)
http://www.nytimes.com/2016/02/21/business/yourtaxes/marijuana-may-be-legal-but-good-luck-filing-the-
paperwork.html?src=busln

Facebook cracks down on marijuana firms with dozens of accounts shut down (news – 2016)

Just 0.3% of Welfare Applicants in North Carolina Tested Positive for Drugs (news – 2016)

Lawmakers eye stricter medical marijuana rules for welfare recipients (news – 2016)
Legalization of marijuana in Washington had no effect on teens' access to drug 

Marijuana Related Arrests Skyrocket In Colorado For Black And Latino Minors 

The DEA is getting dragged 'kicking and screaming' into the new world of marijuana 

More American workers are failing at this job requirement 

Oregon marijuana market growing thousands of jobs 

VA docs to be able to recommend marijuana in some states 

Mountain Town News: Yes to cannabis jerky, but still many worries 

Meet Sue Taylor, the Black Grandmother Leading the Charge to Bring Marijuana to the Elderly 

Guy growing cannabis illegally is now a multi-millionaire and paying his taxes 

Marijuana tax in Louisiana could add $128 million in revenue, report says 

As more states legalize marijuana, adolescents' problems with pot decline 

Nasdaq just dealt a huge blow to the cannabis industry
State Department: The DEA Has Been Lying About Research Pot (news – 2016)

Drug Test All of Us (news – 2016)

Oregon issues guidelines on marijuana 'gifting' and giveaways (news – 2016)
http://www.oregonlive.com/marijuana/index.ssf/2016/05/oregon_issues_rules_on_marijuana.html

Federal marijuana smuggling is declining in the era of legal weed (news – 2016)

This Gym Wants You to Get High While You Work Out (news – 2016)
http://time.com/4349628/marijuana-pot-gym-california/

The FDA Is Cracking Down On CBD Oil (news – 2016)

Case of the munchies: Ag department cracks down on hemp-filled dog treats (news – 2016)

Sun Life first insurer to stop treating pot users as smokers as marijuana increasingly accepted as a medicine (Canada) (news – 2016)

REPORT: More than 90% of marijuana arrests in NYC are people of color (news – 2016)

New York police are getting even more aggressive on marijuana (news – 2016)

Cannabis producer starts shipping to Croatia (news – 2016)

Medical marijuana becomes legal in Macedonia (news – 2016)

Buying medical pot for your child? Look out (news – 2016)
http://www.philly.com/philly/health/kidshealth/20160611_Buying_medical_pot_for_your_child__Look_out.html

US appeals court upholds Hawaii pot ministry convictions (news – 2016)
Time to remove marijuana from the Controlled Substances Act  

Ganja on the go - Ports to be outfitted to issue medical cards to tourists to legally purchase the weed  

Can Hemp, Long Overshadowed by Marijuana, Rise as an Industry?  

California marijuana company beats police raid  

Another Survey Finds Legal Pot Hasn't Sent Teen Use Higher  

Teen marijuana use in Colorado found lower than national average  


Criticism over NSW tripling roadside drug tests  

Poll shows deep opposition to City of Vancouver crackdown on marijuana dispensaries  

American Pain Society Offers Guidance on Medical Marijuana for Pain  
http://www.newswise.com/articles/view/655977/?sc=rsmn

The government spent $18 million destroying marijuana plants last year  

Cannaphobia: What’s Up With Fear of Marijuana  
http://www.huffingtonpost.com/laura-lagano/post_11378_b_9558388.html

Marijuana Use Rises in Iran, With Little Interference  

What the merger of recreational, medical pot means  

Patients, towns want relief from state's foggy pot rules  (news – 2016)

Federal agency won't include pot in annual crop statistics  (news – 2016)

D.C. Department of Health Calls for Taxing and Regulating Marijuana  (news – 2016)

Can I stop my employee from smoking weed on the job?  (news – 2016)
http://www.theglobeandmail.com/report-on-business/rob-magazine/can-i-stop-my-employees-from-smoking-weed-on-the-job/article30520441/?cmpid=rss1

Ghana is 3rd consumer of marijuana globally - Report  (news – 2016)

7 in 10 Canadians support marijuana legalization: Nanos poll  (news – 2016)
http://www.ctvnews.ca/canada/7-in-10-canadians-support-marijuana-legalization-nanos-poll-1.2968953

The high life  (news – 2016)  http://www.phnompenhpost.com/post-weekend/high-life

Hmong Community in Siskiyou County told not to vote or face felony prosecution  (news – 2016)
http://cannabusinesslaw.com/2016/06/hmong-community-in-siskiyou-county-told-not-to-vote-or-face-felony-prosecution/

Marijuana campaign tactic: Buy American, not Mexican  (news – 2016)

The Latest: California lawmakers OK water for pot growers  (news – 2016)

Pharmacists open to medical marijuana  (news – 2016)
http://www.ottawasun.com/2016/07/01/pharmacists-open-to-medical-marijuana

Jamaica to sell cannabis to tourists at airports  (news – 2016)
http://metro.co.uk/2016/07/02/jamaica-to-sell-cannabis-to-tourists-at-airports-5981263/#ixzz4DP7S4c9U

Many Bay Area women choosing careers in cannabis industry  (news – 2016)

The Sweet Spot  (news – 2016)
http://www.northcoastjournal.com/humboldt/the-sweet-spot/Content?oid=3836973
An elderly couple found help for a brain injury through marijuana — then police found 20 pot plants growing at their home (news – 2016) [11]


Ganja break - Fewer children in custody since decriminalisation of the weed (news – 2016)


Police in South Dakota use catheters, force to collect urine samples (news – 2016)


Diane Dimond: Recruiting Your Child as a Narc (news – 2016)

https://www.noozhawk.com/article/diane_dimond_recruiting_your_child_as_a_narc

Publix Billionaire Donates $800,000 to Fight Medical Marijuana in Florida (news – 2016)


Reefer Madness! Medical Marijuana is Already Saving $165M Per Year for Medicare (news – 2016)

http://www.cannabisculture.com/content/2016/07/20/reefer-madness-medical-marijuana-is-already-saving-165m-per-year-for-medicare

Drug War is ‘Root Cause’ of Police Shooting Epidemic, says Libertarian Party Presidential Nominee Gary Johnson (news – 2016)


Hugo Water Test Results Not Back Yet, Order Not To Drink It Remains (news - 2016)


Hugo water safe to drink after conclusive tests show no signs of THC (news - 2016)


Marijuana-munching cops fired after being caught on tape (news – 2016)


Japan’s First Lady Ushers In New Era of Hemp Acceptance by Purchasing Elixinol CBD Hemp Oil Product (news – 2016)


Quiz: Do your neighbors think you’re running a marijuana operation? (news – 2016)


Epic Cop Fail: Burning Illegal Weed Got This Town High (news – 2016)  
http://herb.co/2016/07/06/cops-burning-illegal-weed/

What Are the Side Effects of Marijuana on the Economy? (news – 2016)  

One striking chart shows why pharma companies are fighting legal marijuana (news – 2016)  

Time for the Media to Correct Its Cannabis Lexicon (news – 2016)  
http://www.huffingtonpost.com/entry/time-for-the-media-to-correct-its-cannabis-lexicon_us_57a7e586e4b0c94bd3c9d608

A Campaign to Constrain Cannabis Clinicians (news – 2016)  
http://www.beyondthc.com/a-campaign-to-constrain-cannabis-clinicians/

Big alcohol is working to undermine marijuana legalization, Wikileaks confirms (news – 2016)  

VA hospital in Phoenix blocks Dr. Sue Sisley’s presentation on cannabis & PTSD (news – 2016)  
http://www.theimpactnetwork.org/sue-sisley-ptsd-lecture-blocked/

Lawmakers Press President Obama to Deschedule Cannabis (news – 2016)  
http://www.theimpactnetwork.org/lawmakers-press-president-obama-deschedule-cannabis/

Arizona Spends Big Bucks to Keep Serious Diseases like Parkinson’s from Qualifying for Medical-Marijuana Program (news – 2016)  

State Department Says DEA Is Wrong on Marijuana Monopoly (news – 2016)  
http://www.theimpactnetwork.org/dea-wrong-marijuana-monopoly/

Gallup: More than 33 million American adults currently use marijuana (news – 2016)  

Marijuana Prohibition in Japan —Made in USA (news – 2016)  

Marijuana and the Developing Brain (news – 2016)  

DEA, rejecting medical use of marijuana, to deny rescheduling petition (news – 2016)
DEA rejects marijuana reclassification, despite states' shifting acceptance
(news – 2016)

Anti-marijuana campaign's biggest donor? Chandler pharma company
(news – 2016)

Canada to press U.S. on 'ludicrous' marijuana border policy
(news – 2016)

Jamaica decriminalizes small amounts of ‘ganja’
(news – 2016)

This Marijuana Farmers' Market Proves That Weed Is the New Wine
(news – 2016)
http://www.lawweekly.com/restaurant/this-marijuana-farmers-market-proves-that-weed-is-the-new-wine-7325690

5 Tips for Breaking Into the 'Budding' Marijuana Industry
(news – 2016)

Philly420: Civil asset forfeiture, the other marijuana penalty
(news – 2016)
http://www.philly.com/philly/news/Civil_Asset_Forfeiture_The_Other_Marijuana_Penalty.html

DEA’s pot designation is very definition of ‘Reefer Madness’
(news – 2016)
http://www.hawaiitribune-herald.com/commentary/their-views/dea-s-pot-designation-very-definition-reefer-madness

Blacks Locked Out Of Legal Marijuana Industry In Maryland & Many Other States
(news – 2016)

DEA Targets Innocent Americans—Accessing Their Travel Data and Seizing Cash
(news – 2016)

Legal Weed Spurs Real Estate Boom In U.S. States
(news – 2016)

U.S. prosecutors dealt setback in medical marijuana cases
(news – 2016)

Inconsistent strains: Medicinal users struggle with Sacramento region’s patchwork marijuana laws
(news – 2016)
Medical Marijuana Laws Linked to Fewer Opioid-Related Fatal Crashes

Poll: 61 percent of Coloradans say legal pot has had positive impact on economy

Alaska soldiers barred from events promoting marijuana  (news – 2016)

Marijuana farms could join pear orchards and vineyards as Rogue Valley mainstays  (news – 2016)

Study says legalized marijuana does not affect crime or economics  (news – 2016)

Can I sell cannabis clones to home growers after Alaska's legalization date?  (news – 2016)
http://www.adn.com/highly-informed/article/can-i-sell-cannabis-clones-home-growers-after-alaskas-legalization-date/2015/02/07/

Do Not Resist: new film shows how US police have become an occupying army  (news – 2016)

Patients may soon be able to use pot at Marin hospital  (news – 2016)

Colorado gives marijuana candy a new look to avoid confusion  (news – 2016)

Damian Marley Is Converting a California Prison into a Pot Farm: Exclusive  (news – 2016)

Raid! National Guard, State Police descend on 81-year-old’s property to seize single pot plant  (news – 2016)
http://www.gazettenet.com/MarijuanaRaid-HG-100116-5074664

Your doctor is probably more worried about your weight than your marijuana use, study finds  (news – 2016)
Goodman: Never was a good reason to outlaw marijuana

Here’s how legal pot changed Colorado and Washington

Police arrest more people for marijuana use than for all violent crimes — combined
http://m.gazette.com/police-arrest-more-people-for-marijuana-use-than-for-all-violent-crimes-combined/article/1587703

Support for marijuana legalization rises among U.S. adults: poll

Ganja Grows Up
http://www.bendsource.com/bend/ganja-grows-up/Content?oid=2762480

There’s Only One Demographic That Still Thinks Marijuana Should Be Illegal

Albania destroys marijuana fields to clean up its image

Who Opposes Cannabis Legalization? Just follow the money!

Marijuana Legalization: Israeli Pharmacies To Start Selling Medical Cannabis

No highs or lows: Marijuana use holds steady among teens, young adults

Unreliable and Unchallenged
https://www.propublica.org/article/unreliable-and-unchallenged
Want to protect children? Legalize and lock down marijuana
http://www.eastvalleytribune.com/arizona/article_d2716b90-9a38-11e6-b59e-63efecf71e6d.html

Santa Ana to pay marijuana dispensary $100,000 after video appears to back police harassment claims

FACT CHECK: Are VA doctors prohibited from recommending medical marijuana?

A casino magnate is spending millions to fight legal marijuana in three states

Medical Marijuana Not a Lure for Kids: Study

Marijuana butter eased her child's symptoms. Then her kids were taken away from her.

Marijuana legalization may have an unexpected result: Drug smuggling into Mexico

Fentanyl maker fights pot legalization

Colorado lawmakers: Arizona anti-pot ads are inaccurate

Military weighs mellower marijuana restrictions for recruits

Feds drop effort to shut down Berkeley marijuana dispensary

Woman loses job after doctor tells employer about marijuana use, lawsuit says

Strict Pot Restrictions for Applicants Is A ‘Death Sentence,’ Baltimore Comm. Says
http://baltimore.cbslocal.com/2016/10/31/md-to-mull-over-more-lenient-pot-restrictions-for-cops/

Marijuana's Role in the Pursuit of Patent Rights
http://www.law.com/sites/
Marijuana supporters go to battle against prosecutors with ‘reefer madness’
(news – 2016)  https://thinkprogress.org/reefer-madness-2016-f8c88e986819#.lx5re73y9

Survey: NFL players say some teammates use marijuana before they play

The Science behind the DEA’s Long War on Marijuana

Legalizing Cannabis: Prison Food Provider Donates To Keep Marijuana Illegal In Arizona

DES Director E-Mails Anti-Prop 205 Campaign Propaganda to Entire Staff

Marijuana Legalization: Why Aren't More Black People Involved In The Cannabis Industry?

Santa Claus speaks out against North Pole ban of marijuana sales

Pot Smokers Owe Last Night’s Historic Ballot Wins to This Man

America's legal pot economy is forced underground

Why captains of cannabis industry don't like the “M word

Market for legal pot could pass $20 billion
(news – 2016)  http://www.hartfordbusiness.com/article/20161111/NEWS02/311119983

A new era for cannabis extracts in California

What does Weed think of legal weed?

America's legal pot economy is forced underground

Why captains of cannabis industry don't like the “M word

Market for legal pot could pass $20 billion
(news – 2016)  http://www.hartfordbusiness.com/article/20161111/NEWS02/311119983

A new era for cannabis extracts in California

What does Weed think of legal weed?
Marijuana legalization: Just because motorist looks stoned doesn't mean they're impaired, Mass. judge says


Veterans Meet in Austin to Demand Passage of an All-Inclusive Medical Marijuana Policy in Texas


University of Nebraska-Lincoln launches hemp research


Want Your Marijuana Startup to Succeed? Study Patent Law

https://www.wired.com/2016/11/wanna-make-weed-startup-better-patent-stash/

Countdown to legal pot: No one will ever die from too much marijuana


Where Marijuana Is the Doctor’s Orders, Will Insurers Pay?


Marijuana doctors get new business buzz from legalization in California


How Will Small Marijuana Businesses Fare in the Wake of Proposition 64?


Virginia school suspends an 11-year-old for one year over a leaf that wasn’t marijuana

http://www.tulsaworld.com/news/usworld/virginia-school-suspends-an--year-old-for-one-year/article_e43b6b74-17de-54ec-9319-0f06cbb4e6e9.html

Opinion: Legal marijuana is affecting the beer industry’s memory


A tip sheet for workers and workplaces where marijuana is legal

http://gazette.com/article/1591346

Some employers nod to medical marijuana while at work

http://www.businessinsurance.com/article/20151014/NEWS08/151019928?template=printart
Marijuana industry brought to a standstill by new pesticide testing regulations  
(news – 2016)  

OBAMA: It’s 'untenable' for government to enforce 'a patchwork of laws' on marijuana  
(news – 2016)  

Marijuana’s ‘trimmigrant’ labor force poses conflicts for some North Coast towns  
(news – 2016)  

Marijuana spending passes that of spirits  
(news – 2016)  

Uruguay: 6 workers arrested for stealing state-grown pot  
(news – 2016)  

Yes, most state employees can use marijuana off the job  
(news – 2016)  

The man behind the marijuana ban for all the wrong reasons  
(news – 2016)  

In legalizing marijuana, California clears small-time criminals  
(news – 2016)  

Drug testing at work: Cannabis creates new digital divide  
(news – 2016)  

After vote, uneven approach emerges in pot law enforcement  
(news – 2016)  

The marijuana-initiative blunder that could cost California millions of dollars  
(news – 2016)  

Californians are already having their marijuana charges downgraded  
(news – 2016)  
http://www.scpr.org/programs/take-two/2016/11/16/53070/people-are-already-having-their-marijuana-convicti/

Marijuana may be legal in California, but it can still get you fired  
(news – 2016)  

Legality of raid on pot dispensary challenged  
(news – 2016)  

As Voters Approve Legal Pot, Bankers Remain Skeptical  
(news – 2016)  
Irish Government passes medicinal cannabis bill without vote

Now what? A dispensary owner, a scientist, a defense expert and a city manager reflect on the new pot law

UK certifies marijuana molecule CBD as medicine

‘This is Your Brain on Drugs’ actor supports legalizing marijuana
http://kdvr.com/2016/10/21/this-is-your-brain-on-drugs-actor-supports-legalizing-marijuana/

In remote Indian village, cannabis is its only livelihood
http://www.seattletimes.com/nation-world/in-remote-indian-village-cannabis-is-its-only-livelihood/

Will the Marijuana Industry Ever Go Green?

Black drivers' cars searched more frequently on basis of drug, alcohol odor
http://www.columbiamissourian.com/news/black-drivers-cars-searched-more-frequently-on-basis-of-drug/article_76c6279a-b63f-11e6-9c89-0ff7ad37d769.html

Can Legalized Weed Sales Help Ailing Record Stores Turn Over a New Leaf?

Uruguay to have marijuana museum

Willie Nelson Reserve Marijuana Commands 50% Price Premium

Canadian Marijuana Market More Mature, Outperforms U.S. Market

Montana Judge Rules to Re-open Marijuana Dispensaries Immediately
http://flatheadbeacon.com/2016/12/07/montana-judge-rules-re-open-marijuana-dispensaries-immediately/

Legalized marijuana: What are the implications for worker's comp?
http://blog.nj.com/stark_stark/2016/11/legalized_marijuana_what_are_t.html

DEA: 'media attention' is making it tough to put people in jail for marijuana
http://www.nola.com/articles/19800330/marijuana_pot_dea_jail.amp

Now you 'CanPay' for pot with this app

UGA expert available to discuss DEA decision on reclassifying marijuana
(http://www.newswise.com/articles/view/658962)

Cannabis convict Eddy Lepp free from prison
(http://www.mercurynews.com/2016/12/07/cannabis-convict-eddy-lepp-free-after-long-prison-term/)

It’s Time to Let Mary Jane Graduate: Reclassify Marijuana
(http://observer.com/2016/12/its-time-to-let-mary-jane-graduate-reclassify-marijuana/)

Cannabis concentrates lead new era in California
(http://www.thecannifornian.com/cannabis-health/cannabis-concentrates-lead-new-era-california/)

Medical cannabis patients wonder about Prop. 64’s potential effects
(http://www.thecannifornian.com/cannabis-health/medical-cannabis-patients-wonder-prop-64s-potential-effects/)

Who can work in a marijuana shop?
(http://m.juneauempire.com/state/2016-10-24/who-can-work-marijuana-shop#gsc.tab=0)

Punch the clock and pass the brownies

Ravalli County drug case could change school searches in Montana

He got life without parole for pot. And he was just denied clemency.
(http://www.newsday.com/opinion/he-got-life-without-parole-for-pot-and-he-was-just-denied-clemency-1.12731004)

Supreme Court rejects church's appeal over marijuana laws

Medical marijuana users sue to cut costs

Finding marijuana residue in trash doesn’t justify search of the home for drugs, court rules

DEA Gives Cannabis Law Significant Tweak

Hemp growers may try to block federal ban on marijuana extracts
Here's who buys legal weed (news – 2016)

Here’s what police might do if you’re stopped with marijuana (news – 2016)
(includes guidelines letter to the Mass. State Police)
https://www.bostonglobe.com/metro/2016/12/14/herewhathopemightyoustoppedwithmarijuana/nZZy1GYTSdziPvNVURx4fK/story.html

Paraphernalia shops drop the smoke screen (news – 2016)

Parents facing custody issues over marijuana see hope in Prop. 64 (news – 2016)

Calif. city to require name, address and $141 to grow pot at home (news – 2016)
https://www.yahoo.com/news/m/fb4e2edd-6274-38be-9b96-2bf4a1abb5f5e/sstalkcity-torequire-name%2C.html

States with medical marijuana laws have lower traffic fatality rates, study reports (news – 2016)

Marijuana should be treated like tobacco, alcohol, Obama says (news – 2016)

5 Reasons the DEA’s Marijuana Ruling Is Absurd and Indefensible (news – 2016)

Court: Medical marijuana law trumps law on transporting pot (news – 2016)

Here’s How to Flush Your Marijuana Criminal Record (news – 2016)
http://bigbudsmag.com/how-to-get-rid-of-your-marijuana-criminal-record/

http://neurosciencenews.com/cannabis-research-government-4562/

International Law Expert On Support For Marijuana Legalization: 'Common Sense Is Prevailing' (news – 2016)

The DEA spent $73,000 to eradicate marijuana plants in Utah. It didn’t find any. (news – 2016)
CBD, Now A Schedule 1 Drug (news – 2016)
https://steemit.com/life/@gavicrane/cbd-schedule-1-drug

Hemp growers may try to block federal ban on marijuana extracts (news – 2016)

Pot’s legal in California. So why are people still getting busted in Yosemite? (news – 2016)

Survey: Two-thirds of cops say marijuana laws should be relaxed (news – 2016)

Marijuana: 15 Cities With the Most Pot Users (news – 2016)
http://www.cheatsheet.com/culture/marijuana-cities-pot-users.html/?ref=YF&yptr=yahoo

DEA Refuses to Change Classification of Marijuana as Dangerous Drug With No Medical Use (news – 2016)

Doctors Struggle With Medical Marijuana Knowledge Gap (news – 2016)

Weed Bill Legalizing Growth Gains Momentum in Dutch Parliament (news – 2016)

’Pot fairy’ strikes Brown Avenue, again (news – 2016)
http://www.athensnews.com/news/local/pot-fairy-strikes-brown-avenue-again/article_8c60c6e8-859b-11e6-bdf6-33fca2b52f4b.html

Did the Industrial Value of Hemp Spark Cannabis Prohibition? (news – 2016)

New report shows Amendment 2 exceeded 60% in every congressional district, senate district and all but two house districts. (news – 2016)

Legal Advice for Cannabis Startups: First, Invest. Then, Stay out of Jail. (news – 2016)

Cannabis: Israel's next big medical export? (news – 2016)

Israel: The Epicenter of Cannabis Research and Innovation (news – 2016)
Could Medical Cannabis Break the Painkiller Epidemic? (news – 2016)

New Medical Marijuana Policy Is a Catch-22, Researchers Say (news – 2016)

Cop Task Force Gets In The Weeds (news – 2016)
http://www.newhavenindependent.org/index.php/archives/entry/marijuana_police/

Gupta: DEA’s missed opportunity on medical marijuana (news – 2016)

This Correlation Between Legal Medical Marijuana States and Traffic Fatalities Is Shocking (news – 2016)

Gallup: More than 33 million American adults currently use marijuana (news – 2016)

Medical marijuana legalization sparks business interests (news – 2016)

Cannabis Wins Big On Election Night (news – 2016)
http://beyondchronic.com/2016/11/cannabis-wins-big-on-election-night/

Tetra Bio-Pharma Looks to Make Cannabis Affordable -- CFN Media (news/ad – 2016)
http://finance.yahoo.com/news/tetra-bio-pharma-looks-cannabis-142803183.html;_ylt=AwrXgCPuHkdYIyoAeSHQtDMD;_ylu=X3oDMTByMXM3OWtoBGNvbG8DZ3ExCBHBvewM4BHZ0aWQDBHNJYwNzcg--

German lawmakers green-light medical cannabis use (news – 2017)

Brazil issues first license for sale of a cannabis-based drug (news – 2017)

Like Fine Wine, Pot Smoking Destinations Will Promote Appellations (news – 2017)

Finally, state gives medical marijuana licensees green light to cultivate (news – 2017)
Recreational marijuana: Changes could be coming         (news – 2017)

NFLPA eyes 'less punitive' approach to recreational weed         (news – 2017)
http://www.sportingnews.com/amp/nfl/news/nfl-marijuana-testing-policy-weed-nflpa-union-changes-demaurice-smith/1q3ykvq22mg1bh07vkt4ld


Oregon bill would protect worker's right to use marijuana off the clock         (news – 2017)

Israel takes steps to decriminalize marijuana use         (news – 2017)
http://www.azfamily.com/story/34362307/israel-takes-steps-to-decriminalize-marijuana-use

Va. bills would end license suspension for marijuana possession         (news – 2017)

I made my son cannabis cookies. They changed his life.         (news – 2017)
https://www.washingtonpost.com/opinions/i-made-my-son-cannabis-cookies-they-changed-his-life/2017/01/06/699b1d20-d1ef-11e6-a783-cd3fa950f2fd_story.html?utm_term=.dd6a6531b7b2

California looks to build $7 billion legal pot economy         (news – 2017)
http://newsok.com/california-looks-to-build-7-billion-legal-pot-economy/article/feed/1157993

Senate bill would remove posseesion by ingestion charge for marijuana         (news – 2017)

WITHDRAWAL SYNDROME

Marijuana is NOT like Alcohol. Please make a note of it. Thanks.         (news – 2010)

Anticonvulsant Drug Helps Marijuana Smokers Kick the Habit         (news – 2012)
http://www.sciencedaily.com/releases/2012/04/120424095651.htm

4 Myths About Marijuana Addiction         (news – 2013)
http://www.leafscience.com/2013/11/28/4-myths-marijuana-addiction/

'Legal high' users turn to real thing         (news – 2013)

Don’t Fear the Reefer         (news – 2014)
Estrogen increases cannabis sensitivity  

Females Build Up Tolerance To Marijuana Faster Than Males, Study Finds  
http://www.huffingtonpost.com/2014/09/10/females-tolerance-marijuana-n_5784022.html

Withdrawal drug could help cannabis addicts kick the habit  

Study finds legalized marijuana does not affect crime or economics  

WOUNDS/ INJURIES

New Drug Kills Pain by Boosting Body's Naturally Occurring Marijuana-Like Compound  

Compound boosts marijuana-like chemical in the body to relieve pain at injury site  

Study: Smoking pot may ease chronic pain  

No bones about it: Cannabis may be used to treat fractures  

Brief Overview of the Endocannabinoid System  
http://www.medicaljane.com/2015/02/28/a-brief-overview-of-the-endocannabinoid-system/

Medical Cannabis in the Palliation of Malignant Wounds—A Case Report  
http://www.jpsmjournal.com/article/S0885-3924(16)30328-1/abstract
ABHD6/ α/β-hydrolase domain 6 + - breaks down 2-AG

Drugs that reduce activity of ABDH6 enzyme can prevent brain damage: Study (news – 2010)


2-AG / 2-ARACHIDONOYLGLYCEROL + - the most abundant endocannabinoid, a CB 1 agonist, broken down by MAGL

A model of endocannabinoid 2-AG-mediated depolarization-induced suppression of inhibition (article – 2010)
http://www.biomedcentral.com/content/pdf/1471-2202-11-S1-P189.pdf

2-Arachidonoylglycerol (article – 2010)

Endocannabinoids: Going retro with DAGLα (article – 2010)

Receptors triggered by pot may lessen hit from chronic stress (news – 2010)

Painkilling System in Brain: Too Much of a Good Thing? (news - 2010)

Drugs that reduce activity of ABDH6 enzyme can prevent brain damage: Study (news – 2010)

Newly discovered mechanism controls levels and efficacy of a marijuana-like substance in the brain (news – 2010)
A Summary of Endocannabinoids and Obesity  

Endocannabinoids: A healthy diet is good for LTD  

New metabolic pathway for controlling brain inflammation  

Scripps Research Scientists Discover Inflammation Is Controlled Differently in Brain and Other Tissues  

Boosting natural marijuana-like brain chemicals treats fragile X syndrome symptoms  
http://www.sciencedaily.com/releases/2012/09/120925121349.htm

Marijuana cannabinoids found to help combat autism  

Marijuana Compound Treats Schizophrenia with Few Side Effects: Clinical Trial  
http://healthland.time.com/2012/05/30/marijuana-compound-treats-schizophrenia-with-few-side-effects-clinical-trial/

New inhibitors of elusive enzymes promise to be valuable scientific tools  

Marijuana-like brain chemicals could be key to treating fragile X syndrome  
http://www.empowher.com/wellness/content/marijuana-brain-chemicals-could-be-key-treating-fragile-x-syndrome?page=0,2

Those Pungent Smells Oozing Out of Marijuana Buds Are Actually Giving You Clues About What Their Effects Will Be Like  

How the Endocannabinoid 2-AG May Reduce Symptoms of ‘Fragile X’ Autism  

Too little sleep may trigger the 'munchies' by raising levels of an appetite-controlling molecule  
https://www.sciencedaily.com/releases/2013/06/130617110935.htm

New inhibitors of elusive enzymes promise to be valuable scientific tools  
Your Brain On Chocolate: Marijuana-Like Chemicals Explain Why We Crave It (news – 2013)

Study: Cannabinoids Offer Treatment For Severe Lung Disease  (news – 2013)

Cannabinoid Science 101: What is 2-AG?             (news - 2014)


Marijuana for Alzheimer’s Disease             (news – 2014)
https://www.psychologytoday.com/blog/your-brain-food/201411/marijuana-alzheimer-s-disease

Natural ‘high’ could avoid chronic marijuana use, Vanderbilt study finds (news – 2014)
http://news.vanderbilt.edu/2014/12/natural-high-could-avoid-chronic-marijuana-use-vanderbilt-study-finds/

Brief Overview of the Endocannabinoid System             (news – 2015)
http://www.medicaljane.com/2015/02/28/a-brief-overview-of-the-endocannabinoid-system/

http://www.theimpactnetwork.org/endocannabinoid-deficiency/


Treating Depression in Alcoholics             (news & abst – 2016)
http://neurosciencenews.com/alcoholism-depression-psychology-3541/

Decreasing Nicotine Consumption by Flipping a Molecular ‘Switch’ (news & abst – 2016) http://neurosciencenews.com/nicotine-consumption-genetics-3425/

Skimpping on sleep may activate the 'munchies' (news – 2016)

Nutmeg Keeps Endocannabinoids Happening             (news – 2016)
http://www.beyondthc.com/nutmeg-boosts-endocannabinoid-levels/


Exercise Can Still Increase Hunger Even in Sleep Deprivation             (news – 2016)

Marijuana Dependence Influenced by Genes, Childhood Sexual Abuse
Dr. Ethan Russo explains Clinical Endocannabinoid Deficiency


ANANDAMIDE / AEA / N–ARACHIDONOYLETHANOLAMINE NAE 22:4 +* – CB 1 & 2 agonist

Is a Chocolate High Possible? (news - undated)

What Gourmet Food Ingredient Contains a “Bliss Molecule” Similar to THC in Cannabis? (news – undated)

Compound boosts marijuana-like chemical in the body to relieve pain at injury site (news - 2010)

Chocolate: The Good, the Bad and the Angry (news - 2010)

Nutritional Facts on Raw Cacao Beans (news – 2010)

Receptors triggered by pot may lessen hit from chronic stress (news – 2010)

Increasing the body’s (but not brain’s) cannabinoids dulls pain (news – 2010)

Painkilling System in Brain: Too Much of a Good Thing? (news - 2010)

New Drug Kills Pain by Boosting Body's Naturally Occurring Marijuana-Like Compound (news – 2010)

Research Reaps Reefer Madness (news – 2010)

Cannabinoids: every body likes them, some bodies need them (news – 2010)
https://patients4medicalmarijuana.wordpress.com/2010/03/13/cannabinoids-every-body-likes-them-some-bodies-need-them/
Endocannabinoids: A healthy diet is good for LTD (news – 2011)  

Marijuana Compound Treats Multiple Health Issues (news – 2011)  
http://www.foxnews.com/health/2010/03/10/cannabis-deficient/

New Way to Boost Potency of Natural Pain Relief Chemical in Body (news – 2011)  

A Summary of Endocannabinoids and Obesity (news – 2011)  

Marijuana Compound Treats Schizophrenia with Few Side Effects: Clinical Trial (news – 2012)  
http://healthland.time.com/2012/05/30/marijuana-compound-treats-schizophrenia-with-few-side-effects-clinical-trial/

Cannabinoids for the Treatment of Neuropathic Pain (needs free registration) (news – 2012)  

It hurts so good: the runner’s high (news – 2012)  
http://blogs.scientificamerican.com/scicurious-brain/2012/03/12/it-hurts-so-good-the-runners-high/

Tricks and Tracks in the Identification and Quantification of Endocannabinoids (abst – 2013)  

London Zoo: No runner’s high for ferrets (news – 2013)  

Brain-Imaging Study Links Cannabinoid Receptors to Post-Traumatic Stress Disorder: First Pharmaceutical Treatment for PTSD Within Reach (news – 2013)  
http://www.sciencedaily.com/releases/2013/05/130514085016.htm

Researchers discover connection between CB1 receptors and PTSD (news – 2013)  

High on Health: Cannabinoids in the Food Supply (news – 2013)  
http://www.wakingtimes.com/2013/04/25/high-on-health-cbd-in-the-food-supply/

Marijuana-like compound could lead to first-ever medication for PTSD (news – 2013)  
http://www.foxnews.com/health/2013/05/14/marijuana-like-compound-could-lead-to-first-ever-medication-for-ptsd/

Your Brain On Chocolate: Marijuana-Like Chemicals Explain Why We Crave It (news – 2013)  

Anandamide May Serve Anticancer Role In Skin Cancer (news – 2013)
Anandamide can increase intracellular Ca2+ concentration (news – 2014)
http://www.medicalnewstoday.com/releases/279551.php

MEDICAL MARIJUANA: Out of the Shadows (news – 2014)

Truffles contain ‘bliss’ molecule (news – 2014)

Truffles Have a THC-like Substance in Them (news – 2014)
http://www.smithsonianmag.com/smart-news/truffles-have-thc-substance-them-180953705/#8a7rVPc5Q52ovxJl.99

Runner's high linked to cannabinoid receptors in mice (news & abstract – 2015)

Oxytocin Enhances Pleasure of Social Interactions by Stimulating Production of “Bliss Molecule” (news & abstract – 2015)
http://neurosciencenews.com/oxytocin-anandamide-2926/

Brief Overview of the Endocannabinoid System (news – 2015)
http://www.medicaljane.com/2015/02/28/a-brief-overview-of-the-endocannabinoid-system/

https://www.sciencedaily.com/releases/2015/02/150204125558.htm

Cannabinoids may be responsible for weight gain associated with schizophrenia (news – 2015)

Uncovering the Neurological Differences Between the Sexes (news – 2015)
http://neurosciencenews.com/sex-differences-hippocampus-2421/

'Love hormone' oxytocin mimics effects of marijuana (news – 2015)
https://in.news.yahoo.com/love-hormone-oxytocin-mimics-effects-marijuana-074404829.html

Is Smoking Weed the Secret to a Successful Relationship? (news – 2015)
http://ecosalon.com/is-smoking-weed-the-secret-to-a-successful-relationship/

New options for treating autism (news – 2015)

http://www.theimpactnetwork.org/endocannabinoid-deficiency/

Is Anxiety Genetic? (news – 2015)
http://www.quickanddirtytips.com/education/science/is-anxiety-genetic
Understanding Cannabinoid Receptors: Why Cannabis Affects Humans
(news – 2015)

The Outsourcing of American Marijuana Research (news – 2015)

Research Team Finds How CBD, a Component in Marijuana, Works Within Cells

Nutmeg Keeps Endocannabinoids Happening (news – 2016)
http://www.beyonddthc.com/nutmeg-boosts-endocannabinoid-levels/

A new antipsychotic mechanism of action for cannabidiol (news – 2016)

Microbes, Alzheimer’s Disease, and Cannabis (news – 2016)
http://cannabishealthindex.com/cannabinoid-research/microbes-alzheimers-disease-and-cannabis/

Cannabis and Acupuncture, the Yin and Yang of Healing Pain (an ancient connection revealed) (news – 2016)

Dr. Ethan Russo: Endocannabinoid Nutrition (news – 2016)
https://www.ganjapreneur.com/ethan-russo-endocannabinoid-nutrition/

The Trouble With Truffles (news – 2016)

Dr. Ethan Russo explains Clinical Endocannabinoid Deficiency (news – 2016)

Echinacea makes you carefree (news – undated)

Study shows direct cellular interaction between endocannabinoids and alcohol in the brain (news - 2010)

**CBR - CB1 CANNABINOID RECEPTOR** +* - activated by THC, Anandamide, synthetics, activating CB1 receptors in the brain causes the “high”
Cannabidiol (CBD) as an Anti-Arrhythmic – the Role of the CB1 Receptors (news – 2010)

Increasing the body's (but not brain's) cannabinoids dulls pain (news – 2010)

Fake Weed, Real Drug: K2 Causing Hallucinations in Teens (news – 2010)

Cannabinoid-1 Receptor Protects The Brain From Aging (news – 2011)
http://www.medicalnewstoday.com/releases/230948.php

Part of placebo effect ascribed to cannabinoids (news – 2011)

Introduction to the Endocannabinoid System (news – 2011)
http://norml.org/library/item/introduction-to-the-endocannabinoid-system

Endocannabinoids: A healthy diet is good for LTD (news – 2011)


What An Expectant Mother Eats Affects Children’s Psychology in Later Life (news – 2011)

Do Deficits in Brain Cannabinoids Contribute to Eating Disorders? (news – 2011)

Scientists find a new pharmacological target to modulate the effect of cannabinoids through their CB1 receptors (news – 2012)

Structured Unlearning: Marijuana May Impair Memory via the Brain's Non-Firing Cells (news – 2012)
http://www.scientificamerican.com/article/marijuana-memory-astrocytes/

'Cannabis' receptor discovery may help understanding of obesity and pain (news – 2012)

It hurts so good: the runner’s high (news – 2012)
http://blogs.scientificamerican.com/scicurious-brain/2012/03/12/it-hurts-so-good-the-runners-high/

How Marijuana Impairs Memory (news – 2012)
http://neurosciencenews.com/marijuana-impairs-memory-astroglia-cb1r-the/
Why resolutions about taking up physical activity are hard to keep. (news – 2013)
http://www.thefreelibrary.com/Why+resolutions+about+taking+up+physical+activity+are+hard+to+keep.-a0313904638

Key Shift in Brain That Creates Drive to Overeat Identified (news – 2013)
http://www.sciencedaily.com/releases/2013/04/130429154214.htm

Brain-Imaging Study Links Cannabinoid Receptors to Post-Traumatic Stress Disorder: First Pharmaceutical Treatment for PTSD Within Reach (news – 2013)
http://www.sciencedaily.com/releases/2013/05/130514085016.htm

Researchers discover connection between CB1 receptors and PTSD (news – 2013)

Marijuana May Cure PTSD (news – 2013)

Study Links PTSD and Brain Receptors Activated by Marijuana (news – 2013)

GABA deficits disturb endocannabinoid system (news – 2013)

Marijuana-like compound could lead to first-ever medication for PTSD (news – 2013)
http://www.foxnews.com/health/2013/05/14/marijuana-like-compound-could-lead-to-first-ever-medication-for-ptsd/

New Study Finds Marijuana Could Help Treat Alzheimer’s Disease (news – 2013)

A Link Between Autism and Cannabinoids (news - 2013)

Hormone shows promise at negating marijuana's high effect (news – 2014)

Active ingredient in pot sets off a feedback that reduces intoxication (news – 2014)

Discovery Sheds New Light on Marijuana’s Anxiety Relief Effects (news – 2014)
http://neurosciencenews.com/cannabinoid-receptors-amygdala-anxiety-833/

Muting Marijuana’s High: Pot Without the Impairment (news – 2014)
http://healthland.time.com/2014/01/03/muting-marijuanas-high-pot-without-the-impairment/

Mechanism elucidated: How smell perception influences food intake (news – 2014)
Cannabis Prevents the Negative Behavioral and Physiological Effects PTSD (news – 2014) http://neurosciencenews.com/neuropharmacology-cannabinoids-ptsd-1300/


Mulling the Marijuana Munchies: How the Brain Flips the Hunger Switch (news – 2015) http://neurosciencenews.com/hunger-neuroscience-cb1r-1776/

Synthetic cannabis compounds used to tackle diabetes linked kidney failure
Structure of primary cannabinoid receptor is revealed (news – 2016)

Scientists Closer to Understanding Why Weed Gets Us High (news – 2016)

Microbes, Alzheimer’s Disease, and Cannabis (news – 2016)
http://cannabishealthindex.com/cannabinoid-research/microbes-alzheimers-disease-and-cannabis/

CBD Science: How Cannabinoids Work at the Cellular Level to Keep You Healthy (news – 2016)
http://www.alternet.org/drugs/cbd-science-mitochondria-mysteries-homeostasis-renewal-endocannabinoid-system

Dr. Ethan Russo: Endocannabinoid Nutrition (news – 2016)
https://www.ganjapreneur.com/ethan-russo-endocannabinoid-nutrition/

Compound suggests pain treatment without opioid or medical marijuana side effects (news – 2016)

A New Role For Cannabinoids in Vision (news / abst – 2016)
http://neurosciencenews.com/vision-cannabinoids-neuroscience-4906/

High Times: Taking A Look at the Marijuana Receptor (news / abst – 2016)
http://neurosciencenews.com/thc-cannabinoid-receptor-5316/

Highest Resolution Model of Brain Receptor Behind Marijuana’s High Created (news / abst – 2016)
http://neurosciencenews.com/cb1-high-resolution-model-5539/

CBR - CB2 CANNABINOID RECEPTOR +* - no "high", activated by THC, Anandamide, 2 –AG, THC

Studies demonstrate analgesic properties of synthetic cannabinoid (news – 2010)

Fake Weed, Real Drug: K2 Causing Hallucinations in Teens (news – 2010)

Severity of acute cystitis may be cut with cannabinoid agonist (news – 2011)
Introduction to the Endocannabinoid System (news – 2011)
http://norml.org/library/item/introduction-to-the-endocannabinoid-system

Cannabinoid Receptor Stimulator Reverses Symptoms of Alzheimer's Disease in Animal Model (news – 2012) (may need free registration) http://www.biotechdaily.com/?option=com_article&Itemid=294742494


Scientists find a new pharmacological target to modulate the effect of cannabinoids through their CB1 receptors (news – 2012) http://www.ub.edu/web/ub/en/menu_eines/noticies/2012/07/017.html

Novel compounds to activate cannabinoid receptors in immune system wins award for young Hebrew University researcher (news – 2012) http://www.huji.ac.il/cgi-bin/dovrut/dovrut_search_eng.pl?mesge133966745705872560

Study: cannabis compound might have use as an HIV drug (news – 2013) http://blogs.naturalnews.com/study-cannabis-compound-might-have-use-as-an-hiv-drug/


Activation of cortical type 2 cannabinoid receptors ameliorates ischemic brain injury (news – 2013) http://www.sciencedaily.com/releases/2013/02/130221141140.htm


Beta-Caryophyllene: The Dietary Cannabinoid That Could Make Synthetics Irrelevant (news – 2013)
Study: Marijuana May Reduce Risk of Erectile Dysfunction  (news – 2013)

UEA research reveals how cannabis compound could slow tumour growth  
(news – 2014)  
https://www.uea.ac.uk/about/media-room/press-release-archive/-/asset_publisher/a2jEGMiFHPhv/content/new-research-reveals-how-cannabis-compound-could-slow-tumour-growth

http://www.theweedblog.com/could-cannabis-treat-rheumatoid-arthritis-new-study-says-it-may/

Synthetic cannabinoid molecule created for osteoarthritis  (news – 2014)  

Drugs Related to Cannabis Have Pain-Relieving Potential for Osteoarthritis  
(news – 2014)  
http://www.sciencedaily.com/releases/2014/01/140107092825.htm

How marijuana shrinks cancerous tumours  (news – 2014)  
https://uk.news.yahoo.com/marijuana-shrinks-cancerous-tumours-122611456.html

Protection from osteoarthritis may lie in our own joints, study suggests  (news – 2014)  
https://www.sciencedaily.com/releases/2014/05/140518092722.htm

New Research Shows How Marijuana Compound Can Reduce Tumor Growth In Cancer Patients  
(news – 2014)  
http://www.huffingtonpost.com/2014/07/16/marijuana-tumors_n_5588639.html

Study: Cannabis Plays A Key Role In Pancreatic Cancer Treatment  
(news – 2014)  

Cannabis and Cancer, Pt. 3: How THC and CBD Work on Cancer Cells  
(article – 2015)  

Runner's high linked to cannabinoid receptors in mice  (news & abstract – 2015)  

How Medical Marijuana’s Chemicals May Protect Cells  
(news – 2015)  
http://www.scientificamerican.com/article/how-medical-marijuana-s-chemicals-may-protect-cells/

Brief Overview of the Endocannabinoid System  
(news – 2015)  
http://www.medicaljane.com/2015/02/28/a-brief-overview-of-the-endocannabinoid-system/

Study: Cannabinoid Use in the Treatment of Osteoarthritis Pain  
(news – 2015)
An alternative to medical marijuana for pain? (news – 2015)

Common cholesterol drug stimulates the same receptors as marijuana (news – 2015)

Synthetic cannabis compounds used to tackle diabetes linked kidney failure (news – 2015)

Understanding Cannabinoid Receptors: Why Cannabis Affects Humans (news – 2015)
https://www.whaxy.com/learn/what-are-cannabinoid-receptors?
utm_source=mantis&utm_medium=recommend&utm_campaign=mantis&muuid=9d522039-9ba2-4356-a328-04a72a94e463

What are Cannabinoids? (news – 2015)
https://www.whaxy.com/learn/what-are-cannabinoids?
utm_source=mantis&utm_medium=recommend&utm_campaign=mantis&muuid=622a55f7XXX8b3dXX
X4f96XXX8217XXX5ce33cbb24b8


Temple researchers to explore ability of compounds to protect brain against HIV infection (news – 2016) http://www.eurekalert.org/pub_releases/2016-03/tuhs-trt032816.php


Dr. Ethan Russo: Endocannabinoid Nutrition (news – 2016)
https://www.ganjapreneur.com/ethan-russo-endocannabinoid-nutrition/

Cannabis for Osteoporosis Prevention (news – 2016)
https://www.marijuanatimes.org/cannabis-for-osteoporosis-prevention/

**CBR- GPR-18**

Cannabinoid Receptor Activates Spermatozoa (news – 2016)
http://neurosciencenews.com/spermatozoa-cannabinoid-receptors-4935/

**CBR - GPR55/ CB3 CANNABINOID RECEPTOR +**
Activated by l-α-lysophosphatidylinositol (LPI), and to a lesser extent possibly by THC, CBD, O-1602, PEA, 2-AG, Anandamide, Virodhamine

UEA research reveals how cannabis compound could slow tumour growth (news – 2014)
https://www.uea.ac.uk/about/media-room/press-release-archive/-/asset_publisher/a2jEGMiFHPhv/content/new-research-reveals-how-cannabis-compound-could-slow-tumour-growth

How marijuana shrinks cancerous tumours (news – 2014)
https://uk.news.yahoo.com/marijuana-shrinks-cancerous-tumours-122611456.html

http://www.huffingtonpost.com/2014/07/16/marijuana-tumors_n_5588639.html


**CBR- TRPV-1/ TRANSIENT RECEPTOR POTENTIAL VANILLOID TYPE 1 CHANNEL**

CBR-TRPV-2/ TRANSIENT RECEPTOR POTENTIAL VANILLOID TYPE 2 CHANNEL

3D Structure of Protein That Guides the Immune System Uncovered
(news & abst – 2016) http://neurosciencenews.com/trpv2-ion-channel-immune-system-3448/

DAGL/DIACYLGlycerol LIPASE + – an enzyme involved in making endocannabinoids

Activating cannabinoid brain receptors could replace marijuana for anxiety treatment

Decreasing Nicotine Consumption by Flipping a Molecular ‘Switch’

ENDOCANNABINOIDs +*- also see ANANDAMIDE, 2-AG, NADA, NAGly, OEA, PEA, VIRODHAMINE

Endocannabinoids: Going retro with DAGLα (article – 2010)

Study shows direct cellular interaction between endocannabinoids and alcohol in the brain (news - 2010)

Endocannabinoids: A healthy diet is good for LTD (news – 2011)

Endocannabinoid Signaling In Dietary Restriction And Lifespan Extension (news – 2011) http://www.medicalnewstoday.com/releases/225007.php

Study helps explain why fatty foods are complicit in weight gain (news - 2011)
Eating Disorders Tied to Absence of Brain Cannabinoids  (news – 2011)

Do Deficits in Brain Cannabinoids Contribute to Eating Disorders? 

New Findings on How the Brain’s Own Marijuana-Like Chemicals Suppress Pain 


Scientists find a new pharmacological target to modulate the effect of cannabinoids through their CB1 receptors   (news – 2012)  http://www.ub.edu/web/ub/en/menu_eines/noticies/2012/07/017.html


Marijuana's anxiety relief effects: Receptors found in emotional hub of brain  
(news – 2014)  
http://www.sciencedaily.com/releases/2014/03/140306142803.htm

Discovery Sheds New Light on Marijuana’s Anxiety Relief Effects  
(news – 2014)  
http://neurosciencenews.com/cannabinoid-receptors-amygdala-anxiety-833/

Alzheimer’s Caused By Loss of Cannabinoids, Study Shows  
(news – 2014)  

Researchers Discover How Key Protein Enhances Memory and Learning  
(news – 2014)  
http://neurosciencenews.com/fabp5-protein-memory-learning-1013/

Endocannabinoids  
(article – 2015)  
http://emedicine.medscape.com/article/1361971-overview#showall

Marijuana Is Effective In Treating Depression -- Latest Study  
(news – 2015)  
http://au.ibtimes.com/marijuana-effective-treating-depression-latest-study-1419071

Schizophrenia and weight gain: A new explanation?  
(news – 2015)  
https://www.sciencedaily.com/releases/2015/02/150204125558.htm

Cannabinoids may be responsible for weight gain associated with schizophrenia  
(news – 2015)  

Here's What Marijuana Does to Your Stress  
(news – 2015)  
http://www.attn.com/stories/855/marijuana-depression-research-mental-health

Should I stay or should I go? On the importance of aversive memories and the endogenous cannabinoid  
(news – 2015)  

Your Runner’s High Is Similar to a Pot High  
(news – 2015)  
http://www.thedailybeast.com/articles/2015/10/09/your-runner-s-high-is-similar-to-a-pot-high.html?ref=yfp

Blocking body's endocannabinoids could be effective liver cancer treatment  
(news – 2015)  
https://www.sciencedaily.com/releases/2015/11/151123103057.htm

What Is Clinical Endocannabinoid Deficiency?  
(news – 2015)  
http://www.theimpactnetwork.org/endocannabinoid-deficiency/

Harvesting Benefits from Cannabinoids.  
(article – 2016)  
http://www.cell.com/cell/fulltext/S0092-8674(16)31675-0

Making or breaking habits: The endocannabinoids can do it  
(news – 2016)  

How the brain makes, and breaks, a habit  
(news – 2016)
ENDOCANNABINOID SYSTEM +*

Endocannabinoids and psychiatric disorders: the road ahead (article – 2010)

Levels And Efficacy Of A Marijuana-Like Substance In The Brain Controlled By Newly Discovered Mechanism (news – 2010)
http://www.medicalnewstoday.com/releases/197171.php

Not Feeling Well? Perhaps You're 'Marijuana Deficient' (news – 2010)
http://www.alternet.org/health/146151/not_feeling_well_perhaps_you%27re_%27marijuana_deficient%27/

Cannabinoids: every body likes them, some bodies need them (news – 2010)
https://patients4medicalmarijuana.wordpress.com/2010/03/13/cannabinoids-every-body-likes-them-some-bodies-need-them/

Omega-3 deficiency disrupts cannabinoid receptor function in brain (news – 2011)
http://cannabisculture.hanf.ws/2012/06/26/omega-3-deficiency-disrupts-cannabinoid-receptor-function-in-brain/

A Brain Wrought Without Omega-3 (news – 2011)

Introduction to the Endocannabinoid System (news – 2011)
http://norml.org/library/item/introduction-to-the-endocannabinoid-system

Marijuana Compound Treats Multiple Health Issues (news – 2011)
http://www.foxnews.com/health/2010/03/10/cannabis-deficient

A Summary of Endocannabinoids and Obesity (news – 2011)

Research provides new clues to understand link between deficits of AGPO-3, depression (news – 2011)

What An Expectant Mother Eats Affects Children’s Psychology in Later Life (news – 2011)
Poor Diet Impairs Cannabinoid Receptors (forum repost – 2011)

How Weed Can Protect Us From Cancer and Alzheimer's (book excerpt – 2012)
http://www.alternet.org/story/156269/how_weed_can_protect_us_from_cancer_and_alzheimer%27s

Cannabinoid 2 receptors regulate impulsive behavior (news – 2012)

'Runner's High' may have played role in evolutionary history of humans (news – 2012)
http://in.news.yahoo.com/runners-high-may-played-role-evolutionary-history-humans-105030765.html

Amyrin and the endocannabinoid system (news – 2012)
http://gertschgroup.com/blog/entry/3188293/amyrin-and-the-endocannabinoid-system

Medical Marijuana And The Body’s Cannabinoid System (news – 2012)

Treating “Fragile X” (news – 2012)

Study: THC Increases Brain Activity In Response To Positive Stimuli (news – 2013)

Key Shift in Brain That Creates Drive to Overeat Identified (news – 2013)
http://www.sciencedaily.com/releases/2013/04/130429154214.htm

A Link Between Autism and Cannabinoids (news – 2013)

London Zoo: No runner’s high for ferrets (news – 2013)

Do Dogs Get Runner's High? (news – 2013)

GABA deficits disturb endocannabinoid system (news – 2013)

Stoners beware: Exercising might lead to a positive drug test (news – 2013)

One Toke, Many Hits: Exercise Could Trigger Additional High for Marijuana Users (news – 2013)
http://healthland.time.com/2013/09/17/one-toke-many-hits-exercise-could-trigger-additional-high-for-marijuana-users/
Science for potheads: Why they love to get high (news – 2013)  
http://www.salon.com/2013/09/08/science_for_potheads_why_they_love_to_get_high/  

Marijuana cannabinoids slow brain degradation and aging, reverse dementia: here's how (news – 2013)  
http://www.naturalnews.com/040456_marijuana_cannabinoids_dementia.html  

Science for stoners: Here’s how pot works (news – 2013)  
http://www.salon.com/2013/08/17/science_for_stoners_heres_how_pot_works/  

Study: Memory Benefits Of Exercise Tied To Cannabinoid System (news – 2013)  

http://www.safeaccessnow.org/medical_cannabis_research_what_does_the_evidence_say  

The Common Link Between Breast Milk, Cannabis and Tea (news – 2014)  

Protection from osteoarthritis may lie in our own joints, study suggests (news – 2014)  
https://www.sciencedaily.com/releases/2014/05/140518092722.htm  

Mechanism elucidated: How smell perception influences food intake (news – 2014)  
http://www.sciencedaily.com/releases/2014/02/140210114550.htm  

Discovery Sheds New Light on Marijuana’s Anxiety Relief Effects (news – 2014)  
http://neurosciencenews.com/cannabinoid-receptors-amygdala-anxiety-833/  

http://www.huffingtonpost.com/2014/07/16/marijuana-tumors_n_5588639.html  

Researchers Discover How Key Protein Enhances Memory and Learning (news – 2014)  
http://neurosciencenews.com/fabp5-protein-memory-learning-1013/  

Endocannabinoids (article – 2015)  
http://emedicine.medscape.com/article/1361971-overview#showall  

https://www.medicaljane.com/2015/06/17/is-the-endocannabinoid-system-involved-in-the-progression-of-asd/  

With education, nurses can help to bridge the marijuana gap (article – 2015)  
Oxytocin Enhances Pleasure of Social Interactions by Stimulating Production of “Bliss Molecule” (news & abstract – 2015)
http://neurosciencenews.com/oxytocin-anandamide-2926/

How Medical Marijuana’s Chemicals May Protect Cells (news – 2015)
http://www.scientificamerican.com/article/how-medical-marijuana-s-chemicals-may-protect-cells/

Cholesterol Drug Might Work Better than Medical Marijuana (news – 2015)
http://www.popsci.com/cholesterol-drug-targets-same-receptors-marijuana

Common cholesterol drug stimulates the same receptors as marijuana (news – 2015)

New research sheds light on molecular architecture of receptors linked to many brain diseases (news – 2015)

'Love hormone' oxytocin mimics effects of marijuana (news – 2015)
https://in.news.yahoo.com/love-hormone-oxytocin-mimics-effects-marijuana-074404829.html

Brief Overview of the Endocannabinoid System (news – 2015)
http://www.medicaljane.com/2015/02/28/a-brief-overview-of-the-endocannabinoid-system/

http://www.theimpactnetwork.org/endocannabinoid-deficiency/

Understanding Cannabinoid Receptors: Why Cannabis Affects Humans (news – 2015)
https://www.whaxy.com/learn/what-are-cannabinoid-receptors?
utm_source=mantis&utm_medium=recommend&utm_campaign=mantis&muuid=9d522039-9ba2-4356-a328-04a72a94e463

The Outsourcing of American Marijuana Research (news – 2015)

Enhancing Your Endocannabinoid System with Omega-3 Fatty Acids (news - 2015)
http://herb.co/2015/03/23/enhancing-your-endocannabinoid-system-with-omega-3-fatty-acids/

What are Cannabinoids? (news – 2015)
https://www.whaxy.com/learn/what-are-cannabinoids?
utm_source=mantis&utm_medium=recommend&utm_campaign=mantis&muuid=622a55f7XXX8b3dXX
X4f96XXX8217XXX5ee33cbb24b8

Previously Unknown Function of a Cannabinoid Receptor Identified (news / abst – 2016)
http://neurosciencenews.com/cb2-cannabinoid-receptor-hippocampus-4147/

In Defense of Working Out While High (news – 2016)
Temple researchers to explore ability of compounds to protect brain against HIV infection  
(news – 2016)  

Botched French Drug Trial Followed Rules But Lacked 'Common Sense'  
(news – 2016)  
http://www.npr.org/sections/health-shots/2016/05/03/475867184/botched-french-drug-trial-followed-rules-but-lacked-common-sense

Study shows cannabinoid type 2 receptor plays vital role in signal processing of the brain  
(news – 2016)  

How Cannabis Works to Control Pain and Anxiety  
(news – 2016)  
http://www.huffingtonpost.com/entry/how-cannabis-works-to-control-pain-and-anxiety_us_57d97a73e4b0d93d17700f63

Does Marijuana Hold the Cure for Alzheimer's Disease?  
(news – 2016)  

ShanghaiTech Scientists Resolve the Structure of the Human "Marijuana Receptor"  
(news – 2016)  

Exercise Can Still Increase Hunger Even in Sleep Deprivation  
(news – 2016)  

Scientists Closer to Understanding Why Weed Gets Us High  
(news – 2016)  

Microbes, Alzheimer’s Disease, and Cannabis  
(news – 2016)  
http://cannabishealthindex.com/cannabinoid-research/microbes-alzheimers-disease-and-cannabis/

Cannabis and Acupuncture, the Yin and Yang of Healing Pain (an ancient connection revealed)  
(news – 2016)  

How does cannabis get users “high”? Science explains.  
(news – 2016)  
http://www.thecannifornian.com/cannabis-culture/cannabis-get-users-high-science-explains/

Marijuana Dependence Influenced by Genes, Childhood Sexual Abuse  
(news – 2016)  
http://www.newswise.com/articles/view/643766/?sc=rsmn

CBD Science: How Cannabinoids Work at the Cellular Level to Keep You Healthy  
(news – 2016)  
http://www.alternet.org/drugs/cbd-science-mitochondria-mysteries-homeostasis-renewal-endocannabinoid-system
Boost Your Endocannabinoid System With Omega-3 Fatty Acids  (news - 2016)
http://herb.co/2016/08/02/omega-3-fatty-acids/

7 Effective Ways To Boost Your Endocannabinoid System  (news - 2016)
http://www.collective-evolution.com/2016/08/06/7-ways-to-boost-your-endocannabinoid-system/

How Omega 3 Improves the Effectiveness of CBD Oil  (news – 2016)
https://www.highlandpharms.com/cbd-oil-effective-omega-3

Why smoking pot makes food taste so delicious  (news – 2016)

I’m Just Mad About Saffron & Other Spices that Activate the Endocannabinoid System  (news – 2016)
https://www.projectcbd.org/article/im-just-mad-about-saffron

Natural Ways to Activate the Endocannabinoid System Without Marijuana  (news – 2016)
https://www.merryjane.com/health/how-to-activate-endocannabinoid-system-without-marijuana

Dr. Ethan Russo: Endocannabinoid Nutrition  (news – 2016)
https://www.ganjapreneur.com/ethan-russo-endocannabinoid-nutrition/

JUST EAT IT! THE ENDOCANNABINOID SYSTEM  (news – 2016)
https://elevatenv.com/just-eat-it-the-endocannabinoid-system/

Dr. Ethan Russo explains Clinical Endocannabinoid Deficiency  (news – 2016)

ENTOURAGE EFFECT – ENDOCANNABINOIDS  +*

Those Pungent Smells Oozing Out of Marijuana Buds Are Actually Giving You Clues About What Their Effects Will Be Like  (news – 2012)

Medical Marijuana: The Entourage Effect  (news – 2014)

https://www.whaxy.com/learn/what-is-cannabis-entourage-effect

The Entourage Effect: Why Whole Cannabis Is Better  (news – 2014)
http://www.unitedpatientsgroup.com/blog/2014/04/22/the-entourage-effect-why-whole-cannabis-is-better/

What are Cannabinoids?  (news – 2015)
https://www.whaxy.com/learn/what-are-cannabinoids?
utm_source=mantis&utm_medium=recommend&utm_campaign=mantis&muuid=622a55f7XXX8b3dXX
X4f96XXX8217XXX5ce33ebb24b8
Ebbu Announces Groundbreaking Scientific Research of "Entourage Effect"  
(news – 2016)  

**FAAH/ FATTY ACID AMIDE HYDROLASE** + breaks down anandamide

New Drug Kills Pain by Boosting Body's Naturally Occurring Marijuana-Like  
Compound  (news – 2010)  

Endocannabinoids  (article – 2015)  
http://emedicine.medscape.com/article/1361971-overview#showall

Brief Overview of the Endocannabinoid System  (news – 2015)  
http://www.medicaljane.com/2015/02/28/a-brief-overview-of-the-endocannabinoid-system/

http://www.theimpactnetwork.org/endocannabinoid-deficiency/

Is Anxiety Genetic?  (news – 2015)  
http://www.quickanddirtytips.com/education/science/is-anxiety-genetic

Feeling very happy? It's in your genes  (news – 2016)  
http://www.aol.co.uk/news/2016/01/15/feeling-very-happy-its-in-your-genes/

French drug trial leaves one brain dead and five critically ill  (news – 2016)  

French drug trial turns disastrous, leaving 1 brain dead and 5 hospitalized  
(news – 2016)  

Botched French Drug Trial Followed Rules But Lacked 'Common Sense'  
(news – 2016)  
http://www.npr.org/sections/health-shots/2016/05/03/475867184/botched-french-drug-trial-followed-rules-but-lacked-common-sense

Research Team Finds How CBD, a Component in Marijuana, Works Within Cells  
(news – 2016)  
http://www.newswise.com/articles/view/629638/

Nutmeg Keeps Endocannabinoids Happening  (news – 2016)  
http://www.beyondthc.com/nutmeg-boosts-endocannabinoid-levels/
Microbes, Alzheimer’s Disease, and Cannabis  
http://cannabishealthindex.com/cannabinoid-research/microbes-alzheimers-disease-and-cannabis/

Dr. Ethan Russo: Endocannabinoid Nutrition  
https://www.ganjapreneur.com/ethan-russo-endocannabinoid-nutrition/

**FABP / FATTY ACID BINDING PROTEINS** – they deliver cannabinoids to FAAH for destruction

Researchers Discover How Key Protein Enhances Memory and Learning  
(news – 2014)  
http://neurosciencenews.com/fabp5-protein-memory-learning-1013/

Research Team Finds How CBD, a Component in Marijuana, Works Within Cells  
(news – 2016)  
http://www.newswise.com/articles/view/629638/

**MAGL/ MGL/ MONOACYLGLYCEROL LIPASE** + - breaks down 2-AG

Scripps Research Scientists Discover Inflammation Is Controlled Differently in Brain and Other Tissues  
(news – 2011)  

Marijuana for Alzheimer’s Disease  
(news – 2014)  
https://www.psychologytoday.com/blog/your-brain-food/201411/marijuana-alzheimer-s-disease

Brief Overview of the Endocannabinoid System  
(news – 2015)  
http://www.medicaljane.com/2015/02/28/a-brief-overview-of-the-endocannabinoid-system/

What Is Clinical Endocannabinoid Deficiency?  
(news – 2015)  
http://www.theimpactnetwork.org/endocannabinoid-deficiency/

Suppressing Schizophrenia Symptoms Without Side Effects: Mouse Study  
(news & abst – 2016)  
http://neurosciencenews.com/schizophrenia-compound-striatum-5089/

Treating Depression in Alcoholics  
(news & abst – 2016)  
http://neurosciencenews.com/alcoholism-depression-psychology-3541/

Nutmeg Keeps Endocannabinoids Happening  
(news – 2016)  
http://www.beyondthc.com/nutmeg-boosts-endocannabinoid-levels/

Marijuana Dependence Influenced by Genes, Childhood Sexual Abuse  
(news – 2016)  
http://www.newswise.com/articles/view/643766/?sc=rsmn
**OMEGA-3/ CB1 CONNECTION**  
- without Omega 3, new CB1 receptors are made imperfectly -
also see NUTRITION – HEMP SEED OIL, CBR- CB1 RECEPTORS

Omega 3s, Mice, and Receptors for Funny Cigarettes  (news – 2011)  

Endocannabinoids: A healthy diet is good for LTD  (news – 2011)  

Omega-3 deficiency disrupts cannabinoid receptor function in brain  (news – 2011)  
http://cannabisculture.hanf.ws/2012/06/26/omega-3-deficiency-disrupts-cannabinoid-receptor-function-in-brain/

What An Expectant Mother Eats Affects Children’s Psychology in Later Life  
(news – 2011)  

A Summary of Endocannabinoids and Obesity  (news – 2011)  

A Brain Wrought Without Omega-3  (news – 2011)  

Research provides new clues to understand link between deficits of AGPO-3, depression  
(news – 2011)  

Poor Diet Impairs Cannabinoid Receptors  (forum repost – 2011)  

All You Need to Know About Hemp Seeds  (news – 2013)  

Plant-Based Foods With the Highest Omega-3 Fatty Acids  (news – 2014)  

Hemp for a Healthy Heart?  (news – 2015)  
http://blog.lifeextension.com/2014/02/hemp-for-healthy-heart.html


Endogenous "cannabis" influences development of the fetal pancreas  (news - 2015)  
https://www.sciencedaily.com/releases/2015/10/151023084458.htm
**OMEGA-6 / ENDOCANNABINOID CONNECTION**  
- some endocannabinoids are made from Omega 6, you need it, but it is also pro-inflammatory, so too much is not good for you. Most folks get too much.

A Summary of Endocannabinoids and Obesity  

All You Need to Know About Hemp Seeds  

Plant-Based Foods With the Highest Omega-3 Fatty Acids  

The Benefits of Organic Hemp Milk  

Brief Overview of the Endocannabinoid System  
http://www.medicaljane.com/2015/02/28/a-brief-overview-of-the-endocannabinoid-system/

Enhancing Your Endocannabinoid System with Omega-3 Fatty Acids  
http://herb.co/2015/03/23/enhancing-your-endocannabinoid-system-with-omega-3-fatty-acids/

How Omega 3 Improves the Effectiveness of CBD Oil  
https://www.highlandpharms.com/cbd-oil-effective-omega-3

**OMEGA-9**

Your Next Cooking Oil Could Come From Hemp  
http://www.popsci.com/article/science/your-next-cooking-oil-could-come-hemp

**PEA – PALMITOYLETHANOLAMIDE**  
- CB 2, GPR55 & GPR119 agonist, limits FAAH

Chocolate: The Good, the Bad and the Angry  
(news - 2010)
PLACEBO EFFECT

Endocannabinoids Pitch In for Placebo Effect (news – 2011)

Part of placebo effect ascribed to cannabinoids (news – 2011)
ENOCANNABINOID SYSTEM GENETICS

ARTICLES 2010 - 2017

(There are so few news articles on ECS genetics, that I have just lumped them all together.)

COMT; another “wrong” result for the reefer madness hype (news – 2011) http://ukcia.org/wordpress/?p=924


Why resolutions about taking up physical activity are hard to keep. (news – 2013) http://www.thefreelibrary.com/Why+resolutions+about+taking+up+physical+activity+are+hard+to+keep.-a0313904638


A Link Between Autism and Cannabinoids (news – 2013)

Protection from osteoarthritis may lie in our own joints, study suggests (news – 2014)
https://www.sciencedaily.com/releases/2014/05/140518092722.htm

How genetic variation influences marijuana dependence (news – 2015)

Is Anxiety Genetic? (news – 2015)
http://www.quickanddirtytips.com/education/science/is-anxiety-genetic

Feeling very happy? It's in your genes (news – 2016)
http://www.aol.co.uk/news/2016/01/15/feeling-very-happy-its-in-your-genes/

Your genes may predict how you react to smoking weed (news – 2016)
http://mashable.com/2016/03/09/genes-predict-how-you-get-high/#15VQcjKFQaqE

High Anxiety Risk in Adolescence Linked to One Gene (news – 2016)

Making or breaking habits: The endocannabinoids can do it (news – 2016)

How the brain makes, and breaks, a habit (news – 2016)
https://www.sciencedaily.com/releases/2016/05/160526185419.htm

Marijuana Dependence Influenced by Genes, Childhood Sexual Abuse (news – 2016)
http://www.newswise.com/articles/view/643766/?sc=rsmn
PHYTOCANNABINOIDS and RELATED COMPOUNDS
ARTICLES 2010 - 2017

AMYRINS + – phytochemicals that inhibit the breakdown of 2-AG,

Amyrin and the endocannabinoid system (news – 2012)
http://gertschgroup.com/blog/entry/3188293/amyrin-and-the-endocannabinoid-system

ANTHOCYANINS/ ANTHOCYADINS + – plant pigments, moderately activate CB1 & CB2 receptors


BETA-CARYOPHYLLENE/ (E)-BCP +* – CB2 agonist found in many plants, also see TRANS-CARYOPHYLLENE

Cannabinoid and Terpenoid Reference Guide (undated)

Terpenes, Terpenoids and Cannabis (news – 2010)
https://berkeleypatientscare.com/terpenes-terpenoids-and-cannabis/

Terpenoids, ‘minor’ cannabinoids contribute to ‘entourage effect’ of cannabis-based medicines (news – 2011)

Tailoring Your High: Compounds in Cannabis, Properties and Boiling Points (chart – 2012)
http://www.weedist.com/2012/07/tailoring-high-compounds-in-cannabis-properties-boiling-points/

Those Pungent Smells Oozing Out of Marijuana Buds Are Actually Giving You Clues About What Their Effects Will Be Like (news – 2012)

Getting the Flax Straight about Cannabidiol (news – forum repost – 2012)

Activation of cortical type 2 cannabinoid receptors ameliorates ischemic brain injury (news – 2013) http://www.sciencedaily.com/releases/2013/02/130221141140.htm

Beta-Caryophyllene: The Dietary Cannabinoid That Could Make Synthetics Irrelevant (news – 2013)

Cannabinoid and Terpene Info (chart – 2015)
http://skunkpharmresearch.com/cannabinoid-info/

The Rise Of Tailor-Made Highs (news – 2016)

Foot Nail Fungus is Stubborn, Ugly, and Pernicious (news – 2016)

JUST EAT IT! THE ENDOCANNABINOID SYSTEM (news – 2016)
https://elevatenv.com/just-eat-it-the-endocannabinoid-system/

BLACK PEPPER -- contains BETA-CARYOPHYLLENE and other terpines contains beta-caryophyllene beta-caryophyllene
I’m Just Mad About Saffron & Other Spices that Activate the Endocannabinoid System (news – 2016) https://www.projectcbd.org/article/im-just-mad-about-saffron

Check Out These Non-Marijuana Plants That Contain Cannabinoids (news – 2016)
http://herb.co/2016/03/29/non-marijuana-plants-contain-cannabinoids/

Dr. Ethan Russo: Endocannabinoid Nutrition (news – 2016)
https://www.ganjapreneur.com/ethan-russo-endocannabinoid-nutrition/

Dr. Ethan Russo explains Clinical Endocannabinoid Deficiency (news – 2016)

CANNABINOIDs IN OTHER PLANTS

Getting the Flax Straight about Cannabidiol (news – forum repost – 2012)
Did you know that other plants produce cannabinoids too? (news - 2015)
https://sensiseeds.com/en/blog/did-you-know-that-other-plants-produce-cannabinoids-too/#comment-90013111

Nutmeg Keeps Endocannabinoids Happening (news – 2016)
http://www.beyondthc.com/nutmeg-boosts-endocannabinoid-levels/

Check Out These Non-Marijuana Plants That Contain Cannabinoids (news – 2016)
http://herb.co/2016/03/29/non-marijuana-plants-contain-cannabinoids/

Dr. Ethan Russo: Endocannabinoid Nutrition (news – 2016)
https://www.ganjapreneur.com/ethan-russo-endocannabinoid-nutrition/

**Cannador** + – a cannabis extract in pill form

Marijuana Helps Ease MS Symptoms, Study Finds (news – 2012)
http://www.healthline.com/health-blogs/study-roundup/marijuana-multiple-sclerosis-101112

Medical Marijuana: Consortium of Multiple Sclerosis Centers (news – 2013)

**Cannflavin-A/ Cannflavin-B** + - non-cannabinoid compounds from cannabis

Tailoring Your High: Compounds in Cannabis, Properties and Boiling Points (chart – 2012)
http://www.weedist.com/2012/07/tailoring-high-compounds-in-cannabis-properties-boiling-points/

Cannabinoid and Terpene Info (chart – 2015)
http://skunkpharmresearch.com/cannabinoid-info/

**Caryophyllene Oxide** - activates CB2 receptors

A CB2 Activating Cannabinoid is the new potential weapon against horrific parasites (news – 2016)
http://cannabishealthindex.com/cannabinoid-research/a-cb2-activating-cannabinoid-is-the-new-potential-weapon-against-horrific-parasites/
Promising Treatment for Chagas Disease: Caryophyllene Oxide (a cannabinoid-based preparation) (news – 2016)

Foot Nail Fungus is Stubborn, Ugly, and Pernicious (news – 2016)

CBC/ CANNABICHROMENE  +* - phytocannabinoid, unknown receptor

Cannabis Science Reports: National Cancer Institute Updates Confirm Successful Cancer Treatments with Medical Cannabis. (news - 2011)
http://www.thefreelibrary.com/Cannabis+Science+Reports%3a+National+Cancer+Institute+Updates+Confirm+-a0252875363

Tailoring Your High: Compounds in Cannabis, Properties and Boiling Points (chart – 2012)
http://www.weedist.com/2012/07/tailoring-high-compounds-in-cannabis-properties-boiling-points/

Those Pungent Smells Oozing Out of Marijuana Buds Are Actually Giving You Clues About What Their Effects Will Be Like (news – 2012)

5 Marijuana Compounds That Could Help Combat Cancer, Alzheimers, Parkinsons (If Only They Were Legal) (news – 2012)
http://www.alternet.org/drugs/5-marijuana-compounds-could-help-combat-cancer-alzheimers-parkinsons-if-only-they-were-legal

5 Health Benefits Of Cannabichromene (CBC) (news – 2013)
http://www.leafscience.com/2013/09/21/5-health-benefits-of-cannabichromene-cbc/

Cannabinoid Breakdown (news – 2014)
http://www.bloomwellbend.com/cannabinoid-breakdown/

Cannabis Chemistry 101 (news – 2014)
http://www.greencultured.co/cannabis-chemistry-101/

Cannabinoids (article – 2015)  http://steephill.com/science/cannabinoids

Cannabinoid and Terpene Info (chart – 2015)  http://skunkpharmresearch.com/cannabinoid-info/
CBD/ CANABIDIOL/ GWP- 42003  

* agonist of the 5-HT1A receptor, antagonist of CB1 and CB2, GPR – 55 and GPR- 18, helps prevent the breakdown of anandamide

How One Citizen Scientist is Taking On Parkinson’s-related Nightmares – and Winning
(news – undated)
How One Citizen Scientist is Taking On Parkinson's-Related Nightmares — and Winning

Endocannabinoids and psychiatric disorders: the road ahead  (article – 2010)

Cannabidiol researchers discover the switch to turn off aggressive breast cancer gene
(news- forum repost - 2010)

Non-psychoactive cannabis to be unveiled at Annual National Clinical Conference on Cannabis Therapeutics  (news - 2010)

Prescription Marijuana Without "Intoxicating" Effect in Research Stage  (news - 2010)

Key ingredient staves off marijuana memory loss  (news - 2010)

Science: Cannabidiol enhances the anti-cancer effects of THC on human brain cancer cells  (news – 2010)
http://www.cannabis-med.org/english/bulletin/ww_en_db_cannabis_artikel.php?id=313#3

Pot Compound Mitigates Diabetic Cardiomyopathy  (news - 2010)

Cannabinoids inhibit and may prevent neuropathic pain in diabetes.  (news - 2010)

Lab Notes: Pot Has Benefits for Diabetic Hearts  (news - 2010)
http://www.medpagetoday.com/LabNotes/LabNotes/23853


Cannabidiol (CBD) as an Anti-Arrhythmic – the Role of the CB1 Receptors  (news – 2010)
Old Hippie’s Definitive Guide To CBD (news – 2010)

Cannabis could be used to treat epilepsy (news – 2011)

Marijuana Extract Might Help Prevent Chemotherapy-Related Nerve Pain (news – 2011)

Marijuana component could ease pain from chemotherapy drugs (news – 2011)

Another Study Confirms Anti-Cancer Effects of THC and CBD (news – 2011)
http://mamamojournal.blogspot.com/search?q=Another+Study+Confirms+Anti-Cancer+Effects+of+THC+and+CBD

Cannabinoid 'Completely' Prevents Chemotherapy-Induced Neuropathy, Study Says (news – 2011)

Marijuana Compound Induces Cell Death In Hard-To-Treat Brain Cancer (news – 2011)

Marijuana component may ease pain from chemotherapy drugs (news – 2011)
http://www.jpost.com/Health/Article.aspx?id=241299

Pot Compound Exerts Anticonvulsant Effects In Animal Models Of Epilepsy (news - 2011)

CBD: Marijuana Compound Has No High, But Relieves Pain (news – 2011)

New research provides hope for those with epilepsy (news - 2011)

Cannabis Compound Induces Death Of Cells Associated With Liver Fibrosis (news – 2011)

CBD Tops The Chart (news - 2011)
http://www.beyondthc.com/cbd-tops-the-chart/

Cannabidiol may help prevent paclitaxel-induced peripheral neuropathy (news – 2011)
San Francisco Medical Marijuana Clinic Says Cannabis is Effective for Many Women’s Medical Issues (news – 2011)  

Tailoring Your High: Compounds in Cannabis, Properties and Boiling Points (chart – 2012)  
http://www.weedist.com/2012/07/tailoring-high-compounds-in-cannabis-properties-boiling-points/

Would some cannabinoids ameliorate symptoms of autism? (news - 2012)  

Marijuana Compound May Beat Antipsychotics at Treating Schizophrenia (news – 2012)  

http://bigbuds magazine.com/medical-marijuana-a-cure-for-autism/

How marijuana could help cure obesity-related diseases (news – 2012)  

Cannabis can help treat obesity (news – 2012)  

Study: Cannabis Use Associated With Decreased Prevalence Of Diabetes (news – 2012)  

Researchers study neuroprotective properties in cannabis (news - 2012)  
http://www.foxnews.com/health/2012/03/20/researchers-study-neuroprotective-properties-in-cannabis/

How Medical Marijuana Is Giving a Six-Year-Old Boy New Life (news – 2012)  
http://thinkprogress.org/justice/2012/09/18/854811/how-medical-marijuana-is-giving-a-six-year-old-boy-new-life/?mobile=nc

Marijuana compound could stop aggressive cancer metastasis (news - 2012)  

Marijuana And Cancer: Scientists Find Cannabis Compound Stops Metastasis In Aggressive Cancers (news – 2012)  

Cannabis For Infant's Brain Tumor, Doctor Calls Child "A Miracle Baby" (news – 2012)  
http://www.huffingtonpost.com/2012/12/01/cannabis-for-infants-brain_n_2224898.html

Buy It Now, It’s Legal – Medical Marijuana Cannabidiol (CBD from Industrial Hemp) (news - 2012)  
Israel pushing ahead in medical marijuana industry  (news – 2012)

Marijuana Compound Treats Schizophrenia with Few Side Effects: Clinical Trial  
(news – 2012)
http://healthland.time.com/2012/05/30/marijuana-compound-treats-schizophrenia-with-few-side-effects-clinical-trial/

Those Pungent Smells Oozing Out of Marijuana Buds Are Actually Giving You Clues About What Their Effects Will Be Like  
(news – 2012)

5 Marijuana Compounds That Could Help Combat Cancer, Alzheimers, Parkinsons (If Only They Were Legal)  
(news – 2012)
http://www.alternet.org/drugs/5-marijuana-compounds-could-help-combat-cancer-alzheimers-parkinsons-if-only-they-were-legal

Encouraging anti-diabetic results for new cannabinoid drug  
(news – 2012)

Can Marijuana Stop The Growth Of Colon Cancer Cells?  
(news – 2012)

Is Marijuana the Cancer Cure We’ve Waited For?  
(news – 2012)
http://www.empowher.com/cancer/content/marijuana-cancer-cure-we-ve-waited

The Amazing Health Benefits of Juicing Raw Cannabis Leaves  
(news – 2012)

How THC and CBD Work Together  
(news – 2012)
http://pureanalytics.net/blog/2012/02/19/how-thc-and-cbd-work-together/

Acidic versus Activated Cannabinoids- Tips on How to Choose the Therapy Regimen that is Right for You  
(news – 2012)
http://pureanalytics.net/blog/2012/05/09/acidic-versus-activated-cannabinoids-tips-on-how-to-choose-the-therapy-regimen-that-is-right-for-you/

Weaker Hemp Derivatives Can’t Compare to Full-Spectrum Marijuana Pills  
(news/ad- 2012)  
http://www.prweb.com/releases/marijuanapills/cannabispill/prweb10099535.htm

What You Need to Know about Growing CBD-rich Cannabis from Seed  
(news/ad – 2012)  
http://pureanalytics.net/blog/2012/03/12/what-you-need-to-know-about-growing-cbd-rich-cannabis-from-seed/

Getting the Flax Straight about Cannabidiol  
(news – forum repost – 2012)
Simple Method: Isolating & Extracting INDIVIDUAL Cannabinoids... from BadKittySmiles (forum post – 2012)

Study: Cannabis Compound Reduces Cigarette Consumption In Tobacco Smokers (news – 2013)

Terpenes May Improve Effectiveness Of Medical Marijuana (news – 2013)

Marijuana Verses Leading Pharmaceuticals In The Treatment of Colon Cancer (news – 2013)
http://www.wakingtimes.com/2013/05/06/marijuana-verses-leading-pharmaceuticals-in-the-treatment-of-colon-cancer/

High on Health: Cannabinoids in the Food Supply (news – 2013)
http://www.wakingtimes.com/2013/04/25/high-on-health-cbd-in-the-food-supply/

Fighting Cancer: Another Study Reveals the Cannabis and Cancer Link (news – 2013)
http://www.wakingtimes.com/2012/10/05/fighting-cancer-another-study-reveals-the-cannabis-and-cancer-link/

Charlotte’s Web Of Suffering: Six-Year-Old Colorado Girl With Dravet Syndrome Finds Relief From Marijuana High In CBD (news – 2013)

Toronto family hopes for access to controversial treatment to cure baby’s rare epilepsy (news – 2013)

Cannabis may help reverse dementia: study (news – 2013)

Mother Investigated After Opting For Marijuana Over Chemotherapy (news – 2013)

Sending multiple sclerosis up in smoke (news – 2013)

Chemicals in marijuana 'protect nervous system' against MS (news – 2013)
http://www.medicalnewstoday.com/articles/267161.php
Families migrate to Colorado for marijuana miracle  (news – 2013)  

Comes Now Epidiolex (FDA approves IND studies of CBD)  (news – 2013)  


Cannabis-Based Epilepsy Drug Approved For Clinical Trials  (news – 2013)  

Can Marijuana Help You Quit Cigarettes? Study Says Yes  (news – 2013)  
http://www.leafscience.com/2013/11/01/can-marijuana-help-quit-cigarettes-study-says-yes/

Study shows non-hallucinogenic cannabinoids are effective anti-cancer drugs  

New Study Proves Cannabinoids Have Cancer Fighting Properties  (news – 2013)  
http://www.opposingviews.com/i/society/drug-law/new-study-proves-cannabinoids-have-cancer-fighting-properties

Marijuana Extract Holds Promise as Diabetes Treatment  (news – 2013)  

CBD strains from Europe Grown Out in California  (news – 2013)  

High levels of THC in Australian cannabis  (news – 2013)  

New Research Finds Marijuana May Combat Brain Damage  

New Study: Cannabis May Treat Brain Damage Caused by Heavy Alcohol Consumption  

Report on Medical Cannabis Research History- What the Science Says  
(article – 2014)  http://www.safeaccessnow.org/medical_cannabis_research_what_does_the_evidence_say

Non-psychoactive CBD oil made from marijuana plants poised to be game-changer  

This Family Had To Fire Their Doctor To Get Medical Marijuana For Their Son
Retired Flint couple sees the light on medical marijuana

New Study: Cannabis May Protect Liver From Alcohol Related Damage
https://thejointblog.com/new-study-cannabis-may-protect-liver-alcohol-related-damage/

Marijuana tested as treatment for children with epilepsy

Cannabis Science: Finding The Optimal Therapeutic Ratio Of THC And CBD

THC, CBD And More: The Entourage Effect Of Whole-Plant Cannabis Medicine
http://www.medicaljane.com/2014/05/14/thc-cbd-and-more-the-entourage-effect-of-whole-plant-cannabis-medicine/

An Ingredient of Pot May Help People with Epilepsy

Bid to Expand Medical Marijuana Business Faces Federal Hurdles

Vaporized medical marijuana study given green light
http://abc7news.com/health/vaporized-medical-marijuana-study-given-green-light/261437/

Federal marijuana bill would legalize some cannabis strains

Low or No THC, High CBD Medical Marijuana Bills: Leaving Most Patients Behind
https://www.mpp.org/low-or-no-thc-high-cbd-medical-marijuana-bills/

Cannabinoid Breakdown
http://www.bloomwellbend.com/cannabinoid-breakdown/

Cannabis Chemistry 101
http://www.greencultured.co/cannabis-chemistry-101/

DR ALLAN FRANKEL’S EARLY VERSION INITIAL DOSAGE AND ADMINISTRATION GUIDE


This for That: Cannabidiol and Psoriasis (news – 2014) http://the420times.com/2014/09/this-for-that-cannabidiol-and-psoriasis/


How CBD Oil Changed Everything for a Dying Cat (news – 2015)

Olympic athlete pushes for pot gold (news – 2015)
http://www.bclocalnews.com/national/300827901.html

Cannabidiol paste potentially a cure for Lyme disease

The Science Behind Sanjay Gupta’s WEED 3 (news – 2015)

Withdrawal drug could help cannabis addicts kick the habit (news – 2015)

Study confirms safety of cannabis drug CBD (news – 2015)

Controversial Cannabis Treatment Helps 9-Year-Old Boy Speak His First Words
(news – 2015)

Warning Letters and Test Results (news – 2015)
http://www.fda.gov/NewsEvents/PublicHealthFocus/ucm435591.htm

New Study Shows Marijuana May Help Fight Cancer (news – 2015)
http://finance.yahoo.com/news/study-shows-marijuana-may-help-153150501.html;_ylt=AwrXgiKcSoRvdnMAJ67QtfDMD;_ylu=X3oDMTByM3V1YTVuBGnbG8DZ3ExBHBvcwMzBHZ0aWQDBHNLYwNzcg--

Medical Marijuana Is Often Less Potent Than Advertised (news – 2015)
http://www.npr.org/sections/health-shots/2015/06/23/416791647/medical-marijuana-is-often-less-potent-than-advertised

One family's medical-marijuana story (news – 2015)

Study: Cannabis helps to heal bone fractures (news – 2015)

No bones about it: Cannabis may be used to treat fractures (news – 2015)

Study: Cannabidiol (CBD) as an Effective Asthma Treatment (news – 2015)
http://www.medicaljane.com/2015/06/17/research-suggests-cannabis-is-an-effective-asthma-treatment/
Bipolar man's illness leads to acquittal on marijuana possession charge  (news – 2015)

Could Marijuana Chemical Help Ease Epilepsy?  (news – 2015)

Newly Risen From Yeast: THC  (news – 2015)

Cannabis drug shows promise in treating schizophrenia  (news – 2015)
http://www.reuters.com/article/us-gw-pharma-study-idUSKCN0RF1LV20150915

Why THC Isn't The Only Thing In Weed That Matters  (news – 2015)

New Minnesota marijuana strain more potent, could cut costs  (news – 2015)

DEA eases requirements for natural cannabis-derived drug research  (news – 2015)
http://www.trust.org/item/20151223171611-xsa6u/

Finding the Right Strain of Medical Marijuana  (news – 2015)

Pharmaceutical CBD (cannabidiol) Shows Promise for Children with Severe Epilepsy  (news – 2015)
https://www.aesnet.org/about_aes/press_releases/pharmaceuticalcbd2015#sthash.wL57kCVn.dpuf

Cannabis drug shows promise in treating schizophrenia  (news – 2015)
http://www.reuters.com/article/us-gw-pharma-study-idUSKCN0RF1LV20150915

Dabbing for Health: CBD Dabs Have Instant Relief  (news – 2015)
http://sfevergreen.com/dabbing-for-health/

What are Cannabinoids?  (news – 2015)
https://www.whaxy.com/learn/what-are-cannabinoids?

Marijuana Derivative Reduces Seizures in People With Treatment Resistant Epilepsy  (news – 2015)
https://www.sciencedaily.com/releases/2015/12/151223221532.htm

Medical Marijuana Liquid Could Help Treat Severe Epilepsy in Children  (news – 2015)

Studies Show Cannabinoids May Help Fight Triple-Negative Breast Cancer  (news – 2015)
https://www.medicaljane.com/2015/02/28/studies-suggest-cannabinoids-may-fight-certain-forms-of-breast-cancer
The U.S. Government’s Department of Health Finally Admits That Marijuana Kills Cancer

FDA and Marijuana: Questions and Answers
http://www.fda.gov/NewsEvents/PublicHealthFocus/ucm421168.htm

Using Medical Marijuana to Stop Childhood Seizures

"Nuns" fight to keep their marijuana-based business in California

Can Cannabis Treat Epileptic Seizures?
http://www.scientificamerican.com/article/can-cannabis-treat-epileptic-seizures/

KILL BILL: LAW ENFORCEMENT CRACKS DOWN ON MEDICAL CANNABIS OILS

Buffington: I’m Growing Marijuana

Buffington: Medical Marijuana, Part 2

Preliminary Results of Uab’s Cbd Oil Studies Show Promise
http://www.newswise.com/articles/view/649217/?sc=rsmn

Cannabis Compares Favorably to Conventional PTSD Treatments
http://www.prweb.com/releases/2016/03/prweb13244763.htm

Research Team Finds How CBD, a Component in Marijuana, Works Within Cells
http://www.newswise.com/articles/view/629638/

Kalytera Therapeutics and Ramot at Tel Aviv University to Study Novel Approach to Treating Osteogenesis Imperfecta
http://www.ramot.org/media-center/news-events/28055

Cannabis and Cannabinoid Research Publishes Data Demonstrating the Degradation of Cannabidiol to Psychoactive Cannabinoids when Exposed to Simulated Gastric Fluid

The FDA Is Cracking Down On CBD Oil
'No-Buzz' Medical Pot Laws Prove Problematic for Patients, Lawmakers
(news – 2016)

Case of the munchies: Ag department cracks down on hemp-filled dog treats
(news – 2016)

2 years after CBD oils legalized in NC: How they work for the child the law is named for
(news – 2016)

GW Pharmaceuticals Initiates Phase 3 Pivotal Study in Tuberous Sclerosis Complex

Science/Human: Pre-treatment with CBD did not influence effects of smoked cannabis
(news – 2016)

Pot, dogs and fireworks: Is doggie 'pot' the answer to calming dogs this Fourth of July?
(news – 2016)

All In The Mind #5: Cannabis And Bipolar Disorder (news – 2016)
http://herb.co/2016/07/09/cannabis-bipolar-disorder/

What Happens to CBD in the Body? (news – 2016)

A new antipsychotic mechanism of action for cannabidiol (news – 2016)

For the First Time Ever, Cannabis Oil Will Be Used in a Hospital — To Save a 2-Month Old Baby Girl (news – 2016)

Marijuana better alternative to painkillers (news – 2016)
http://www.technicianonline.com/sports/article_3bf18c14-910e-11e6-b5ca-9f48d5c1e2e3.html

McLean Hospital Study Finds That Medical Marijuana Use May Improve Cognitive Performance (news – 2016)
Health care refugees: Family flees Florida to save daughter's life (news – 2016)

Health care refugees: Medical marijuana and new hope (news – 2016)

UK certifies marijuana molecule CBD as medicine (news – 2016)

Marijuana derivative CBD may help with hard-to-treat epilepsy (news – 2016)

Cannabis and Malaria: New Study Reveals CBD is Effective in Preventing Deaths (news – 2016)

Pet owners try cannabis edibles, tinctures to ease animal anxiety, arthritis and more (news – 2016)

DEA Gives Cannabis Law Significant Tweak (news – 2016)

CBD Science: How Cannabinoids Work at the Cellular Level to Keep You Healthy (news – 2016)

How Omega 3 Improves the Effectiveness of CBD Oil (news – 2016)
[https://www.highlandpharms.com/cbd-oil-effective-omega-3](https://www.highlandpharms.com/cbd-oil-effective-omega-3)

Hemp growers may try to block federal ban on marijuana extracts (news – 2016)

5 Reasons the DEA’s Marijuana Ruling Is Absurd and Indefensible (news – 2016)

CBD, Now A Schedule 1 Drug (news – 2016)

Hemp growers may try to block federal ban on marijuana extracts (news – 2016)

Doctored marijuana gives relief to boy whose parents found no other way to help him (news – 2016)
Time To Put ‘Skunk’ Out Of Business  
http://volteface.me/features/skunk-out-of-business/  

Cannabis for Osteoporosis Prevention  
https://www.marijuanatimes.org/cannabis-for-osteoporosis-prevention/  

GW Pharma's cannabis drug gets orphan drug status  

3 Tips To Getting The Correct CBD Dosage  
http://herb.co/2016/12/05/correct-cbd-dosage/  

CBD can protect marijuana users from getting too stoned. Here’s how  

Senate bill would remove possesion by ingestion charge for marijuana  

---

CDBA/ CANNABIDIOLIC ACID +* - precursor to Cannabidiol  

Acidic versus Activated Cannabinoids- Tips on How to Choose the Therapy Regimen that is Right for You  
http://pureanalytics.net/blog/2012/05/09/acidic-versus-activated-cannabinoids-tips-on-how-to-choose-the-therapy-regimen-that-is-right-for-you/  

Cannabinoid Breakdown  
http://www.bloomwellbend.com/cannabinoid-breakdown/  

Cannabinoids  
http://steephill.com/science/cannabinoids  

What Happens to CBD in the Body?  

---

CBDV/ CANNABIDIVARIN/ GWP42006 + – unknown receptor  

Science/UK: Antiepileptic efficacy of cannabidivarin will be tested in clinical studies  

Cannabis Anti-Convulsant Shakes up Epilepsy Treatment  

New cannabis discovery could lead to better treatments for epilepsy  (news – 2013)
http://www.reading.ac.uk/news-and-events/releases/PR464765.aspx

Cannabis-Derived Drug Shows Promise in Treating Type 2 Diabetes  (news – 2013)

New Study: Cannabinoids Protect the Brain and Heart From Injury  (news – 2013)
http://www.science20.com/news_articles/the_can_prevent_brain_damage_study-113512

GW Pharmaceuticals Provides Update on Cannabinoid Pipeline  (news/ad – 2014)
http://ir.gwpharm.com/releasedetail.cfm?ReleaseID=833085

CBDv: Cannabidi varin Cannabinoid Profile  (news – 2015)
https://www.whaxy.com/learn/what-is-cbdv-cannabidi varin?

What are Cannabinoids?  (news – 2015)
https://www.whaxy.com/learn/what-are-cannabinoids?

CBG/ CANNABIGEROL +* - CB2 agonist, inhibits the reuptake of endocannabinoids

Tailoring Your High: Compounds in Cannabis, Properties and Boiling Points
(chart – 2012)
http://www.weedist.com/2012/07/tailoring-high-compounds-in-cannabis-properties-boiling-points/

5 Marijuana Compounds That Could Help Combat Cancer, Alzheimers, Parkinsons (If Only They Were Legal)  (news – 2012)
http://www.alternet.org/drugs/5-marijuana-compounds-could-help-combat-cancer-alzheimers-parkinsons-if-only-they-were-legal

Study shows non-hallucinogenic cannabinoids are effective anti-cancer drugs

Terpenes May Improve Effectiveness Of Medical Marijuana  (news – 2013)

New Study Proves Cannabinoids Have Cancer Fighting Properties  (news – 2013)
http://www.opposingviews.com/i/society/drug-law/new-study-proves-cannabinoids-have-cancer-fighting-properties

Cannabinoid Breakdown  (news – 2014)
CBGA / CANNABIGEROLIC ACID  + - precursor of cannabigerol

Those Pungent Smells Oozing Out of Marijuana Buds Are Actually Giving You Clues About What Their Effects Will Be Like  (news – 2012)

Cannabinoid Breakdown  (news – 2014)
http://www.bloomwellbend.com/cannabinoid-breakdown/

Cannabinoids  (article – 2015)  http://steephill.com/science/cannabinoids

Dr. Ethan Russo: Endocannabinoid Nutrition  (news – 2016)
https://www.ganjapreneur.com/ethan-russo-endocannabinoid-nutrition/
CBN/ CANNABINOL + - CB2 agonist, weak CB1 agonist

Tailoring Your High: Compounds in Cannabis, Properties and Boiling Points (chart – 2012)
http://www.weedist.com/2012/07/tailoring-high-compounds-in-cannabis-properties-boiling-points/

5 Marijuana Compounds That Could Help Combat Cancer, Alzheimers, Parkinsons (If Only They Were Legal) (news – 2012)
http://www.alternet.org/drugs/5-marijuana-compounds-could-help-combat-cancer-alzheimers-parkinsons-if-only-they-were-legal

Cannabinoid Breakdown (news – 2014)
http://www.bloomwellbend.com/cannabinoid-breakdown/

Cannabis Chemistry 101 (news – 2014)
http://www.greencultured.co/cannabis-chemistry-101/

Cannabinoids (article – 2015)
http://steephill.com/science/cannabinoids

Cannabinoid and Terpene Info (chart – 2015)
http://skunkpharmresearch.com/cannabinoid-info/

What are Cannabinoids? (news – 2015)
https://www.whaxy.com/learn/what-are-cannabinoids?
utm_source=mantis&utm_medium=recommend&utm_campaign=mantis&muuid=622a55f7XXX8b3dXX4f96XXX8217XXX5ce33cb24b8

Cannabis and Malaria: New Study Reveals CBD is Effective in Preventing Deaths (news – 2016)

Lesser-Known Cannabinoids: CBN (news – 2016)
http://www.bloomwellbend.com/cannabinoid-cbn/

CHOCOLATE +* - contains a tiny amount of Anandamide and compounds that block its breakdown

Is a Chocolate High Possible? (news - undated)

Chocolate: The Good, the Bad and the Angry (news - 2010)

Migraines, Marijuana, and Chocolate (article – 2011)
Your Brain On Chocolate: Marijuana-Like Chemicals Explain Why We Crave It (news – 2013)  

Marijuana Is Less Addictive Than Chocolate (news - 2014)  
https://www.mainstreet.com/article/marijuana-less-addictive-chocolate  

Check Out These Non-Marijuana Plants That Contain Cannabinoids (news – 2016)  
http://herb.co/2016/03/29/non-marijuana-plants-contain-cannabinoids/  

Dr. Ethan Russo: Endocannabinoid Nutrition (news – 2016)  
https://www.ganjapreneur.com/ethan-russo-endocannabinoid-nutrition/  

**CURCUMIN / TURMERIC** - a CB1 antagonist in turmeric  

Medical marijuana has potential as Alzheimer’s treatment, study says (news – 2016)  

I’m Just Mad About Saffron & Other Spices that Activate the Endocannabinoid System (news – 2016)  
https://www.projectcbd.org/article/im-just-mad-about-saffron  

Natural Ways to Activate the Endocannabinoid System Without Marijuana (news – 2016)  
https://www.merryjane.com/health/how-to-activate-endocannabinoid-system-without-marijuana  

**ECHINACEA** - activates the CB1 receptors and prevents the break-down of Anandamide  

Echinacea makes you carefree (news – undated)  

Check Out These Non-Marijuana Plants That Contain Cannabinoids (news – 2016)  
http://herb.co/2016/03/29/non-marijuana-plants-contain-cannabinoids/  

Dr. Ethan Russo: Endocannabinoid Nutrition (news – 2016)  
https://www.ganjapreneur.com/ethan-russo-endocannabinoid-nutrition/  

Dr. Ethan Russo explains Clinical Endocannabinoid Deficiency (news – 2016)  
ELIXINOL – a legal hemp-derived CBD extract

Elixinol - Frequently Asked Questions (ad – undated) http://elixinol.eu/faq/

Perth mum uses hemp oil medicinal cannabis to treat daughter with rare disease (news – 2013)

Japan’s First Lady Ushers In New Era of Hemp Acceptance by Purchasing Elixinol CBD Hemp Oil Product (news – 2016)

ENTOURAGE EFFECT – PHYTOCANNABINOIDS +

Terpenoids, ‘minor’ cannabinoids contribute to ‘entourage effect’ of cannabis-based medicines (news – 2011)

Cannabis entourage effect (news – 2011) http://www.westaostleaf.net/?p=3711

Those Pungent Smells Oozing Out of Marijuana Buds Are Actually Giving You Clues About What Their Effects Will Be Like (news – 2012)

How THC and CBD Work Together (news – 2012)
http://pureanalytics.net/blog/2012/02/19/how-thc-and-cbd-work-together/

Not That High (news – 2013)
http://www.slate.com/articles/health_and_science/science/2013/03/marijuana_potency_returning_smokers_want_mellower_pot_strains.html

http://www.medicaljane.com/2014/05/14/thc-cbd-and-more-the-entourage-effect-of-whole-plant-cannabis-medicine/

DR FRANKEL DISCUSSES THE “ENTOURAGE EFFECT” AND HEMP
Medical marijuana and 'the entourage effect'  (news – 2014)  

Low or No THC, High CBD Medical Marijuana Bills: Leaving Most Patients Behind  (news – 2014)  
https://www.mpp.org/low-or-no-thc-high-cbd-medical-marijuana-bills/

http://www.medicaljane.com/2014/05/14/thc-cbd-and-more-the-entourage-effect-of-whole-plant-cannabis-medicine/

The surprising everyday ingredient that can reduce pot paranoia  (news – 2014)  
http://www.salon.com/2014/08/21/the_surprising_everyday_ingredient_that_can_reduce_pot_paranoia_partner/

Medical Marijuana: Much More Than Just THC and CBD  (news – 2014)  
http://www.medicaljane.com/2014/05/14/thc-cbd-and-more-the-entourage-effect-of-whole-plant-cannabis-medicine/

Terpenes  (article – 2015)  
http://steephill.com/science/terpenes

The entourage effect: Synergistic actions of plant cannabinoids  (letter – 2015)  
https://www.researchgate.net/publication/268878607_Medical_marijuana_in_neurology

'No-Buzz' Medical Pot Laws Prove Problematic for Patients, Lawmakers  (news – 2016)  

Health care refugees: Family flees Florida to save daughter's life  (news – 2016)  

Health care refugees: Medical marijuana and new hope  (news – 2016)  

EPIDIOLEX - a CBD-based extract used for epilepsy

Epidiolex - GW Pharmaceuticals  (drug development page – 2013)  
http://www.gwpharm.com/Epidiolex.aspx

Comes Now Epidiolex (FDA approves IND studies of CBD)  (news – 2013)  
Cannabis-Based Epilepsy Drug Approved For Clinical Trials (news – 2013)

UCSF-led study gathers data on safety, tolerability of purified cannabinoid for children with epilepsy (news – 2014)

Federal marijuana bill would legalize some cannabis strains (news – 2014)

A cannabis-based drug is showing 'promise' in children with severe epilepsy (news – 2014)

Cannabis, Medical Science, and Fundamental Human Rights, With Dr. Ethan Russo (article – 2015)

Marijuana Could Be the Answer to Fighting These 3 Diseases (news – 2015) (may require free registration)

Special Report: Georgia's medical marijuana treatment trials underway (news – 2015)
http://www.41nbc.com/2015/02/05/special-report-georgias-medical-marijuana-treatment-trials-underway/

Study confirms safety of cannabis drug CBD (news – 2015)

Big Pharma-Produced Cannabis Is Likely Coming to the U.S. (news - 2015)

Could Marijuana Chemical Help Ease Epilepsy? (news – 2015)

Preliminary Results of Uab’s Cbd Oil Studies Show Promise (news – 2016)
http://www.newswise.com/articles/view/649217/?sc=rsmn

2 years after CBD oils legalized in NC: How they work for the child the law is named for (news – 2016)

GW Pharmaceuticals Initiates Phase 3 Pivotal Study in Tuberous Sclerosis Complex (news – 2016)
http://www.gwpharm.com/PR110416.aspx

Marijuana derivative CBD may help with hard-to-treat epilepsy (news – 2016)
http://www.upi.com/Health_News/2016/12/06/Marijuana-derivative-CBD-may-help-with-hard-to-treat-epilepsy/2141481059229/?spt=slh&or=10
GW Pharma's cannabis drug gets orphan drug status (news/ad – 2016)

**FLAVONOIDS**

Tailoring Your High: Compounds in Cannabis, Properties and Boiling Points
(chart – 2012)
http://www.weedist.com/2012/07/tailoring-high-compounds-in-cannabis-properties-boiling-points/

The Cannflavins Unique to Cannabis (news – 2016)
http://www.beyondthe.com/the-cannflavins-unique-to-cannabis/

JUST EAT IT! THE ENDOCANNABINOID SYSTEM (news – 2016)
https://elevatenv.com/just-eat-it-the-endocannabinoid-system/

**IDRASIL** – a natural, phytocannabinoid pill, available only in California so far

New Cannabis Pill On Track for 2012 Debut (news – 2011)
http://www.theweedblog.com/new-cannabis-pill-on-track-for-2012-debut/

Cannabis Effective for Easing MS Symptoms, but Not for Slowing Progression (news – 2012)
http://www.prweb.com/releases/-medical-marijuana/-information-san-francisc/prweb9568927.htm

European Medical Marijuana product Sativex is challenged by North America’s New Cannabis Pill Idrasil, Says Doobons (news/ad- 2012)
http://www.prweb.com/releases/-medical-marijuana/-information-san-francisc/prweb9525356.htm


http://www.ocregister.com/articles/pot-317525-sky-idea.html

Orange County Manufacturer Leads the Nation in Medical Cannabis Innovation (news/ad- 2014) http://www.prweb.com/releases/2014/05/prweb11880009.htm
**NUTMEG**

Nutmeg Keeps Endocannabinoids Happening (news – 2016)

I’m Just Mad About Saffron & Other Spices that Activate the Endocannabinoid System (news – 2016)  [https://www.projectcbd.org/article/im-just-mad-about-saffron](https://www.projectcbd.org/article/im-just-mad-about-saffron)

Natural Ways to Activate the Endocannabinoid System Without Marijuana (news – 2016)

---

**PHYTOCANNABINOIDS/ PLANT EXTRACTS +**

Cannabinoid and Terpenoid Reference Guide (undated)

Scientists Find New Sources of Plant Cannabinoids Other than Medical Marijuana? (news – 2010)

Nature's (Legal) Cannabinoids (news - 2010)

Natural Herbs That Increase Serotonin (news – 2011)

Introduction to the Endocannabinoid System (news – 2011)
[http://norml.org/library/item/introduction-to-the-endocannabinoid-system](http://norml.org/library/item/introduction-to-the-endocannabinoid-system)


Marijuana (Cannabis sativa) Mayo Clinic (news – 2011)

Those Pungent Smells Oozing Out of Marijuana Buds Are Actually Giving You Clues About What Their Effects Will Be Like (news – 2012)


Study shows non-hallucinogenic cannabinoids are effective anti-cancer drugs (news – 2013) https://www.sciencedaily.com/releases/2013/10/131014094105.htm


Study: Cannabis Inhaler Delivers Effective Relief To Neuropathy Patients (news - 2014) http://blog.norml.org/2014/08/18/study-cannabis-inhaler-delivers-effective-relief-to-neuropathy-patients/

2,500-Year-Old ‘Siberian Princess’ Corpse Shows Breast Cancer, Medicinal Pot Use
Cannabinoid Breakdown (news – 2014)
http://www.bloomwellbend.com/cannabinoid-breakdown/

Cannabis Chemistry 101 (news – 2014)
http://www.greencultured.co/cannabis-chemistry-101/

DR ALLAN FRANKEL’S EARLY VERSION INITIAL DOSAGE AND ADMINISTRATION GUIDE (news – 2014)

MEDICAL MARIJUANA : Out of the Shadows (news – 2014)

Cannabis Extract, Radiation Shrink Brain Tumors in Mice (news – 2014)

The entourage effect: Synergistic actions of plant cannabinoids (letter – 2015)
https://www.researchgate.net/publication/268878607_Medical_marijuana_in_neurology

Cannabinoid and Terpene Info (chart – 2015)
http://skunkpharmresearch.com/cannabinoid-info/

Whole-Plant Cannabis Use Associated with Decreased Likelihood of Developing Bladder Cancer (news – 2015)

'Grandma's magic remedy:' Mexico's medical marijuana secret (news – 2015)

Harvesting Benefits from Cannabinoids. (article – 2016)
http://www.cell.com/cell/fulltext/S0092-8674(16)31675-0

Medical marijuana has potential as Alzheimer’s treatment, study says (news – 2016)

DEA Gives Cannabis Law Significant Tweak (news – 2016)

Dr. Ethan Russo explains Clinical Endocannabinoid Deficiency (news – 2016)

Tetra Bio-Pharma Looks to Make Cannabis Affordable -- CFN Media (news/ad – 2016)
SAFFRON

I’m Just Mad About Saffron & Other Spices that Activate the Endocannabinoid System  
(news – 2016)  
https://www.projectcbd.org/article/im-just-mad-about-saffron

Natural Ways to Activate the Endocannabinoid System Without Marijuana  
(news – 2016)  
https://www.merryjane.com/health/how-to-activate-endocannabinoid-system-without-marijuana

SATIVEX / NABIXIMOLS + - a THC/CBD cannabis extract oral spray, legal in the UK, but not the USA

Cannabis is used for first time in hospitals to relieve pain of terminal cancer patients  
(news – 2011)  
http://www.dailymail.co.uk/health/article-2033021/Doctors-treat-patients-pain-relieving-cannabis-drug-used-time-hospitals.html#ixzz4M3kYVKYe

Neuromodulators for pain management in rheumatoid arthritis  
(abst/summary – 2012)  

Cannabinoid formulation benefits opioid-refractory pain  
(news – 2012)  

Cannabinoid Shown Effective as Adjuvant Analgesic for Cancer Pain  
(news- 2012)  
http://www.sciencedaily.com/releases/2012/06/120604142426.htm

Pot-based prescription drug looks for FDA OK  
(news- 2012)  

Cannabinoid therapy helps provide effective analgesia for cancer patients with pain  
(news – 2012)  

Marijuana Mouth Spray: Will It Be Abused?  
(news – 2012)  

Can medical marijuana help rheumatoid arthritis?  
(news – 2012)  
http://www.health.com/health/condition-article/0,,20499017,00.html
Home Office Moves Sativex To Schedule 4 – Now In Effect (news – 2013)
http://ukscs.co.uk/home-office-moves-sativex-to-schedule-4-now-in-effect/

Sativex® rescheduled by the Home Office (news – 2013) (click “yes” if asked)

Adequate and Well-Controlled Studies Proving Medical Efficacy of Cannabis Exist but Are Ignored by Marijuana Schedulers (news – 2013)
http://www.huffingtonpost.com/sunil-kumar-aggarwal/marijuana-schedule-1_b_3071725.html


Medical Marijuana: Consortium of Multiple Sclerosis Centers (news – 2013)

Aylsham multiple sclerosis sufferer says cannabis-based drug ‘changed my life’ (news - 2013)
http://www.eveningnews24.co.uk/news/aylsham_multiple_sclerosis_sufferer_says_cannabis_based_drug_changed_my_life_1_2276182

Medical Marijuana in the UK: As a doctor, should I be able to prescribe cannabis to my patients? (article – 2014)
http://www.independent.co.uk/voices/medical-marijuana-in-the-uk-as-a-doctor-should-i-be-able-to-prescribe-cannabis-to-my-patients-9791583.html

http://www.safeaccessnow.org/medical_cannabis_research_what_does_the_evidence_say

No Relief Yet for Brutal Oral Cancer Pain, but Cannabinoids May Offer Some Hope (news – 2014)
http://www.newswise.com/articles/view/617125/?sc=rsmn

Cannabis Science: Finding The Optimal Therapeutic Ratio Of THC And CBD (news – 2014)

Marijuana Benefits MS Patients as Other Remedies Fail (news – 2014)

Cannabis May Protect The Aging Brain, Say Experts (news – 2014)
http://www.leafscience.com/2014/05/07/cannabis-may-protect-aging-brain-say-experts/

3 Prescription Drugs You Didn't Know Come From Marijuana (news – 2014)
http://www.fool.com/investing/general/2014/03/16/3-prescription-drugs-you-didnt-know-come-from-mari.aspx

Cannabis, Medical Science, and Fundamental Human Rights, With Dr. Ethan Russo
Marijuana gears up for production high in US labs (article – 2015)
http://www.nature.com/news/marijuana-gears-up-for-production-high-in-us-labs-1.17129

The entourage effect: Synergistic actions of plant cannabinoids (letter – 2015)
https://www.researchgate.net/publication/268878607_Medical_marijuana_in_neurology

Marijuana, Reconsidered: Dr. Lester Grinspoon On 45 Years Of Cannabis Science (interview – 2015)

How Medical Marijuana’s Chemicals May Protect Cells (news – 2015)
http://www.scientificamerican.com/article/how-medical-marijuana-s-chemicals-may-protect-cells/

Family seeking cannabinoid spray prescription say many more could benefit (news – 2015)

Brazil issues first license for sale of a cannabis-based drug (news – 2017)

**TEA-** *(Camellia sinensis (L.)) + – weakly activates CB1 and CB2 receptors*

The Common Link Between Breast Milk, Cannabis and Tea (news – 2014)

**TERPINOIDs/ TERPENES** ++ - they help cannabinoids work better, also see Beta Carophyllene

Cannabinoird and Terpenoid Reference Guide (undated)

Terpenes and the "Entourage Effect" (news – undated)
https://www.projectcbd.org/terpenes-and-entourage-effect

Terpenes, Terpenoids and Cannabis (news – 2010)
https://berkeleypatientscare.com/terpenes-terpenoids-and-cannabis/

Terpenoids, ‘minor’ cannabinoids contribute to ‘entourage effect’ of cannabis-based medicines (news – 2011)
Those Pungent Smells Oozing Out of Marijuana Buds Are Actually Giving You Clues About What Their Effects Will Be Like (news – 2012)

Mangoes Elevate High From Smoking Marijuana: Are They A Healthier Alternative To The 'Munchies'? (news – 2013)

High on Health: Cannabinoids in the Food Supply (news – 2013)

Terpene Isolation Could Be The Future Of Cannabis (news – 2013)

Not That High (news – 2013)

Cannabis fractions: Separating cannabinoids from terpenoids (news – 2013)

Terpenes May Improve Effectiveness Of Medical Marijuana (news – 2013)

The Same Compounds Behind Marijuana's Distinctive Stinky Smells Give Clues About the Kinds of High You'll Experience (news – 2013)


Cannabis Science: Finding The Optimal Therapeutic Ratio Of THC And CBD (news – 2014)

How Black Pepper relieves Cannabis Anxiety (news – 2014)

The surprising everyday ingredient that can reduce pot paranoia (news – 2014)  
http://www.salon.com/2014/08/21/the_surprising_everyday_ingredient_that_can_reduce_pot_paranoia_par

tner/

DNA Genetic’ L.A. Confidential strain used on childhood autism (news – 2014)  
http://blog.sfgate.com/smellthetruth/2014/10/30/dna-genetics-l-a-confidential-strain-used-on-childhood-
autism/

Cannabis Chemistry 101 (news – 2014)  
http://www.greencultured.co/cannabis-chemistry-101/

Why growing numbers of pot smokers eat mango before lighting up (news – 2014)  
p_partner/

DR ALLAN FRANKEL’S EARLY VERSION INITIAL DOSAGE AND ADMINISTRATION GUIDE (news – 2014)  

MEDICAL MARIJUANA : Out of the Shadows (news – 2014)  

Terpenes: The Flavors of Cannabis Aromatherapy (news – 2014)  

The entourage effect: Synergistic actions of plant cannabinoids (letter – 2015)  
https://www.researchgate.net/publication/268878607_Medical_marijuana_in_neurology

Terpenes (article – 2015)  
http://steephill.com/science/terpenes

Cannabinoid and Terpene Info (chart – 2015)  
http://skunkpharmresearch.com/cannabinoid-info/


end&utm_campaign=mantis&muuid=9d522039-9ba2-4356-a328-04a72a94e463

The Rise Of Tailor-Made Highs (news – 2016)  

What Are Terpenes and What Is Their Effect? (news – 2016)  
https://www.hellomd.com/health-wellness/what-are-terpenes-and-what-is-their-effect

Ebbu Announces Groundbreaking Scientific Research of "Entourage Effect"
Ganja Grows Up  (news – 2016)  
http://www.bendsource.com/bend/ganja-grows-up/Content?oid=2762480

Top Ten Things to Know About Terpenes  (news – 2016)  

A CB2 Activating Cannabinoid is the new potential weapon against horrific parasites  (news – 2016)  
http://cannabishealthindex.com/cannabinoid-research/a-cb2-activating-cannabinoid-is-the-new-potential-weapon-against-horrific-parasites/


THC/ TETRAHYDROCANNABINOL  +* CB1 & 2 agonist

How One Citizen Scientist is Taking On Parkinson’s-related Nightmares – and Winning  (news – undated)  
How One Citizen Scientist is Taking On Parkinson's-Related Nightmares — and Winning

Endocannabinoids and psychiatric disorders: the road ahead  (article – 2010)  

Delta-9-Tetrahydrocannabinol Disruption of Time Perception and of Self-Timed Actions  (letter – 2010)  

Key ingredient staves off marijuana memory loss  (news - 2010)  

Marijuana May Extend Life Expectancy Of Lou Gehrig's Disease Patients, Study Says  (news - 2010)  
http://blog.norml.org/2010/05/19/marijuana-may-extend-life-expectancy-of-lou-gehrig%E2%80%99s-disease-patients-study-says/


Study: Smoking pot may ease chronic pain  (news - 2010)  

Science: Cannabidiol enhances the anti-cancer effects of THC on human brain cancer cells  (news – 2010)
Science: Cannabis effective in the treatment of TOURETTE Syndrome and attention deficit hyperactivity disorder (ADHD) (news – 2010)

A New Use for Medical Marijuana? (news – 2010)

Ingredient in cannabis restores taste for cancer patients (news – 2011)

Marijuana Compound Treats Multiple Health Issues (news – 2011)
http://www.foxnews.com/health/2010/03/10/cannabis-deficient/

Another Study Confirms Anti-Cancer Effects of THC and CBD (news – 2011)
http://mamamojournal.blogspot.com/search?q=Another+Study+Confirms+Anti-Cancer+Effects+of+THC+and+CBD

Marijuana Compound Induces Cell Death In Hard-To-Treat Brain Cancer (news – 2011)


Tailoring Your High: Compounds in Cannabis, Properties and Boiling Points (chart – 2012)
http://www.weedist.com/2012/07/tailoring-high-compounds-in-cannabis-properties-boiling-points/

Researchers study neuroprotective properties in cannabis (news - 2012)
http://www.foxnews.com/health/2012/03/20/researchers-study-neuroprotective-properties-in-cannabis/

Can medical marijuana help rheumatoid arthritis? (news – 2012)
http://www.health.com/health/condition-article/0,,20499017,00.html

Marijuana Compound Found Superior To Drugs For Alzheimer's (news – 2012)
http://www.greenmedinfo.com/blog/marijuana-compound-found-superior-drugs-alzheimers

How THC and CBD Work Together (news – 2012)
http://pureanalytics.net/blog/2012/02/19/how-thc-and-cbd-work-together/

How Marijuana Impairs Memory (news – 2012)
http://neurosciencenews.com/marijuana-impairs-memory-astroglia-cb1r-thc/

Acidic versus Activated Cannabinoids- Tips on How to Choose the Therapy Regimen that is Right for You (news – 2012)
http://pureanalytics.net/blog/2012/05/09/acidic-versus-activated-cannabinoids-tips-on-how-to-choose-the-therapy-regimen-that-is-right-for-you/
Simple Method: Isolating & Extracting INDIVIDUAL Cannabinoids... from BadKittySmiles (forum post – 2012)  

Chronic cannabis abuse, delta-9-tetrahydrocannabinol and thyroid function. (letter – 2013)  

Medicinal Cannabis and Painful Sensory Neuropathy (editorial – 2013)  
http://journalofethics.ama-assn.org/2013/05/oped1-1305.html

Study: THC Increases Brain Activity In Response To Positive Stimuli (news – 2013)  

Science/Human: THC reduces sleep apnoea in small clinical study (news – 2013)  

New Study Finds THC Kills Stomach Cancer Cells (news – 2013)  
http://thejointblog.com/new-study-finds-thc-may-treat-stomach-cancer/

Study: cannabis compound might have use as an HIV drug (news – 2013)  

Low Doses of THC (Cannabis) Can Halt Brain Damage, Study Suggests (news – 2013)  
http://www.sciencedaily.com/releases/2013/05/130530132531.htm

THC Can Prevent Brain Damage – Study (news – 2013)  
http://www.science20.com/news_articles/thc_can_prevent_brain_damage_study-113512

Sending multiple sclerosis up in smoke (news – 2013)  

Preventing marijuana-induced memory problems with over-the-counter painkillers (news – 2013)  

Scientists Have Found A Way To Make Marijuana Un-Fun (news – 2013)  
http://www.popsci.com/article/science/scientists-have-found-way-make-marijuana-un-fun

In Mice Anti-Inflammatories Ameliorate Medical Marijuana's Memory Mishaps (news – 2013)  

Poor Sleep Quality Makes It Harder To Quit Marijuana — Here’s Why (news – 2013)  
Neurotransmitters Studied as Way to Enhance PTSD Treatment  

New Study: THC May Treat Inflammatory Diseases and Cancer By Altering Genes  

Not *That* High  
http://www.slate.com/articles/health_and_science/science/2013/03/marijuana_potency_returning_smokers_want_mellower_pot_strains.html

Chemicals in marijuana 'protect nervous system' against MS  
http://www.medicalnewstoday.com/articles/267161.php

High levels of THC in Australian cannabis  

New Research Finds Marijuana May Combat Brain Damage  
http://thejointblog.com/new-research-finds-marijuana-may-combat-brain-damage/

Marijuana's Memory Paradox  
http://ehealthforum.com/health/interesting-t164409.html

Report on Medical Cannabis Research History- What the Science Says  
http://www.safeaccessnow.org/medical_cannabis_research_what_does_the_evidence_say

Who Discovered THC? Setting the Record Straight  
http://cannabisdigest.ca/discovered-thc-setting-record-straight/

Active ingredient in pot sets off a feedback that reduces intoxication  

Cannabinoid Breakdown  
http://www.bloomwellbend.com/cannabinoid-breakdown/

Cannabis Chemistry 101  
http://www.greencultured.co/cannabis-chemistry-101/

Retired Flint couple sees the light on medical marijuana  

Cannabis extract can have dramatic effect on brain cancer, says new research  
Cannabis Extract, Radiation Shrink Brain Tumors in Mice (news – 2014)

Cannabis Science: Finding The Optimal Therapeutic Ratio Of THC And CBD (news – 2014)

Biohackers Are Engineering Yeast to Make THC (news - 2014)
http://motherboard.vice.com/read/biohackers-are-engineering-yeast-to-make-thc

Study uncovers marijuana's potential to treat autoimmune diseases (news – 2014)

http://www.medicaljane.com/2014/05/14/thc-cbd-and-more-the-entourage-effect-of-whole-plant-cannabis-medicine/

How marijuana shrinks cancerous tumours (news – 2014)
https://uk.news.yahoo.com/marijuana-shrinks-cancerous-tumours-122611456.html

Marijuana compound may offer treatment for Alzheimer's disease (news – 2014)

Study: Cannabis Inhaler Delivers Effective Relief To Neuropathy Patients (news - 2014)
http://blog.norml.org/2014/08/18/study-cannabis-inhaler-delivers-effective-relief-to-neuropathy-patients/

Low or No THC, High CBD Medical Marijuana Bills: Leaving Most Patients Behind (news – 2014)
https://www.mpp.org/low-or-no-thc-high-cbd-medical-marijuana-bills/

Calculating THC dosage for weed-infused recipes (news – 2014)

Marijuana Drastically Shrinks Aggressive Form Of Brain Cancer, New Study Finds (news – 2014)

Marijuana compound may halt Alzheimer's disease – study (news – 2014)

Why Marijuana Needs Chemical Quality Control Testing (news – 2014)

DR ALLAN FRANKEL’S EARLY VERSION INITIAL DOSAGE AND ADMINISTRATION GUIDE (news – 2014)
Alzheimer’s Caused By Loss of Cannabinoids, Study Shows  (news – 2014)

Cannabis May Protect The Aging Brain, Say Experts  (news – 2014)
http://www.leafscience.com/2014/05/07/cannabis-may-protect-aging-brain-say-experts/

http://www.huffingtonpost.com/2014/07/16/marijuana-tumors_n_5588639.html

Why growing numbers of pot smokers eat mango before lighting up  (news – 2014)

Why so munchy? Cannabis shown to ramp up sense of smell  (news – 2014)

Cannabidiol (CBD) May Increase Lung Cancer’s Susceptibility To Specialized Killer Cells  (news – 2014)

Marijuana Compound May Offer Treatment for Alzheimer’s Disease  (news – 2014)
http://neurosciencenews.com/alzheimers-progression-thc-neuropharmacology-1274/

Study: Cannabis Plays A Key Role In Pancreatic Cancer Treatment  (news – 2014)

Cannabis, Medical Science, and Fundamental Human Rights, With Dr. Ethan Russo (article – 2015)

The entourage effect: Synergistic actions of plant cannabinoids  (letter – 2015)
https://www.researchgate.net/publication/268878607_Medical_marijuana_in_neurology

Potency 101  (printable card set – 2015)
http://greenstyleconsulting.com/potency-101/

Cannabinoid and Terpene Info  (chart – 2015)
http://skunkpharmresearch.com/cannabinoid-info/

When Weed Is The Cure: A Doctor's Case for Medical Marijuana  (interview – 2015)
Cannabis and Cancer, Pt. 1: Can Cannabis Kill Cancer? (article – 2015)  

Cannabis and Cancer, Pt. 2: The Triple Threat of THC, CBD, and Conventional Treatment on Cancer (article – 2015)  

Cannabis and Cancer, Pt. 3: How THC and CBD Work on Cancer Cells (article – 2015)  

Why THC Isn't The Only Thing In Weed That Matters (news – 2015)  

How Medical Marijuana’s Chemicals May Protect Cells (news – 2015)  
http://www.scientificamerican.com/article/how-medical-marijuana-s-chemicals-may-protect-cells/

Marijuana Is Effective In Treating Depression -- Latest Study (news – 2015)  
http://au.ibtimes.com/marijuana-effective-treating-depression-latest-study-1419071

Cannabis: World-renowned researchers discuss a new frontier in therapeutics (news – 2015)  

The Science Behind Sanjay Gupta’s WEED 3 (news – 2015)  

An alternative to medical marijuana for pain? (news – 2015)  

New Study Shows Marijuana May Help Fight Cancer (news – 2015)  
http://finance.yahoo.com/news/study-shows-marijuana-may-help-153150501.html;_ylt=AwrXgiKcSoRVdnMAJ67QtDMD;_ylu=X3oDMTByM3V1YTVuBGNvbG8DZ3ExBHBvcmMzBHZ0aWQDBHNlYwNzcg--

UEA scientists separate medical benefits of cannabis from unwanted side effects (news – 2015)  
https://www.uea.ac.uk/about/-/uea-scientists-separate-medical-benefits-of-cannabis-from-unwanted-side-effects

Medical Marijuana Is Often Less Potent Than Advertised (news – 2015)  
http://www.npr.org/sections/health-shots/2015/06/23/416791647/medical-marijuana-is-often-less-potent-than-advertised

At 82, he's the world's most eminent pot scientist (news – 2015)  
http://hemphealthytoday.blogspot.com/2013/08/at-82-hes-worlds-most-eminent-pot.html
Granola bars contain hemp seeds, Army warns (news – 2015)

Can marijuana help transplant patients? New research says maybe (news – 2015)

Newly Risen From Yeast: THC (news – 2015)

Is marijuana a single species?: While you’re searching for the perfect high, scientists go deeper (news – 2015)
http://www.salon.com/2015/09/28/is_marijuana_a_single_species_while_youre_searching_for_the_perfect_high_scientists_go_deeper_partner/

Cannabis reduces tumor growth in study (news - 2015)
http://www.medicalnewstoday.com/articles/279571.php

Finding the Right Strain of Medical Marijuana (news – 2015)

What are Cannabinoids? (news – 2015)
https://www.whaxy.com/learn/what-are-cannabinoids?
utm_source=mantis&utm_medium=recommend&utm_campaign=mantis&muuid=622a55f7XXX8b3dXX
X4f96XXX8217XXX5cc33cb24b8

The U.S. Government’s Department of Health Finally Admits That Marijuana Kills Cancer (news- forum repost - 2015)

Harvesting Benefits from Cannabinoids. (article – 2016)
http://www.cell.com/cell/fulltext/S0092-8674(16)31675-0

Using Medical Marijuana to Stop Childhood Seizures (news & abstract – 2016)

In Defense of Working Out While High (news – 2016)

Research Team Finds How CBD, a Component in Marijuana, Works Within Cells (news – 2016)
http://www.newswise.com/articles/view/629638/


Cannabis and Cannabinoid Research Publishes Data Demonstrating the Degradation of Cannabidiol to Psychoactive Cannabinoids when Exposed to Simulated Gastric Fluid (news – 2016)

A New Era in Medical Marijuana Research? (news – 2016)

'No-Buzz' Medical Pot Laws Prove Problematic for Patients, Lawmakers (news – 2016)


Science/Human: Pre-treatment with CBD did not influence effects of smoked cannabis (news – 2016)

Medical marijuana has potential as Alzheimer’s treatment, study says (news – 2016)

New Study Proves THC Improves Organ Transplant Success (news – 2016)
http://herb.co/2016/07/09/thc-organ-transplant/

All In The Mind #5: Cannabis And Bipolar Disorder (news – 2016)
http://herb.co/2016/07/09/cannabis-bipolar-disorder/

Ganja Grows Up (news – 2016)
http://www.bendsource.com/bend/ganja-grows-up/Content?oid=2762480

McLean Hospital Study Finds That Medical Marijuana Use May Improve Cognitive Performance (news – 2016)

Health care refugees: Family flees Florida to save daughter's life (news – 2016)

Health care refugees: Medical marijuana and new hope (news – 2016)

Good News for Burn Victims and New Organ Recipients (news – 2016)

How does cannabis get users “high”? Science explains. (news – 2016)
http://www.thecannifornian.com/cannabis-culture/cannabis-get-users-high-science-explains/
Cannabis strains today much stronger than your parents’ pot  
(http://www.thecannifornian.com/cannabis-health/cannabis-strains-today-much-stronger-parents-pot/)

CBD Science: How Cannabinoids Work at the Cellular Level to Keep You Healthy  
(news – 2016)  
(http://www.alternet.org/drugs/cbd-science-mitochondria-mysteries-homeostasis-renewal-endocannabinoid-system)

Why smoking pot makes food taste so delicious  
(news – 2016)  

THC Stimulates Toxic Plaque Removal in the Brain, Blocks Inflammation, Finds Study  
(news – 2016)  

Time To Put ‘Skunk’ Out Of Business  
(news – 2016)  
(http://volteface.me/features/skunk-out-of-business/)

High Times: Taking A Look at the Marijuana Receptor  
(news / abst – 2016)  
(http://neurosciencenews.com/thc-cannabinoid-receptor-5316/)

Highest Resolution Model of Brain Receptor Behind Marijuana’s High Created  
(news / abst – 2016)  
(http://neurosciencenews.com/cb1-high-resolution-model-5539/)

**THC ACID/ THCA**  
+ - non-psychoactive precursor of THC

Scientists Make Breakthrough In Genetic Screening For Cannabis  
(news – 2014)  
(http://www.leafscience.com/2014/03/06/scientists-make-breakthrough-genetic-screening-cannabis/)

Potency 101  
(printable card set – 2015)  
(good info!)  
(http://greenstyleconsulting.com/potency-101/)

What are Cannabinoids?  
(news – 2015)  
(https://www.whaxy.com/learn/what-are-cannabinoids?)

'No-Buzz' Medical Pot Laws Prove Problematic for Patients, Lawmakers  
(news – 2016)  

**THCV/ TETRAHYDROCANNABIVARIN/ GWP- 42004**  
+* CB1 & CB2 antagonist
New research provides hope for those with epilepsy (news - 2011)

Cannabis could be used to treat epilepsy (news – 2011)

Pot Compound Exerts Anticonvulsant Effects In Animal Models Of Epilepsy (news - 2011)

Tailoring Your High: Compounds in Cannabis, Properties and Boiling Points (chart – 2012)
http://www.weedist.com/2012/07/tailoring-high-compounds-in-cannabis-properties-boiling-points/

How marijuana could help cure obesity-related diseases (news – 2012)

Those Pungent Smells Oozing Out of Marijuana Buds Are Actually Giving You Clues About What Their Effects Will Be Like (news – 2012)

Cannabis can help treat obesity (news – 2012)

5 Marijuana Compounds That Could Help Combat Cancer, Alzheimers, Parkinsons (If Only They Were Legal) (news – 2012)
http://www.alternet.org/drugs/5-marijuana-compounds-could-help-combat-cancer-alzheimers-parkinsons-if-only-they-were-legal

Encouraging anti-diabetic results for new cannabinoid drug (news – 2012)

Tetrahydrocannabivarin (THCV): A Cannabinoid Fighting Obesity (news – 2013)

Cannabinoid Breakdown (news – 2014)
http://www.bloomwellbend.com/cannabinoid-breakdown/

GW Pharmaceuticals Provides Update on Cannabinoid Pipeline (news/ad – 2014)
http://ir.gwpharm.com/releasedetail.cfm?ReleaseID=833085

Cannabinoid and Terpene Info (chart – 2015)
http://skunkpharmresearch.com/cannabinoid-info/

Cannabis: World-renowned researchers discuss a new frontier in therapeutics (news – 2015)
Lady Health: Top 5 Strains to Curb Appetite (news – 2015)  
http://www.ladybud.com/2015/05/12/lady-health-top-5-strains-to-curb-appetite/

What are Cannabinoids? (news – 2015)  

**TRANS-CARYOPHYLLENE** – CB 2 agonist

Activation of cortical type 2 cannabinoid receptors ameliorates ischemic brain injury (news – 2013)  
http://www.sciencedaily.com/releases/2013/02/130221141140.htm

Cannabinoid Trans-Caryophyllene Protects Brain Cells From Ischemia (news – 2013)  
http://www.medicalnewstoday.com/articles/256799.php

**TRUFFLES**

What Gourmet Food Ingredient Contains a “Bliss Molecule” Similar to THC in Cannabis? (news – undated)  

Truffles contain “bliss” molecule (news – 2014)  

Truffles Have a THC-like Substance in Them (news – 2014)  
http://www.smithsonianmag.com/smart-news/truffles-have-the-substance-them-180953705/#8a7rVPC5Q52ovxJ1.99

The Trouble With Truffles (news – 2016)  

**SYNTHETICS and COMPOUNDS THAT AFFECT the ECS**

**ARTICLES to 2017**

(By the limited number of early articles, there are no date restrictions in this section.)
**ACEA/ ARACHIDONYL-2’-CHLOROETHYLAMIDE** - CB1 agonist

Study: Cannabis Agonists Produce Anti-Cancer Effects In Human Liver Cancer Cells  
(news – 2012)  

Anti-Cancer Effects In Human Liver Cancer Cells Produced By Cannabis Agonists  
(news – 2012)  
http://www.imarijuana.com/tag/cannabinoid-agonists

**ACETAMINOPHEN/ PARACETAMOL/ TYLENOL** – changes into AM- 404, which stops anandamide break-down

Tylenol’s Analgesic Effect is Mediated By Cannabinoid Receptors  
(news – 2014)  

Acetaminophen or Paracetamol: Pain Relief and Precautions  
(news – 2016)  
https://healdove.com/health-care-industry/Acetaminophen-or-Paracetamol-How-Does-it-Provide-Pain-Relief

**ADELMIDROL** – a PEA analogue

Adelimdrol: a new ALIAmide for chronic inflammation  
(news – 2012)  
http://www.neuropathie.nu/research-development/adelimdrol-a-new-alianamide-for-chronic-inflamm.html

Adelimdrol: a novel glia modulator  
(news – 2015)  

**AJULEMIC ACID/ AjA/ IP-751/ HU-239/ CT-3** - analog of Δ8-THC-11-oic acid, mechanism of action not established, also see JBT- 101

Marijuana-Derived Compound Targets Pain, Inflammation  
(news - 2002)  

Marijuana-Derived Drug Suppresses Bladder Overactivity And Irritation In Animal Models  
(news - 2005)
Marijuana-Derived Drug Suppresses Bladder Pain In Animal Models (news - 2006)
http://www.sciencedaily.com/releases/2006/05/060521103039.htm

Letter: Preclinical assessment of abuse liability of ajulemic acid (letter - 2007)

**AM-111/ D-JNKI-1/ XG- 102** – blocks the MAPK-JNK signal pathway


**AM-251** – GPR 55 agonist, CB1 antagonist/ inverse agonist


**AM-404** – cannabinoid transport inhibitor, made in the body from acetaminophen- See ACETAMINOPHEN


**AM-630** – CB2 inverse agonist


Activation of cortical type 2 cannabinoid receptors ameliorates ischemic brain injury (news – 2013) http://www.sciencedaily.com/releases/2013/02/130221141140.htm
**AM-1172**  - anandamide transport inhibitor

New molecule may be basis for drugs that battle overeating and drug dependency  
(news – 2004)  
http://www.sciencedaily.com/releases/2004/05/040517072118.htm

Easing anxiety with anandamide  
(news – 2004)  

**AM-1241**  - CB2 agonist

New Compound That Acts On Peripheral Receptors May Be Promising Treatment For Some Nerve Pain  
(news - 2003)  

**AM-1346**  - CB1 agonist

Synthetic Cannabinoid May Aid Fertility In Smokers  
(news - 2006)  
http://www.medicalnewstoday.com/articles/58063.php

Marijuana-like Chemical Can Restore Sperm Function Lost to Tobacco Abuse  
(news - 2006)  
http://www.rxpgnews.com/specialtopics/article_5093.shtml

Cannabis-based boost for smokers' suffering sperm  
(news - 2006)  
(may need registration)  

Scientist Discovers New Molecule to Treat Chronic Pain  
(news - 2008)  
http://www.northeastern.edu/news/2008/08/makryannisnewmolecule/

**AM-1710**  – CB2 agonist

An alternative to medical marijuana for pain?  
(news – 2015)  
AM-6538 - a strong antagonist of CB1 receptors that “freezes” them for easier study

Harvesting Benefits from Cannabinoids. (article – 2016)
http://www.cell.com/cell/fulltext/S0092-8674(16)31675-0

ShanghaiTech Scientists Resolve the Structure of the Human "Marijuana Receptor" (news – 2016)

BIA 10-2474 / BIOTRIAL - a failed FAAH inhibitor, caused severe brain damage and death.

French drug trial leaves one brain dead and five critically ill (news – 2016)

French drug trial turns disastrous, leaving 1 brain dead and 5 hospitalized (news – 2016)

Researchers question design of fatal French clinical trial (news – 2016)
http://www.nature.com/news/researchers-question-design-of-fatal-french-clinical-trial-1.19221

Will Death in French Drug Trial Lead to Tighter Phase 1 Rules? (news – 2016)

Animal Test Details Emerge in French Drug Trial Death (news – 2016)

High Doses Of Experimental Drug Implicated In Botched French Study (news – 2016)

Botched French Drug Trial Followed Rules But Lacked 'Common Sense' (news – 2016)
http://www.npr.org/sections/health-shots/2016/05/03/475867184/botched-french-drug-trial-followed-rules-but-lacked-common-sense
CANNABINOR - CB2 agonist

Pharmos Initiates Phase I Trial of CB2-Selective Drug Candidate Cannabinor

Cannabinoid Receptor Agonist Significantly Reduces Post-Operative Pain, Study Says

CB–65 - CB2 agonist

Study: Cannabis Agonists Produce Anti-Cancer Effects In Human Liver Cancer Cells

Anti-Cancer Effects In Human Liver Cancer Cells Produced By Cannabis Agonists

CP-47,497 - CB1 & CB2 agonist


Outlawing 'Legal Highs:' Can Emergency Bans Hinder Drug Development?
Getting up to speed with the public health and regulatory challenges posed by new psychoactive substances in the information age  
(editorial – 2013)  

**CP-55,940** - CB1, CB2 & GPR-55 agonist

**Endocannabinoids -- The Brain's Cannabis -- Demonstrate Novel Modes Of Action To Stress**  
(news - 2005)  

**FUBINACA GROUP**

'Fake pot' causing zombielike effects is 85 times more potent than marijuana  
(news – 2016)  
utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+rss%2Fcnn_topstories+%28RSS%3A+CNN%29++Top+Stories%29

**HU-210** - CB 1 & CB 2 agonist, over 100 times stronger than THC

**Cannabinoids spell relief in colon inflammation**  
(news – 2004)  
http://www.mpg.de/496761/pressRelease20040506?filter_order=1

**Is cannabis good for your brain?**  
(news - 2005)  

**Study Shows Marijuana Promotes Neuron Growth**  
(news - 2005)  
http://english.ohmynews.com/articleview/article_view.asp?menu=c10400&no=253377&rel_no=1

**Marijuana May Grow Neurons in the Brain**  
(news - 2005)  
http://www.medpagetoday.com/Psychiatry/AnxietyStress/1934

**Surprising Brain Effects From Pot-Like Drug**  
(news – 2005)  

**Marijuana might cause new cell growth in the brain**  
(news – 2005)  
(may need registration)  
http://www.newscientist.com/article/dn8155
Now, There's a Test for That -- Norchem's "Fake Marijuana" Test Reveals Significantly Increased Abuse of Spice/K2  

Getting up to speed with the public health and regulatory challenges posed by new psychoactive substances in the information age  

HU-211 / DEXANABINOL/ DEXANABINONE/ SINNABIDOL/ ETS-2101/ PA 50211/ PRS 211007 - CB 2 agonist

Latest Studies Imply That Cannabinoids Are Protective Against Alcohol-Induced Brain Damage  
http://blog.norml.org/2011/09/06/latest-studies-imply-that-cannabinoids-are-protective-against-alcohol-induced-brain-damage/

Cannabinoid May Treat Brain Cancer  

Clinical trial evaluates synthetic cannabinoid as brain cancer treatment  
https://health.ucsd.edu/news/releases/Pages/2012-09-25-cannabinoids-may-treat-brain-cancer.aspx

Cannabinoid May Treat Brain Cancer  
http://www.sciencedaily.com/releases/2012/09/120925142557.htm

e-Therapeutics announces continuation of ETS2101 phase I trial in brain cancer  

HU-308 - CB2 agonist

Activation of CB2 receptor attenuates bone loss in osteoporosis  

Endocannabinoids, cannabinoid receptors and inflammatory stress: an interview with Dr. Pál Pacher  
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.510.3426
Protection from osteoarthritis may lie in our own joints, study suggests  (news – 2014)
https://www.sciencedaily.com/releases/2014/05/140518092722.htm

**HU-320** – chemically related to CBD, mechanism of action not established

A novel synthetic, nonpsychoactive cannabinoid acid (HU-320) with antiinflammatory properties in murine collagen-induced arthritis  (full – 2004)

**IBUPROFEN** – blocks the breakdown of anandamide (which is what actually relieves your pain)

Scripps Research Scientists Discover Inflammation Is Controlled Differently in Brain and Other Tissues  (news – 2011)

Preventing marijuana-induced memory problems with over-the-counter painkillers  (news – 2013)

What ailments does medical marijuana help?  (news – 2015)

**J-147** – a CB1 antagonist derived from curcumin

Medical marijuana has potential as Alzheimer’s treatment, study says  (news – 2016)

**JBT-101/ RESUNAB**

Corbus Pharmaceuticals’ Investigational Scleroderma Drug Takes Novel Approach To Treating Inflammation  (news – 2016)
**JD-5037** - CB1 agonist with limited brain penetration

New Drug Could Help Maintain Long-Term Weight Loss

http://www.sciencedaily.com/releases/2012/07/120726122116.htm

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**JWH-015** — CB2 & GPR-55 agonist, mildly activates CB1 receptors

Now, There's a Test for That -- Norchem's "Fake Marijuana" Test Reveals Significantly Increased Abuse of Spice/K2


Latest blood test detects 12 popular synthetic cannabinoids in "fake pot".


Chemicals Used in "Spice" and "K2" Type Products Now Under Federal Control and Regulation

http://www.dea.gov/pubs/pressrel/pr030111.html

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**JWH-018** — CB1 agonist, 5 times stronger than THC

A Synthetic Solution for a Legal 4:20


Synthetic cannabis mimic found in herbal incense


FAQ: K2, Spice Gold, and Herbal 'Incense'


THIS ISN'T YOUR MOTHER'S SPICE

http://www.mapinc.org/drugnews/v10/n497/a07.html?1173

Fake Weed, Real Drug: K2 Causing Hallucinations in Teens


Outlawing ‘Legal Highs:’ Can Emergency Bans Hinder Drug Development?

(news – 2011)
Latest blood test detects 12 popular synthetic cannabinoids in "fake pot". (news – 2011)

'Fake Marijuana' May Trigger Heart Trouble in Teens (news – 2011)


**JWH-073** - CB1 & CB2 agonist

Now, There's a Test for That -- Norchem's "Fake Marijuana" Test Reveals Significantly Increased Abuse of Spice/K2  (news - 2010)


Outlawing 'Legal Highs:' Can Emergency Bans Hinder Drug Development?  
(news – 2011)  

Latest blood test detects 12 popular synthetic cannabinoids in "fake pot".  
(news – 2011)  

'Fake Marijuana' May Trigger Heart Trouble in Teens  
(news – 2011)  

Chemicals Used in "Spice" and "K2" Type Products Now Under Federal Control and Regulation  
(news – 2011)  

NMS Labs & Cerilliant Announce Identification Of Major Metabolite Of The Synthetic Cannabinoid JWH-073  
(news – 2011)  

Clemson University professor created synthetic marijuana for abuse research  
(news – 2012)  

Tachycardia followed by bradycardia after smoking the synthetic cannabinoid “K9”  
(news – 2012)  

How this chemist unwittingly helped spawn the synthetic drug industry  
(news – 2015)  

**JWH-100 / AM -678** - CB1 agonist

Chemicals Used in "Spice" and "K2" Type Products Now Under Federal Control and Regulation  
(news – 2011)  
**JWH-122** – CB1 agonist

Cannabinoids Found to Reduce 90% of Skin Cancer in Just 20 Weeks, According to New Study (news – 2013)

Japanese Study Shows Cannabinoids Inhibit Tumor Growth (news – 2014)
https://www.medicaljane.com/2013/07/27/study-shows-cannabinoids-inhibit-tumor-growth/

Testing: Three Kings Day bread laced with 'substantial' amount of synthetic pot (news – 2015)

**JWH-133/ 3-(1_1_1-dimethylbutyl)- 1-deoxy- 8-THC** - CB2 agonist


Can marijuana curb cocaine addiction? (news – 2011)
http://theweek.com/article/index/217709/can-marijuana-curb-cocaine-addiction

Drugs Related to Cannabis Have Pain-Relieving Potential for Osteoarthritis (news – 2014)
http://www.sciencedaily.com/releases/2014/01/140107092825.htm

Synthetic cannabinoid molecule created for osteoarthritis (news – 2014)

Study: Cannabis Plays A Key Role In Pancreatic Cancer Treatment (news – 2014)

Cannabinoid Use in the Treatment of Osteoarthritis Pain (news – 2015)

**JWH-200** – CB1 agonist

Outlawing ‘Legal Highs:’ Can Emergency Bans Hinder Drug Development?
(news – 2011)

How this chemist unwittingly helped spawn the synthetic drug industry (news – 2015)

**JWH-210** – CB1 agonist

Cannabinoids Found to Reduce 90% of Skin Cancer in Just 20 Weeks, According to New Study (news – 2013)

Study: Cannabinoids Offer Treatment For Severe Lung Disease (news – 2013)

Japanese Study Shows Cannabinoids Inhibit Tumor Growth (news – 2014)
https://www.medicaljane.com/2013/07/27/study-shows-cannabinoids-inhibit-tumor-growth/

**JZL-184** – blocks the breakdown of 2-AG

Understanding the Effects of Endogenous Cannabinoids (news – 2008)

**KM-233** – CB2 agonist

Preclinical studies of KM-233, a safe and effective classical cannabinoid chemotherapeutic for the treatment of high-grade glioma (news – 2006)
http://www.aans.org/Media/Article.aspx?ArticleId=36969

**KN38-7271/BAY38-7271** – CB1 & CB2 agonist
Breakthrough in treatment of Traumatic Brain Injury: KeyNeurotek's clinical study reaches primary endpoint and shows significant increase in survival (news - 2009)

MAB-CHMINACA

Authorities may know common link between synthetic pot illnesses nationwide (news – 2015)

MARINOL/ DRONABINOL - a synthetic THC, a CB1 & CB2 agonist

Cannabinoids (encyclopedia entry) http://www.chemie.de/lexikon/e/Cannabinoids/

Cannabis, Coca, & Poppy: Nature’s Addictive Plants - Cannabis (article – undated)
http://www.deamuseum.org/ccp/cannabis/history.html

CANNABIS AND MARINOL IN THE TREATMENT OF MIGRAINE HEADACHE (abst - undated) http://www.druglibrary.net/schaffer/hemp/migr2.htm


Marinol Death Sentence: Oregon Man Denied Liver Transplant Because of Prescription -- He's Not the Only One (news – 2003)
http://stopthedrugwar.org/chronicle-old/299/notransplant.shtml

MARINOL® (Dronabinol) Capsules (monograph - 2004)
http://www.fda.gov/ohrms/dockets/dockets/05n0479/05N-0479-emc0004-04.pdf

Marijuana Research (news – 2004)
http://www.scientificamerican.com/article/marijuana-research/

Dronabinol can't replace medical marijuana (article - 2005)


Big Pharma's Strange Holy Grail: Cannabis Without Euphoria?  (news - 2006) http://www.mapinc.org/drugnews/v06.n899.a05.html


Medical use of cannabinoids does not cause an increase in serious adverse health effects  (news - 2008) http://www.cannabis-med.org/english/bulletin/ww_en_db_cannabis_artikel.php?id=272


The FDA has written documentation that patients can overdose on Marinol and that it can be lethal  (news – forum repost - 2009) http://www.420magazine.com/forums/marinol/173318-fda-has-written-documentation-patients-can-overdose-marinol.html


What Are Prescription Drugs That Are a Substitute for Marijuana?  (news – 2011)
http://www.livestrong.com/article/137065-what-are-prescription-drugs-that-are-substitute-marijuana/#ixzz211a1dVQG

Science: THC effective in trichotillomania symptoms in a pilot study  (news – 2011)

DRONABINOL capsule [Watson Laboratories, Inc.]  (monograph - 2012)
http://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=5bbac0b1-ddc2-400b-8e0d-1e1d484720ca

Can medical marijuana help rheumatoid arthritis?  (news – 2012)
http://www.health.com/health/condition-article/0,,20499017,00.html

Can cannabinoid drug used for nausea in chemotherapy relieve sleep apnea? (news – 2012)


Medicinal Cannabis and Painful Sensory Neuropathy  (editorial – 2013)
http://virtualmentor.ama-assn.org/2013/05/oped1-1305.html

Medical Marijuana: Consortium of Multiple Sclerosis Centers  (news – 2013)

Maine Mom Fights Son’s Autistic Episodes With Marinol  (news – 2013)

Pharmaceutical Cannabis Produces Similar High, Study Finds  (news – 2013)
http://www.leafscience.com/2013/12/04/pharmaceutical-cannabis-produces-similar-high-study-finds/

Science/Human: THC reduces sleep apnoea in small clinical study  (news – 2013)

http://www.safeaccesssnow.org/medical_cannabis_research_what_does_the_evidence_say

Marijuana In A Pill? Why Patients Might Be Better Off Smoking It  (news – 2014)
http://www.leafscience.com/2014/01/19/marijuana-pill-patients-might-better-smoking/

Marijuana Saved My Life: An Abbreviated Dope Diary  (news – 2014)

3 Prescription Drugs You Didn't Know Come From Marijuana  (news – 2014)
Marijuana Benefits MS Patients as Other Remedies Fail  

Health Benefits Of Medical Marijuana: 3 Major Ways Cannabis Helps Sick People Live Normal Lives  

New Study Suggests THC Can Treat Non-Cardiac Chest Pain  
http://thejointblog.com/new-study-suggests-the-can-treat-non-cardiac-chest-pain/

Novel way for treating non-cardiac chest pain due to esophageal hypersensitivity  

http://www.ncbi.nlm.nih.gov/books/NBK65875/

Marijuana Is a Wonder Drug When It Comes to the Horrors of Chemo  

Huge New Review Shows What Medical Marijuana May (and May Not) Help  

Marijuana flips appetite switch in brain  

Using Medical Cannabis in an Oncology Practice  
http://www.cancernetwork.com/oncology-journal/using-medical-cannabis-oncology-practice#sthash.CjT8fR9n.dpuf

Using Medical Cannabis in an Oncology Practice  
http://www.cancernetwork.com/oncology-journal/using-medical-cannabis-oncology-practice#sthash.CjT8fR9n.dpuf

FDA OKs Cannabis-Based Ovarian Cancer Treatment  

The Science behind the DEA's Long War on Marijuana  
https://www.scientificamerican.com/article/the-science-behind-the-dea-s-long-war-on-marijuana/

Weeding out the truth: Cannabis-based medications for cancer patients  

MDA-7 – strong CB2 agonist

Cannabinoid Receptor Stimulator Reverses Symptoms of Alzheimer's Disease in Animal Model (news – 2012) (may need free registration) http://www.biotehdaily.com/?option=com_article&Itemid=294742494

Researchers investigating potential drug for treatement of Alzheimer's disease (news – 2012)

MDA-19 – strong CB2 agonist

Studies demonstrate analgesic properties of synthetic cannabinoid (news – 2010)

NABILONE/ CESAMET - a synthetic THC, CB1 & CB2 agonist


Nabilone Could Treat Chorea and Irritability in Huntington’s Disease (letter - 2006)

A Look At FDA-OK'd 'Marijuana' Drug (news – 2006)
http://www.cbsnews.com/stories/2006/05/18/health/webmd/main1632561.shtml

2nd synthetic marijuana drug OK’d for chemo effects (news – 2006)

Cesamet, THC and chemotherapy (news – 2006)

Cesamet (nabilone) capsule (info page - 2007)
Cannabinoids for postoperative pain. (letter - 2007)
http://anesthesiology.pubs.asahq.org/article.aspx?articleid=1931347&resultClick=3

Synthetic Cannabis for Fibromyalgia Pain? (news - 2007)
http://www.healthcentral.com/chronic-pain/c/5949/16104/fm-pain


Science: Nabilone effective in the treatment of night sweats of four patients with advanced cancer (news – 2008)

Marijuana Derivative Called Effective in Fibromyalgia (news - 2008)
http://www.medpagetoday.com/Rheumatology/Fibromyalgia/8377

Marijuana-Based Drug Reduces Fibromyalgia Pain, Study Suggests (news - 2008)
http://www.sciencedaily.com/releases/2008/02/080217214547.htm

CESAMET® CII (nabilone) Capsules For Oral Administration (archived drug label - 2010)

What Are Prescription Drugs That Are a Substitute for Marijuana? (news – 2011)
http://www.livestrong.com/article/137065-what-are-prescription-drugs-that-are-substitute-marijuana/#ixzz21Ia1dVQG

Study: Synthetic THC Analogue Mitigates Diabetic Neuropathy, Is ‘Well Tolerated’ In Patients (news – 2012)

New drug offers novel pain management therapy for diabetics. (news - 2012)
http://www.thefreelibrary.com/New+drug+offers+novel+pain+management+therapy+for+diabetics.-a0306899453

Synthetic cannabinoid could treat pain in diabetes patients (news – 2012)

Drug offers new pain management therapy for diabetics (news – 2012)

Can medical marijuana help rheumatoid arthritis? (news – 2012)
http://www.health.com/health/condition-article/0,,20499017,00.html

Rimonabant/Acomplia/SR141716/SR1 – a CB1 & CB2 antagonist, GPR-55 agonist, a failed weight loss drug and sort of an “anti-THC”.

Big Pharma's Strange Holy Grail: Cannabis Without Euphoria? (news - 2006)  
http://www.mapinc.org/drugnews/v06.n899.a05.html

European watchdog warns about dangers of Acomplia (news - 2007)
Three Long-Term Diet Pills Show Poor Performance, Study Suggests (news - 2007)

FDA Advisory Panel Rejects Obesity Drug (news - 2007)
http://firstwatch.jwatch.org/cgi/content/full/2007/615/2?maxtoshow=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=2800&resourcetype=HWCIT

Risk of psychiatric side effects is approximately doubled in patients taking Acomplia (news - 2008)

Caution Urged With New Anti-Obesity Drug In Kids (news - 2008)
http://www.sciencedaily.com/releases/2008/05/080507133326.htm

Weeding out the highs of medical marijuana (news – 2008)
https://www.sciencedaily.com/releases/2008/07/080714192555.htm

Suicides in other trials led to early termination of trial into effects of weight loss drug rimonabant on cardiovascular outcomes (CRESCENDO study) (news – 2010)

Risk of suicide spurs rimonabant trial to end. (news – 2010)
http://www.thefreelibrary.com/Risk+of+suicide+spurs+rimonabant+trial+to+end.-a0238838571

Experimental obesity drug avoids brain effects that troubled predecessors (news – 2010)
http://phys.org/news197905295.html

Smoking marijuana not linked to obesity: study (news – 2011)

Part of placebo effect ascribed to cannabinoids (news – 2011)

To Be or Not To Be—Obese (full – 2012)
http://endo.endojournals.org/content/152/10/3592.long

How Weed Can Protect Us From Cancer and Alzheimer's (book excerpt – 2012)
http://www.alternet.org/story/156269/how_weed_can_protect_us_from_cancer_and_alzheimer%27s

New therapy for fragile X chromosome syndrome discovered (news – 2013)
https://www.sciencedaily.com/releases/2013/04/130410082413.htm

Marijuana may help blood sugar control, study says (news – 2014)
http://www.philly.com/philly/health/diabetes/Marijuana_may_help_blood_sugar_control_study_says.html

Why so munchy? Cannabis shown to ramp up sense of smell (news – 2014)
Ro 61-8048 – blocks the THC “high”

Scientists Have Found A Way To Make Marijuana Un-Fun (news – 2013)
http://www.popsci.com/article/science/scientists-have-found-way-make-marijuana-un-fun

“SPICE”/ SCRAs - various synthetic cannabinoid mixtures - also see the AM, HU, JWH, and CP series

A Synthetic Solution for a Legal 4:20 (news – 2009)

Synthetic cannabis mimic found in herbal incense (news – 2009)

Inhaled Incense “K2” May Cause Heart Damage (news – 2010)
http://drwes.blogspot.com/2010/08/inhaled-incense-k2-may-cause-heart.html

Fake Weed, Real Drug: K2 Causing Hallucinations in Teens (news – 2010)


1 in 9 high school seniors using synthetic marijuana (news – 2011)

'Fake Marijuana' May Trigger Heart Trouble in Teens (news – 2011)

Texas teens had heart attacks after smoking K2 (news – 2011)


Outbreak of kidney failure in Wyoming linked to "Spice" (news – 2012) http://www.reuters.com/article/2012/03/03/us-spice-illness-wyoming-idUSTRE82204T20120303


Synthetic Marijuana Dangerous for Kidneys  (news – 2013)
http://www.sciencedaily.com/releases/2013/02/130208124553.htm

Study: Consumers Prefer Natural Cannabis Over Synthetic 'Marijuana' Herbal Products (news – 2013)
http://norml.org/news/2013/01/10/study-consumers-prefer-natural-cannabis-over-synthetic-marijuana-herbal-products

Synthetic Marijuana Harms Kidneys of 16 Users, CDC Reports  (news - 2013)

Synthetic cannabis: how it's made, what's in it  (news – 2013)

Death link to synthetic cannabis  (news – 2013)
http://www.nzherald.co.nz.nz/news/article.cfm?c_id=1&objectid=10882473&ref=rss

Synthetic drugs carry risk of kidney damage  (news – 2013)

High K2 use rate among psych unit patients  (news – 2013)

'Legal high' users turn to real thing  (news – 2013)

Survey: Teens using synthetic drugs less often  (news - 2013)
http://news.yahoo.com/survey-teens-using-synthetic-drugs-less-often-050311100.html;_ylt=AwrSyCReGbJSjYAICTQtDMD

Synthetic Marijuana Added to Defense Department Drug Testing  (news – 2013)

Smoking "spice" associated with stroke in healthy, young adults  (news – 2013)
http://www.medicalnewstoday.com/releases/269132.php

Synthetic Marijuana Lands Thousands of Young People in the ER, Especially Young Males  (news – 2013)

Synthetic Drug Use Skyrocketing, Targeting Young Users  (news – 2014)

Study identifies teens at-risk for synthetic marijuana use  (news – 2015)
http://www.sciencedaily.com/releases/2015/03/150302091659.htm

Synthetic pot linked to kidney injury  (news – 2015)
7 possible deaths linked to spice  (news – 2015)
http://www.msnewsnow.com/story/28853152/7-possible-deaths-linked-to-spice

Synthetic ‘marijuana’ isn’t pot, isn’t safe  (news – 2015)

Calls to Poison Control Centers Linked to Synthetic Marijuana Spike 229%, CDC Says (news – 2015)

Synthetic drugs: evidence that they can cause cancer  (news – 2015)
https://www.sciencedaily.com/releases/2015/04/150416083746.htm

A stunning number of new 'legal high' drugs are being discovered  (news – 2015)
http://www.businessinsider.com/new-legal-high-drugs-are-being-discovered-2015-6#ixzz3gHaeROGT

Deaths triple from synthetic marijuana in US  (news – 2015)

How this chemist unwittingly helped spawn the synthetic drug industry  (news – 2015)

Thousands Hospitalized This Year Due to Fake Weed  (news – 2015)
http://www.scientificamerican.com/article/thousands-hospitalized-this-year-due-to-fake-weed/

Study identifies teens at-risk for synthetic marijuana use  (news – 2015)

San Diego City Council unanimously approves ban on 'spice'  (news – 2016)

Scientists Closer to Understanding Why Weed Gets Us High  (news – 2016)

'Fake pot' causing zombielike effects is 85 times more potent than marijuana (news – 2016)
utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+rss%2Fcnn_topstories+%28RSS %3A+CNN+-+Top+Stories%29

Please, don't call it fake weed  (news – 2016)

High Times: Taking A Look at the Marijuana Receptor  (news / abst – 2016)
http://neurosciencenews.com/thc-cannabinoid-receptor-5316/

Zombie weed: Don't let the name fool you, police say, this is serious  (news – 2017)
**SYNDROS** - an orally administered liquid formulation of dronabinol (synthetic THC)

INSYS is Targeting a $700 Million Market With Syndros (news – 2015)
http://marketexclusive.com/insys/1114/

Insys Therapeutics Announces FDA Approval of Syndros™ (news – 2016)
http://syndros.com/

**TAK-875 / FASIGLIFAM** - GPR-40 agonist

Takeda moves potential first-in-class diabetes drug into phase III (news – 2011)

**TM-38837** - a mostly peripherally restricted CB1 antagonist

Experimental obesity drug avoids brain effects that troubled predecessors (news – 2010)  

**TRICOR/ FENOFIBRATE** - works by activating CB2 receptors, also a partial CB1 agonist

Common cholesterol drug stimulates the same receptors as marijuana (news – 2015)  

**URB-597 / KDS-4103** - slows cannabinoid destruction in the body, not the brain.

Marijuana's Distant Relative May Be The Next Prozac; Chemical Reduces Anxiety Using Novel Nerve System In Body (news - 2002)  
Blocking the destruction of endocannabinoids (news – 2005)

Marijuana-Like Brain Chemicals Work As Antidepressant (news - 2007)

Parkinsons' Helped By Marijuana-Like Chemicals In Brain (news – 2007)
http://www.medicalnewstoday.com/releases/62616.php

Enhancing Activity Of Marijuana-Like Chemicals In Brain Helps Treat Parkinson's Symptoms In Mice (news - 2007)


A new drug that kills pain like marijuana, without getting you stoned (news – 2010)

Potential Pain Medication Targets Peripheral Nerves (news – 2012)
http://www.drugabuse.gov/news-events/nida-notes/potential-pain-medication-targets-peripheral-nerves

Uncovering the Neurological Differences Between the Sexes (news – 2015)
http://neurosciencenews.com/sex-differences-hippocampus-2421/

**URB-937** - slows cannabinoid destruction

New Drug Kills Pain by Boosting Body's Naturally Occurring Marijuana-Like Compound (news – 2010)

Compound boosts marijuana-like chemical in the body to relieve pain at injury site (news - 2010) http://www.eurekalert.org/pub_releases/2010-09/uoc--cbm092010.php

Research Reaps Reefer Madness (news – 2010)

**WIN-55,212-2** - CB1 & CB2 agonist, stronger than THC, but usually acts in a similar fashion
Marijuana-like compounds may aid array of debiliating conditions ranging from Parkinson's to pain (news – 2004)

Cannabinoids, in combination with (NSAIDS), produce a synergistic analgesic effect (news - 2006)

Synthetic form of THC is an effective anti-depressant at low doses (news - 2007)


Marijuana's Memory Paradox (news - forum repost – 2013) http://ehealthforum.com/health/interesting-t164409.html

How this chemist unwittingly helped spawn the synthetic drug industry (news – 2015)


Granny Storm Crow's List – January 2017
ACHALASIA - the esophageal sphincter doesn’t relax, preventing food from entering the intestines


ACHILLES TENDINOSIS

Increased Expression of Cannabinoid CB(1) Receptors in Achilles Tendinosis. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3169627/?tool=pubmed

>ACIDEemia – see ORGANIC ACIDEmia

ACNE +


Cannabinoid exerts sebostatic and antiinflammatory effects on human sebocytes. (full – 2014) http://www.jci.org/articles/view/64628


Differential effectiveness of selected non-psychotropic phytocannabinoids on human sebocyte functions implicates their introduction in dry/seborrheic skin and acne
ACUPUNCTURE/ ELECTROACUPUNCTURE +

Involvement of ERK 1/2 activation in electroacupuncture pretreatment via cannabinoid CB1 receptor in rats. (abst – 2010) http://www.ncbi.nlm.nih.gov/pubmed/20654595


Cannabinoid CB2 Receptors Contribute to Upregulation of β-endorphin in Inflamed Skin Tissues by Electroacupuncture (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3281798/

Activation of epsilon protein kinase C-mediated anti-apoptosis is involved in rapid tolerance induced by electroacupuncture pretreatment through cannabinoid receptor type 1. (full – 2011) http://stroke.ahajournals.org/content/42/2/389.long

Electroacupuncture reduces the expression of proinflammatory cytokines in inflamed skin tissues through activation of cannabinoid CB2 receptors. (abst – 2011) http://www.ncbi.nlm.nih.gov/pubmed/22337285


Multimodal stepped care approach with acupuncture and PPAR-α agonist palmitoylethanolamide in the treatment of a patient with multiple sclerosis and central neuropathic pain. (full – 2012) http://aim.bmj.com/content/30/1/53.long


Electroacupuncture reduces the expression of proinflammatory cytokines in inflamed skin tissues through activation of cannabinoid CB2 receptors. (abst – 2012) http://www.ncbi.nlm.nih.gov/pubmed/22337285

On the g-protein-coupled receptor heteromers and their allostERIC receptor-receptor interactions in the central nervous system: focus on their role in pain modulation.
(full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3730365/

CB1 and CB2 contribute to antinociceptive and anti-inflammatory effects of electroacupuncture on experimental arthritis of the rat temporomandibular joint.

Activation of STAT3 is involved in neuroprotection by electroacupuncture pretreatment via cannabinoid CB1 receptors in rats. (abst – 2013)

Acupuncture therapy for stroke patients. (abst – 2013)

Care and Feeding of the Endocannabinoid System: A Systematic Review of Potential Clinical Interventions that Upregulate the Endocannabinoid System. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3951193/

Mn-SOD Upregulation by Electroacupuncture Attenuates Ischemic Oxidative Damage via CB1R-Mediated STAT3 Phosphorylation. (abst – 2014)

Glycogen synthase kinase-3β is involved in electroacupuncture pretreatment via the cannabinoid CB1 receptor in ischemic stroke. (abst – 2014)

Involvement of GluR2 up-regulation in neuroprotection by electroacupuncture pretreatment via cannabinoid CB1 receptor in mice. (full – 2015)
http://www.nature.com/srep/2015/150330/srep09490/full/srep09490.html

What do we understand from clinical and mechanistic studies on acupuncture treatment for hypertension? (full – 2015)
http://www.cmjournal.org/content/10/1/36


Cannabis - therapy for the future? (abst – 2015)

Mn-SOD Upregulation by Electroacupuncture Attenuates Ischemic Oxidative Damage via CB1R-Mediated STAT3 Phosphorylation (abst – 2016)
http://link.springer.com/article/10.1007/s12035-014-8971-7

Ischemic Stroke, Excitatory Amino Acids Toxicity and the Adjustment of Acupuncture Intervention (abst – 2016)
Endocannabinoid mechanism for orofacial antinociception induced by electroacupuncture in acupoint St36 in rats. (abst – 2016)

Antagonism of cannabinoid receptor 1 attenuates the anti-inflammatory effects of electroacupuncture in a rodent model of migraine. (abst – 2016)

**ADD/ADHD + * **

Oral Delta 9-tetrahydrocannabinol improved refractory Gilles de la Tourette syndrome in an adolescent by increasing intracortical inhibition: a case report. (abst - 2010)

Panic Attack after Spice Abuse in a Patient with ADHD (abst – 2010)

Loss of striatal cannabinoid CB1 receptor function in attention-deficit/hyperactivity disorder mice with point-mutation of the dopamine transporter. (abst – 2011)

Cannabidiol and clozapine reverse MK-801-induced deficits in social interaction and hyperactivity in Sprague-Dawley rats. (full – 2012)
http://journals.sagepub.com/doi/full/10.1177/0269881112441865

Effects of amphetamine on dopamine release in the rat nucleus accumbens shell region depend on cannabinoid CB1 receptor activation. (abst – 2012)


Subtypes of Attention Deficit-Hyperactivity Disorder (ADHD) and Cannabis Use. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/24093525

An exploratory study of the combined effects of orally administered methylphenidate and delta-9-tetrahydrocannabinol (THC) on cardiovascular function, subjective effects, and performance in healthy adults. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4250392/
Childhood and current ADHD symptom dimensions are associated with more severe cannabis outcomes in college students. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3904106/

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4318349/

Neuropsychological sex differences associated with age of initiated use among young adult cannabis users. (full– 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4441859/

Use of paracetamol during pregnancy and child neurological development. (full – 2015)  

“I Use Weed for My ADHD”: A Qualitative Analysis of Online Forum Discussions on Cannabis Use and ADHD (full – 2016)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0156614

Adult attention-deficit/hyperactivity disorder and its association with substance use and substance use disorders in young men. (abst – 2015)  

From badness to illness: Medical cannabis and self-diagnosed attention deficit hyperactivity disorder (abst – 2015)  

ADHD and cannabis use in young adults examined using fMRI of a Go/NoGo task. (abst – 2015)  
http://www.ncbi.nlm.nih.gov/pubmed/26489976

Adult attention deficit hyperactivity disorder symptom profiles and concurrent problems with alcohol and cannabis: sex differences in a representative, population survey. (full – 2016)  

ADHD Is Highly Prevalent in Patients Seeking Treatment for Cannabis Use Disorders. (full – 2016)  
http://journals.sagepub.com/doi/full/10.1177/1087054716640109

Attention deficit hyperactivity disorder and drug addiction rehabilitation patients (full – 2016)  

Gender Differences in Associations Between Attention-Deficit/Hyperactivity Disorder and Substance Use Disorder. (abst – 2016)  


**ADDICTION/ CRAVING/ PROBLEMATIC USE**

Indian hemp and the dope fiends of Old England (article - undated) http://www.idmu.co.uk/indian.htm

Addictive Properties of Popular Drugs (article – undated) http://www.drugwarfacts.org/cms/Addictive_Properties#sthash.6yenIhQ8.dpbs


Upregulation of cannabinoid type 1 receptors in dopamine D2 receptor knockout mice is reversed by chronic forced ethanol consumption (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3004984/

Aerobic Exercise Training Reduces Cannabis Craving and Use in Non-Treatment Seeking Cannabis-Dependent Adults (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3050879/?tool=pmcentrez


Characterizing smoking topography of cannabis in heavy users. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3641906/


Involvement of the endocannabinoid system in reward processing in the human brain (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3266503/


Targeting the endocannabinoid system with cannabinoid receptor agonists: pharmacological strategies and therapeutic possibilities (full – 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3353.full?sid=1569c370-cd5c-4358-89ff-857201f5e069


The Global Epidemiology and Contribution of Cannabis Use and Dependence to the Global Burden of Disease: Results from the GBD 2010 Study (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0076635

THC reduces the anticipatory nucleus accumbens response to reward in subjects with a nicotine addiction. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3590996/

Further evidence for association of polymorphisms in the CNR1 gene with cocaine addiction: confirmation in an independent sample and meta-analysis (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3223560/

Inhibition of FAAH and activation of PPAR: New approaches to the treatment of cognitive dysfunction and drug addiction. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3662489/

Probability and predictors of transition from abuse to dependence on alcohol, cannabis, and cocaine: results from the national epidemiologic survey on alcohol and related conditions. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3755735/

Reducing cannabinoid abuse and preventing relapse by enhancing endogenous brain levels of kynurenic acid. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3835333/

Impulsivity, Variation in the Cannabinoid Receptor (CNR1) and Fatty Acid Amide Hydrolase (FAAH) Genes, and Marijuana-Related Problems. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3817049/

Cannabis Cue Reactivity and Craving Among Never, Infrequent and Heavy Cannabis Users. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3957117/)
Low frequency stimulation evokes serotonin release in the nucleus accumbens and induces long-term depression via production of endocannabinoid. (full – 2013)  
http://jn.physiology.org/content/111/5/1046.long

Cannabinoid and opioid interactions: implications for opiate dependence and withdrawal. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3742578/

Role of CB2 Cannabinoid Receptor in the Rewarding, Reinforcing and Physical Effects of Nicotine. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3799072/

Reducing cannabinoid abuse and preventing relapse by enhancing endogenous brain levels of kynurenic acid. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3835353/

Biphasic effects of Δ9-tetrahydrocannabinol on brain stimulation reward and motor activity (full – 2013)  
http://iijn.oxfordjournals.org/content/16/10/2273

Taking Note of Over-the-Counter Remedies for Adolescents With Cannabis Dependence (editorial – 2013)  

Legalization of marijuana: unraveling quandaries for the addiction professional (article – 2013)  

Cannabis and Cigarettes (article – 2013)  
http://jama.jamanetwork.com/article.aspx?articleid=1681388&resultClick=3

Therapeutic potential of cannabinoid medicines. (abst – 2013)  

Endocannabinoid system and drug addiction: new insights from mutant mice approaches. (abst – 2013)  

Lipids and addiction: how sex steroids, prostaglandins, and cannabinoids interact with drugs of abuse. (abst – 2013)  

Role of intra-accumbal cannabinoid CB1 receptors in the potentiation, acquisition and expression of morphine-induced conditioned place preference. (abst – 2013)  

Dysregulation of Cannabinoid CB1 Receptor and Associated Signaling Networks in Brains of Cocaine Addicts and Cocaine-Treated Rodents. (abst – 2013)  

Male and Female Rats Differ in Brain Cannabinoid CB1 Receptor Density and Function and in Behavioural Traits Predisposing To Drug Addiction: Effect of Ovarian Hormones. (abst – 2013)  
Palmitoylethanolamide: From endogenous cannabimimetic substance to innovative medicine for the treatment of cannabis dependence. (abst – 2013)  

Neural responses to subliminally presented cannabis and other emotionally evocative cues in cannabis-dependent individuals. (abst – 2013)  

Endocannabinoids underlie reconsolidation of hedonic memories in Wistar rats. (abst – 2013)  

Erratum to: Endocannabinoids underlie reconsolidation of hedonic memories in Wistar rats (correction to chart – 2013)  

Cannabis withdrawal syndrome: An important diagnostic consideration in adolescents presenting with disordered eating. (abst – 2013)  

The effects of cannabis use expectancies on self-initiated cannabis cessation (abst – 2013)  

Cannabidiol inhibits the reward-facilitating effect of morphine: involvement of 5-HT1A receptors in the dorsal raphe nucleus. (abst – 2013)  

Posttraumatic stress disorder and cannabis use characteristics among military veterans with cannabis dependence. (abst – 2013)  

Cannabidiol: Pharmacology and potential therapeutic role in epilepsy and other neuropsychiatric disorders (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4707667/

Prolonged monoacylglycerol lipase blockade causes equivalent CB1-receptor mediated adaptations in FAAH wild type and knockout mice. (full – 2014)  
http://jpet.aspetjournals.org/content/early/2014/05/21/jpet.114.212753.long

Pregnenolone can protect the brain from cannabis intoxication. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4057431/

Potential Role of N-Acetylcysteine in the Management of Substance Use Disorders. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4009342/

Systematic review of N-acetylcysteine in the treatment of addictions. (full – 2014)  
Endocannabinoid-dependent modulation of phasic dopamine signaling encodes external and internal reward-predictive cues. (full – 2014)

Dependence Potential of the Synthetic Cannabinoids JWH-073, JWH-081, and JWH-210: In Vivo and In Vitro Approaches. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4131522/

Delta-9 tetrahydrocannabinol (THC) and endocannabinoid degradative enzyme inhibitors attenuate intracranial self-stimulation (ICSS) in mice. (full – 2014)
http://jpet.aspetjournals.org/content/early/2014/11/14/jpet.114.218677.long


Mutation of Putative GRK Phosphorylation Sites in the Cannabinoid Receptor 1 (CB1R) Confers Resistance to Cannabinoid Tolerance and Hypersensitivity to Cannabinoids in Mice. (full – 2014) http://www.jneurosci.org/content/34/15/5152.long

Cannabis withdrawal in chronic, frequent cannabis smokers during sustained abstinence within a closed residential environment. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3986824/

Cannabidiol: Pharmacology and potential therapeutic role in epilepsy and other neuropsychiatric disorders (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4707667/

Enhanced Endocannabinoid-Mediated Modulation of Rostromedial Tegmental Nucleus Drive onto Dopamine Neurons in Sardinian Alcohol-Preferring Rats. (full – 2014) http://www.jneurosci.org/content/34/38/12716.long

Chronic stimulation of the tone of endogenous anandamide reduces cue- and stress-induced relapse in rats. (full – 2014) http://ijnp.oxfordjournals.org/content/18/1/pyu025.long

The CB1 Receptor as an Important Mediator of Hedonic Reward Processing (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4138748/

Sex differences in antinociceptive tolerance to delta-9-tetrahydrocannabinol in the rat. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4161674/

Investigation of sex-dependent effects of cannabis in daily cannabis smokers. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4518446/

Frequent marijuana use is associated with greater nicotine addiction in adolescent smokers. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4097075/


The FAAH inhibitor PF-04457845 has THC-like rewarding and reinstatement effects in squirrel monkeys and increases dopamine levels in the nucleus accumbens shell in rats (abst – 2014)
Association study of CNR1, GAD1 and BDNF polymorphisms with male heroin dependence in the Dai population in Yunnan. (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/25252306


Enhancing Brain Pregnenolone May Protect Cannabis Intoxication but Should Not Be Considered as an Anti-addiction Therapeutic: Hypothesizing Dopaminergic Blockade and Promoting Anti-Reward. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4545660/
Ventral tegmental area dopamine and GABA neurons: Physiological properties and expression of mRNA for endocannabinoid biosynthetic elements. (full – 2015)  
http://www.nature.com/articles/srep16176

Cannabidiol as an Intervention for Addictive Behaviors: A Systematic Review of the Evidence (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4444130/

Craving is associated with amygdala volumes in adolescent marijuana users during abstinence. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4568004/

Cocaine-Induced Endocannabinoid Mobilization in the Ventral Tegmental Area. (full – 2015)  
http://www.cell.com/cell-reports/fulltext/S2211-1247%2815%2900926-2

http://www.mdpi.com/1660-4601/13/1/5/htm

Cannabis problem experiences among users of the tobacco-cannabis combination known as blunts. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4387065/

Further human evidence for striatal dopamine release induced by administration of Δ9-tetrahydrocannabinol (THC): selectivity to limbic striatum (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4816196/

Endocannabinoid Signaling in Motivation, Reward, and Addiction: Influences on Mesocorticolimbic Dopamine Function. (full – 2015)  

Acute and Chronic Ethanol Exposure Differentially Regulate CB1 Receptor Function at Glutamatergic Synapses in the Rat Basolateral Amygdala. (full – 2015)  

Are genetic variants for tobacco smoking associated with cannabis involvement? (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4443812/

Twitter Chatter about Marijuana (full – 2015)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4306811/

ADOLESCENTS’ USE OF MEDICAL MARIJUANA: A SECONDARY ANALYSIS OF MONITORING THE FUTURE DATA (full – 2015)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4514911/

Early Phase in the Development of Cannabidiol as a Treatment for Addiction: Opioid Relapse Takes Initial Center Stage. (full – 2015)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4604178/

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4633378/


Do Medical Marijuana Laws Reduce Addictions and Deaths Related to Pain Killers? (link to download - 2015) Do Medical Marijuana Laws Reduce Addiction and Deaths Related ... 

Addressing the stimulant treatment gap: A call to investigate the therapeutic benefits potential of cannabinoids for crack-cocaine use. (link through Elsevier to get link to PDF – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26500166

Cannabis conundrum: Evidence of harm?: Opposition to marijuana use is often rooted in arguments about the drug's harm to children and adults, but the scientific evidence is seldom clear-cut (article – 2015) http://onlinelibrary.wiley.com/doi/10.1002/cncy.21516/full


The hippocampal NMDA receptors may be involved in acquisition, but not expression of ACPA-induced place preference. (abst – 2015) http://www.sciencedirect.com/science/article/pii/S0278584615001311
The influence of cannabinoids on learning and memory processes of the dorsal striatum.  

Morphine-induced locomotor sensitization produces structural plasticity in the mesocorticolimbic system dependent on CB1-R activity.  (abst – 2015)  

Cross-tolerance to cannabinoids in morphine-tolerant rhesus monkeys.  (abst – 2015)  


Effects of daily delta-9-tetrahydrocannabinol treatment on heroin self-administration in rhesus monkeys.  (abst – 2015)  

Evaluation of the abuse potential of AM281, a new synthetic cannabinoid CB1 receptor antagonist.  (abst – 2015)  

Substituting cannabis for prescription drugs, alcohol and other substances among medical cannabis patients: The impact of contextual factors.  (abst – 2015)  

Ghrelin and endocannabinoids participation in morphine-induced effects in the rat nucleus accumbens.  (abst – 2015)  


Oral Cannabidiol does not Alter the Subjective, Reinforcing or Cardiovascular Effects of Smoked Cannabis.  (abst – 2015)  

KAT2B polymorphism identified for drug abuse in African Americans with regulatory links to drug abuse pathways in human prefrontal cortex.  (abst – 2015)  

Relationship between the 1359 G/A polymorphism of the Central Cannabinoid Receptor 1 (CNR1) gene and susceptibility to cannabis addiction in a Turkish population  
(abst – 2015)  
http://www.ingentaconnect.com/search/article?option1=txa&value1=cannabinoid&sortDescending=true&sortField=prism_publicationDate&pageSize=10&index=69


Combined Treatment with Morphine and Δ9-Tetrahydrocannabinol (THC) in Rhesus Monkeys: Antinociceptive Tolerance and Withdrawal (abst – 2015) http://www.fasebj.org/content/29/1_Supplement/616.9.abstract?sid=edf921ac-0690-4aa6-ac81-0546314dd384


Genetic Versus Pharmacological Assessment of the Role of Cannabinoid Type 2 Receptors in Alcohol Reward-Related Behaviors. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4886733/
The effect of O-1602, an atypical cannabinoid, on morphine-induced conditioned place preference and physical dependence  

Rapid Changes in Cannabinoid 1 Receptor Availability in Cannabis-Dependent Male Subjects After Abstinence From Cannabis  

Opposite regulation of cannabinoid CB1 and CB2 receptors in the prefrontal cortex of rats treated with cocaine during adolescence  

Attempts to Stop or Reduce Daily Cannabis Use: An Intensive Natural History Study.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4877269/

Enkephalin levels and the number of neuropeptide Y-containing interneurons in the hippocampus are decreased in female cannabinoid-receptor 1 knock-out mice.  

Interactions between cannabinoid receptor agonists and mu opioid receptor agonists in rhesus monkeys discriminating fentanyl.  

Estradiol impacts the endocannabinoid system in female rats to influence behavioral and structural responses to cocaine.  

Pharmacological characterization of repeated administration of the first generation abused synthetic cannabinoid CP47,497.  

Cognitive behavioral therapy program for cannabis use cessation in first-episode psychosis patients: study protocol for a randomized controlled trial.  

Orexins contribute to restraint stress-induced cocaine relapse by endocannabinoid-mediated disinhibition of dopaminergic neurons.  
http://www.nature.com/ncomms/2016/160722/ncomms12199/full/ncomms12199.html

Ecological Momentary Assessment and Smartphone Application Intervention in Adolescents with Substance Use and Comorbid Severe Psychiatric Disorders: Study Protocol.  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5028912/

Black–White Disparities in Criminal Justice Referrals to Drug Treatment: Addressing Treatment Need or Expanding the Diagnostic Net?  
http://www.mdpi.com/2076-328X/6/4/21/htm
Involvement of Endocannabinoids in Alcohol "Binge" Drinking: Studies of Mice with Human Fatty Acid Amide Hydrolase Genetic Variation and After CB1 Receptor Antagonists. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4962692/

Are adolescents more vulnerable to the harmful effects of cannabis than adults? A placebo-controlled study in human males (full – 2016) http://www.nature.com/tp/journal/v6/n11/full/tp2016225a.html


Regional Influence of Cannabinoid CB1 Receptors in the Regulation of Ethanol Self-Administration by Wistar Rats (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5152943/

Attenuation of Cocaine-Induced Conditioned Place Preference and Motor Activity via Cannabinoid CB2 Receptor Agonism and CB1 Receptor Antagonism in Rats (full – 2016) http://ijnp.oxfordjournals.org/content/early/2016/12/19/ijnp.pyw102.long


fMRI study of neural sensitization to hedonic stimuli in long-term, daily cannabis users. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5012952/


Attention deficit hyperactivity disorder and drug addiction rehabilitation patients (full – 2016) http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0004-282X2016001201003&lng=en&nrm=iso&tlng=en

Dissecting the signaling pathways involved in the crosstalk between mGlu5 and CB1 receptors. (link to PDF – 2016) http://molpharm.aspetjournals.org/content/early/2016/06/23/mol.116.104372.long

Opioids Out, Cannabis In (1st page – 2016) http://jamanetwork.com/journals/jama/article-abstract/2576617

Interactions between the endocannabinoid and nicotinic cholinergic systems: preclinical evidence and therapeutic perspectives. (abst – 2016)

The Relationships of Cigarette and Alcohol Use With the Initiation, Reinitiation, and Persistence of Cannabis Use. (abst – 2016)

Longitudinal predictors of cannabis use and dependence in offspring from families at ultra high risk for alcohol dependence and in control families. (abst – 2016)

Brain reactivity to alcohol and cannabis marketing during sobriety and intoxication. (abst – 2016)

Self-administration of the anandamide transport inhibitor AM404 by squirrel monkeys (abst – 2016)

The Changing Drug Culture: Medical and Recreational Marijuana. (abst – 2016)

Blockade of Nicotine and Cannabinoid Reinforcement and Relapse by a Cannabinoid CB1-Receptor Neutral Antagonist AM4113 and Inverse Agonist Rimonabant in Squirrel Monkeys. (abst – 2016)

Combined treatment with morphine and Δ9-tetrahydrocannibinol (THC) in rhesus monkeys: antinociceptive tolerance and withdrawal. (abst – 2016)

Effects of fixed or self-titrated dosages of Sativex on cannabis withdrawal and cravings. (abst – 2016)

Alcohol and cannabis use among college students: Substitutes or complements? (abst – 2016)

Low Pretreatment Impulsivity and High Medication Adherence Increase the Odds of Abstinence in a Trial of N-Acetylcysteine in Adolescents with Cannabis Use Disorder. (abst – 2016)
http://www.journalofsubstanceabusetreatment.com/article/S0740-5472(15)00313-X/abstract

Cannabis policy and the uptake of treatment for cannabis-related problems. (abst – 2016)

Beyond the CB1 Receptor: Is Cannabidiol the Answer for Disorders of Motivation? (abst – 2016)
Preclinical studies on the reinforcing effects of cannabinoids. A tribute to the scientific research of Dr. Steve Goldberg. (abst – 2016)  

Dermatological Aspects of Synthetic Cannabinoid Addiction. (abst – 2016)  

Functional effects of cannabinoids during dopaminergic specification of human neural precursors derived from induced pluripotent stem cells. (abst – 2016)  

The association of specific traumatic experiences with cannabis initiation and transition to problem use: Differences between African-American and European-American women. (abst – 2016)  

Keep off the grass? Cannabis, cognition and addiction. (abst – 2016)  
http://www.nature.com/nrn/journal/v17/n5/full/nrn.2016.28.html

COMT Val158Met genotype and cannabis use in people with an At Risk Mental State for psychosis: Exploring Gene x Environment interactions. (abst – 2016)  

Gender differences in cannabis use disorder treatment: Change readiness and taking steps predict worse cannabis outcomes for women. (abst – 2016)  

Comorbid Cannabis and Tobacco Use in Adolescents and Adults. (abst – 2016)  


A Functional 3'UTR Polymorphism (rs2235749) of Prodynorphin Alters microRNA-365 Binding in Ventral Striatonigral Neurons to Influence Novelty Seeking and Positive Reward Traits. (abst – 2016)  

Dual Cannabis and Alcohol Use Disorders in Young Adults: Problems Magnified. (abst – 2016)  

Is attention deficit/hyperactivity disorder among men associated with initiation or escalation of substance use at 15-month follow up? A longitudinal study involving young Swiss men. (abst – 2016)  

http://www.jaacap.com/article/S0890-8567(16)2930101-0/abstract
Sativex Associated With Behavioral-Relapse Prevention Strategy as Treatment for Cannabis Dependence: A Case Series  (abst – 2016)


Co-occurrent cannabis and tobacco uses: Clinical knowledge and therapeutic prospects  (abst – 2016)

Exercise as an adjunctive treatment for cannabis use disorder.  (abst – 2016)

Assessing the risk of marijuana use disorder among adolescents and adults who use marijuana.  (abst – 2016)

Cannabidiol disrupts the reconsolidation of contextual drug-associated memories in Wistar rats.  (abst – 2016)

Problematic Use of Prescription Opioids and Medicinal Cannabis Among Patients Suffering from Chronic Pain.  (abst – 2016)

Older-adult marijuana users and ex-users: Comparisons of sociodemographic characteristics and mental and substance use disorders.  (abst – 2016)

Consequences of adolescent use of alcohol and other drugs: Studies using rodent models.  (abst – 2016)

Blockade of Cannabinoid CB1 receptor attenuates the acquisition of morphine-induced conditioned place preference along with a downregulation of ERK, CREB phosphorylation, and BDNF expression in the nucleus accumbens and hippocampus.  (abst – 2016)

A preliminary evaluation of synthetic cannabinoid use among adolescent cannabis users: Characteristics and treatment outcomes.  (abst – 2016)

Synthetic cannabinoids to avoid urine drug screens: Implications for contingency management and other treatments for drug dependence.  (abst – 2016)

Magnitude and duration of cue-induced craving for marijuana in volunteers with cannabis use disorder.  (abst – 2016)
Limitations to the Dutch cannabis toleration policy: Assumptions underlying the reclassification of cannabis above 15% THC. (abst – 2016)

Genetic variation in FAAH is associated with cannabis use disorders in a young adult sample of Mexican Americans (abst – 2016)

Cue-elicited increases in incentive salience for marijuana: Craving, demand, and attentional bias. (abst – 2016)

Contribution of health motive to cannabis use among high-school students. (abst – 2016)

Effects of Adolescent Cannabinoid Self-Administration in Rats on Addiction-Related Behaviors and Working Memory. (abst – 2016)

Sex differences in alcohol consumption and alterations in nucleus accumbens endocannabinoid mRNA in alcohol-dependent rats. (abst – 2016)

Does marijuana "blunt" smoking contribute to nicotine exposure?: Preliminary product testing of nicotine content in wrappers of cigars commonly used for blunt smoking. (abst – 2016)

Genetic and Environmental Factors Associated with Cannabis Involvement. (abst – 2016)

Marijuana and tobacco co-administration in blunts, spliffs, and mulled cigarettes: A systematic literature review. (abst – 2016)

Drug-Induced Alterations of Endocannabinoid-Mediated Plasticity in Brain Reward Regions. (abst – 2016)

CB1 Cannabinoid Receptors Mediate Cognitive Deficits and Structural Plasticity Changes During Nicotine Withdrawal. (abst – 2016)


Whole genome sequence study of cannabis dependence in two independent cohorts. (abst – 2017) [https://www.ncbi.nlm.nih.gov/pubmed/28111843]

**ADOLESCENTS/ YOUNG ADULTS** + 13 to 30 years or equivalent

Uni-Morbid and Co-Occurring Marijuana and Tobacco Use: Examination of Concurrent Associations with Negative Mood States  
(full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2861285/?tool=pubmed

Learning and memory performances in adolescent users of alcohol and marijuana: interactive effects.  
(full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2965487/

Influence of cannabis use trajectories, grade repetition and family background on the school-dropout rate at the age of 17 years in France.  
(full - 2010)  
http://eurpub.oxfordjournals.org/content/20/2/157.long

PTSD contributes to teen and young adult cannabis use disorders.  
(full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2784238/?tool=pubmed

Adolescent cannabis use increases risk for cocaine-induced paranoia.  
(full - 2010)  

A Life-course Perspective on the "Gateway Hypothesis".  
(full – 2010)  
http://journals.sagepub.com/doi/full/10.1177/0022146510378238

Patterns of Youth Participation in Cannabis Cultivation  
(link to download – 2010)  
http://jod.sagepub.com/content/40/2/263.abstract

Cannabis withdrawal severity and short-term course among cannabis-dependent adolescent and young adult inpatients  
(abst - 2010)  

Cannabis Use and Obesity and Young Adults  
(abst - 2010)  

The Effects of Cannabis on Heart Rate Variability and Well-Being in Young Men  
(abst – 2010)  

Survey of alcohol, tobacco, and cannabis use in the French army.  
(abst – 2010)  

The social contagion effect of marijuana use among adolescents.  
(full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3018468/?tool=pubmed

CNR2 functional variant (Q63R) influences childhood immune thrombocytopenic purpura. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3232275/


Rural Adolescent Alcohol, Tobacco and Illicit Drug Use: A Comparison of Students in Victoria, Australia and Washington State, United States (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3186916/

Myocardial Infarction Associated With Use of the Synthetic Cannabinoid K2. (full – 2011) http://pediatrics.aappublications.org/content/128/6/e1622.long

The association between early conduct problems and early marijuana use in college students. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3163297/

Gender differences in adolescent marijuana use and associated psychosocial characteristics. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3359836/


Prospective Study of Cannabis Use in Adolescents at Clinical High-Risk for Psychosis: Impact on Conversion to Psychosis and Functional Outcome (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3459073/

Acute Intoxication Caused by a Synthetic Cannabinoid in Two Adolescents (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3470439/

Does the "gateway" sequence increase prediction of cannabis use disorder development beyond deviant socialization? Implications for prevention practice and policy.


Prevalence and co-use of marijuana among young adult cigarette smokers: An anonymous online national survey (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3507655/


Acute intoxication caused by a synthetic cannabinoid in two adolescents. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3470439/

Sensation-seeking genes and physical activity in youth (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3581711/


Cannabis extract treatment for terminal acute lymphoblastic leukemia with a Philadelphia chromosome mutation (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3901602/

Identity Formation, Marijuana and “The Self”: A Study of Cannabis Normalization among University Students (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3847659/

Correlations between cannabis use and IQ change in the Dunedin cohort are consistent with confounding from socioeconomic status. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3600466/

Effects of State Medical Marijuana Laws on Adolescent Marijuana Use. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4007871/


Weeding out the information: an ethnographic approach to exploring how young people sense of the evidence on cannabis (full – 2013) http://www.harmreductionjournal.com/content/10/1/34

Fascination and Social Togetherness-Discussions about Spice Smoking on a Swedish Internet Forum. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3855086/

Computer and therapist based brief interventions among cannabis-using adolescents presenting to primary care: One year outcomes. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3770780/

Do societal wealth, family affluence and gender account for trends in adolescent cannabis use? A 30 country cross-national study. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3947129/

Motivations to quit cannabis use in an adult non-treatment sample: Are they related to relapse? (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3681844/

THE IMPORTANCE OF FAMILY RELATIONS FOR CANNABIS USERS: THE CASE OF SERBIAN ADOLESCENTS (full – 2013)  

Statistics on cannabis users skew perceptions of cannabis use (full – 2013)  

Self-Efficacy and Motivation to Quit Marijuana Use among Young Women. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4913034/

Higher rates of adolescent substance use in child welfare versus community populations in the United States. (full - 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3817044/

From “Social Supply” to “Real Dealing”: Drift, Friendship, and Trust in Drug-Dealing Careers (link to PDF – 2013)  
http://search.proquest.com/openview/7fca7d95539590726bcee9e62d624c4e/1?pq-origsite=gscholar&cbl=34918

Taking Note of Over-the-Counter Remedies for Adolescents With Cannabis Dependence (editorial – 2013)  


To What Extent Does Adding Tobacco to Cannabis Expose Young Users to Nicotine? (abst – 2013)  

Cannabis withdrawal syndrome: An important diagnostic consideration in adolescents presenting with disordered eating. (abst – 2013)  

Testing bidirectional effects between cannabis use and depressive symptoms: moderation by the serotonin transporter gene (abst – 2013)  
Cannabis use among a sample of 16 to 18 year-old students in Switzerland. (full – 2014)  
http://www.hdbp.org/psychiatria_danubina/pdf/dnb_vol26_no1/dnb_vol26_no1_56.pdf

Cigarette smoking during an N-acetylcysteine-assisted cannabis cessation trial in adolescents. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4118750/

Pediatric exposure to drugs of abuse by hair testing: monitoring 15 years of evolution in Spain. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4143861/

An Examination of Opinions Toward Marijuana Policies Among High School Seniors in the United States (full – 2014)  
http://www.tandfonline.com/doi/full/10.1080/02791072.2014.962716#tabModule

The Impact of State Medical Marijuana Legislation on Adolescent Marijuana Use. (full – 2014)  
http://www.jahonline.org/article/S1054-139X%2814%2900107-4/pdf

An exploratory study of the combined effects of orally administered methylphenidate and delta-9-tetrahydrocannabinol (THC) on cardiovascular function, subjective effects, and performance in healthy adults. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4250392/

Childhood and current ADHD symptom dimensions are associated with more severe cannabis outcomes in college students. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3904106/

Prevalence and correlates of alcohol and cannabis use disorders in the United States: Results from the national longitudinal study of adolescent health. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3963405/

Correlates of intentions to use cannabis among US high school seniors in the case of cannabis legalization. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4071130/

Neurocognition in college-aged daily marijuana users (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4074777/

Cannabinoid findings in children hair - what do they really tell us? An assessment in the light of three different analytical methods with focus on interpretation of Δ9-tetrahydrocannabinolic acid A concentrations. (full – 2014)  

Adverse psychosocial outcomes associated with drug use among US high school seniors: a comparison of alcohol and marijuana. (full – 2014)  

Early onset of cannabis use: Does personality modify the relation with changes in perceived parental involvement? (full – 2014)  
http://www.drugandalcoholdependence.com/article/S0376-8716%2814%2901893-6/fulltext
What are young adults smoking in their hookahs? A latent class analysis of substances smoked. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4091668/

Frequent marijuana use is associated with greater nicotine addiction in adolescent smokers. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4097075/


Interpersonal Guilt and Substance Use in College Students. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4782605/

Synthetic Cannabinoids: Use and predictors in a Community Sample of Young Adults (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4362955/


EFFICACY AND SAFETY OF EPIDIOLEX (CANNABIDIOL) IN CHILDREN AND YOUNG ADULTS WITH TREATMENT-RESISTANT EPILEPSY: INITIAL DATA FROM AN EXPANDED ACCESS PROGRAM (abst – 2014) https://www.aesnet.org/meetings_events/annual_meeting_abstracts/view/1868751#sthash.pbnOqzNG.dpuf


Socialization Instances Linked to Cannabis Experimentation Among French Teenagers.  
(abst – 2014)  

Frequent electronic media communication with friends is associated with higher adolescent substance use.  
(abst – 2014)  

Medical marijuana and children.  
(abst – 2014)  

THE EFFECT OF EPIDIOLEX (CANNABIDIOL) ON SERUM LEVELS OF CONCOMITANT ANTI-EPILEPTIC DRUGS IN CHILDREN AND YOUNG ADULTS WITH TREATMENT-RESISTANT EPILEPSY IN AN EXPANDED ACCESS PROGRAM  
(abst – 2014)  
https://www.aesnet.org/meetings_events/annual_meeting_abstracts/view/1868391#sthash.uxbwgudh.dpuf

Status Report: Marijuana Legalization in Colorado After One Year of Retail Sales and Two Years of Decriminalization  
(full – 2015)  

The Impact of Marijuana Policies on Youth: Clinical, Research, and Legal Update.  
(full – 2015)  
http://pediatrics.aappublications.org/content/early/2015/01/20/peds.2014-4147.long

(full – 2015)  
http://eurpub.oxfordjournals.org/content/25/suppl_2/73.long

PTSD Growth and Substance Abuse Among a College Student Community: Coping Strategies after 2009 L’aquila Earthquake  
(full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4397827/

Sex-dependent vulnerability to Cannabis abuse in adolescence  
(full – 2015)  

Changes in cannabinoid receptors, aquaporin 4 and vimentin expression after traumatic brain injury in adolescent male mice. Association with edema and neurological deficit.  
(full – 2015)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0128782

Heritability, SNP- and Gene-Based Analyses of Cannabis Use Initiation and Age at Onset.  
(full – 2015)  

Impact of Cannabis Use on the Development of Psychotic Disorders.  
(full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4352721/

Cannabis Withdrawal Among Detained Adolescents: Exploring the Impact of Nicotine and Race.  
(full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4331066/
Medicare and the Adolescent Marijuana Use in the USA from 1991 to 2014: results from annual, repeated cross-sectional surveys (full – 2015)

Daily marijuana use is not associated with brain morphometric measures in adolescents or adults. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4308597/

The Cannabinoid Receptor 2 63R Variant Modulates the Relationship between Childhood Obesity and Age at Menarche. (full – 2015)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0140142

Evaluating the impact of cannabis use on thalamic connectivity in youth at clinical high risk of psychosis. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4640353/


High School Students' Use of Electronic Cigarettes to Vaporize Cannabis. (full – 2015)
http://pediatrics.aappublications.org/content/136/4/611.long

Chronic Adolescent Marijuana Use as a Risk Factor for Physical and Mental Health Problems in Young Adult Men. (full – 2015)

Prevalence and correlates of hashish use in a national sample of high school seniors in the United States (full – 2015)


Craving is associated with amygdala volumes in adolescent marijuana users during abstinence. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4568004/

http://www.mdpi.com/1660-4601/12/8/9988

Adolescent cannabis exposure interacts with mutant DISC1 to produce impaired adult emotional memory. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4640936/


Developmental regulation of fear learning and anxiety behavior by endocannabinoids.

Neuropsychological sex differences associated with age of initiated use among young adult cannabis users. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4441859/


Young adult cannabis users report greater propensity for risk-taking only in non-monetary domains http://www.sciencedirect.com/science/article/pii/S0376871614020006

13-Year-Old Girl With Recurrent, Episodic, Persistent Vomiting: Out of the Pot and Into the Fire. http://pediatrics.aappublications.org/content/135/4/e1060.long


Neighborhood-level and individual-level correlates of cannabis use among young persons living with HIV/AIDS http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4447557/


K2 and Spice use among a cohort of college students in southeast region of the USA. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4526379/

Cigarette smoking may modify the association between cannabis use and adiposity in males. http://www.sciencedirect.com/science/article/pii/S0091305715001690


THE EFFECT OF MEDICAL MARIJUANA LAWS ON BODY WEIGHT (full – 2015) The Effect of Medical Marijuana Laws on Body Weight


The adverse health effects of synthetic cannabinoids with emphasis on psychosis-like effects. (full – 2015) http://journals.sagepub.com/doi/full/10.1177/0269881114565142


Shared Predisposition in the Association Between Cannabis Use and Subcortical Brain Structure (full – 2015) http://jamanetwork.com/journals/jamapsychiatry/fullarticle/2429550


Associations between cigarette smoking and cannabis dependence: A longitudinal study of young cannabis users in the United Kingdom. (link to PDF – 2015) http://www.drugandalcoholdependence.com/article/S0376-8716%2815%2900010-1/abstract
Marijuana use and risk of prediabetes and diabetes by middle adulthood: the Coronary Artery Risk Development in Young Adults (CARDIA) study (link to PDF- 2015)
http://link.springer.com/article/10.1007/s00125-015-3740-3

Cannabis conundrum: Evidence of harm?: Opposition to marijuana use is often rooted in arguments about the drug's harm to children and adults, but the scientific evidence is seldom clear-cut (article – 2015)

More people think cannabis should be legal than tobacco (poll results – 2015)
http://www.studentmoneysaver.co.uk/article/more-people-think-cannabis-should-be-legal-than-tobacco/

Cannabidiol in patients with treatment-resistant epilepsy: an open-label interventional trial (abst – 2015)
http://www.thelancet.com/journals/laneur/article/PIIS1474-4422(15)00379-8/abstract

Longitudinal Effects of School Drug Policies on Student Marijuana Use in Washington State and Victoria, Australia (abst – 2015)
http://ajph.aphapublications.org/doi/10.2105/AJPH.2014.302421


Retrospective Analysis of Tetrahydrocannabinol Based on 31 Neurologically Critically Ill Children (abst – 2015)

Association between cannabinoid receptor type 2 Q63R variant and oligo/polyarticular juvenile idiopathic arthritis (abst – 2015)


http://www.drugandalcoholdependence.com/article/S0376-8716(15)01618-X/abstract


Are IQ and educational outcomes in teenagers related to their cannabis use? A prospective cohort study (full – 2016)  http://jop.sagepub.com/content/early/2016/01/06/0269881115622241.full


Analysis of endocannabinoid signaling elements and related proteins in lymphocytes of patients with Dravet syndrome. (full – 2016)

Neuronal and Astrocytic Monoacylglycerol Lipase Limit the Spread of Endocannabinoid Signaling in the Cerebellum. (full – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4865651/

“I Use Weed for My ADHD”: A Qualitative Analysis of Online Forum Discussions on Cannabis Use and ADHD (full – 2016)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0156614

Marijuana Use in Youth from Bench to Bedside to Longitudinal Outlook (full – 2016)
http://cpa.sagepub.com/content/61/6/316.long

Trends in cannabis use disorders among racial/ethnic population groups in the United States. (full – 2016)
http://www.drugandalcoholdependence.com/article/S0376-8716(16)30147-8/fulltext

Opposite regulation of cannabinoid CB1 and CB2 receptors in the prefrontal cortex of rats treated with cocaine during adolescence (full – 2016)

CBD-enriched medical cannabis for intractable pediatric epilepsy: The current Israeli experience. (full – 2016)

Cannabinoid CB1 receptor inhibition blunts adolescent-typical increased binge alcohol and sucrose consumption in male C57BL/6J mice. (full – 2016)

Chest pain, troponin rise, and ST-elevation in an adolescent boy following the use of the synthetic cannabis product K2. (full – 2016)
http://www.annalspc.com/article.asp?issn=0974-2069;year=2016;volume=9;issue=1;spage=79;epage=81;aulast=Zaleta

Medicinal Use of Marijuana: What School Nurses Need to Know. (full – 2016)
http://nas.sagepub.com/content/31/3/170.long

URB597 inhibits oxidative stress induced by alcohol binging in the prefrontal cortex of adolescent rats. (full – 2016)

Dissociating the role of endocannabinoids in the pleasurable and motivational properties of social play behaviour in rats. (full – 2016)

Case Series of Synthetic Cannabinoid Intoxication from One Toxicology Center.
Associations Between Cannabis Use and Physical Health Problems in Early Midlife

http://www.ijidp.org/article/S0955-3959(16)00038-4/fulltext

First-Episode of Synthetic Cannabinoid-Induced Psychosis in a Young Adult, Successfully Managed with Hospitalization and Risperidone.
http://www.hindawi.com/journals/crips/2016/7257489/

http://www.cdc.gov/mmwr/volumes/65/ss/ss6511a1.htm?s_cid=ss6511a1_e

Current Therapeutic Cannabis Controversies and Clinical Trial Design Issues

Ecological Momentary Assessment and Smartphone Application Intervention in Adolescents with Substance Use and Comorbid Severe Psychiatric Disorders: Study Protocol.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5028912/

Synthetic Cannabis Overdose and Withdrawal in a Young Adult: A Case Report, Commentary on Regulation, and Review of the Literature.
https://www.hindawi.com/journals/crips/2016/3640549/

Adverse Social Experiences in Adolescent Rats Result in Enduring Effects on Social Competence, Pain Sensitivity and Endocannabinoid Signaling

Are adolescents more vulnerable to the harmful effects of cannabis than adults? A placebo-controlled study in human males
http://www.nature.com/tp/journal/v6/n11/full/tp2016225a.html

Acute Eosinophilic Pneumonia with Respiratory Failure Induced by Synthetic Cannabinoid Inhalation.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5156457/

Individual differences in frontolimbic circuitry and anxiety emerge with adolescent changes in endocannabinoid signaling across species.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4843434/

Cannabinoids reverse the effects of early stress on neurocognitive performance in adulthood.
http://learnmem.cshlp.org/content/23/7/349.long

Effects of Adolescent Intermittent Alcohol Exposure on the Expression of Endocannabinoid Signaling-Related Proteins in the Spleen of Young Adult Rats. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5035052/

Traditional marijuana, high-potency cannabis and synthetic cannabinoids: increasing risk for psychosis. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5032490/


Cannabis Withdrawal, Posttreatment Abstinence, and Days to First Cannabis Use Among Emerging Adults in Substance Use Treatment: A Prospective Study. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4748964/


Attention deficit hyperactivity disorder and drug addiction rehabilitation patients (full – 2016) http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0004-282X2016001201003&lng=en&nrm=iso&tlng=en


Anti-N-methyl-D-aspartate receptor encephalitis and drug abuse - the probable role of molecular mimicry or the overstimulation of CB receptors in a 17-year-old adolescent - case report. (link to download – 2016) http://www.mppt.hu/folyoirat/1/abstract/?vol=18&issue=3&elsooldal=162


Can your heart handle the spice: A case of acute myocardial infarction and left ventricular apical thrombus (1st page – 2016) http://www.internationaljournalofcardiology.com/article/S0167-5273%2816%2930735-5/abstract


Alcohol and cannabis use among college students: Substitutes or complements?


Low Pretreatment Impulsivity and High Medication Adherence Increase the Odds of Abstinence in a Trial of N-Acetylcysteine in Adolescents with Cannabis Use Disorder. (abst – 2016) http://www.journalofsubstanceabusetreatment.com/article/S0740-5472(15)00313-X/abstract


Because difficulty is not the same for everyone: the impact of complexity in working memory is associated with cannabinoid 1 receptor genetic variation in young adults. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27108777

Adolescent social rejection alters pain processing in a CB1 receptor dependent manner. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27157075


Secondary Effects of an Alcohol Prevention Program Targeting Students and/or Parents (abst – 2016)
http://www.journalofsubstanceabusetreatment.com/article/S0740-5472(16)30152-0/abstract


Pediatric oncology providers and use of medical marijuana in children with cancer. (abst – 2016) http://meetinglibrary.asco.org/content/170798-176

Peripubertal treatment with cannabidiol prevents the emergence of psychosis in an animal model of schizophrenia (abst – 2016)


Anxiety, depression and risk of cannabis use: Examining the internalising pathway to use among Chilean adolescents. (abst – 2016)  

Genetic variation in FAAH is associated with cannabis use disorders in a young adult sample of Mexican Americans  (abst – 2016)  

Understanding resilience: New approaches for preventing and treating PTSD.  (abst – 2016)  


Adolescent cannabis use: What is the evidence for functional brain alteration?  
(abst – 2016)  

Alcohol use during a trial of N-acetylcysteine for adolescent marijuana cessation.  
(abst – 2016)  

Consuming energy drinks at the age of 14 predicted legal and illegal substance use at 16.  
(abst – 2016)  

Cannabinoids and Psychosis. (3)  
(abst – 2016)  

Cannabis and Pediatric Inflammatory Bowel Disease: Change Blossoms A Mile High.  
(abst – 2016)  

Contribution of health motive to cannabis use among high-school students.  
(abst – 2016)  

Effects of Adolescent Cannabinoid Self-Administration in Rats on Addiction-Related Behaviors and Working Memory.  
(abst – 2016)  

Disturbances of sleep and circadian rhythms: novel risk factors for obesity.  
(abst – 2016)  

Cannabis for Cognitive Enhancement as a New Coping Strategy? Results From a Survey of Students at Four Universities in Germany.  
(abst – 2016)  

Buying drugs on a Darknet market: A better deal? Studying the online illicit drug market through the analysis of digital, physical and chemical data.  
(abst – 2016)  
Spontaneous involution of pediatric low-grade gliomas: high expression of cannabinoid receptor 1 (CNR1) at the time of diagnosis may indicate involvement of the endocannabinoid system. (abst – 2016)

Abnormal white matter integrity in synthetic cannabinoid users. (abst – 2016)

Prevalence and Correlates of Vaping Cannabis in a Sample of Young Adults. (abst – 2016)

Risky substance use and peer pressure in Swiss young men: Test of moderation effects. (abst – 2016)

The Synthetic Cannabinoids Phenomenon. (abst – 2016)

The hazards of bad sleep-Sleep duration and quality as predictors of adolescent alcohol and cannabis use. (abst – 2016)

UPPS-P model impulsivity and marijuana use behaviors in adolescents: A meta-analysis (abst – 2016)
http://www.drugandalcoholdependence.com/article/S0376-8716(16)30923-1/abstract


"Just one bad high:" considering synthetic cannabinoid outcome expectancies in adolescents. (abst – 2016)

Changing perspectives on marijuana use during early adolescence and young adulthood: Evidence from a panel of cross-sectional surveys. (abst – 2016)

Effects of Marijuana on ictal and interictal EEG activity in idiopathic generalized epilepsy. (abst – 2016)

The neurobiology of social play and its rewarding value in rats (abst – 2016)

Prevalence and correlates of "Vaping" as a route of cannabis administration in medical cannabis patients. (abst – 2016)

A social network analysis of substance use among immigrant adolescents in six European cities. (abst – 2016)


Independent Versus Co-occurring Substance Use in Relation to Gambling Outcomes in Older Adolescents and Young Adults. (abst – 2016) https://www.ncbi.nlm.nih.gov/pubmed/28011065


Association Between Use of Cannabis in Adolescence and Weight Change into Midlife (link to download – 2017) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0168897
Rocky Mountain High: Preventing Cannabis-Related Injuries (1st page – 2017)
http://www.jenonline.org/article/S0099-1767(16)30339-7/abstract

Peer Network Counseling as Brief Treatment for Urban Adolescent Heavy Cannabis Users. (abst – 2017)

Support for Marijuana Legalization and Predictors of Intentions to Use Marijuana More Often in Response to Legalization Among U.S. Young Adults. (abst – 2017)


ADRENOLEUKODYSTROPHY - An inherited condition that affects the white matter of the nervous system and the adrenal cortex.

Synthetic cannabinoids revealing adrenoleukodystrophy (full – 2016)

AGE-RELATED DIFFERENCES

Are adolescents more vulnerable to the harmful effects of cannabis than adults? A placebo-controlled study in human males (full – 2016)
http://www.nature.com/tp/journal/v6/n11/full/tp2016225a.html
AGING + - also see OLDER ADULT CANNABIS USERS, MENOPAUSE

The Management of Chronic Pruritus in the Elderly (full – 2010)
http://www.skintherapyletter.com/2010/15.8/2.html


The type 2 cannabinoid receptor protects against age-related bone loss and ovariectomy induced bone loss by stimulating bone formation (abst – 2010)  http://www.thebonejournal.com/article/S8756-3282%2810%2900619-8/abstract

Role of CB1 cannabinoid receptors on GABAergic neurons in brain aging (full– 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3131310/?tool=pubmed


Early onset of aging-like changes is restricted to cognitive abilities and skin structure in Cnr1(-/-) mice. (abst – 2011)  http://www.ncbi.nlm.nih.gov/pubmed/20724033

Endocannabinoid type 1 receptor gene (CNR1) polymorphisms (rs806381, rs10485170, rs6454674, rs2023239) and cardiovascular risk factors in postmenopausal women. (abst – 2011)  http://www.ncbi.nlm.nih.gov/pubmed/21480765

Loss of CB1 receptors leads to differential age-related changes in reward-driven learning and memory. (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3514639/

Role of CB1 cannabinoid receptors on GABAergic neurons in brain aging (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3131310/?tool=pubmed

Can the benefits of cannabinoid receptor stimulation on neuroinflammation, neurogenesis and memory during normal aging be useful in AD prevention? (full – 2012)  http://www.jneuroinflammation.com/content/9/1/10
The endocannabinoid, anandamide, augments Notch-1 signaling in cultured cortical neurons exposed to amyloid-beta and in the cortex of aged rats. (full – 2012) http://www.jbc.org/content/early/2012/08/13/jbc.M112.350678.long

Review article: The endocannabinoid system in normal and pathological brain ageing (full – 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3326.full?sid=161e7b36-5055-448b-962e-697c782e901d

Cannabinoid Type 1 Receptor Gene Polymorphism and Macronutrient Intake. (full – 2012) http://www.karger.com/Article/FullText/343563


Combined deficiency of the CB1 and CB2 receptors enhances peak bone mass by inhibiting osteoclast differentiation but increases age-related bone loss by promoting adipocyte differentiation and reducing osteoblast differentiation (abst – 2012) http://www.thebonejournal.com/article/S8756-3282%2812%2900153-6/abstract

The cannabinoid receptor type 1 is essential for mesenchymal stem cell survival and differentiation: implications for bone health. (full – 2013) http://www.hindawi.com/journals/sci/2013/796715/


Loss of CB1 receptors leads to decreased cathepsin D levels and accelerated lipofuscin accumulation in the hippocampus. (full – 2013) http://www.sciencedirect.com/science/article/pii/S0047637413000869


GPR55 Deletion in Mice Leads to Age-Related Ventricular Dysfunction and Impaired Adrenoceptor-Mediated Inotropic Responses. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4183508/
Differential effects of delayed aging on phenotype and striatal pathology in a murine model of huntington disease. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4236397/

Endocannabinoid signalling and the deteriorating brain. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4471876/

Diacylglycerol lipase regulates lifespan and oxidative stress response by inversely modulating TOR signaling in Drosophila and C. elegans (full – 2014)

Plasma-Free Fatty Acids, Fatty Acid-Binding Protein 4, and Mortality in Older Adults (from the Cardiovascular Health Study). (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4162821/


Enhanced microglial activity in FAAH-/- animals. (full – 2014)

Cannabinoid receptor-dependent metabolism of 2-arachidonoylglycerol during aging. (full – 2014)

Endocannabinoid signalling and the deteriorating brain (abst – 2014)
http://www.nature.com/nrn/journal/v16/n1/abs/nrn3876.html

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4567222/

Age-related changes in the endocannabinoid system in the mouse hippocampus. (full – 2015)

THE EFFECT OF MEDICAL MARIJUANA LAWS ON BODY WEIGHT
The Effect of Medical Marijuana Laws on Body Weight

Pro-inflammatory obesity in aged cannabinoid-2 receptor deficient mice. (abst – 2015)

Amyloid proteotoxicity initiates an inflammatory response blocked by cannabinoids (full – 2016)
http://www.nature.com/articles/npjmd201612

CB1 receptor blockade counters age-induced insulin resistance and metabolic dysfunction. (full – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4783351/
Age-specific influences of chronic administration of the fatty acid amide hydrolase inhibitor URB597 on cardiovascular parameters and organ hypertrophy in DOCA-salt hypertensive rats. (full – 2016)

Metabolomic-Driven Elucidation of Serum Disturbances Associated with Alzheimer's Disease and Mild Cognitive Impairment. (abst – 2016)

Lack of hippocampal CB1 receptor desensitization by Δ9-tetrahydrocannabinol in aged mice and by low doses of JZL 184. (abst – 2016)

Circulating levels of endocannabinoids and oxylipins altered by dietary lipids in older women are likely associated with previously identified gene targets (abst – 2016)

Delineating the Efficacy of a Cannabis-Based Medicine at Advanced Stages of Dementia in a Murine Model. (abst – 2016)

Selective modulator of cannabinoid receptor type 2 reduces memory impairment and infarct size during cerebral hypoperfusion and vascular dementia. (abst – 2016)
http://www.ncbi.nlm.nih.gov/pubmed/27586843

Selective modulator of cannabinoid receptor type 2 (CB2) against biochemical alterations and brain damage in chronic cerebral hypoperfusion induced vascular dementia. (abst – 2016)

β-Caryophyllene promotes osteoblastic mineralization, and suppresses osteoclastogenesis and adipogenesis in mouse bone marrow cultures in vitro. (abst – 2016)

>AIDS – see HIV

ALCOHOLISM /ALCOHOL +*_

The use of Cannnabidiol (CBD) to Reduce Insomnia and the Urge To Use Alcohol in a Geriatric person in on going Behavior Therapy. (case report – undated)
http://cannabisclinicians.org/view-all-case-reports/entry/420/?pagenum=2

The use of Cannnabidiol (CBD) and Meditation to reduce Binge Drinking, Anxiety and to improve Emotional Regulation in Long Term Behavior Therapy (case report – undated)
http://cannabisclinicians.org/view-all-case-reports/entry/437/?pagenum=2
Harm Reduction: Alcohol Use Disorder, Cannabis-induced Psychotic Disorder and a tale of two Hemp Oils, in a Patient diagnosed with a Cluster A & B Personality Disorders in Long Term Behavior Therapy. (case report – undated)  
http://cannabisclinicians.org/view-all-case-reports/entry/601/?pagenum=2

Plasma anandamide and other N-acylethanolamines are correlated with their corresponding free fatty acid levels under both fasting and non-fasting conditions in women (full – 2010)  
http://www.nutritionandmetabolism.com/content/7/1/49

Converging action of alcohol consumption and cannabinoid receptor activation on adult hippocampal neurogenesis. (full – 2010)  
http://ijnp.oxfordjournals.org/content/13/2/191.long

Learning and memory performances in adolescent users of alcohol and marijuana: interactive effects. (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2965487/

The Endocannabinoid System Tonically Regulates Inhibitory Transmission and Depresses the Effect of Ethanol in Central Amygdala (full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2904853/

Selective alterations of the CB1 receptors and the fatty acid amide hydrolase in the ventral striatum of alcoholics and suicides. (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2878847/

Upregulation of cannabinoid type 1 receptors in dopamine D2 receptor knockout mice is reversed by chronic forced ethanol consumption (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3004984/

Influence of ethanol on cannabinoid pharmacokinetic parameters in chronic users (abst - 2010)  
http://www.ncbi.nlm.nih.gov/pubmed/21116612

11-nor-Delta9-tetrahydrocannabinol-9-carboxylic acid ethyl ester (THC-COOEt): unsuccessful search for a marker of combined cannabis and alcohol consumption. (abst – 2010)  
http://www.unboundmedicine.com/medline/ebm/record/20074877/abstract/11_nor_Delta9_tetrahydrocannabinol_9_carboxylic_acid_ethyl_estep_THC_COOEt_unsuccessful_search_for_a_marker_of_combined_cannabis_and_alcohol_consumption

Role of the endocannabinoid system in alcoholic liver disease. (abst – 2010)  

The effects of cannabis and alcohol on simulated arterial driving: Influences of driving experience and task demand. (abst – 2010)  
http://www.unboundmedicine.com/medline/ebm/record/20380913/abstract/The_effects_of_cannabis_and_alcohol_on_simulated_arterial_driving_Influences_of_driving_experience_and_task_demand
Cannabinoid receptor type 1 expression modulates alcohol-induced liver fibrosis: Role of Acetaldehyde (abst – 2010) [108x695]

Survey of alcohol, tobacco, and cannabis use in the French army. (abst – 2010) [108x695]

Tolerance and cross-tolerance to neurocognitive effects of THC and alcohol in heavy cannabis users. (full – 2011) [108x617]
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3045517/

Pharmacological activation/inhibition of the cannabinoid system affects alcohol withdrawal-induced neuronal hypersensitivity to excitotoxic insults. (full – 2011) [108x575]
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3158793/

Effect of an Acute Consumption of a Moderate Amount of Ethanol on Plasma Endocannabinoid Levels in Humans (full – 2011) [108x562]
http://alcalc.oxfordjournals.org/content/alcalc/47/3/226.full.pdf

HIV-1 infection and alcohol abuse: neurocognitive impairment, mechanisms of neurodegeneration and therapeutic interventions. (full – 2011) [108x540]
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3098312/

Combined effects of acute, very-low-dose ethanol and delta(9)-tetrahydrocannabinol in healthy human volunteers (full - 2011) [108x522]
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3018238/

Cannabinoid CB2 receptors protect against alcoholic liver disease by regulating kupffer cell polarization in mice. (full – 2011) [108x508]

Racial differences in trajectories of heavy drinking and regular marijuana use from ages 13 to 24 among African-American and White males. (full – 2011) [108x469]
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3258364/

Rural Adolescent Alcohol, Tobacco and Illicit Drug Use: A Comparison of Students in Victoria, Australia and Washington State, United States (full – 2011) [108x447]
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3186916/

Popular intoxicants: what lessons can be learned from the last 40 years of alcohol and cannabis regulation? (full – 2011) [108x422]

Medical Marijuana Laws, Traffic Fatalities, and Alcohol Consumption (full – 2011) [108x403]

The role of the cannabinoid system in the pathogenesis and treatment of alcohol dependence (click “ICI” link for download – 2011) [108x384]
Some features of teenage beer alcoholism combined with hashish addiction

Intermittent ethanol consumption depresses endocannabinoid-signaling in the dorsolateral striatum of rat. (abst – 2011)

Upregulation of cannabinoid type 1 receptors in dopamine D2 receptor knockout mice is reversed by chronic forced ethanol consumption. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3004984/?tool=pubmed

Associations of Alcohol, Nicotine, Cannabis, and Drug Use/Dependence with Educational Attainment: Evidence from Cotwin-Control Analyses. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3412907/

Alcohol and cannabis use and mortality in people with schizophrenia and related psychotic disorders. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3392453/

Reduced alcohol intake and reward associated with impaired endocannabinoid signaling in mice with a deletion of the glutamate transporter GLAST. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3372600/

Tolerance to cannabinoid-induced behaviors in mice treated chronically with ethanol. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3249519/

Borderline personality traits and substance use: genetic factors underlie the association with smoking and ever use of cannabis, but not with high alcohol consumption. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3744119/

Involvement of the Endocannabinoid System in Ethanol-Induced Corticostriatal Synaptic Depression. (full – 2012) https://www.jstage.jst.go.jp/article/jphs/120/1/120_12118FP/_pdf

Effects of ethanol, Δ(9)-tetrahydrocannabinol, or their combination on object recognition memory and object preference in adolescent and adult male rats. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3477605/

Positron Emission Tomography Shows Elevated Cannabinoid CB 1 Receptor Binding in Men with Alcohol Dependence (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3418442/

Cannabis as a substitute for alcohol and other drugs: A dispensary-based survey of substitution effect in Canadian medical cannabis patients (full – 2012)


Reduced expression of brain cannabinoid receptor 1 (Cnr1) is coupled with an increased complementary micro-RNA (miR-26b) in a mouse model of fetal alcohol spectrum disorders. (full – 2013) http://www.clinicalepigeneticsjournal.com/content/5/1/14

Perception of tobacco, cannabis, and alcohol use of others is associated with one's own use (full – 2013) http://www.ascpjournal.org/content/8/1/15


Hepatic Cannabinoid Receptor Type 1 Mediates Alcohol-Induced Regulation of Bile Acid Enzyme Genes Expression Via CREBH (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0068845

The effects of caffeine, nicotine, ethanol, and tetrahydrocannabinol on exercise performance. (full – 2013) http://www.nutritionandmetabolism.com/content/10/1/71

Probability and predictors of transition from abuse to dependence on alcohol, cannabis, and cocaine: results from the national epidemiologic survey on alcohol and related conditions. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3755735/

Role of cannabinoid CB2 receptor in the reinforcing actions of ethanol. (full – 2013)

Transdermal delivery of cannabidiol attenuates binge alcohol-induced neurodegeneration in a rodent model of an alcohol use disorder. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4096899/

Reduced Cannabinoid CB1 Receptor Binding in Alcohol Dependence Measured with Positron Emission Tomographys. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3594469/

A spontaneous deletion of α-Synuclein is associated with an increase in CB1 mRNA transcript and receptor expression in the hippocampus and amygdala: Effects on alcohol consumption (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3931467/


Effect of Diet on Tissue Levels of Palmitoylethanolamide (link to PDF – 2013) http://www.eurekaselect.com/107972/article


Cannabinoid receptor 2 agonist attenuates pain related behavior in rats with chronic alcohol / high fat diet induced pancreatitis. (full – 2014) http://www.molecularpain.com/content/10/1/66

Reduced expression of brain cannabinoid receptor 1 (Cnr1) is coupled with an increased complementary micro-RNA (miR-26b) in a mouse model of fetal alcohol spectrum disorders. (full – 2014) http://www.clinicalepigeneticsjournal.com/content/5/1/14

Enhanced Endocannabinoid-Mediated Modulation of Rostromedial Tegmental Nucleus Drive onto Dopamine Neurons in Sardinian Alcohol-Preferring Rats. (full – 2014) http://www.jneurosci.org/content/34/38/12716.long


Acute alcohol use temporally increases the odds of male perpetrated dating violence: A diary analysis (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3858531/

Can Cannabis be Considered a Substitute Medication for Alcohol? (full – 2014) http://alcalc.oxfordjournals.org/content/early/2014/01/07/alcalc.agt182.full

Cannabidiol protects liver from binge alcohol-induced steatosis by mechanisms including inhibition of oxidative stress and increase in autophagy (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4112960/

Changes in Cerebral CB1 Receptor Availability after Acute and Chronic Alcohol Abuse and Monitored Abstinence. (full – 2014) http://www.jneurosci.org/content/34/8/2822.long


Recreational drug use and binge drinking: Stimulant but not cannabis intoxication is associated with excessive alcohol consumption. (abst – 2014)


Comparative risk assessment of alcohol, tobacco, cannabis and other illicit drugs using the margin of exposure approach. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4311234/


PTSD Growth and Substance Abuse Among a College Student Community: Coping Strategies after 2009 L’aquila Earthquake (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4397827/

Effects of mood inductions by meal ambiance and moderate alcohol consumption on endocannabinoids and N-acylethanolamines in humans: a randomized crossover trial. (full – 2015) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0126421


Controlled Cannabis Vaporizer Administration: Blood and Plasma Cannabinoids with and without Alcohol. (full – 2015) http://www.clinchem.org/content/61/6/850.long
Daily marijuana use is not associated with brain morphometric measures in adolescents or adults.  (full – 2015)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4308597/

Alcohol Versus Cannabinoids: A Review of Their Opposite Neuro-Immunomodulatory Effects and Future Therapeutic Potentials  (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4607066/

Pharmacological activation of CB2 receptors counteracts the deleterious effect of ethanol on cell proliferation in the main neurogenic zones of the adult rat brain.  (full – 2015) http://journal.frontiersin.org/article/10.3389/fncel.2015.00379/full

http://journal.frontiersin.org/article/10.3389/fmicb.2015.01452/full

Interactions between ethanol and the endocannabinoid system at GABAergic synapses on basolateral amygdala principal neurons.  (full – 2015)
http://www.alcoholjournal.org/article/S0741-8329%2815%2930019-7/fulltext


Acute and Chronic Ethanol Exposure Differentially Regulate CB1 Receptor Function at Glutamatergic Synapses in the Rat Basolateral Amygdala.  (full – 2015)


The effect of alcohol availability on marijuana use: Evidence from the minimum legal drinking age  (full – 2015)

Postnatal ethanol exposure alters levels of 2-arachidonylglycerol-metabolizing enzymes and pharmacological inhibition of monoacylglycerol (MAGL) does not cause neurodegeneration in neonatal mice.  (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4490952/

Protective effect of Xingnaojia formulation on rats with brain and liver damage caused by chronic alcoholism  (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4665616/

THE EFFECT OF MEDICAL MARIJUANA LAWS ON BODY WEIGHT  (full – 2015)  The Effect of Medical Marijuana Laws on Body Weight

European rating of drug harms.  (full – 2015)  
http://journals.sagepub.com/doi/full/10.1177/0269881115581980

Microstructural analysis of rat ethanol and water drinking patterns using a modified operant self-administration model.  (full – 2015)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4506870/

Altered CB1 receptor coupling to G-proteins in the post-mortem caudate nucleus and cerebellum of alcoholic subjects.  (full – 2015)  
http://journals.sagepub.com/doi/full/10.1177/0269881115599388

Profiles of medicinal cannabis patients attending compassion centers in rhode island.  (abst – 2015)  

Interaction of cannabinoid receptor 2 and social environment modulates chronic alcohol consumption.  (abst – 2015)  

Chronic ethanol exposure decreases CB1 receptor function at GABAergic synapses in the rat central amygdala.  (abst – 2015)  

Roles for the endocannabinoid system in ethanol-motivated behavior.  (abst – 2015)  

Controlled vaporized cannabis, with and without alcohol: subjective effects and oral fluid-blood cannabinoid relationships.  (abst – 2015)  

Effects of Chronic Alcohol Exposure on the Modulation of Ischemia-Induced Glutamate Release via Cannabinoid Receptors in the Dorsal Hippocampus.  (abst – 2015)  

Tetrahydrocannabinol pharmacokinetics; new synthetic cannabinoids; road safety and cannabis  (abst – 2015)  

Substituting cannabis for prescription drugs, alcohol and other substances among medical cannabis patients: The impact of contextual factors.  (abst – 2015)  

Chronic ethanol exposure increases voluntary home cage intake in adult male, but not female, Long-Evans rats.  (abst – 2015)  

Maternal separation and early stress cause long-lasting effects on dopaminergic and endocannabinergic systems and alters dendritic morphology in the nucleus accumbens and frontal cortex in rats.  (abst – 2015)  


Impaired Ethanol--Induced Sensitization and Decreased Cannabinoid Receptor-1 in a Model of Posttraumatic Stress Disorder. (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0155759#pone.0155759.ref024

Genetic Versus Pharmacological Assessment of the Role of Cannabinoid Type 2 Receptors in Alcohol Reward-Related Behaviors. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4886733/

Cannabinoid CB1 receptor inhibition blunts adolescent-typical increased binge alcohol and sucrose consumption in male C57BL/6J mice. (full – 2016) http://www.sciencedirect.com/science/article/pii/S0091305716300089

The Cannabinoid Receptor 2 Protects Against Alcoholic Liver Disease Via a Macrophage Autophagy-Dependent Pathway. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4921859/

The Orphan Nuclear Receptor ERRγ Regulates Hepatic CB1 Receptor-Mediated Fibroblast Growth Factor 21 Gene Expression (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0159425

Involvement of Endocannabinoids in Alcohol "Binge" Drinking: Studies of Mice with Human Fatty Acid Amide Hydrolase Genetic Variation and After CB1 Receptor Antagonists. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4962692/

Regional Influence of Cannabinoid CB1 Receptors in the Regulation of Ethanol Self-Administration by Wistar Rats (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5152943/

Effects of Adolescent Intermittent Alcohol Exposure on the Expression of Endocannabinoid Signaling-Related Proteins in the Spleen of Young Adult Rats. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5035052/

Subjective aggression during alcohol and cannabis intoxication before and after aggression exposure. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4988999/


Brain reactivity to alcohol and cannabis marketing during sobriety and intoxication.


Gender Differences in Associations Between Attention-Deficit/Hyperactivity Disorder and Substance Use Disorder. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/26903256


Drugs of abuse and alcohol consumption among different groups of population on the Greek Island of Lesvos through sewage-based epidemiology. (abst – 2016) http://www.sciencedirect.com/science/article/pii/S0048969716308233

Secondary Effects of an Alcohol Prevention Program Targeting Students and/or Parents (abst – 2016) http://www.journalofsubstanceabusetreatment.com/article/S0740-5472(16)30152-0/abstract


Basolateral amygdala CB1 cannabinoid receptors are involved in cross state-dependent memory retrieval between morphine and ethanol. (abst – 2016) http://www.sciencedirect.com/science/article/pii/S0091305716301083


Independent Versus Co-occurring Substance Use in Relation to Gambling Outcomes in Older Adolescents and Young Adults. (abst – 2016) https://www.ncbi.nlm.nih.gov/pubmed/28011065


Association Between Use of Cannabis in Adolescence and Weight Change into Midlife (link to download – 2017) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0168897


Medicinal versus recreational cannabis use: Patterns of cannabis use, alcohol use, and cued-arousal among veterans who screen positive for PTSD.  (abst – 2017)

Modelling possible causality in the associations between unemployment, cannabis use, and alcohol misuse.  (abst – 2017)

**ALLERGIES AND CANNABINOIDS**

Cannabidiol attenuates delayed-type hypersensitivity reactions via suppressing T-cell and macrophage reactivity.  (full - 2010)
http://www.nature.com/aps/journal/v31/n12/full/aps2010155a.html

Protective role of palmitoylethanolamide in contact allergic dermatitis.  (full – 2010)

Beneficial effects of cannabinoids (CB) in a murine model of allergen-induced airway inflammation: Role of CB(1)/CB(2) receptors.  (abst - 2010)
http://www.unboundmedicine.com/medline/ebm/record/21056512/abstract/Beneficial_effects_of_cannabinoids_CB_in_a_murine_model_of_allergen_induced_airway_inflammation:_Role_of_CB_1_CB_2_receptors

The cannabinoid receptor agonist WIN 55,212-2 inhibits antigen-induced plasma extravasation in guinea pig airways.  (abst – 2010)

Effects of palmitoylethanolamide on the cutaneous allergic inflammatory response in Ascaris hypersensitive Beagle dogs.  (abst – 2011)

Cannabinoid 2 (CB2) Receptor Involvement in the Down-regulation but not Up-regulation of Serum IgE Levels in Immunized Mice.  (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3419805/

Inhibitory effect of topical adelmidrol on antigen-induced skin wheal and mast cell behavior in a canine model of allergic dermatitis.  (full – 2012)
http://www.biomedcentral.com/1746-6148/8/230

Endocannabinoids limit excessive mast cell maturation and activation in human skin.  (full – 2012)  http://www.jacionline.org/article/S0091-6749%2811%2901796-9/fulltext


Cannabinoid 1 Receptors in Keratinocytes Modulate Proinflammatory Chemokine Secretion and Attenuate Contact Allergic Inflammation. (full – 2013) http://www.jimmunol.org/content/190/10/4929.long

Cannabinoid receptor 1 controls human mucosal-type mast cell degranulation and maturation in situ. (full – 2013) http://www.jacionline.org/article/S0091-6749%2813%2900057-2/fulltext


Cannabinoid CB2 receptors as novel target for inhibiting house dust mite induced allergic airway inflammation (abst – 2013) http://www.jimmunol.org/content/190/1_Supplement/120.12

The expression of cannabinoid receptor 1 is significantly increased in atopic patients (full – 2014) http://www.jacionline.org/article/S0091-6749%2813%2902936-9/fulltext

Exposure to Allergen Causes Changes in NTS Neural Activities after Intratracheal Capsaicin Application, in Endocannabinoid Levels and in the Glia Morphology of NTS. (full – 2015) http://www.hindawi.com/journals/bmri/2015/980983/


Acetaminophen Attenuates House Dust Mite Induced Allergic Airway Disease in Mice. (full – 2016) http://jpet.aspetjournals.org/content/early/2016/07/08/jpet.116.233684.long

Cannabinoid receptor 2 augments eosinophil responsiveness and aggravates allergen-induced pulmonary inflammation in mice.  (abst – 2016)

Production of endocannabinoids by activated T cells and B cells modulates inflammation associated with delayed type hypersensitivity.  (abst – 2016)

CB2 receptors regulate natural killer cells that limit allergic airway inflammation in a murine model of asthma.  (abst – 2016)

The Endocannabinoid System and Its Role in Eczematous Dermatoses.  

---

**ALLERGIES TO CANNABIS +**

Allergic hypersensitivity to cannabis in patients with allergy and illicit drug users.  

IgE-Mediated Hypersensitivity Reactions to Cannabis in Laboratory Personnel.  
(full – 2011)  http://epub.ub.uni-muenchen.de/16673/1/10_1159_000324444.pdf

Molecular allergology in practice: an unusual case of LTP allergy.  

World Allergy Organization Study on Aerobiology for Creating First Pollen and Mold Calendar With Clinical Significance in Islamabad, Pakistan:: A Project of World Allergy Organization and Pakistan Allergy, Asthma & Clinical Immunology Centre of Islamabad.  
(full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3651178/

Variations and origin of the atmospheric pollen of Cannabis detected in the province of Tetouan (NW Morocco): 2008-2010  

Characterization of Cannabis sativa allergens.  
(full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3726218/

New Food Allergies in a European Non-Mediterranean Region: Is Cannabis sativa to Blame?  


Chronic Adolescent Marijuana Use as a Risk Factor for Physical and Mental Health Problems in Young Adult Men. (full – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26237286


ALS / AMYOTROPHIC LATERAL SCLEROSIS +


Is lipid signaling through cannabinoid 2 receptors part of a protective system? (full – 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3062638/


Targeting the endocannabinoid system with cannabinoid receptor agonists: pharmacological strategies and therapeutic possibilities  (full – 2012)  http://rstb.royalsocietypublishing.org/content/367/1607/3353.full?sid=1569c370-65c-4358-89ff-857201f5e069


Cannabinoids in Neurodegenerative Disorders and Stroke/Brain Trauma: From Preclinical Models to Clinical Applications. (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4604192/

Cannabinoid Signaling and Neuroinflammatory Diseases: A Melting pot for the Regulation of Brain Immune Responses. (abst – 2015)

Changes in the endocannabinoid signaling system in CNS structures of TDP-43 transgenic mice: relevance for a neuroprotective therapy in TDP-43-related disorders.

Endocannabinoids in Multiple Sclerosis and Amyotrophic Lateral Sclerosis.

Targeting Cannabinoid CB2 Receptors in the Central Nervous System. Medicinal Chemistry Approaches with Focus on Neurodegenerative Disorders.

Acetylcholine receptors from human muscle as pharmacological targets for ALS therapy.
(full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4801305/

Can cannabinoids be a potential therapeutic tool in amyotrophic lateral sclerosis?
(full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5270417/

Gingival Stromal Cells as an In Vitro Model: Cannabidiol Modulates Genes Linked with Amyotrophic Lateral Sclerosis. (abst – 2016)

Pros and cons of medical cannabis use by people with chronic brain disorders.

Pain in amyotrophic lateral sclerosis. (abst – 2016)

Up-regulation of CB2 receptors in reactive astrocytes in canine degenerative myelopathy, a disease model of amyotrophic lateral sclerosis (full – 2017)
http://dmm.biologists.org/content/early/2017/01/06/dmm.028373.long

ALZHEIMER'S DISEASE/ DEMENTIA *

Enhancement of endocannabinoid signaling by fatty acid amide hydrolase inhibition: a neuroprotective therapeutic modality. (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2848893/?tool=pubmed


The development of cannabinoid CBII receptor agonists for the treatment of central neuropathies. (link to PDF – 2010) http://www.eurekaselect.com/85808/article


Cannabidiol and other cannabinoids reduce microglial activation in vitro and in vivo: relevance to Alzheimers' disease (full – 2011) http://molpharm.aspetjournals.org/content/early/2011/02/24/mol.111.071290.long

Cannabidiol Reduces Aβ-Induced Neuroinflammation and Promotes Hippocampal Neurogenesis through PPARγ Involvement (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3230631/?tool=pubmed

Cannabidiol and other cannabinoids reduce microglial activation in vitro and in vivo: relevance to Alzheimers' disease (full – 2011) http://molpharm.aspetjournals.org/content/early/2011/02/24/mol.111.071290.long

Cannabidiol as an emergent therapeutic strategy for lessening the impact of inflammation on oxidative stress. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3085542/


Is lipid signaling through cannabinoid 2 receptors part of a protective system? (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3062638/

Molecular reorganization of endocannabinoid signalling in Alzheimer's disease.  

Palmitoylethanolamide counteracts reactive astrogliosis induced by beta-amyloid peptide.  

The effects of hempseed meal intake and linoleic acid on Drosophila models of  
neurodegenerative diseases and hypercholesterolemia.  
(full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3933972/

Patent WO 2010012506 A1 - CANNABINOIDS FOR USE IN TREATING OR  
PREVENTING COGNITIVE IMPAIRMENT AND DEMENTIA  

Anandamide and its congeners inhibit human plasma butyrylcholinesterase. Possible new  
roles for these endocannabinoids?  

JNK plays a key role in tau hyperphosphorylation in Alzheimer's disease models.  

The role of phytochemicals in the treatment and prevention of dementia.  

Early onset of aging-like changes is restricted to cognitive abilities and skin structure in  
Cnr1(-/-) mice.  

Intact cannabinoid CB1 receptors in the Alzheimer's disease cortex.  

4-O-Methylhonokiol attenuates memory impairment in presenilin 2 mutant mice through  
reduction of oxidative damage and inactivation of astrocytes and the ERK pathway.  

Can the benefits of cannabinoid receptor stimulation on neuroinflammation, neurogenesis  
and memory during normal aging be useful in AD prevention?  
(full – 2012) http://www.jneuroinflammation.com/content/9/1/10

Prolonged oral Cannabinoid Administration prevents Neuroinflammation, lowers beta-amyloid Levels and improves Cognitive Performance in Tg APP 2576 Mice.  
(full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3292807/

An amyloid β42-dependent deficit in anandamide mobilization is associated with  
cognitive dysfunction in Alzheimer's disease.  
(full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3154439/
A Dysregulated Endocannabinoid-Eicosanoid Network Supports Pathogenesis in a Mouse Model of Alzheimer's Disease  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3715876/

β−Amyloid exacerbates inflammation in astrocytes lacking fatty acid amide hydrolase through a mechanism involving PPAR-α, PPAR-γ and TRPV1, but not CB1 or CB2 receptors  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3417461/

Monoacylglycerol lipase is a new therapeutic target for Alzheimer’s disease  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3513645/

Palmitoylethanolamide exerts neuroprotective effects in mixed neuroglial cultures and organotypic hippocampal slices via peroxisome proliferator-activated receptor-α  (full – 2012)  
http://www.jneuroinflammation.com/content/9/1/49

The fatty acid amide hydrolase inhibitor URB597 exerts anti-inflammatory effects in hippocampus of aged rats and restores an age-related deficit in long-term potentiation  (full – 2012)  
http://www.jneuroinflammation.com/content/9/1/79

Methylhonokiol attenuates neuroinflammation: a role for cannabinoid receptors?  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3419612/

Inhibitory effect of 4-O-methylhonokiol on lipopolysaccharide-induced neuroinflammation, amyloidogenesis and memory impairment via inhibition of nuclear factor-kappaB in vitro and in vivo models.  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3323460/

Palmitoylethanolamide exerts neuroprotective effects in mixed neuroglial cultures and organotypic hippocampal slices via peroxisome proliferator-activated receptor-α.  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3315437/?tool=pubmed

The endocannabinoid, anandamide, augments Notch-1 signaling in cultured cortical neurons exposed to amyloid-beta and in the cortex of aged rats.  (full – 2012)  
http://www.jbc.org/content/early/2012/08/13/jbc.M112.350678.long

Review article: The endocannabinoid system in normal and pathological brain ageing  (full – 2012)  
http://rstb.royalsocietypublishing.org/content/367/1607/3326.full?sid=161e7b36-5055-448b-962e-697c782e901d

[(125)I]SD-7015 reveals fine modalities of CB(1) cannabinoid receptor density in the prefrontal cortex during progression of Alzheimer's disease.  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4180663/

CB1 cannabinoid receptor activation rescues amyloid β-induced alterations in behaviour and intrinsic electrophysiological properties of rat hippocampal CA1 pyramidal neurones.  (full – 2012)  
http://www.karger.com/Article/Pdf/338494


Δ9-THC-Caused Synaptic and Memory Impairments Are Mediated through COX-2 Signaling  (full – 2013) http://www.cell.com/cell/abstract/S0092-8674%2813%2901360-3?_returnURL=http%3A%2F%2Flinkinghub.elsevier.com%2Fretrieve%2Fpii%2FS0092867413013603%3Fshowall%3Dtrue

Natural Cannabinoids Improve Dopamine Neurotransmission and Tau and Amyloid Pathology in a Mouse Model of Tauopathy.  (link to PDF – 2013)
http://content.iospress.com/articles/journal-of-alzheimers-disease/jad130050

Neuroglial Roots of Neurodegenerative Diseases: Therapeutic Potential of Palmitoylethanolamide in Models of Alzheimer’s Disease  (link to PDF– 2013)
http://www.eurekaselect.com/107977/article

Effects of magnolol on impairment of learning and memory abilities induced by scopolamine in mice. (link to PDF– 2013)
https://www.jstage.jst.go.jp/article/bpb/36/5/36_b12-00880/_html


CB2 Receptor Deficiency Increases Amyloid Pathology and Alters Tau Processing in a Transgenic Mouse Model of Alzheimer's Disease. (full - 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3883962/

c-Jun N-terminal kinase has a key role in Alzheimer disease synaptic dysfunction in vivo (full – 2014) http://www.nature.com/cddis/journal/v5/n1/full/cddis2013559a.html


Synaptic and Cognitive Improvements by Inhibition of 2-AG Metabolism Are through Upregulation of MicroRNA-188-3p in a Mouse Model of Alzheimer's Disease. (full - 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4220026/


Cannabinoids: New Promising Agents in the Treatment of Neurological Diseases

Amyrin Attenuates Scopolamine-Induced Cognitive Impairment in Mice


http://www.safeaccessnow.org/medical_cannabis_research_what_does_the_evidence_say

Altered Expression of the CB1 Cannabinoid Receptor in the Triple Transgenic Mouse Model of Alzheimer's Disease. (abst – 2014)


Monoacylglycerol lipase inhibitor JZL184 reduces neuroinflammatory response in APdE9 mice and in adult mouse glial cells. (full – 2015) http://www.jneuroinflammation.com/content/12/1/81


Cannabinoid CB2 Receptors in a Mouse Model of Aβ Amyloidosis: Immunohistochemical Analysis and Suitability as a PET Biomarker of Neuroinflammation. (full - 2015) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0129618


Endocannabinoids and Neurodegenerative Disorders: Parkinson's Disease, Huntington's Chorea, Alzheimer's Disease, and Others.  (abst – 2015)
http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_8


Characterization of Lignanamides from Hemp (Cannabis sativa L.) Seed and their Antioxidant and Acetylcholinesterase Inhibitory Activities.  (abst – 2015)
http://pubs.acs.org/doi/10.1021/acs.jafc.5b05282

Cannabinoid receptor 2 deficiency results in reduced neuroinflammation in an Alzheimer's disease mouse model.  (abst – 2015)

Cannabinoid CB2 Receptor Mediates Nicotine-Induced Anti-Inflammation in N9 Microglial Cells Exposed to β Amyloid via Protein Kinase C  (full – 2016)
http://www.hindawi.com/journals/mi/2016/4854378/

Characterization of a novel adult murine immortalized microglial cell line and its activation by amyloid-beta.  (full – 2016)

http://www.nature.com/articles/srep22429

Natural Phytochemicals in the Treatment and Prevention of Dementia: An Overview  (full – 2016)

Modulation of cellular redox homeostasis by the endocannabinoid system.  (full – 2016)
http://rsob.royalsocietypublishing.org/content/6/4/150276

CB2 Cannabinoid Receptor As Potential Target against Alzheimer's Disease  (full – 2016)

Stimulation of brain glucose uptake by cannabinoid CB2 receptors and its therapeutic potential in Alzheimer's disease.  (full – 2016)

Amyloid proteotoxicity initiates an inflammatory response blocked by cannabinoids  (full – 2016)
http://www.nature.com/articles/npjamd201612

Targeting Cannabinoid CB2 Receptors in the Central Nervous System. Medicinal Chemistry Approaches with Focus on Neurodegenerative Disorders.  (full – 2016)
http://journal.frontiersin.org/article/10.3389/fnins.2016.00406/full
Vascular Dysfunction in a Transgenic Model of Alzheimer's Disease: Effects of CB1R and CB2R Cannabinoid Agonists. (full – 2016)  

Blood metabolite markers of neocortical amyloid-β burden: discovery and enrichment using candidate proteins  (full – 2016)  
http://www.nature.com/tp/journal/v6/n1/full/tp2015205a.html

Cannabidiol Modulates the Expression of Alzheimer's Disease-Related Genes in Mesenchymal Stem Cells.  (full – 2016)

Safety and Efficacy of Medical Cannabis Oil for Behavioral and Psychological Symptoms of Dementia: An-Open Label, Add-On, Pilot Study.  (abst – 2016)  

The emerging role of the cannabinoid receptor family in peripheral and neuro-immune interactions.  (abst – 2016)  
http://www.eurekaselect.com/138448/article

Metabolomic-Driven Elucidation of Serum Disturbances Associated with Alzheimer's Disease and Mild Cognitive Impairment.  (abst – 2016)  

Endocannabinoids in Cerebrovascular Regulation.  (abst – 2016)  

Cannabinoid Receptor 2 Participates in Amyloid-β Processing in a Mouse Model of Alzheimer's Disease but Plays a Minor Role in the Therapeutic Properties of a Cannabis-Based Medicine.  (abst – 2016)  

Pharmacological management of agitation and aggression in Alzheimer's Disease: a review of current and novel treatments.  (abst – 2016)  

Activity of muscarinic, galanin and cannabinoid receptors in the prodromal and advanced stages in the triple transgenic mice model of Alzheimer's disease.  (abst – 2016)  

Investigational drugs for treating agitation in persons with dementia.  (abst – 2016)  

Fatty acid amide hydrolase (FAAH), acetylcholinesterase (AChE) and butyrylcholinesterase (BuChE): networked targets for the development of carbamates as potential anti Alzheimer's Disease agents.  (abst – 2016)  
http://pubs.acs.org/doi/abs/10.1021/acs.jmedchem.6b00609

Endocannabionoid System in Neurological Disorders.  (abst – 2016)  


Effects of the cannabinoid 1 receptor peptide ligands hemopressin, (m)RVD-hemopressin(α) and (m)VD-hemopressin(α) on memory in novel object and object location recognition tasks in normal young and Aβ1-42-treated mice. (abst – 2016) http://www.sciencedirect.com/science/article/pii/S1074742716301307


**AMOTIVATIONAL SYNDROME** +*

Rimonabant eliminates responsiveness to workload changes in a time-constrained food-reinforced progressive ratio procedure in rats.  
(full – 2012)
[http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3387812/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3387812/)

Associations of Alcohol, Nicotine, Cannabis, and Drug Use/Dependence with Educational Attainment: Evidence from Cotwin-Control Analyses.  
(full – 2012)
[http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3412907/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3412907/)

So called "soft" drugs: cannabis and the amotivational syndrome  
(abst – 2013)

Δ9-Tetrahydrocannabinol decreases willingness to exert cognitive effort in male rats.  
(link to PDF – 2016)

**ANGELMAN'S SYNDROME**  - also see News section

Investigational new drugs for focal epilepsy.  
(full – 2016)

**ANGIOEDEMA**  - similar to hives, but the swelling is under the skin, can be due to allergies

Life Threatening Idiopathic Recurrent Angioedema Responding to Cannabis.  
(full – 2015)
[http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4519555/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4519555/)

**ANGIOGENESIS**  +  - the formation of new blood vessels

Diabetic retinopathy: Role of inflammation and potential therapies for anti-inflammation.  
(full – 2010)

Endocannabinoid-like N-arachidonoyl serine is a novel pro-angiogenic mediator.  
(full – 2010)
[http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2936832/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2936832/)

Genetic and pharmacological inactivation of cannabinoid CB1 receptor inhibits angiogenesis. (full – 2011) http://bloodjournal.hematologylibrary.org/content/117/20/5541.long


Cannabidiol inhibits angiogenesis by multiple mechanisms. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3504989/


Autophagy triggered by magnolol derivative negatively regulates angiogenesis. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3920944/

Magnolol inhibits angiogenesis by regulating ROS-mediated apoptosis and the PI3K/AKT/mTOR signaling pathway in mES/EB-derived endothelial-like cells. (full – 2013) http://www.spandidos-publications.com/i jo/43/2/600


Magnolol suppresses hypoxia-induced angiogenesis via inhibition of HIF-1α/VEGF signaling pathway in human bladder cancer cells. (abst – 2013)

New insights in mast cell modulation by palmitoylethanolamide. (abst – 2013)

Anandamide inhibits breast tumor-induced angiogenesis. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4140423/

Evaluation of anti-HIF and anti-angiogenic properties of honokiol for the treatment of ocular neovascular diseases. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4244131/

TRPV1 mediates cellular uptake of anandamide and thus promotes endothelial cell proliferation and network-formation. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4265754/

Hypoximimetic activity of N-acyl-dopamines. N-arachidonoyl-dopamine stabilizes HIF-1α protein through a SIAH2-dependent pathway. (full – 2014)

Cannabinoids as therapeutic agents in cancer: current status and future implications. (link to PDF- 2014)

Cannabinoids inhibit angiogenic capacities of Endothelial cells via release of Tissue inhibitor of matrix metalloproteinases-1 from lung cancer cells. (abst – 2014)

The use of cannabinoids as anticancer agents. (full – 2015)

The G-protein coupled receptor 55-agonist L-α-lysophosphatidylinositol mediates ovarian carcinoma cell induced angiogenesis. (full – 2015)

New insights into antimetastatic and antiangiogenic effects of cannabinoids. (abst – 2015)

Differential role of cannabinoids in the pathogenesis of skin cancer. (abst – 2015)

Endocannabinoids and Cancer. (abst – 2015)
http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_16

Human lungresident macrophages express CB1 and CB2 receptors whose activation inhibits the release of angiogenic and lymphangiogenic factors. (abst – 2015)
Endocannabinoids as Guardians of Metastasis (full – 2016)
http://www.mdpi.com/1422-0067/17/2/230/htm

In vitro and in vivo efficacy of non-psychoactive cannabidiol in neuroblastoma. (full – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4791143/

Cannabinoid pharmacology in cancer research: A new hope for cancer patients? (full – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4791144/

Integrating cannabis into clinical cancer care. (full – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4791148/

Activation of the orphan receptor GPR55 by lysophosphatidylinositol promotes metastasis in triple-negative breast cancer. (full – 2016)
http://www.impactjournals.com/oncotarget/index.php?journal=oncotarget&page=article&op=view&path%5B%5D=10206&path%5B%5D=32116

Anticancer mechanisms of cannabinoids. (full – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4791144/

Antitumorigenic targets of cannabinoids - current status and implications. (abst – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4791144/


ANOREXIA / ANOREXIA NERVOSA + - also see APPETITE STIMULANT

Activity-based anorexia in C57/BL6 mice: effects of the phytocannabinoid, Delta9-tetrahydrocannabinol (THC) and the anandamide analogue, OMDM-2. (abst – 2010)

Molecular mechanisms underlying anorexia nervosa: focus on human gene association studies and systems controlling food intake. (abst – 2010)


Fish oil promotes survival and protects against cognitive decline in severely undernourished mice by normalizing satiety signals. (full – 2011)
The intersection between cannabis and cancer in the United States. (full – 2011)
http://www.croh-online.com/article/S1040-8428(11)00231-9/fulltext


The genetics of eating disorders. (abst – 2011)
http://link.springer.com/chapter/10.1007%2F7854_2010_79

Brain Type 1 Cannabinoid Receptor Availability in Patients with Anorexia and Bulimia Nervosa. (abst – 2011) http://www.ncbi.nlm.nih.gov/pubmed/21718968


The cannabinoid receptor agonist THC attenuates weight loss in a rodent model of activity-based anorexia. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3096804/?tool=pubmed

The Therapeutic Potential of Cannabis and Cannabinoids (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3442177/


Brain Molecules and Appetite: The Case of Oleoylethanolamide (link to download– 2013) http://www.eurekaselect.com/107948/article


Small animal PET imaging of the type 1 cannabinoid receptor in a rodent model for anorexia nervosa. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/24006151


Dronabinol in severe, enduring anorexia nervosa: A randomized controlled trial (full – 2014)  

Effect of dronabinol therapy on physical activity in anorexia nervosa: a randomised, controlled trial. (abst – 2014)  

The endocannabinoid system and appetite: relevance for food reward. (abst – 2014)  

Deranged endocannabinoid responses to hedonic eating in underweight and recently weight-restored patients with anorexia nervosa. (full – 2015)  
http://ajcn.nutrition.org/content/101/2/262.long

ENP11, a potential CB1R antagonist, induces anorexia in rats. (abst – 2015)  

Changes in IGF-I, urinary free cortisol and adipokines during dronabinol therapy in anorexia nervosa: Results from a randomised, controlled trial. (abst – 2015)  

Endocannabinoids and Metabolic Disorders. (abst – 2015)  
http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_10

Association between cerebral cannabinoid 1 receptor availability and body mass index in patients with food intake disorders and healthy subjects: a [(18)F]MK-9470 PET study. (full – 2016)  
http://www.nature.com/tp/journal/v6/n7/full/tp2016118a.html

Cannabinoid hyperemesis syndrome masquerading as an eating disorder. (abst – 2016)  

Association between plasma endocannabinoids and appetite in hemodialysis patients: A pilot study. (abst – 2016)  

Role of cannabis in digestive disorders. (abst – 2016)  

**ANTI-BACTERIAL PROPERTIES** +*-* also see MRSA

Antibacterial analysis of crude extracts from the leaves of Tagetes erecta and Cannabis sativa (full – 2010)  
http://www.ipublishing.co.in/ijesarticles/twelve/articles/voltwo/EIJES3150.pdf

Microbial metabolism of cannflavin A and B isolated from Cannabis sativa.
Screening for Antiviral Activities of Isolated Compounds from Essential Oils

Taming THC: potential cannabis synergy and phytocannabinoid-terpenoid entourage effects.

Effect of extraction conditions on total polyphenol contents, antioxidant and antimicrobial activities of Cannabis sativa L

Antimicrobial Activity of Cannabis sativa L.

2-Arachidonoyl-glycerol- and arachidonic acid-stimulated neutrophils release antimicrobial effectors against E. coli, S. aureus, HSV-1, and RSV.

Palmitoylethanolamide stimulates phagocytosis of Escherichia coli K1 by macrophages and increases the resistance of mice against infections.

Effect of the synthetic cannabinoid HU-210 on quorum sensing and on the production of quorum sensing-mediated virulence factors by Vibrio harveyi.

Δ9 Tetrahydrocannabinol attenuates Staphylococcal enterotoxin B-induced inflammatory lung injury and prevents mortality in mice by modulation of miR-17-92 cluster and induction of T-regulatory cells.

The herbal-derived honokiol and magnolol enhances immune response to infection with methicillin-sensitive Staphylococcus aureus (MSSA) and methicillin-resistant S. aureus (MRSA).

Magnolol inhibits the inflammatory response in mouse mammary epithelial cells and a mouse mastitis model.

Screening of cannabinoids in industrial-grade hemp using two-dimensional liquid chromatography coupled with acidic potassium permanganate chemiluminescence detection.

Reducing exposure to pathogens in the horse; A preliminary study into the survival of bacteria on a range of equine bedding types.
In vitro Antimicrobial and Antioxidant Activity of Extracts from Six Chemotypes of Medicinal Cannabis (abst – 2016)

ANTI-FUNGAL PROPERTIES +

Antimicrobial Activity of Cannabis sativa L. (full – 2012)
http://file.scirp.org/Html/10-8801078_18123.htm

In vitro binding affinity to human CB1 and CB2 receptors and antimicrobial activity of volatile oil from high potency Cannabis sativa (abst – 2014)


In vitro Antimicrobial and Antioxidant Activity of Extracts from Six Chemotypes of Medicinal Cannabis (abst – 2016)

>ANTI-INFLAMMATORY- see INFLAMMATION

ANTIOXIDANT PROPERTIES +

Effect of (-)-Delta(9)-tetrahydrocannabinoid on the hepatic redox state of mice. (full – 2010)

Acute administration of cannabidiol in vivo suppresses ischaemia-induced cardiac arrhythmias and reduces infarct size when given at reperfusion. (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2936031/?tool=pubmed

Cannabidiol protects against hepatic ischemia/reperfusion injury by attenuating oxidative stress, inflammatory response, and cell death (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3081988/

Cannabidiol reduces lipopolysaccharide-induced vascular changes and inflammation in the mouse brain: an intravital microscopy study (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3034694/?tool=pmcentrez
Effect of cannabidiol treatment in alimentary induced fatty liver  (abst – 2011)  

Antioxidant Activities and Oxidative Stabilities of Some Unconventional Oilseeds  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3311859/?tool=pubmed

Review article: The endocannabinoid system in normal and pathological brain ageing  (full – 2012)  
http://rstb.royalsocietypublishing.org/content/367/1607/3326.full?sid=161e7b36-5055-448b-962e-697c782e901d

Δ(8) -Tetrahydrocannabivarin prevents hepatic ischaemia/reperfusion injury by decreasing oxidative stress and inflammatory responses through cannabinoid CB(2) receptors.  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423240/

Effect of extraction conditions on total polyphenol contents, antioxidant and antimicrobial activities of Cannabis sativa L  (full – 2012)  
https://www.researchgate.net/publication/260824507_Effect_of_extraction_conditions_on_total_polyphenol_contents_antioxidant_and_antimicrobial_activities_of_Cannabis_sativa_L

Cannabidiol affects the expression of genes involved in zinc homeostasis in BV-2 microglial cells.  (abst – 2012)  

Cannabidiol treatment ameliorates ischemia/reperfusion renal injury in rats.  (abst – 2012)  

The isolation and identification of two compounds with predominant radical scavenging activity in hempseed (seed of Cannabis sativa L.).  (abst – 2012)  

Neuroprotective effects of Cannabis sativa leaves extracts on α-Motoneurons density after sciatic nerve injury in rats   (full – 2013)  

Understanding the Molecular Aspects of Tetrahydrocannabinol and Cannabidiol as Antioxidants  (link to PDF - 2013)  
http://www.mdpi.com/1420-3049/18/10/12663

Anandamide Protects HT22 Cells Exposed to Hydrogen Peroxide by Inhibiting CB1 Receptor-Mediated Type 2 NADPH Oxidase.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4127243/

Cannabidiol protects liver from binge alcohol-induced steatosis by mechanisms including inhibition of oxidative stress and increase in autophagy  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4112960/
Diacylglycerol lipase regulates lifespan and oxidative stress response by inversely modulating TOR signaling in Drosophila and C. elegans  (full – 2014)  

Neuroprotective Properties of Cannabigerol in Huntington's Disease: Studies in R6/2 Mice and 3-Nitropropionate-lesioned Mice.  (full - 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4322067/

Endocannabinoid degradation inhibition improves neurobehavioral function, blood brain barrier integrity, and neuroinflammation following mild traumatic brain injury.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4348366/

Increased oxidative stress enhances endocannabinoid tone  (abst – 2014)  
http://www.fasebj.org/content/27/1_Supplement/1097.3.abstract?sid=d2f0f68f-30c5-4027-9334-011c9f8fdd2e

Oxidative stress and cannabinoid receptor expression in type-2 diabetic rat pancreas following treatment with Δ9 -THC.  (abst – 2014)  

Structural and functional characterization of hemp seed (Cannabis sativa L.) protein-derived antioxidant and antihypertensive peptides  (abst – 2014)  

N-Palmitoyl serotonin alleviates scopolamine-induced memory impairment via regulation of cholinergic and antioxidant systems, and expression of BDNF and p-CREB in mice.  (abst – 2015)  

Characterization of Lignanamides from Hemp (Cannabis sativa L. ) Seed and their Antioxidant and Acetylcholinesterase Inhibitory Activities.  (abst – 2015)  
http://pubs.acs.org/doi/10.1021/acs.jafc.5b05282

THC exerts neuroprotective effect in glutamate affected murine primary mesencephalic cultures and neuroblastoma N18TG2 cells  (abst – 2015)  

Effect of Cannabis sativa extract on gastric acid secretion, oxidative stress and gastric mucosal integrity in rats  (abst – 2015)  

Correlations between the Memory-Related Behavior and the Level of Oxidative Stress Biomarkers in the Mice Brain, Provoked by an Acute Administration of CB Receptor Ligands  (full – 2016)  
http://www.hindawi.com/journals/np/2016/9815092/

Gastric acid inhibitory and gastric protective effects of Cannabis and cannabinooids  (full – 2016)  

CB2 Cannabinoid Receptor As Potential Target against Alzheimer's Disease

Delta-9-tetrahydrocannabinol protects against MPP+ toxicity in SH-SY5Y cells by restoring proteins involved in mitochondrial biogenesis. (full – 2016) http://www.impactjournals.com/oncotarget/index.php?journal=oncotarget&page=article&op=view&path%5B%5D=10314&path%5B%5D=32486


The role of perivascular adipose tissue in obesity-induced vascular dysfunction. (abst – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4969295/


ANTI-PARASITIC PROPERTIES


ANTI-PROTOZOAAL PROPERTIES +*


**ANXIETY/ ANXIOLYTIC EFFECTS** +* (anxiety reducing)

Cannabis Overdose  (case report – undated)
http://cannabisclinicians.org/view-all-case-reports/entry/96/?pagenum=3

Mixed mood disorder  (case report – undated)
http://cannabisclinicians.org/view-all-case-reports/entry/228/?pagenum=2

The use of Cannabidiol (CBD) and Meditation to reduce Binge Drinking, Anxiety and to improve Emotional Regulation in Long Term Behavior Therapy
(case report – undated)
http://cannabisclinicians.org/view-all-case-reports/entry/437/?pagenum=2

Anxiety Associated with Dying  (case report – undated)
http://cannabisclinicians.org/view-all-case-reports/entry/666/

Preservation of Striatal Cannabinoid CB1 Receptor Function Correlates with the Antianxiety Effects of Fatty Acid Amide Hydrolase Inhibition  (full – 2010)
http://molpharm.aspetjournals.org/content/78/2/260.long


A behavioural comparison of acute and chronic Delta9-tetrahydrocannabinol and cannabidiol in C57BL/6JArc mice.  (full – 2010)
http://ijnp.oxfordjournals.org/content/13/7/861.long

The Potential Role of Cannabinoids in Modulating Serotonergic Signaling by Their Influence on Tryptophan Metabolism  (full – 2010)

Neural basis of anxiolytic effects of cannabidiol (CBD) in generalized social anxiety disorder: a preliminary report.  (full - 2010)
http://journals.sagepub.com/doi/full/10.1177/0269881110379283


Endocannabinoids and psychiatric disorders: the road ahead  (article – 2010)


Cannabinoids increase conditioned ultrasonic vocalisations and cat odour avoidance in rats: strain differences in drug-induced anxiety.  (abst – 2010)
Intra-dorsal periaqueductal gray administration of cannabidiol blocks panic-like response by activating 5-HT1A receptors.  (abst – 2010)  
http://www.unboundmedicine.com/medline/ebm/record/20457188/abstract/Intra_dorsal_periaqueductal_gray_administration_of_cannabidiol_blocks_panic_like_response_by_activating_5_HT1A_receptors

Panic Attack after Spice Abuse in a Patient with ADHD  (abst – 2010)  

Cannabinoids prevent the development of behavioral and endocrine alterations in a rat model of intense stress.  (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3242307/

Effects of intracisternal administration of cannabidiol on the cardiovascular and behavioral responses to acute restraint stress.  (full – 2011)  

Anti-Aversive Effects of Cannabidiol on Innate Fear-Induced Behaviors Evoked by an Ethological Model of Panic Attacks Based on a Prey vs the Wild Snake Epicrates cenchria crassus Confrontation Paradigm.  (full - 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3242302/

Is lipid signaling through cannabinoid 2 receptors part of a protective system?  (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3062638/

Inhibition of endocannabinoid catabolic enzymes elicits anxiolytic-like effects in the marble burying assay.  (full – 2011)  

Cannabidiol reduces the anxiety induced by simulated public speaking in treatment-naïve social phobia patients.  (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3079847/

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3101637/

Anxiolytic-like effect induced by the cannabinoid CB1 receptor agonist, arachydonilcyclopropylamide (ACPA), in the rat amygdala is mediated through the D1 and D2 dopaminergic systems.  (full – 2011)  
http://journals.sagepub.com/doi/full/10.1177/0269881110376688

Alterations in Corticolimbic Dendritic Morphology and Emotional Behavior in Cannabinoid CB1 Receptor–Deficient Mice Parallel the Effects of Chronic Stress  (full – 2011)  
http://cercor.oxfordjournals.org/content/21/9/2056.full

Cannabinoids and emotionality: a neuroanatomical perspective.  (abst – 2011)  

Effect of cannabidiol on sleep disruption induced by the repeated combination tests consisting of open field and elevated plus-maze in rats.  (abst – 2011)

Behavioral alterations in cystic fibrosis mice are prevented by cannabinoid treatment in infancy  

A role for the ventral hippocampal endocannabinoid system in fear-conditioned analgesia and fear responding in the presence of nociceptive tone in rats.  

Personalized medicine can pave the way for the safe use of CB₁ receptor antagonists.  
http://www.cell.com/trends/pharmacological-sciences/abstract/S0165-6147(11)00035-6

The anxiolytic-like effects of cannabidiol injected into the bed nucleus of the stria terminalis are mediated by 5-HT1A receptors.  

A polymorphism in the gene of the endocannabinoid-degrading enzyme FAAH (FAAH C385A) is associated with emotional–motivational reactivity  

Differences in Spontaneously Avoiding or Approaching Mice Reflect Differences in CB1-Mediated Signaling of Dorsal Striatal Transmission.  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0033260

Cannabidiol, a Cannabis sativa constituent, as an anxiolytic drug.  

The endocannabinoid system in the rat dorsolateral periaqueductal grey mediates fear-conditioned analgesia and controls fear expression in the presence of nociceptive tone  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423235/

Interleukin-1β causes anxiety by interacting with the endocannabinoid system.  
http://www.jneurosci.org/content/32/40/13896.long

Cannabinoid-related Agents in the Treatment of Anxiety Disorders: Current Knowledge and Future Perspectives.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3691841/

Distinct neurobehavioural effects of cannabidiol in transmembrane domain neuregulin 1 mutant mice.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3317922/
Acute Stress Increases Circulating Anandamide and Other N-Acylethanolamines in Healthy Humans  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3442338/


Opposing Roles for Cannabinoid Receptor Type-1 (CB(1)) and Transient Receptor Potential Vanilloid Type-1 Channel (TRPV1) on the Modulation of Panic-Like Responses in Rats.  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3242309/

Multiple mechanisms involved in the large-spectrum therapeutic potential of cannabidiol in psychiatric disorders.  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3481531/

Biphasic Effects of Cannabinoids in Anxiety Responses: CB1 and GABA(B) Receptors in the Balance of GABAergic and Glutamatergic Neurotransmission.  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3473327/


Nicotine-induced anxiety-like behavior in a rat model of the novelty-seeking phenotype is associated with long-lasting neuropeptidergic and neuroplastic adaptations in the amygdala: Effects of the cannabinoid receptor 1 antagonist AM251.  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3697052/

Bimodal Control of Fear-Coping Strategies by CB1 Cannabinoid Receptors.  (full – 2012)  http://www.jneurosci.org/content/32/21/7109.long

Failure to extinguish fear and genetic variability in the human cannabinoid receptor 1.  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3565211/

Cannabidiol for neurodegenerative disorders: important new clinical applications for this phytocannabinoid?  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3579248/

Cannabidiol inhibits THC-elicited paranoid symptoms and hippocampal-dependent memory impairment. (full – 2012)
http://journals.sagepub.com/doi/full/10.1177/0269881112460109

The biochemical complexity of the endocannabinoid system with some remarks on stress and related disorders: a minireview (abst – 2012)


Cannabinoid CB1 receptor deficiency increases contextual fear memory under highly aversive conditions and long-term potentiation in vivo. (abst – 2012)

Expression pattern of the cannabinoid receptor genes in the frontal cortex of mood disorder patients and mice selectively bred for high and low fear. (abst – 2012)

Age-related changes of anandamide metabolism in CB1 cannabinoid receptor knockout mice: correlation with behaviour. (abst – 2012)

The cannabinoid receptor CB₁ inverse agonist AM251 potentiates the anxiogenic activity of urocortin I in the basolateral amygdala. (abst – 2012)


Cannabidiol blocks long-lasting behavioral consequences of predator threat stress: Possible involvement of 5HT1A receptors. (abst – 2012)

Cannabinoid CB(1) receptor in the modulation of stress coping behaviour in mice: the role of serotonin and different forebrain neuronal subpopulations. (abst – 2012)
Opposing local effects of endocannabinoids on the activity of noradrenergic neurons and release of noradrenaline: relevance for their role in depression and in the actions of CB(1) receptor antagonists. (abst – 2012) http://www.ncbi.nlm.nih.gov/pubmed/22990678


Cannabinoid type 1 receptors and transient receptor potential vanilloid type 1 channels in fear and anxiety-two sides of one coin? (abst – 2012) http://www.ncbi.nlm.nih.gov/pubmed/21906661

Effect of dietary fat type on anxiety-like and depression-like behavior in mice (full – 2013) http://www.springerplus.com/content/2/1/165


Translational evidence for the involvement of the endocannabinoid system in stress-related psychiatric illnesses. (full – 2013) http://www.biolmoodanxietydisord.com/content/3/1/19


Voluntary Running in Young Adult Mice Reduces Anxiety-Like Behavior and Increases the Accumulation of Bioactive Lipids in the Cerebral Cortex (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0081459

Cannabinoid facilitation of fear extinction memory recall in humans. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3445738/

Activation of the sympathetic nervous system mediates hypophagic and anxiety-like effects of CB1 receptor blockade. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3607008/


Does Cannabidiol Protect Against Adverse Psychological Effects of THC? (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3797438/


Dissociation of the Pharmacological Effects of THC by mTOR Blockade. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3656376/

The anxiolytic effect of cannabidiol on chronically stressed mice depends on hippocampal neurogenesis: involvement of the endocannabinoid system. (full – 2013) http://ijnp.oxfordjournals.org/content/16/6/1407.long

The endocannabinoid system as a possible target to treat both the cognitive and emotional features of post-traumatic stress disorder (PTSD) (full - 2013) http://journal.frontiersin.org/Journal/10.3389/fnbeh.2013.00100/full#B12

Involvement of prelimbic medial prefrontal cortex in panic-like elaborated defensive behaviour and innate fear-induced antinociception elicited by GABAA receptor blockade in the dorsomedial and ventromedial hypothalamic nuclei: role of the endocannabinoid CB1 receptor. (full – 2013) http://ijnp.oxfordjournals.org/content/16/8/1781.long

The effects of anandamide signaling enhanced by the FAAH inhibitor URB597 on coping styles in rats. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3830591/

Rimonabant precipitates anxiety in rats withdrawn from palatable food: role of the central amygdale. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3799070/
Similar anxiolytic effects of agonists targeting serotonin 5-HT1A or cannabinoid CB receptors on zebrafish behavior in novel environments.  (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3989442/


The role of 5-HT1A receptors in the anti-aversive effects of cannabidiol on panic attack-like behaviors evoked in the presence of the wild snake Epicrates cenchria crassus (Reptilia, Boidae).  (full – 2013) http://journals.sagepub.com/doi/full/10.1177/0269881113493363


Effects of compounds that interfere with the endocannabinoid system on behaviors predictive of anxiolytic and panicolytic activity in the elevated T-maze (abst – 2013)

Modulation of anxiety-like behaviour by the endocannabinoid 2-arachidonoylglycerol (2-AG) in the dorsolateral periaqueductal gray. (abst – 2013)


Complex interaction between anandamide and the nitricergic system in the dorsolateral periaqueductal gray to modulate anxiety-like behavior in rats. (abst – 2013)


Cannabidiol: Pharmacology and potential therapeutic role in epilepsy and other neuropsychiatric disorders (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4707667/

How Cannabis Causes Paranoia: Using the Intravenous Administration of ∆9-Tetrahydrocannabinol (THC) to Identify Key Cognitive Mechanisms Leading to Paranoia. (full – 2014)
http://schizophreniabulletin.oxfordjournals.org/content/early/2014/07/01/schbul.sbu098.long

Genetic Disruption of 2-Arachidonoylglycerol Synthesis Reveals a Key Role for Endocannabinoid Signaling in Anxiety Modulation. (full – 2014)
http://www.cell.com/cell-reports/fulltext/S2211-1247(14)00955-3

Cannabis use and anxiety: is stress the missing piece of the puzzle? (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4241884/

Cannabinoid modulation of predator fear: involvement of the dorsolateral periaqueductal gray. (full – 2014) http://ijnp.oxfordjournals.org/content/17/8/1193.long

Impaired Fear Memory Specificity Associated with Deficient Endocannabinoid-Dependent Long-Term Plasticity. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4023141/

http://www.nature.com/npp/journal/v40/n2/full/npp2014198a.html

Differential Expression of Brain Cannabinoid Receptors between Repeatedly Stressed Males and Females may Play a Role in Age and Gender-Related Difference in Traumatic Brain Injury: Implications from Animal Studies. (full – 2014)

Interaction between Antagonist of Cannabinoid Receptor and Antagonist of Adrenergic Receptor on Anxiety in Male Rat. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4202541/

Translational evidence for a role of endocannabinoids in the etiology and treatment of posttraumatic stress disorder. (full – 2014)
http://www.psyneuen-journal.com/article/S0306-4530%2814%2900396-5/fulltext

Cannabinoid Modulation of Amygdala Subregion Functional Connectivity to Social Signals of Threat. (full - 2014) http://ijnp.oxfordjournals.org/content/18/3/pyu104.long

Stress regulates endocannabinoid-CB1 receptor signaling. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4247817/

Drug discovery strategies that focus on the endocannabinoid signaling system in psychiatric disease. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4696509/
Cannabinoid modulation of prefrontal-limbic activation during fear extinction learning and recall in humans (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3960373/

Modulation of Fear Memory by Dietary Polyunsaturated Fatty Acids via Cannabinoid Receptors (full – 2014) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4059893/


Nutritional omega-3 modulates neuronal morphology in the prefrontal cortex along with depression-related behaviour through corticosterone secretion (full – 2014) http://www.nature.com/tp/journal/v4/n9/full/tp201477a.html


Inhibition of FAAH enzyme by pterostilbene: potential mechanism of anxiolytic action (abst – 2014) http://www.fasebj.org/content/28/1_Supplement/1144.10.abstract?sid=db987fd0-3ef0-4796-aff6-4103f0c84dafa


Blockade of 2-arachidonoylglycerol hydrolysis produces antidepressant-like effects and enhances adult hippocampal neurogenesis and synaptic plasticity  
(full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4517601/

Increased contextual fear conditioning in iNOS knockout mice: additional evidence for the involvement of nitric oxide in stress-related disorders and contribution of the endocannabinoid system.  (full – 2015)
http://ijnp.oxfordjournals.org/content/18/8/pyv005.long

Defects in fatty acid amide hydrolase 2 in a male with neurologic and psychiatric symptoms.  (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4423390/

Cognitive Impairment Induced by Delta9-tetrahydrocannabinol Occurs through Heteromers between Cannabinoid CB1 and Serotonin 5-HT2A Receptors.  (full – 2015)
http://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.1002194

FAAH genetic variation enhances fronto-amygdala function in mouse and human.  (full – 2015)  
http://www.nature.com/articles/ncomms7395.epdf?referrer_access_token=PXVrIqmHqcIKK8Z6Pdh7gAdRgN0jaJiWeI9jnR3ZoTv0MFY2u7ZdbRZ8yhzdTOJF
a-O9HKMjv5rGSvPOZGVRLtjvx3d3Dfuj0xbHtGY8oldf7UY566rqEzgB5TJvlBb-kK5Iw6In3-
C65PpoQp wrtoKFklbGtma8F-Gc9DPI52xj6m2TF70WmQCbmZBBe79Crwo-
D9ICraVhXE9mTvCGGdxQFz8pTg3fonyQYDECUQWrPFJNuaWEPyY1xb&tracking_referrer=blogs.s
cientificamerican.com

Impaired 2-AG signaling in hippocampal glutamatergic neurons: aggravation of anxiety-like behavior and unaltered seizure susceptibility.  (full – 2015)

Cannabis and Cannabinoids–for health professionals (PDQ®)  
(full – 2015)  
http://www.cancer.gov/about-cancer/treatment/cam/hp/cannabis-pdq#section/all

http://www.ncbi.nlm.nih.gov/books/NBK65875/

Targeting the endocannabinoid system to treat anxiety-related disorders.  
(full – 2015)  

The effect of BLA GABA(A) receptors in anxiolytic-like effect and aversive memory deficit induced by ACPA.  (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4669909/

Cardioprotective effects of fatty acid amide hydrolase inhibitor URB694, in a rodent model of trait anxiety.  (full – 2015)  
http://www.nature.com/articles/srep18218

Chronic Adolescent Marijuana Use as a Risk Factor for Physical and Mental Health Problems in Young Adult Men.  (full– 2015)


Corticotropin-Releasing Hormone Drives Anandamide Hydrolysis in the Amygdala to Promote Anxiety. (full - 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4348185/

Cannabinoid type-1 receptor signaling in central serotonergic neurons regulates anxiety-like behavior and sociability. (full – 2015) http://journal.frontiersin.org/article/10.3389/fnbeh.2015.00235/full


Chronic Stress Induces Anxiety via an Amygdalar Intracellular Cascade that Impairs Endocannabinoid Signaling. (full – 2015) http://www.cell.com/neuron/fulltext/S0896-6273(15)00130-0

A runner's high depends on cannabinoid receptors in mice. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4620874/


Anxiety, Stress, and Fear Response in Mice with Reduced Endocannabinoid Levels. (link through Elsevier to get full - 2015) http://www.ncbi.nlm.nih.gov/pubmed/25981172

Cannabis use, depression and anxiety: A 3-year prospective population-based study (link to PDF – 2015) http://www.jad-journal.com/article/S0165-0327%2815%2931030-2/abstract

Role of the endocannabinoid 2-arachidonoylglycerol in aversive responses mediated by the dorsolateral periaqueductal grey. (link to PDF – 2015) http://www.europeanneuropsychopharmacology.com/article/S0924-977X(15)00364-8/abstract


2-AG promotes the expression of conditioned fear via cannabinoid receptor type 1 on GABAergic neurons (abst – 2015) http://link.springer.com/article/10.1007%2Fs00213-015-3917-y
Dissociation between the panicolytic effect of cannabidiol microinjected into the substantia nigra, pars reticulata, and fear-induced antinociception elicited by bicuculline administration in deep layers of the superior colliculus: The role of CB1-endocannabinoid receptor in the ventral mesencephalon. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/25841876


Endocannabinoids and Mental Disorders. (abst – 2015) http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_8
Neuromotor tolerability and behavioural characterisation of cannabidiolic acid, a phytocannabinoid with therapeutic potential for anticipatory nausea. 

Chronic ethanol exposure increases voluntary home cage intake in adult male, but not female, Long-Evans rats. 

Sex-dependence of anxiety-like behavior in cannabinoid receptor 1 (Cnr1) knockout mice. 

Modulation of cannabinoid signaling by amygdala α2-adrenergic system in fear conditioning. 

Decreased anxiety in juvenile rats following exposure to low levels of chlorpyrifos during development. 

Stress and memory: A selective review on recent developments in the understanding of stress hormone effects on memory and their clinical relevance. 

The fatty acid amide hydrolase inhibitor URB597 modulates serotonin-dependent emotional behaviour, and serotonin1A and serotonin2A/C activity in the hippocampus. 

Being the Victim of Violence during a Date predicts Next-Day Cannabis Use among Female College Students. 

Mediating processes between stress and problematic marijuana use. 

Difficulties in emotion regulation are associated with panic symptom severity following a quit attempt among cannabis dependent veterans. 

Runner's high linked to cannabinoid receptors in mice 

Cannabinoid Receptors May Control Aversive Memories 

Exposure to a Highly Caloric Palatable Diet During Pregestational and Gestational Periods Affects Hypothalamic and Hippocampal Endocannabinoid Levels at Birth and Induces Adiposity and Anxiety-Like Behaviors in Male Rat Offspring. 
Study the Effect of Endocannabinoid System on Rat Behavior in Elevated Plus-Maze. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4656987/


Behavioral Characterization of the Effects of Cannabis Smoke and Anandamide in Rats. (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0153327

Cyclooxygenase-2 inhibition reduces stress-induced affective pathology. (full – 2016) https://elifesciences.org/content/5/e14137


CB2 Cannabinoid Receptor Knockout in Mice Impairs Contextual Long-Term Memory and Enhances Spatial Working Memory. (full – 2016) http://www.hindawi.com/journals/np/2016/9817089/

Putative Epigenetic Involvement of the Endocannabinoid System in Anxiety- and Depression-Related Behaviors Caused by Nicotine as a Stressor. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4942073/


Endocannabinoid-Mediated Plasticity in Nucleus Accumbens Controls Vulnerability to Anxiety after Social Defeat Stress. (full – 2016) http://www.cell.com/cell-reports/fulltext/S2211-1247(16)30851-8


Cannabinoids reverse the effects of early stress on neurocognitive performance in adulthood. (full – 2016) http://learnmem.cshlp.org/content/23/7/349.long

Solitary cannabis use frequency mediates the relationship between social anxiety and cannabis use and related problems. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5147422/


Modulation of Long-Term Potentiation of Cortico-Amygdala Synaptic Responses and Auditory Fear Memory by Dietary Polyunsaturated Fatty Acid. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4993868/


Interactions between anandamide & corticotropin-releasing hormone signaling modulate human amygdala function & risk for anxiety disorders: An imaging genetics strategy for modeling molecular interactions  (abst – 2016)

Neuromotor tolerability and behavioural characterisation of cannabidiolic acid, a phytocannabinoid with therapeutic potential for anticipatory nausea  (abst – 2016)

Sustained glucocorticoid exposure recruits cortico-limbic CRH signaling to modulate endocannabinoid function.  (abst – 2016)
http://www.psyneuen-journal.com/article/S0306-4530(16)30003-8/abstract

The effects anandamide signaling in the prelimbic cortex and basolateral amygdala on coping with environmental stimuli in rats  (abst – 2016)

Interplay between serotonin and cannabinoid function in the amygdala in fear conditioning.  (abst – 2016)

A systematic review of plant-derived natural compounds for anxiety disorders.  (abst – 2016)
http://www.eurekaselect.com/139238/article

Concentration, population, and context-dependent effects of AM251 in zebrafish.  (abst – 2016)

Involvement of M1 and CB1 receptors in the anxiogenic-like effects induced by neostigmine injected into the rat prelimbic medial prefrontal cortex.  (abst – 2016)

Cannabidiol, neuroprotection and neuropsychiatric disorders  (abst – 2016)

Placebo effect: clinical, biological and therapeutical involvements in depression  (abst – 2016)

Sex and age specific effects of delta-9-tetrahydrocannabinol during the peradolescent period in the rat: The unique susceptibility of the prepubescent animal.  (abst – 2016)

Cannabis use and symptoms of anxiety in adolescence and the moderating effect of the serotonin transporter gene.  (abst – 2016)

Genetically reduced FAAH activity may be a risk for the development of anxiety and depression in persons with repetitive childhood trauma.  (abst – 2016)


CB1 cannabinoid receptor-mediated anandamide signalling reduces the defensive behaviour evoked through GABAA receptor blockade in the dorsomedial division of the ventromedial hypothalamus. (abst – 2016) http://www.sciencedirect.com/science/article/pii/S0028390816301393


The endocannabinoid system and Post Traumatic Stress Disorder (PTSD): From preclinical findings to innovative therapeutic approaches in clinical settings.
Deficient adolescent social behavior following early-life inflammation is ameliorated by augmentation of anandamide signaling. (abst – 2016)  

Anxiety, depression and risk of cannabis use: Examining the internalising pathway to use among Chilean adolescents. (abst – 2016)  

Magnitude and duration of cue-induced craving for marijuana in volunteers with cannabis use disorder. (abst – 2016)  

Behavioral evidence for the interaction between cannabinoids and Catha edulis F. (Khat) in mice. (abst – 2016)  

Acute Stress Suppresses Synaptic Inhibition and Increases Anxiety via Endocannabinoid Release in the Basolateral Amygdala. (abst – 2016)  


Emotional arousal state influences the ability of amygdalar endocannabinoid signaling to modulate anxiety. (abst – 2016)  

Contribution of health motive to cannabis use among high-school students. (abst – 2016)  

Seeing through the smoke: human and animal studies of cannabis use and endocannabinoid signalling in corticolimbic networks (abst – 2016)  

Cannabinoid CB1 receptors in distinct circuits of the extended amygdala determine fear responsiveness to unpredictable threat. (abst – 2016)  

FAAH Gene Variation Moderates Stress Response and Symptom Severity in Patients with Posttraumatic Stress Disorder and Comorbid Alcohol Dependence. (abst – 2016)  

Chronic stress leads to epigenetic dysregulation of neuropeptide-Y and cannabinoid CB1 receptor in the mouse cingulate cortex. (abst – 2016)  

Effects of alprazolam and cannabinoid-related compounds in an animal model of panic attack. (abst – 2016)  
CB1 cannabinoid receptor-mediated anandamide signalling reduces the defensive behaviour evoked through GABAA receptor blockade in the dorsomedial division of the ventromedial hypothalamus. (abst – 2016) http://www.sciencedirect.com/science/article/pii/S0028390816301393


APPETITE ++ - also see TASTE, OBESITY
The fat-induced satiety factor oleoylethanolamide suppresses feeding through central release of oxytocin. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2900249/?tool=pubmed

The multiple functions of the endocannabinoid system: a focus on the regulation of food intake. (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2832623/?tool=pubmed

Expression of cannabinoid CB1 receptors by vagal afferent neurons: kinetics and role in influencing neurochemical phenotype (full – 2010) http://ajpgi.physiology.org/content/299/1/G63.full?sid=fc6948f0-78cf-405c-981b-a6aa05ee417c


The Peptide Hemopressin Acts through CB1 Cannabinoid Receptors to Reduce Food Intake in Rats and Mice (full – 2010) http://www.jneurosci.org/content/30/21/7369.full


Cannabidiol Attenuates the Appetitive Effects of Δ9-Tetrahydrocannabinol in Humans Smoking Their Chosen Cannabis (full - 2010) http://www.nature.com/npp/journal/v35/n9/full/npp201058a.html

A novel peripherally restricted cannabinoid receptor antagonist, AM6545, reduces food intake and body weight, but does not cause malaise, in rodents (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2990160/

The novel cannabinoid CB1 antagonist AM6545 suppresses food intake and food-reinforced behavior. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3522179/

Peripheral CB1 cannabinoid receptor blockade improves cardiometabolic risk in mouse models of obesity. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2912197/

Oleamide administered into the nucleus accumbens shell regulates feeding behaviour via CB1 and 5-HT2C receptors. (full – 2010) http://ijnp.oxfordjournals.org/content/13/9/1247.long

Efficacy and tolerability of high-dose dronabinol maintenance in HIV-positive marijuana smokers: a controlled laboratory study. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3325767/


The endocannabinoid system modulates the valence of the emotion associated to food ingestion (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3116974/


Cannabidiol inhibits the hyperphagia induced by cannabinoid-1 or serotonin-1A receptor agonists. (full – 2011) http://www.sciencedirect.com/science/article/pii/S0091305711000128

Association of genetic variation in cannabinoid mechanisms and gastric motor functions and satiation in overweight and obesity. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3117918/

The neutral cannabinoid CB₁ receptor antagonist AM4113 regulates body weight through changes in energy intake in the rat.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3023913/

Effect of rimonabant on oesophageal motor function in man  

Fish oil promotes survival and protects against cognitive decline in severely undernourished mice by normalizing satiety signals.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3117120/

Gut fat sensing in the negative feedback control of energy balance--recent advances.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3139739/

The intersection between cannabis and cancer in the United States.  
http://www.croh-online.com/article/S1040-8428(11)00231-9/fulltext

The Endocannabinoid System as Pharmacological Target Derived from Its CNS Role in Energy Homeostasis and Reward. Applications in Eating Disorders and Addiction  
(link to PDF - 2011)  

Cannabidiol decreases body weight gain in rats: Involvement of CB2 receptors.  
(abst - 2011)  

Cannabis sativa and the endogenous cannabinoid system: therapeutic potential for appetite regulation.  
(abst – 2011)  

Cannabidiol potentiates Δ(9)-tetrahydrocannabinol (THC) behavioural effects and alters THC pharmacokinetics during acute and chronic treatment in adolescent rats.  
(abst - 2011)  

Non-Δ9tetrahydrocannabinol phytocannabinoids stimulate feeding in rats.  
(abst – 2011)  

Medical cannabis: the opportunity versus the temptation  
(abst – 2011)  

Increment of hypothalamic 2-arachidonoylglycerol induces the preference for a high-fat diet via activation of cannabinoid 1 receptors  
http://www.unboundmedicine.com/medline/ebm/record/20817042/abstract/Increment_of_hypothalamic_2-arachidonoylglycerol_induces_the_preference_for_a_high_fat_diet_via_activation_of_cannabinoid_1_receptors

Cannabinoids in children  
(abst – 2011)

The role of central CB2 cannabinoid receptors on food intake in neonatal chicks (abst – 2011) http://www.ncbi.nlm.nih.gov/pubmed/21927979


Homology modelling of CB1 receptor and selection of potential inhibitor against Obesity. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3402806/

Noladin ether, a putative endocannabinoid, enhances motivation to eat after acute systemic administration in rats. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3507745/


Cannabinoids Facilitate the Swallowing Reflex Elicited by the Superior Laryngeal Nerve Stimulation in Rats (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3507745/


Rimonabant eliminates responsiveness to workload changes in a time-constrained food-reinforced progressive ratio procedure in rats. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3387812/


The Therapeutic Potential of Cannabis and Cannabinoids (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3442177/

Cannabinoid Type 1 Receptor Gene Polymorphism and Macronutrient Intake.  (full – 2012)  http://www.karger.com/Article/FullText/343563


Photoperiodic Changes in Endocannabinoid Levels and Energetic Responses to Altered Signalling at CB1 Receptors in Siberian Hamsters  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4060156/


Simultaneous postprandial deregulation of the orexigenic endocannabinoid anandamide and the anorexigenic peptide YY in obesity  (full – 2012)  http://www.nature.com/ijo/journal/v36/n6/full/ijo2011165a.html

Contrasting effects of different cannabinoid receptor ligands on mouse ingestive behavior  (abst – 2012)  http://www.unboundmedicine.com/medline/ebm/record/22772336/abstract/Contrasting_effects_of_different_cannabinoid_receptor_ligands_on_mouse_ingestive_behaviour


Non-Δ⁹-tetrahydrocannabinol phytocannabinoids stimulate feeding in rats.  (abst – 2012)


Ghrelin-Induced Orexigenic Effect in Rats Depends on the Metabolic Status and Is Counteracted by Peripheral CB1 Receptor Antagonism.  (full – 2013)
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0060918

Food for thought: hormonal, experiential, and neural influences on feeding and obesity.  (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3818543/

AM404 attenuates reinstatement of nicotine seeking induced by nicotine-associated cues and nicotine priming but does not affect nicotine- and food-taking.  (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4058760/

Endocannabinoid signaling in the gut mediates preference for dietary unsaturated fats.  (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3659363/

Obesity-driven synaptic remodeling affects endocannabinoid control of orexinergic neurons  (full – 2013)
http://www.pnas.org/content/110/24/E2229.full

Fatty Acid Modulation of the Endocannabinoid System and the Effect on Food Intake and Metabolism  (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3677644/

Reduced Food Intake is the Major Contributor to the Protective Effect of Rimonabant on Islet in Established Obesity-Associated Type 2 Diabetes.  (full – 2013)
http://www.eymj.org/DOIx.php?id=10.3349/ymj.2013.54.5.1127

The Gastric CB1 Receptor Modulates Ghrelin Production through the mTOR Pathway to Regulate Food Intake.  (full – 2013)
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0080339

Fasting induces CART down-regulation in the zebrafish nervous system in a cannabinoid receptor 1-dependent manner.  (full – 2013)

Activation of the sympathetic nervous system mediates hypophagic and anxiety-like effects of CB1 receptor blockade.  (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3607008/

Long-term CB1 receptor blockade enhances vulnerability to anxiogenic-like effects of cannabinoids.  (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3691020/

Orexin neurons use endocannabinoids to break obesity-induced inhibition  (full – 2013)
http://www.pnas.org/content/110/24/9625.full
Developmental Role for Endocannabinoid Signaling in Regulating Glucose Metabolism and Growth.  (full – 2013)  http://diabetes.diabetesjournals.org/content/62/7/2359.full?sid=2f5bda2b-a9c7-432a-9588-80c99189164d

Effects of glucagon-like peptide-1 receptor stimulation and blockade on food consumption and body weight in rats treated with a cannabinoid CB1 receptor agonist WIN 55,212-2.  (full - 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3638658/

Insulin induces long-term depression of VTA dopamine neurons via endocannabinoids  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4072656/

Rimonabant precipitates anxiety in rats withdrawn from palatable food: role of the central amygdale.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3799070/

The inverse agonist of CB1 receptor SR141716 blocks compulsive eating of palatable food.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3720761/

A novel fluorophosphonate inhibitor of the biosynthesis of the endocannabinoid 2-arachidonoylglycerol with potential anti-obesity effects.  (full – 2013)  https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3687659/

Effect of Diet on Tissue Levels of Palmitoylethanolamide  (link to PDF – 2013)  http://www.eurekaselect.com/107972/article

Brain Molecules and Appetite: The Case of Oleoylethanolamide  (link to download– 2013)  http://www.eurekaselect.com/107948/article


Cannabinoid receptors and cholecystokinin in feeding inhibition.  (abst – 2013)  

The endocannabinoid system in obesity  (abst – 2013)  

The Role of the Endocannabinoid System in Eating Disorders: Neurochemical and Behavioural Preclinical Evidence.  (abst – 2013)  

The satiety signal oleoylethanolamide stimulates oxytocin neurosecretion from rat hypothalamic neurons.  (abst – 2013)  

Cannabis withdrawal syndrome: An important diagnostic consideration in adolescents presenting with disordered eating.  (abst – 2013)  

The regulation of food intake by the gut-brain axis: implications for obesity  (abst – 2013)  

Concurrent pharmacological modification of cannabinoid-1 and glucagon-like peptide-1 receptor activity affects feeding behavior and body weight in rats fed a free-choice, high-carbohydrate diet.  (abst – 2013)  

Oleoylethanolamide: a novel potential pharmacological alternative to cannabinoid antagonists for the control of appetite  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3996326/

Effect of intermittent cold exposure on brown fat activation, obesity, and energy homeostasis in mice.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3895006/

Dietary Non-Esterified Oleic Acid Decreases the Jejunal Levels of Anorectic N-Acylethanolamines  (full – 2014)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0100365

Dronabinol in severe, enduring anorexia nervosa: A randomized controlled trial  (full – 2014)  

Behavioral effects of the cannabinoid CB1 receptor allosteric modulator ORG27569 in rats.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4186448/

Oleoylethanolamide enhances β-adrenergic-mediated thermogenesis and white-to-brown adipocyte phenotype in epididymal white adipose tissue in rat  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3882055/
The effects of leptin in combination with a cannabinoid receptor 1 antagonist, AM 251, or cannabidiol on food intake and body weight in rats fed a high-fat or a free-choice high sugar diet. (full – 2014)  

Nabilone for Non-chemotherapy Associated Nausea and Weight Loss due to Medical Conditions: A Review of the Clinical Effectiveness and Guidelines [Internet]. (full – 2014)  

Marijuana and Body Weight (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4204468/

Involvement of the cannabinoid CB1 receptor in modulation of dopamine output in the prefrontal cortex associated with food restriction in rats. (full – 2014)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0092224

Rimonabant's reductive effects on high densities of food reinforcement, but not palatability, in lean and obese Zucker rats. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4036064/

Δ9-THC exposure attenuates aversive effects and reveals appetitive effects of K2/'Spice' constituent JWH-018 in mice. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4157458/

Is fat taste ready for primetime? (full – 2014)  

CB1 cannabinoid receptor in SF1-expressing neurons of the ventromedial hypothalamus determines metabolic responses to diet and leptin. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4209357/

Differential modulation of endogenous cannabinoid CB1 and CB2 receptors in spontaneous and splice variants of ghrelin-induced food intake in conscious rats. (full – 2014)  
http://www.nutritionjrnl.com/article/S0899-9007%2814%2900297-4/fulltext

Neural Effects of Cannabinoid CB1 Neutral Antagonist Tetrahydrocannabinivarin (THCv) on Food Reward and Aversion in Healthy Volunteers. (full – 2014)  
http://ijnp.oxfordjournals.org/content/18/6/pyu094.long

Modulation of plasma N-acylethanolamine levels and physiological parameters by dietary fatty acid composition in humans. (full – 2014)  
http://www.jlr.org/content/55/12/2655.long

Oleoylethanolamide and Human Neural Responses to Food Stimuli in Obesity (full – 2014)  

Vagal afferents are not necessary for the satiety effect of the gut lipid messenger oleoylethanolamide (full – 2014)  
http://ajpregu.physiology.org/content/307/2/R167

Haloperidol and rimonabant increase delay discounting in rats fed high-fat and standard-chow diets.  (full– 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4772744/


Role of oleoylethanolamide as a feeding regulator in goldfish  (full – 2014) http://jeb.biologists.org/content/217/15/2761


Inhibition of diacylglycerol lipase (DAGL) in the lateral hypothalamus of rats prevents the increase in REMS and food ingestion induced by PAR1 stimulation. (abst – 2014) http://www.sciencedirect.com/science/article/pii/S0304394014005229


Lack of hypophagia in CB1 null mice is associated to decreased hypothalamic POMC and CART expression. (full – 2015) http://ijnp.oxfordjournals.org/content/early/2015/03/09/ijnp.pyv011.long

Negative Regulation of Leptin-induced ROS Formation by CB1 Receptor Activation in Hypothalamic Neurons. (full – 2015) http://www.jbc.org/content/early/2015/04/13/jbc.M115.646885.full.pdf+html

Effects of mood inductions by meal ambiance and moderate alcohol consumption on endocannabinoids and N-acyl ethanolamines in humans: a randomized crossover trial. (full – 2015) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0126421

Deranged endocannabinoid responses to hedonic eating in underweight and recently weight-restored patients with anorexia nervosa.  
http://ajcn.nutrition.org/content/101/2/262.long

Leptin Levels Are Negatively Correlated with 2-Arachidonoylglycerol in the Cerebrospinal Fluid of Patients with Osteoarthritis.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4383333/

Interaction between orexin A and cannabinoid system in the lateral hypothalamus of rats and effects of subchronic intraperitoneal administration of cannabinoid receptor inverse agonist on food intake and the nutritive utilization of protein.  
http://www.jpp.krakow.pl/journal/archive/04_15/pdf/181_04_15_article.pdf

Effects of high-fructose diets on central appetite signaling and cognitive function.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4429636/

Diacylglycerol lipase α knockout mice demonstrate metabolic and behavioral phenotypes similar to those of cannabinoid receptor 1 knockout mice  
http://journal.frontiersin.org/article/10.3389/fendo.2015.00086/full

Hypothalamic POMC neurons promote cannabinoid-induced feeding  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4496586/

http://www.ncbi.nlm.nih.gov/books/NBK65875/

Anticipatory and consummatory effects of (hedonic) chocolate intake are associated with increased circulating levels of the orexigenic peptide ghrelin and endocannabinoids in obese adults.  
http://www.foodandnutritionresearch.net/index.php/fnr/article/view/29678

Prevention of Diet-Induced Obesity Effects on Body Weight and Gut Microbiota in Mice Treated Chronically with Δ9-Tetrahydrocannabinol.  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0144270

Anti-Obesity Effect of the CB2 Receptor Agonist JWH-015 in Diet-Induced Obese Mice.  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0140592

Intestinal lipid-derived signals that sense dietary fat.  
http://www.jci.org/articles/view/76302/pdf

The role of AMP-activated protein kinase (AMPK) in the androgenic potentiation of cannabinoid-induced changes in energy homeostasis.  


Effects of co-administration of 2-arachidonoylglycerol (2-AG) and a selective μ-opioid receptor agonist into the nucleus accumbens on high-fat feeding behaviors in the rat. (full – 2015) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4522234/

Food Liking Enhances the Plasma Response of 2-Arachidonoylglycerol and of Pancreatic Polypeptide upon Modified Sham Feeding in Humans. (full – 2015) http://jn.nutrition.org/content/145/9/2169.long


Endocannabinoids and Metabolic Disorders. (abst – 2015) http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_10


CB1 receptors into the Prelimbic Cortex modulate food intake in rats. (abst – 2015) http://www.fasebj.org/content/29/1_Supplement/655.1.abstract?sid=edf921ac-0690-4aa6-ac81-0546314dd384


CB1 receptor blockade counters age-induced insulin resistance and metabolic dysfunction. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4783351/

Exposure to a Highly Caloric Palatable Diet During Pregestational and Gestational Periods Affects Hypothalamic and Hippocampal Endocannabinoid Levels at Birth and Induces Adiposity and Anxiety-Like Behaviors in Male Rat Offspring. (full – 2016) http://journal.frontiersin.org/article/10.3389/fnbeh.2015.00339/full


Cyclooxygenase-2 inhibition reduces stress-induced affective pathology. (full – 2016) https://elifesciences.org/content/5/e14137

Integrating cannabis into clinical cancer care. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4791148/

Controlled downregulation of the cannabinoid CB1 receptor provides a promising approach for the treatment of obesity and obesity-derived type 2 diabetes. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4679742/


Mice Expressing a "Hyper-Sensitive" Form of the Cannabinoid Receptor 1 (CB1) Are Neither Obese Nor Diabetic. (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0160462


A role of CB1R in inducing θ-rhythm coordination between the gustatory and gastrointestinal insula. (full – 2016) http://www.nature.com/articles/srep32529


Exposure to a Highly Caloric Palatable Diet during the Perinatal Period Affects the Expression of the Endogenous Cannabinoid System in the Brain, Liver and Adipose Tissue of Adult Rat Offspring. (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0165432

Orexin-A represses satiety-inducing POMC neurons and contributes to obesity via stimulation of endocannabinoid signaling. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4855580/

Targeting the endocannabinoid/CB1 receptor system for treating obesity in Prader-Willi syndrome. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5123200/

A user’s guide to cannabinoid therapies in oncology (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5176373/


The inhibitory effect of combination treatment with leptin and cannabinoid CB1 receptor agonist on food intake and body weight gain is mediated by serotonin 1B and 2C receptors. (click Full Text Links for PDF – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27512006

Behavioral Characterization of Kappa Opioid Receptor Agonist Spiradoline and Cannabinoid Receptor Agonist CP55940 Mixtures in Rats. (link to download – 2016) http://jpet.aspetjournals.org/content/early/2016/11/30/jpet.116.235630.long

Why I chose to use cannabis (article – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4791147/


Driving the need to feed: Insight into the collaborative interaction between ghrelin and endocannabinoid systems in modulating brain reward systems. (abst – 2016)

Identification of the oleic acid ethanolamide (OEA) isomer cis-vaccenic acid ethanolamide (VEA) as a highly abundant 18:1 fatty acid ethanolamide in blood plasma from rats and humans. (abst – 2016)


mGluR1/5 activation in the lateral hypothalamus increases food intake via the endocannabinoid system. (abst – 2016) http://www.sciencedirect.com/science/article/pii/S0304394016305997


Hemopressin peptides as modulators of the endocannabinoid system and their potential applications as therapeutic tools. (abst – 2016) http://www.eurekaselect.com/146167/article


Triazole Ureas Act as Diacylglycerol Lipase Inhibitors and Prevent Fasting-Induced Refeeding. (abst – 2016) http://pubs.acs.org/doi/abs/10.1021/acs.jmedchem.6b01482


Design, Synthesis and Biological Evaluation of Novel, Non-Brain Penetrant, Hybrid Cannabinoid CB1R Inverse Agonist/Inducible Nitric Oxide Synthase (iNOS) Inhibitors for the Treatment of Liver Fibrosis (abst – 2017) http://pubs.acs.org/doi/abs/10.1021/acs.jmedchem.6b01504

N-Oleoylglycine-induced hyperphagia was associated with the activation of AgRP neuron by CB1R. (abst – 2017) https://www.ncbi.nlm.nih.gov/pubmed/28102080


>**ARACHIDONYL-2'-CHLOROETHYLAMIDE** see ACEA in the SYNTHETICS section

>**2-ARACHIDONOYLGLYCEROL** see 2-AG in the ENDOCANNABINOID SYSTEM section

**ARTHRITIS +**


Cannabinoid-induced apoptosis in immune cells as a pathway to immunosuppression. (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3005548/?tool=pubmed


Tonic modulation of spinal hyperexcitability by the endocannabinoid receptor system in a rat model of osteoarthritis pain. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3132591/?tool=pubmed

Honokiol inhibits the progression of collagen-induced arthritis by reducing levels of pro-inflammatory cytokines and matrix metalloproteinases and blocking oxidative tissue damage (full – 2010) https://www.jstage.jst.go.jp/article/jphs/114/1/114_10070FP/_pdf
Local application of the endocannabinoid hydrolysis inhibitor URB597 reduces nociception in spontaneous and chemically induced models of osteoarthritis. (abst – 2010)  
http://www.unboundmedicine.com/medline/ebm/record/21185649/abstract/Local_application_of_the_endocannabinoid_hydrolysis_inhibitor_URB597_reduces_nociception_in_spontaneous_and_chemically_induced_models_of_osteoarthritis

Is lipid signaling through cannabinoid 2 receptors part of a protective system? (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3062638/

Cannabidiol as an emergent therapeutic strategy for lessening the impact of inflammation on oxidative stress. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3085542/

Cannabinoids for Treatment of Chronic Non-Cancer Pain; a Systematic Review of Randomized Trials. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3243008/

Fatty acid amide hydrolase blockade attenuates the development of collagen-induced arthritis and related thermal hyperalgesia in mice. (full - 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3164582/

The abnormal cannabidiol analogue O-1602 reduces nociception in a rat model of acute arthritis via the putative cannabinoid receptor GPR55. (abst – 2011)  

Medical cannabis: the opportunity versus the temptation (abst – 2011)  

Expression of cannabinoid receptors by human articular chondrocytes (abst – 2011)  
http://www.thebonejournal.com/article/S8756-3282%2811%2900386-3/abstract

The effects of peptide and lipid endocannabinoids on arthritic pain at the spinal level. (full – 2012)  

Dynamic changes to the endocannabinoid system in models of chronic pain (full – 2012)  
http://rstb.royalsocietypublishing.org/content/367/1607/3300.full?sid=1569c370-cd5e-4358-89ff-857201f5e069

Clinical implications for cannabinoid use in the rheumatic diseases: potential for help or harm? (full - 2012)  

Cortisol-mediated adhesion of synovial fibroblasts is dependent on the degradation of anandamide and activation of the endocannabinoid system (full - 2012)  
Lack of effect of chronic pre-treatment with the FAAH inhibitor URB597 on inflammatory pain behaviour: evidence for plastic changes in the endocannabinoid system. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3449266/

Peripheral FAAH inhibition causes profound antinociception and protects against indomethacin-induced gastric lesions. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3738192/


Role of CB1 and CB2 cannabinoid receptors in the development of joint pain induced by monosodium iodoacetate. (abst – 2012) http://www.ncbi.nlm.nih.gov/pubmed/23199705


Role of type 2 cannabinoid receptors in osteoarthritis (abst – 2012) http://www.thebonejournal.com/article/S8756-3282%2812%2900234-7/abstract


Cannabinoid CB2 Receptors Regulate Central Sensitization and Pain Responses Associated with Osteoarthritis of the Knee Joint. (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0080440

Palmitoylethanolamide and luteolin ameliorate development of arthritis caused by injection of collagen type II in mice (full – 2013) http://arthritis-research.com/content/15/6/R192

Osteoarthritis pain mechanisms: basic studies in animal models. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3771690/

Cannabinoid WIN-55,212-2 Mesylate Inhibits Interleukin-1β Induced Matrix Metalloproteinase and Tissue Inhibitor of Matrix Metalloproteinase Expression in Human Chondrocytes. (full – 2013) http://www.oarsijournal.com/article/S1063-4584%2813%29000999-0/fulltext


Rheumatologists lack confidence in their knowledge of cannabinoids pertaining to the management of rheumatic complaints. (full – 2014) http://www.biomedcentral.com/content/pdf/1471-2474-15-258.pdf

Cannabinoid receptor 2 as a potential therapeutic target in rheumatoid arthritis. (full – 2014) http://www.biomedcentral.com/1471-2474/15/275


Expression of cannabinoid receptor 2 and its inhibitory effects on synovial fibroblasts in rheumatoid arthritis. (full – 2014) http://rheumatology.oxfordjournals.org/content/53/5/802.long

Tapping into the endocannabinoid system to ameliorate acute inflammatory flares and associated pain in mouse knee joints. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4201700/

CB1 augments mGluR5 function in medial prefrontal cortical neurons to inhibit amygdala hyperactivity in an arthritis pain model. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4288820/


Cannabinoid Receptor CB2 Is Involved in Tetrahydrocannabinol-Induced Anti-Inflammation against Lipopolysaccharide in MG-63 Cells  (full – 2015)  http://www.hindawi.com/journals/mi/2015/362126/

Leptin Levels Are Negatively Correlated with 2-Arachidonoylglycerol in the Cerebrospinal Fluid of Patients with Osteoarthritis.  (full – 2015)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4383333/

Cannabinoid-based drugs targeting CB1 and TRPV1, the sympathetic nervous system, and arthritis.  (full – 2015)  http://www.arthritis-research.com/content/17/1/226

Cannabinoid-based drugs targeting CB1 and TRPV1, the sympathetic nervous system, and arthritis  (full – 2015)  http://link.springer.com/article/10.1186/s13075-015-0743-x


Role of the endocannabinoid system in the emotional manifestations of osteoarthritis pain.  (full – 2015)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4770330/


The type 2 cannabinoid receptor regulates susceptibility to osteoarthritis in mice.  (full – 2015)  http://www.oarsijournal.com/article/S1063-4584(15)01140-1/fulltext


A multi-target approach for pain treatment - dual inhibition of fatty acid amide hydrolase and TRPV1 in a rat model of osteoarthritis. (abst – 2015)

Association between cannabinoid receptor type 2 Q63R variant and oligo/polyarticular juvenile idiopathic arthritis. (abst – 2015)

http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_4

Efficacy, tolerability and safety of cannabinoid treatments in the rheumatic diseases: A systematic review of randomized controlled trials. (abst – 2015)

Attitudes of Israeli Rheumatologists to the Use of Medical Cannabis as Therapy for Rheumatic Disorders. (full – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4839539/

The synthetic cannabinoid WIN55,212-2 mesylate decreases the production of inflammatory mediators in rheumatoid arthritis synovial fibroblasts by activating CB2, TRPV1, TRPA1 and yet unidentified receptor targets. (full – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4858820/

The CB2 receptor and its role as a regulator of inflammation. (full – 2016)

Rescue of Impaired mGluR5-Driven Endocannabinoid Signaling Restores Prefrontal Cortical Output to Inhibit Pain in Arthritic Rats. (full – 2016)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4719019/


Cannabinoids and autoimmune diseases: A systematic review. (abst – 2016)

MEDICAL CANNABIS (abst – 2016)


Endocannabinoids inhibit neurogenic inflammation in murine joints by a non-canonical cannabinoid receptor mechanism. (abst – 2016)
http://www.neuropeptidesjournal.com/article/S0143-4179(16)30047-6/abstract


**ASTHMA** +* - also see LUNG FUNCTION

Cannabinoid-induced apoptosis in immune cells as a pathway to immunosuppression. (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3005548/?tool=pubmed

Anti-inflammatory effects of the neurotransmitter agonist Honokiol in a mouse model of allergic asthma. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3197781/

Beneficial effects of cannabinoids (CB) in a murine model of allergen-induced airway inflammation: Role of CB(1)/CB(2) receptors. (abst - 2010) http://www.unboundmedicine.com/medline/ebm/record/21056512/abstract/Beneficial_effects_of_cannabinoids_CB_in_a_murine_model_of_allergen_induced_airway_inflammation:_Role_of_CB_1_/CB_2_receptors


Is lipid signaling through cannabinoid 2 receptors part of a protective system? (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3062638/

The role of CB2 receptor ligands in human eosinophil function (full – 2012) http://www.biomedcentral.com/content/pdf/2050-6511-13-S1-A13.pdf


Cannabinoid CB2 receptors as novel target for inhibiting house dust mite induced allergic airway inflammation (abst – 2013) http://www.jimmunol.org/content/190/1_Supplement/120.12

The expression of cannabinoid receptor 1 is significantly increased in atopic patients
Cannabinoids inhibit cholinergic contraction in human airways through prejunctional CB1 receptors.  

Cannabidiol improves lung function and inflammation in mice submitted to LPS-induced acute lung injury. 

Exposure to Allergen Causes Changes in NTS Neural Activities after Intratracheal Capsaicin Application, in Endocannabinoid Levels and in the Glia Morphology of NTS. 

The effect of phytocannabinoids on airway hyper-responsiveness, airway inflammation, and cough 


How beneficial is vaping cannabis to respiratory health compared to smoking?  

The Endogenous Cannabinoid Anandamide Increases Human Airway Epithelial Cell Permeability through an Arachidonic Acid Metabolite 

Cannabinoid receptor 2 augments eosinophil responsiveness and aggravates allergen-induced pulmonary inflammation in mice. 

Stimulation of cannabinoid CB1 receptors prevents nerve-mediated airway hyperreactivity in NGF-induced inflammation in mouse airways. 

The effect of cannabinoids on dinitrofluorobenzene-induced experimental asthma in mice. 

Δ9-Tetrahydrocannabinol Reverses TNFα-induced Increase in Airway Epithelial Cell Permeability through CB2 Receptors 

CB2 receptors regulate natural killer cells that limit allergic airway inflammation in a murine model of asthma.
**ATAXIA** - lack of muscle coordination during movements like walking, sometime hereditary - also see SPINOCEREBELLAR ATAXIA and PHARC

The du2J mouse model of ataxia and absence epilepsy has deficient cannabinoid CB1 receptor-mediated signalling. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3764637/

Changes in CB1 and CB2 receptors in the post-mortem cerebellum of humans affected by spinocerebellar ataxias. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3954486/

Endocannabinoid-Hydrolysing Enzymes in the Post-Mortem Cerebellum of Humans Affected by Hereditary Autosomal Dominant Ataxias. (full – 2014)  
http://www.karger.com/Article/FullText/358127

Does modulation of the endocannabinoid system have potential therapeutic utility in cerebellar ataxia? (full – 2016)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4983615/

Targeting Cannabinoid CB2 Receptors in the Central Nervous System. Medicinal Chemistry Approaches with Focus on Neurodegenerative Disorders. (full – 2016)  
http://journal.frontiersin.org/article/10.3389/fnins.2016.00406/full

Buzz Juice: Neurological sequelae of synthetic cannabinoids. (abst – 2016)  

**ATHEROSCLEROSIS** +*

http://www.google.com/patents/US20100158973


The activation of the cannabinoid receptor type 2 reduces neutrophilic protease-mediated vulnerability in atherosclerotic plaques (full – 2011)  
http://eurheartj.oxfordjournals.org/content/33/7/846.full

Cannabinoid receptor 2 signaling does not modulate atherogenesis in mice (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3082575/?tool=pubmed

Is lipid signaling through cannabinoid 2 receptors part of a protective system? (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3062638/
Cannabinoid Receptor 2 Deficiency in Haematopoietic cells Aggravates Early Atherosclerosis in LDL Receptor Deficient Mice. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3109635/?tool=pubmed


The effect of dietary hempseed on atherogenesis and contractile function in aortae from hypercholesterolemic rabbits. (abst - 2011)

Cannabinoids and atherosclerotic coronary heart disease. (full – 2012)

Antihyperglycemic and hypolipidemic effects of α, β-amyrin, a triterpenoid mixture from Protium heptaphyllum in mice (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3484111/

Targeting cannabinoid receptor CB(2) in cardiovascular disorders: promises and controversies. (full – 2012)

The potential use of cannabidiol in the therapy of metabolic syndrome (abst – 2012)

Update on the endocannabinoid-mediated regulation of gelatinase release in arterial wall physiology and atherosclerotic pathophysiology. (abst – 2012)

Endogenous cannabinoid receptor CB1 activation promotes vascular smooth muscle cell proliferation and neointima formation. (full – 2013)
http://www.jlr.org/content/early/2013/03/11/jlr.M035147.long

Fatty acid amide hydrolase deficiency enhances intraplaque neutrophil recruitment in atherosclerotic mice. (full – 2013) http://atvb.ahajournals.org/content/33/2/215.long

Therapeutic Opportunities through the Modulation of Endocannabinoid Transport (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4255948/

Endocannabinoid system as a potential mechanism for n-3 long-chain polyunsaturated fatty acid mediated cardiovascular protection. (full – 2013)
http://journals.cambridge.org/download.php?file=%2FPNS%2FPNS72_04%2FS0029665113003406a.pdf&code=4d9803611e5020e9388169c5ae3c5095

Magnolol inhibits migration of vascular smooth muscle cells via cytoskeletal remodeling pathway to attenuate neointima formation. (abst – 2013)


Increased oxidative stress enhances endocannabinoid tone (abst – 2014) http://www.fasebj.org/content/27/1_Supplement/1097.3.abstract?sid=d2f0f68f-30c5-4027-9334-011e9f8fdd2e


Activation of GPR55 Receptors Exacerbates oxLDL-Induced Lipid Accumulation and Inflammatory Responses, while Reducing Cholesterol Efflux from Human Macrophages. (full – 2015) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0126839


Oxyradical Stress, Endocannabinoids, and Atherosclerosis. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4686160/


The effect of endocannabinoid system in ischemia-reperfusion injury: a friend or a foe?  

Endocannabinoids and the Cardiovascular System in Health and Disease.  

Beyond Lipoprotein Receptors: Learning from Receptor Knockouts Mouse Models about New Targets for Reduction of the Atherosclerotic Plaque.  

Myeloid-Specific Deletion of Diacylglycerol Lipase α Inhibits Atherogenesis in ApoE-Deficient Mice.  
(full – 2016)  http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0146267

Monoglyceride lipase deficiency modulates endocannabinoid signaling and improves plaque stability in ApoE-knockout mice  

The CB2 receptor and its role as a regulator of inflammation.  

N-Oleoylethanolamine reduces inflammatory cytokines and adhesion molecules in TNF-α-induced human umbilical vein endothelial cells by activating CB2 and PPAR-α.  

Optimized extraction of 2-arachidonylglycerol and anandamide from aortic tissue and plasma for quantification by LC-MS/MS  

Selective activation of CB2 receptor improves efferocytosis in cultured macrophages.  

Treatment with the GPR55 antagonist CID16020046 increases neutrophil activation in mouse atherogenesis.  

Overlapping molecular pathways between cannabinoid receptors type 1 and 2 and estrogens/androgens on the periphery and their involvement in the pathogenesis of common diseases (Review).  

Oxyradical Stress Increases the Biosynthesis of 2-Arachidonoylglycerol: Involvement of NADPH Oxidase.  

AUTISM + - also see FRAGILE X SYNDROME


Consequences of cannabinoid and monoaminergic system disruption in a mouse model of autism spectrum disorders (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3137184/

Moderation of antipsychotic-induced weight gain by energy balance gene variants in the RUPP autism network risperidone studies (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3693401/

Autism-Associated Neuroligin-3 Mutations Commonly Disrupt Tonic Endocannabinoid Signaling (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3663050/


Cannabinoid Receptor Type 2, but not Type 1, is Up-Regulated in Peripheral Blood Mononuclear Cells of Children Affected by Autistic Disorders. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/23585028


The in vitro GcMAF effects on endocannabinoid system transcriptionomics, receptor formation, and cell activity of autism-derived macrophages. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3996516/

Defects in fatty acid amide hydrolase 2 in a male with neurologic and psychiatric symptoms. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4423390/


Endocannabinoids and Mental Disorders. (abst – 2015) http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_8


p21-activated kinase 1 restricts tonic endocannabinoid signaling in the hippocampus (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4907698/


Pharmacological inhibition of fatty acid amide hydrolase attenuates social behavioural deficits in male rats prenatally exposed to valproic acid. (abst – 2016) http://www.sciencedirect.com/science/article/pii/S1043661816308660
Functions of synapse adhesion molecules neurexin/neurexins and neurodevelopmental disorders. (abst – 2016)

**BACK PAIN** +/- also see PAIN, SPASTICITY, SPINAL CORD INJURY

Investigational pharmacology for low back pain (full - 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3004649/?tool=pmcentrez


When Weed Is The Cure: A Doctor's Case for Medical Marijuana (interview – 2015)
http://www.npr.org/sections/health-shots/2015/07/14/422876973/when-weed-is-the-cure-a-doctors-case-for-medical-marijuana?utm_medium=RSS&utm_campaign=authorinterviews

>BENIGN PROSTATIC HYPERPLASIA- see PROSTATIC HYPERPLASIA

**BILE/ BILE DUCTS** +

Cannabidiol ameliorates cognitive and motor impairments in bile-duct ligated mice via 5-HT1A receptor activation. (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2829220/

G1359A polymorphism of the cannabinoid receptor gene (CNR1) and clinical results of biliopancreatic diversion (link to PDF – 2010)
http://www.europeanreview.org/article/724

Distribution of free and conjugated cannabinoids in human bile samples. (abst – 2012)


Bile salt recognition by human liver fatty acid binding protein. (full – 2015)
Orphan nuclear receptor oestrogen-related receptor γ (ERRγ) plays a key role in hepatic cannabinoid receptor type 1-mediated induction of CYP7A1 gene expression.

http://ajpendo.physiology.org/content/308/7/E583.long

Fatty acid binding protein 5 (FABP5) regulates diet-induced obesity (DIO) via GIP secretion from enteroendocrine K-cells in response to fat ingestion.

http://ajpendo.physiology.org/content/308/7/E583.long

Fasiglifam (TAK-875) Inhibits Hepatobiliary Transporters: A Possible Factor Contributing to Fasiglifam-Induced Liver Injury.

http://dmd.aspetjournals.org/content/43/11/1751.long


https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5040794/

Bile Acid Recognition by NAPE-PLD.

http://pubs.acs.org/doi/abs/10.1021/acschembio.6b00624

Distribution of Synthetic cannabinoids JWH-210, RCS-4 and Δ 9-Tetrahydrocannabinol After Intravenous Administration to Pigs.


**BIMODAL/PARADOXICAL EFFECTS** (a high dose and a low dose giving very different effects)

Paradoxical effects of the cannabinoid CB2 receptor agonist GW405833 on rat osteoarthritic knee joint pain.

http://www.oarsjournal.com/article/S1063-4584%2810%2900315-8/fulltext

Cannabinoid-Induced Hyperemesis: A Conundrum—From Clinical Recognition to Basic Science Mechanisms

http://www.mdpi.com/1424-8247/3/7/2163/htm

Bimodal control of stimulated food intake by the endocannabinoid system.


The dual effects of delta(9)-tetrahydrocannabinol on cholangiocarcinoma cells: anti-invasion activity at low concentration and apoptosis induction at high concentration.


Biphasic Effects of Cannabinoids in Anxiety Responses: CB1 and GABA(B) Receptors in the Balance of GABAergic and Glutamatergic Neurotransmission.

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3473327/
The cannabinoid CB1 receptor biphasically modulates motor activity and regulates dopamine and glutamate release region dependently.  
http://ijnp.oxfordjournals.org/content/16/2/393.long

Bimodal Control of Fear-Coping Strategies by CB1 Cannabinoid Receptors.  
(full – 2012)  http://www.jneurosci.org/content/32/21/7109.long

Biphasic effects of Δ9-tetrahydrocannabinol on brain stimulation reward and motor activity  
(full – 2013)  http://ijnp.oxfordjournals.org/content/16/10/2273

Cannabinoid hyperemesis syndrome: Marijuana is both antiemetic and proemetic.  

Alcohol Versus Cannabinoids: A Review of Their Opposite Neuro-Immunomodulatory Effects and Future Therapeutic Potentials  
(full – 2015)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4607066/

Cannabinoid Hyperemesis Syndrome: A Paradoxical Cannabis Effect.  
(full – 2015)  http://www.hindawi.com/journals/crigm/2015/405238/

Current Status and Future of Cannabis Research  

Palmitoylethanolamide attenuates PTZ-induced seizures through CB1 and CB2 receptors.  

Biphasic effects of anandamide on behavioural responses: emphasis on copulatory behaviour.  

Endogenous and Synthetic Cannabinoids as Therapeutics in Retinal Disease  

Behavioral Characterization of the Effects of Cannabis Smoke and Anandamide in Rats.  
(full – 2016)  http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0153327

Tolerance to the diuretic effects of cannabinoids and cross-tolerance to a kappa-opioid agonist in THC-treated mice.  
(full – 2016)  http://jpet.aspetjournals.org/content/early/2016/05/26/jpet.116.232132.long

The Cannabinoid CB1/CB2 Agonist WIN55212.2 Promotes Oligodendrocyte Differentiation In Vitro and Neuroprotection During the Cuprizone-Induced Central Nervous System Demyelination.  

Bidirectional Effects of Cannabidiol on Contextual Fear Memory Extinction.  
A user’s guide to cannabinoid therapies in oncology (full – 2016)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5176373/


Intra-VTA anandamide infusion produces dose-based biphasic effects on male rat sexual behavior expression (abst – 2016)

Endocannabinoid system in sexual motivational processes: is it a novel therapeutic horizon? (abst – 2016)


**BIPOLAR DISORDER** +*

Genetic association between bipolar disorder and 524A>C (Leu133Ile) polymorphism of CNR2 gene, encoding for CB2 cannabinoid receptor. (abst - 2011)


Endocannabinoids and Mental Disorders. (abst – 2015) http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_8

Endocannabinoid signaling in social functioning: an RDoC perspective  

Lipids in psychiatric disorders and preventive medicine.  

Gender Differences in Associations Between Attention-Deficit/Hyperactivity Disorder 
and Substance Use Disorder.  

Cognitive Function in Individuals With Psychosis: Moderation by Adolescent Cannabis 
Use.  

Cannabinoid hyperemesis syndrome and the onset of a manic episode.  

The Effects of Cannabis on Inpatient Agitation, Aggression, and Length of Stay. 

Pros and cons of medical cannabis use by people with chronic brain disorders. 

Brain circuitry associated with the development of substance use in bipolar disorder and 
preliminary evidence for sexual dimorphism in adolescents.  

**BLADDER / URINARY FUNCTIONS**

Functional role of cannabinoid receptors in urinary bladder  
(full - 2010)  http://www.indianjurol.com/article.asp?issn=0970-1591;year=2010;volume=26;issue=1;spage=26;epage=35;aulast=Tyagi

Effects of cannabinor, a novel selective cannabinoid 2 receptor agonist, on bladder 
function in normal rats.  

Randomized controlled trial of Sativex to treat detrusor overactivity in multiple sclerosis. 

Transient receptor potential A1 and cannabinoid receptor activity in human normal and 
hyperplastic prostate: relation to nerves and interstitial cells  
Cannabinor, a selective cannabinoid-2 receptor agonist, improves bladder emptying in rats with partial urethral obstruction. (full – 2011)  
http://www.jurology.com/article/S0022-5347%2810%2904713-0/fulltext

Local activation of cannabinoid CB1 receptors in the urinary bladder reduces the inflammation-induced sensitization of bladder afferents. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3115893/

Modulation of inflammatory responses by a cannabinoid-2-selective agonist after spinal cord injury. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3235339/

Role of Cannabinoids in Multiple Sclerosis (link to PDF - 2011)  
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.659.8269&rank=26

Inhibitory Effect of Standardized Cannabis sativa Extract and Its Ingredient Cannabidiol on Rat and Human Bladder Contractility. (abst – 2011)  

Cannabinoids: potential targets for bladder dysfunction. (abst – 2011)  

Cannabinoid mediated diuresis in mice (abst – 2011)  
http://www.fasebj.org/content/25/1_Supplement/617.6.abstract?sid=bfb1e75f-05db-4b4a-b24d-cabbb51eb934

The afferent system and its role in lower urinary tract dysfunction. (abst – 2011)  

Spinal Cord Fatty Acid Amide Hydrolase (FAAH) in Normal Micturition Control and Bladder Overactivity in Awake Rats. (abst – 2012)  

Expression of fatty acid amide hydrolase (FAAH) in human, mouse, and rat urinary bladder and effects of FAAH inhibition on bladder function in awake rats. (abst – 2012)  

Nabiximols in the treatment of spasticity, pain and urinary symptoms due to multiple sclerosis. (abst – 2012)  

Distribution and function of the endocannabinoid system in the rat and human bladder. (abst – 2012)  

Cannabinoids and the endocannabinoid system in lower urinary tract function and dysfunction. (full – 2013)  

Diuretic effects of cannabinoids. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3533417/
Bladder function in a cannabinoid receptor type 1 knock-out mouse. (full – 2013)

Stable Binding of Alternative Protein-enriched Food Matrices with Concentrated Cranberry Bioflavonoids for Functional Food Applications (full – 2013)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3769697/

Diuretic effects of cannabinoid agonists in mice. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3872476/

Characterization of bladder function in a cannabinoid receptor type 2 knockout mouse in vivo and in vitro. (abst – 2013)

Future direction in pharmacotherapy for non-neurogenic male lower urinary tract symptoms. (abst – 2013)

Effectiveness of vaginal adelmidrol for treating pelvic visceral discomforts and anxiety: a prospective observational study. (abst – 2013)

Nephrogenic adenoma of the urinary tract: clinical, histological, and immunohistochemical characteristics. (abst – 2013)

http://www.neurology.org/content/82/17/1556.long

Current and future drugs for treatment of MS-associated bladder dysfunction. (full – 2014)

http://www.clinicaltherapeutics.com/article/S0149-2918%2814%2900684-5/fulltext

Attenuation of Cystitis and Pain Sensation in Mice Lacking Fatty Acid Amide Hydrolase. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4355044/

Inhibition of Peripheral Fatty Acid Amide Hydrolase Depresses Activities of Bladder Mechano-sensitive Nerve Fibers of the Rat. (abst – 2014)

Evaluation of the tolerability and efficacy of Sativex in multiple sclerosis. (abst – 2014)

Intrathecal cannabinoid-1 receptor agonist prevents referred hyperalgesia in acute acrolein-induced cystitis in rats. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4446380/

Activation of cannabinoid receptor 1 inhibits increased bladder activity induced by nerve growth factor. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4339033/


The role of the peripheral cannabinoid system in the pathogenesis of detrusor overactivity evoked by increased intravesical osmolarity in rats. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26243021


Tolerance to the diuretic effects of cannabinoids and cross-tolerance to a kappa-opioid agonist in THC-treated mice. (full – 2016) http://jpet.aspetjournals.org/content/early/2016/05/26/jpet.116.232132.long

Impaired Excitatory Neurotransmission in the Urinary Bladder from the Obese Zucker Rat: Role of Cannabinoid Receptors. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4902197/


**BLISTERS/ BLISTERING**


>**BLEPHAROSPASM** - see BLEPHAROSPASM in 2000-2009, and MEIGE'S SYNDROME in PRE-2000

**BLOOD-BRAIN BARRIER/ BLOOD-SPINAL CORD BARRIER** +

Interaction of drugs of abuse and maintenance treatments with human P-glycoprotein (ABCB1) and breast cancer resistance protein (ABCG2). (full – 2010) http://ijnp.oxfordjournals.org/content/13/7/905.long
Anandamide suppresses pain initiation through a peripheral endocannabinoid mechanism (full – 2010)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3260554/

Anandamide inhibits Theiler's virus induced VCAM-1 in brain endothelial cells and reduces leukocyte transmigration in a model of blood brain barrier by activation of CB1 receptors. (full – 2011) http://www.jneuroinflammation.com/content/pdf/1742-2094-8-102.pdf


Activation of cannabinoid receptor 2 attenuates leukocyte-endothelial cell interactions and blood-brain barrier dysfunction under inflammatory conditions. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3325902/

Mast cell-glia axis in neuroinflammation and therapeutic potential of the anandamide congener palmitoylethanolamide. (full - 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3312.long

Targeting the endocannabinoid system with cannabinoid receptor agonists: pharmacological strategies and therapeutic possibilities (full – 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3353.full?sid=1569c370-cd5c-4358-89ff-857201f5e069


Multiple sclerosis and the blood-central nervous system barrier. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3562587/

Cannabidiol provides long-lasting protection against the deleterious effects of inflammation in a viral model of multiple sclerosis: A role for A2A receptors.
Selective Activation of Cannabinoid Receptor 2 in Leukocytes Suppresses Their Engagement of the Brain Endothelium and Protects the Blood-Brain Barrier.  
(full – 2013)  http://ajp.amjpathol.org/article/S0002-9440%2813%2900557-9/fulltext

Role of the cannabinoid system in the transit of beta-amyloid across the blood-brain barrier.  

CB2 Receptor Activation Inhibits Melanoma Cell Transmigration through the Blood-Brain Barrier.  
(full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4057719/

(full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4061885/

Cannabinoid receptor type-2 stimulation, blockade, and deletion alters the vascular inflammatory responses to traumatic brain injury.  
(full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4248435/

Cannabinoid type 2 receptor stimulation attenuates brain edema by reducing cerebral leukocyte infiltration following subarachnoid hemorrhage in rats.  
(full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4067767/

Endocannabinoid degradation inhibition improves neurobehavioral function, blood brain barrier integrity, and neuroinflammation following mild traumatic brain injury.  
(full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4348366/

Roles of fatty acid ethanolamides (FAE) in traumatic and ischemic brain injury.  

Functions of the CB1 and CB 2 Receptors in Neuroprotection at the Level of the Blood-Brain Barrier.  

Cannabinoid receptor CB2 is expressed on vascular cells, but not astroglial cells in the post-mortem human Huntington's disease brain.  

Cannabinoid Receptor-2 and HIV-Associated Neurocognitive Disorders.  

4’-O-methylhonokiol increases levels of 2-arachidonoyl glycerol in mouse brain via selective inhibition of its COX-2-mediated oxygenation.  

Changes in cannabinoid receptors, aquaporin 4 and vimentin expression after traumatic brain injury in adolescent male mice. Association with edema and neurological deficit.  
(full – 2015)  http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0128782

Activation of Cannabinoid Type Two Receptors (CB2) Diminish Inflammatory Responses in Macrophages and Brain Endothelium. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4795159/


Endocannabinoids and Heterogeneity of Glial Cells in Brain Function (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4932105/

Cannabinoid receptor 2 modulates susceptibility to experimental cerebral malaria through a CCL17-dependent mechanism. (full – 2016) http://www.jbc.org/content/early/2016/07/29/jbc.M116.746594.long


CB2 receptor activation prevents glial-derived neurotoxic mediator production, BBB leakage and peripheral immune cell infiltration and rescues dopamine neurons in the MPTP model of Parkinson's disease. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4892852/

The molecular mechanism and effect of cannabinoid-2 receptor agonist on the blood-spinal cord barrier permeability induced by ischemia-reperfusion injury.
ENDOCANNABINOID SYSTEM: A multi-facet therapeutic target.
(abst – 2016) http://www.eurekaselect.com/141330/article

Cannabinoids and Neuro-Inflammation: Regulation of Brain Immune Response.

Peripherally selective cannabinoid 1 receptor (CB1R) agonists for the treatment of neuropathic pain. (abst – 2016)
http://pubs.acs.org/doi/abs/10.1021/acs.jmedchem.6b00516

**BLOOD/ PLATELETS/ PLASMA +**

Dietary docosahexaenoic acid supplementation alters select physiological endocannabinoid-system metabolites in brain and plasma (full – 2010)
http://www.jlr.org/content/51/6/1416.full.pdf+html

The relationship between plasma levels of the endocannabinoid, anandamide, sex steroids, and gonadotrophins during the menstrual cycle. (full - 2010)
http://www.fertstert.org/article/S0015-0282%2808%2904739-0/fulltext

Anandamide extends platelets survival through CB(1)-dependent Akt signaling. (abst – 2010)

Effect of Cannabis sativa on Hematological Indices in Rats and Men (full – 2011)

Anandamide and its congeners inhibit human plasma butyrylcholinesterase. Possible new roles for these endocannabinoids? (abst – 2011)

The endocannabinoid system and its role in schizophrenia: a systematic review of the literature. (full – 2012)

Plasma concentrations of endocannabinoids and related primary Fatty Acid amides in patients with post-traumatic stress disorder. (full – 2013)
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0062741

Differential Expression of Intracellular and Extracellular CB(2) Cannabinoid Receptor Protein by Human Peripheral Blood Leukocytes. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3587044/
A selective antagonist reveals a potential role of G protein-coupled receptor 55 in platelet and endothelial cell function. (full – 2013) http://jpet.aspetjournals.org/content/346/1/54.long


Reductions in circulating endocannabinoid levels in individuals with post-traumatic stress disorder following exposure to the world trade center attacks. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3870889/

A selective antagonist reveals a potential role of G protein-coupled receptor 55 in platelet and endothelial cell function. (full – 2013) http://jpet.aspetjournals.org/content/346/1/54.long


Cannabinoid Receptor Type 2, but not Type 1, is Up-Regulated in Peripheral Blood Mononuclear Cells of Children Affected by Autistic Disorders. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/23585028

Detection of the endocannabinoid metabolome in human plasma and breast milk (abst – 2013) http://www.fasebj.org/content/27/1_Supplement/45.8.short


Critical issues in the analysis of endocannabinoids and related compounds in plasma: artifactual isomerization and ex-vivo enzymatic generation of 2-monoacylglycerols. (full – 2014) http://www.jlr.org/content/early/2014/03/07/jlr.D043794.long


The differential characterization of GPR55 receptor in human peripheral blood reveals a distinctive expression in monocytes and NK cells and a proinflammatory role in these innate cells. (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/25344934

THE EFFECT OF EPIDIOLEX (CANNABIDIOL) ON SERUM LEVELS OF CONCOMITANT ANTI-EPILEPTIC DRUGS IN CHILDREN AND YOUNG ADULTS WITH TREATMENT-RESISTANT EPILEPSY IN AN EXPANDED ACCESS PROGRAM (abst – 2014) https://www.aesnet.org/meetings_events/annual_meeting_abstracts/view/1868391#sthash.uxbwgudh.dpuf

Fatty Acid Binding Proteins (FABPs) are Intracellular Carriers for Δ9-Tetrahydrocannabinol (THC) and Cannabidiol (CBD). (full – 2015) http://www.jbc.org/content/early/2015/02/09/jbc.M114.618447.long


Expression Analysis of CB2-GFP BAC Transgenic Mice (full – 2015) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0138986


Role of the endocannabinoid system in the emotional manifestations of osteoarthritis pain. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4770330/


Food Liking Enhances the Plasma Response of 2-Arachidonoylglycerol and of Pancreatic Polypeptide upon Modified Sham Feeding in Humans. (full – 2015) http://jn.nutrition.org/content/145/9/2169.long


Inhibition of interleukin-1β-induced endothelial tissue factor expression by the synthetic cannabinoid WIN 55,212-2. (full – 2016) http://www.impactjournals.com/oncotarget/index.php?journal=oncotarget&page=article&op=view&path%5B%5D=11367&path%5B%5D=35984


Pre-hospital identification and post-recovery challenges of intoxication with synthetic cannabinoid containing legal high products such as 'Exodus Damnation'. (full – 2016) http://journals.sagepub.com/doi/full/10.1177/0036933016659177

Effects of Different Levels of Hemp Seed (Cannabis Sativa L.) and Dextran Oligosaccharide on Growth Performance and Antibody Titer Response of Broiler Chickens (full – 2016) http://www.tandfonline.com/doi/full/10.4081/ijas.2015.3473


Metabolomic-Driven Elucidation of Serum Disturbances Associated with Alzheimer's Disease and Mild Cognitive Impairment. (abst – 2016)

Anandamide and its metabolites: what are their roles in the kidney? (abst – 2016)


Repeated Thrombosis After Synthetic Cannabinoid Use. (abst – 2016)


Circulating levels of endocannabinoids respond acutely to voluntary exercise, are altered in mice selectively bred for high voluntary wheel running, and differ between the sexes. (abst – 2016) https://www.ncbi.nlm.nih.gov/pubmed/28017680


**BLOOD PRESSURE/ VASORELAXATION +**

Inhibitor of fatty acid amide hydrolase normalizes cardiovascular function in hypertension without adverse metabolic effects. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3003779/

N-arachidonoyl glycine, an endogenous lipid that acts as a vasorelaxant via nitric oxide and large conductance calcium-activated potassium channels. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931560/


Cannabinoid and GABA modulation of sympathetic nerve activity and blood pressure in the dorsal periaqueductal gray of the rat (full – 2011) http://ajpregu.physiology.org/content/301/6/R1765.full

Cannabidiol as an emergent therapeutic strategy for lessening the impact of inflammation on oxidative stress. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3085542/

Triphasic blood pressure responses to cannabinoids: do we understand the mechanism? (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3413845/


Medial prefrontal cortex endocannabinoid system modulates baroreflex activity through CB1 receptors (full – 2012) http://ajpregu.physiology.org/content/302/7/R876


Cannabinoid receptor activation in the nucleus tractus solitaries produces baroreflex-like responses in the rat. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3614708/

Role of endocannabinoids and cannabinoid-1 receptors in cerebrocortical blood flow regulation. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3537620/

Endocannabinoid system as a potential mechanism for n-3 long-chain polyunsaturated fatty acid mediated cardiovascular protection. (full – 2013) http://journals.cambridge.org/download.php?file=%2FPNS%2FPNS72_04%2FS0029665113003406a.pdf&code=4d9803611e5020e9388169c5ae3e5095

Effects of Acute Stress on Cardiac Endocannabinoids, Lipogenesis, and Inflammation in Rats. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3988664/


Mechanism of Central Atypical Cannabinoid Receptor GPR18-Mediated Hypotension in Conscious Rats  
(abst – 2013)  
http://www.fasebj.org/content/27/1_Supplement/654.15.short

Preventive and treatment effects of a hemp seed (Cannabis sativa L.) meal protein hydrolysate against high blood pressure in spontaneously hypertensive rats.  
(abst – 2013)  

Impaired hypotensive responses induced by intrathecally injected drugs in fructose-fed rats.  
(abst – 2013)  
https://www.ncbi.nlm.nih.gov/pubmed/23499700

The Novel Endocannabinoid Receptor GPR18 is Expressed in the Rostral Ventrolateral Medulla and Exerts Tonic Restraining Influence on Blood Pressure.  
(full – 2014)  
http://jpet.aspetjournals.org/content/early/2014/01/15/jpet.113.209213.long

Mechanisms of endothelium-dependent relaxation evoked by anandamide in isolated human pulmonary arteries.  
(full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3984660/

Vascular targets for cannabinoids: animal and human studies.  
(full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3954478/

A new face of endocannabinoids in pharmacotherapy. Part I: Protective role of endocannabinoids in hypertension and myocardial infarction.  
(full – 2014)  

A new face of endocannabinoids in pharmacotherapy. Part II. Role of endocannabinoids in inflammation-derived cardiovascular diseases.  
(full – 2014)  

Cardiorespiratory Anomalies in Mice Lacking CB1 Cannabinoid Receptors.  
(full – 2014)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0100536

A novel hemp seed meal protein hydrolysate reduces oxidative stress factors in spontaneously hypertensive rats.  
(full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4276990/

The effects of obesity, diabetes and metabolic syndrome on the hydrolytic enzymes of the endocannabinoid system in animal and human adipocytes.  
(full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3995979/

Neuronal Nitric Oxide Synthase Dependent Elevation in Adiponectin in the Rostral Ventrolateral Medulla Underlies GPR18-mediated Hypotension in Conscious Rats.  
(full – 2014)  
http://jpet.aspetjournals.org/content/early/2014/08/06/jpet.114.216036.long

Cannabinoid receptor type 1 activation by arachidonylecyclopropylamide in rat aortic rings causes vasorelaxation involving calcium-activated potassium channel subunit alpha-1 and calcium channel, voltage-dependent, L type, alpha 1C subunit.  
(abst – 2014)
Role of endocannabinoid 2-arachidonoylglycerol in the physiology and pathophysiology of the cardiovascular system. (abst – 2014)

The hypotensive effect of intrathecally injected (m)VD-hemopressin(α) in urethane-anesthetized rats. (abst – 2014)

The Endocannabinoid Anandamide Mediates Hypoxic Pulmonary Vasoconstriction And Pulmonary Hypertension (abst – 2014)

Structural and functional characterization of hemp seed (Cannabis sativa L.) protein-derived antioxidant and antihypertensive peptides (abst – 2014)

Fatty Acid-Binding Protein 4 (FABP4): Pathophysiological Insights and Potent Clinical Biomarker of Metabolic and Cardiovascular Diseases. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4315049/

Effects of high-fructose diets on central appetite signaling and cognitive function. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4429636/

Bi-directional CB1 receptor-mediated cardiovascular effects of cannabinoids in anaesthetized rats: role of the paraventricular nucleus. (full – 2015)
http://www.jpp.krakow.pl/journal/archive/06_15/pdf/343_06_15_article.pdf

Cannabidiol causes endothelium-dependent vasorelaxation of human mesenteric arteries via CB1 activation. (full – 2015)
http://cardiovascres.oxfordjournals.org/content/early/2015/06/30/cvr.cvv179.long

Pharmacological profiling of the hemodynamic effects of cannabinoid ligands: a combined in vitro and in vivo approach. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4492759/

What do we understand from clinical and mechanistic studies on acupuncture treatment for hypertension? (full – 2015) http://www.cmjournal.org/content/10/1/36

METABOLIC EFFECTS OF MARIJUANA USE AMONG BLACKS. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4523241/

Chronic Adolescent Marijuana Use as a Risk Factor for Physical and Mental Health Problems in Young Adult Men. (full – 2015)
Renal effects of chronic pharmacological manipulation of CB2 receptors in rats with diet-
duced obesity  (full – 2015)

Endocannabinoid-mediated modulation of Gq/11 protein-coupled receptor signaling-
induced vasoconstriction and hypertension.  (abst – 2015)

Angiotensin II receptor blockers decrease serum concentration of fatty acid-binding protein 4 in patients with hypertension.  (abst – 2015)

Enhanced function of inhibitory presynaptic cannabinoid CB1 receptors on sympathetic nerves of DOCA-salt hypertensive rats.  (abst – 2015)

Enhanced vasorelaxation effect of endogenous anandamide on thoracic aorta in renal vascular hypertension rats.  (abst – 2015)

Mechanisms of vasorelaxation induced by the cannabidiol analogue compound O-1602 in the rat small mesenteric artery.  (abst – 2015)

Endocannabinoids and the Cardiovascular System in Health and Disease.  (abst – 2015)

Cannabinoid 2 receptor activation reduces leukocyte adhesion and improves capillary perfusion in the iridial microvasculature during systemic inflammation.  (abst – 2015)

Cannabinoids-Induced Vasodilation in Rat Mesenteric Artery: Possible Mechanisms of Action  (abst – 2015)
http://www.fasebj.org/content/29/1_Supplement/948.6.abstract?sid=edf921ac-0690-4aa6-ac81-0546314dd384

Central GPR109A Activation Mediates Glutamate-Dependent Pressor Response in Conscious Rats  (abst – 2015)
http://jpet.aspetjournals.org/content/356/2/456.abstract?sid=97527854-e2fb-4d74-ad96-6ab0744dc240

Endovanilloids are potential activators of the trigeminovascular nocisensor complex  (full – 2016)

Age-specific influences of chronic administration of the fatty acid amide hydrolase inhibitor URB597 on cardiovascular parameters and organ hypertrophy in DOCA-salt hypertensive rats  (full – 2016)


Components of the cannabinoid system in the dorsal periaqueductal gray are related to resting heart rate (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4982395/


Pre-hospital identification and post-recovery challenges of intoxication with synthetic cannabinoid containing legal high products such as 'Exodus Damnation'. (full – 2016) http://journals.sagepub.com/doi/full/10.1177/0036933016659177


Adverse effects after the use of JWH-210 - a case series from the EU Spice II plus project. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/26768345


Anandamide and its metabolites: what are their roles in the kidney? (abst – 2016)

Crosstalk between liver antioxidant and the endocannabinoid systems after chronic administration of the FAAH inhibitor, URB597, to hypertensive rats. (abst – 2016)

Marijuana Use and Its Effects in Pregnancy. (abst – 2016)


Heterologous Regulation of the Cannabinoid Type 1 Receptor by Angiotensin II in Astrocytes of Spontaneously Hypertensive Rats. (abst – 2016)

The Effect of Chronic Activation of the Novel Endocannabinoid Receptor GPR18 on Myocardial Function and Blood Pressure in Conscious Rats. (abst – 2016)

Hemopressin peptides as modulators of the endocannabinoid system and their potential applications as therapeutic tools. (abst – 2016) http://www.eurekaselect.com/146167/article


>BONES - see OSTEOPOROSIS

>BONE CEMENT IMPLANTATION SYNDROME - see HIP REPLACEMENT in 2000-2009 section
**BONE MARROW**

Endocannabinoids Are Expressed in Bone Marrow Stromal Niches and Play a Role in Interactions of Hematopoietic Stem and Progenitor Cells with the Bone Marrow Microenvironment (full – 2010) [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2975171/?tool=pubmed](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2975171/?tool=pubmed)


Cannabinoid Receptor 2 Deficiency in Haematopoietic cells Aggravates Early Atherosclerosis in LDL Receptor Deficient Mice (full – 2011) [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3109635/?tool=pubmed](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3109635/?tool=pubmed)


Activation of cannabinoid receptor 2 enhances osteogenic differentiation of bone marrow derived mesenchymal stem cells. (full – 2015) [http://www.hindawi.com/journals/bmri/2015/874982/](http://www.hindawi.com/journals/bmri/2015/874982/)

Myeloid-Specific Deletion of Diacylglycerol Lipase α Inhibits Atherogenesis in ApoE-Deficient Mice. (full – 2016) [http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0146267](http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0146267)

Developmental Role of Macrophage Cannabinoid-1 Receptor Signaling in Type-2 Diabetes (abst – 2017) [http://diabetes.diabetesjournals.org/content/early/2017/01/11/db16-1199.long](http://diabetes.diabetesjournals.org/content/early/2017/01/11/db16-1199.long)

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**BORDERLINE PERSONALITY DISORDER**

The use of Cannabidiol (CBD) and Meditation to reduce Binge Drinking, Anxiety and to improve Emotional Regulation in Long Term Behavior Therapy (case report – undated) [http://cannabisclinicians.org/view-all-case-reports/entry/437/?pagenum=2](http://cannabisclinicians.org/view-all-case-reports/entry/437/?pagenum=2)

Borderline personality traits and substance use: genetic factors underlie the association with smoking and ever use of cannabis, but not with high alcohol consumption. (full – 2012) [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3744119/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3744119/)

Genetic variation in personality traits explains genetic overlap between borderline personality features and substance use disorders.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4229407/

Cannabis use and suicidal ideations in high-school students.  (full – 2014)  

A New Perspective on the Pathophysiology of Borderline Personality Disorder: A Model of the Role of Oxytocin.  (full – 2015)  

Association between schizotypal and borderline personality disorder traits, and cannabis use in young adults.  (abst – 2016)  

Contribution of health motive to cannabis use among high-school students. (abst – 2016)  

**BOWEL DISORDERS/ GUT FUNCTION**  +* -  also see GERD, COLITIS, IBS, CROHN’S

Achalasia, status post myotomy  (case report – undated)  
http://cannabisclinicians.org/view-all-case-reports/entry/597/?pagenum=2

Rectal spasms  (case report – undated)  
http://cannabisclinicians.org/view-all-case-reports/entry/791/

The Cannabinoid 1 Receptor (CNR1) 1359 G/A Polymorphism Modulates Susceptibility to Ulcerative Colitis and the Phenotype in Crohn's Disease  (full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2829088/?tool=pmcentrez

The endocannabinoid system links gut microbiota to adipogenesis  (full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2925525/
Endocannabinoid control of gastric sensorimotor function in man.  (full - 2010)

Involvement of cannabinoid-1 and cannabinoid-2 receptors in septic ileus.
(full – 2010)

Pharmacological effects of cannabinoids on the Caco-2 cell culture model of intestinal permeability.  (full - 2010)
http://jpet.aspetjournals.org/content/335/1/92.full

Small intestinal cannabinoid receptor changes following a single colonic insult with oil of mustard in mice.  (full – 2010)


Cannabinoids and the gut: New developments and emerging concepts.  (abst - 2010)

Gut feelings about the endocannabinoid system  (full – 2011)

Treatment of Crohn's disease with cannabis: an observational study.  (full – 2011)

Cannabidiol Reduces Intestinal Inflammation through the Control of Neuroimmune Axis (full – 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3232190/?tool=pubmed

Efficacy of a Chinese herbal proprietary medicine (Hemp Seed Pill) for functional constipation.  (full – 2011)
http://www.nature.com/ajg/journal/v106/n1/pdf/ajg2010305a.pdf

Is lipid signaling through cannabinoid 2 receptors part of a protective system?
(full – 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3062638/

ENDOGENOUS CANNABINOID SYSTEM REGULATES INTESTINAL BARRIER FUNCTION IN VIVO THROUGH CANNABINOID TYPE 1 RECEPTOR ACTIVATION  (full – 2011)

Association of genetic variation in cannabinoid mechanisms and gastric motor functions and satiation in overweight and obesity.  (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3117918/
A novel CB receptor GPR55 and its ligands are involved in regulation of gut movement in rodents. (full – 2011)  

US Patent 7884133 B2 Cannabidiol derivatives such as 3-(2,6-dihydroxy-4-pentylphenyl)-4-prop-1-en-2-ylcyclohexene-1-carboxylic acid, used as as analgesics, antiinflammatory and antidiarrheal agents (full – 2011)  
https://www.google.com/patents/US7884133?dq=pentagon+7884133&hl=en&sa=X&ei=Ujb0U_6EEW5ogSl84LYDg&ved=0CB4Q6AEwAA

Alternative targets within the endocannabinoid system for future treatment of gastrointestinal diseases. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3174079/

Cannabinoids mediate opposing effects on inflammation-induced intestinal permeability. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423254/

Increasing endogenous 2-arachidonoylglycerol levels counteracts colitis and related systemic inflammation. (abst – 2011)  

Cannabinoid actions at TRPV channels: effects on TRPV3 and TRPV4 and their potential relevance to gastrointestinal inflammation. (abst – 2011)  

The effects of cannabidiolic acid and cannabidiol on contractility of the gastrointestinal tract of Suncus murinus. (abst – 2011)  

Effects of Cannabinoid Agonists on Sheep Sphincter of Oddi in vitro. (abst – 2011)  

Inhibition of cannabinoid metabolic enzymes reduces NSAID-induced gastric pathology (abst – 2011)  
http://www.fasebj.org/content/25/1_Supplement/807.1.abstract?sid=b55d39c1-7d7f-4192-8d41-990db25296a3

Medical cannabis: the opportunity versus the temptation (abst – 2011)  

Cannabinoid HU210 Protects Isolated Rat Stomach against Impairment Caused by Serum of Rats with Experimental Acute Pancreatitis. (full - 2012)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0052921

The Gastrointestinal Pharmacology of Cannabinoids: Focus on Motility. (full – 2012)  
http://www.karger.com/Article/FullText/339072

The JNK inhibitor XG-102 protects against TNBS-induced colitis. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3302790/
The effects of fasting duration on gastric emptying in man, an exploration of the role of the endocannabinoid system and inter-individual responsiveness (full – 2012)  

Endocannabinoid modulation of jejunal afferent responses to LPS (full – 2012)  

Cannabinoid receptor 1 in the vagus nerve is dispensable for body weight homeostasis but required for normal gastrointestinal motility. (full – 2012)  
http://www.jneurosci.org/content/32/30/10331.long

Evidence for the Putative Cannabinoid Receptor (GPR55)-Mediated Inhibitory Effects on Intestinal Contractility in Mice. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3548934/

Inhibiting fatty acid amide hydrolase normalizes endotoxin-induced enhanced gastrointestinal motility in mice. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3372737/

Genetic Epidemiology and Pharmacogenetics in Irritable Bowel Syndrome. (full - 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3362100/

Inhibitory effect of cannabichromene, a major non-psychotropic cannabinoid extracted from Cannabis sativa, on inflammation-induced hypermotility in mice. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3417459/

Targeting the endocannabinoid system with cannabinoid receptor agonists: pharmacological strategies and therapeutic possibilities (full – 2012)  
http://rstb.royalsocietypublishing.org/content/367/1607/3353.full?sid=1569c370-ed5c-4358-89ff-857201f6e069

Gut microbiota and the development of obesity. (full – 2012)  

Effects of palmitoylethanolamide on intestinal injury and inflammation caused by ischemia-reperfusion in mice (abst – 2012)  

Cannabinoid signalling regulates inflammation and energy balance: The importance of the brain-gut axis. (abst – 2012)  

The Cannabinoid Receptor type 2 Q63R variant increases the risk of celiac disease: Implication for a novel molecular biomarker and future therapeutic intervention. (abst – 2012)  
The endocannabinoid system in inflammatory bowel diseases: from pathophysiology to therapeutic opportunity. (abst – 2012)  

Agents that act luminally to treat diarrhoea and constipation. (abst – 2012)  

The Dual Effect of Cannabinoid Receptor-1 Deficiency on the Murine Postoperative Ileus (full – 2013)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0067427

Altered expression of type-1 and type-2 cannabinoid receptors in celiac disease. (full – 2013)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0062078

Role of endogenous cannabinoid system in the gut. (full - 2013)  

Effect of high fat-diet and obesity on gastrointestinal motility. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3890396/

Cannabis Finds Its Way into Treatment of Crohn's Disease. (full – 2013)  
http://www.karger.com/Article/Pdf/356512

Irritable Bowel Syndrome and Migraine: Bystanders or Partners? (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3714407/

Cannabinoid Receptor 1 Gene and Irritable Bowel Syndrome: Phenotype and Quantitative Traits. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3602676/

Endocannabinoid and Cannabinoid-Like Fatty Acid Amide Levels Correlate with Pain-Related Symptoms in Patients with IBS-D and IBS-C: A Pilot Study. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3874007/

Pro-resolution, protective and anti-nociceptive effects of a cannabis extract in the rat gastrointestinal tract. (full – 2013)  

A role for O-1602 and G protein-coupled receptor GPR55 in the control of colonic motility in mice. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3677091/

Repeated Low Dose Administration of the Monoacylglycerol Lipase Inhibitor JZL184 Retains CB1 Receptor Mediated Antinociceptive and Gastroprotective Effects. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3657109/

A potential role for GPR55 in gastrointestinal functions. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3660623/

Cannabis Induces a Clinical Response in Patients with Crohn's Disease: a Prospective Placebo-Controlled Study. (full – 2013)
Acute Δ9-tetrahydrocannabinol blocks gastric hemorrhages induced by the nonsteroidal anti-inflammatory drug diclofenac sodium in mice. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4053165/

Marijuana use patterns among patients with inflammatory bowel disease. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4126607/

The cannabinoid-1 receptor inverse agonist tariabant reduces abdominal pain and increases intestinal transit in mice. (full – 2013)  

Industrial hemp decreases intestinal motility stronger than indian hemp in mice.  
(link to PDF – 2013)  
http://www.europeanreview.org/article/3266

Preventive and therapeutic oral administration of the pentacyclic triterpene α,β-amyrin ameliorates dextran sulfate sodium-induced colitis in mice: The relevance of cannabinoid system. (abst – 2013)  

Interrogating Therapeutic Manipulation of the Endocannabinoid System in Human Colon  
(abst – 2013)  
http://www.fasebj.org/content/26/1_Supplement/1123.1

Cannabinoid CB2 receptor activation attenuates cytokine-evoked mucosal damage in a human colonic explant model without changing epithelial permeability. (abst – 2013)  

3-Carboxamido-5-aryl-isoxazoles as new CB2 agonists for the treatment of colitis. (abst – 2013)  

Angiotensin II-induced activation of central AT1 receptors exerts endocannabinoid-mediated gastroprotective effect in rats. (abst – 2013)  

Magnolol inhibits colonic motility through down-regulation of voltage-sensitive L-type Ca(2+) channels of colonic smooth muscle cells in rats. (abst – 2013)  

Interleukin 17A evoked mucosal damage is attenuated by cannabidiol and anandamide in a human colonic explant model. (abst – 2013)  

Inhibition of fatty acid amide hydrolase (FAAH) as a novel therapeutic strategy in the treatment of pain and inflammatory diseases in the gastrointestinal tract (abst – 2013)  

Decreased Enteric Fatty Acid Amide Hydrolase Activity is Associated with Colonic Inertia in Slow Transit Constipation (abst – 2013)
Cannabinoid-induced autophagy regulates suppressor of cytokine signaling (SOCS)-3 in intestinal epithelium.  (full – 2014)  http://ajpgi.physiology.org/content/307/2/G140


Cannabinoids Alleviate Experimentally Induced Intestinal Inflammation by Acting at Central and Peripheral Receptors.  (full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4183544/

GPR18 is required for a normal CD8αα intestinal intraepithelial lymphocyte compartment.  (full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4235638/

Chronic administration of Δ9-tetrahydrocannabinol induces intestinal anti-inflammatory microRNA expression during acute SIV infection of rhesus macaques.  (full – 2014)  http://jvi.asm.org/content/89/2/1168.long


Acute Activation of Cannabinoid Receptors by Anandamide Reduces Gastro-Intestinal Motility and Improves Postprandial Glycemia in Mice. (full – 2014) http://diabetes.diabetesjournals.org/content/64/3/808.long

Antibiotic-induced dysbiosis alters host-bacterial interactions and leads to colonic sensory and motor changes in mice. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4615720/

N-Acylethanolamine-hydrolyzing acid amidase inhibition increases colon N-palmitoylethanolamine levels and counteracts murine colitis. (full – 2014) http://www.fasebj.org/content/29/2/650.long


Palmitoylethanolamide improves colon inflammation through an enteric glia/toll like receptor 4-dependent PPAR-α activation (abst – 2014) http://gut.bmj.com/content/63/8/1300.abstract?sid=a8fb2a13-4493-4045-8855-9a0babe1e5d51

http://www.karger.com/Article/FullText/375454

No association between the functional cannabinoid receptor type 2 Q63R variants and inflammatory bowel disease in Turkish subjects. (full – 2015)

Gastric mucosal protection: from the periphery to the central nervous system. (full – 2015) http://www.jpp.krakow.pl/journal/archive/06_15/pdf/319_06_15_article.pdf

Adipose tissue NAPE-PLD controls fat mass development by altering the browning process and gut microbiota. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4382707/


Pharmacogenetics in irritable bowel syndrome (full – 2015)

Extraordinary cause of acute gastric dilatation and hepatic portal venous gas: Chronic use of synthetic cannabinoid. (full – 2015)

Prevention of Diet-Induced Obesity Effects on Body Weight and Gut Microbiota in Mice Treated Chronically with Δ9-Tetrahydrocannabinol. (full – 2015)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0144270

Monoglyceride lipase deficiency causes desensitization of intestinal cannabinoid receptor type 1 and increased colonic μ-opioid receptor sensitivity. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4556478/


A Gut Microbial Metabolite of Linoleic Acid, 10-Hydroxy-cis-12-octadecenoic Acid, Ameliorates Intestinal Epithelial Barrier Impairment Partially via GPR40-MEK-ERK Pathway. (full – 2015) http://www.jbc.org/content/290/5/2902.long

Multitarget fatty acid amide hydrolase/cyclooxygenase blockade suppresses intestinal inflammation and protects against nonsteroidal anti-inflammatory drug-dependent gastrointestinal damage. (full – 2015) http://www.fasebj.org/content/29/6/2616.long

AM841, a covalent cannabinoid ligand, powerfully slows gastrointestinal motility in normal and stressed mice in a peripherally-restricted manner. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4403103/
Vascular, but not luminal, activation of FFAR1 (GPR40) stimulates GLP-1 secretion from isolated perfused rat small intestine. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4600392/

Inhibiting endocannabinoid biosynthesis: a novel approach to the treatment of constipation. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4459026/

The GPR55 antagonist CID16020046 protects against intestinal inflammation. (full – 2015)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4587547/

In vitro and non-invasive in vivo effects of the cannabinoid-1 receptor agonist AM841 on gastrointestinal motor function in the rat. (full – 2015)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4918633/

The effect of FAAH, MAGL, and Dual FAAH/MAGL inhibition on inflammatory and colorectal distension-induced visceral pain models in Rodents. (full – 2015)  

The role of cannabinoids in regulation of nausea and vomiting, and visceral pain. (abst – 2015)  

Cannabinoids Regulate Intestinal Motor Function and Electrophysiological Activity of Myocytes in Rodents. (abst – 2015)  

Cannabis - therapy for the future? (abst – 2015)  

Endocannabinoids and the Digestive Tract and Bladder in Health and Disease. (abst – 2015)  
http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_14

The long-term functional consequences of acute infectious diarrhea. (abst – 2015)  

The Endocannabinoid System and Its Role in Regulating the Intrinsic Neural Circuitry of the Gastrointestinal Tract. (abst – 2015)  

Endocannabinoids - at the crossroads between the gut microbiota and host metabolism. (abst – 2015)  
http://www.nature.com/nrendo/journal/v12/n3/full/nrendo.2015.211.html

Patterns of cannabis use in patients with Inflammatory Bowel Disease: A population based analysis. (abst – 2015)  

Vaccenic acid suppresses intestinal inflammation by increasing the endocannabinoid anandamide and non-cannabinoid signaling molecules in a rat model of the metabolic syndrome. (full – 2016)  
http://www.jlr.org/content/early/2016/02/17/jlr.M066308.long
Metabolism of Anandamide by Human Cytochrome P450 2J2 in the Reconstituted System and Human Intestinal Microsomes. (full – 2016) http://jpet.aspetjournals.org/content/early/2016/03/21/jpet.116.232553.long

Gastric acid inhibitory and gastric protective effects of Cannabis and cannabinoids (full – 2016) http://www.sciencedirect.com/science/article/pii/S1995764516300712

Cannabinoid hyperemesis syndrome as an unusual cause of cyclic vomiting. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4919975/

Unusual side effect of cannabis use: acute abdomen due to duodenal perforation (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4936980/


Longitudinal examination of the intestinal lamina propria cellular compartment of SIV-infected rhesus macaques provides broader and deeper insights into the link between aberrant microRNA expression and persistent immune activation. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4859716/

An Orally Active Cannabis Extract with High Content in Cannabidiol attenuates Chemically-induced Intestinal Inflammation and Hypermotility in the Mouse. (full - 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5047908/

Therapeutic Use of Cannabis in Inflammatory Bowel Disease (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5193087/

Cannabis intake and intussusception: an accidental association?  
(link to PDF – 2016)  
https://online.reed.es/fichaArticulo.aspx?iarf=683765745237-413275199162

Getting into the weed: the role of the endocannabinoid system in the brain-gut axis.  
(link to full via ELSEVIER – 2016)  

Efficacy, tolerability, and safety of cannabinoids in gastroenterology: A systematic review  
(abst – 2016)  

(abst – 2016)  

Role of cannabinoids in gastrointestinal mucosal defense and inflammation.  
(abst – 2016)  
http://www.eurekaselect.com/140045/article

Central administrations of hemopressin and related peptides inhibit gastrointestinal motility in mice.  
(abst – 2016)  

MEDICAL CANNABIS  
(abst – 2016)  

Endocannabinoids in the gut.  
(abst – 2016)  

The gastrointestinal tract - a central organ of cannabinoid signaling in health and disease.  
(abst – 2016)  

Cannabis and Pediatric Inflammatory Bowel Disease: Change Blossoms A Mile High.  
(abst – 2016)  

Determination of cannabinoids in hemp nuts products in Taiwan by HPLC-MS/MS coupled with chemometric analysis: Quality evaluation and a pilot human study.  
(abst – 2016)  

Oleylethanolamine and palmitoylethanolamine modulate intestinal permeability in vitro via TRPV1 and PPARα.  
(abst – 2016)  

Docosahexaenoyl Serotonin, an endogenously formed n-3 fatty acid-serotonin conjugate has anti-inflammatory properties by attenuating IL-23–IL-17 signalling in macrophages  
(abst – 2016)  

May cannabinoids prevent the development of chemotherapy-induced diarrhea and intestinal mucositis? Experimental study in the rat.  
(abst – 2016)  


Role of cannabis in digestive disorders (abst – 2017)  http://www.ingentaconnect.com/search/article?option1=tka&value1=cannabinoid&sortDescending=true&sortField=prism_publicationDate&pageSize=10 &index=3

**BRAIN**

Alterations in the hippocampal endocannabinoid system in diet-induced obese mice. (full – 2010)  http://www.jneurosci.org/content/30/18/6273.long

Disposition of Cannabichromene, Cannabidiol, and Δ9-Tetrahydrocannabinol and its Metabolites in Mouse Brain following Marijuana Inhalation Determined by High-Performance Liquid Chromatography-Tandem Mass Spectrometry (full – 2010)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3023979/

Endocannabinoid signalling: has it got rhythm? (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931554/

NSAIDs, Opioids, Cannabinoids and the Control of Pain by the Central Nervous System. (full – 2010) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4033984/

The Role of Cannabinoid Receptors in the Descending Modulation of Pain (link to PDF - 2010) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.634.4866&rank=72


Cannabidiol reduces lipopolysaccharide-induced vascular changes and inflammation in the mouse brain: an intravital microscopy study (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3034694/?tool=pmcentrez

N-Docosahexanoyllethanolamide promotes development of hippocampal neurons (full – 2011) http://www.biochemj.org/content/435/2/327

Alterations in Corticolimbic Dendritic Morphology and Emotional Behavior in Cannabinoid CB1 Receptor–Deficient Mice Parallel the Effects of Chronic Stress (full – 2011) http://cercor.oxfordjournals.org/content/21/9/2056.full


Temporal changes in N-acylethanolamine content and metabolism throughout the peri-adolescent period (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3510355/


The cannabinoid CB1 receptor biphasically modulates motor activity and regulates dopamine and glutamate release region dependently. (full – 2012) http://ijnp.oxfordjournals.org/content/16/2/393.long

Multiple functions of endocannabinoid signaling in the brain. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4273654/

CHRONIC, NONINVASIVE GLUCOCORTICOID ADMINISTRATION SUPPRESSES LIMBIC ENDOCANNABINOID SIGNALING IN MICE (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3697830/

Cannabinoid Receptor CB2 Modulates Axon Guidance (link to PDF - 2012) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.727.7765&rank=63&q=cannabinoid&osm=&ossid=


Role of endocannabinoids and cannabinoid-1 receptors in cerebrocortical blood flow regulation. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3537620/


Cannabinoid- and lysophosphatidylinositol-sensitive receptor GPR55 boosts neurotransmitter release at central synapses. (full – 2013) http://www.pnas.org/content/early/2013/03/06/1211204110.full.pdf+html


Brain Molecules and Appetite: The Case of Oleoylethanolamide (link to download– 2013) http://www.eurekaselect.com/107948/article

Biosynthetic Pathways of Bioactive N-Acylethanolamines in Brain (link to PDF – 2013) http://www.eurekaselect.com/107971/article

Correspondence (letter to the editor): Cannabis Therapy (letter – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3601285/


Cocaine-Induced Behavioral Sensitization Is Associated With Changes in the Expression of Endocannabinoid and Glutamatergic Signaling Systems in the Mouse Prefrontal Cortex. (full – 2014) http://ijnp.oxfordjournals.org/content/18/1/pyu024.long

Species Differences in Cannabinoid Receptor 2 and Receptor Responses to Cocaine Self-Administration in Mice and Rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4330519/

Programming and reprogramming neural cells by (endo-) cannabinoids: from physiological rules to emerging therapies (full – 2014) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4765324/


Endocannabinoid signalling and the deteriorating brain (abst – 2014) http://www.nature.com/nrn/journal/v16/n1/abs/nrn3876.html

Cannabidiol Rescues Acute Hepatic Toxicity and Seizure Induced by Cocaine (full – 2015) http://www.hindawi.com/journals/mi/2015/523418/


Role of dopamine type 1 receptors and DARPP-32 in Δ9-THC-mediated induction of ΔFosB in the mouse forebrain. (full – 2015) http://jpet.aspetjournals.org/content/early/2015/06/22/jpet.115.224428.long

Homeostatic regulation of brain functions by endocannabinoid signaling (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4468750/

Metabolic Interplay between Astrocytes and Neurons Regulates Endocannabinoid Action. (full – 2015) http://www.cell.com/cell-reports/fulltext/S2211-1247%2815%2900725-1

Daily marijuana use is not associated with brain morphometric measures in adolescents or adults.  
(full – 2015)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4308597/

Combined effects of marijuana and nicotine on memory performance and hippocampal volume  

Fetal Alcohol Spectrum Disorder: Potential Role of Endocannabinoids Signaling.  

Evaluating the impact of cannabis use on thalamic connectivity in youth at clinical high risk of psychosis.  
(full – 2015)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4640353/

Endocannabinoids Mediate Muscarinic Acetylcholine Receptor-Dependent Long-Term Depression in the Adult Medial Prefrontal Cortex.  

Cannabinoid receptor activation in the juvenile rat brain results in rapid biomechanical alterations: Neurovascular mechanism as a putative confounding factor  
(full – 2015)  http://jcb.sagepub.com/content/early/2015/09/23/0271678X15606923.long

Impact of CB1 Receptor Deletion on Visual Responses and Organization of Primary Visual Cortex in Adult Mice  
(full – 2015)  http://iovs.arvojournals.org/article.aspx?articleid=2474494&resultClick=1

Neural correlates of cannabidiol and Δ9-tetrahydrocannabinol interactions in mice: implications for medical cannabis.  

Cannabis, Cigarettes, and Their Co-Occurring Use: Disentangling Differences in Gray Matter Volume.  
(full – 2015)  http://ijnp.oxfordjournals.org/content/18/10/pyv061

Tetrahydrocannabivarain (THCv) reduces Default Mode Network and increases Executive Control Network Resting State Functional Connectivity in Healthy Volunteers.  
(full – 2015)  http://ijnp.oxfordjournals.org/content/early/2015/09/10/ijnp.pyv092.long

Brain transcriptome profiles in mouse model simulating features of post-traumatic stress disorder  

Craving is associated with amygdala volumes in adolescent marijuana users during abstinence.  
(full – 2015)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4568004/

The role of the Cannabinoid Receptor 1 in adolescents' processing of facial expressions.  

Developmental regulation of fear learning and anxiety behavior by endocannabinoids.
Medical marijuana: review of the science and implications for developmental-behavioral pediatric practice.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4318349/ 

The basolateral amygdala γ-aminobutyric acidergic system in health and disease.  

Acute and Chronic Ethanol Exposure Differentially Regulate CB1 Receptor Function at Glutamatergic Synapses in the Rat Basolateral Amygdala.  

Enhanced Functional Activity of the Cannabinoid Type-1 Receptor Mediates Adolescent Behavior.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4604232/ 

Age-related changes in the endocannabinoid system in the mouse hippocampus.  

Protective effect of Xingnaojia formulation on rats with brain and liver damage caused by chronic alcoholism  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4665616/ 

Enhancement of endocannabinoid signalling protects against cocaine-induced neurotoxicity.  

Sex Differences in Molecular Signaling at Inhibitory Synapses in the Hippocampus.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4532757/ 

Training-Associated Emotional Arousal Shapes Endocannabinoid Modulation of Spatial Memory Retrieval in Rats.  
http://www.jneurosci.org/content/35/41/13962.long 

Rapid and profound rewiring of brain lipid signaling networks by acute diacylglycerol lipase inhibition.  
http://www.pnas.org/content/113/1/26.long 

Mechanisms of stress in the brain.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4933289/ 

Shared Predisposition in the Association Between Cannabis Use and Subcortical Brain Structure  
http://jamanetwork.com/journals/jamapsychiatry/fullarticle/2429550 

Neuronal expression of CB2 cannabinoid receptor mRNAs in the mouse hippocampus.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4917208/


Changes over time of cannabinoid receptor 1 in hippocampus of status epilepticus rats (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26168676


Neuroprotective Effect Is Driven Through the Upregulation of CB1 Receptor in Experimental Autoimmune Encephalomyelitis.  (abst – 2015)  


Deletion of CB2 cannabinoid receptors reduces synaptic transmission and long-term potentiation in the mouse hippocampus.  (abst – 2015)  http://www.ncbi.nlm.nih.gov/pubmed/26663094


Functional interaction between the orexin-1 and CB1 receptors within the nucleus accumbens in the conditioned place preference induced by the lateral hypothalamus stimulation.  (abst – 2015)  http://www.sciencedirect.com/science/article/pii/S0091305715000647


Correlations between the Memory-Related Behavior and the Level of Oxidative Stress Biomarkers in the Mice Brain, Provoked by an Acute Administration of CB Receptor Ligands  (full – 2016)  http://www.hindawi.com/journals/np/2016/9815092/
CB2 Cannabinoid Receptor Knockout in Mice Impairs Contextual Long-Term Memory and Enhances Spatial Working Memory (full – 2016) http://www.hindawi.com/journals/np/2016/9817089/

GABABR-Dependent Long-Term Depression at Hippocampal Synapses between CB1-Positive Interneurons and CA1 Pyramidal Cells (full – 2016) http://journal.frontiersin.org/article/10.3389/fncel.2016.00004/full

GABA and Endocannabinoids Mediate Depotentiation of Schaffer Collateral Synapses Induced by Stimulation of Temperoammonic Inputs. (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0149034


Impaired Ethanol-Induced Sensitization and Decreased Cannabinoid Receptor-1 in a Model of Posttraumatic Stress Disorder. (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0155759#pone.0155759.ref024


Neuronal and Astrocytic Monoacylglycerol Lipase Limit the Spread of Endocannabinoid Signaling in the Cerebellum. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4865651/

Grey Matter Changes Associated with Heavy Cannabis Use: A Longitudinal sMRI Study (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0152482

Cannabinoid receptor type-1: breaking the dogmas. (full – 2016) http://f1000research.com/articles/5-990/v1

p21-activated kinase 1 restricts tonic endocannabinoid signaling in the hippocampus (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4907698/


Amyloid proteotoxicity initiates an inflammatory response blocked by cannabinoids  
(http://www.nature.com/articles/npjamd201612)

Opposite regulation of cannabinoid CB1 and CB2 receptors in the prefrontal cortex of rats treated with cocaine during adolescence  
(http://www.sciencedirect.com/science/article/pii/S0304394016300192)

URB597 inhibits oxidative stress induced by alcohol binging in the prefrontal cortex of adolescent rats.  
(http://www.sciencedirect.com/science/article/pii/S0304394016302907)

Case Series of Synthetic Cannabinoid Intoxication from One Toxicology Center.  
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4899060/)

Synthetic cannabinoids revealing adrenoleukodystrophy  
(http://www.sciencedirect.com/science/article/pii/S0967586815004567)

Does modulation of the endocannabinoid system have potential therapeutic utility in cerebellar ataxia?  
(https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4983615/)

Endocannabinoid control of glutamate NMDA receptors: the therapeutic potential and consequences of dysfunction.  
(http://www.impactjournals.com/oncotarget/index.php?journal=oncotarget&page=article&op=view&path%5B%5D=10095&path%5B%5D=31745)

Medullary Endocannabinoids Contribute to the Differential Resting Baroreflex Sensitivity in Rats with Altered Brain Renin-Angiotensin System Expression.  
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4899471/)

Association between cerebral cannabinoid 1 receptor availability and body mass index in patients with food intake disorders and healthy subjects: a [(18)F]MK-9470 PET study.  
(http://www.nature.com/tp/journal/v6/n7/full/tp2016118a.html)

Acute upregulation of neuronal mitochondrial type-1 cannabinoid receptor and it's role in metabolic defects and neuronal apoptosis after TBI.  

Cannabinoid receptor 2 modulates susceptibility to experimental cerebral malaria through a CCL17-dependent mechanism.  
(http://www.jbc.org/content/early/2016/07/29/jbc.M116.746594.long)

Effects of Cannabidiol and Hypothermia on Short-Term Brain Damage in New-Born Piglets after Acute Hypoxia-Ischemia.  
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4940392/)

(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4923145/)
Orexins contribute to restraint stress-induced cocaine relapse by endocannabinoid-mediated disinhibition of dopaminergic neurons.  
(full – 2016)  
http://www.nature.com/ncomms/2016/160722/ncomms12199/full/ncomms12199.html

Endocannabinoids and Heterogeneity of Glial Cells in Brain Function  
(full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4932105/

Interaction between interleukin-1β and type-1 cannabinoid receptor is involved in anxiety-like behavior in experimental autoimmune encephalomyelitis.  
(full – 2016)  

Endocannabinoid signaling in social functioning: an RDoC perspective  
(full – 2016)  
http://www.nature.com/tp/journal/v6/n9/full/tp2016169a.html

Targeting Cannabinoid CB2 Receptors in the Central Nervous System. Medicinal Chemistry Approaches with Focus on Neurodegenerative Disorders.  
(full – 2016)  
http://journal.frontiersin.org/article/10.3389/fnins.2016.00406/full

Vascular Dysfunction in a Transgenic Model of Alzheimer's Disease: Effects of CB1R and CB2R Cannabinoid Agonists.  
(full – 2016)  

Blood metabolite markers of neocortical amyloid-β burden: discovery and enrichment using candidate proteins  
(full – 2016)  
http://www.nature.com/tp/journal/v6/n1/full/tp2015205a.html

Exposure to a Highly Caloric Palatable Diet during the Perinatal Period Affects the Expression of the Endogenous Cannabinoid System in the Brain, Liver and Adipose Tissue of Adult Rat Offspring.  
(full – 2016)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0165432

Adverse Social Experiences in Adolescent Rats Result in Enduring Effects on Social Competence, Pain Sensitivity and Endocannabinoid Signaling  
(full – 2016)  

Maternal Caloric Restriction Implemented during the Preconceptional and Pregnancy Period Alters Hypothalamic and Hippocampal Endocannabinoid Levels at Birth and Induces Overweight and Increased Adiposity at Adulthood in Male Rat Offspring  
(full – 2016)  

Biased Agonism of Three Different Cannabinoid Receptor Agonists in Mouse Brain Cortex  
(full – 2016)  

Endocannabinoid System: the Direct and Indirect Involvement in the Memory and Learning Processes—a Short Review  
(full – 2016)  
Regional Influence of Cannabinoid CB1 Receptors in the Regulation of Ethanol Self-Administration by Wistar Rats  (full – 2016)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5152943/

Individual differences in frontolimbic circuitry and anxiety emerge with adolescent changes in endocannabinoid signaling across species.   (full – 2016)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4843434/

Cannabinoids reverse the effects of early stress on neurocognitive performance in adulthood.  (full – 2016)  
http://learnmem.cshlp.org/content/23/7/349.long

Ontogeny of sensorimotor gating and short-term memory processing throughout the adolescent period in rats.  (full – 2016)  

Modulation of Long-Term Potentiation of Cortico-Amygdala Synaptic Responses and Auditory Fear Memory by Dietary Polysaturated Fatty Acid.  (full – 2016)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4993868/

Components of the cannabinoid system in the dorsal periaqueductal gray are related to resting heart rate  (full – 2016)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4982395/

CB1 receptor activation in the rat paraventricular nucleus induces bi-directional cardiovascular effects via modification of glutamatergic and GABAergic neurotransmission.  (full – 2016)  

Target-specific modulation of the descending prefrontal cortex inputs to the dorsal raphe nucleus by cannabinoids.  (full – 2016)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4868450/

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5031696/

Coordinated regulation of endocannabinoid-mediated retrograde synaptic suppression in the cerebellum by neuronal and astrocytic monoacylglycerol lipase.  (full – 2016)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5075776/

α/β-Hydrolase Domain 6 in the Ventromedial Hypothalamus Controls Energy Metabolism Flexibility.  (full – 2016)  
http://www.cell.com/cell-reports/fulltext/S2211-1247(16)31373-0

Neurophysiology of space travel: energetic solar particles cause cell type-specific plasticity of neurotransmission.  (full – 2016)  
Alteration of SLP2-like immunolabeling in mitochondria signifies early cellular damage in developing and adult mouse brain. (full – 2016)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4784115/

Hippocampal harms, protection and recovery following regular cannabis use. (full – 2016)  
http://www.nature.com/tp/journal/v6/n1/full/tp2015201a.html

Cannabidiol attenuates OGD/R-induced damage by enhancing mitochondrial bioenergetics and modulating glucose metabolism via pentose-phosphate pathway in hippocampal neurons. (full – 2016)  

Lifelong imbalanced linoleic/alpha-linolenic acid intake impairs emotional and cognitive behavior in adult rats via changes in brain endocannabinoid system. (click “Full Text Links” to download – 2016)  

Ovariectomy Alters Gene Expression of the Hippocampal Formation in Middle-Aged Rats (link to PDF – 2016)  

Δ9-Tetrahydrocannabinol decreases willingness to exert cognitive effort in male rats. (link to PDF – 2016)  
http://jpn.ca/articles-in-press/41-6-150363/

Anti-N-methyl-D-aspartate receptor encephalitis and drug abuse - the probable role of molecular mimicry or the overstimulation of CB receptors in a 17-year-old adolescent - case report. (link to download – 2016)  
http://www.mppt.hu/folyoirat/1/abstract/?vol=18&issue=3&elssooldal=162

Marijuana effects on changes in brain structure and cognitive function among HIV+ and HIV- adults. (link via ELSEVIER to Full Text – 2016)  

Cannabinoids in the Brain: New Vistas on an Old Dilemma (article – 2016)  
http://www.hindawi.com/journals/np/2016/9146713/

Harvesting Benefits from Cannabinoids. (article – 2016)  
http://www.cell.com/cell/fulltext/S0092-8674(16)31675-0

Suppressing Schizophrenia Symptoms Without Side Effects: Mouse Study (news & abst – 2016)  
http://neurosciencenews.com/schizophrenia-compound-striatum-5089/
Treating Depression in Alcoholics  
[news & abst – 2016](http://neurosciencenews.com/alcoholism-depression-psychology-3541/)

Acute Neurologic Disorder from an Inhibitor of Fatty Acid Amide Hydrolase.  

Lipids in psychiatric disorders and preventive medicine.  

Brain reactivity to alcohol and cannabis marketing during sobriety and intoxication.  

Protein purification and cloning of diacylglycerol lipase from rat brain.  

Dentate cannabinoid-sensitive interneurons undergo unique and selective strengthening of mutual synaptic inhibition in experimental epilepsy.  

Cocaine-induced behavioral sensitization decreases the expression of endocannabinoid signaling-related proteins in the mouse hippocampus.  

Endocannabinoids in Cerebrovascular Regulation.  

Interplay between serotonin and cannabinoid function in the amygdala in fear conditioning.  

Expression of functional cannabinoid CB2 receptor in VTA dopamine neurons in rats.  

Cannabidiol, neuroprotection and neuropsychiatric disorders  

Immunohistochemical distribution of the cannabinoid receptor 1 and fatty acid amide hydrolase in the dog claustrum.  

Nutritional n-3 PUFA Deficiency Abolishes Endocannabinoid Gating of Hippocampal Long-Term Potentiation.  

Functional effects of cannabinoids during dopaminergic specification of human neural precursors derived from induced pluripotent stem cells.  

Brain 2-Arachidonoylglycerol Levels Are Dramatically and Rapidly Increased Under Acute Ischemia-Injury Which Is Prevented by Microwave Irradiation.  

Broad impact of deleting endogenous cannabinoid hydrolyzing enzymes and the CB1 cannabinoid receptor on the endogenous cannabinoid-related lipidome in eight regions of the mouse brain. (abst – 2016) http://www.sciencedirect.com/science/article/pii/S1043661816303449

Endocannabinoid 2-Arachidonoylglycerol Suppresses LPS-Induced Inhibition of A-Type Potassium Channel Currents in Caudate Nucleus Neurons Through CB1 Receptor. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27129498

Interaction between paired-pulse facilitation and long-term potentiation during the stimulation of the cannabinoid and vanilloid systems in the dentate gyrus. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27130895


Cannabinoid Type 2 Receptors Mediate a Cell Type-Specific Plasticity in the Hippocampus (abst – 2016) http://www.cell.com/neuron/abstract/S0896-6273%2816%2930025-3

Driving the need to feed: Insight into the collaborative interaction between ghrelin and endocannabinoid systems in modulating brain reward systems. (abst – 2016) http://www.sciencedirect.com/science/article/pii/S0149763415301494


Activity of muscarinic, galanin and cannabinoid receptors in the prodromal and advanced stages in the triple transgenic mice model of Alzheimer's disease.  
(abst – 2016)  

Activation of endocannabinoid system in the rat basolateral amygdala improved scopolamine-induced memory consolidation impairment.  
(abst – 2016)  

Effect of synthetic cannabinoids on spontaneous neuronal activity: Evaluation using Ca2+ spiking and multi-electrode arrays.  
(abst – 2016)  

Experimental Evidence that 3-Methylglutaric Acid Disturbs Mitochondrial Function and Induced Oxidative Stress in Rat Brain Synaptosomes: New Converging Mechanisms.  
(abst – 2016)  

Activation of cannabinoid CB1 receptors in the ventral hippocampus improved stress-induced amnesia in rat.  
(abst – 2016)  

Ethanol downregulates N-acyl phosphatidylethanolamine-phospholipase D expression in BV2 microglial cells via epigenetic mechanisms.  
(abst – 2016)  

Autophagy activation by novel inducers prevents BECN2-mediated drug tolerance to cannabinoids.  
(abst – 2016)  

Basolateral amygdala CB1 cannabinoid receptors are involved in cross state-dependent memory retrieval between morphine and ethanol.  
(abst – 2016)  

Cannabinoids and Neuro-Inflammation: Regulation of Brain Immune Response.  
(abst – 2016)  

Fatty Acid Amide Hydrolase Binding in Brain of Cannabis Users: Imaging With the Novel Radiotracer [11C]CURB.  
(abst – 2016)  

Endocannabinoid System in Neurological Disorders.  
(abst – 2016)  

Just add water: cannabinoid discrimination in a water T-maze with FAAH(-/-) and (+/) mice.  
(abst – 2016)  

Consequences of adolescent use of alcohol and other drugs: Studies using rodent models.  
(abst – 2016)  
Deficient adolescent social behavior following early-life inflammation is ameliorated by augmentation of anandamide signaling. (abst – 2016)


Cannabinoid receptor agonist WIN55,212-2 and fatty acid amide hydrolase inhibitor URB597 may protect against cognitive impairment in rats of chronic cerebral hypoperfusion via PI3K/AKT signaling. (abst – 2016)

Female Mice are Resistant to Fabp1 Gene Ablation-Induced Alterations in Brain Endocannabinoid Levels (abst – 2016)


Heterologous Regulation of the Cannabinoid Type 1 Receptor by Angiotensin II in Astrocytes of Spontaneously Hypertensive Rats. (abst – 2016)


mGluR1/5 activation in the lateral hypothalamus increases food intake via the endocannabinoid system. (abst – 2016)  http://www.sciencedirect.com/science/article/pii/S0304394016305997

Selective modulator of cannabinoid receptor type 2 reduces memory impairment and infarct size during cerebral hypoperfusion and vascular dementia. (abst – 2016)
http://www.ncbi.nlm.nih.gov/pubmed/27586843

The neurobiology of social play and its rewarding value in rats. (abst – 2016)
Sex differences in alcohol consumption and alterations in nucleus accumbens endocannabinoid mRNA in alcohol-dependent rats. (abst – 2016) 

CB1 cannabinoid receptor-mediated anandamide signalling mechanisms of the inferior colliculus modulate the haloperidol-induced catalepsy. (abst – 2016) 

Selective modulator of cannabinoid receptor type 2 (CB2) against biochemical alterations and brain damage in chronic cerebral hypoperfusion induced vascular dementia. (abst – 2016) 

Abnormal white matter integrity in synthetic cannabinoid users. (abst – 2016) 

Important role of endocannabinoid signaling in the development of functional vision and locomotion in zebrafish. (abst – 2016) 

Sexually-dimorphic alterations in cannabinoid receptor density depend upon prenatal/early postnatal history. (abst – 2016) 

Seeing through the smoke: human and animal studies of cannabis use and endocannabinoid signalling in corticolimbic networks (abst – 2016) 

Decreased CB receptor binding and cannabinoid signaling in three brain regions of a rat model of schizophrenia. (abst – 2016) 

N-palmitoylethanolamide in the anterior cingulate cortex attenuates inflammatory pain behaviour indirectly via a CB1 receptor-mediated mechanism. (abst – 2016) 

Cannabinoids: Glutamatergic Transmission and Kynurenines. (abst – 2016) 

Expression of Dopamine Receptor 1A and Cannabinoid Receptor 1 Genes in the Cochlea and Brain after Salicylate-Induced Tinnitus. (abst – 2016) 

Interactive effects of AM251 and baclofen on synaptic plasticity in the rat dentate gyrus. (abst – 2016) 

Restricted vs. unrestricted wheel running in mice: Effects on brain, behavior and endocannabinoids. (abst – 2016) 
http://www.sciencedirect.com/science/article/pii/S0018506X16301799
Interaction between hippocampal serotonin and cannabinoid systems in reactivity to spatial and object novelty detection. (abst – 2016) 

Neuroprotective Effects of Cannabidiol In Hypoxic Ischemic Insult: The Therapeutic Window In Newborn Mice. (abst – 2016) 

Cannabinoid CB1 receptors in distinct circuits of the extended amygdala determine fear responsiveness to unpredictable threat. (abst – 2016) 

Drug-Induced Alterations of Endocannabinoid-Mediated Plasticity in Brain Reward Regions. (abst – 2016) 

Dysregulation of the endocannabinoid signaling system in the cerebellum and brainstem in a transgenic mouse model of spinocerebellar ataxia type-3. (abst – 2016) 

Nature of the placebo and nocebo effect in relation to functional neurologic disorders. (abst – 2016) 

Chronic stress leads to epigenetic dysregulation of neuropeptide-Y and cannabinoid CB1 receptor in the mouse cingulate cortex. (abst – 2016) 

Chronic FAAH inhibition during nicotine abstinence alters habenular CB1 receptor activity and precipitates depressive-like behaviors (abst – 2016) 

Endocannabinoids and sleep (abst – 2016) 

Cannabinoids prevent the amyloid β-induced activation of astroglial hemichannels: A neuroprotective mechanism. (abst – 2016) 

Effects of Marijuana on ictal and interictal EEG activity in idiopathic generalized epilepsy. (abst – 2016) 

Cannabinoid Receptor 2 Activation Restricts Fibrosis and Alleviates Hydrocephalus after Intraventricular Hemorrhage. (abst – 2016) 

Decreased CB receptor binding and cannabinoid signaling in three brain regions of a rat model of schizophrenia (abst – 2016) 
Cortical and spinal excitability in patients with multiple sclerosis and spasticity after oromucosal cannabinoid spray. (abst – 2016) 
https://www.ncbi.nlm.nih.gov/pubmed/27772772

CB1 cannabinoid receptor-mediated anandamide signalling reduces the defensive behaviour evoked through GABAA receptor blockade in the dorsomedial division of the ventromedial hypothalamus. (abst – 2016) 

Differential Adulthood Onset mGlu5 Signaling Saves Prefrontal Function in the Fragile X Mouse. (abst – 2016) 

Pros and cons of medical cannabis use by people with chronic brain disorders. (abst – 2016) 

Cannabinoid Modulation of Memory Consolidation within the Cerebellum (abst – 2016) 

Overactivation of cannabinoid receptor type 1 in rostral ventrolateral medulla promotes cardiovascular responses in spontaneously hypertensive rats. (abst – 2016) 

Buzz Juice: Neurological sequelae of synthetic cannabinoids. (abst – 2016) 

Neuromodulatory effects of the dorsal hippocampal endocannabinoid system in dextromethorphan/morphine-induced amnesia. (abst – 2016) 

Regulation of fear extinction by long-term depression: the roles of endocannabinoids and brain derived neurotrophic factor. (abst – 2016) 

Targeting brain and peripheral plasticity of the lipidome in acute kainic acid-induced epileptic seizures in mice via quantitative mass spectrometry. (abst – 2016) 

Fabp1 gene ablation inhibits high fat diet-induced increase in brain endocannabinoids. (abst – 2016) 

Intra-VTA anandamide infusion produces dose-based biphasic effects on male rat sexual behavior expression (abst – 2016) 

Brain circuitry associated with the development of substance use in bipolar disorder and preliminary evidence for sexual dimorphism in adolescents. (abst – 2016) 
Brain uptake and metabolism of the endocannabinoid anandamide labeled in either the arachidonoyl or ethanolamine moiety. (abst – 2016)  

Cannabidiol reduces neuroinflammation and promotes neuroplasticity and functional recovery after brain ischemia. (abst – 2016)  

Sex-dependent influence of chronic mild stress (CMS) on voluntary alcohol consumption; study of neurobiological consequences. (abst – 2016)  

Cannabinoid modulation of zebrafish fear learning and its functional analysis investigated by c-Fos expression (abst – 2016)  

Identification of an endocannabinoid system in the rat pars tuberalis—a possible interface in the hypothalamic-pituitary-adrenal system? (abst – 2016)  

Lipidomics profile of a NAPE-PLD KO mouse provides evidence of a broader role of this enzyme in lipid metabolism in the brain. (abst – 2016)  

Chapter Eight – The Endocannabinoid System and Anxiety (abst – 2016)  

URB597 improves cognitive impairment induced by chronic cerebral hypoperfusion by inhibiting mTOR-dependent autophagy. (abst – 2016)  

Differential effects of cannabis dependence on cortical inhibition in patients with schizophrenia and non-psychiatric controls. (abst – 2016)  

WWL70 attenuates PGE2 production derived from 2-arachidonoylglycerol in microglia by ABHD6-independent mechanism (full – 2017)  

Distinct effects of childhood ADHD and cannabis use on brain functional architecture in young adults (full – 2017)  

Synaptic Reorganization of the Perisomatic Inhibitory Network in Hippocampi of Temporal Lobe Epileptic Patients (full – 2017)  
https://www.hindawi.com/journals/bmri/2017/7154295/
Singular Location and Signaling Profile of Adenosine A2A-Cannabinoid CB1 Receptor Heteromers in the Dorsal Striatum. (link to download - 2017) http://www.nature.com/npp/journal/vaop/naam/abs/npp201712a.html


N-arachidonoyl--serine is neuroprotective after traumatic brain injury by reducing apoptosis (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3170948/


The dual neuroprotective-neurotoxic profile of cannabinoid drugs. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165949/


Site-specific and time-dependent activation of the endocannabinoid system after transection of long-range projections. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3310878/?tool=pubmed


Cannabidiol for neurodegenerative disorders: important new clinical applications for this phytocannabinoid? (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3579248/

Inhibition of JNK by a peptide inhibitor reduces traumatic brain injury-induced tauopathy in transgenic mice. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3268782/


Type-1 (CB(1)) Cannabinoid Receptor Promotes Neuronal Differentiation and Maturation of Neural Stem Cells. (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0054271


The endocannabinoid system as a possible target to treat both the cognitive and emotional features of post-traumatic stress disorder (PTSD) (full - 2013) http://journal.frontiersin.org/Journal/10.3389/fnbeh.2013.00100/full#B12

Does the neuroprotective role of anandamide display diurnal variations? (full – 2013) http://www.mdpi.com/1422-0067/14/12/23341/htm

Neuroimmune interactions of cannabinoids in neurogenesis: focus on interleukin-1β (IL-1β) signalling. (full – 2013) http://www.biochemsoctrans.org/content/41/6/1577

CB1 and CB2 Cannabinoid Receptor Antagonists Prevent Minocycline-Induced Neuroprotection Following Traumatic Brain Injury in Mice. (full – 2013) http://cercor.oxfordjournals.org/content/25/1/35.long

Palmitoylethanolamide in Homeostatic and Traumatic Central Nervous System Injuries (link to PDF - 2013) http://www.eurekaselect.com/107976/article


Cannabinoid receptor type-2 stimulation, blockade, and deletion alters the vascular inflammatory responses to traumatic brain injury. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4248435/

Endogenous Signaling by Omega-3 Docosahexaenoic Acid-derived Mediators Sustains Homeostatic Synaptic and Circuitry Integrity. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3180614/


The potential of antiseizure drugs and agents that act on novel molecular targets as antiepileptogenic treatments. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3996125/

Cannabinoid type 2 receptor stimulation attenuates brain edema by reducing cerebral leukocyte infiltration following subarachnoid hemorrhage in rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4067767/

The fatty acid amide hydrolase inhibitor PF-3845 promotes neuronal survival, attenuates inflammation and improves functional recovery in mice with traumatic brain injury. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4437642/

Cannabinoid Receptor Type 2 Agonist Attenuates Apoptosis by Activation of Phosphorylated CREB-Bcl-2 Pathway After Subarachnoid Hemorrhage in Rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4194247/


Visual deficits in mice after mild traumatic brain injury produced by primary overpressure blast are alleviated by the novel CB2 drug SMM189 (abst – 2014)
http://iovs.arvojournals.org/article.aspx?articleid=2271359&resultClick=1

Augmented Inhibition from Cannabinoid-Sensitive Interneurons Diminishes CA1 Output after Traumatic Brain Injury. (full – 2015)

Motor, Visual and Emotional Deficits in Mice after Closed-Head Mild Traumatic Brain Injury Are Alleviated by the Novel CB2 Inverse Agonist SMM-189 (full – 2015)
http://www.mdpi.com/1422-0067/16/1/758/htm

A Basal Tone of 2-Arachidonoylglycerol Contributes to Early Oligodendrocyte Progenitor Proliferation by Activating Phosphatidylinositol 3-Kinase (PI3K)/AKT and the Mammalian Target of Rapamycin (MTOR) Pathways. (full – 2015)

Cannabis – the Israeli perspective (full – 2015)


Inhibition of monoacylglycerol lipase prevents chronic traumatic encephalopathy-like neuropathology in a mouse model of repetitive mild closed head injury. (full – 2015) http://jcb.sagepub.com/content/35/3/443.long

Correction to - Inhibition of Monoacylglycerol Lipase Prevents Chronic Traumatic Encephalopathy-Like Neuropathology in a Mouse Model of Repetitive Mild Closed Head Injury (full – 2015) http://jcb.sagepub.com/content/35/4/706

Are the endocannabinoid-like compounds N-acyl aminoacids neuroprotective after traumatic brain injury? (full – 2015)


Cannabinoids in Neurodegenerative Disorders and Stroke/Brain Trauma: From Preclinical Models to Clinical Applications. (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4604192/


Acute upregulation of neuronal mitochondrial type-1 cannabinoid receptor and it's role in metabolic defects and neuronal apoptosis after TBI. (full – 2016) http://molecularbrain.biomedcentral.com/articles/10.1186/s13041-016-0257-8


CB1 Receptor Antagonism Prevents Long-Term Hyperexcitability after Head Injury by of Dynorphin-KOR System and mGluR5 in Rat Hippocampus. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27262683


**BREASTFEEDING/ LACTATION/ INFANT APPETITE +***


Excess of the endocannabinoid anandamide during lactation induces overweight, fat accumulation and insulin resistance in adult mice (full – 2012) http://www.dmsjournal.com/content/4/1/35


Detection of the endocannabinoid metabolome in human plasma and breast milk (abst – 2013) http://www.fasebj.org/content/27/1_Supplement/45.8.short

The CB1 cannabinoid receptor mediates glucocorticoid-induced effects on behavioural and neuronal responses during lactation. (abst – 2013)  

Development and validation of a sensitive UPLC-ESI-MS/MS method for the simultaneous quantification of 15 endocannabinoids and related compounds in milk and other biofluids. (abst – 2014)  
http://pubs.acs.org/doi/abs/10.1021/ac403352e

The endocannabinoid anandamide during lactation increases body fat content and CB1 receptor levels in mice adipose tissue. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4491858/

Magnolol inhibits the inflammatory response in mouse mammary epithelial cells and a mouse mastitis model. (abst - 2015)  

Oxylipins, endocannabinoids, and related compounds in human milk: levels and effects of storage conditions. (abst - 2016)  

Dietary conjugated linoleic acid supplementation alters the expression of genes involved in the endocannabinoid system in the bovine endometrium and increases plasma progesterone concentrations. (abst – 2016)  

>BRUEGHEL'S SYNDROME - see MEIGE’S SYNDROME

BULIMIA +

A nonsynonymous polymorphism in cannabinoid CB2 receptor gene is associated with eating disorders in humans and food intake is modified in mice by its ligands. (abst – 2010)  

The cannabinoid receptor agonist THC attenuates weight loss in a rodent model of activity-based anorexia. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3096804/

The Endocannabinoid System as Pharmacological Target Derived from Its CNS Role in Energy Homeostasis and Reward. Applications in Eating Disorders and Addiction (link to PDF - 2011)  

The genetics of eating disorders. (abst – 2011)  
http://link.springer.com/chapter/10.1007%2F7854_2010_79
Brain Type 1 Cannabinoid Receptor Availability in Patients with Anorexia and Bulimia Nervosa. (abst – 2011) http://www.ncbi.nlm.nih.gov/pubmed/21718968


Endocannabinoids and Metabolic Disorders. (abst – 2015) http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_10


**BURNING MOUTH SYNDROME**


**BURN INJURIES** +
Cannabinoid Receptor Type 1 Antagonist, AM251, Attenuates Mechanical Allodynia and Thermal Hyperalgesia after Burn Injury  (link to PDF – 2014)
http://anesthesiology.pubs.asahq.org/article.aspx?articleid=1936541&resultClick=3

Butane Hash Oil Burns Associated with Marijuana Liberalization in Colorado.  

BUSINESS OF CANNABIS / CANNABIS JOBS

http://journals.sagepub.com/doi/full/10.1177/0011128710386199

The case for small-scale domestic cannabis cultivation.  (abst – 2010)

What can we learn from the Dutch cannabis coffeeshop system?  (abst – 2011)

Why small-scale cannabis growers stay small: Five mechanisms that prevent small-scale growers from going large scale.  (abst – 2012)


Are users' most recent drug purchases representative?  (abst – 2015)  

Legal regulated markets have the potential to reduce population levels of harm associated with cannabis use  (full – 2016)  http://onlinelibrary.wiley.com/doi/10.1111/add.13390/full

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5038957/

Analysis of a commercial marijuana e-cigarette formulation.  (abst – 2016)
(This article has a delayed release and will be available in PMC on June 1, 2017)

Underbanked: Cooperative Banking as a Potential Solution to the Marijuana-Banking Problem.  (abst – 2016)  
**CACHEXIA** + – weight loss from toxic cytokines deranging carbohydrate, lipid and protein metabolism

Nutritional Interventions for Cancer-induced Cachexia (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3106221/


Clinical evaluation and optimal management of cancer cachexia. (full – 2014)
http://www.croh-online.com/article/S1040-8428%2813%2900166-2/fulltext

Narrative review of the safety and efficacy of marijuana for the treatment of commonly state-approved medical and psychiatric disorders (full – 2015)

Cannabis - therapy for the future? (abst – 2015)


**CAFFEINE and the ENDOCANNABINOID SYSTEM** +


Combined effects of THC and caffeine on working memory in rats. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423236/

Regulation of hippocampal cannabinoid CB1 receptor actions by adenosine A1 receptors and chronic caffeine administration: implications for the effects of Δ9-tetrahydrocannabinol on spatial memory. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3055664/
The effects of caffeine, nicotine, ethanol, and tetrahydrocannabinol on exercise performance (full – 2013) http://www.nutritionandmetabolism.com/content/10/1/71


**CANCER - ADENOCARCINOMA**

Comparative proteomic and phosphoproteomic profiling of pancreatic adenocarcinoma cells treated with CB1 or CB2 agonists. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/23463621


>**CANCER – ADRENAL CORICAL** – see 2000 – 2009 section

>**CANCER – ANGIOSARCOMA** – see News section

>**CANCER – BASAL CELL CARCINOMA** - see CANCER – SKIN

**CANCER – BLADDER / URETHRAL** +

Magnolol suppresses hypoxia-induced angiogenesis via inhibition of HIF-1α/VEGF signaling pathway in human bladder cancer cells  (abst – 2013)

Human urothelial cell lines as potential models for studying cannabinoid and excitatory receptor interactions in the urinary bladder.  (abst – 2014)

Advances in Transient Receptor Potential Vanilloid-2 Channel Expression and Function in Tumor Growth and Progression  (abst – 2014)

Association Between Cannabis Use and the Risk of Bladder Cancer: Results From the California Men's Health Study.  (abst – 2015)

Endocannabinoid system as a regulator of tumor cell malignancy - biological pathways and clinical significance.  (full – 2016)

CANCER – BONE +

Spinal and peripheral analgesic effects of the CB cannabinoid receptor agonist AM1241 in two models of bone cancer-induced pain.  (full - 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931557/?tool=pubmed

A cannabinoid 2 receptor agonist attenuates bone cancer-induced pain and bone loss. (full - 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2871326/

The endocannabinoid system and cancer: therapeutic implication  (full – 2011)

Increasing 2-arachidonoyl glycerol signaling in the periphery attenuates mechanical hyperalgesia in a model of bone cancer pain.  (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3104059/

Antinociceptive effect of intrathecal cannabinoid receptor agonist WIN 55,212-2 in a rat bone tumor pain model  (abst – 2011)

Antinociceptive effects induced through the stimulation of spinal cannabinoid type 2 receptors in chronically inflamed mice (abst - 2011)  
http://www.unboundmedicine.com/medline/ebm/record/21771590/abstract/Antinociceptive_effects_indu
ded_through_the_stimulation_of_spinal_cannabinoid_type_2_receptors_in_chronically_inflamed_mice

The role of cannabinoids in prostate cancer: Basic science perspective and potential clinical applications. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3339795/?tool=pubmed

Disease modification of breast cancer-induced bone remodeling by cannabinoid 2 receptor agonists. (full – 2012)  

Antimetastatic activity of honokiol in osteosarcoma. (full – 2012)  

Disease modification of breast cancer-induced bone remodeling by cannabinoid 2 receptor agonists. (full – 2012)  

Role of cannabinoid 2 receptor in the development of bone cancer pain (abst – 2012)  

The non-selective cannabinoid receptor agonist WIN 55,212-2 attenuates responses of C-fiber nociceptors in a murine model of cancer pain. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3753184/

Suppression of vascular endothelial growth factor expression by cannabinoids in a canine osteosarcoma cell line (link to PDF – 2013)  
http://www.dovepress.com/suppression-of-vascular-endothelial-growth-factor-expression-by-cannab-
a13597

Antinociceptive effects of the selective CB2 agonist MT178 in inflammatory and chronic rodent pain models. (abst – 2013)  

Pharmacology of Cannabinoid Receptor Agonists and a Cyclooxygenase-2 Inhibitor in Rat Bone Tumor Pain. (abst – 2013)  

Involvement of PAR-4 in Cannabinoid-Dependent Sensitization of Osteosarcoma Cells to TRAIL-Induced Apoptosis. (full – 2014)  
http://www.ijbs.com/v10p0466.htm

Cannabinoids as therapeutic agents in cancer: current status and future implications. (link to PDF- 2014)  
Potentiation of the antitumor activity of adriamycin against osteosarcoma by cannabinoid WIN-55,212-2. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4580018/

The secreted protein acidic and rich in cysteine is a critical mediator of cell death program induced by WIN/TRAIL combined treatment in osteosarcoma cells.


CANCER – BREAST +*

Anxiety Associated with Dying (case report – undated)
http://cannabisclinicians.org/view-all-case-reports/entry/666/


A role for L-alpha-lysophosphatidylinositol and GPR55 in the modulation of migration, orientation and polarization of human breast cancer cells. (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931574/

Inhibition of 3-hydroxy-3-methylglutaryl-coenzyme A reductase activity and of Ras farnesylation mediate antitumor effects of anandamide in human breast cancer cells. (full – 2010) http://erc.endocrinology-journals.org/content/17/2/495.long

Interaction of drugs of abuse and maintenance treatments with human P-glycoprotein (ABCB1) and breast cancer resistance protein (ABCG2). (full – 2010) http://ijnp.oxfordjournals.org/content/13/7/905.long
Peripheral cannabinoid type 2 receptor regulates osteoclast formation, MDA-MB-231 breast cancer cell migration and bone marrow/tumour cell interaction via PI3 kinase/AKT and P38 pathways (abst – 2010)  
http://www.thebonejournal.com/article/S8756-3282%2810%2901828-4/abstract

The endocannabinoid system and cancer: therapeutic implication (full – 2011)  

Crosstalk between chemokine receptor CXCR4 and cannabinoid receptor CB2 in modulating breast cancer growth and invasion. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3168464/?tool=pubmed

Cannabidiol induces programmed cell death in breast cancer cells by coordinating the crosstalk between apoptosis and autophagy. (full – 2011)  
http://mct.aacrjournals.org/content/10/7/1161.long

Pathways mediating the effects of cannabidiol on the reduction of breast cancer cell proliferation, invasion, and metastasis. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3410650/

The effect of CBD (BDS) botanical cannabinoid extraction on MCF-7 human breast carcinoma cells (abst – 2011)  
http://eprints.hud.ac.uk/16197/


Novel hexahydrocannabinol analogs as potential anti-cancer agents inhibit cell proliferation and tumor angiogenesis. (abst – 2011)  

Omega-3 N-acylethanolamines are endogenously synthesised from omega-3 fatty acids in different human prostate and breast cancer cell lines. (abst – 2011)  

The CB2 receptor regulates osteoclast formation, breast cancer cell migration and osteoclast/tumour cell interaction via the PI3 Kinase/AKT pathway (abst – 2011)  
http://www.thebonejournal.com/article/S8756-3282%2811%2900177-3/abstract

Disease modification of breast cancer-induced bone remodeling by cannabinoid 2 receptor agonists. (full – 2012)  

Anandamide inhibits the Wnt/β-catenin signalling pathway in human breast cancer MDA MB 231 cells (full – 2012)  
http://www.ejcancer.com/article/S0959-8049%2812%2900216-X/fulltext

Cannabinoids: A new hope for breast cancer therapy? (full - 2012)
Betulinic Acid Targets YY1 and ErbB2 through Cannabinoid Receptor-Dependent Disruption of MicroRNA-27a:ZBTB10 in Breast Cancer. (full – 2012)

Cannabidiolic acid, a major cannabinoid in fiber-type cannabis, is an inhibitor of MDA-MB-231 breast cancer cell migration. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4009504/

Honokiol activates AMP-activated protein kinase in breast cancer cells via an LKB1-dependent pathway and inhibits breast carcinogenesis. (full – 2012)
http://breast-cancer-research.com/content/14/1/R35

Receptor-dependent and Receptor-independent Endocannabinoid Signaling: A Therapeutic Target for Regulation of Cancer Growth. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4226396/


Combined antiproliferative effects of the aminoalkylindole WIN55,212-2 and radiation in breast cancer cells. (full – 2013)
http://jpet.aspetjournals.org/content/early/2013/11/20/jpet.113.205120.long

The Endocannabinoid System and Sex Steroid Hormone-Dependent Cancers (full – 2013) http://www.hindawi.com/journals/ije/2013/259676/


Inhibition Of Fatty Acid Amide Hydrolase Activates Nrf2 Signaling And Induces Heme Oxygenase 1 Transcription In Breast Cancer Cells. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3791989/

CB1 and CB2 Receptors are Novel Molecular Targets for Tamoxifen and 4OH-Tamoxifen. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3860589/

http://www.google.com/patents/US20130059018

The effect of GWP42006, a cannabinoid extract on MCF-7 human breast carcinoma cells (link to PDF – 2012) http://eprints.hud.ac.uk/15130/

Cannabinoids may be therapeutic in breast cancer. (article – 2013)
http://resources.metapress.com/pdf-preview.axd?code=b831165531850165&size=largest
The effect of CBG (BDS) botanical cannabinoid extract on MCF-7 human breast carcinoma cells  (abst – 2013)  
http://www.fasebj.org/content/27/1_Supplement/1105.21.short

Role of cannabinoid and vanilloid receptors in invasion of human breast carcinoma cells  
(abst – 2013)  

(abst – 2013)  

Anandamide inhibits breast tumor-induced angiogenesis.  
(full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4140423/

Down-regulation of cyclooxygenase-2 (COX-2) by cannabidiolic acid in human breast cancer cells  
(full – 2014)  

Cannabidiol inhibits paclitaxel-induced neuropathic pain through 5-HT1A receptors without diminishing nervous system function or chemotherapy efficacy.  
(full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3969077/

Magnolia dealbata seeds extract exert cytotoxic and chemopreventive effects on MDA-MB231 breast cancer cells.  
(full – 2014)  

Targeting CB2-GPR55 Receptor Heteromers Modulates Cancer Cell Signaling  
(full – 2014)  
http://www.jbc.org/content/early/2014/07/02/jbc.M114.561761.full.pdf+html

Targeting multiple cannabinoid antitumor pathways with a resorcinol derivative leads to inhibition of advanced stages of breast cancer.  
(full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4209152/

Cannabinoids as therapeutic agents in cancer: current status and future implications.  
(link to PDF- 2014)  

Bone cell-autonomous contribution of type 2 cannabinoid receptor to breast cancer induced osteolysis.  
(full – 2015)  
http://www.jbc.org/content/early/2015/07/20/jbc.M115.649608.long

The Antitumor Activity of Plant-Derived Non-Psychoactive Cannabinoids.  
(full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4470774/

(full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4387115/
Cannabinoid Receptor-2 Regulates Embryonic Hematopoietic Stem Cell Development via Prostaglandin E2 and P-Selectin Activity. (full – 2015)

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4781665/

Selective, Nontoxic CB2 Cannabinoid o-Quinone with in Vivo Activity against Triple-Negative Breast Cancer. (abst – 2015)
http://pubs.acs.org/doi/abs/10.1021/acs.jmedchem.5b00078

The Use of Styrene Maleic Acid Nanomicelles Encapsulating the Synthetic Cannabinoid Analog WIN55,212-2 for the Treatment of Cancer. (abst – 2015)

Curcumin sensitizes human U-87 glioblastoma and MCF-7 breast cancer cells to the endocannabinoid reuptake inhibitor OMDM-2 (abst – 2015)

Modulation of breast cancer cell viability by a cannabinoid receptor 2 agonist, JWH-015, is calcium dependent (full – 2016)
https://www.dovepress.com/modulation-of-breast-cancer-cell-viability-by-a-cannabinoid-receptor-2-peer-reviewed-fulltext-article-BCTT

Novel role of cannabinoid receptor 2 in inhibiting EGF/EGFR and IGF-I/IGF-IR pathways in breast cancer. (full – 2016)

TRPV2 is a novel biomarker and therapeutic target in triple negative breast cancer (full – 2016) http://www.impactjournals.com/oncotarget/index.php?journal=oncotarget&page=article&op=view&path%5B%5D=9663&path%5B%5D=30267

Activation of the orphan receptor GPR55 by lysophosphatidylinositol promotes metastasis in triple-negative breast cancer. (full – 2016)
http://www.impactjournals.com/oncotarget/index.php?journal=oncotarget&page=article&op=view&path%5B%5D=10206&path%5B%5D=32116

Selective Estrogen Receptor Modulators: Cannabinoid Receptor Inverse Agonists with Differential CB1 and CB2 Selectivity.  
(full – 2016)  

(abst – 2016)  

Delineating the molecular mechanisms of tamoxifen's oncolytic actions in estrogen receptor-negative cancers.  
(abst – 2016)  

(abst – 2016)  

Phyto-, endo- and synthetic cannabinoids: promising chemotherapeutic agents in the treatment of breast and prostate carcinomas.  
(abst – 2016)  

CANCER - CERVICAL +

Marijuana Use is Not Associated with Cervical Human Papillomavirus Natural History or Cervical Neoplasia in HIV-Seropositive or HIV-Seronegative Women  
(full - 2010)  
http://cebp.aacrjournals.org/content/19/3/869.full.pdf+html

Cannabidiol inhibits cancer cell invasion via upregulation of tissue inhibitor of matrix metalloproteinases-1.  
(abst - 2010)


The evolving role of the endocannabinoid system in gynaecological cancer.  
(full – 2015)  
http://humupd.oxfordjournals.org/content/21/4/517.long

Over-expression of cannabinoid receptor 2 induces the apoptosis of cervical carcinoma Caski cells  
(abst – 2015)  

Cannabidiol rather than Cannabis sativa extracts inhibit cell growth and induce apoptosis in cervical cancer cells.  
(full – 2016)  
CANCER – CHEMOTHERAPY - see CHEMOTHERAPY

CANCER – CHOLANGIOCARCINOMA +

Opposing actions of endocannabinoids on cholangiocarcinoma growth is via the differential activation of Notch signaling. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2872061/?tool=pubmed

Recent advances in the understanding of the role of the endocannabinoid system in liver diseases. (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3033442/

Recent advances in the regulation of cholangiocarcinoma growth (full - 2010) http://ajpgi.physiology.org/content/299/1/G1.full


Anandamide exerts its antiproliferative actions on cholangiocarcinoma by activation of the GPR55 receptor. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3126905/

The novel cannabinoid receptor GPR55, inhibits cholangiocarcinoma growth (abst – 2011) http://www.fasebj.org/content/25/1_Supplement/1117.3.abstract?sid=c25fb29d-4fe2-4875-8a21-80afcada4527

CANCER – COLON /COLORECTAL +

Effects of anandamide on polyamine levels and cell growth in human colon cancer cells (full – 2010) http://ar.iiarjournals.org/content/30/7/2583.long


Pharmacological effects of cannabinoids on the Caco-2 cell culture model of intestinal permeability. (full - 2010) http://jpet.aspetjournals.org/content/335/1/92.full
The endogenous cannabinoid, anandamide, induces COX-2-dependent cell death in apoptosis-resistant colon cancer cells.  (link to PDF - 2010)  
http://www.spandidos-publications.com/ijo/37/1/187


Involvement of NSAID-activated gene-1 in a novel synthetic hexahydrocannabinol analogue-induced growth inhibition and apoptosis of colon cancer cells  (abst - 2010)  
http://www.fasebj.org/content/24/1_Supplement/965.8.abstract?sid=6b251fb8-c8bc-4920-b1b0-6bd634b1df26

Evaluation of the Cyclooxygenase Inhibiting Effects of Six Major Cannabinoids Isolated from Cannabis sativa  (full – 2011)  
https://www.jstage.jst.go.jp/article/bpb/34/5/34_5_774/_pdf

Induction of apoptosis by cannabinoids in prostate and colon cancer cells is phosphatase dependent.  (full – 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3280884/


Anandamide inhibits the growth of colorectal cancer cells through CB1 and lipid rafts  (abst – 2011)  http://www.ncbi.nlm.nih.gov/pubmed/21575494

Anti-tumor activity of the novel hexahydrocannabinol analog LYR-8 in Human colorectal tumor xenograft is mediated through the inhibition of Akt and hypoxia-inducible factor-1α activation.  (full – 2012)  https://www.jstage.jst.go.jp/article/bpb/35/6/35_b12-00020/_pdf

The atypical cannabinoid O-1602 shows antitumorigenic effects in colon cancer cells and reduces tumor growth in a colitis-associated colon cancer model  (full – 2012)  
http://www.biomedcentral.com/content/pdf/2050-6511-13-S1-A23.pdf

Honokiol in combination with radiation targets notch signaling to inhibit colon cancer stem cells.  (full – 2012)  http://mct.aacrjournals.org/content/11/4/963.long

O-1602, an atypical cannabinoid, inhibits tumor growth in colitis-associated colon cancer through multiple mechanisms (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3529923/

Expression of the cannabinoid type I receptor and prognosis following surgery in colorectal cancer. (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3576207/

The Cannabinoid WIN 55,212-2 Decreases Specificity Protein (Sp) Transcription Factors and the Oncogenic Cap Protein eIF4E in Colon Cancer Cells. (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4288937/

Honokiol as a Radiosensitizing Agent for Colorectal cancers. (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3844429/


Colon carcinogenesis is inhibited by the TRPM8 antagonist cannabigerol, a Cannabis-derived non-psychotropic cannabinoid. (full – 2014)  http://carcin.oxfordjournals.org/content/35/12/2787.long

Synthesis of Tetrahydrohonokiol Derivates and Their Evaluation for Cytotoxic Activity against CCRF-CEM Leukemia, U251 Glioblastoma and HCT-116 Colon Cancer Cells. (link to PDF – 2014)  http://www.mdpi.com/1420-3049/19/1/1223

Physiological intestinal oxygen modulates the Caco-2 cell model and increases sensitivity to the phytocannabinoid cannabidiol. (abst – 2014)  http://www.ncbi.nlm.nih.gov/pubmed/24464350


Inhibition of colon carcinogenesis by a standardized Cannabis sativa extract with high content of cannabidiol. (abst – 2014)

Cannabinoids receptor type 2, CB2, expression correlates with human colon cancer progression and predicts patient survival. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4381706/


Endocannabinoid and ceramide levels are altered in patients with colorectal cancer. (full – 2015) https://www.spandidos-publications.com/or/34/1/447

Anti Proliferative and Pro Apoptotic Effects of Flavonoid Quercetin Are Mediated by CB1 Receptor in Human Colon Cancer Cell Lines. (abst – 2015)


CB2 cannabinoid receptor activation promotes colon cancer progression via AKT/GSK3β signaling pathway (full – 2016)
http://www.impactjournals.com/oncotarget/index.php?journal=oncotarget&page=article&op=view&path%5B%5D=11968&path%5B%5D=37882


Endocannabinoids in the gut. (abst – 2016)


Docosahexaenoyl Serotonin, an endogenously formed n-3 fatty acid-serotonin conjugate has anti-inflammatory properties by attenuating IL-23–IL-17 signalling in macrophages (abst – 2016) http://www.sciencedirect.com/science/article/pii/S1388198116302499

CANCER – ENDOMETRIAL +
The Levels of the Endocannabinoid Receptor CB2 and Its Ligand 2-Arachidonoylglycerol Are Elevated in Endometrial Carcinoma  (full – 2010)  
http://endo.endojournals.org/content/151/3/921.full

The Endocannabinoid System and Sex Steroid Hormone-Dependent Cancers  (full – 2013)  
http://www.hindawi.com/journals/ije/2013/259676/

Effect of anandamide on endometrial adenocarcinoma (Ishikawa) cell numbers: implications for endometrial cancer therapy.  (abst – 2015)  

Metabopytng human endometrioid endometrial adenocarcinoma reveals an implication of endocannabinoid metabolism.  (full – 2016)  
http://www.impactjournals.com/oncotarget/index.php?journal=oncotarget&page=article&op=view&path%5B%5D=10564&path%5B%5D=33384

>CANCER – EWING TUMORS – see 2000 - 2009, and CANCER – PNET

CANCER – GASTRIC +*

Honokiol inhibits gastric tumourigenesis by activation of 15-lipoxygenase-1 and consequent inhibition of peroxisome proliferator-activated receptor-gamma and COX-2-dependent signals.  (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2958642/

Effect of a synthetic cannabinoid agonist on the proliferation and invasion of gastric cancer cells.  (abst – 2010)  

Antiproliferative mechanism of a cannabinoid agonist by cell cycle arrest in human gastric cancer cells.  (abst – 2011)  

Cannabinoid Receptor Agonist as an Alternative Drug in 5-Fluorouracil-resistant Gastric Cancer Cells.  (full – 2013)  
http://ar.iiarjournals.org/content/33/6/2541.long

Antineoplastic Effect of WIN 55,212-2, a Cannabinoid Agonist, in a Murine Xenograft Model of Gastric Cancer  (abst – 2013)  

Simulation of Swanson's Literature-Based Discovery: Anandamide Treatment Inhibits Growth of Gastric Cancer Cells In Vitro and In Silico  (full – 2014)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0100436

WIN 55,212-2 Inhibits the Epithelial Mesenchymal Transition of Gastric Cancer Cells via COX-2 Signals.  (full – 2016)  
http://www.karger.com/Article/FullText/447910
Comparing the effects of endogenous and synthetic cannabinoid receptor agonists on survival of gastric cancer cells  (abst – 2016)

CANCER – GLIOMA/ BRAIN CANCERS +*

Cannabidiol Enhances the Inhibitory Effects of Δ9-Tetrahydrocannabinol on Human Glioblastoma Cell Proliferation and Survival  (full - 2010)
http://mct.aacrjournals.org/content/9/1/180.full

The expression level of CB1 and CB2 receptors determines their efficacy at inducing apoptosis in astrocytomas.  (full - 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2806825/?tool=pubmed

Molecular Mechanisms Involved in the Antitumor Activity of Cannabinoids on Gliomas: Role for Oxidative Stress.  (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3835116/

Cannabinoid and cannabinoid-like receptors in microglia, astrocytes, and astrocytomas.  (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2919281/?tool=pubmed

Synthesis of Novel Cannabinoid Ligands and Their Use as Anti-Glioma and Anti-Inflammatory Agents  (full – 2010)

Anti-tumoural effects of cannabinoid combinations - Patent TW201002315 (A) — 2010-01-16  (full – 2010)

Opposite changes in cannabinoid CB1 and CB2 receptor expression in human gliomas.  (abst – 2010)

Spontaneous regression of septum pellucidum/forniceal pilocytic astrocytomas—possible role of Cannabis inhalation.  (full — 2011)

A combined preclinical therapy of cannabinoids and temozolomide against glioma.  (full – 2011)
http://mct.aacrjournals.org/content/10/1/90.full

Stimulation of the midkine/ALK axis renders glioma cells resistant to cannabinoid antitumoral action.  (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3131933/


Cannabidiol inhibits angiogenesis by multiple mechanisms. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3504989/


Triggering of the TRPV2 channel by cannabidiol sensitizes glioblastoma cells to cytotoxic chemotherapeutic agents. (full – 2012) http://carcin.oxfordjournals.org/content/34/1/48.long


Id-1 is a Key Transcriptional Regulator of Glioblastoma Aggressiveness and a Novel Therapeutic Target. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3594064/


Honokiol-induced apoptosis and autophagy in glioblastoma multiforme cells. (full - 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3813738/
Cannabidiol, a Non-Psychoactive Cannabinoid Compound, Inhibits Proliferation and Invasion in U87-MG and T98G Glioma Cells through a Multitarget Effect. (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0076918


Regulation of cell proliferation by GPR55/cannabinoid receptors using (R,R')-4’-methoxy-1-naphthylfenoterol in rat C6 glioma cell line (abst – 2013) http://www.abstractsonline.com/Plan/ViewAbstract.aspx?sKey=695437a2-7613-4bef-8697-2294df2da859&cKey=18ba6eb0-2c5f-4004-a56f-2d1f450e2ed1&mKey=9b2d28e7-24a0-466f-a3c9-07c21f6e9be9


The Combination of Cannabidiol and Δ9-Tetrahydrocannabinol Enhances the Anticancer Effects of Radiation in an Orthotopic Murine Glioma Model. (full – 2014) http://mct.aacrjournals.org/content/13/12/2955.long

Programming and reprogramming neural cells by (endo-) cannabinoids: from physiological rules to emerging therapies (full – 2014) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4765324/

Synthesis of Tetrahydrohonokiol Derivates and Their Evaluation for Cytotoxic Activity against CCRF-CEM Leukemia, U251 Glioblastoma and HCT-116 Colon Cancer Cells. (link to PDF – 2014) http://www.mdpi.com/1420-3049/19/1/1223


Cannabinoid receptor CB1 regulates STAT3 activity and its expression dictates the responsiveness to SR141716 treatment in human glioma patients' cells. (full – 2015)


Spontaneous involution of pediatric low-grade gliomas: high expression of cannabinoid receptor 1 (CNR1) at the time of diagnosis may indicate involvement of the endocannabinoid system. (abst – 2016) http://link.springer.com/article/10.1007%2Fs00381-016-3243-7


**CANCER - HEAD AND NECK +**

Association of Marijuana Smoking with Oropharyngeal and Oral Tongue Cancers: Pooled Analysis from the INHANCE Consortium. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3947141/

The use of cannabinoids in chronic pain. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3736518/


Cannabinoid receptor-2 immunoreactivity is associated with survival in squamous cell carcinoma of the head and neck. (abst – 2013)

Anticancer effects of anandamide on head and neck squamous cell carcinoma cells via the production of receptor-independent reactive oxygen species (abst – 2014)


Head and neck cancer among marijuana users: A meta-analysis of matched case-control studies. (abst – 2015)
http://www.aobjournal.com/article/S0003-9969%2815%2930041-8/abstract

5-lipoxygenase mediates docosahexaenoyl ethanolamide and N-arachidonoyl-L-alanine-induced reactive oxygen species production and inhibition of proliferation of head and neck squamous cell carcinoma cells. (full – 2016)

**CANCER - KAPOSI'S SARCOMA** *


**CANCER – KIDNEY**

Cannabinoid CB1 Receptor Is Downregulated in Clear Cell Renal Cell Carcinoma (full - 2010) http://jhc.sagepub.com/content/58/12/1129.long

Combining histone deacetylase inhibitors with MDA-7/IL-24 enhances killing of renal carcinoma cells (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3925659/


The therapeutic aspects of the endocannabinoid system (ECS) for cancer and their development: from nature to laboratory. (link to PDF – 2015) http://www.eurekaselect.com/137770/article


**CANCER – LEUKEMIA** *+*


Substance use and survival after treatment for chronic myelogenous leukemia (CML) or myelodysplastic syndrome (MDS). (full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2847847/?tool=pubmed

Cannabidiol induced a contrasting pro-apoptotic effect between freshly isolated and precultured human monocytes. (abst – 2011)  
http://www.unboundmedicine.com/medline/ebm/record/20471992/abstract/Cannabidiol_induced_a_contras ting_pro_apoptotic_effect_between_freshly_isolated_and_precultured_human_monocytes

Tumor necrosis factor activation of vagal afferent terminal calcium is blocked by cannabinoids. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3342927/

Cannabis extract treatment for terminal acute lymphoblastic leukemia with a Philadelphia chromosome mutation (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3901602/

Enhancing the Activity of Cannabidiol and Other Cannabinoids In Vitro Through Modifications to Drug Combinations and Treatment Schedules. (full – 2013)  

A role for oleoylethanolamide in chronic lymphocytic leukemia (full – 2014)  
http://www.nature.com/leu/journal/v28/n7/full/leu201410a.html

Synthesis of Tetrahydrohonokiol Derivates and Their Evaluation for Cytotoxic Activity against CCRF-CEM Leukemia, U251 Glioblastoma and HCT-116 Colon Cancer Cells. (link to PDF – 2014)  
http://www.mdpi.com/1420-3049/19/1/1223

Effect of Honokiol on Proliferation and Apoptosis in HL-60 Cells and Its Potential Mechanism (abst – 2014)  

Cannabidiol for the Prevention of Graft-Versus-Host-Disease after Allogeneic Hematopoietic Cell Transplantation: Results of a Phase II Study. (full – 2015)  
http://www.bbmt.org/article/S1083-8791(15)00375-4/fulltext

Downstream effects of endocannabinoid on blood cells: implications for health and disease. (abst – 2015)  

Dronabinol has preferential antileukemic activity in acute lymphoblastic and myeloid leukemia with lymphoid differentiation patterns (full – 2016)  

Cannabinoid Receptors Are Overexpressed in CLL but of Limited Potential for Therapeutic Exploitation. (full – 2016)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0156693

The synthetic cannabinoid WIN 55,212-2 sensitizes hepatocellular carcinoma cells to tumor necrosis factor-related apoptosis-inducing ligand (TRAIL)-induced apoptosis by activating p8/CCAAT/enhancer binding protein homologous protein (CHOP)/death receptor 5 (DR5) axis. (full – 2010) http://molpharm.aspetjournals.org/content/77/5/854.long

Recent advances in the understanding of the role of the endocannabinoid system in liver diseases. (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3033442/


Cannabinoid receptor activation correlates with the pro-apoptotic action of the β2-adrenergic agonist, (R,R')-4-methoxy-1-naphthylfenoterol, in HepG2 hepatocarcinoma cells. (full – 2012) http://jpet.aspetjournals.org/content/early/2012/07/09/jpet.112.195206.long


Involvement of PPARγ in the antitumoral action of cannabinoids on hepatocellular carcinoma. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3674350/


(R,R’)-4′-methoxy-1-naphthylfenoterol Inhibits GPR55 signaling and the modulation of motility in human cancer cells (abst – 2013)
PPARγ mediates the effects of WIN55,212-2, an synthetic cannabinoid, on the proliferation and apoptosis of the BEL-7402 hepatocarcinoma cells. (abst – 2013)

Cannabinoid WIN55, 212-2 induces cell cycle arrest and inhibits the proliferation and migration of human BEL7402 hepatocellular carcinoma cells. (full – 2015)

[Corrigendum] Cannabinoid WIN55, 212-2 induces cell cycle arrest and inhibits the proliferation and migration of human BEL7402 hepatocellular carcinoma cells (correction – 2015)

Exogenous hepatitis B virus envelope proteins induce endoplasmic reticulum stress: involvement of cannabinoid axis in liver cancer cells. (full – 2016)

Hybrid inhibitor of peripheral cannabinoid-1 receptors and inducible nitric oxide synthase mitigates liver fibrosis (full – 2016)

Opposite roles of cannabinoid receptors 1 and 2 in hepatocarcinogenesis. (full – 2016)

Cannabinoid WIN55, 212-2 inhibits proliferation, invasion and migration of human SMMC-7721 hepatocellular carcinoma cells (abst – 2016)

CANCER – LUNG +*

Cannabinoid Receptors, CB1 and CB2, as Novel Targets for Inhibition of Non-Small Cell Lung Cancer Growth and Metastasis (full – 2010)

Decrease of plasminogen activator inhibitor-1 may contribute to the anti-invasive action of cannabidiol on human lung cancer cells. (abst - 2010)

Cannabidiol inhibits cancer cell invasion via upregulation of tissue inhibitor of matrix metalloproteinases-1. (abst - 2010)
Effects of smoking cannabis on lung function

Cannabinoid receptors, CB1 and CB2, as novel targets for inhibition of non-small cell lung cancer growth and metastasis

PAX3-FOXO1 induces cannabinoid receptor 1 to enhance cell invasion and metastasis.

Cannabidiol inhibits lung cancer cell invasion and metastasis via intercellular adhesion molecule-1.

Association Between Marijuana Exposure and Pulmonary Function Over 20 Years

Anti-proliferative and Anti-angiogenic Effects of CB2R Agonist (JWH-133) in Non-small Lung Cancer Cells (A549) and Human Umbilical Vein Endothelial Cells: an in Vitro Investigation.

COX-2 and PPAR-γ Confer Cannabidiol-Induced Apoptosis of Human Lung Cancer Cells.

Effects of marijuana smoking on the lung.

Cannabis and the Lung: No More Smoking Gun?

The Inhibitory Effects of Cannabidiol on Systemic Malignant Tumors

Magnolol induces apoptosis via caspase-independent pathways in non-small cell lung cancer cells.

FAAH inhibition enhances anandamide mediated anti-tumorigenic effects in non-small cell lung cancer by downregulating the EGF/EGFR pathway


Cannabinoids as therapeutic agents in cancer: current status and future implications.
Cannabinoids inhibit angiogenic capacities of Endothelial cells via release of Tissue inhibitor of matrix metalloproteinases-1 from lung cancer cells.  

CANNABINOIDS INCREASE LUNG CANCER CELL LYSIS BY LYMPHOKINE-ACTIVATED KILLER CELLS VIA UPREGULATION OF ICAM-1.  


Chronic Adolescent Marijuana Use as a Risk Factor for Physical and Mental Health Problems in Young Adult Men.  

The Antitumor Activity of Plant-Derived Non-Psychoactive Cannabinoids.  
(full – 2015)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4470774/

(full – 2015)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4387115/

How beneficial is vaping cannabis to respiratory health compared to smoking?  

Genotoxic properties of XLR-11, a widely consumed synthetic cannabinoid, and of the benzoyl indole RCS-4  

Fatty acid amide hydrolase inhibitors confer anti-invasive and antimetastatic effects on lung cancer cells.  

Endocannabinoid system as a regulator of tumor cell malignancy - biological pathways and clinical significance.  

Lipid mediators involved in the oxidative stress and antioxidant defence of human lung cancer cells  
Cannabinoid receptor-2 agonist inhibits macrophage induced EMT in non-small cell lung cancer by downregulation of EGFR pathway. (abst – 2016)

**CANCER – LYMPHOMA** *


The expression of the peripheral cannabinoid receptor CB2 has no effect on clinical outcome in diffuse large B-cell lymphomas. (abst – 2011) http://www.ncbi.nlm.nih.gov/pubmed/21457344


The potential relevance of the endocannabinoid, 2-arachidonoylglycerol, in diffuse large B-cell lymphoma. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4751914/

CANCER – MELANOMA  

(Results are mixed, using just CBD might be better in melanoma.)

The antimitogenic effect of the cannabinoid receptor agonist WIN55212-2 on human melanoma cells is mediated by the membrane lipid raft. (abst – 2011)  

Inhibition of basal and ultraviolet B-induced melanogenesis by cannabinoid CB(1) receptors: a keratinocyte-dependent effect. (abst – 2011)  

The association of N-palmitoylethanolamine with the FAAH inhibitor URB597 impairs melanoma growth through a supra-additive action (full – 2012)  
http://www.biomedcentral.com/1471-2407/12/92

Revisiting CB1 Receptor as Drug Target in Human Melanoma. (abst – 2012)  

Cannabinoid receptor 2 is upregulated in melanoma. (abst – 2012)  

Anticancer activity of anandamide in human cutaneous melanoma cells. (abst – 2013)  

Calcium regulation by temperature-sensitive transient receptor potential channels in human uveal melanoma cells. (abst – 2013)  

CB2 Receptor Activation Inhibits Melanoma Cell Transmigration through the Blood-Brain Barrier. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4057719/

Docosahexaenoic acid, G protein-coupled receptors, and melanoma: is G protein-coupled receptor 40 a potential therapeutic target? (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4057893/

Honokiol affects melanoma cell growth by targeting the AMP-activated protein kinase signaling pathway. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4433539/

Honokiol inhibits melanoma stem cells by targeting notch signaling. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC25491779

Exploiting Cannabinoid-Induced Cytotoxic Autophagy to Drive Melanoma Cell Death. (full – 2015)  
http://www.jidonline.org/article/S0022-202X(15)37287-0/fulltext

Differential role of cannabinoids in the pathogenesis of skin cancer. (abst – 2015)  

Melanoma research in Hungary: promising results in a previously orphan tumor

Tumor-promoting effects of cannabinoid receptor type 1 in human melanoma cells

\textbf{CANCER – MESOTHELIOMA} - see News section

\textbf{CANCER - MYELOMA}


Targeting cannabinoid receptor-2 pathway by phenylacetylamide suppresses the proliferation of human myeloma cells through mitotic dysregulation and cytoskeleton disruption  (full – 2015)  https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4504841/


Cannabinoids synergize with carfilzomib, reducing multiple myeloma cells viability and migration.  (full – 2016)  http://www.impactjournals.com/oncotarget/index.php?journal=oncotarget&page=article&op=view&path%5B%5D=12721&path%5B%5D=40316


\textbf{CANCER - NASOPHARYNGEAL}

Monoacylglycerol lipase promotes metastases in nasopharyngeal carcinoma.  (full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4128981/
CANCER – NEUROBLASTOMA +*

Cancer – Childhood neuroblastoma complete remission (case report – undated)
http://cannabisclinicians.org/view-all-case-reports/entry/667/

Increasing Antiproliferative Properties of Endocannabinoids in N1E-115 Neuroblastoma Cells through Inhibition of Their Metabolism. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3203169/?tool=pubmed

Dual inhibition of MAGL and type II topoisomerase by N-phenylmaleimides as a potential strategy to reduce neuroblastoma cell growth. (abst – 2012)


The FAAH inhibitor URB597 efficiently reduces tyrosine hydroxylase expression through CB₁- and FAAH-independent mechanisms. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3687660/

AM404 inhibits NFAT and NF-κB signaling pathways and impairs migration and invasiveness of neuroblastoma cells. (abst – 2014)

THC exerts neuroprotective effect in glutamate affected murine primary mesencephalic cultures and neuroblastoma N18TG2 cells (abst – 2015)

In vitro and in vivo efficacy of non-psychoactive cannabidiol in neuroblastoma. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4791143/

JWH-133, a Selective Cannabinoid CB2 Receptor Agonist, Exerts Toxic Effects on Neuroblastoma SH-SY5Y Cells (abst – 2016)

**CANCER – ORAL**

Cannabinoids Inhibit Cellular Respiration of Human Oral Cancer Cells  
(abst - 2010)  

Cannabinoids attenuate cancer pain and proliferation in a mouse model.  
(full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3099480/

Honokiol: a promising small molecular weight natural agent for the growth inhibition of oral squamous cell carcinoma cells.  
(full – 2011)  
http://www.nature.com/i jos/journal/v3/n1/pdf/i jos20116a.pdf

Concomitant consumption of marijuana, alcohol and tobacco in oral squamous cell carcinoma development and progression: Recent advances and challenges.  
(abst – 2012)  

Anti-proliferative effect of honokiol in oral squamous cancer through the regulation of specificity protein 1.  
(full – 2013)  

Association of Marijuana Smoking with Oropharyngeal and Oral Tongue Cancers: Pooled Analysis from the INHANCE Consortium.  
(full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3947141/

Review of Various Herbal Supplements as Complementary Treatments for Oral Cancer.  
(abst – 2016)  

**CANCER – OVARIAN**

The putative cannabinoid receptor GPR55 defines a novel autocrine loop in cancer cell proliferation.  
(full – 2011)  
http://www.nature.com/onc/journal/v30/n2/full/onc2010417a.html

Dronabinol Treatment of Refractory Nausea and Vomiting Related to Peritoneal Carcinomatosis.  
(full – 2013)  
http://ajh.sagepub.com/content/32/1/5.long

Cannabinoid receptor type 1 immunoreactivity and disease severity in human epithelial ovarian tumors.  
(abst – 2014)  

The G-protein coupled receptor 55-agonist L-α-lysophosphatidylinositol mediates ovarian carcinoma cell induced angiogenesis.  
(full – 2015)  

The evolving role of the endocannabinoid system in gynaecological cancer.
Why I chose to use cannabis (article – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4791147/

CANCER - PANCREATIC +

Gemcitabine/cannabinoid combination triggers autophagy in pancreatic cancer cells through a ROS-mediated mechanism. (full – 2011)

Honokiol arrests cell cycle, induces apoptosis, and potentiates the cytotoxic effect of gemcitabine in human pancreatic cancer cells. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3123370/

Cannabinoids inhibit energetic metabolism and induce AMPK-dependent autophagy in pancreatic cancer cells. (full – 2013)

(R,R')-4'-Methoxy-1-naphthylfenoterol Targets GPR55-mediated Ligand Internalization and Impairs Cancer Cell Motility. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3935314/

Comparative proteomic and phosphoproteomic profiling of pancreatic adenocarcinoma cells treated with CB1 or CB2 agonists. (abst – 2013)

Cannabinoids as therapeutic agents in cancer: current status and future implications. (link to PDF- 2014)

CANCER - PITUITARY ADENOMA +

CANCER – PNET / PRIMITIVE NEUROECTODERMAL TUMOR

CANCER – PROSTATE

Cannabinoid receptor-dependent and -independent anti-proliferative effects of omega-3 ethanolamides in androgen receptor-positive and -negative prostate cancer cell lines. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2930808/?tool=pubmed


Induction of apoptosis by cannabinoids in prostate and colon cancer cells is phosphatase dependent. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3280884/


The putative cannabinoid receptor GPR55 defines a novel autocrine loop in cancer cell proliferation. (full – 2011) http://www.nature.com/onc/journal/v30/n2/full/onc2010417a.html


Omega-3 N-acylethanolamines are endogenously synthesised from omega-3 fatty acids in different human prostate and breast cancer cell lines. (abst – 2011) http://www.ncbi.nlm.nih.gov/pubmed/21995886

The role of cannabinoids in prostate cancer: Basic science perspective and potential clinical applications. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3339795/?tool=pubmed

Cannabinoid Receptor Type 1 (CB1) Activation Inhibits Small GTPase RhoA Activity and Regulates Motility of Prostate Carcinoma Cells (full – 2012) http://endo.endojournals.org/content/153/1/29.full


Receptor-dependent and Receptor-independent Endocannabinoid Signaling: A Therapeutic Target for Regulation of Cancer Growth.  (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4226396/


Association between Cannabinoid CB1 Receptor Expression and Akt Signalling in Prostate Cancer  (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0065798

The Endocannabinoid System and Sex Steroid Hormone-Dependent Cancers  (full – 2013) http://www.hindawi.com/journals/ije/2013/259676/

Distribution and Possible Function of Cannabinoid Receptor Subtype 1 in the Human Prostate*—An Inhibitory Role for Growth in the Human Prostate Cancer  (full – 2013) http://file.scirp.org/Html/12-5000121_31406.htm


The influence of monoacylglycerol lipase inhibition upon the expression of epidermal growth factor receptor in human PC-3 prostate cancer cells  (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4109781/

Ketoconazole Inhibits the Cellular Uptake of Anandamide via Inhibition of FAAH at Pharmacologically Relevant Concentrations  (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3900727/


Honokiol inhibits androgen receptor activity in prostate cancer cells  (full – 2014)
In Vitro Anticancer Activity of Plant-Derived Cannabidiol on Prostate Cancer Cell Lines (full – 2014)  
http://file.scirp.org/Html/5-2500510_47691.htm

Cannabinoids as therapeutic agents in cancer: current status and future implications. (link to PDF- 2014)  

Advances in Transient Receptor Potential Vanilloid-2 Channel Expression and Function in Tumor Growth and Progression (abst – 2014)  

Proapoptotic effect of endocannabinoids in prostate cancer cells. (full – 2015)  
http://www.spandidos-publications.com/or/33/4/1599

The Antitumor Activity of Plant-Derived Non-Psychoactive Cannabinoids. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4470774/

Cannabinoid Receptor-2 Regulates Embryonic Hematopoietic Stem Cell Development via Prostaglandin E2 and P-Selectin Activity. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4781665/

http://file.scirp.org/Html/2-2500616_55349.htm

New quinolone- and 1,8-naphthyridine-3-carboxamides as selective CB2 receptor agonists with anticancer and immuno-modulatory activity. (abst – 2015)  

The Use of Styrene Maleic Acid Nanomicelles Encapsulating the Synthetic Cannabinoid Analog WIN55,212-2 for the Treatment of Cancer. (abst – 2015)  

Cannabinoid receptor-dependent and -independent anti-proliferative effects of omega-3 ethanolamides in androgen receptor-positive and -negative prostate cancer cell lines. (full – 2016)  
http://carcin.oxfordjournals.org/content/31/9/1584.long
The cannabinoid WIN 55,212-2 prevents neuroendocrine differentiation of LNCaP prostate cancer cells. (full – 2016)  
http://www.nature.com/pcan/journal/vaop/ncurrent/full/pcan201619a.html


A quantitative study on splice variants of N-acylethanolamine acid amidase in human prostate cancer cells and other cells. (abst – 2016)  

**CANCER – RHABDOMYOSARCOMA +**

PAX3-FOXO1 induces cannabinoid receptor 1 to enhance cell invasion and metastasis. (full – 2011)  
http://cancerres.aacrjournals.org/content/71/24/7471.long

Concomitant consumption of marijuana, alcohol and tobacco in oral squamous cell carcinoma development and progression: Recent advances and challenges. (abst – 2012)  

**CANCER – SALIVARY GLAND**

Suppression of invasion and metastasis in aggressive salivary cancer cells through targeted inhibition of ID1 gene expression (abst – 2016)  
http://www.cancerletters.info/article/S0304-3835(16)30256-7/abstract

**CANCER – SKIN +**

Honokiol, a phytochemical from the Magnolia plant, inhibits photocarcinogenesis by targeting UVB-induced inflammatory mediators and cell cycle regulators: development of topical formulation. (full – 2010)  
http://carcin.oxfordjournals.org/content/31/11/2004.long

The association of N-palmitoylethanolamine with the FAAH inhibitor URB597 impairs melanoma growth through a supra-additive action (full – 2012)  
http://www.biomedcentral.com/1471-2407/12/92

Cyclooxygenase-2 regulates anandamide-induced endoplasmic reticulum stress in tumorigenic keratinocytes (abst - 2013) http://www.abstractsonline.com/Plan/ViewAbstract.aspx?sKey=47d150a2-0c18-41e2-aeeb-ccb249909524&cKey=7e13a39d-b13e-4de7-a0c8-179e2d78ec62&mKey=9b2d28e7-24a0-466f-a3e9-07c21f6e9be9


The effect of CBD, CBG and a combination of CBD plus CBG on Haccat human skin carcinoma cells (abst – 2014) http://www.fasebj.org/content/28/1_Supplement/1048.19.abstract?sid=db987f0-3ef0-4796-aff6-4103f0c84daf


The cross-talk between electrophiles, antioxidant defence and the endocannabinoid system in fibroblasts and keratinocytes after UVA and UVB irradiation (abst – 2016) http://www.sciencedirect.com/science/article/pii/S0923181115300761

CANCER – SQUAMOUS CELL CARCINOMA +


CANCER – TESTICULAR

CANCER – THYROID +

Repositioning therapy for thyroid cancer: new insights on established medications. (full – 2014)  http://erc.endocrinology-journals.org/content/21/3/R183.long

Clinical Significance of Cannabinoid Receptors CB1 and CB2 Expression in Human Malignant and Benign Thyroid Lesions (full – 2015)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4619873/

CANCER - VARIOUS/ UNNAMED +

Antitumorigenic Effects of Cannabinoids beyond Apoptosis (full - 2010)  http://jpet.aspetjournals.org/content/332/2/336.full?sid=af53ea87-ab4b-426e-9c7e-8f750e9c4a17


NEW USE FOR CANNABINOID-CONTAINING PLANT EXTRACTS


Cannabidiol inhibits cancer cell invasion via upregulation of tissue inhibitor of matrix metalloproteinases-1. (abst - 2010)


Is lipid signaling through cannabinoid 2 receptors part of a protective system? (full – 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3062638/
Arachidonoyl ethanolamide (AEA)-induced apoptosis is mediated by J-series prostaglandins and is enhanced by fatty acid amide hydrolase (FAAH) blockade. (full – 2011)  

Effects of cannabinoids and cannabinoid-enriched Cannabis extracts on TRP channels and endocannabinoid metabolic enzymes.  (full – 2011)  

Intrathecal Administration of the Cannabinoid 2 Receptor Agonist JWH015 Can Attenuate Cancer Pain and Decrease mRNA Expression of the 2B Subunit of N-Methyl-d-Aspartic Acid  (full – 2011)  
http://journals.lww.com/anesthesia-analgesia/Fulltext/2011/08000/Intrathecal_Administration_of_the_Cannabinoid_2.33.aspx

The endocannabinoid system and cancer: therapeutic implication  (full – 2011)  

Delta-9-tetrahydrocannabinol may palliate altered chemosensory perception in cancer patients: results of a randomized, double-blind, placebo-controlled pilot trial. (full – 2011)  
http://annonc.oxfordjournals.org/content/22/9/2086.long

The intersection between cannabis and cancer in the United States.  (full – 2011)  
http://www.croh-online.com/article/S1040-8428(11)00231-9/fulltext


Update on the endocannabinoid system as an anticancer target.  (abst – 2011)  

The endocannabinoid system in the cancer therapy: an overview.  (abst – 2011)  

Cannabidiol inhibits angiogenesis by multiple mechanisms. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3504989/

Cannabinoid-associated cell death mechanisms in tumor models (Review).  (full – 2012)  
http://www.spandidos-publications.com/ijo/41/2/407

Monoacylglycerol lipase – a target for drug development?  (full – 2012)  

Targeting the endocannabinoid system with cannabinoid receptor agonists: pharmacological strategies and therapeutic possibilities  (full – 2012)
Receptor-dependent and Receptor-independent Endocannabinoid Signaling: A Therapeutic Target for Regulation of Cancer Growth. (full – 2012)

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4226396/


Nabiximols for Opioid-Treated Cancer Patients With Poorly-Controlled Chronic Pain: A Randomized, Placebo-Controlled, Graded-Dose Trial. (abst - 2012)


Poly-ε-caprolactone microspheres as a drug delivery system for cannabinoid administration: Development, characterization and in vitro evaluation of their antitumoral efficacy. (abst – 2012)


Towards the use of cannabinoids as antitumour agents (abst – 2012)


Modulating the endocannabinoid system in human health and disease: successes and failures (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3684164/

Autophagy triggered by magnolol derivative negatively regulates angiogenesis. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3920944/


Direct modulation of the outer mitochondrial membrane channel, voltage-dependent anion channel 1 (VDAC1) by cannabidiol: a novel mechanism for cannabinoid-induced cell death. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3877544/

The endocannabinoid system, cannabinoids, and pain (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3820295/

An open-label extension study to investigate the long-term safety and tolerability of THC/CBD oromucosal spray and oromucosal THC spray in patients with terminal cancer-related pain refractory to strong opioid analgesics. (full – 2013)

http://www.jpsmjournal.com/article/S0885-3924%2812%2900439-3/fulltext
A potential role for GPR55 in gastrointestinal functions. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3660623/

Therapeutic potential of monoacylglycerol lipase inhibitors. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3594462/

The Endocannabinoid System and Sex Steroid Hormone-Dependent Cancers (full – 2013)
http://www.hindawi.com/journals/ije/2013/259676/

Orphan G protein receptor GPR55 as an emerging target in cancer therapy and management. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3706254/

Cannabidiol as potential anticancer drug (full – 2013)

The Medical Necessity for Medicinal Cannabis: Prospective, Observational Study Evaluating the Treatment in Cancer Patients on Supportive or Palliative Care (full – 2013)

Critical appraisal of the potential use of cannabinoids in cancer management. (link to PDF – 2013)

Endocannabinoid signaling in cancer: a rather complex puzzle (letter - 2013)

The Inhibitory Effects of Cannabidiol on Systemic Malignant Tumors (letter – 2013)
http://www.jpsmjournal.com/article/S0885-3924%2813%2900115-2/fulltext

Therapeutic potential of cannabinoid medicines. (abst – 2013)

Effects of cannabinoids and related fatty acids upon the viability of P19 embryonal carcinoma cells. (abst – 2013)

The pseudokinase tribbles homologue-3 plays a crucial role in cannabinoid anticancer action. (abst – 2013)
http://www.jdsjournal.com/article/S0923-1811(15)30076-1/abstract

The endocannabinoid signaling system in cancer. (abst – 2013)

Cytotoxic effect of Efavirenz is selective against cancer cells and associated with the cannabinoid system. (abst – 2013)
Preparation and characterization of Δ9-tetrahydrocannabinol-loaded biodegradable polymeric microparticles and their antitumoral efficacy on cancer cell lines.  
(abst – 2013)  

Toxicological profiles of selected synthetic cannabinoids showing high binding affinities to the cannabinoid receptor subtype CB₁.  
(abst – 2013)  

Medicinal chemistry and pharmacology focused on cannabidiol, a major component of the fiber-type cannabis  
(abst – 2013)  

Medical marijuana for cancer.  
(full – 2014)  

Marijuana and Body Weight  
(full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4204468/

Selected terpenoids from medicinal plants modulate endoplasmic reticulum stress in metabolic disorders  
(full – 2014)  

Clinical evaluation and optimal management of cancer cachexia.  
(full – 2014)  
http://www.croh-online.com/article/S1040-8428%2813%2900166-2/fulltext

Targeting CB2-GPR55 Receptor Heteromers Modulates Cancer Cell Signaling  
(full – 2014)  
http://www.jbc.org/content/early/2014/07/02/jbc.M114.561761.full.pdf+html

Target-Selective Phototherapy Using a Ligand-Based Photosensitizer for Type 2 Cannabinoid Receptor.  
(full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3989837/

The Neurobiology of Cancer Pain  
(full – 2014)  
http://journals.sagepub.com/doi/full/10.1177/1073858414525828

Cannabinoids as therapeutic agents in cancer: current status and future implications.  
(link to PDF - 2014)  

Cannabinoids as therapeutic agents in cancer: current status and future implications  
(link to PDF - 2014)  
Plant derived substances with anti-cancer activity: from folklore to practice (full – 2015)  
http://journal.frontiersin.org/article/10.3389/fpls.2015.00799/full

Narrative review of the safety and efficacy of marijuana for the treatment of commonly state-approved medical and psychiatric disorders (full – 2015)  

http://www.hindawi.com/journals/bmri/2015/506327/

The Antitumor Activity of Plant-Derived Non-Psychoactive Cannabinoids. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4470774/

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4387115/

The evolving role of the endocannabinoid system in gynaecological cancer. (full – 2015)  
http://humupd.oxfordjournals.org/content/21/4/517.long

Patterns of Use of Medical Cannabis Among Israeli Cancer Patients: A Single Institution Experience (full – 2015)  
http://www.jspsmjournal.com/article/S0885-3924(14)00312-1/fulltext

Δ9 Tetrahydrocannabinol-mediated epigenetic modifications elicit myeloid-derived suppressor cell activation via STAT3/S100A8. (full – 2015)  
http://www.jleukbio.org/content/97/4/677.long

Anti-carcinogenic activity of anandamide on human glioma in vitro and in vivo (link to PDF – 2015)  
http://www.spandidos-publications.com/10.3892/mmr.2015.4721

Marijuana, Reconsidered: Dr. Lester Grinspoon On 45 Years Of Cannabis Science (interview – 2015)  

New insights into antimetastatic and antiangiogenic effects of cannabinoids. (abst – 2015)  


Simultaneous determination of endocannabinoids in murine plasma and brain substructures by surrogate-based LC-MS/MS: Application in tumor-bearing mice.


Low-Dose Cannabinoid Type 2 Receptor Agonist Attenuates Tolerance to Repeated Morphine Administration via Regulating μ-Opioid Receptor Expression in Walker 256 Tumor-Bearing Rats. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26720619


Simultaneous Activation of Induced Heterodimerization between CXCR4 Chemokine Receptor and Cannabinoid Receptor 2 (CB2) Reveal a Mechanism for Regulation of Tumor Progression. (full – 2016) http://www.jbc.org/content/early/2016/02/03/jbc.M115.712661.long
Natural product modulators of transient receptor potential (TRP) channels as potential anti-cancer agents.  (full – 2016)  
http://pubs.rsc.org/en/content/articlehtml/2016/cs/c5cs00916b

Endocannabinoids as Guardians of Metastasis  (full – 2016)  
http://www.mdpi.com/1422-0067/17/2/230/htm

Fatty acid amide hydrolase inhibitors confer anti-invasive and antimetastatic effects on lung cancer cells.  (full – 2016)  

Cannabis and cancer: toward a new understanding  (full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4791146/

Cannabinoid pharmacology in cancer research: A new hope for cancer patients?  
(full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4791144/

Integrating cannabis into clinical cancer care.  (full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4791148/

Anticancer mechanisms of cannabinoids.  (full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4791144/

Endocannabinoid system as a regulator of tumor cell malignancy - biological pathways and clinical significance.  
(full – 2016)  

Dihydroceramide accumulation mediates cytotoxic autophagy of cancer cells via autolysosome destabilization.  (full – 2016)  
http://www.tandfonline.com/doi/full/10.1080/15548627.2016.1213927

Preclinical and Clinical Assessment of Cannabinoids as Anti-Cancer Agents.  
(full – 2016)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5054289/

A user’s guide to cannabinoid therapies in oncology  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5176373/

Selective Estrogen Receptor Modulators: Cannabinoid Receptor Inverse Agonists with Differential CB1 and CB2 Selectivity.  
(full – 2016)  

Cannabis and Cannabinoids (PDQ®)Health Professional Version  
https://www.ncbi.nlm.nih.gov/books/NBK65755/

Cannabis and Cannabinoids (PDQ®)Health Professional Version  
https://www.ncbi.nlm.nih.gov/books/NBK65755/
Using Medical Cannabis in an Oncology Practice (article – 2016)
http://www.cancernetwork.com/oncology-journal/using-medical-cannabis-oncology-practice#sthash.CjT8fR9n.uWvEhfSG.dpuf

Using Medical Cannabis in an Oncology Practice (1st page – 2016)
http://www.cancernetwork.com/oncology-journal/using-medical-cannabis-oncology-practice#sthash.CjT8fR9n.dpuf

Cannabis and Cannabinoids. (1st page – 2016)
http://jamanetwork.com/journals/jama/article-abstract/2592497

Ligands for cannabinoid receptors, promising anticancer agents. (abst – 2016)

Role of the lysophosphatidylglycerol/GPR55 axis in cancer (abst – 2016)

Pharmacokinetics of Cannabis in Cancer Cachexia-Anorexia Syndrome. (abst – 2016)

Antitumorigenic targets of cannabinoids - current status and implications. (abst – 2016)

Delineating the molecular mechanisms of tamoxifen's oncolytic actions in estrogen receptor-negative cancers. (abst – 2016)

Influence of Biomechanical Properties and Cannabinoids on Tumor Invasion. (abst – 2016)

The Use of Medical Marijuana in Cancer. (abst – 2016)

Phytochemicals as adjunctive with conventional anticancer therapies. (abst – 2016)

Pediatric oncology providers and use of medical marijuana in children with cancer. (abst – 2016)
http://meetinglibrary.asco.org/content/170798-176

Endocannabinoid System in Neurological Disorders. (abst – 2016)


CANCER - VULVAR


CANNABINOID HYPEREMESIS SYNDROME +− vomiting due to cannabinoid overdose
Cannabinoid hyperemesis. (# 1) (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2886568/?tool=pubmed

Cannabinoid Hyperemesis and Compulsive Bathing: A Case Series and Paradoxical  
Pathophysiological Explanation (full – 2010)  
http://www.jabfm.org/content/23/6/790.long

Cannabinoid-Induced Hyperemesis: A Conundrum—From Clinical Recognition to Basic  
Science Mechanisms (full - 2010)  
http://www.mdpi.com/1424-8247/3/7/2163/htm

The cannabis hyperemesis syndrome characterized by persistent nausea and vomiting,  
abdominal pain, and compulsive bathing associated with chronic marijuana use: a report  
of eight cases in the United States. (abst – 2010)  

A man in his 30s with recurrent vomiting and abdominal pain relieved by hot showers  
(full – 2011)  
http://tidsskriftet.no/article/2167144/en_GB/

Cannabinoid hyperemesis syndrome as the underlying cause of intractable nausea and  
vomiting. (full - 2011)  
http://jaoa.org/article.aspx?articleid=2094175

Cannabis Hyperemesis Syndrome (# 2) (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3576702/

Image of the month. Skin discoloration from compulsive bathing in a patient with  
hyperemesis syndrome. (full – 2011)  
http://www.eghjournal.org/article/S1542-3565%2810%2900843-8/fulltext

Cannabis Hyperemesis Syndrome. (# 3) (abst – 2011)  

Cannabinoid hyperemesis syndrome inducing acute prerenal failure and electrolyte  
disturbance. (abst – 2011)  

Cannabinoid hyperemesis syndrome: literature review and proposed diagnosis and  
treatment algorithm. (abst – 2011)  

Cannabinoid hyperemesis syndrome: an underreported entity causing nausea and  
vomiting of pregnancy. (abst – 2011)  

Pediatric cannabinoid hyperemesis: two cases. (abst – 2011)  

Hyperemesis and a High Water Bill. (abst – 2011)  

Cannabinoid hyperemesis syndrome: case report of a paradoxical reaction with heavy  
marijuana use. (full – 2012)  
http://www.hindawi.com/journals/crim/2012/757696/
Cannabinoid hyperemesis: a case series of 98 patients. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3538402/

Cyclic vomiting syndrome and functional vomiting in adults: association with cannabinoid use in males. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3375678/

Cannabis—A Valuable Drug That Deserves Better Treatment (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3498425/

Association of Marijuana Use and Cyclic Vomiting Syndrome (link to PDF – 2012)  
http://www.mdpi.com/1424-8247/5/7/719

Cannabinoid hyperemesis. (# 4) (abst – 2012)  

A hot bath to calm what ails you - the Cannabis Hyperemesis Syndrome. (abst – 2012)  

Cannabinoid Hyperemesis Syndrome: A Case Series and Review of Previous Reports. (abst – 2012)  

Spicing Up the Differential for Cyclic Vomiting: A Case of Synthetic-Cannabinoid Induced Hyperemesis Syndrome (CH) (abst – 2012)  

Cannabinoid Hyperemesis Syndrome (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3847982/

Compulsive showering and marijuana use - the cannabis hyperemesis syndrome. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3757911/

Cannabinoid Hyper-emesis Syndrome: An Enigma. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3868097/

Cannabinoid hyperemesis syndrome with extreme hydrophilia (link to PDF – 2013)  

A Case of Cannabinoid Hyperemesis Syndrome Caused by Synthetic Cannabinoids. (abst – 2013)  

Haloperidol for treatment of cannabinoid hyperemesis syndrome (abst – 2013)  
http://www.ajemjournal.com/article/S0735-6757%2813%2900126-5/abstract

Cannabinoid hyperemesis acute renal failure: a common sequela of cannabinoid hyperemesis syndrome (abst – 2013)  
http://www.ajemjournal.com/article/S0735-6757%2813%2900850-4/abstract
A Gut Gone to Pot: A Case of Cannabinoid Hyperemesis Syndrome due to K2, a Synthetic Cannabinoid. (full – 2014)
http://www.hindawi.com/journals/criem/2014/167098/

Mid-ventricular Variant Takotsubo Cardiomyopathy Associated with Cannabinoid Hyperemesis Syndrome: A Case Report. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3998230/

Cannabinoid hyperemesis should be recognised as an effect of chronic cannabis abuse (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4129569/

Case of cannabinoid hyperemesis syndrome with long-term follow-up. (full – 2014)

Cannabinoid Hyperemesis Syndrome: A Case Report and Review of Pathophysiology. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4453416/

An Internet survey of marijuana and hot shower use in adults with cyclic vomiting syndrome (CVS). (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4641512/

Cannabinoid Hyperemesis Syndrome: An Emerging Drug-Induced Disease. (abst – 2014)

No opiates against cannabis hyperemesis syndrome (abst – 2014)

Haloperidol, a Novel Treatment for Cannabinoid Hyperemesis Syndrome. (abst – 2014)

Cannabinoid hyperemesis syndrome: About 6 cases. (abst – 2014)

Cyclic Vomiting Presentations Following Marijuana Liberalization in Colorado. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4469074/

Cannabinoid Hyperemesis Syndrome: Descriptive Overview of an Under-Recognized Diagnosis. (full – 2015)
http://www.ima.org.il/FilesUpload/IMAJ/0/146/73215.pdf

Cannabinoid hyperemesis syndrome: Marijuana is both antiemetic and proemetic. (full – 2015)
http://www.ccjm.org/index.php?id=107953&tx_ttnews[tt_news]=412809&cHash=0e1f8670f2fa499ee88aeff79ee2a47e

Cannabinoid Hyperemesis Syndrome: A Paradoxical Cannabis Effect. (full – 2015)
http://www.hindawi.com/journals/crigm/2015/405238/
13-Year-Old Girl With Recurrent, Episodic, Persistent Vomiting: Out of the Pot and Into the Fire. (full – 2015) http://pediatrics.aappublications.org/content/135/4/e1060.long


Cannabinoid Hyperemesis Syndrome Associated With Compulsive Showering and Acute Kidney Injury (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4874760/

Cannabinoid hyperemesis syndrome as an unusual cause of cyclic vomiting. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4919975/


Role of cannabis in digestive disorders. (abst – 2016)


>CARDIOVASCULAR - see HEART DISEASE

CARPAL TUNNEL SYNDROME +


Comparison of shock wave therapy and nutraceutical composed of Echinacea angustifolia, alpha lipoic acid, conjugated linoleic acid and quercetin (perinerv) in patients with carpal tunnel syndrome. (full – 2015) http://iji.sagepub.com/content/early/2015/04/30/0394632015584501.long

CATALEPSY – a bodily condition marked by sudden rigidity and a fixation of posture

Cannabidiol attenuates catalepsy induced by distinct pharmacological mechanisms via 5-HT1A receptors activation in mice. (full – 2013) http://www.sciencedirect.com/science/article/pii/S0278584613001164


CATATONIA - A psychiatric condition characterized by a tendency to remain in a rigid stupor for long periods


**CELIAC DISEASE** +


**CEREBRAL PALSY** +*


>CESAMET  - see NABILONE in the SYNTHETICS section

**CHAGAS DISEASE/ AMERICAN TRYPANOSOMIASIS** +– spread by kissing bug bites

Synergistic Effect of Lupenone and Caryophyllene Oxide against Trypanosome cruzi. (full – 2013) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3671683/

>CHARCOT-MARIE-TOOTH DISEASE - see News section

CHEMICAL COMPOSITION *


\[\Delta^9\text{-Tetrahydrocannabinol content in cannabis samples seized in Novi Sad during 2008 (full – 2010) http://www.shd.org.rs/JSCS/Vol75/No7/02_4595_4015.pdf}\]

In silicio expression analysis of PKS genes isolated from Cannabis sativa L. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3036156/?tool=pubmed


The results of an experimental indoor hydroponic Cannabis growing study, using the 'Screen of Green' (ScrOG) method-Yield, tetrahydrocannabinol (THC) and DNA analysis. (abst – 2010) http://www.ncbi.nlm.nih.gov/pubmed/20462712


How Accurate is Potency Testing? (full – 2011)  
http://www.canorml.org/RingTestOShaughnessys_Aut11.pdf

Changes of photosynthesis-related parameters and productivity of Cannabis sativa under different nitrogen supply  (full – 2011)  

Influence of agroclimatic conditions on content of main cannabinoids in industrial hemp (Cannabis sativa L.)  (full – 2011)  

The cannabinoid type-1 receptor carboxyl-terminus, more than just a tail.  (full – 2011)  

Taming THC: potential cannabis synergy and phytocannabinoid-terpenoid entourage effects.  (full - 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165946/

Heterogeneity in the composition of marijuana seized in California.  (full – 2011)  

How hemp got high  (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3333771/

Isolation and Characterization of Edestin from Cheungsam Hempseed.  
(link to PDF – 2011)  
http://koreascience.or.kr/article/ArticleFullRecord.jsp?cn=E100BF_2011_v54n2_84

Characteristics of cannabinoids composition of Cannabis plants grown in Northern Thailand and its forensic application.  (abst – 2011)  

Sub-chronic impact of cannabinoids in street cannabis on cognition, psychotic-like symptoms and psychological well-being.  (abst – 2011)  

Bioactive Prenylogous Cannabinoid from Fiber Hemp (Cannabis sativa).  (abst - 2011)  
http://pubs.acs.org/doi/abs/10.1021/np200500p

Cadmium Tolerance and Bioaccumulation of 18 Hemp Accessions.  (abst – 2011)  

Cannabinoids: occurrence and medicinal chemistry.  (abst – 2011)  
http://www.unboundmedicine.com/medline/ebm/record/21254969/abstract/Cannabinoids:_occurrence_and_medical_chemistry

Cannabis profiling based on its elemental composition--is it possible?  (abst – 2011)  

Variations in Photosynthesis, Transpiration, Water Use and Cannabinoid Contents in Field Grown Drug Type Varieties of Cannabis sativa L.  (abst – 2011)  


Analysis of Cannabinoids from Leaves of Ancient Cannabis sativa Found in Yanghai Xinjiang, China (abst – 2011) http://www.trcw.ac.cn/EN/abstract/abstract8457.shtml


Identification of olivetolic acid cyclase from Cannabis sativa reveals a unique catalytic route to plant polyketides. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3411943/

Isolation and characterization of some phytochemicals from Indian traditional plants. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3529893/


Cannabis Genome Uncloaked: Commentary on the Scientific Implications (article – 2012) http://www.icrs.co/content/Cannabis_Genome_Uncloaked.pdf


Cannabis, a complex plant: different compounds and different effects on individuals (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3736954/


Early Phenylpropanoid Biosynthetic Steps in Cannabis sativa: Link between Genes and Metabolites (full – 2013) http://www.mdpi.com/1422-0067/14/7/13626.htm

Understanding the Molecular Aspects of Tetrahydrocannabinol and Cannabidiol as Antioxidants (link to PDF - 2013) http://www.mdpi.com/1420-3049/18/10/12663

Chemical profiling of different hashish seizures by gas chromatography-mass spectrometry and statistical methodology: a case report. (abst – 2013)


Study of leaf metabolome modifications induced by UV-C radiations in representative Vitis, Cissus and Cannabis species by LC-MS based metabolomics and antioxidant assays. (full – 2014) http://www.mdpi.com/1420-3049/19/9/14004/htm

Affinity comparison of different THCA synthase to CBGA using modeling computational approaches (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3916817/


Amber is Bad ? (article – 2014) http://growhappypants.com/look.html


Hemp (Cannabis sativa L.) seed oil: Analytical and phytochemical characterization of unsaponifiable fraction. (abst – 2014) http://pubs.acs.org/doi/abs/10.1021/jf404278q
Metals and organic compounds in the biosynthesis of cannabinoids: a chemometric approach to the analysis of Cannabis sativa samples. (abst – 2014) 

A PCR marker Linked to a THCA synthase Polymorphism is a Reliable Tool to Discriminate Potentially THC-Rich Plants of Cannabis sativa L. (abst – 2014) 

Molecular characterization of edestin gene family in Cannabis sativa L. (abst – 2014) 

Cannabinoid-free Cannabis sativa L. grown in the Po valley: evaluation of fatty acid profile, antioxidant capacity and metabolic content. (abst – 2014) 


Overcoming the Bell-Shaped Dose-Response of Cannabidiol by Using Cannabis Extract Enriched in Cannabidiol (full – 2015) 
http://file.scirp.org/Html/5-2500582_53912.htm


Seized cannabis seeds cultivated in greenhouse: A chemical study by gas chromatography–mass spectrometry and chemometric analysis (link through Elsevier to get link to get full – 2015) 

Method for the Analysis of Cannabinoids and Terpenes in Cannabis (link to PDF – 2015) http://www.ingentaconnect.com/search/article?option1=tka&value1=cannabinoid&sortDescending=true&sortField=prism_publicationDate&pageSize=10&index=7


Evaluation of elemental profiling methods, including laser-induced breakdown spectroscopy (LIBS), for the differentiation of Cannabis plant material grown in different nutrient solutions. (abst – 2015)  

(1)H NMR and HPLC/DAD for Cannabis sativa L. chemotype distinction, extract profiling and specification. (abst – 2015)  

Cannabis species and cannabinoid concentration preference among sleep-disturbed medicinal cannabis users. (abst – 2015)  

Determination of the relative percentage distribution of THCA and Δ9-THC in herbal cannabis seized in Austria - Impact of different storage temperatures on stability. (abst – 2015)  

Cannabis and Endocannabinoid Signaling in Epilepsy. (abst – 2015)  
http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_10

Expression, purification and crystallization of a plant polyketide cyclase from Cannabis sativa. (abst – 2015)  

Determination of 11 Cannabinoids in Biomass and Extracts of Different Varieties of Cannabis Using High-Performance Liquid Chromatography. (abst – 2015)  

Cannabis species and cannabinoid concentration preference among sleep-disturbed medicinal cannabis users. (abst – 2015)  


Biotransformation of Tetrahydrocannabinol (abst – 2015)  

Evolution and Classification of Cannabis sativa (Marijuana, Hemp) in Relation to Human Utilization (abst – 2015)  

http://www.agr.gc.ca/eng/abstract/?id=35387000000564

Cannabinoids for pediatric epilepsy? Up in smoke or real science? (full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4729003/

Harvesting the biosynthetic machineries that cultivate a variety of indispensable plant natural products. (full – 2016)  
Cannabis sativa: The Plant of the Thousand and One Molecules  (full – 2016)

Identification of Psychoactive Degradants of Cannabidiol in Simulated Gastric and Physiological Fluid  (full – 2016)
http://online.liebertpub.com/doi/10.1089/can.2015.0004

Variability in Seed Traits in a Collection of Cannabis sativa L. Genotypes  (full - 2016)  

Current Therapeutic Cannabis Controversies and Clinical Trial Design Issues  (full – 2016)  

Traditional marijuana, high-potency cannabis and synthetic cannabinoids: increasing risk for psychosis.  (full – 2016)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5032490/

A Belated Green Revolution for Cannabis: Virtual Genetic Resources to Fast-Track Cultivar Development.  (full – 2016)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4965456/

Analysis of a commercial marijuana e-cigarette formulation.  (abst – 2016)  
(This article has a delayed release and will be available in PMC on June 1, 2017)  

Structural basis for olivetolic acid formation by a polyketide cyclase from Cannabis sativa.  (abst – 2016)  

Changes in cannabis potency over the last two decades (1995-2014) - Analysis of current data in the United States  (abst – 2016)  

Chapter 2 – Biosynthesis and Pharmacology of Phytocannabinoids and Related Chemical Constituents  (abst – 2016)  

Evolution of the Cannabinoid and Terpene Content during the Growth of Cannabis sativa Plants from Different Chemotypes.  (abst – 2016)  
http://pubs.acs.org/doi/abs/10.1021/acs.jnatprod.5b00949

The influences of cultivation setting on inflorescence lipid distributions, concentrations, and carbon isotope ratios of Cannabis sp.  (abst – 2016)  

In Vitro Propagation of Cannabis sativa L. and Evaluation of Regenerated Plants for Genetic Fidelity and Cannabinoids Content for Quality Assurance.  (abst – 2016)  


Transcriptome differences between fiber-type and seed-type Cannabis sativa variety exposed to salinity. (abst – 2016) https://www.ncbi.nlm.nih.gov/pubmed/27924117


CHEMOTHERAPY**

Cannabinoid-2 receptor limits inflammation, oxidative/nitrosative stress, and cell death in nephropathy. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2869084/?tool=pubmed
Preliminary efficacy and safety of an oromucosal standardized cannabis extract in chemotherapy-induced nausea and vomiting  (full - 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2997305/pdf/bcp0070-0656.pdf

Mechanisms of Broad-Spectrum Efficacy of Cannabinoids against Chemotherapy-Induced Acute and Delayed Vomiting  (link to PDF– 2010)
http://www.mdpi.com/1424-8247/3/9/2930

Brief Report: Cannabidiol Prevents the Development of Cold and Mechanical Allodynia in Paclitaxel-Treated Female C57Bl6 Mice.  (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3249239/

Cannabidiol Attenuates Cisplatin-Induced Nephrotoxicity by Decreasing Oxidative/Nitrosative Stress, Inflammation, and Cell Death  (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2682269/

Regulation of nausea and vomiting by cannabinoids  (full - 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165951/

Medical cannabis: the opportunity versus the temptation  (abst – 2011)

Biotechnology of Cannabis sativa L.  (abst – 2011)

Cannabinoid type-1 receptor reduces pain and neurotoxicity produced by chemotherapy.  (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3366638/

The maintenance of cisplatin- and paclitaxel-induced mechanical and cold allodynia is suppressed by cannabinoid CB2 receptor activation and independent of CXCR4 signaling in models of chemotherapy-induced peripheral neuropathy  (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3502129/

β-Caryophyllene ameliorates cisplatin-induced nephrotoxicity in a cannabinoid 2 receptor-dependent manner.  (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3312970/

Therapeutic utility of palmitoylethanolamide in the treatment of neuropathic pain associated with various pathological conditions: a case series  (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3500919/

Alterations in endocannabinoid tone following chemotherapy-induced peripheral neuropathy: effects of endocannabinoid deactivation inhibitors targeting fatty-acid amide hydrolase and monoacylglycerol lipase in comparison to reference analgesics following cisplatin treatment.  (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3525790/
Prevention of Paclitaxel-Induced Neuropathy Through Activation of the Central Cannabinoid Type 2 Receptor System  (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3334436/


Effect of low doses of cannabidiolic acid and ondansetron on LiCl-induced conditioned gaping (a model of nausea-induced behaviour) in rats.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3682714/


Additive antiemetic efficacy of $\Delta^9$-THC with vanilloid TRPV1 receptor agonists in the least shrew (Cryptotis parva)  (abst - 2013)  http://www.sciencedirect.com/science/article/pii/S001429991300767X


Suppression of lithium chloride-induced conditioned gaping (a model of nausea-induced behaviour) in rats (using the taste reactivity test) with metoclopramide is enhanced by cannabidiolic acid.  (abst – 2013)  http://www.sciencedirect.com/science/article/pii/S0091305713002098

Cannabidiol inhibits paclitaxel-induced neuropathic pain through 5-HT1A receptors without diminishing nervous system function or chemotherapy efficacy. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3969077/


Prophylactic cannabinoid administration blocks the development of paclitaxel-induced neuropathic nociception during analgesic treatment and following cessation of drug delivery. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3998744/


Medical marijuana: more questions than answers. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4243838/

JZL184 is anti-hyperalgesic in a murine model of cisplatin-induced peripheral neuropathy. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4268146/


Chronic Cannabinoid Receptor 2 Activation Reverses Paclitaxel Neuropathy Without Tolerance or Cannabinoid Receptor 1-Dependent Withdrawal. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4209205/

Inhibition of anandamide hydrolysis attenuates nociceptor sensitization in a murine model of chemotherapy-induced peripheral neuropathy. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4346731/


HU-331 Is a Catalytic Inhibitor of Topoisomerase Iıα (abst – 2014) http://pubs.acs.org/doi/abs/10.1021/tx500245m

Controlled release tablet formulation containing natural δ9 tetrahydrocannabinol. (abst – 2015)  


TRPV2 is a novel biomarker and therapeutic target in triple negative breast cancer (full – 2016)  
http://www.impactjournals.com/oncotarget/index.php?journal=oncotarget&page=article&op=view&path%5B%5D=9663&path%5B%5D=30267

Cannabis and cancer: toward a new understanding (full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4791146/

Integrating cannabis into clinical cancer care. (full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4791148/

Dronabinol for chemotherapy-induced nausea and vomiting unresponsive to antiemetics. (full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4869612/

Spontaneous Cannabinoid Receptor 2 (CB2) Expression in the Cochlea of Adult Albino Rat and Its Up-Regulation after Cisplatin Treatment. (full – 2016)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0161954

Cannabinoids synergize with carfilzomib, reducing multiple myeloma cells viability and migration. (full – 2016)  
http://www.impactjournals.com/oncotarget/index.php?journal=oncotarget&page=article&op=view&path%5B%5D=12721&path%5B%5D=40316

Why I chose to use cannabis (article – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4791147/

Using Medical Cannabis in an Oncology Practice (article – 2016)  
(needs free registration)  
http://www.cancernetwork.com/oncology-journal/using-medical-cannabis-oncology-practice#sthash.CjT8fR9n.uWvEhfSG.dpuf

Using Medical Cannabis in an Oncology Practice (1st page – 2016)  
http://www.cancernetwork.com/oncology-journal/using-medical-cannabis-oncology-practice#sthash.CjT8fR9n.dpuf

Elevation of 2-AG by monoacylglycerol lipase inhibition in the visceral insular cortex interferes with anticipatory nausea in a rat model. (abst – 2016)  

Effects of Delta-9-Tetrahydrocannabinol and Cannabidiol on Cisplatin-Induced Neuropathy in Mice. (abst – 2016)  

Phytochemicals as adjunctive with conventional anticancer therapies. (abst – 2016)  
Pediatric oncology providers and use of medical marijuana in children with cancer. (abst – 2016) http://meetinglibrary.asco.org/content/170798-176


Effect of combined oral doses of Δ9-tetrahydrocannabinol (THC) and cannabidiolic acid (CBDA) on acute and anticipatory nausea in rat models. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27438607


CHEST PAIN - NON CARDIAC


>CHILDHOOD IMMUNE THROMBOCYTOPENIA- see IMMUNE THROMBOCYTOPENIA

CHILDREN (2 to 12 years old or equivalent) +* also see ADOLESCENTS, and INFANTS
Endocannabinoid (EC) Receptor, CB1, and EC Enzymes' Expression in Primary Adipocyte Cultures of Lean and Obese Pre-pubertal Children in Relation to Adiponectin and Insulin  (abst – 2010)  

Dronabinol for the treatment of unspecific pain, restlessness and spasticity in neuropaediatrics  (abst – 2010)  


CNR2 functional variant (Q63R) influences childhood immune thrombocytopenic purpura.  (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3232275/

Examining the Health and Drug Exposures among Canadian Children Residing in Drug-Producing Homes  (abst – 2011)  
http://www.jpeds.com/article/S0022-3476%2811%2900522-1/abstract

Early exposure to Environmental enrichment alters the expression of genes of the endocannabinoid system  (abst – 2011)  
http://www.unboundmedicine.com/medline/ebm/record/21419109/abstract/Early_exposure_to_Environmen tal_enrichment_alters_the_expression_of_genes_of_the_endocannabinoid_system

Accidental cannabis poisoning in children: report of four cases in a tertiary care center from southern Spain  (abst – 2011)  
http://www.unboundmedicine.com/medline/ebm/record/21283933/abstract/Accidental_cannabis_poisoning_in_children:_report_of_four_cases_in_a_ternary_care_center_from_s outhern_Spain%5D

Pediatric cannabinoid hyperemesis: two cases.  (abst – 2011)  

Cannabinoids in children  (abst – 2011)  

Cannabinoid receptor type 2 functional variant influences liver damage in children with non-alcoholic Fatty liver disease.  (full – 2012)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0042259

http://www.annalsofepidemiology.org/article/S1047-2797%2812%29000170-6/fulltext

Childhood Obesity and the Role of Dopamine D2 Receptor and Cannabinoid Receptor-1 Gene Polymorphisms.  (abst – 2012)  
Report of a parent survey of cannabidiol-enriched cannabis use in pediatric treatment-resistant epilepsy (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4157067/

The role of child protection in cannabis grow-operations. (full – 2013)  
www.canorml.org/child.welfare.pdf

Anticipated Medical Effects on Children From Legalization of Marijuana in Colorado and Washington State (1st page – 2013)  
http://archpedi.jamanetwork.com/article.aspx?articleid=1691419&resultClick=3

Cannabinoid CB2 receptor gene (CNR2) polymorphism is associated with chronic childhood immune thrombocytopenia in Egypt. (abst – 2013)  

Methadone and illegal drugs in hair from children with parents in maintenance treatment or suspected for drug abuse in a German community. (abst – 2013)  

The case for medical marijuana in epilepsy. (full – 2014)  

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4061885/

Pediatric exposure to drugs of abuse by hair testing: monitoring 15 years of evolution in Spain. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4143861/

The consequences of pain in early life: injury-induced plasticity in developing pain pathways. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4264936/

Childhood and current ADHD symptom dimensions are associated with more severe cannabis outcomes in college students. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3904106/

Cannabinoid findings in children hair - what do they really tell us? An assessment in the light of three different analytical methods with focus on interpretation of Δ9-tetrahydrocannabinolic acid A concentrations. (full – 2014)  

Modulation of early stress-induced neurobiological changes: a review of behavioural and pharmacological interventions in animal models (full – 2014)  
http://www.nature.com/tp/journal/v4/n5/full/tp201431a.html

The Comprehensive Report on the Cannabis Extract Movement and the Use of Cannabis Extracts to Treat Diseases (link to PDF - 2014)  
http://www.slideshare.net/TheHempSolution/comprehensive-report-on-the-cannabis-extract-movement
EFFICACY AND SAFETY OF EPIDIOLEX (CANNABIDIOL) IN CHILDREN AND YOUNG ADULTS WITH TREATMENT-RESISTANT EPILEPSY: INITIAL DATA FROM AN EXPANDED ACCESS PROGRAM (abst – 2014)
https://www.aesnet.org/meetings_events/annual_meeting_abstracts/view/1868751#sthash.pbnOqzNG.dpuf

Intoxication from accidental ingestion of hashish: Analysis of eight cases.

Medical marijuana and children. (abst – 2014)

THE EFFECT OF EPIDIOLEX (CANNABIDIOL) ON SERUM LEVELS OF CONCOMITANT ANTI-EPILEPTIC DRUGS IN CHILDREN AND YOUNG ADULTS WITH TREATMENT-RESISTANT EPILEPSY IN AN EXPANDED ACCESS PROGRAM (abst – 2014)
https://www.aesnet.org/meetings_events/annual_meeting_abstracts/view/1868391#sthash.uxbwgudh.dpuf

RESOLUTION OF SEIZURES AND NORMALIZATION OF EEG AFTER INITIATION OF CBD IN A PATIENT WITH DOOSE SYNDROME
(abst – 2014)
https://www.aesnet.org/meetings_events/annual_meeting_abstracts/view/1868186#sthash.4suBa1in.dpuf

The Cannabinoid Receptor 2 Q63R Variant Modulates the Relationship between Childhood Obesity and Age at Menarche. (full – 2015)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0140142

Medical marijuana's public health lessons--implications for retail marijuana in Colorado.

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4318349/

Long-term consequences of perinatal and adolescent cannabinoid exposure on neural and psychological processes. (full – 2015)

Association between paracetamol use in infancy or childhood with body mass index.

Use of paracetamol during pregnancy and child neurological development.

Monoacylglycerol lipase (MGLL) polymorphism rs604300 interacts with childhood adversity to predict cannabis dependence symptoms and amygdala habituation: Evidence from an endocannabinoid system-level analysis. (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4700831/

Cannabidiol in patients with treatment-resistant epilepsy: an open-label intervention trial (abst – 2015) http://www.thelancet.com/journals/laneur/article/PIIS1474-4422%2815%2900379-8/abstract


The Pharmacological Basis of Cannabis Therapy for Epilepsy. (full – 2016) http://jpet.aspetjournals.org/content/early/2016/01/19/jpet.115.230151.long


In vitro and in vivo efficacy of non-psychoactive cannabidiol in neuroblastoma. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4791143/

Medicinal Use of Marijuana: What School Nurses Need to Know. (full – 2016) http://nas.sagepub.com/content/31/3/170.long


In vitro and in vivo efficacy of non-psychoactive cannabidiol in neuroblastoma. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4791143/

Is the medical use of cannabis a therapeutic option for children? (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4758425/


Cannabinoids reverse the effects of early stress on neurocognitive performance in adulthood. (full – 2016) http://learnmem.cshlp.org/content/23/7/349.long


Detecting biomarkers of secondhand marijuana smoke in young children (link to PDF – 2016) http://www.nature.com/pr/journal/vaop/naam/abs/pr2016261a.html


Genetically reduced FAAH activity may be a risk for the development of anxiety and depression in persons with repetitive childhood trauma. (abst – 2016) http://www.europeanneuropsychopharmacology.com/article/S0924-977X(16)00077-8/abstract
Childhood Maltreatment in the Migraine Patient. (abst – 2016)

http://www.jaacap.com/article/S0890-8567%2816%2930101-0/abstract

Cannabinoid Poisoning by Hemp Seed Oil in a Child. (abst – 2016)


Pediatric oncology providers and use of medical marijuana in children with cancer. (abst – 2016) http://meetinglibrary.asco.org/content/170798-176

Peripubertal treatment with cannabidiol prevents the emergence of psychosis in an animal model of schizophrenia (abst – 2016)

Childhood weight status and timing of first substance use in an ethnically diverse sample (abst – 2016)
http://www.drugandalcoholdependence.com/article/S0376-8716(16)30111-9/abstract

Deficient adolescent social behavior following early-life inflammation is ameliorated by augmentation of anandamide signaling. (abst – 2016)

Disturbances of sleep and circadian rhythms: novel risk factors for obesity. (abst – 2016)

Spontaneous involution of pediatric low-grade gliomas: high expression of cannabinoid receptor 1 (CNR1) at the time of diagnosis may indicate involvement of the endocannabinoid system. (abst – 2016)

The hazards of bad sleep-Sleep duration and quality as predictors of adolescent alcohol and cannabis use. (abst – 2016)


Cannabinoid Receptor 2 Functional Variant Contributes to the Risk for Pediatric Inflammatory Bowel Disease. (abst – 2016)

Using Medical Marijuana to Stop Childhood Seizures (news & abstract – 2016)

Distinct effects of childhood ADHD and cannabis use on brain functional architecture in young adults (full – 2017)

**CHOLERA**

In vitro and in vivo antimicrobial efficacy of natural plant-derived compounds against Vibrio cholerae of O1 El Tor Inaba serotype. (abst – 2014)

**CHOLESTEROL**

A common CNR1 (cannabinoid receptor 1) haplotype attenuates the decrease in HDL cholesterol that typically accompanies weight gain. (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3013130/?tool=pubmed

A randomised, double blind, placebo controlled, parallel group, pilot study of 1:1 and 20:1 ratio of formulated GW42003 : GW42004 plus GW42003 and GW42004 alone in the treatment of dyslipidaemia in subjects with Type 2 diabetes. (research summary – 2010)

G1359A polymorphism in the cannabinoid receptor-1 gene is associated with metabolic syndrome in the Chinese Han population. (abst – 2010)

The effects of hempseed meal intake and linoleic acid on Drosophila models of neurodegenerative diseases and hypercholesterolemia. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3933972/

Functional characterization of putative cholesterol binding sequence (CRAC) in human type-1 cannabinoid receptor (full – 2011)
Cannabinoid receptor signalling in neurodegenerative diseases: a potential role for membrane fluidity disturbance.  (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165948/

The Non-Psychoactive Plant Cannabinoid, Cannabidiol Affects Cholesterol Metabolism-Related Genes in Microglial Cells.  (abst – 2011)  

The effect of dietary hempseed on atherogenesis and contractile function in aortae from hypercholesterolemic rabbits.  (abst – 2011)  

Antihyperglycemic and hypolipidemic effects of α, β-amyрин, a triterpenoid mixture from Protium heptaphyllum in mice  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3484111/

Excess of the endocannabinoid anandamide during lactation induces overweight, fat accumulation and insulin resistance in adult mice  (full – 2012)  
http://www.dmsjournal.com/content/4/1/35

Interleukin-1β causes anxiety by interacting with the endocannabinoid system.  (full – 2012)  
http://www.jneurosci.org/content/32/40/13896.long

CNR1 genotype influences HDL-cholesterol response to change in dietary fat intake.  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3342253/

Rimonabant improves obesity but not the overall cardiovascular risk and quality of life; results from CARDIO-REDUSE (CArdiometabolic Risk reDuctIOn by Rimonabant: the Effectiveness in Daily practice and its USE)  (full – 2012)  
http://fampra.oxfordjournals.org/content/29/5/521.full

EFFECTS OF GRADED LEVELS OF HEMP SEED (CANNABIS SATIVA L.) ON PERFORMANCE, ORGAN WEIGHT AND SERUM CHOLESTEROL LEVELS ON BROILERS  (abst – 2012)  

Treatment with CB 2 Agonist JWH-133 Reduces Histological Features Associated with Erectile Dysfunction in Hypercholesterolemic Mice.  (full – 2013)  
http://www.hindawi.com/journals/cdi/2013/263846/

A common functional promoter variant links CNR1 gene expression to HDL cholesterol level.  (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3873874/

http://www.freepatentsonline.com/y2013/0245110.html
GPR55 and its Interaction with Membrane Lipids: Comparison with Other Endocannabinoid-Binding Receptors  
(link to PDF – 2013)  
http://www.eurekaselect.com/105678/article

CNR1 Gene and Risk of the Metabolic Syndrome in Patients With Schizophrenia.  
(abst – 2013)  

Role of Genetic Variation in the Cannabinoid Receptor Gene (CNR1) (G1359A Polymorphism) on Weight Loss and Cardiovascular Risk Factors After Liraglutide Treatment in Obese Patients With Diabetes Mellitus Type 2.  
(abst – 2013)  

Effects of C358A polymorphism of the endocannabinoid degrading enzyme fatty acid amide hydrolase (FAAH) on weight loss, adipocytokines levels, and insulin resistance after a high polyunsaturated fat diet in obese patients.  
(abst – 2013)  

The effects of obesity, diabetes and metabolic syndrome on the hydrolytic enzymes of the endocannabinoid system in animal and human adipocytes.  
(fully – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3995979/

Association of polymorphisms in the endocannabinoid system genes with myocardial infarction and plasma cholesterol levels.  
(fully – 2014)  

Modulation of Fear Memory by Dietary Polyunsaturated Fatty Acids via Cannabinoid Receptors  
(fully – 2014)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4059893/

Detailed characterization of the endocannabinoid system in human macrophages and foam cells, and anti-inflammatory role of type-2 cannabinoid receptor.  
(abst – 2014)  

Membrane lipids are key modulators of the endocannabinoid-hydrolase FAAH  
(abst – 2014)  
http://www.biochemj.org/content/457/3/463

Activation of GPR55 Receptors Exacerbates oxLDL-Induced Lipid Accumulation and Inflammatory Responses, while Reducing Cholesterol Efflux from Human Macrophages.  
(fully – 2015)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0126839

Cannabidiol causes endothelium-dependent vasorelaxation of human mesenteric arteries via CB1 activation.  
(fully – 2015)  
http://cardiovascres.oxfordjournals.org/content/early/2015/06/30/cvr.cvv179.long

Endogenous vs Exogenous Allosteric Modulators in GPCRs: A dispute for shuttling CB1 among different membrane microenvironments.  
(fully – 2015)  
http://www.nature.com/articles/srep15453

METABOLIC EFFECTS OF MARIJUANA USE AMONG BLACKS.
Protective effect of Xingnaojia formulation on rats with brain and liver damage caused by chronic alcoholism (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4665616/


Orphan nuclear receptor oestrogen-related receptor γ (ERRγ) plays a key role in hepatic cannabinoid receptor type 1-mediated induction of CYP7A1 gene expression (full – 2015) http://ajpendo.physiology.org/content/308/7/E583.long


Intake of farmed Atlantic salmon fed soybean oil increases hepatic levels of arachidonic acid-derived oxylipins and ceramides in mice (full – 2015) http://www.jnutbio.com/article/S0955-2863(15)00021-2/fulltext

Participation of the endocannabinoid system (ECS) in the weight-gain and sensitization to LPS exposure in a maternal obesity model (article – 2015) http://www.placentajournal.org/article/S0143-4004%2815%2900526-3/fulltext


Modulation of Long-Term Potentiation of Cortico-Amygdala Synaptic Responses and Auditory Fear Memory by Dietary Polyunsaturated Fatty Acid. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4993868/

Exposure to a Highly Caloric Palatable Diet during the Perinatal Period Affects the Expression of the Endogenous Cannabinoid System in the Brain, Liver and Adipose Tissue of Adult Rat Offspring. (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0165432

Effects of Different Levels of Hemp Seed (Cannabis Sativa L.) and Dextran Oligosaccharide on Growth Performance and Antibody Titer Response of Broiler Chickens (full – 2016) http://www.tandfonline.com/doi/full/10.4081/ijas.2015.3473


Fatty Acid Binding Protein-1 (FABP1) and the Human FABP1 T94A Variant: Roles in the Endocannabinoid System and Dyslipidemias. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27117865

Treatment with the GPR55 antagonist CID16020046 increases neutrophil activation in mouse atherogenesis. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27465665


**CHRONIC CEREBRAL HYPOPERFUSION** – a long-term lack of blood getting to the brain


**CHRONIC TRAUMATIC ENCEPHALOPATHY** – also see BRAIN TRAUMA

Inhibition of monoacylglycerol lipase prevents chronic traumatic encephalopathy-like neuropathology in a mouse model of repetitive mild closed head injury. (full – 2015) http://jcb.sagepub.com/content/35/3/443.long

Correction to - Inhibition of Monoacylglycerol Lipase Prevents Chronic Traumatic Encephalopathy-Like Neuropathology in a Mouse Model of Repetitive Mild Closed Head Injury (full – 2015) http://jcb.sagepub.com/content/35/4/706
CIDS/ CNS INJURY-INDUCED IMMUNODEFICIENCY SYNDROME


CIRCADIAN RHYTHM

Regulation of the Hypothalamic-Pituitary-Adrenal Axis Circadian Rhythm by Endocannabinoids Is Sexually Diergic (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2964781/?tool=pmcentrez

Cannabinoids Excite Circadian Clock Neurons (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2927117/?tool=pmcentrez


An endocannabinoid system is localized to the hypophysial pars tuberalis of Syrian hamsters and responds to photoperiodic changes. (abst – 2010) http://www.ncbi.nlm.nih.gov/pubmed/20165884


Does the neuroprotective role of anandamide display diurnal variations? (full – 2013) http://www.mdpi.com/1422-0067/14/12/23341/htm

Circadian rhythm of circulating levels of the endocannabinoid 2-arachidonoylglycerol. (full – 2014)
2-Arachidonoyl glycerol sensitizes the pars distalis and enhances forskolin-stimulated prolactin secretion in Syrian hamsters. (abst – 2014)

The effects of chronic marijuana use on circadian entrainment. (abst – 2015)

Disturbances of sleep and circadian rhythms: novel risk factors for obesity. (abst – 2016)

Endocannabinoids and sleep (abst – 2016)

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**CNS / CENTRAL NERVOUS SYSTEM**


The ABC membrane transporter ABCG2 prevents access of FAAH inhibitor URB937 to the central nervous system. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3729352/

Acute cannabinoid receptor type 1 (CB1R) modulation influences insulin sensitivity by an effect outside the central nervous system in mice. (full – 2011) http://link.springer.com/article/10.1007%2Fs00125-011-2082-z


GPR18 in microglia: implications for the CNS and endocannabinoid system signaling (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3525861/

Synaptic Targets of Δ9-Tetrahydrocannabinol in the Central Nervous System. (full – 2012) http://perspectivesinmedicine.cshlp.org/content/early/2012/12/03/cshperspect.a012237.long
Phytocannabinoids as novel therapeutic agents in CNS disorders  

The Atypical Cannabinoid O-1602: Targets, Actions, and the Central Nervous System.
(abst – 2012)  

Discovery of agonists of cannabinoid receptor 1 with restricted CNS penetration aimed for treatment of gastroesophageal reflux disease.  
(abst – 2012)  
http://pubs.acs.org/doi/abs/10.1021/jm301511h

Parsing the players: 2-AG synthesis and degradation in the CNS  
(full – 2013)  

Surinabant, a selective CB(1) antagonist, inhibits THC-induced central nervous system and heart rate effects in humans.  
(full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3703229/

On the g-protein-coupled receptor heteromers and their allosteric receptor-receptor interactions in the central nervous system: focus on their role in pain modulation.  
(full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3730365/

Multiple sclerosis and the blood-central nervous system barrier.  
(full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3562587/

Palmitoylethanolamide in Homeostatic and Traumatic Central Nervous System Injuries  
(link to PDF - 2013)  
http://www.eurekaselect.com/107976/article

Involvement of nitric oxide through endocannabinoids release in microglia activation during the course of CNS regeneration in the medicinal leech.  
(link to PDF – 2013)  
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.718.5567&rank=89&q=cannabinoid&osm=&ossid=

Gastric mucosal protection: from the periphery to the central nervous system.  
(full – 2015)  
http://www.jpp.krakow.pl/journal/archive/06_15/pdf/319_06_15_article.pdf

Cannabis, Cannabinoids, and Cerebral Metabolism: Potential Applications in Stroke and Disorders of the Central Nervous System.  
(abst – 2015)  

Distribution of the Endocannabinoid System in the Central Nervous System.  
(abst – 2015)  
http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_3

Changes in the endocannabinoid signaling system in CNS structures of TDP-43 transgenic mice: relevance for a neuroprotective therapy in TDP-43-related disorders.  
(abst – 2015)  


COGNATIVE EFFECTS—see IQ

COHORT/LARGE STUDIES

Effects of cannabis on lung function: a population-based cohort study. (full - 2010) http://erj.ersjournals.com/content/35/1/42.long


Cannabis use and depression: a longitudinal study of a national cohort of Swedish conscripts (full – 2012) http://www.biomedcentral.com/1471-244X/12/112


Marijuana Smoking Does Not Accelerate Progression of Liver Disease in HIV-Hepatitis C Coinfection: A Longitudinal Cohort Analysis. (full – 2013) http://cid.oxfordjournals.org/content/early/2013/07/03/cid.cit378.long

Correlations between cannabis use and IQ change in the Dunedin cohort are consistent with confounding from socioeconomic status. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3600466/

A clinical comparison of schizophrenia with and without pre-onset cannabis use disorder: a retrospective cohort study using categorical and dimensional approaches. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4676097/

METABOLIC EFFECTS OF MARIJUANA USE AMONG BLACKS. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4523241/

Cannabis Use and Reduced Risk of Insulin Resistance in HIV-HCV Infected Patients: A Longitudinal Analysis (ANRS CO13 HEPAVIH) (full – 2015) http://cid.oxfordjournals.org/content/61/1/40.long

K2 and Spice use among a cohort of college students in southeast region of the USA. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4526379/


Prevalence of Marijuana and Other Substance Use Before and After Washington State's Change from Legal Medical Marijuana to Legal Medical and Non-Medical Marijuana: Cohort Comparisons in a Sample of Adolescents. (abst – 2015)

Are IQ and educational outcomes in teenagers related to their cannabis use? A prospective cohort study (full – 2016) http://jop.sagepub.com/content/early/2016/01/06/0269881115622241.full


Cannabis Use as Risk or Protection for Type 2 Diabetes: A Longitudinal Study of 18 000 Swedish Men and Women. (full – 2016) https://www.hindawi.com/journals/jdr/2016/6278709/


The Cannabinoid 1 Receptor (CNR1) 1359 G/A Polymorphism Modulates Susceptibility to Ulcerative Colitis and the Phenotype in Crohn's Disease (full - 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2829088/?tool=pmcentrez

Mice lacking cannabinoid CB1-, CB2-receptors or both receptors show increased susceptibility to trinitrobenzene sulfonic acid (TNBS)-induced colitis. (full – 2010)
http://www.jpp.krakow.pl/journal/archive/02_10/pdf/89_02_10_article.pdf

The effects of Delta-tetrahydrocannabinol and cannabidiol alone and in combination on damage, inflammation and in vitro motility disturbances in rat colitis. (full - 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931570/?tool=pubmed

Small intestinal cannabinoid receptor changes following a single colonic insult with oil of mustard in mice. (full – 2010)

Naphthalen-1-yl-(4-pentyloxy)naphthalen-1-yl)methanone (SAB378), a peripherally restricted cannabinoid CB1/CB2 receptor agonist, inhibits gastrointestinal motility but has no effect on experimental colitis in mice. (full – 2010)
http://ipet.aspetjournals.org/content/334/3/973.long

The atypical cannabinoid O-1602 protects against experimental colitis and inhibits neutrophil recruitment. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3116968/

Cannabidiol Reduces Intestinal Inflammation through the Control of Neuroimmune Axis (full – 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3232190/?tool=pubmed

β-Caryophyllene inhibits dextran sulfate sodium-induced colitis in mice through CB2 receptor activation and PPARγ pathway. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3070571/

Cannabinoid receptor-2 (CB2) agonist ameliorates colitis in IL-10(-/-) mice by attenuating the activation of T cells and promoting their apoptosis. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4117838/

Alternative targets within the endocannabinoid system for future treatment of gastrointestinal diseases. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3174079/

The JNK inhibitor XG-102 protects against TNBS-induced colitis. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3302790/

The atypical cannabinoid O-1602 shows antitumorigenic effects in colon cancer cells and reduces tumor growth in a colitis-associated colon cancer model (full – 2012)  
http://www.biomedcentral.com/content/pdf/2050-6511-13-S1-A23.pdf

Gut microbiota and the development of obesity. (full – 2012)  

Topical and Systemic Cannabidiol Improves Trinitrobenzene Sulfonic Acid Colitis in Mice. (link to PDF - 2012)  
http://www.karger.com/Article/FullText/336871

The endocannabinoid system in inflammatory bowel diseases: from pathophysiology to therapeutic opportunity. (abst – 2012)  

4-Oxo-1,4-dihydropyridines as Selective CB2 Cannabinoid Receptor Ligands Part 2: Discovery of New Agonists Endowed with Protective Effect Against Experimental Colitis. (abst – 2012)  
http://pubs.acs.org/doi/abs/10.1021/jm3008568

Role of endogenous cannabinoid system in the gut. (full - 2013)  

O-1602, an atypical cannabinoid, inhibits tumor growth in colitis-associated colon cancer through multiple mechanisms (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3529923/

The cannabinoid TRPA1 agonist cannabichromene inhibits nitric oxide production in macrophages and ameliorates murine colitis. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3632250/

Pro-resolution, protective and anti-nociceptive effects of a cannabis extract in the rat gastrointestinal tract. (full – 2013)  

Inhibition of p38/Mk2 signaling pathway improves the anti-inflammatory effect of WIN55 on mouse experimental colitis. (full – 2013)  
http://www.nature.com/labinvest/journal/v93/n3/full/labinvest2012177a.html

Marijuana use patterns among patients with inflammatory bowel disease. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4126607/

Prostaglandin ethanolamides attenuate damage in a human explant colitis model (abst – 2013)  


Interleukin 17A evoked mucosal damage is attenuated by cannabidiol and anandamide in a human colonic explant model. (abst – 2013) http://www.sciencedirect.com/science/article/pii/S1043466613007345


N-Acylethanolamine-hydrolyzing acid amidase inhibition increases colon N-palmitoylethanolamine levels and counteracts murine colitis. (full – 2014) http://www.fasebj.org/content/29/2/650.long


Palmitoylethanolamide improves colon inflammation through an enteric glia/toll like receptor 4-dependent PPAR-α activation (abst – 2014) http://gut.bmj.com/content/63/8/1300.abstract?sid=a8fb2a13-4493-4045-8855-9a0bae1e5d51

Gastric mucosal protection: from the periphery to the central nervous system.
GPR55 - a putative "type 3" cannabinoid receptor in inflammation. (full – 2015)

Monoglyceride lipase-deficiency causes desensitization of intestinal cannabinoid receptor type 1 and increased colonic µ-opioid receptor sensitivity. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4556478/

Conformational Restriction Leading to a Selective CB2 Cannabinoid Receptor Agonist Orally Active Against Colitis. (abst – 2015)
http://pubs.acs.org/doi/abs/10.1021/ml500439x

Patterns of cannabis use in patients with Inflammatory Bowel Disease: A population based analysis. (abst – 2015)

Abnormal cannabidiol attenuates experimental colitis in mice, promotes wound healing and inhibits neutrophil recruitment. (full – 2016)

Endocannabinoids in the Gut. (full – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4940133/

The CB2 receptor and its role as a regulator of inflammation. (full – 2016)

Anti-inflammatory effect of cannabinoid agonist WIN55, 212 on mouse experimental colitis is related to inhibition of p38MAPK (full – 2016)

An Orally Active Cannabis Extract with High Content in Cannabidiol attenuates Chemically-induced Intestinal Inflammation and Hypermotility in the Mouse. (full - 2016)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5047908/

Activation of Cannabinoid Receptor 2 Ameliorates DSS-Induced Colitis through Inhibiting NLRP3 Inflammasome in Macrophages. (full – 2016)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5017608/

Therapeutic Use of Cannabis in Inflammatory Bowel Disease (full – 2016)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5193087/

Role of cannabinoids in gastrointestinal mucosal defense and inflammation. (abst – 2016)
http://www.eurekaselect.com/140045/article

Fatty acid amide hydrolase (FAAH) blockade ameliorates experimental colitis by altering microRNA expression and suppressing inflammation. (abst – 2016)


COPD/ CHRONIC OBSTRUCTIVE PULMONARY DISEASE  +*

Effects of cannabis on lung function: a population-based cohort study. (full - 2010) http://erj.ersjournals.com/content/35/1/42.long

Does cannabis use predispose to chronic airflow obstruction? (full – 2010) http://erj.ersjournals.com/content/35/1/3.full?jkey=d1405bb2fc0ed2aff675335858f284f7f470fbbc&keytype2=tf_ipsecsha

Effects of smoking cannabis on lung function (full - 2011) http://tandfonline.com/doi/full/10.1586/ers.11.40

Cannabinoid effects on ventilation and breathlessness: A pilot study of efficacy and safety (link to download – 2011) http://journals.sagepub.com/doi/abs/10.1177/1479972310391283


Cannabinoids inhibit cholinergic contraction in human airways through prejunctional CB1 receptors.  (full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4243853/


Cannabis, tobacco smoking, and lung function: a cross-sectional observational study in a general practice population.  (full – 2015)  http://bjgp.org/content/65/631/e89


The effect of phytocannabinoids on airway hyper-responsiveness, airway inflammation, and cough  (full – 2015)  http://jpet.aspetjournals.org/content/353/1/169.long


CORNEAL KERATITIS  – painful sores or ulcers on the cornea of the eye

**COUGH +**

G-protein coupled receptors regulating cough. (abst – 2011)  

Inhibition Of Fatty Acid Amide Hydrolase Produces Anti-Tussive Effects In Guinea-Pigs: Evidence For Elevated Fatty Acid Amides Acting Via Cannabinoid Receptors On Airway Sensory Nerves  (abst – 2012)  

The effect of phytocannabinoids on airway hyper-responsiveness, airway inflammation, and cough  (full – 2015)  
http://jpet.aspetjournals.org/content/353/1/169.long

Endocannabinoid Inhibition Of Airway Sensory Nerve Depolarisation  (abst – 2015)  

---

**COWPOX -** also see SMALL POX

"Recreational" drug abuse associated with failure to mount a proper antibody response after a generalised orthopoxvirus infection. (abst – 2011)  

Possible Immunosuppressive Effects of Drug Exposure and Environmental and Nutritional Effects on Infection and Vaccination  (full – 2015)  
http://www.hindawi.com/journals/mi/2015/349176/

---

**CROHN’S DISEASE +** - also see BOWEL DISORDERS

The Cannabinoid 1 Receptor (CNR1) 1359 G/A Polymorphism Modulates Susceptibility to Ulcerative Colitis and the Phenotype in Crohn's Disease  (full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2829088/?tool=pmcentrez

Treatment of Crohn's disease with cannabis: an observational study. (full – 2011)  

Medical cannabis: the opportunity versus the temptation  (abst – 2011)  
The Gastrointestinal Pharmacology of Cannabinoids: Focus on Motility. (full – 2012)  
http://www.karger.com/Article/FullText/339072

Irritable Bowel Syndrome: Methods, Mechanisms, and Pathophysiology. Genetic epidemiology and pharmacogenetics in irritable bowel syndrome  (full – 2012)  
http://ajpgi.physiology.org/content/302/10/G1075

Genetic Epidemiology and Pharmacogenetics in Irritable Bowel Syndrome.  (full - 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3362100/

Gut microbiota and the development of obesity.  (full – 2012)  

The endocannabinoid system in inflammatory bowel diseases: from pathophysiology to therapeutic opportunity.  (abst – 2012)  

Cannabis Finds Its Way into Treatment of Crohn's Disease.  (full – 2013)  
http://www.karger.com/Article/Pdf/356512

Pro-resolution, protective and anti-nociceptive effects of a cannabis extract in the rat gastrointestinal tract.  (full – 2013)  

Cannabis Induces a Clinical Response in Patients with Crohn's Disease: a Prospective Placebo-Controlled Study.  (full – 2013)  
http://www.cghjournal.org/article/S1542-3565%2813%2900604-6/fulltext

Marijuana use patterns among patients with inflammatory bowel disease.  (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4126607/

Industrial hemp decreases intestinal motility stronger than indian hemp in mice.  (link to PDF – 2013)  
http://www.europeanreview.org/article/3266

Inhibition of fatty acid amide hydrolase (FAAH) as a novel therapeutic strategy in the treatment of pain and inflammatory diseases in the gastrointestinal tract  (abst – 2013)  

Medical Marijuana for Digestive Disorders: High Time to Prescribe?  (full – 2014)  
http://www.nature.com/ajg/journal/v110/n2/full/ajg2014245a.html

The Comprehensive Report on the Cannabis Extract Movement and the Use of Cannabis Extracts to Treat Diseases  (link to load - 2014)  
http://www.slideshare.net/TheHempSolution/comprehensive-report-on-the-cannabis-extract-movement

Cannabis for inflammatory bowel disease.  (abst – 2014)  


Gastric mucosal protection: from the periphery to the central nervous system. (full – 2015) http://www.jpp.krakow.pl/journal/archive/06_15/pdf/319_06_15_article.pdf


Monoglyceride lipase-deficiency causes desensitization of intestinal cannabinoid receptor type 1 and increased colonic μ-opioid receptor sensitivity. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4556478/

AM841, a covalent cannabinoid ligand, powerfully slows gastrointestinal motility in normal and stressed mice in a peripherally-restricted manner. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4403103/

In vitro and non-invasive in vivo effects of the cannabinoid-1 receptor agonist AM841 on gastrointestinal motor function in the rat. (full – 2015) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4918633/


Therapeutic Use of Cannabis in Inflammatory Bowel Disease (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5193087/

Fatty acid amide hydrolase (FAAH) blockade ameliorates experimental colitis by altering microRNA expression and suppressing inflammation.  (abst – 2016)  

Efficacy, tolerability, and safety of cannabinoids in gastroenterology: A systematic review  
(abst – 2016)  

Role of cannabis in digestive disorders.  
(abst – 2016)  

Dietary Supplement Therapies for Inflammatory Bowel Disease: Crohn's Disease and Ulcerative Colitis.  
(abst – 2016)  

Cannabinoid Receptor 2 Functional Variant Contributes to the Risk for Pediatric Inflammatory Bowel Disease.  
(abst – 2016)  

Role of cannabis in digestive disorders  
http://www.ingentaconnect.com/search/article?option1=tka&value1=cannabinoid&sortDescending=true&sortField=prism_publicationDate&pageSize=10&index=3

**CRPS/ RSD - COMPLEX REGIONAL PAIN SYNDROME/ REFLEX SYMPATHETIC DYSTROPHY/ CAUSALGIA**

Treatment of chronic regional pain syndrome type 1 with palmitoylethanolamide and topical ketamine cream: modulation of nonneuronal cells  
(full - 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3643547/

Activation of Cannabinoid Receptor 2 Attenuates Mechanical Allodynia and Neuroinflammatory Responses in a Chronic Post-Ischemic Pain Model of Complex Regional Pain Syndrome Type I in Rats.  
(abst – 2016)  

**>CRUETZFELDT-JACOB DISEASE** - see MAD COW DISEASE

**>CT-3** — see AJULMIC ACID in the SYNTHETICS section
CULTIVATION - not meant to be a “grow guide”, just a “fun” section with no restrictions.

What kind of fertilizer for hemp, at home (news – undated)
http://geomedia.top/what-kind-of-fertilizer-for-hemp-at-home/

History of Hemp Cultivation in Britain (news – undated)
http://www.ukcia.org/culture/history/hmpukhis.php

Observations on the raising and dressing of hemp (1789)
As text- http://memory.loc.gov/cgi-bin/query/r?ammem/faw:@field%28DOCID+icufawbs0010%29

Observations on the raising and dressing of hemp (1789)
Original format- http://memory.loc.gov/cgi-bin/ampage?collId=icufaw&fileName=cbc0010/icufawbc0010.db&recNum=0&item1.ink=D?


Influence of Environment on Sexual Expression in Hemp (1923)
http://www.jstor.org/stable/2469863?seq=1#page_scan_tab_contents

CARBOHYDRATE-NITROGEN RATIOS WITH RESPECT TO THE SEXUAL EXPRESSION OF HEMP (1934) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC439101/

TIME FACTOR IN UTILIZATION OF MINERAL NUTRIENTS BY HEMP by Sister Mary Etienne Tibeau (1936)

New Billion Dollar Crop (news – 1938)
http://www.hempfarm.org/BillionDollarCrop.html

New Billion Dollar Crop- Popular Mechanics (in original on page 239) (news – 1938)
https://books.google.com/books?id=e9sDAAAMBAJ&printsec=frontcover&dq=popular+mechanics+the+new+billion+dollar+crop&hl=en&sa=X&ved=0CB0Q6AEwAGoVChM13qOk3cHqwIVBiqICb19XAHE#v=onepage&q=billion%20dollar&f=false
GROWTH RESPONSES OF HEMP TO DIFFERENTIAL SOIL AND AIR TEMPERATURES. (full – 1944)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC438156/

Problems of modern hemp breeding, with particular reference to the breeding of varieties of hemp containing little or no hashish (full – 1956)

Auxin and Sexuality in Cannabis sativa (1st page – 1956)


Effects of Chronic Smoking of Cannabis in Jamaica (download – 1972)
Effects of Chronic Smoking of Cannabis in Jamaica

Cannabinoid Profile and Elemental Uptake of Cannabis sativa L. as Influenced by Soil Characteristics (full - 1975)


Cannabinoid composition and gland distribution in clone of Cannabis sativa L. (Cannabaceae) (full – 1978)

CHEMOTAXONOMY OF CANNABIS 1. CROSSBREEDING BETWEEN CANNABIS SATIVA AND C. RUDERALIS, WITH ANALYSIS OF CANNABINOID CONTENT (link to download - 1978)


An investigation of procedures reported to increase potency of marijuana: a chemical analysis and psychological interpretation. (abst – 1978)


The role of leaves in sex expression in hemp and spinach. (abst – 1979)

Sequential appearance of cannabinoids during seedling development (full – 1980)
https://www.realhemp.com/marihuana-84/

NEW FOSSIL EVIDENCE FOR THE PAST CULTIVATION AND PROCESSING OF HEMP (CANNABIS SATIVA L.) IN EASTERN ENGLAND (full – 1981)

Some features of Cannabis plants grown in the United Kingdom from seeds of known origin. (full - 1982)

Induction of fertile male flowers in genetically female Cannabis sativa plants by silver nitrate and silver thiosulphate anionic complex (abst – 1982)

Marijuana, Cannabis sativa L: Moraceae, Cannaboideae. (full – 1983)

Structure, development and composition of glandular trichomes of Cannabis (link to PDF – 1984)

Variation in vegetative growth and trichomes in Cannabis sativa L. (Marihuana) in response to environmental pollution (abst – 1984)
http://www.osti.gov/scitech/biblio/5904627

UV-B radiation effects on photosynthesis, growth and cannabinoid production of two Cannabis sativa chemotypes (link to download – 1987)
DOWNLOAD PDF VERSION

Histochemical detection of hemp trichomes and their correlation with the THC content. (abst - 1988)
Db=pubmed&Cmd=Retrieve&list_uids=2855383&dopt=abstractplus

Male and female plant selection in the cultivation of hemp, and variations in fossil Cannabis pollen representation (link to download - 1992)
http://journals.sagepub.com/doi/abs/10.1177/095968369200200111

Anatomy and Viability of Cannabis sativa Stem Cuttings With and Without Adventitious Roots (abst – 1994)
http://www.astm.org/DIGITAL_LIBRARY/JOURNALS/FORENSIC/PAGES/JFS13654J.htm
Commercial Hemp Cultivation in Canada "An Economic Justification" (full – 1995) http://www.naihc.org/hemp_information/content/dmarcustx.html


Immonochemical localization of tetrahydrocannabinol (THC) in cryofixed glandular trichomes of Cannabis (Cannabaceae) (full – 1997) http://www.amjbot.org/content/84/3/336.full.pdf+html

Effect of nitrogen on tetrahydrocannabinol (THC) content in hemp (Cannabis sativa L.) leaves at different positions (full - 1997) http://www.internationalhempassociation.org/jiha/jiha4207.html


Distortion of Teatree Stems by Twine As a Means to Determine the Number of Years That the Stems Have Been Used to Support Cannabis Plants. (abst – 2001) http://www.ncbi.nlm.nih.gov/pubmed/11451066

HISTORICAL AND CULTURAL USES OF CANNABIS AND THE CANADIAN "MARIJUANA CLASH" (full – 2002)
http://www.parl.gc.ca/content/sen/committee/371/ille/library/spicer-e.htm

http://www.thefrugallife.com/mildew.html

Hemp: A New Crop with New Uses for North America (news – 2002)
http://www.hort.purdue.edu/newcrop/ncon02/v5-284.html

http://www.nrcresearchpress.com/doi/abs/10.4141/P02-021#.V3IMUqJA76h

Comparing Hemp Seed Yields (Cannabis sativa L.) of an On-Farm Scientific Field Experiment to an On-Farm Agronomic Evaluation Under Organic Growing Conditions in Lower Austria (abst – 2004)
http://www.tandfonline.com/doi/abs/10.1300/J237v09n01_05

Cold - resistance of hemp (Cannabis Sativa L.) (full – 2004)
http://vir.nw.ru/hemp/hemp2.htm

US Patent Application 20070151149 - Methods for altering the level of phytochemicals in plant cells by applying wave lengths of light from 400 nm to 700 nm and apparatus therefore. (full - 2004)


Cover Me with Hemp (news – 2004)


Home remedies for powdery mildew (news – 2005)
http://www.growingformarket.com/articles/powdery-mildew-solutions

Seeding rate and row spacing effect on weed competition, yield and quality of hemp in the Parkland region of Saskatchewan  
(link to PDF – 2006)  
http://www.nrcresearchpress.com/doi/abs/10.4141/P05-177#.V3ILRqJA76h

Yield of illicit indoor cannabis cultivation in the Netherlands.  
(abst – 2006)  

THE EFFECT OF PLANT DENSITY AND NITROGEN FERTILIZER ON LIGHT INTERCEPTION AND DRY MATTER YIELD IN HEMP (CANNABIS SATIVA L.)  
(abst – 2006)  

Want shorter flowers? Just add liquor  
(news – 2006)  

Apparent increase in biomass and see productivity in hemp (Cannabis sativa) resulting from branch proliferation caused by the European corn borer (Ostrinia nubilalis).  
(abst – 2007)  
http://www.agr.gc.ca/eng/abstract/?id=956100000564

Detection method for the ability of hemp (Cannabis sativa L.) seed germination by the use of 2,3,5-triphenyl-2H-tetrazolium chloride (TTC)  
(full - 2008)  

Effect of Sowing Date on Growth and Development of Thai Hemp (Cannabis sativa L.)  
(full – 2008)  

Photosynthetic response of Cannabis sativa L. to variations in photosynthetic photon flux densities, temperature and CO2 conditions.  
(link to PDF– 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3550641/

The cultivation and utilisation of hemp in Scotland  
(abst – 2008)  

Hemp (Cannabis) Cultivation and Use in the Republic of Korea  
(abst – 2008)  
http://www.tandfonline.com/doi/abs/10.1300/J237v11n01_07?src=recsys

A PROPAGATION SYSTEM FOR CLONING OF HEMP (CANNABIS SATIVA L.) BY SHOOT TIP CULTURE  
(full – 2009)  
http://www.pakbs.org/pjbot/PDFs/41%282%29/PJB41%282%29603.pdf

Propagation through alginate encapsulation of axillary buds of Cannabis sativa L. - an important medicinal plant.  
(full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3550375/

Cannabis Yields and Dosage  
(full – 2009)  
A PROPAGATION SYSTEM FOR CLONING OF HEMP (CANNABIS SATIVA L.)
BY SHOOT TIP CULTURE (full – 2009)
http://www.pakbs.org/pjbot/PDFs/41%282%29/PJB41%282%29603.pdf

The Effect of Ultraviolet Radiation on the Accumulation of Medicinal Compounds in Plants
(link to download – 2009) READ MORE

Assessment of Cannabinoids Content in Micropropagated Plants of Cannabis sativa and Their Comparison with Conventionally Propagated Plants and Mother Plant during Developmental Stages of Growth. (abst - 2009)


Effects of Gibberellic Acid on Primary Terpenoids and Delta-Tetrahydrocannabinol in Cannabis sativa at Flowering Stage. (abst - 2009)
http://www.unboundmedicine.com/medline/ebm/record/19522814/abstract/Effects_of_Gibberellic_Acid_o n_Primary_Terpenoids_and_Delta_Tetrahydrocannabinol_in_Cannabis_sativa_at_Flowering_Stage


Characteristics of Cannabis sativa L.: seed morphology, germination and growth characteristics, and distinction from Hibiscus cannabinus L (link to PDF – 2010)
https://www.jstage.jst.go.jp/article/yakushi/130/2/130_2_237/_article

Patterns of Youth Participation in Cannabis Cultivation (link to download – 2010) http://jod.sagepub.com/content/40/2/263.abstract

High Frequency Plant Regeneration from Leaf Derived Callus of High Δ9-Tetrahydrocannabinol Yielding Cannabis sativa L. (abst - 2010)

Assessment of the Genetic Stability of Micropropagated Plants of Cannabis sativa by ISSR Markers (abst – 2010)

The results of an experimental indoor hydroponic Cannabis growing study, using the 'Screen of Green' (ScrOG) method-Yield, tetrahydrocannabinol (THC) and DNA analysis. (abst – 2010) http://www.ncbi.nlm.nih.gov/pubmed/20462712

The case for small-scale domestic cannabis cultivation. (abst – 2010)


Photosynthetic response of Cannabis sativa L., an important medicinal plant, to elevated levels of CO2. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3550578/


Variations in Photosynthesis, Transpiration, Water Use and Cannabinoid Contents in Field Grown Drug Type Varieties of Cannabis sativa L.  (abst – 2011)

In vitro Germplasm Conservation of High THC Yielding Elite Clones of Cannabis sativa L. under Slow Growth Conditions (abst – 2011)

Analysis of Genetic Diversity using SSR Markers and Cannabinoid Contents in Different Varieties of Cannabis sativa L. (abst – 2011)

Botany of Cannabis sativa L.: Identification, Cultivation and Processing (abst – 2011)

EVALUATION ALLELOPATHIC EFFECT OF HEMP (CANNABIS SATIVA L.) ON GERMINATION AND GROWTH OF THREE KINDS OF WEEDS (abst – 2011)

Medicinal Genomics Sequences the Cannabis Genome to Assemble the Largest Known Gene Collection of this Therapeutic Plant. (news – 2011)
http://www.thefreelibrary.com/Medicinal+Genomics+Sequences+the+Cannabis+Genome+to+Assemble+the...a0264585240

Attack of the Clones (news – 2011)

Genome of Marijuana Sequenced and Published (news – 2011)

Miracle-Gro for marijuana? (news – 2011)
http://theweek.com/article/index/216317/miracle-gro-for-marijuana

Feasibility of Using Mycoherbicides to Control Illicit Drug Crops Is Uncertain (news – 2011)

What Medical Marijuana strain is best for your condition, Sativa or Indica? (forum repost – 2011)


Tips On Selecting Cannabis Seeds (article – 2012)
http://www.buydutchseeds.com/blog/tips-on-selecting-cannabis-seeds.html

Common Hemp Crop Pests (article – 2012)


Farmer starts 'accidental cannabis plantation' (news – 2012)  http://www.thelocal.de/20120905/44777
The role of child protection in cannabis grow-operations. (full – 2013)
www.canorml.org/child.welfare.pdf

Nematicidal activities of Cannabis sativa L. and Zanthoxylum alatum Roxb. against Meloidogyne incognita (abst – 2013)

A review of the cultivation and processing of cannabis (Cannabis sativa L.) for production of prescription medicines in the UK. (abst – 2013)

Ecophysiological Aspects of in vitro Propagated Cannabis sativa L. Plants During Acclimatization (abst – 2013)

THE EFFECT OF ABA ON PIGMENTS AND TETRAHYDROCANNABINOL IN CANNABIS SATIVA AT FLOWERING STAGE (abst – 2013)


Ethephon application stimulates cannabinoids and plastidic terpenoids production in Cannabis sativa at flowering stage (abst – 2013)

How to Harvest Cannabis Plants (news – 2013)
http://www.weedist.com/2013/07/how-to-harvest-cannabis-plants/

Young cannabis confirmed: Cannabinoid content discriminates between drug and hemp forms of cannabis seedlings (news – 2013)

Indoor Growing: Dirty Fingernails, Better Life (news – 2013)
http://www.weedist.com/2013/09/indoor-growing-dirty-fingernails-better-life/

CBD strains from Europe Grown Out in California (news – 2013)

Recommendations for Regulators – Cannabis Operations (full – 2014)
www.a2la.org/appsweb/ASA_PFC_2016.pdf

Let it grow—the open market solution to marijuana control (full – 2014)
http://www.harmreductionjournal.com/content/11/1/32

Understanding Cultivar-Specificity and Soil Determinants of the Cannabis Microbiome.
Study of leaf metabolome modifications induced by UV-C radiations in representative Vitis, Cissus and Cannabis species by LC-MS based metabolomics and antioxidant assays. (full – 2014) http://www.mdpi.com/1420-3049/19/9/14004/htm

Hashish revival in Morocco. (full – 2014) http://www.ijdp.org/article/S0955-3959%2814%2900003-6/fulltext

Molecular cytogenetic characterization of the dioecious Cannabis sativa with an XY chromosome sex determination system. (full – 2014) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0085118


New evidence on the introduction, cultivation and processing of hemp (Cannabis sativa L.) in southern Sweden (link to download – 2014) http://www.academia.edu/11727026/New_evidence_on_the_introduction_cultivation_and_processing_of_hemp_Cannabis_sativa_L.

Amber is Bad? (article – 2014) http://growhappyplants.com/look.html


Attitudes of cannabis growers to regulation of cannabis cultivation under a non-prohibition cannabis model. (abst – 2014)
Production, perceptions, and punishment: Restrictive deterrence in the context of cannabis cultivation. (abst – 2014)

Cold acclimation induces distinctive changes in the chromatin state and transcript levels of COR genes in Cannabis sativa varieties with contrasting cold acclimation capacities. (abst – 2014)

Cannabis micropropagation – Applications and updates (abst – 2014)

EFFECT OF BIOFERTILIZER, UNDER SALINITY CONDITION ON THE YIELD AND OIL CONTENT OF THREE ECOTYPE OF HEMP (CANNABIS SATIVA L.) (abst – 2014)

Allelopathic effect of fibre hemp (Cannabis sativa L.) on monocot and dicot plant species (abst – 2014)

How to Use Dr. Bronners As Insecticidal Soap (news - 2014)

Powdery Mildew On Marijuana Plants (news – 2014)

Music to grow cannabis by (news – 2014)

Hemp growers cooperatives' report touts crop’s benefits to coal (news – 2014)

Weed’s Chronic Energy Use Becomes a Concern (news – 2014)

Mississippi, home to federal government's official stash of marijuana (news – 2014)

Before pot yield of their dreams, constant care for fickle plants (news – 2014)

Why Chocolope? To sell marijuana, you need a clever name (news – 2014)

Thomas Jefferson's Favorite Plant Is Back in American Soil (news - 2014) 

Federal marijuana bill would legalize some cannabis strains (news – 2014) 

U.S. government to grow 30 times more marijuana this year (news – 2014) 

Marijuana: Italian Army to Grow Cannabis for Medical Purposes (news – 2014) 
https://uk.news.yahoo.com/marijuana-italian-army-grow-cannabis-medical-purposes-120852716.html#oZ9vNGz

Where Americans Smoke and Grow Marijuana (Maps) (news – 2014) 

Legal Pot In The U.S. May Be Undercutting Mexican Marijuana (news – 2014) 

U.S. won't stop Native Americans from growing, selling pot on their lands (news – 2014) 

Money to burn (news – 2014) 
http://mashable.com/2014/12/31/marijuana-farm-startup/?utm_campaign=Mash-Prod-RSS-Feedburner-All-Partial&utm_cid=Mash-Prod-RSS-Feedburner-All-Partial&utm_medium=feed&utm_source=rss

What is the difference between Indica and Sativa Marijuana Plants? (news- 2014) 

Flowering Week by Week (news – 2014) 
http://www.bloomwellbend.com/flowering-week-week/

Why Don’t We Grow Tomatoes in Basements? The Future of Cannabis Cultivation Is in Greenhouses (news – 2014) 

The globalisation of cannabis cultivation: A growing challenge (full – 2015) 
http://www.ijdp.org/article/S0955-3959%2815%2900003-1/fulltext

Intrusive growth of primary and secondary phloem fibres in hemp stem determines fibre bundle formation and structure. (full – 2015) 
http://aobpla.oxfordjournals.org/content/early/2015/05/27/aobpla.plv061.long

Global patterns of domestic cannabis cultivation: Sample characteristics and patterns of growing across eleven countries. (full – 2015) 
http://www.ijdp.org/article/S0955-3959%2814%2900363-6/fulltext
The Genetic Structure of Marijuana and Hemp.  (full – 2015)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0133292

Comparative genomics of a cannabis pathogen reveals insight into the evolution of pathogenicity in Xanthomonas.  (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4468381/

Impacts of surface water diversions for marijuana cultivation on aquatic habitat in four northwestern California watersheds.  (full – 2015)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0120016

The globalisation of cannabis cultivation: A growing challenge  (full – 2015)
http://www.ijdp.org/article/S0955-3959%2815%2900003-1/fulltext

Are Moroccan cannabis growers able to adapt to recent European market trend?  (full – 2015)  http://www.ijdp.org/article/S0955-3959%2814%2900336-3/fulltext


Seized cannabis seeds cultivated in greenhouse: A chemical study by gas chromatography–mass spectrometry and chemometric analysis  (link through Elsevier to get link to get full – 2015)

CONTROLLED SUBSTANCES CHAOS: THE DEPARTMENT OF JUSTICE’S NEW POLICY POSITION ON MARIJUANA AND WHAT IT MEANS FOR INDUSTRIAL HEMP FARMING IN NORTH DAKOTA  (link to download - 2015)
controlled substances chaos: the department of justice's new policy...


Assessing the harms of cannabis cultivation in Belgium.  (abst – 2015)


Legal issues for German-speaking cannabis growers. Results from an online survey. (abst – 2015) http://www.ijdp.org/article/S0955-3959%2815%2900315-1/abstract


Science Seeks to Unlock Marijuana’s Secrets (news – 2015) (may need subscription) http://ngm.nationalgeographic.com/2015/06/marijuana/sides-text


Deer devour hemp crops at southern Oregon farm (news – 2015)

In the land of towering pot plants, Pakistani farmers brace for a buzz-kill (news – 2015)

The Great Kentucky Hemp Experiment (news – 2015)

New Poll Finds Millions Would Like to "Grow Your Own" (news – 2015)

How LEDs Are Making Weed Better (news – 2015)
http://www.wired.com/2015/10/leds-upended-marijuana-growing-can-upend-agriculture/

Distribution Of Sugars Within Marijuana Plants (news – 2015)

Is marijuana a single species?: While you’re searching for the perfect high, scientists go deeper (news – 2015)
http://www.salon.com/2015/09/28/is_marijuana_a_single_species_while_youre_searching_for_the_perfect_high_scientists_go_deeper_partner/


Pot pesticides: What exactly are these chemicals, and why are they banned? (news – 2015)
http://www.denverpost.com/2015/12/07/pot-pesticides-what-exactly-are-these-chemicals-and-why-are-they-banned/

Growing Marijuana At A Cellular Level (news – 2015)
http://www.theweeklyweedonline.com/growing-marijuana-at-a-cellular-level/

Growing Medical Weed Is NOT a Crime, California Appeals Court Rules (news – 2015)

Indoor farming: Good for cannabis, not so good for food (news – 2015)
http://gigaom.com/2015/12/29/indoor-farming-good-for-cannabis-not-so-good-for-food/
Study: pot cultivation is hurting the environment
http://www.upi.com/Science_News/2015/06/24/Study-pot-cultivation-is-hurting-the-environment/8731435178082/?spt=sec&or=sn

Neat “Trick” Could Save Michigan Marijuana Growers 66% On Electric Bills

Swedish man acquitted in court for growing medical marijuana

Japan’s First Lady Wants To Be A Hemp Farmer

Is It Better To Grow Marijuana Hydroponically Or In Soil?
http://www.theweeklyweedonline.com/is-it-better-to-grow-marijuana-hydroponically-or-in-soil/

Marijuana Farmers VS Hemp Farmers Over Pollen

We've got weed. The Oregonian's outdoor marijuana plant was harvested. | Pot Grow Diary (Day 115)
http://www.oregonlive.com/marijuana/index.ssf/2015/10/weve_got_weed_the_oregonians_o.html

It's a ____ ! The Oregonian's marijuana seedlings' gender revealed. What should we name them? (Pot Grow Diary | Day 24)
http://www.oregonlive.com/marijuana/index.ssf/2015/07/its_a____the_oregonians_mari.html

*Cannabis sativa*: The Plant of the Thousand and One Molecules

High Time for Conservation: Adding the Environment to the Debate on Marijuana Liberalization.
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4776720/

Studying Secondary Growth and Bast Fiber Development: The Hemp Hypocotyl Peeks behind the Wall.

A Belated Green Revolution for Cannabis: Virtual Genetic Resources to Fast-Track Cultivar Development.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4965456/

Applications To Become Registered Under the Controlled Substances Act To Manufacture Marijuana To Supply Researchers in the United States. Policy statement.
Farming medical ganja in Jamaica. (click ELSEVIER for 1st page – 2016)

Hashish in Morocco and Lebanon: A comparative study (abst – 2016)

Medical use of cannabis products: Lessons to be learned from Israel and Canada. (abst – 2016)

Chapter 1 – The Botany of Cannabis sativa L. (abst – 2016)

Evolution of the Cannabinoid and Terpene Content during the Growth of Cannabis sativa Plants from Different Chemotypes. (abst – 2016)
http://pubs.acs.org/doi/abs/10.1021/acs.jnatprod.5b00949

The influences of cultivation setting on inflorescence lipid distributions, concentrations, and carbon isotope ratios of Cannabis sp. (abst – 2016)

In Vitro Propagation of Cannabis sativa L. and Evaluation of Regenerated Plants for Genetic Fidelity and Cannabinoids Content for Quality Assurance. (abst – 2016)

Monitoring Metabolite Profiles of Cannabis sativa L. Trichomes during Flowering Period Using 1H NMR-Based Metabolomics and Real-Time PCR. (abst – 2016)


Cannabis clubs in Uruguay: The challenges of regulation. (abst – 2016)


Near infrared spectroscopy combined with chemometrics for growth stage classification of cannabis cultivated in a greenhouse from seized seeds. (abst – 2016)

Transcriptome differences between fiber-type and seed-type Cannabis sativa variety exposed to salinity. (abst – 2016) https://www.ncbi.nlm.nih.gov/pubmed/27924117


Marijuana campaign tactic: Buy American, not Mexican  (news – 2016)

The Latest: California lawmakers OK water for pot growers  (news – 2016)

The Sweet Spot  (news – 2016)
http://www.northcoastjournal.com/humboldt/the-sweet-spot/Content?oid=3836973

An elderly couple found help for a brain injury through marijuana — then police found 20 pot plants growing at their home  (news – 2016)

Fake 'Organic' Pot Gardening Products Yanked From Oregon Stores  (news – 2016)

Farmers are planting marijuana to clean up the land contaminated by Europe's biggest steel mill  (news – 2016)
http://www.businessinsider.com/italian-farmers-turning-to-hemp-2016-7

Quiz: Do your neighbors think you’re running a marijuana operation?  (news – 2016)

High Science: Tissue Culture Cultivation Is The Future Of Growing  (news – 2016)
http://herb.co/2016/07/09/tissue-culture-cultivation/

Pot Not the New Almond  (news – 2016)

Marijuana industry brought to a standstill by new pesticide testing regulations (news – 2016)

Cannabis farmers hidden in India's Himalayas  (news/photo essay – 2016)

**CUSHING'S SYNDROME**

CB1 receptor mediates the effects of glucocorticoids on AMPK activity in the hypothalamus.  (full– 2013)  http://joe.endocrinology-journals.org/content/219/1/79.long
**CYSTIC FIBROSIS**

"Bong lung" in cystic fibrosis: a case report  
[full - 2010](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2998526/?tool=pmcentrez)

Treatment with tetrahydrocannabinol (THC) prevents infertility in male cystic fibrosis mice.  

Behavioral alterations in cystic fibrosis mice are prevented by cannabinoid treatment in infancy  

**CYSTITIS**

The afferent system and its role in lower urinary tract dysfunction.  

Activation of Cannabinoid Receptor 2 Inhibits Experimental Cystitis.  
[full – 2013](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3652164/)

Treatment with a Cannabinoid Receptor 2 Agonist Decreases Severity of Established Cystitis.  
[full – 2013](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4163202/)

Attenuation of Cystitis and Pain Sensation in Mice Lacking Fatty Acid Amide Hydrolase.  
[full – 2014](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4355044/)

Evaluation of selective cannabinoid CB1 and CB2 receptor agonists in a mouse model of lipopolysaccharide-induced interstitial cystitis.  

Protective effect of palmitoylethanolamide, a naturally-occurring molecule, in a rat model of cystitis.  

Intrathecal cannabinoid-1 receptor agonist prevents referred hyperalgesia in acute acrolein-induced cystitis in rats.  
[full – 2015](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4446380/)

Endocannabinoids and the Digestive Tract and Bladder in Health and Disease.  
[abst – 2015](http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_14)
DEPRESSION +*-

The use of Cannabidiol (CBD) to Reduce Insomnia and the Urge To Use Alcohol in a Geriatric person in on going Behavior Therapy.  (case report – undated)
http://cannabisclinicians.org/view-all-case-reports/entry/420/?pagenum=2

The use of Cannabidiol (CBD) and Meditation to reduce Binge Drinking, Anxiety and to improve Emotional Regulation in Long Term Behavior Therapy (case report – undated)
http://cannabisclinicians.org/view-all-case-reports/entry/437/?pagenum=2

Mixed mood disorder (case report – undated)
http://cannabisclinicians.org/view-all-case-reports/entry/228/?pagenum=2

Harm Reduction: Alcohol Use Disorder, Cannabis-induced Psychotic Disorder and a tale of two Hemp Oils, in a Patient diagnosed with a Cluster A & B Personality Disorders in Long Term Behavior Therapy.  (case report – undated)
http://cannabisclinicians.org/view-all-case-reports/entry/601/?pagenum=2

Antidepressant-like effect of delta9-tetrahydrocannabinol and other cannabinoids isolated from Cannabis sativa L.  (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2866040/?tool=pubmed

Uni-Morbid and Co-Occurring Marijuana and Tobacco Use: Examination of Concurrent Associations with Negative Mood States  (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2861285/?tool=pubmed


Deficiency in Endocannabinoid Signaling in the Nucleus Accumbens Induced by Chronic Unpredictable Stress  (full - 2010)
http://www.nature.com/npp/journal/v35/n11/full/npp201099a.html

Depression-resistant endophenotype in mice overexpressing cannabinoid CB2 receptors (full – 2010)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2936848/?report=classic

The Potential Role of Cannabinoids in Modulating Serotonergic Signaling by Their Influence on Tryptophan Metabolism  (full – 2010)
Brain CB2 Receptors: Implications for Neuropsychiatric Disorders (link to PDF – 2010)  

Genes differentially expressed in CB1 knockout mice: involvement in the depressive-like phenotype.  (abst – 2010)  

Gadolinium-HU-308-incorporated micelles.  (full – 2011)  

Is lipid signaling through cannabinoid 2 receptors part of a protective system?  (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3062638/

Cannabidiol as an emergent therapeutic strategy for lessening the impact of inflammation on oxidative stress.  (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3085542/

N-palmitoylethanolamide, an endocannabinoid, exhibits antidepressant effects in the forced swim test and the tail suspension test in mice.  (full – 2011)  

Nutritional omega-3 deficiency abolishes endocannabinoid-mediated neuronal functions.  (abst – 2011)  

Nutritional omega-3 deficiency abolishes endocannabinoid-mediated neuronal functions.  
Figure 1: n-3/n-6 PUFA dietary imbalance alters PUFAs level in mouse brain.  
(charts – 2011)  

Endocannabinoid system dysfunction in mood and related disorders.  (abst – 2011)  

Intense exercise increases circulating endocannabinoid and BDNF levels in humans—Possible implications for reward and depression  (abst – 2011)  
http://www.psyneuen-journal.com/article/PIIS0306453011002873/abstract?rss=yes

Personalized medicine can pave the way for the safe use of CB₁ receptor antagonists.  
(abst – 2011)  
http://www.cell.com/trends/pharmacological-sciences/abstract/S0165-6147(11)00035-6

Cannabinoids and emotionality: a neuroanatomical perspective.  (abst – 2011)  
Testing bidirectional effects between cannabis use and depressive symptoms: moderation by the serotonin transporter gene (abst – 2011)

High on Life? Medical Marijuana Laws and Suicide (full – 2012)


Cannabis use and depression: a longitudinal study of a national cohort of Swedish conscripts (full – 2012) http://www.biomedcentral.com/1471-244X/12/112

Cannabinoid Receptor Genotype Moderation of the Effects of Childhood Physical Abuse on Anhedonia and Depression. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3706194/

Multiple mechanisms involved in the large-spectrum therapeutic potential of cannabidiol in psychiatric disorders. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3481531/

Targeting the endocannabinoid system with cannabinoid receptor agonists: pharmacological strategies and therapeutic possibilities (full – 2012)
http://rstb.royalsocietypublishing.org/content/367/1607/3353.full?sid=1569c370-cd5c-4358-89ff-857201f5e069

Genetic variability in the endocannabinoid system and 12-week clinical response to citalopram treatment: the role of the CNR1, CNR2 and FAAH genes (full – 2012)
http://journals.sagepub.com/doi/full/10.1177/0269881112454229

Effect of delta-9-tetrahydrocannabinol on behavioral despair and on presynaptic and postsynaptic serotonergic transmission. (abst – 2012)


Lower levels of cannabinoid 1 receptor mRNA in female eating disorder patients: Association with wrist cutting as impulsive self-injurious behavior. (abst – 2012)

Expression pattern of the cannabinoid receptor genes in the frontal cortex of mood disorder patients and mice selectively bred for high and low fear. (abst – 2012)

Opposing local effects of endocannabinoids on the activity of noradrenergic neurons and release of noradrenaline: relevance for their role in depression and in the actions of CB(1) receptor antagonists.  (abst – 2012)  http://www.ncbi.nlm.nih.gov/pubmed/22990678


Effect of dietary fat type on anxiety-like and depression-like behavior in mice (full – 2013)  http://www.springerplus.com/content/2/1/165


Translational evidence for the involvement of the endocannabinoid system in stress-related psychiatric illnesses.          (full – 2013)  http://www.biolmoodanxietydisord.com/content/3/1/19


A Randomized Double-blind, Placebo Controlled Trial of Venlafaxine-Extended Release for Co-occurring Cannabis Dependence and Depressive Disorders  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3636166/

Low frequency stimulation evokes serotonin release in the nucleus accumbens and induces long-term depression via production of endocannabinoid.  (full – 2013)  http://jn.physiology.org/content/111/5/1046.long

The effects of anandamide signaling enhanced by the FAAH inhibitor URB597 on coping styles in rats.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3830591/

The endocannabinoid system and emotional processing: A pharmacological fMRI study with Δ9-tetrahydrocannabinol  (full – 2013)  http://www.europeanneuropsychopharmacology.com/article/S0924-977X%2813%2900195-8/fulltext

Cannabinoid Receptor Activation Prevents the Effects of Chronic Mild Stress on Emotional Learning and LTP in a Rat Model of Depression.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3924526/

Endocannabinoid Signaling in the Etiology and Treatment of Major Depressive Illness.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4002665/

Molecular Mechanisms of Depression: Perspectives on New Treatment Strategies
(full – 2013)  http://www.karger.com/Article/FullText/350094

Can Marijuana Reduce Social Pain?  (full – 2013)
http://journals.sagepub.com/doi/full/10.1177/1948550613488949

Screening genetic variability at the CNR1 gene in both major depression etiology and clinical response to citalopram treatment.  (abst – 2013)

Additive effect of rimonabant and citalopram on extracellular serotonin levels monitored with in vivo microdialysis in rat brain.  (abst – 2013)

Entopeduncular nucleus endocannabinoid system modulates sleep-waking cycle and mood in rats.  (abst – 2013)

Additive effect of rimonabant and citalopram on extracellular serotonin levels monitored with in vivo microdialysis in rat brain.  (abst – 2013)

Sleep Quality Moderates the Relation between Depression Symptoms and Problematic Cannabis Use among Medical Cannabis Users.  (abst – 2013)

Effects of palmitoylethanolamide and luteolin in an animal model of anxiety/depression.  (abst – 2013)

The endocannabinoid system and its possible role in neurobiology of psychiatric disorders  (abst – 2013)

Testing bidirectional effects between cannabis use and depressive symptoms: moderation by the serotonin transporter gene  (abst – 2013)

Antidepressants and Changes in Concentration of Endocannabinoids and N-Acylethanolamines in Rat Brain Structures.  (full – 2014)
http://download.springer.com/static/pdf/559/art%253A10.1007%252Fs12640-014-9465-0.pdf?auth66=1395868546_998a8d5d87cb02529572689ff9213e4a&ext=.pdf

Genetic Variations in the Human Cannabinoid Receptor Gene Are Associated with Happiness  (full – 2014)
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0093771

Therapeutic benefits of cannabis: a patient survey.  (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3998228/
Effects of chaiyuwendan decoction on endocannabinoids levels in adipose tissue of rats with chronic stress-induced depression. (full – 2014)  

Genetic Disruption of 2-Arachidonoylglycerol Synthesis Reveals a Key Role for Endocannabinoid Signaling in Anxiety Modulation. (full – 2014)  
http://www.cell.com/cell-reports/fulltext/S2211-1247(14)00955-3

Polymorphic expression of CYP2C19 and CYP2D6 in the developing and adult human brain causing variability in cognition, risk for depression and suicide: the search for the endogenous substrates. (full – 2014)  

http://www.nature.com/npp/journal/v40/n2/full/npp2014198a.html

Neural Effects of Cannabinoid CB1 Neutral Antagonist Tetrahydrocannabivarin (THCv) on Food Reward and Aversion in Healthy Volunteers. (full – 2014)  
http://ijnp.oxfordjournals.org/content/18/6/pyu094.long

Monoacylglycerol Lipase Inhibition Blocks Chronic Stress-Induced Depressive-Like Behaviors via Activation of mTOR Signaling. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4023150/

Effects of the fatty acid amide hydrolase inhibitor URB597 on pain-stimulated and pain-depressed behavior in rats. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3963812/

Cannabinoid Transmission in the Prefrontal Cortex Bi-Phasically Controls Emotional Memory Formation via Functional Interactions with the Ventral Tegmental Area. (full – 2014)  
http://www.jneurosci.org/content/34/39/13096.long

The Endocannabinoid/Endovanilloid System and Depression. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4243035/

Relationships between serotonergic and cannabinoid system in depressive-like behavior: a PET study with [11C]-DASB. (full – 2014)  

Stress regulates endocannabinoid-CB1 receptor signaling. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4247817/

Drug discovery strategies that focus on the endocannabinoid signaling system in psychiatric disease. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4696509/
Cannabinoid Type 1 Receptor Availability in the Amygdala Mediates Threat Processing in Trauma Survivors. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4207337/


Nutritional omega-3 modulates neuronal morphology in the prefrontal cortex along with depression-related behaviour through corticosterone secretion (full – 2014) http://www.nature.com/tp/journal/v4/n9/full/tp201477a.html


Blockade of 2-arachidonoylglycerol hydrolysis produces antidepressant-like effects and enhances adult hippocampal neurogenesis and synaptic plasticity (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4517601/

Crosstalk between endocannabinoid and immune systems: a potential dysregulation in depression?  
(full – 2015)  

Chronic Adolescent Marijuana Use as a Risk Factor for Physical and Mental Health Problems in Young Adult Men.  
(full – 2015)  

(full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4476410/

Mechanisms of stress in the brain.  
(full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4933289/

Cannabis use, depression and anxiety: A 3-year prospective population-based study  
(link to PDF – 2015)  
http://www.jad-journal.com/article/S0165-0327%2815%2931030-2/abstract

Differential proteomic analysis of the anti-depressive effects of oleamide in a rat chronic mild stress model of depression.  
(abst – 2015)  

Involvement of norepinephrine and serotonin system in antidepressant-like effects of oleoylthanolamide in the mice models of behavior despair.  
(abst – 2015)  

The potential of inhibitors of endocannabinoid metabolism as anxiolytic and antidepressive drugs-A practical view.  
(abst – 2015)  

For whom the endocannabinoid tolls: Modulation of innate immune function and implications for psychiatric disorders.  
(abst – 2015)  

Antidepressant-like effects of the cannabinoid receptor ligands in the forced swimming test in mice: Mechanism of action and possible interactions with cholinergic system.  
(abst – 2015)  

CB1 receptors modulate affective behaviour induced by neuropathic pain.  
(abst – 2015)  

Antidepressant-like Effects of Oleoylthanolamide in a Mouse Model of Chronic Unpredictable Mild Stress.  
(abst – 2015)  

Smoke Your Troubles Away: Exploring the Effects of Death Cognitions on Cannabis Craving and Consumption.  
(abst – 2015)  
The endocannabinoid system role in the pathogenesis of obesity and depression

A cannabinoid receptor 1 polymorphism is protective against major depressive disorder in methadone-maintained outpatients.  (abst – 2015)

Endocannabinoid Modulation of Predator Stress-Induced Long-Term Anxiety in Rats.  

Antidepressant-like activity and cardioprotective effects of fatty acid amide hydrolase inhibitor URB694 in socially stressed Wistar Kyoto rats.  

Endocannabinoids and Mental Disorders.  
(abst – 2015)  http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_8

Involvement of opioid system in antidepressant-like effect of the cannabinoid CB1 receptor inverse agonist AM-251 after physical stress in mice.  

Inhibitors of Fatty Acid Amide Hydrolase and Monoacylglycerol Lipase: New Targets for Future Antidepressants.  
(abst – 2015)  http://www.eurekaselect.com/132200/article

Sex-dependence of anxiety-like behavior in cannabinoid receptor 1 (Cnr1) knockout mice.  

The fatty acid amide hydrolase inhibitor URB597 modulates serotonin-dependent emotional behaviour, and serotonin1A and serotonin2A/C activity in the hippocampus.  

Cannabidiol induces rapid-acting antidepressant-like effects and enhances cortical 5-HT/glutamate neurotransmission: role of 5-HT1A receptors.  

Mediating processes between stress and problematic marijuana use.  

Cannabinoid Receptors May Control Aversive Memories  

Monoacylglycerol lipase inhibitors produce pro- or antidepressant responses via hippocampal CA1 GABAergic synapses.  
(full – 2016)  http://www.nature.com/mp/journal/vaop/ncurrent/full/mp201622a.html

Cyclooxygenase-2 inhibition reduces stress-induced affective pathology.  
(full – 2016)  https://elifesciences.org/content/5/e14137
Putative Epigenetic Involvement of the Endocannabinoid System in Anxiety- and Depression-Related Behaviors Caused by Nicotine as a Stressor. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4942073/


Endocannabinoid-Mediated Plasticity in Nucleus Accumbens Controls Vulnerability to Anxiety after Social Defeat Stress. (full – 2016) http://www.cell.com/cell-reports/fulltext/S2211-1247(16)30851-8


Marijuana Compounds: A Nonconventional Approach to Parkinson’s Disease Therapy (full – 2016) https://www.hindawi.com/journals/pd/2016/1279042/


Placebo effect: clinical, biological and therapeutical involvements in depression

Sex and age specific effects of delta-9-tetrahydrocannabinol during the peradolescent period in the rat: The unique susceptibility of the prepubescent animal. (abst – 2016)

Sevoflurane Prevents Stroke-induced Depressive and Anxiety Behaviors by Promoting Cannabinoid Receptor Subtype I-dependent Interaction Between β-Arrestin 2 and ERK1/2 in the Rat Hippocampus. (abst – 2016)

Gender Differences in Associations Between Attention-Deficit/Hyperactivity Disorder and Substance Use Disorder. (abst – 2016)

Genetically reduced FAAH activity may be a risk for the development of anxiety and depression in persons with repetitive childhood trauma. (abst – 2016)
http://www.europeaneuropsychopharmacology.com/article/S0924-977X(16)00077-8/abstract

Lipids in psychiatric disorders and preventive medicine. (abst – 2016)

Bidirectional Associations Between Cannabis Use and Depressive Symptoms From Adolescence Through Early Adulthood Among At-Risk Young Men (abst – 2016)

Exercise deprivation increases negative mood in exercise-addicted subjects and modifies their biochemical markers. (abst – 2016)

Medical marijuana use in head and neck squamous cell carcinoma patients treated with radiotherapy. (abst – 2016)

Beyond the CB1 Receptor: Is Cannabidiol the Answer for Disorders of Motivation? (abst – 2016)

The association of specific traumatic experiences with cannabis initiation and transition to problem use: Differences between African-American and European-American women. (abst – 2016)

Dose-dependent cannabis use, depressive symptoms, and FAAH genotype predict sleep quality in emerging adults: a pilot study. (abst – 2016)
Pharmacological inhibition of FAAH activity in rodents: a promising pharmacological approach for psychological - cardiac comorbidity? (abst – 2016)  

Association between schizotypal and borderline personality disorder traits, and cannabis use in young adults.  (abst – 2016)  

Prohedonic Effect of Cannabidiol in a Rat Model of Depression  (abst – 2016)  
http://www.karger.com/Article/Abstract/443890

Comparing adults who use cannabis medically with those who use recreationally: Results from a national sample.  (abst – 2016)  

New Zealand Health Survey 2012/13: characteristics of medicinal cannabis users.  (abst – 2016)  

Anxiety, depression and risk of cannabis use: Examining the internalising pathway to use among Chilean adolescents.  (abst – 2016)  

The genetic basis of the comorbidity between cannabis use and major depression.  (abst – 2016)  

Anandamide reverses depressive-like behavior, neurochemical abnormalities and oxidative-stress parameters in streptozotocin-diabetic rats: Role of CB1 receptors.  (abst – 2016)  

Contribution of health motive to cannabis use among high-school students.  (abst – 2016)  

Chronic stress leads to epigenetic dysregulation of neuropeptide-Y and cannabinoid CB1 receptor in the mouse cingulate cortex.  (abst – 2016)  

Chronic FAAH inhibition during nicotine abstinence alters habenular CB1 receptor activity and precipitates depressive-like behaviors  (abst – 2016)  

Targeting the Endocannabinoid System in Psychiatric Illness.  (abst – 2016)  

Cannabidiol reduces neuroinflammation and promotes neuroplasticity and functional recovery after brain ischemia.  (abst – 2016)  

Sex-dependent influence of chronic mild stress (CMS) on voluntary alcohol consumption; study of neurobiological consequences.  (abst – 2016)  

Attitudes to cannabis and patterns of use among Canadians with multiple sclerosis
A dual inhibitor of FAAH and TRPV1 channels shows dose-dependent effect on depression-like behaviour in rats. (abst – 2016)

Marijuana Could Help Treat Drug Addiction and Mental Health Problems (news & abst – 2016)
http://neurosciencenews.com/addiction-mental-health-marijuana-5536/

**DERMATITIS** +*

Protective role of palmitoylethanolamide in contact allergic dermatitis. (full – 2010)

Falcarniol is a covalent cannabinoid CB1 receptor antagonist and induces pro-allergic effects in skin. (abst – 2010)

Comparative topical anti-inflammatory activity of cannabinoids and cannabivarins. (abst – 2010)

Is lipid signaling through cannabinoid 2 receptors part of a protective system? (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3062638/

Endocannabinoid signaling and epidermal differentiation. (abst – 2011)

Molecular allergology in practice: an unusual case of LTP allergy. (abst – 2011)

Differences in peripheral endocannabinoid modulation of scratching behavior in facial vs. spinally-innervated skin. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3394407/

The role of CB2 receptor ligands in human eosinophil function (full – 2012)

Inhibitory effect of topical adelmidrol on antigen-induced skin wheal and mast cell behavior in a canine model of allergic dermatitis. (full – 2012)
http://www.biomedcentral.com/1746-6148/8/230

Endocannabinoids limit excessive mast cell maturation and activation in human skin. (full – 2012)
http://www.jacionline.org/article/S0091-6749%2811%2901796-9/fulltext

Cannabinoid 1 Receptors in Keratinocytes Modulate Proinflammatory Chemokine Secretion and Attenuate Contact Allergic Inflammation. (full – 2013)  http://www.jimmunol.org/content/190/10/4929.long

Epigenetic Control of Skin Differentiation Genes by Phytocannabinoids (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3791996/


The expression of cannabinoid receptor 1 is significantly increased in atopic patients (full – 2014)  http://www.jacionline.org/article/S0091-6749%2813%2902936-9/fulltext

Increased levels of palmitoylethanolamide and other bioactive lipid mediators and enhanced local mast cell proliferation in canine atopic dermatitis. (full – 2014)  http://www.biomedcentral.com/1746-6148/10/21

TRP channel cannabinoid receptors in skin sensation, homeostasis, and inflammation. (full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4240254/


Anandamide Suppresses Proinflammatory T Cell Responses In Vitro through Type-1 Cannabinoid Receptor-Mediated mTOR Inhibition in Human Keratinocytes. (abst – 2016) https://www.ncbi.nlm.nih.gov/pubmed/27694494


>DEVIC’S DISEASE – see NEUROMYELITIS OPTICA

**DIABETES +**

Expression and function of cannabinoid receptors in mouse islets. (full – 2010) www.tandfonline.com/doi/pdf/10.4161/isl.2.5.12729

Cannabinoid-mediated modulation of neuropathic pain and microglial accumulation in a model of murine type I diabetic peripheral neuropathic pain (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2845559/?tool=pmcentrez

Cannabinoid-induced apoptosis in immune cells as a pathway to immunosuppression. (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3005548/?tool=pubmed

Cannabinoid Receptor 1 Blockade Ameliorates Albuminuria in Experimental Diabetic Nephropathy (full – 2010) http://diabetes.diabetesjournals.org/content/59/4/1046.full?sid=0bc8e3fa-5275-4b19-8acc-4ae5dfac384

Inhibitor of fatty acid amide hydrolase normalizes cardiovascular function in hypertension without adverse metabolic effects. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3003779/

Cannabinoid Receptors are Coupled to Stimulation of Insulin Secretion from Mouse MIN6 β-cells (full – 2010) http://www.karger.com/Article/Pdf/320527
Differential alterations of the concentrations of endocannabinoids and related lipids in the subcutaneous adipose tissue of obese diabetic patients  
http://www.lipidworld.com/content/9/1/43

Cannabidiol Attenuates Cardiac Dysfunction, Oxidative Stress, Fibrosis, and Inflammatory and Cell Death Signaling Pathways in Diabetic Cardiomyopathy  

A one-year study to assess the safety and efficacy of the CB1R inverse agonist taranabant in overweight and obese patients with type 2 diabetes.  

Rehashing endocannabinoid antagonists: can we selectively target the periphery to safely treat obesity and type 2 diabetes?  
http://www.jci.org/articles/view/44099?

Differential alterations of the concentrations of endocannabinoids and related lipids in the subcutaneous adipose tissue of obese diabetic patients.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2868848/?tool=pubmed

Diabetic retinopathy: Role of inflammation and potential therapies for anti-inflammation.  

Polymorphisms in the endocannabinoid receptor 1 in relation to fat mass distribution  
http://www.eje-online.org/content/163/3/407.full

AMELIORATIVE POTENTIAL OF CANNABIS SATIVA EXTRACT ON DIABETES INDUCED NEUROPATHIC PAIN IN RATS  
http://search.proquest.com/openview/55b14fee70957a172b19e93f47304c37/1/?pq-origsite=gscholar

Cannabinoid receptor stimulation impairs mitochondrial biogenesis in mouse white adipose tissue, muscle, and liver: the role of eNOS, p38 MAPK, and AMPK pathways.  
http://diabetes.diabetesjournals.org/content/59/11/2826.full.pdf+html

A randomised, double blind, placebo controlled, parallel group, pilot study of 1:1 and 20:1 ratio of formulated GW42003 : GW42004 plus GW42003 and GW42004 alone in the treatment of dyslipidaemia in subjects with Type 2 diabetes.  

American Diabetes Association--70th scientific sessions--research on novel therapeutics: part 2.  

Deficiency of CB2 cannabinoid receptor in mice improves insulin sensitivity but increases food intake and obesity with age.  


A role for the putative cannabinoid receptor GPR55 in the islets of Langerhans. (full – 2011) http://joe.endocrinology-journals.org/content/211/2/177.long

Protective Role of Cannabinoid Receptor Type 2 in a Mouse Model of Diabetic Nephropathy. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3161308/

Cannabinoid receptor 2 signaling does not modulate atherogenesis in mice (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3082575/?tool=pubmed

Hepatic n-3 Polyunsaturated Fatty Acid Depletion Promotes Steatosis and Insulin Resistance in Mice: Genomic Analysis of Cellular Targets (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3154437/

Acipimox reduces circulating levels of insulin and associated neutrophilic inflammation in metabolic syndrome. (full – 2011) http://ajpendo.physiology.org/content/300/4/E681.long

Variants at the endocannabinoid receptor CB1 gene (CNR1) and insulin sensitivity, type 2 diabetes, and coronary heart disease. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3686489/

Altered endocannabinoid signalling after a high-fat diet in Apoe(-/-) mice: relevance to adipose tissue inflammation, hepatic steatosis and insulin resistance. (full – 2011) http://link.springer.com/article/10.1007/s00125-011-2274-6/fulltext.html

Cannabidiol as an emergent therapeutic strategy for lessening the impact of inflammation on oxidative stress. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3085542/


Central Endocannabinoid Signaling Regulates Hepatic Glucose Production and Systemic Lipolysis (full – 2011) http://diabetes.diabetesjournals.org/content/60/4/1055.full

Cannabinoids Inhibit Insulin Receptor Signaling in Pancreatic β-Cells (full – 2011) http://diabetes.diabetesjournals.org/content/60/4/1198.full

TAK-875, an orally available G protein-coupled receptor 40/free fatty acid receptor 1 agonist, enhances glucose-dependent insulin secretion and improves both postprandial and fasting hyperglycemia in type 2 diabetic rats. (full – 2011) http://jpet.aspetjournals.org/content/339/1/228.long

Acute cannabinoid receptor type 1 (CB1R) modulation influences insulin sensitivity by an effect outside the central nervous system in mice. (full – 2011) http://link.springer.com/article/10.1007%2Fs00125-011-2082-z

Expression of the cannabinoid system in muscle: effects of a high fat diet and CB1 receptor blockade (full – 2011) http://www.biochemj.org/content/433/1/175

Role for cannabinoid receptors in human proximal tubular hypertrophy. (link to PDF – 2011) http://www.karger.com/Article/Abstract/323997


Cannabinoids and Endocannabinoids in Metabolic Disorders with Focus on Diabetes. (abst – 2011) http://www.unboundmedicine.com/medline/ebm/record/21484568/abstract/Cannabinoids_and_Endocannabinoids_in_Metabolic_Disorders_with_Focus_on_Diabetes

Win 55,212-2 reduces cardiac ischaemia-reperfusion injury in zucker diabetic fatty rats: role of cb2 receptors and cardiac inos/enos expression. (abst – 2011)
Cannabidiol Dampens Streptozotocin-Induced Retinal Inflammation by Targeting of Microglial Activation (abst - 2011) http://www.abstractsonline.com/plan/ViewAbstract.aspx?sKey=94b35de1-74b2-4d46-b062-7c104b5df681&cKey=eca34a2d-da44-4938-b0fa-3a6e652a1756

Functional and Structural Protection by N-Acylethanolamines in Diabetic Retinopathy (abst - 2011) http://iovs.arvojournals.org/article.aspx?articleid=2356082&resultClick=1


The cytoprotective effects of oleoylethanolamide in insulin-secreting cells do not require activation of GPR119. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423238/

The L-α-lysophosphatidylinositol/GPR55 system and its potential role in human obesity. (full – 2012) http://diabetes.diabetesjournals.org/content/61/2/281.long

Endocannabinoids measurement in human saliva as potential biomarker of obesity. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3409167/?tool=pubmed


Type 2 Diabetes Associated Changes in the Plasma Non-Esterified Fatty Acids, Oxylipins and Endocannabinoids (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3493609/

Excess of the endocannabinoid anandamide during lactation induces overweight, fat accumulation and insulin resistance in adult mice (full – 2012) http://www.dmsjournal.com/content/4/1/35

Relationships between glucose, energy intake and dietary composition in obese adults with type 2 diabetes receiving the cannabinoid 1 (CB1) receptor antagonist, rimonabant (full – 2012) http://www.nutritionj.com/content/11/1/50


Metabolic effects of n-3 PUFA as phospholipids are superior to triglycerides in mice fed a high-fat diet: possible role of endocannabinoids. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3372498/
Antihyperglycemic and hypolipidemic effects of α, β-amyrin, a triterpenoid mixture from Protium heptaphyllum in mice  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3484111/

The Novel Reversible Fatty Acid Amide Hydrolase Inhibitor ST4070 Increases Endocannabinoid Brain Levels and Counteracts Neuropathic Pain in Different Animal Models  (full – 2012)  http://jpet.aspetjournals.org/content/342/1/188.full.pdf+html


Fatty acid amide hydrolase ablation promotes ectopic lipid storage and insulin resistance due to centrally mediated hypothyroidism.  (full - 2012)  http://www.pnas.org/content/109/37/14966.long


Islet protection and amelioration of diabetes type 2 in Psammomys obesus by treatment with cannabidiol  (full - 2012)  http://file.scirp.org/Html/17302.html


Optimization of (2,3-dihydro-1-benzofuran-3-yl)acetic acids: discovery of a non-free fatty acid-like, highly bioavailable G protein-coupled receptor 40/free fatty acid receptor 1 agonist as a glucose-dependent insulinotropic agent. (abst – 2012) http://pubs.acs.org/doi/abs/10.1021/jm300170m


Reports of the death of CB1 antagonists have been greatly exaggerated: recent preclinical findings predict improved safety in the treatment of obesity. (abst – 2012) http://www.ncbi.nlm.nih.gov/pubmed/22743603


The impact of marijuana use on glucose, insulin, and insulin resistance among US adults (full – 2013) http://www.amjmed.com/article/S0002-9343%2813%2900200-3/fulltext

Developmental Role for Endocannabinoid Signaling in Regulating Glucose Metabolism and Growth. (full – 2013) http://diabetes.diabetesjournals.org/content/62/7/2359.full?sid=2f5bda2b-a9e7-432a-9588-80c99189164d


The cannabinoid Δ(9)-tetrahydrocannabinivarin (THCV) ameliorates insulin sensitivity in two mouse models of obesity. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3671751/

Modulating the endocannabinoid system in human health and disease: successes and failures (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3684164/

Reduced Food Intake is the Major Contributor to the Protective Effect of Rimonabant on Islet in Established Obesity-Associated Type 2 Diabetes. (full – 2013) http://www.eymj.org/DOIx.php?id=10.3349/ymj.2013.54.5.1127


Insulin induces long-term depression of VTA dopamine neurons via endocannabinoids (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4072656/


The serine hydrolase ABHD6 is a critical regulator of the metabolic syndrome. (full – 2013) http://www.cell.com/cell-reports/fulltext/S2211-1247%2813%2900507-X

Cannabinoid Receptor 2 Expression in Human Proximal Tubule Cells is Regulated by Albumin Independent of ERK1/2 Signaling. (full – 2013) http://www.karger.com/Article/Pdf/354529

A potential role for GPR55 in gastrointestinal functions. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3660623/


Pharmacometric Approaches to Guide Dose Selection of the Novel GPR40 Agonist TAK-875 in Subjects With Type 2 Diabetes Mellitus. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3600727/
Activation of GPR40 as a therapeutic target for the treatment of type 2 diabetes. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3920793/ 

Therapeutic Opportunities through the Modulation of Endocannabinoid Transport (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4255948/ 

TAK-875, a GPR40/FFAR1 agonist, in combination with metformin prevents progression of diabetes and β-cell dysfunction in Zucker diabetic fatty rats. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3791995/ 

Polymorphism rs3123554 in CNR2 reveals gender-specific effects on body weight and affects loss of body weight and cerebral insulin action. (full – 2013)  

Evaluation of the insulin releasing and antihyperglycaemic activities of GPR55 lipid agonists using clonal beta-cells, isolated pancreatic islets and mice. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3949647/ 

Common polymorphism in the cannabinoid type 1 receptor gene (CNR1) is associated with microvascular complications in type 2 diabetes. (full – 2013)  
http://www.jdejournal.com/article/S1056-8727%2813%2900199-2/fulltext 

Monounsaturated fatty acids generated via stearoyl CoA desaturase-1 are endogenous inhibitors of fatty acid amide hydrolase. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3839776/ 

Molecular Mechanisms of Depression: Perspectives on New Treatment Strategies (full – 2013)  
http://www.karger.com/Article/FullText/350094 

Medicinal Cannabis and Painful Sensory Neuropathy (editorial – 2013)  
http://journalofethics.ama-assn.org/2013/05/oped1-1305.html 

The complex effects of cannabinoids on insulin secretion from rat isolated islets of Langerhans. (abst – 2013)  

Effects of CB1 receptor blockade on monosodium glutamate induced hypometabolic and hypothalamic obesity in rats. (abst – 2013)  

Synergetic Insulin Sensitizing Effect of Rimonabant and BGP-15 in Zucker-Obes Rats. (abst – 2013)  

Activation of type 2 cannabinoid receptors (CB2R) promotes fatty acid oxidation through the SIRT1/PGC-1α pathway. (abst – 2013)  

Activation of spinal cannabinoid cb2 receptors inhibits neuropathic pain in streptozotocin-induced diabetic mice. (abst – 2013)  
Cannabinoids alter endothelial function in the Zucker rat model of type 2 diabetes.  

Biochemical and immunohistochemical changes in delta-9-tetrahydrocannabinol-treated type 2 diabetic rats.  

Long-term supplementation of honokiol and magnolol ameliorates body fat accumulation, insulin resistance, and adipose inflammation in high-fat fed mice.  

Islet cannabinoid receptors: cellular distribution and biological function.  

Role of Genetic Variation in the Cannabinoid Receptor Gene (CNR1) (G1359A Polymorphism) on Weight Loss and Cardiovascular Risk Factors After Liraglutide Treatment in Obese Patients With Diabetes Mellitus Type 2.  

Effects of C358A polymorphism of the endocannabinoid degrading enzyme fatty acid amide hydrolase (FAAH) on weight loss, adipocytokines levels, and insulin resistance after a high polyunsaturated fat diet in obese patients.  

Fasiglifam as a new potential treatment option for patients with type 2 diabetes.  

Docosahexaenoyl ethanolamide improves glucose uptake and alters endocannabinoid system gene expression in proliferating and differentiating C2C12 myoblasts.  

(full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4161845/

Effect of intermittent cold exposure on brown fat activation, obesity, and energy homeostasis in mice.  
(full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3895006/

Vascular targets for cannabinoids: animal and human studies.  
(full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3954478/

The effects of obesity, diabetes and metabolic syndrome on the hydrolytic enzymes of the endocannabinoid system in animal and human adipocytes.  
(full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3995979/
Hepatic cannabinoid-1 receptors mediate diet-induced insulin resistance by increasing de novo synthesis of long-chain ceramides. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3839256/


Molecular matchmaking between the popular weight-loss herb Hoodia gordonii and GPR119, a potential drug target for metabolic disorder. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4210048/

The G-Protein-Coupled Long-Chain Fatty Acid Receptor GPR40 and Glucose Metabolism. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4176464/

Selected terpenoids from medicinal plants modulate endoplasmic reticulum stress in metabolic disorders (full – 2014)

Glucose concentration in culture medium affects mRNA expression of TRPV1 and CB1 receptors and changes capsaicin toxicity in PC12 cells. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4322151/

Optimization of GPR40 Agonists for Type 2 Diabetes. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4027784/

Mitochondria: A Possible Nexus for the Regulation of Energy Homeostasis by the Endocannabinoid System? (full – 2014)
http://ajpendo.physiology.org/content/ajpendo/307/1/E1.full.pdf

Overactive cannabinoid 1 receptor in podocytes drives type 2 diabetic nephropathy (full – 2014)
http://www.pnas.org/content/111/50/E5420.full?sid=66cd362f-ac53-47ba-920e-b7dae50940a2

Acute Activation of Cannabinoid Receptors by Anandamide Reduces Gastro-Intestinal Motility and Improves Postprandial Glycemia in Mice. (full – 2014)
http://diabetes.diabetesjournals.org/content/64/3/808.long

Cannabidiol improves vasorelaxation in Zucker Diabetic fatty rats through cyclooxygenase activation. (full – 2014)
http://jpet.aspetjournals.org/content/351/2/457.long


α/β-Hydrolase Domain-6-Accessible Monoacylglycerol Controls Glucose-Stimulated Insulin Secretion (full – 2014)
http://www.cell.com/cell-metabolism/fulltext/S1550-4131(14)00166-1
Evaluation of the pharmacokinetics and safety of a single oral dose of fasiglifam in subjects with normal or varying degrees of impaired renal function. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4269813/

Molecular Mechanisms of Diabetic Retinopathy, General Preventive Strategies, and Novel Therapeutic Targets (link to PDF – 2014)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.725.3257&rank=68&q=cannabinoid&osm=&ossid=

A Role for Trans-caryophyllene in the Moderation of Insulin Secretion. (abst – 2014)

Glucose metabolism: Focus on gut microbiota, the endocannabinoid system and beyond. (abst – 2014)

Deficiency of cannabinoid receptor of type 2 worsens renal functional and structural abnormalities in streptozotocin-induced diabetic mice. (abst – 2014)

GPR55: From orphan to metabolic regulator? (abst – 2014)

Physiology and therapeutics of the free fatty acid receptor GPR40. (abst – 2014)

G-protein coupled receptor 40 agonists as novel therapeutics for type 2 diabetes. (abst – 2014)

Selected CNR1 polymorphisms and hyperandrogenemia as well as fat mass and fat distribution in women with polycystic ovary syndrome. (abst – 2014)

Oxidative stress and cannabinoid receptor expression in type-2 diabetic rat pancreas following treatment with Δ9 -THC. (abst – 2014)

Inflammation in diabetic nephropathy: moving toward clinical biomarkers and targets for treatment. (abst – 2014)

Potential applications of marijuana and cannabinoids in medicine (abst – 2014)

Elevated CB1 and GPR55 receptor expression in proximal tubule cells and whole kidney exposed to diabetic conditions. (abst – 2014)

Role of orphan G protein-coupled receptor 55 in diabetic gastroparesis in mice


Fat Diet-Induced Insulin Resistance Does Not Increase Plasma Anandamide Levels or Potentiate Anandamide Insulinotropic Effect in Isolated Canine Islets. (full – 2015) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0123558


Role of the endocannabinoid system in obesity induced by neuropeptide Y overexpression in noradrenergic neurons. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4423197/

Diacylglycerol lipase α knockout mice demonstrate metabolic and behavioral phenotypes similar to those of cannabinoid receptor 1 knockout mice (full – 2015) http://journal.frontiersin.org/article/10.3389/fendo.2015.00086/full

Cannabidiol causes endothelium-dependent vasorelaxation of human mesenteric arteries via CB1 activation. (full – 2015) http://cardiovascres.oxfordjournals.org/content/early/2015/06/30/cvr.cvv179.long

N-Oleoyl glycine, a lipoamino acid, stimulates adipogenesis associated with activation of CB1 receptor and Akt signaling pathway in 3T3-L1 adipocyte. (full – 2015) http://www.sciencedirect.com/science/article/pii/S0006291X15305635


Cannabinoid CB1 receptors and mTORC1 signalling pathway interact to modulate glucose homeostasis. (full – 2015) http://dmm.biologists.org/content/9/1/51.long

Cannabis Use and Reduced Risk of Insulin Resistance in HIV-HCV Infected Patients: A Longitudinal Analysis (ANRS CO13 HEPAVIH) (full – 2015) http://cid.oxfordjournals.org/content/61/1/40.long

Dietary DHA reduced downstream endocannabinoid and inflammatory gene expression, epididymal fat mass, and improved aspects of glucose use in muscle in C57BL/6J mice. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4722239/


Endocannabinoid system activation may be associated with insulin resistance in women with polycystic ovary syndrome. (full – 2015) http://www.fertstert.org/article/S0015-0282(15)00232-0/fulltext

CB1R antagonist increases hepatic insulin clearance in fat-fed dogs likely via upregulation of liver adiponectin receptors. (full – 2015) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4609878/

Intake of farmed Atlantic salmon fed soybean oil increases hepatic levels of arachidonic acid-derived oxylipins and ceramides in mice (full – 2015) http://www.jnutbio.com/article/S0955-2863(15)00021-2/fulltext
Marijuana use and risk of prediabetes and diabetes by middle adulthood: the Coronary Artery Risk Development in Young Adults (CARDIA) study  (link to PDF- 2015)
http://link.springer.com/article/10.1007/s00125-015-3740-3

The emerging role of the endocannabinoid system in the pathogenesis and treatment of kidney diseases.  (link to PDF – 2015)

GPR40 agonists for the treatment of type 2 diabetes: life after "TAKing" a hit.  

Direct activation of the proposed anti-diabetic receptor, GPR119 in cardiomyoblasts decreases markers of muscle metabolic activity.  (abst – 2015)

Influence of nitric oxide synthase or cyclooxygenase inhibitors on cannabinoids activity in streptozotocin-induced neuropathy.  

Angiotensin II receptor blockers decrease serum concentration of fatty acid-binding protein 4 in patients with hypertension.  

Major urinary protein 1 interacts with cannabinoid receptor type 1 in fatty acid-induced hepatic insulin resistance in a mouse hepatocyte model.  

Cannabinoid functions in the amygdala contribute to conditioned fear memory in streptozotocin-induced diabetic mice: interaction with glutamatergic functions.  

Death due to diabetic ketoacidosis: Induction by the consumption of synthetic cannabinoids?  

New insights on the role of the endocannabinoid system in the regulation of energy balance.  

Endocannabinoids and Metabolic Disorders.  
(abst – 2015) http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_10

Endocannabinoids and the Cardiovascular System in Health and Disease.  

Deletion of G-protein coupled receptor 55 promotes obesity by reducing physical activity.  

Therapy with a Selective Cannabinoid Receptor Type 2 Agonist Limits Albuminuria and Renal Injury in Mice with Type 2 Diabetic Nephropathy.  
(abst – 2015)
Endocannabinoids - at the crossroads between the gut microbiota and host metabolism. (abst – 2015)  
http://www.nature.com/nrendo/journal/v12/n3/full/nrendo.2015.211.html

Blockade of Cannabinoid 1 Receptor Improves GLP-1R Mediated Insulin Secretion in Mice (abst – 2015)  

G protein-coupled receptors: signalling and regulation by lipid agonists for improved glucose homoeostasis (abst – 2015)  

GPR40 Agonists for the Treatment of Type 2 Diabetes Mellitus: Benefits and Challenges (abst – 2015)  
http://www.eurekaselect.com/137697/article

Lipid signaling in adipose tissue: Connecting inflammation & metabolism (abst – 2015)  

Endogenous and Synthetic Cannabinoids as Therapeutics in Retinal Disease (full – 2016)  
http://www.hindawi.com/journals/np/2016/8373020/

Circulating Endocannabinoids and Insulin Resistance in Patients with Obstructive Sleep Apnea (full – 2016)  
http://www.hindawi.com/journals/bmri/2016/9782031/

Cannabinoids Regulate Bcl-2 and Cyclin D2 Expression in Pancreatic β Cells. (full – 2016)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0150981

New insights into the yin and yang of the endocannabinoid system in health and disease (full – 2016)  

Mechanisms underlying glucose-dependent insulinotropic polypeptide and glucagon-like peptide-1 secretion (full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4854499/

Impaired Excitatory Neurotransmission in the Urinary Bladder from the Obese Zucker Rat: Role of Cannabinoid Receptors. (full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4902197/

http://www.amjmed.com/article/S0002-9343(15)01024-4/fulltext
Controlled downregulation of the cannabinoid CB1 receptor provides a promising approach for the treatment of obesity and obesity-derived type 2 diabetes. (full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4679742/

CB1 receptor blockade counters age-induced insulin resistance and metabolic dysfunction. (full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4783351/

Prolonged activation of human islet cannabinoid receptors in vitro induces adaptation but not dysfunction. (full – 2016)  

The effect of spinally administered WIN 55,212-2, a cannabinoid agonist, on thermal pain sensitivity in diabetic rats. (full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4887712/

Endocannabinoids in Feeding Behavior and Energy Homeostasis  
(full – 2016)  
http://themedicalbiochemistrypage.org/endocannabinoids.php

Mice Expressing a "Hyper-Sensitive" Form of the Cannabinoid Receptor 1 (CB1) Are Neither Obese Nor Diabetic. (full – 2016)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0160462

Human CB1 Receptor Isoforms, present in Hepatocytes and β-cells, are Involved in Regulating Metabolism. (full – 2016)  
http://www.nature.com/articles/srep33302

Cannabis Use as Risk or Protection for Type 2 Diabetes: A Longitudinal Study of 18 000 Swedish Men and Women. (full – 2016)  
https://www.hindawi.com/journals/jdr/2016/6278709/

Role of cannabinoid receptor 1 in human adipose tissue for lipolysis regulation and insulin resistance. (full – 2016)  

Cannabinoid 2 Receptor Agonist Improves Systemic Sensitivity to Insulin in High-Fat Diet/Streptozotocin-Induced Diabetic Mice. (full – 2016)  
https://www.karger.com/Article/FullText/453171

α/β-Hydrolase Domain 6 in the Ventromedial Hypothalamus Controls Energy Metabolism Flexibility. (full – 2016)  
http://www.cell.com/cell-reports/fulltext/S2211-1247(16)31373-0

Endocannabinoid regulation of β-cell functions: Implications for glycemic control and diabetes. (full – 2016)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5045244/

Early Low Fat Diet Enriched with Linoleic Acid Reduces Liver Endocannabinoid Tone and Improves Late Glycemic Control After a High Fat Diet Challenge in Mice. (full – 2016)  
http://diabetes.diabetesjournals.org/content/65/7/1824.long


Cannabinoid receptor type 1 mediates high-fat diet-induced insulin resistance by increasing forkhead box O1 activity in a mouse model of obesity (abst – 2016) http://www.spandidos-publications.com/10.3892/ijmm.2016.2475


Long-term safety and efficacy of fasiglifam (TAK-875), a G-protein-coupled receptor 40 agonist, as monotherapy and combination therapy in Japanese patients with type 2
Anandamide reverses depressive-like behavior, neurochemical abnormalities and oxidative-stress parameters in streptozotocin-diabetic rats: Role of CB1 receptors. (abst – 2016)  

GPR55-dependent stimulation of insulin secretion from isolated mouse and human islets of Langerhans.  (abst – 2016)  

Efficacy and Safety of Cannabidiol and Tetrahydrocannabinvarin on Glycemic and Lipid Parameters in Patients With Type 2 Diabetes: A Randomized, Double-Blind, Placebo-Controlled, Parallel Group Pilot Study.  (abst – 2016)  

Marijuana Use and Type 2 Diabetes Mellitus: a Review.  (abst – 2016)  

Experimental cannabidiol treatment reduces early pancreatic inflammation in type 1 diabetes.  (abst – 2016)  

Cannabinoid receptors and TRPA1 on neuroprotection in a model of retinal ischemia  
(abst – 2016)  

Developmental Role of Macrophage Cannabinoid-1 Receptor Signaling in Type-2 Diabetes  
(abst – 2017)  
http://diabetes.diabetesjournals.org/content/early/2017/01/11/db16-1199.long

**DIARRHEA**

Small intestinal cannabinoid receptor changes following a single colonic insult with oil of mustard in mice.  (full – 2010)  

Pharmacogenetic Trial of a Cannabinoid Agonist Shows Reduced Fasting Colonic Motility in Patients with Non-Constipated Irritable Bowel Syndrome.  (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3202649/

US Patent 7884133 B2  Cannabidiol derivatives such as 3-(2,6-dihydroxy-4-pentylphenyl)-4-prop-1-en-2-ylcyclohexene-1-carboxylic acid, used as as analgesics, antiinflammatory and antidiarrheal agents  (full – 2011)  
https://www.google.com/patents/US7884133?dq=patent+7884133&hl=en&sa=X&ei=Ujb0U_6EEIWW5ogSl84LYDg&ved=0CB4Q6AEwAA

Cannabis use amongst patients with inflammatory bowel disease.  (abst – 2011)  
Medical cannabis: the opportunity versus the temptation  
(abst – 2011)  

Randomized pharmacodynamic and pharmacogenetic trial of dronabinol effects on colon transit in irritable bowel syndrome-diarrhea.  
(full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3775711/

Efficacy of a dose range of surinabant, a cannabinoid receptor blocker, for smoking cessation: a randomized controlled clinical trial.  
(full – 2012)  
http://journals.sagepub.com/doi/full/10.1177/0269881111431623

Pro-resolution, protective and anti-nociceptive effects of a cannabis extract in the rat gastrointestinal tract.  
(full – 2013)  

Cannabinoid Receptor 1 Gene and Irritable Bowel Syndrome: Phenotype and Quantitative Traits.  
(full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3602676/

Effect of high fat-diet and obesity on gastrointestinal motility.  
(full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3890396/

Endocannabinoid and cannabinoid-like fatty acid amide levels correlate with pain-related symptoms in patients with IBS-D and IBS-C: a pilot study.  
(full – 2013)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0085073

Role of endogenous cannabinoid system in the gut.  
(full - 2013)  

Selective inhibition of FAAH produces antidiarrheal and antinociceptive effect mediated by endocannabinoids and cannabinoid-like fatty acid amides.  
(full – 2014)  

Cannabis for inflammatory bowel disease.  
(abst – 2014)  

Cannabis use provides symptom relief in patients with inflammatory bowel disease but is associated with worse disease prognosis in patients with Crohn's disease.  
(abst – 2014)  

The long-term functional consequences of acute infectious diarrhea.  
(abst – 2015)  

The role of cannabinoids in regulation of nausea and vomiting, and visceral pain.  
(abst – 2015)  

May cannabinoids prevent the development of chemotherapy-induced diarrhea and intestinal mucositis? Experimental study in the rat.  
(abst – 2016)  
Role of cannabinoids in gastrointestinal mucosal defense and inflammation.  
(abst – 2016)  http://www.eurekaselect.com/140045/article

Efficacy, tolerability, and safety of cannabinoids in gastroenterology: A systematic review 

Role of cannabis in digestive disorders.  

Role of cannabis in digestive disorders  
http://www.ingentaconnect.com/search/article?option1=tka&value1=cannabinoid&sortDescending=true&sortField=prism_publicationDate&pageSize=10 &index=3

DOWN SYNDROME +

Gadolinium-HU-308-incorporated micelles.  

Prefrontal deficits in a murine model overexpressing the down syndrome candidate gene 
dyrlk1a.  
(full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3953590/

Monoacylglycerol Lipase Inhibitor JZL184 Improves Behavior and Neural Properties in 
Ts65Dn Mice, a Model of Down Syndrome.  

DRIVING AND CANNABIS ++

Sex Differences in the Effects of Marijuana on Simulated Driving Performance  
(full - 2010)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3033009/?tool=pmcentrez

The effects of cannabis and alcohol on simulated arterial driving: Influences of driving 
experience and task demand.  
lcohol_on_simulated_arterial_driving:_Influences_of_driving_experience_and_task_demand

Medical Marijuana Laws, Traffic Fatalities, and Alcohol Consumption  

The prevalence of cannabis-involved driving in California.  
Alcohol, psychoactive drugs and fatal road traffic accidents in Norway: a case-control study. (abst – 2011) http://www.unboundmedicine.com/medline/ebm/record/21376919/abstract/Alcohol Psychoactive Drugs and Fatal Road Traffic Accidents in Norway: a case control study

Psychomotor Performance, Subjective and Physiological Effects and Whole Blood Δ9-Tetrahydrocannabinol Concentrations in Heavy, Chronic Cannabis Smokers Following Acute Smoked Cannabis (full – 2012) http://jat.oxfordjournals.org/content/36/6/405.full


The Therapeutic Potential of Cannabis and Cannabinoids (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3442177/


Impact of prolonged cannabinoid excretion in chronic daily cannabis smokers' blood on per se drugged driving laws. (full – 2013) http://www.clinchem.org/content/59/3/519.full?sid=c00c9727-29e8-493c-83b8-456467e158b9


Risk of severe driver injury by driving with psychoactive substances. 

Police custody following driving under the influence of cannabis: A prospective study.

Blood Synthetic Cannabinoid Concentrations in Cases of Suspected Impaired Driving 

Prevalence of synthetic cannabinoids in blood samples from Norwegian drivers suspected 
of impaired driving during a seven weeks period. (abort – 2013) 

Analysis of AM-2201 and metabolites in a drugs and driving case (abort – 2013) 

Analysis of AM-2201 and metabolites in a drugs and driving case (abort – 2013) 

Marijuana Policy in Colorado (full – 2014) 

Adverse psychosocial outcomes associated with drug use among US high school seniors: 
a comparison of alcohol and marijuana. (full – 2014) 

Blood levels do not predict behavioral or physiological effects of Δ⁹-
tetrahydrocannabinol in rhesus monkeys with different patterns of exposure. 
(full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4251811/

XLR-11 and UR-144 in Washington State and State of Alaska Driving Cases. 

Cannabis Use and its Effects on Health, Education and Labor Market Success 

An examination of the validity of the standardized field sobriety test in detecting drug 
impairment using data from the drug evaluation and classification program. 

Driving under the influence of synthetic cannabinoids ("Spice"): a case series. 
The culpability of drivers killed in New Zealand road crashes and their use of alcohol and other drugs. (abst – 2014)  

Determination of Δ9-tetrahydrocannabinolic acid A (Δ9-THCA-A) in whole blood and plasma by LC-MS/MS and application in authentic samples from drivers suspected of driving under the influence of cannabis. (abst – 2014)  

Cannabinoids determination in oral fluid by SPME-GC/MS and UHPLC-MS/MS and its application on suspected drivers. (abst – 2014)  

Status Report: Marijuana Legalization in Colorado After One Year of Retail Sales and Two Years of Decriminalization (full – 2015)  

Drug and Alcohol Crash Risk (full – 2015)  

Controlled Cannabis Vaporizer Administration: Blood and Plasma Cannabinoids with and without Alcohol. (full – 2015)  
http://www.clinchem.org/content/61/6/850.long

Comparing treatment effects of oral THC on simulated and on-the-road driving performance: testing the validity of driving simulator drug research (full – 2015)  

Medical marijuana's public health lessons--implications for retail marijuana in Colorado. (full – 2015)  

Cannabis conundrum: Evidence of harm?: Opposition to marijuana use is often rooted in arguments about the drug's harm to children and adults, but the scientific evidence is seldom clear-cut (article – 2015)  

Peaceful feeling, or up in smoke? Medical marijuana in medicolegal context (article – 2015)  

Drug-resistant MS spasticity treatment with Sativex® add-on and driving ability (abst – 2015)  


Concentrations of AB-CHMINACA and AB-PINACA and Driving Behavior in Suspected Impaired Driving Cases. (abst – 2015)

Tetrahydrocannabinol pharmacokinetics; new synthetic cannabinoids; road safety and cannabis (abst – 2015)

Differential physiological and behavioral cues observed in individuals smoking botanical marijuana versus synthetic cannabinoid drugs. (abst – 2015)

Ion mobility spectrometry for detection of Cannabis sativa L. metabolites from exhaled breath. (abst – 2015)

The impact of marijuana decriminalization on California drivers (abst – 2015)

Restraint use and risky driving behaviors across drug types and drug and alcohol combinations for drivers involved in a fatal motor vehicle collision on U.S. roadways. (full – 2016)

Current Therapeutic Cannabis Controversies and Clinical Trial Design Issues (full – 2016)

Dose of Reality: The Effect of State Marijuana Legalizations (report – 2016)

The effect of cannabis on regular cannabis consumers' ability to ride a bicycle (abst – 2016)


The Changing Drug Culture: Medical and Recreational Marijuana. (abst – 2016)

Cannabis effects on driving longitudinal control with and without alcohol. (abst – 2016)
The effects of cannabis intoxication on motor vehicle collision revisited and revised.  
(abst – 2016)  

Traffic accidentability and risky driving behavior in young people in New Caledonia.  
Results of study (abst – 2016)  

A multicenter retrospective survey of poisoning after consumption of products containing novel psychoactive substances from 2013 to 2014 in Japan.  
(abst – 2016)  

State Medical Marijuana Laws and the Prevalence of Opioids Detected Among Fatally Injured Drivers  
(abst – 2016)  

Persistent cannabis dependence and alcohol dependence represent risks for midlife economic and social problems: A longitudinal cohort study.  
(abst – 2016)  

(abst – 2016)  
http://ajph.aphapublications.org/doi/abs/10.2105/AJPH.2016.303577

Self-reported Driving Under the Influence of Alcohol and Cannabis Among Ontario Students: Associations with Graduated Licensing, Risk Taking and Substance Abuse.  
(abst – 2017)  

Evaluation of divided attention psychophysical task performance and effects on pupil sizes following smoked, vaporized and oral cannabis administration.  
(abst – 2017)  

>DRUG INTERACTIONS  - see INTERACTIONS WITH OTHER DRUGS

DRUG TESTING +*

Testing for cannabis in the work-place: a review of the evidence.  
(abst – 2010)  

Use of high-resolution accurate mass spectrometry to detect reported and previously unreported cannabinomimetics in "herbal high" products.  
(full – 2011)  
http://jat.oxfordjournals.org/content/34/5/252.long
Zinc Reduces the Detection of Cocaine, Methamphetamine, and THC by ELISA Urine Testing.  (full – 2011) We need 8 to 11 mg of zinc daily; over 40 mg/day can cause zinc poisoning.
http://jat.oxfordjournals.org/content/35/6/333.long

Cannabinoids in postmortem toxicology.  (full – 2011)
http://jat.oxfordjournals.org/content/35/7/394.long

Postmortem redistribution of Δ9-tetrahydrocannabinol (THC), 11-hydroxy-THC (11-OH-THC), and 11-nor-9-carboxy-THC (THCCOOH).  (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3413259/

Prolonged excretion half-life of 11-nor-9-carboxy-Δ9-THC following cessation in a chronic, heavy marijuana user: implications for liver transplant assessment.  (1st page – 2011)
http://www.psychosomaticsjournal.com/article/S0033-3182%2810%2900028-9/abstract

Immunochromatographic approach using monoclonal antibody against Δ(9)-tetrahydrocannabinolic acid (THCA) to discern cannabis plants and to investigate new drug candidates.  (abst – 2011) http://www.ncbi.nlm.nih.gov/pubmed/21143135


Unexpected interference of baby wash products with a cannabinoid (THC) immunoassay. (abst – 2012)  

Detecting impairment associated with cannabis with and without alcohol on the Standardized Field Sobriety Tests. (abst – 2012)  

Are cannabis prevalence estimates comparable across countries and regions? A cross-cultural validation using search engine query data. (abst – 2012)  

Does a positive finding of tetrahydrocannabinol in the blood result from ingestion of Indian frankincense (Boswellia serrata)? (abst – 2012)  
http://www.unboundmedicine.com/medline/citation/22834359/Does_a_positive_finding_of_tetrahydrocannabinol_in_the_blood_result_from_ingestion_of_Indian_frankincense_Boswellia_serrata

http://www.unodc.org/documents/scientific/STNAR48_Synthetic_Cannabinoids_ENG.pdf

Oral fluid/plasma cannabinoid ratios following controlled oral THC and smoked cannabis administration. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3758774/

Identification and Structural Elucidation of Four Cannabimimetic Compounds (RCS-4, AM-2201, JWH-203 and JWH-210) in Seized Products (full – 2013)  
http://jat.oxfordjournals.org/content/37/2/56.full.pdf+html

Elevated urine zinc concentration reduces the detection of methamphetamine, cocaine, THC and opiates in urine by EMIT. (full – 2013)  
http://jat.oxfordjournals.org/content/37/9/665.full


Marijuana Poisoning. (dogs) (abst – 2013)  

Analysis of THCA synthase gene expression in cannabis: A preliminary study by real-time quantitative PCR. (abst – 2013)  

An in vitro experiment on the interaction of charcoal or wheat bran with 11-nor-9-carboxy-Δ9-tetrahydrocannabinol and its glucuronide. (abst – 2013)  

Tricks and Tracks in the Identification and Quantification of Endocannabinoids (abst – 2013)  


Non-smoker exposure to secondhand cannabis smoke. I. Urine screening and confirmation results. (full – 2015) http://www.researchgate.net/publication/267043767_Non-Smoker_Exposure_to_Secondhand_Cannabis_Smoke._I._Urine_Screening_and_Confirmation_Results

Non-smoker exposure to secondhand cannabis smoke II: Effect of room ventilation on the physiological, subjective, and behavioral/cognitive effects. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4747424/

A Reliable Method for the Separation and Detection of Synthetic Cannabinoids by Supercritical Fluid Chromatography with Mass Spectrometry, and Its Application to Plant Products. (full – 2015)
https://www.jstage.jst.go.jp/article/cpb/63/10/63_c15-00170/_html

https://www.dovepress.com/emerging-drugs-of-abuse-current-perspectives-on-synthetic-cannabinoids-peer-reviewed-fulltext-article-SAR

Seized cannabis seeds cultivated in greenhouse: A chemical study by gas chromatography–mass spectrometry and chemometric analysis (link through Elsevier to get link to get full – 2015)

Method for the Analysis of Cannabinoids and Terpenes in Cannabis (link to PDF – 2015)
http://www.ingentaconnect.com/content/aoac/jaoac/2015/00000098/00000006/art00005?token=00531db4de92a00fa0716383a4b3b2570507b75245a7b6f384741282a726e2d2954496f62f466fc016


Determination of 11 Cannabinoids in Biomass and Extracts of Different Varieties of Cannabis Using High-Performance Liquid Chromatography. (abst – 2015)

http://link.springer.com/article/10.1007/s40262-014-0195-5


Simultaneous detection of 93 synthetic cannabinoids by liquid chromatography-tandem mass spectrometry and retrospective application to real forensic samples. (abst – 2016)


Medicinal cannabis: Principal cannabinoids concentration and their stability evaluated by a high performance liquid chromatography coupled to diode array and quadrupole time of flight mass spectrometry method. (abst – 2016)
Extraction and Simultaneous Quantification of Endocannabinoids and Endocannabinoid-Like Lipids in Biological Tissues.  (abst – 2016)  
http://link.springer.com/protocol/10.1007%2F978-1-4939-3539-0_2

The Application of Voltammetric Analysis of Δ(9)-THC for the Reduction of False Positive Results in the Analysis of Suspected Marijuana Plant Matter.  (abst – 2016)  

Synthetic cannabinoids to avoid urine drug screens: Implications for contingency management and other treatments for drug dependence.  (abst – 2016)  

Use of Embryos Extracted from Individual Cannabis sativa Seeds for Genetic Studies and Forensic Applications.  (abst – 2016)  

Buying drugs on a Darknet market: A better deal? Studying the online illicit drug market through the analysis of digital, physical and chemical data.  (abst – 2016)  

Interpretation of Workplace Tests for Cannabinoids.  (abst – 2016)  

A systematic review of passive exposure to cannabis.  (abst – 2016)  
http://www.fsijournal.org/article/S0379-0738(16)30493-5/abstract

**DRUG TESTING – BLOOD/ PLASMA**

Concentrations of delta9-tetrahydrocannabinol and 11-nor-9-carboxytetrahydrocannabinol in blood and urine after passive exposure to Cannabis smoke in a coffee shop.  (full - 2010)  
http://jat.oxfordjournals.org/content/34/4/196.long

http://www.ncbi.nlm.nih.gov/pubmed/20077066

Interpretation of blood analysis data found after passive exposure to cannabis  
(abst – 2010)  
http://www.unboundmedicine.com/medline/ebm/record/20506708/abstract/  
%5BInterpretation_of_blood_analysis_data_found_after_passive_exposure_to_cannabis%5D


Plasma cannabinoid pharmacokinetics following controlled oral delta9-tetrahydrocannabinol and oromucosal cannabis extract administration.  (full– 2011)
Oral Fluid and Plasma Cannabinoid Ratios after Around-the-Clock Controlled Oral \(\Delta_9\)-Tetrahydrocannabinol Administration. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3836268/

Identification of Recent Cannabis Use: Whole-Blood and Plasma Free and Glucuronidated Cannabinoid Pharmacokinetics Following Controlled Smoked Cannabis Administration. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3717336/

Influence of ethanol on cannabinoid pharmacokinetic parameters in chronic users. (abst – 2011)  
http://www.ncbi.nlm.nih.gov/pubmed/21116612

Variability of cannabinoid findings in blood  (abst – 2011)  

Psychomotor Performance, Subjective and Physiological Effects and Whole Blood \(\Delta_9\)-Tetrahydrocannabinol Concentrations in Heavy, Chronic Cannabis Smokers Following Acute Smoked Cannabis (full – 2012)  
http://jat.oxfordjournals.org/content/36/6/405.full

Detection and disposition of JWH-018 and JWH-073 in mice after exposure to "Magic Gold" smoke. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3677765/

Determination of naphthalen-1-yl-(1-pentyllindol-3-yl)methanone (JWH-018) in mouse blood and tissue after inhalation exposure to ‘buzz’ smoke by HPLC/MS/MS (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3697740/

Detection and quantification of new designer drugs in human blood: part 1 - synthetic cannabinoids. (full – 2012)  

Predictive model accuracy in estimating last \(\Delta(9)\)-tetrahydrocannabinol (THC) intake from plasma and whole blood cannabinoid concentrations in chronic, daily cannabis smokers administered subchronic oral THC. (abst – 2012)  

Analysis of 30 synthetic cannabinoids in serum by liquid chromatography-electrospray ionization tandem mass spectrometry after liquid-liquid extraction (abst – 2012)  

Does a positive finding of tetrahydrocannabinol in the blood result from ingestion of Indian frankincense (Boswellia serrata)? (abst – 2012)  

Determination of the two major endocannabinoids in human plasma by \(\mu\)-SPE followed by HPLC-MS/MS. (abst – 2012)  

Distribution of free and conjugated cannabinoids in human bile samples. (abst – 2012)

In Vitro Stability of Free and Glucuronidated Cannabinoids in Blood and Plasma Following Controlled Smoked Cannabis. (full – 2013)
http://www.clinchem.org/content/59/7/1108.full?sid=c00c9727-29e8-493c-83b8-456467e158b9

Impact of prolonged cannabinoid excretion in chronic daily cannabis smokers’ blood on per se drugged driving laws. (full – 2013)
http://www.clinchem.org/content/59/3/519.full?sid=c00c9727-29e8-493c-83b8-456467e158b9

Reductions in circulating endocannabinoid levels in individuals with post-traumatic stress disorder following exposure to the world trade center attacks. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3870889/


Plasma Cannabinoid Concentrations During Dronabinol Pharmacotherapy for Cannabis Dependence. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3955404/

Endocannabinoid and cannabinoid-like fatty acid amide levels correlate with pain-related symptoms in patients with IBS-D and IBS-C: a pilot study. (full – 2013)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0085073

Prevalence of alcohol and other drugs and the concentrations in blood of drivers killed in road traffic crashes in Sweden. (full – 2013)
http://journals.sagepub.com/doi/full/10.1177/1403494813510792


Simultaneous and sensitive LC–MS/MS determination of tetrahydrocannabinol and metabolites in human plasma (abst – 2013)
http://link.springer.com/article/10.1007/s00216-012-6501-x


Prevalence of synthetic cannabinoids in blood samples from Norwegian drivers suspected of impaired driving during a seven weeks period. (abst – 2013)

Comparison of cannabinoid concentrations in oral fluid and whole blood between occasional and regular cannabis smokers prior to and after smoking a cannabis joint.


Performance, egg quality, and blood plasma chemistry of laying hens fed hempseed and hempseed oil. (full – 2014) http://ps.oxfordjournals.org/content/93/11/2827.long

Blood levels do not predict behavioral or physiological effects of Δ⁹-
tetrahydrocannabinol in rhesus monkeys with different patterns of exposure. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4251811/

Phase I and II Cannabinoid Disposition in Blood and Plasma of Occasional and Frequent Smokers Following Controlled Smoked Cannabis. (full – 2014) http://www.clinchem.org/content/60/4/631.long


Determination of Δ9-tetrahydrocannabinolic acid A (Δ9-THCA-A) in whole blood and plasma by LC-MS/MS and application in authentic samples from drivers suspected of driving under the influence of cannabis. (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/25173986


Controlled Cannabis Vaporizer Administration: Blood and Plasma Cannabinoids with and without Alcohol.  (full – 2015)  http://www.clinchem.org/content/61/6/850.long

Non-smoker Exposure to Secondhand Cannabis Smoke. III. Oral Fluid and Blood Drug Concentrations and Corresponding Subjective Effects.  (full – 2015)  http://jat.oxfordjournals.org/content/39/7/497.long

Plasma Cannabinoid Pharmacokinetics After Controlled Smoking and Ad libitum Cannabis Smoking in Chronic Frequent Users.  (full – 2015)  http://jat.oxfordjournals.org/content/39/8/580.long


Concentrations of AB-CHMINACA and AB-PINACA and Driving Behavior in Suspected Impaired Driving Cases. (abst – 2015)  

Tetrahydrocannabinol pharmacokinetics; new synthetic cannabinoids; road safety and cannabis (abst – 2015)  

Oral Cannabidiol does not Alter the Subjective, Reinforcing or Cardiovascular Effects of Smoked Cannabis. (abst – 2015)  

In vitro stability of free and glucuronidated cannabinoids in blood and plasma collected in plastic gray-top sodium fluoride tubes following controlled smoked cannabis (abst – 2015)  

Development and validation of an automated liquid-liquid extraction GC/MS method for the determination of THC, 11-OH-THC, and free THC-carboxylic acid (THC-COOH) from blood serum (full – 2016)  

A preliminary evaluation of the relationship of cannabinoid blood concentrations with the analgesic response to vaporized cannabis. (link to PDF – 2016)  

Comparison of Cannabinoid Concentrations in Plasma, Oral Fluid and Urine in Occasional Cannabis Smokers After Smoking Cannabis Cigarette. (link to download – 2016)  

Simultaneous detection of 93 synthetic cannabinoids by liquid chromatography-tandem mass spectrometry and retrospective application to real forensic samples. (abst – 2016)  

Development of a rapid column-switching LC-MS/MS method for the quantification of THCCOOH and THCCOOH-glucuronide in whole blood for assessing cannabis consumption frequency (abst – 2016)  


Optimized extraction of 2-arachidonyl glycerol and anandamide from aortic tissue and plasma for quantification by LC-MS/MS (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27274705


Identification of the oleic acid ethanolamide (OEA) isomer cis-vaccenic acid ethanolamide (VEA) as a highly abundant 18:1 fatty acid ethanolamide in blood plasma from rats and humans. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27334716


Dried haematic microsamples and LC-MS/MS for the analysis of natural and synthetic cannabinoids. (abst – 2016)
Topical application of THC containing products is not able to cause positive cannabinoid finding in blood or urine.  (abst – 2017)  https://www.ncbi.nlm.nih.gov/pubmed/28122323


**DRUG TESTING – BREATH TEST**

Detection of δ(9)-tetrahydrocannabinol in exhaled breath collected from cannabis users.  (full – 2011)  http://jat.oxfordjournals.org/content/35/8/541.long


Cannabinoids in Exhaled Breath following Controlled Administration of Smoked Cannabis.  (full – 2013)  http://www.clinchem.org/content/59/12/1780.long


**DRUG TESTING – DETECTION OF DRUGS**

Detection of Illicit Drugs by Trained Honeybees (Apis mellifera). (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4471073/

Development of Loop-Mediated Isothermal Amplification (LAMP) Assay for Rapid Detection of Cannabis sativa. (link to PDF – 2016)  
https://www.jstage.jst.go.jp/article/bpb/advpub/0/advpub_b16-00090/article

DRUG TESTING – DIY CANNABINOID TESTING

DIY test to find high CBD plants grown from seeds (forum post – 2015)  

Test THC and CBD at home (forum post – 2015)  

DRUG TESTING – EDIBLES

Simultaneous determination of delta-9-tetrahydrocannabinol cannabidiol and cannabinol in edible oil using ultra performance liquid chromatography-tandem mass spectrometry (abst – 2011)  

Simultaneous Analysis of Cannabinoid and Synthetic Cannabinoids in Dietary Supplements Using UPLC with UV and UPLC-MS-MS. (abst – 2016)  

Stability of Tetrahydrocannabinol and Cannabidiol in Prepared Quality Control Medible Brownies. (abst – 2016)  

DRUG TESTING – HAIR +*

Hair analysis for Delta9-tetrahydrocannabinolic acid A--new insights into the mechanism of drug incorporation of cannabinoids into hair. (abst - 2010)  

11-nor-Delta9-tetrahydrocannabinol-9-carboxylic acid ethyl ester (THC-COOEt): unsuccessful search for a marker of combined cannabis and alcohol consumption.
A study on the concentrations of 11-nor-Δ(9)-tetrahydrocannabinol-9-carboxylic acid (THCCOOH) in hair root and whole hair.  (abst – 2011)

A comparative study on the concentrations of 11-nor-Δ(9)-tetrahydrocannabinol-9-carboxylic acid (THCCOOH) in head and pubic hair.  (abst – 2011)

Detection and quantification of 11-nor-Δ9-tetrahydrocannabinol-9-carboxylic acid in hair by GC/MS/MS in Negative Chemical Ionization mode (NCI) with a simple and rapid liquid/liquid extraction  (abst – 2011)
http://www.unboundmedicine.com/medline/ebm/record/22036308/abstract/Detection_and_quantification_of_11-nor-%CE%949_tetrahydrocannabinol_9_carboxylic_acid_in_hair_by_GC/MS/MS_in_Negative_Chemical_Ionization_mode__NCI__with_a_simple_and_rapid_liquid/liquid_extraction

The standardization of results on hair testing for drugs of abuse: An interlaboratory exercise in Lombardy Region, Italy.  (abst – 2011)
http://www.unboundmedicine.com/medline/ebm/record/22018743/abstract/The_standardization_of_results_on_hair_testing_for_drugs_of_abuse:_An_interlaboratory_exercise_in_Lombardy_Region_Italy

Determination of 22 synthetic cannabinoids in human hair by liquid chromatography-tandem mass spectrometry.  (abst – 2012)

Simultaneous analysis of several synthetic cannabinoids, THC, CBD and CBN, in hair by ultra-high performance liquid chromatography tandem mass spectrometry. Method validation and application to real samples.  (abst – 2012)

Monitoring of chronic Cannabis abuse: An LC-MS/MS method for hair analysis.  (abst – 2012)

Development and validation of an LC-MS/MS method for quantification of Δ9-tetrahydrocannabinolic acid A (THCA-A), THC, CBN and CBD in hair.  (abst – 2013)

Determination of cocaine, cocaine metabolites and cannabinoids in single hairs by MALDI Fourier transform mass spectrometry - preliminary results.  (abst – 2013)

Deposition of JWH-018, JWH-073 and their metabolites in hair and effect of hair pigmentation.  (abst – 2013)


Screening for synthetic cannabinoids in hair by using LC-QTOF MS: A new and powerful approach to study the penetration of these new psychoactive substances in the population (full – 2014) http://msl.sagepub.com/content/54/1/22.long


Pediatric exposure to drugs of abuse by hair testing: monitoring 15 years of evolution in Spain. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4143861/

Hair-based rapid analyses for multiple drugs in forensics and doping: application of dynamic multiple reaction monitoring with LC-MS/MS. (full – 2014) http://journal.chemistrycentral.com/content/8/1/73


Hair analysis for Δ(9) -tetrahydrocannabinolic acid A (THCA-A) and Δ(9) -tetrahydrocannabinol (THC) after handling cannabis plant material. (full – 2015) http://onlinelibrary.wiley.com/doi/10.1002/dta.1830/full

Finding cannabinoids in hair does not prove cannabis consumption. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4595642/


Endocannabinoid concentrations in hair are associated with PTSD symptom severity. (abst – 2016) http://www.psyneuen-journal.com/article/S0306-4530%2816%2930040-3/abstract


Simultaneous HPLC-APCI-MS/MS quantification of endogenous cannabinoids and glucocorticoids in hair  (abst – 2016)  http://www.sciencedirect.com/science/article/pii/S1570023216303786


**DRUG TESTING - OTHER +**


Detecting Cannabis Use on the Human Skin Surface via an Electronic Nose System. (link to PDF – 2014) http://www.mdpi.com/1424-8220/14/7/13256


Detection and mapping of illicit drugs and their metabolites in fingermarks by MALDI MS and compatibility with forensic techniques (full – 2015) http://www.nature.com/srep/2015/150629/srep11716/full/srep11716.html

Finding cannabinoids in hair does not prove cannabis consumption. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4595642/

Method for the Analysis of Cannabinoids and Terpenes in Cannabis (link to PDF – 2015) http://www.ingentaconnect.com/search/article?option1=ta&value1=cannabinoid&sortDescending=true&sortField=prism_publicationDate&pageSize=10&index=7

Evaluation of an On-site Drug-testing Device for the Detection of Synthetic Cannabinoids in Illegal Herbal Products. (abst – 2015)

Distribution of Δ9-Tetrahydrocannabinol and 11-Nor-9-Carboxy-Δ9-Tetrahydrocannabinol Acid in Postmortem Biological Fluids and Tissues From Pilots Fatally Injured in Aviation Accidents. (abst – 2015)

Comprehensive monitoring of the occurrence of 22 drugs of abuse and transformation products in airborne particulate matter in the city of Barcelona. (abst – 2015)


Illicit psychotropic substances in the air: The state-of-art. (abst – 2015)

Development and validation of a LC/MS method for the determination of Δ9-tetrahydrocannabinol and 11-carboxy-Δ9-tetrahydrocannabinol in the larvae of the blowfly Lucilia sericata: Forensic applications (abst – 2015)

The potential of infrared pupillography in routine police traffic checks (abst – 2015)

Patterns of Drugs and Drug Metabolites Observed in Meconium: What Do They Mean? (abst – 2015)

Lipid Discovery by Combinatorial Screening and Untargeted LC-MS/MS. (full – 2016)
http://www.nature.com/articles/srep27920

Brain 2-Arachidonoylglycerol Levels Are Dramatically and Rapidly Increased Under Acute Ischemia-Injury Which Is Prevented by Microwave Irradiation. (abst – 2016)

Drug Recognition Expert (DRE) examination characteristics of cannabis impairment. (abst – 2016)

Cannabis Use Surveillance By Sweat Analysis. (abst – 2016)


**DRUG TESTING - ORAL +**


Simultaneous quantification of cannabinoids and metabolites in oral fluid by two-dimensional gas chromatography mass spectrometry. (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2849720/


Oral Fluid and Plasma Cannabinoid Ratios after Around-the-Clock Controlled Oral {Delta}9-Tetrahydrocannabinol Administration. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3836268/

Synthetic cannabinoids in oral fluid. (full – 2011) http://jat.oxfordjournals.org/content/35/7/424.long

Cannabinoids and metabolites in expectorated oral fluid after 8 days of controlled around-the-clock oral THC administration. (full - 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3842229/
Cannabinoids in oral fluid following passive exposure to marijuana smoke.  
(full – 2011) http://www.clinchem.org/content/57/8/1127.long


Can oral fluid cannabinoid testing monitor medication compliance and/or cannabis smoking during oral THC and oromucosal Sativex administration?  (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3612560/

Endocannabinoids measurement in human saliva as potential biomarker of obesity.  (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3409167/?tool=pubmed


Oral fluid cannabinoid concentrations following controlled smoked cannabis in chronic frequent and occasional smokers. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3823692/


Comparison of cannabinoid concentrations in oral fluid and whole blood between occasional and regular cannabis smokers prior to and after smoking a cannabis joint. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/24202191


The detection of THC, CBD and CBN in the oral fluid of Sativex® patients using two on-site screening tests and LC-MS/MS. (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/24699310


Current knowledge on cannabinoids in oral fluid (abst – 2014) http://www.ingentaconnect.com/search/article;jsessionid=95az9ydb2yj.victoria?option1=tka&value1=cannabinoid&pageSize=10&index=6

Nonsmoker Exposure to Secondhand Cannabis Smoke. III. Oral Fluid and Blood Drug Concentrations and Corresponding Subjective Effects. (full – 2015) http://jat.oxfordjournals.org/content/39/7/497.long


Disposable screen printed sensor for the electrochemical detection of delta-9-tetrahydrocannabinol in undiluted saliva. (full – 2016) http://journal.chemistrycentral.com/content/10/1/1

Comparison of Cannabinoid Concentrations in Plasma, Oral Fluid and Urine in Occasional Cannabis Smokers After Smoking Cannabis Cigarette.


**DRUG TESTING – QUALITY CONTROL** - also see SAFETY-ADULTERANTS


Metagenomic analysis of medicinal Cannabis samples; pathogenic bacteria, toxigenic fungi, and beneficial microbes grow in culture-based yeast and mold tests. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5089129/

Analysis of a commerical marijuana e-cigarette formulation. (abst – 2016) (This article has a delayed release and will be available in PMC on June 1, 2017) https://www.ncbi.nlm.nih.gov/pubmed/27059691


Analysis of a Commercial Marijuana e-Cigarette Formulation. (abst – 2016)  

Quality Control of Traditional Cannabis Tinctures: Pattern, Markers, and Stability  
(full – 2017)  
http://www.mdpi.com/2218-0532/84/3/567/htm

>DRUG TESTING – SECOND-HAND SMOKE – see METHODS OF USE- SECOND HAND SMOKE

DRUG TESTING – URINE *

Urine Drug Screening: A Valuable Office Procedure  
(full – 2010)  
http://www.aafp.org/afp/2010/0301/p635.html

Delta9-tetrahydrocannabivarin testing may not have the sensitivity to detect marijuana use among individuals ingesting dronabinol.  
(full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2815025/?tool=pubmed

Concentrations of delta9-tetrahydrocannabinol and 11-nor-9-carboxytetrahydrocannabinol in blood and urine after passive exposure to Cannabis smoke in a coffee shop.  
(full - 2010)  
http://jat.oxfordjournals.org/content/34/4/196.long

Differentiating new cannabis use from residual urinary cannabinoid excretion in chronic, daily cannabis users.  
(full - 2010)  

Commonly prescribed medications and potential false-positive urine drug screens.  
(abst – 2010)  

Testing for cannabis in the work-place: a review of the evidence.  
(abst – 2010)  

Quantitation of Total 11-Nor-9-Carboxy-Delta 9-Tetrahydrocannabinol in Urine and Blood Using Gas Chromatography-Mass Spectrometry (GC-MS).  
(abst - 2010)  
http://www.ncbi.nlm.nih.gov/pubmed/20077066

Detection of cannabigerol and its presumptive metabolite in human urine after Cannabis consumption.  
(abst - 2010)  

Screening for the synthetic cannabinoid JWH-018 and its major metabolites in human doping controls.  
(abst - 2010)  


Efavirenz interference in urine screening immunoassays for tetrahydrocannabinol. (full – 2011) http://acb.sagepub.com/content/49/2/194.long

Zinc Reduces the Detection of Cocaine, Methamphetamine, and THC by ELISA Urine Testing. (full – 2011) http://jat.oxfordjournals.org/content/35/6/333.long


Unresolved Discrepancies between Cannabinoid Test Results for Infant Urine (full – 2012) http://www.clinchem.org/content/58/9/1364.full


Unexpected interference of baby wash products with a cannabinoid (THC) immunoassay.  
(abst – 2012)  

Qualitative Confirmation of 9 Synthetic Cannabinoids and 20 Metabolites in Human Urine Using LC-MS/MS and Library Search.  
(full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3874406/

In Vitro Stability of Free and Glucuronidated Cannabinoids in Blood and Plasma Following Controlled Smoked Cannabis.  
(full – 2013)  
http://www.clinchem.org/content/59/7/1108.full?sid=c00c9727-29e8-493c-83b8-456467e158b9

Impact of enzymatic and alkaline hydrolysis on CBD concentration in urine.  
(full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3703206/

Simultaneous quantification of 20 synthetic cannabinoids and 21 metabolites, and semi-quantification of 12 alkyl hydroxy metabolites in human urine by liquid chromatography-tandem mass spectrometry.  
(full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3963402/

Efavirenz does not cause false-positive urine cannabis test in HIV-infected patients on Highly Active Anti-Retroviral Therapy.  
(full – 2013)  

Urinary Cannabinoid Disposition in Occasional and Frequent Smokers: Is THC-Glucuronide in Sequential Urine Samples a Marker of Recent Use in Frequent Smokers?  
(full – 2013)  
http://www.clinchem.org/content/60/2/361.long

(full – 2013)  

The accuracy of self-reported data concerning recent cannabis use in the French armed forces.  
(full – 2013)  
http://eurpub.oxfordjournals.org/content/23/2/328.long

Validation of a Novel Immunoassay for the Detection of Synthetic Cannabinoids and Metabolites in Urine Specimens.  
(abst – 2013)  

Monitoring of urinary metabolites of JWH-018 and JWH-073 in legal cases.  
(abst – 2013)  

Molecularly imprinted solid phase extraction for simultaneous determination of Δ(9)-tetrahydrocannabinol and its main metabolites by gas chromatography-mass spectrometry in urine samples.  
(abst – 2013)  

Targeted Metabolomic Approach for Assessing Human Synthetic Cannabinoid Exposure and Pharmacology.  
(abst – 2013)  
http://pubs.acs.org/doi/abs/10.1021/ac4024704
An in vitro experiment on the interaction of charcoal or wheat bran with 11-nor-9-carboxy-Δ9-tetrahydrocannabinol and its glucuronide. (abst – 2013)

Detection of urinary metabolites of AM-2201 and UR-144, two novel synthetic cannabinoids. (abst – 2013)

Analysis of AM-2201 and metabolites in a drugs and driving case (abst – 2013)

Exercise increases plasma THC concentrations in regular cannabis users. (abst – 2013)

Utility of ELISA screening for the monitoring of abstinence from illegal and legal drugs in hair and urine. (full – 2014)

Can Physical Exercise or Food Deprivation Cause Release of Fat-Stored Cannabinoids? (full – 2014)

In vitro stability of free and glucuronidated cannabinoids in urine following controlled smoked cannabis. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4259566/

Is urine an alternative to cosmetically treated hair for the detection of drugs and alcohol? (full – 2014)

Evaluation of a homogenous enzyme immunoassay for the detection of synthetic cannabinoids in urine. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4127333/

Quantitative urine confirmatory testing for synthetic cannabinoids in randomly collected urine specimens. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4363290/

Enzyme-Linked Immunosorbent Assay (ELISA) for the Detection of Use of the Synthetic Cannabinoid Agonists UR-144 and XLR-11 in Human Urine. (full – 2014)

Performance characteristics of an ELISA screening assay for urinary synthetic cannabinoids. (abst – 2014)

LC-QTOF-MS as a superior strategy to immunoassay for the comprehensive analysis of synthetic cannabinoids in urine. (abst – 2014)

Workplace drug testing in Italy: Findings about second-stage testing. (abst – 2014)


Non-smoker exposure to secondhand cannabis smoke. I. Urine screening and confirmation results. (full – 2015) http://www.researchgate.net/publication/267043767_Non-Smoker_Exposure_to_Secondhand_Cannabis_Smoke_I_Urine_Screening_and_Confirmation_Results

13-Year-Old Girl With Recurrent, Episodic, Persistent Vomiting: Out of the Pot and Into the Fire. (full – 2015) http://pediatrics.aappublications.org/content/135/4/e1060.long

Non-smoker exposure to secondhand cannabis smoke II: Effect of room ventilation on the physiological, subjective, and behavioral/cognitive effects. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4747424/


Analysis of Cannabinoids and Their Metabolites in Human Urine. (abst – 2015)  http://pubs.acs.org/doi/10.1021/acs.analchem.5b02603


Detecting biomarkers of secondhand marijuana smoke in young children (link to PDF – 2016)  http://www.nature.com/pr/journal/vaop/naam/abs/pr2016261a.html


Synthetic cannabinoids to avoid urine drug screens: Implications for contingency management and other treatments for drug dependence. (abst – 2016)


Adulterants in Urine Drug Testing. (abst – 2016)

Importance of Urinary Drug Screening in the Multiple Sleep Latency Test and Maintenance of Wakefulness Test. (abst – 2016)

Interpretation of Workplace Tests for Cannabinoids. (abst – 2016)

Topical application of THC containing products is not able to cause positive cannabinoid finding in blood or urine. (abst – 2017) https://www.ncbi.nlm.nih.gov/pubmed/28122323

Immunoassay screening in urine for synthetic cannabinoids - an evaluation of the diagnostic efficiency. (abst – 2017)

**DRUG TESTING – WASTEWATER/ SEWAGE**

The current status of community drug testing via the analysis of drugs and drug metabolites in sewage (link to PDF – 2011)

Evaluation of drugs of abuse use and trends in a prison through wastewater analysis. (abst – 2011)

Evaluation of the presence of drugs of abuse in tap waters. (abst – 2011)
Refining the estimation of illicit drug consumptions from wastewater analysis: co-analysis of prescription pharmaceuticals and uncertainty assessment. (abst – 2011)  

Profiles of illicit drug use during annual key holiday and control periods in Australia: wastewater analysis in an urban, a semi-rural and a vacation area. (abst – 2012)  

Investigation of drugs of abuse and relevant metabolites in Dutch sewage water by liquid chromatography coupled to high resolution mass spectrometry. (abst – 2012)  

Using quantitative wastewater analysis to measure daily usage of conventional and emerging illicit drugs at an annual music festival. (full – 2013)  

Using biomarkers in wastewater to monitor community drug use: A conceptual approach for dealing with new psychoactive substances. (abst – 2013)  

Illicit and abused drugs in sewage sludge: Method optimization and occurrence. (abst – 2013)  

Wastewater analysis reveals regional variability in exposure to abused drugs and opioids in Finland. (abst – 2013)  

Spatial differences and temporal changes in illicit drug use in Europe quantified by wastewater analysis. (full – 2014)  

Improvements in analytical methodology for the determination of frequently consumed illicit drugs in urban wastewater. (abst – 2014)  

Analysis of new classes of recreational drugs in sewage: Synthetic cannabinoids and amphetamine-like substances. (abst – 2014)  

Evaluation of the Efficacy of the Sewage Treatment Plant of Toledo, Spain in the Elimination of Drugs of Abuse and the Estimation of Consumption. (abst – 2014)  

Application of a sewage-based approach to assess the use of ten illicit drugs in four Chinese megacities. (abst – 2014)  

National study of illicit drug use in Slovakia based on wastewater analysis.


Wastewater analysis and drugs — a European multi-city study (link to PDF – 2016) http://www.emcdda.europa.eu/topics/pods/waste-water-analysis


Drugs of abuse and alcohol consumption among different groups of population on the Greek Island of Lesvos through sewage-based epidemiology. (abst – 2016) http://www.sciencedirect.com/science/article/pii/S0048969716308233


Integrating environmental and self-report data to refine cannabis prevalence estimates in a major urban area of Switzerland. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27455466


DUPUYTREN’S CONTRACTURE


DYSKINESIA ++ - impairment of the power of voluntary movement
The effects of cannabinoid drugs on abnormal involuntary movements in dyskinetic and non-dyskinetic 6-hydroxydopamine lesioned rats. (abst – 2010)

Tardive Dystonia and the Use of Cannabis (letter - forum repost - 2010)

Association study of Cannabinoid receptor 1 (CNR1) gene in tardive dyskinesia (full - 2011) http://www.nature.com/tpj/journal/v12/n3/full/tpj201093a.html

Effects of cannabinoid CB(1) receptor agonism and antagonism on SKF81297-induced dyskinesia and haloperidol-induced dystonia in Cebus apella monkeys. (abst – 2011)

The effects of cannabinoid drugs on abnormal involuntary movements in dyskinetic and non-dyskinetic 6-hydroxydopamine lesioned rats. (abst – 2011)

Increased vulnerability to 6-hydroxydopamine lesion and reduced development of dyskinesias in mice lacking CB1 cannabinoid receptors (abst – 2011)
http://europepmc.org/abstract/med/19419794

The cannabinoid agonist WIN55212-2 decreases l-DOPA-induced PKA activation and dyskinetic behavior in 6-OHDA-treated rats. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3273613/

Oleoyl ethanolamide reduces L-DOPA-induced dyskinesia via TRPV1 receptor in a mouse model of Parkinson’s disease. (abst – 2013)

http://www.neurology.org/content/82/17/1556.long


Activation of PPAR gamma receptors reduces levodopa-induced dyskinesias in 6-OHDA-lesioned rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4323744/


Anandamide attenuates haloperidol-induced vacuous chewing movements in rats
The therapeutic potential of cannabinoids for movement disorders. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4357541/


Detection of cannabinoid receptors CB1 and CB2 within basal ganglia output neurons in macaques: changes following experimental parkinsonism (link to PDF – 2015) http://link.springer.com/article/10.1007/s00429-014-0823-8


**DYSPREPSIA**


**DYSTONIA**

Dronabinol for the treatment of unspecific pain, restlessness and spasticity in neuropaediatrics (abst – 2010)
Tardive Dystonia and the Use of Cannabis  (letter - forum repost - 2010)

Effects of cannabinoid CB(1) receptor agonism and antagonism on SKF81297-induced dyskinesia and haloperidol-induced dystonia in Cebus apella monkeys.  (abst – 2011)

Medical cannabis: the opportunity versus the temptation  (abst – 2011)


Targeting the cannabinoid CB2 receptor to attenuate the progression of motor deficits in LRRK2-transgenic mice.  (abst – 2016)

MEDICAL CANNABIS  (abst – 2016)

Dysregulation of the endocannabinoid signaling system in the cerebellum and brainstem in a transgenic mouse model of spinocerebellar ataxia type-3.  (abst – 2016)

EBOLA

CBD Protective Against Ebola Virus  (article – 2014)
http://cannabisdigest.ca/cbd-protective-ebola-virus/

Cannabidiol: a potential treatment for post Ebola syndrome?  (link to PDF– 2016)

ECZEMA +

Epigenetic Control of Skin Differentiation Genes by Phytocannabinoids  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3791996/
Cannabis and Dr Piffard-A Century Ahead of the Curve. (article – 2016)
http://archderm.jamanetwork.com/article.aspx?articleid=2547236

The Endocannabinoid System and Its Role in Eczematous Dermatoses. (abst – 2017)

EDEMA +*


The cannabinoid receptor-2 is involved in allergic inflammation (abst – 2012)

Using the endocannabinoid system as a neuroprotective strategy in perinatal hypoxic-ischemic brain injury. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4146074/

Activation of Cannabinoid CB2 Receptor-Mediated AMPK/CREB Pathway Reduces Cerebral Ischemic Injury. (full – 2013)
http://ajp.amjpathol.org/article/S0002-9440%2812%2900890-5/fulltext


Cannabinoid type 2 receptor stimulation attenuates brain edema by reducing cerebral leukocyte infiltration following subarachnoid hemorrhage in rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4067767/

Cannabinoid Receptor Type 2 Agonist Attenuates Apoptosis by Activation of Phosphorylated CREB-Bcl-2 Pathway After Subarachnoid Hemorrhage in Rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4194247/

Peripheral neurobiologic mechanisms of antiallodynic effect of warm water immersion therapy on persistent inflammatory pain. (abst – 2014)


Cannabinoid CB2 receptor stimulation attenuates brain edema and neurological deficits in a germinal matrix hemorrhage rat model. (abst – 2015)


Cannabinoid Receptor Type 2 Agonist Attenuates Acute Neurogenic Pulmonary Edema by Preventing Neutrophil Migration after Subarachnoid Hemorrhage in Rats (abst - 2016) http://link.springer.com/chapter/10.1007/978-3-319-18497-5_24


EHLERS-DANLOS SYNDROME + see News section
EMBRYOS/ FETAL DEVELOPMENT/ PLACENTAL DEVELOPMENT


Modulation of the novel cannabinoid receptor - GPR55 - during rat fetoplacental development (full – 2011) http://www.placentajournal.org/article/S0143-4004%2811%2900110-X/fulltext

N-Docosahexanoyl ethanolamide promotes development of hippocampal neurons (full – 2011) http://www.biochemj.org/content/435/2/327

Modulation of the novel cannabinoid receptor - GPR55 - during rat fetoplacental development (full – 2011) http://www.placentajournal.org/article/S0143-4004%2811%2900110-X/fulltext

Uncovering a role for endocannabinoid signaling in autophagy in preimplantation mouse embryos (full – 2012) http://molehr.oxfordjournals.org/content/19/2/93.full


TRPA1 mediates spinal antinociception induced by acetaminophen and the cannabinoid Δ9-tetrahydrocannabinol (full – 2011) http://www.nature.com/ncomms/journal/v2/n11/full/ncomms1559.html

Embryonic diapause in humans: time to consider? (full – 2013) http://www.rbej.com/content/11/1/92

Reduced expression of brain cannabinoid receptor 1 (Cnr1) is coupled with an increased complementary micro-RNA (miR-26b) in a mouse model of fetal alcohol spectrum disorders. (full – 2013) http://www.clinicalepigeneticsjournal.com/content/5/1/14

Endocannabinoid crosstalk between placenta and maternal fat in a baboon model (Papio spp.) of obesity. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3827983/

Implantation failure in mice with a disruption in Phospholipase C beta 1 gene: lack of embryonic attachment, aberrant steroid hormone signalling and defective endocannabinoid metabolism (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3632219/
Long-term consequences of perinatal fatty acid amino hydrolase inhibition
(full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3954482/

Behavioral Responses to Acute and Sub-chronic Administration of the Synthetic Cannabinoid JWH-018 in Adult Mice Prenatally Exposed to Corticosterone.

Fatty Acid Binding Protein-4 is expressed in the mouse placental labyrinth, yet is dispensable for placental triglyceride accumulation and fetal growth
(full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4170794/

Programming and reprogramming neural cells by (endo-) cannabinoids: from physiological rules to emerging therapies (full – 2014)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4765324/

Gene-Specific Disruption of Endocannabinoid Receptor 1 (cnr1a) by Ethanol Probably Leads to the Development of Fetal Alcohol Spectrum Disorder (FASD) Phenotypes in Japanese Rice Fish (Oryzias latipes) Embryogenesis. (abst – 2014)

Lipid abundance in zebrafish embryos is regulated by complementary actions of the Endocannabinoid System and Retinoic Acid Pathway. (full – 2015)


Preferential epithelial expression of type-1 cannabinoid receptor (CB1R) in the developing canine embryo. (full – 2015) http://www.springerplus.com/content/4/1/804


Fetal endocannabinoids orchestrate the organization of pancreatic islet microarchitecture. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4653226/
Cannabinoid Receptor-2 Regulates Embryonic Hematopoietic Stem Cell Development via Prostaglandin E2 and P-Selectin Activity.  (full – 2015)

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4781665/


Dynamics of expression and localization of the cannabinoid system in granulosa cells during oocyte nuclear maturation.  (full – 2015)
http://www.fertstert.org/article/S0015-0282(15)00440-9/fulltext

Role of the endocannabinoid system in the mechanisms involved in the LPS-induced preterm labor.  (full– 2015)
http://www.reproduction-online.org/content/150/6/463.long

Lipid abundance in zebrafish embryos is regulated by complementary actions of the Endocannabinoid System and Retinoic Acid Pathway.  (full – 2015)

Progesterone and anandamide in pregnancy loss  (full – 2015)
http://www.placentajournal.org/article/S0143-4004%2815%2900515-9/fulltext

Anandamide restricts uterine stromal differentiation and is critical for complete decidualization.  (abst – 2015)


Epigenetic Effects of Cannabis Exposure.  (abst – 2015)

The endocannabinoid 2-arachidonoylglycerol dysregulates the synthesis of proteins by the human syncytiotrophoblast.  (abst – 2015)


**ENCEPHALITIS**+

A synthetic cannabinoid agonist promotes oligodendrogliogenesis during viral encephalitis in rats (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2981070/?tool=pubmed

Cannabidiol reduces lipopolysaccharide-induced vascular changes and inflammation in the mouse brain: an intravital microscopy study (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3034694/?tool=pmcentrez


Anti-N-methyl-D-aspartate receptor encephalitis and drug abuse - the probable role of molecular mimicry or the overstimulation of CB receptors in a 17-year-old adolescent - case report. (link to download – 2016) http://www.mppt.hu/folyoirat/1/abstract/?vol=18&issue=3&elsooldal=162

**ENCEPHALOMYELITIS/ EAE** +* - a mouse model for multiple sclerosis

Cannabinoids and B cells: emerging targets for treating progressive multiple sclerosis (full – 2011) http://msj.sagepub.com/content/17/3/259.long

Role of Cannabinoids in Multiple Sclerosis (link to PDF - 2011) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.659.8269&rank=26


Administration of 2-arachidonoylglycerol ameliorates both acute and chronic Experimental Autoimmune Encephalomyelitis (abst – 2011) http://www.unboundmedicine.com/medline/ebm/record/21406188/abstract/Administration_of_2_arachidonoylglycerol_ameliorates_both_acute_and_chronic_Experimental_Autoimmune_Encephalomyelitis


Cannabinoid receptor-2-selective agonists improve recovery in experimental autoimmune encephalomyelitis (abst – 2012) http://www.jimmunol.org/content/188/1_Supplement/116.7.abstract?sid=b1a0d6c8-40b1-4641-82a4-b6b539cebc6e

The biology that underpins the therapeutic potential of cannabis-based medicines for the control of spasticity in multiple sclerosis.  (abst – 2012)  

Cannabinoid receptor 2 agonists inhibit migration of activated dendritic cells via modulation of MMP-9  (abst – 2012)  
http://www.jimmunol.org/content/188/1_Supplement/173.23.abstract?sid=919f9469-cb24-4dbd-9884-1985caa8604a

Genetic Background Can Result in a Marked or Minimal Effect of Gene Knockout (GPR55 and CB2 Receptor) in Experimental Autoimmune Encephalomyelitis Models of Multiple Sclerosis.  (full – 2013)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0076907

Multiple sclerosis and the blood-central nervous system barrier.  (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3562587/

Cannabidiol provides long-lasting protection against the deleterious effects of inflammation in a viral model of multiple sclerosis: A role for A2A receptors.  (full – 2013)  

Selective CB2 receptor activation ameliorates EAE by reducing Th17 differentiation and immune cell accumulation in the CNS.  (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3906668/

Cannabinoids: Do they have the potential to treat the symptoms of multiple sclerosis?  (full – 2013)  

R-flurbiprofen attenuates experimental autoimmune encephalomyelitis in mice.  (full – 2014)  
http://embomolmed.embopress.org/content/6/11/1398.long

A cannabigerol derivative suppresses immune responses and protects mice from experimental autoimmune encephalomyelitis.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3984273/

Activating Cannabinoid Receptor 2 Alleviates Pathogenesis of Experimental Autoimmune Encephalomyelitis Via Activation of Autophagy and Inhibiting NLRP3 Inflammasome.  (full – 2014)  

Pre- and postsynaptic type-1 cannabinoid receptors control the alterations of glutamate transmission in experimental autoimmune encephalomyelitis.  (abst – 2014)  

Cannabidiol, a non-psychoactive cannabinoid, leads to EGR2-dependent anergy in activated encephalitogenic T cells.  (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4363052/
A new formulation of cannabidiol in cream shows therapeutic effects in a mouse model of experimental autoimmune encephalomyelitis.  
(full – 2015)  

Activation of Cannabinoid CB2 receptors Reduces Hyperalgesia in an Experimental Autoimmune Encephalomyelitis Mouse Model of Multiple Sclerosis.  
(full – 2015)  

HU-446 and HU-465, derivatives of the non-psychoactive cannabinoid cannabidiol, decrease the activation of encephalitogenic T cells.  
(full – 2015)  

Purified Cannabidiol, the main non-psychotropic component of Cannabis sativa, alone, counteracts neuronal apoptosis in experimental multiple sclerosis.  
(link to PDF – 2015)  
http://www.europeanreview.org/article/10049

Interaction between the protective effects of cannabidiol and palmitoylethanolamide in experimental model of multiple sclerosis in C57BL/6 mice  
(abst – 2015)  

Neuroprotection in Experimental Autoimmune Encephalomyelitis and Progressive Multiple Sclerosis by Cannabis-Based Cannabinoids.  
(abst – 2015)  
http://link.springer.com/article/10.1007%2Fs11481-014-9575-8

Activation of CB2 receptor is required for the therapeutic effect of ABHD6 inhibition in experimental autoimmune encephalomyelitis.  
(abst – 2015)  

Neuroprotective Effect Is Driven Through the Upregulation of CB1 Receptor in Experimental Autoimmune Encephalomyelitis.  
(abst – 2015)  

The disease-modifying effects of a Sativex-like combination of phytocannabinoids in mice with experimental autoimmunity encephalomyelitis are preferentially due to Δ(9)-tetrahydrocannabinol acting through CB1 receptors.  
(abst – 2015)  

Pathways and gene networks mediating the regulatory effects of cannabidiol, a nonpsychoactive cannabinoid, in autoimmune T cells.  
(full – 2016)  

Interaction between interleukin-1β and type-1 cannabinoid receptor is involved in anxiety-like behavior in experimental autoimmune encephalomyelitis.  
(full – 2016)  

Target regulation of PI3K/Akt/mTOR pathway by cannabidiol in treatment of experimental multiple sclerosis.  
(full – 2016)  
http://pubs.acs.org/doi/abs/10.1021/acs.jmedchem.5b01812

WWL70 attenuates PGE2 production derived from 2-arachidonoylglycerol in microglia by ABHD6-independent mechanism (full – 2017)

ENDOMETRIOSIS +

Antiproliferative effects of cannabinoid agonists on deep infiltrating endometriosis. (full - 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2993285/

Endocannabinoid involvement in endometriosis. (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2972363/

Effect of palmitoylethanolamide-polydatin combination on chronic pelvic pain associated with endometriosis: preliminary observations. (abst – 2010)

Δ9-Tetrahydrocannabinol and N-arachidonyl glycine are full agonists at GPR18 receptors and induce migration in human endometrial HEC-1B cells (full – 2012)

The molecular connections between the cannabinoid system and endometriosis (full – 2012)
http://molehr.oxfordjournals.org/content/18/12/563.full

Progesterone-dependent regulation of endometrial cannabinoid receptor type 1 (CB1-R) expression is disrupted in women with endometriosis and in isolated stromal cells exposed to 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3462249/

β-Caryophyllene causes regression of endometrial implants in a rat model of endometriosis without affecting fertility. (abst – 2013)

Administration of micronized palmitoylethanolamide (PEA)-transpolydatin in the treatment of chronic pelvic pain in women affected by endometriosis: preliminary results (abst – 2013)


> **ENTOURAGE EFFECT** - in the PHYTOCANNABINOIDS & ENDOCANNABINOIDS sections

**EPILEPSY/ SEIZURES** +* also see EPIDIOLEX in the “PHYTOCANNABINOIDS” section

Cannabidiol Displays Antiepileptiform and Antiseizure Properties In Vitro and In Vivo (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2819831/?tool=pmcentrez


AAV vector-mediated overexpression of CB1 cannabinoid receptor in pyramidal neurons of the hippocampus protects against seizure-induced excitotoxicity. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3006205/?tool=pubmed


Redistribution of CB1 Cannabinoid Receptors in the Acute and Chronic Phases of Pilocarpine-Induced Epilepsy (full – 2011) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0027196


Acetaminophen inhibits status epilepticus in cultured hippocampal neurons. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3052417/


Convulsions Associated with the Use of a Synthetic Cannabinoid Product. (full – 2011) http://www.springerlink.com/content/9651q2672027n38g/fulltext.html


Synthetic cannabinoid WIN 55,212-2 mesylate enhances the protective action of four classical antiepileptic drugs against maximal electroshock-induced seizures in mice. (abst – 2011) http://www.unboundmedicine.com/medline/ebm/record/21238473/abstract/Synthetic_cannabinoid_WIN_55212_2_mesylate_enhances_the_protective_action_of_four_classical_antiepileptic_drugs_against_maximal_electroshock_induced_seizures_in_mice


Neuron to Astrocyte Communication via Cannabinoid Receptors Is Necessary for Sustained Epileptiform Activity in Rat Hippocampus  (full – 2012)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0037320

Cannabidivarin is anticonvulsant in mouse and rat.  (full – 2012)  

Cannabinoid receptor 1 inhibition causes seizures during anesthesia induction in experimental sepsis.  (full – 2012)  
http://journals.lww.com/anesthesia-analgesia/Fulltext/2012/06000/Cannabinoid_Receptor_1_Inhibition_Causes_Seizures.12.aspx

Statistical parametric mapping reveals regional alterations in cannabinoid CB1 receptor distribution and G-protein activation in the 3D reconstructed epileptic rat brain.  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3799958/

Cannabidiol in humans-the quest for therapeutic targets.  (full – 2012)  

Cannabidiol exerts anti-convulsant effects in animal models of temporal lobe and partial seizures.  (full – 2012)  
http://www.seizure-journal.com/article/S1059-1311%2812%2900057-X/fulltext

Epileptiform activity in the CA1 region of the hippocampus becomes refractory to attenuation by cannabinoids in part because of endogenous γ-aminobutyric acid type B receptor activity.  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3350599/

Equipotent Inhibition of Fatty Acid Amide Hydrolase and Monoacylglycerol Lipase - Dual Targets of the Endocannabinoid System to Protect against Seizure Pathology.  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3480564/

Endocannabinoids via CB1 receptors act as neurogenic niche cues during cortical development.  (full – 2012)  
http://rstb.royalsocietypublishing.org/content/367/1607/3229.long

Targeting the endocannabinoid system with cannabinoid receptor agonists: pharmacological strategies and therapeutic possibilities  (full – 2012)  
http://rstb.royalsocietypublishing.org/content/367/1607/3353.full?sid=1569c370-ec5e-4358-89ff-857201f5e069


Inverse relationship of cannabimimetic (R+)WIN 55, 212 on behavior and seizure threshold during the juvenile period. (abst – 2012) http://www.sciencedirect.com/science/article/pii/S0091305711003273


Alterations of endocannabinoids in cerebrospinal fluid of dogs with epileptic seizure disorder. (full – 2013) http://www.biomedcentral.com/content/pdf/1746-6148-9-262.pdf


Cannabidivarin (CBDV) suppresses pentylenetetrazole (PTZ)-induced increases in epilepsy-related gene expression. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3840466/


The du2J mouse model of ataxia and absence epilepsy has deficient cannabinoid CB1 receptor-mediated signalling. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3764637/
Cannabidivarin-rich cannabis extracts are anticonvulsant in mouse and rat via a CB1 receptor-independent mechanism. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3792005/

Stirring the Pot With Estrogens (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3697880/

Medical Marijuana Coverage Still Lost in the Legal Weeds (article – 2013)  
http://www.managedcaremag.com/linkout/2013/1/23

Epidiolex - GW Pharmaceuticals (drug development page – 2013)  
http://www.gwpharm.com/Epidiolex.aspx

Therapeutic potential of cannabinoid medicines. (abst – 2013)  

Cannabis and other illicit drug use in epilepsy patients. (abst – 2013)  

The role of potassium BK channels in anticonvulsant effect of cannabidiol in pentylenetetrazole and maximal electroshock models of seizure in mice. (abst – 2013)  

The role of α2-adrenoceptors in the anti-convulsant effects of cannabinoids on pentylenetetrazole-induced seizure threshold in mice. (abst – 2013)  

CB1 agonists, locally applied to the cortico-thalamic circuit of rats with genetic absence epilepsy, reduce epileptic manifestations. (abst – 2013)  

Effects of WIN 55,212-2 mesylate on the anticonvulsant action of lamotrigine, oxcarbazepine, pregabalin and topiramate against maximal electroshock-induced seizures in mice. (abst – 2013)  

Whole Cannabis Extracts of High Concentration Cannabidiol May Calm Seizures in Highly Refractory Pediatric Epilepsies (abst – 2013)  

The case for medical marijuana in epilepsy. (full – 2014)  

Cannabidiol: Pharmacology and potential therapeutic role in epilepsy and other neuropsychiatric disorders (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4707667/
Effects of WIN 55,212-2 (a non-selective cannabinoid CB1 and CB 2 receptor agonist) on the protective action of various classical antiepileptic drugs in the mouse 6 Hz psychomotor seizure model. (full – 2014)


Endogenous Signaling by Omega-3 Docosahexaenoic Acid-derived Mediators Sustains Homeostatic Synaptic and Circuitry Integrity. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3180614/

Physicians, Medical Marijuana, and the Law (full – 2014)

Astrocytic expression of cannabinoid type 1 receptor in rat and human sclerotic hippocampi. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4097232/


The potential of antiseizure drugs and agents that act on novel molecular targets as antiepileptogenic treatments. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3996125/


Seizing an opportunity for the endocannabinoid system. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4189640/


Disease-Modifying Effects of RHC80267 and JZL184 in a Pilocarpine Mouse Model of Temporal Lobe Epilepsy (full – 2014)  

Cannabidiol: Promise and Pitfalls (full – 2014)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4189631/

Delayed seizure-like activity following analytically confirmed use of previously unreported synthetic cannabinoid analogues. (full – 2014)  
http://journals.sagepub.com/doi/full/10.1177/0960327114550886

The Comprehensive Report on the Cannabis Extract Movement and the Use of Cannabis Extracts to Treat Diseases (link to PDF - 2014)  
http://www.slideshare.net/TheHempSolution/comprehensive-report-on-the-cannabis-extract-movement

A 'spicy' encephalopathy: synthetic cannabinoids as cause of encephalopathy and seizure (letter – 2014)  
http://ccforum.biomedcentral.com/articles/10.1186/s13054-014-0553-6

EFFICACY AND SAFETY OF EPIDIOLEX (CANNABIDIOL) IN CHILDREN AND YOUNG ADULTS WITH TREATMENT-RESISTANT EPILEPSY: INITIAL DATA FROM AN EXPANDED ACCESS PROGRAM (abst – 2014)  
https://www.aesnet.org/meetings_events/annual_meeting_abstracts/view/1868751#sthash.pbnOqzNG.dpuf

'Crazy Monkey' Poisons Man and Dog: Human and canine seizures due to PB-22, a novel synthetic cannabinoid (abst– 2014)  

Voltage-gated sodium (NaV) channel blockade by plant cannabinoids does not confer anticonvulsant effects per se. (abst – 2014)  

Cannabinoids for epilepsy: is marijuana an effective treatment for epilepsy? (abst – 2014)  
http://content.iospress.com/articles/journal-of-pediatric-epilepsy/pep077

Nonpsychotropic Plant Cannabinoids, Cannabidivarin (CBDV) and Cannabidiol (CBD), Activate and Desensitize Transient Receptor Potential Vanilloid 1 (TRPV1) Channels in Vitro: Potential for the Treatment of Neuronal Hyperexcitability (abst – 2014)  
http://pubs.acs.org/doi/abs/10.1021/cn5000524

Pentylenetetrazol-induced seizure-like behavior and neural hyperactivity in the medicinal leech. (abst – 2014)  

Distinct modulation of the endocannabinoid system upon kainic acid-induced in vivo seizures and in vitro epileptiform bursting. (abst – 2014)  

Analysis in conditional cannabinoid 1 receptor-knockout mice reveals neuronal subpopulation-specific effects on epileptogenesis in the kindling paradigm. (abst – 2014)  


THE EFFECT OF EPIDIOLEX (CANNABIDIOL) ON SERUM LEVELS OF CONCOMITANT ANTI-EPILEPTIC DRUGS IN CHILDREN AND YOUNG ADULTS WITH TREATMENT-RESISTANT EPILEPSY IN AN EXPANDED ACCESS PROGRAM (abst – 2014) https://www.aesnet.org/meetings_events/annual_meeting_abstracts/view/1868391#sthash.uxbwgudh.dpuf

RESOLUTION OF SEIZURES AND NORMALIZATION OF EEG AFTER INITIATION OF CBD IN A PATIENT WITH DOOSE SYNDROME (abst – 2014) https://www.aesnet.org/meetings_events/annual_meeting_abstracts/view/1868186#sthash.4suBa1in.dpuf

Muscarinic M1 receptor and cannabinoid CB1 receptor do not modulate paraoxon-induced seizures (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4317231/

Fatty Acid Binding Proteins (FABPs) are Intracellular Carriers for Δ9-Tetrahydrocannabinol (THC) and Cannabidiol (CBD). (full – 2015) http://www.jbc.org/content/early/2015/02/09/jbc.M114.618447.long

Cannabidiol Rescues Acute Hepatic Toxicity and Seizure Induced by Cocaine (full – 2015) http://www.hindawi.com/journals/mi/2015/523418/

Defects in fatty acid amide hydrolase 2 in a male with neurologic and psychiatric symptoms. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4423390/


Loss of Either Rac1 or Rac3 GTPase Differentially Affects the Behavior of Mutant Mice and the Development of Functional GABAergic Networks. (full – 2015) http://cercor.oxfordjournals.org/content/early/2015/11/17/cercor.bhv274.long

TRPV1 Channel: A Potential Drug Target for Treating Epilepsy. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4598436/

Homer Protein-Metabotropic Glutamate Receptor Binding Regulates Endocannabinoid Signaling and Affects Hyperexcitability in a Mouse Model of Fragile X Syndrome. (full – 2015) http://www.jneurosci.org/content/35/9/3938.long


Cannabidiol in patients with treatment-resistant epilepsy: an open-label interventional trial (abst – 2015) http://www.thelancet.com/journals/laneur/article/PIIS1474-4422%2815%2900379-8/abstract


Withdrawal Seizures Seen In the Setting of Synthetic Cannabinoid Abuse (abst – 2015) http://www.ajemjournal.com/article/S0735-6757%2815%2900169-2/abstract


Changes over time of cannabinoid receptor 1 in hippocampus of status epilepticus rats (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26168676

ACEA (a highly selective cannabinoid CB1 receptor agonist) stimulates hippocampal neurogenesis in mice treated with antiepileptic drugs. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26225920


Cannabis and Endocannabinoid Signaling in Epilepsy. (abst – 2015) http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_10


Convulsant effects of high efficacy synthetic cannabinoid JWH-018 in mice (abst – 2015)
The cannabinoid CB2 receptor-specific agonist AM1241 increases pentylenetetrazole-induced seizure severity in Wistar rats. (abst – 2015)
http://www.epires-journal.com/article/S0920-1211(16)30131-0/abstract

The Pharmacological Basis of Cannabis Therapy for Epilepsy. (full – 2016)
http://jpet.aspetjournals.org/content/early/2016/01/19/jpet.115.230151.long

Cannabinoids for pediatric epilepsy? Up in smoke or real science? (full – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4729003/

Transient increase of interleukin-1β after prolonged febrile seizures promotes adult epileptogenesis through long-lasting upregulating endocannabinoid signaling. (full – 2016)  http://www.nature.com/articles/srep21931

Analysis of endocannabinoid signaling elements and related proteins in lymphocytes of patients with Dravet syndrome. (full – 2016)

ABC transporters P-gp and Bcrp do not limit the brain uptake of the novel antipsychotic and anticonvulsant drug cannabidiol in mice. (full – 2016)
https://peerj.com/articles/2081/

CBD-enriched medical cannabis for intractable pediatric epilepsy: The current Israeli experience. (full – 2016)

Case Series of Synthetic Cannabinoid Intoxication from One Toxicology Center. (full – 2016)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4899060/

Synthetic cannabinoids revealing adrenoleukodystrophy (full – 2016)

Is the medical use of cannabis a therapeutic option for children? (full – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4758425/

Fatty Acid Binding Proteins are Intracellular Carriers for THC and CBD (full – 2016)  http://www.jbc.org/content/290/14/8711.full

Endocannabinoid control of glutamate NMDA receptors: the therapeutic potential and consequences of dysfunction. (full – 2016)
http://www.impactjournals.com/oncotarget/index.php?journal=oncotarget&page=article&op=view&path%5B%5D=10095&path%5B%5D=31745

Crucial Roles of the Endocannabinoid 2-Arachidonoylglycerol in the Suppression of Epileptic Seizures. (full – 2016)
http://www.cell.com/cell-reports/fulltext/S2211-1247(16)30852-X
Turning Up the Heat on Endocannabinoid Signaling  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5106110/  

Δ9-THC Intoxication by Cannabidiol-Enriched Cannabis Extract in Two Children with Refractory Epilepsy: Full Remission after Switching to Purified Cannabidiol.  
(full – 2016)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5043219/  

Medical Marijuana for Epilepsy?  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4911937/  

Investigational new drugs for focal epilepsy.  

Cannabis and Cannabinoids.  
http://jamanetwork.com/journals/jama/article-abstract/2592497  

Cannabidiol Post-Treatment Alleviates Rat Epileptic-Related Behaviors and Activates Hippocampal Cell Autophagy Pathway Along with Antioxidant Defense in Chronic Phase of Pilocarpine-Induced Seizure  
(abst – 2016)  

Adverse effects after the use of JWH-210 - a case series from the EU Spice II plus project.  
(abst – 2016)  

Effect of JWH-250, JWH-073 and their interaction on "tetrad", sensorimotor, neurological and neurochemical responses in mice.  
(abst – 2016)  

Dentate cannabinoid-sensitive interneurons undergo unique and selective strengthening of mutual synaptic inhibition in experimental epilepsy  
(abst – 2016)  

Anticonvulsant activity of β-caryophyllene against pentylenetetrazol-induced seizures.  
(abst – 2016)  

Plant-Derived and Endogenous Cannabinoids in Epilepsy.  
(abst – 2016)  

Involvement of TRPV1 channels in the activity of the cannabinoid WIN 55,212-2 in an acute rat model of temporal lobe epilepsy.  
(abst – 2016)  

Cannabidiol and epilepsy: rationale and therapeutic potential.  
(abst – 2016)  

LACTIC ACIDOSIS: A RARE MANIFESTATION OF SYNTHETIC MARIJUANA INTOXICATION.  
(abst – 2016)  
CB1 Receptor Antagonism Prevents Long-Term Hyperexcitability after Head Injury by of Dynorphin-KOR System and mGluR5 in Rat Hippocampus. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27262683

Aberrant epilepsy-associated mutant Nav1.6 sodium channel activity can be targeted with cannabidiol. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27267376


From cannabis to cannabidiol to treat epilepsy, where are we? (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27587196


Pharmacology of cannabinoids in the treatment of epilepsy. (abst – 2016)

Using Medical Marijuana to Stop Childhood Seizures (news & abstract – 2016)

Synaptic Reorganization of the Perisomatic Inhibitory Network in Hippocampi of Temporal Lobe Epileptic Patients (full – 2017)
https://www.hindawi.com/journals/bmri/2017/7154295/

Thermolytic degradation of synthetic cannabinoids: chemical exposures and pharmacological consequences (link to download – 2017)
http://jpet.aspetjournals.org/content/early/2017/01/13/jpet.116.238717.long

Historical perspective on the medical use of cannabis for epilepsy: Ancient times to the 1980s. (abst – 2017)

Neuroimaging studies towards understanding the central effects of pharmacological cannabis products on patients with epilepsy. (abst – 2017)

Social factors in marijuana use for medical and recreational purposes. (abst – 2017)

EPSTEIN-BARR

WIN55,212-2 induces cytoplasation in apoptosis-resistant MCL cells (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3223692/

Microarray and Pathway Analysis Reveal Distinct Mechanisms Underlying Cannabinoid-Mediated Modulation of LPS-Induced Activation of BV-2 Microglial Cells (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3634783/

ESSENTIAL TREMOR

Cannabinoid receptor agonism suppresses tremor, cognition disturbances and anxiety-like behaviors in a rat model of essential tremor. (abst – 2016)


**EXERCISE and the ENDOCANNABINOID SYSTEM +**


Aerobic Exercise Training Reduces Cannabis Craving and Use in Non-Treatment Seeking Cannabis-Dependent Adults (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3050879/?tool=pmcentrez

Adipose tissue endocannabinoid system gene expression: depot differences and effects of diet and exercise (full – 2011) http://www.lipidworld.com/content/10/1/194

High-performance sport, marijuana, and cannabimimetics. (full – 2011) http://jat.oxfordjournals.org/content/35/9/624.long


Intense exercise increases circulating endocannabinoid and BDNF levels in humans—Possible implications for reward and depression (abst – 2011) http://www.psyneuen-journal.com/article/PIIS0306453011002873/abstract?rss=yes

Wired to run: exercise-induced endocannabinoid signaling in humans and cursorial mammals with implications for the 'runner's high'. (full – 2012) http://jeb.biologists.org/content/215/8/1331.long


Voluntary Running in Young Adult Mice Reduces Anxiety-Like Behavior and Increases the Accumulation of Bioactive Lipids in the Cerebral Cortex (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0081459

The effects of caffeine, nicotine, ethanol, and tetrahydrocannabinol on exercise performance (full – 2013) http://www.nutritionandmetabolism.com/content/10/1/71


Molecular Basis for the Improvement in Muscle Metaboreflex and Mechanoreflex Control in Exercise-Trained Humans with Chronic Heart Failure. (full – 2014) http://ajpheart.physiology.org/content/307/11/H1655

Effects of Two Different Specific Neck Exercise Interventions on Palmitoylethanolamide and Stearoylethanolamide Concentrations in the Interstitium of the Trapezius Muscle in
Women with Chronic Neck Shoulder Pain  (full – 2014)
http://painmedicine.oxfordjournals.org/content/15/8/1379.long

Modulation of early stress-induced neurobiological changes: a review of behavioural and pharmacological interventions in animal models  (full – 2014)
http://www.nature.com/tp/journal/v4/n5/full/tp201431a.html


Physical activity and cannabis cessation.  (abst – 2014)

Fasting and exercise increase plasma cannabinoid levels in THC pre-treated rats: an examination of behavioural consequences.  (abst – 2014)

Effect of dronabinol therapy on physical activity in anorexia nervosa: a randomised, controlled trial.  (abst – 2014)

The fatty acid amide hydrolase in lymphocytes from sedentary and active subjects.  (abst – 2014)

A runner's high depends on cannabinoid receptors in mice.  (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4620874/


Deletion of G-protein coupled receptor 55 promotes obesity by reducing physical activity.  (abst – 2015)

Cannabis and Exercise Science: A Commentary on Existing Studies and Suggestions for Future Directions  (abst – 2015)

Runner's high linked to cannabinoid receptors in mice  (news & abstract – 2015)

Neuromodulation of Aerobic Exercise—A Review  (full – 2016)

Sleep restriction alters plasma endocannabinoids concentrations before but not after exercise in humans.  (full – 2016)
http://www.psyneuen-journal.com/article/S0306-4530(16)30715-6/fulltext

Effects of chronic exercise on the endocannabinoid system in Wistar rats with high-fat diet-induced obesity.  (abst – 2016)
Exercise deprivation increases negative mood in exercise-addicted subjects and modifies their biochemical markers.  
(abst – 2016)  

Restricted vs. unrestricted wheel running in mice: Effects on brain, behavior and endocannabinoids.  
(abst – 2016)  
http://www.sciencedirect.com/science/article/pii/S0018506X16301799

Circulating levels of endocannabinoids respond acutely to voluntary exercise, are altered in mice selectively bred for high voluntary wheel running, and differ between the sexes.  
(abst – 2016)  

>FAMILIAL MEDITERRANEAN FEVER – see Pre-2000 List

FASTING/ FOOD/WATER DEPRIVATION and the ENDOCANNABINOID SYSTEM +

Plasma anandamide and other N-acylethanolamines are correlated with their corresponding free fatty acid levels under both fasting and non-fasting conditions in women  
(full – 2010)  
http://www.nutritionandmetabolism.com/content/7/1/49

Pharmacogenetic Trial of a Cannabinoid Agonist Shows Reduced Fasting Colonic Motility in Patients with Non-Constipated Irritable Bowel Syndrome.  
(full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3202649/

TAK-875, an orally available G protein-coupled receptor 40/free fatty acid receptor 1 agonist, enhances glucose-dependent insulin secretion and improves both postprandial and fasting hyperglycemia in type 2 diabetic rats.  
(full – 2011)  
http://jpet.aspetjournals.org/content/339/1/228.long

Effect of rimonabrant on oesophageal motor function in man  
(full – 2011)  

Plasticity in vagal afferent neurones during feeding and fasting: mechanisms and significance.  
(abst – 2011)  

The effects of fasting duration on gastric emptying in man, an exploration of the role of the endocannabinoid system and inter-individual responsiveness  
(full – 2012)  


Involvement of the cannabinoid CB1 receptor in modulation of dopamine output in the prefrontal cortex associated with food restriction in rats. (full – 2014) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0092224

Role of corticosterone in the murine enteric nervous system during fasting. (full – 2014) http://ajpgi.physiology.org/content/307/9/G905


Type 1 cannabinoid receptor modulates water deprivation-induced homeostatic responses. (full – 2015) http://ajpregu.physiology.org/content/309/11/R1358.long


CB1 receptors into the Prelimbic Cortex modulate food intake in rats. (abst – 2015) http://www.fasebj.org/content/29/1_Supplement/655.1.abstract?sid=edf921ac-0690-4aa6-ac81-0546314dd384

Circulating Endocannabinoids and Insulin Resistance in Patients with Obstructive Sleep Apnea (full – 2016) http://www.hindawi.com/journals/bmri/2016/9782031/

Docosahexaenoic acid-supplementation prior to fasting prevents muscle atrophy in mice. (full – 2016) http://onlinelibrary.wiley.com/doi/10.1002/jcsm.12103/full

A role of CB1R in inducing θ-rhythm coordination between the gustatory and gastrointestinal insula. (full – 2016) http://www.nature.com/articles/srep32529
α/β-Hydrolase Domain 6 in the Ventromedial Hypothalamus Controls Energy Metabolism Flexibility.  (full – 2016)  
http://www.cell.com/cell-reports/fulltext/S2211-1247(16)31373-0

Unconventional endocannabinoid signaling governs sperm activation via sex hormone progesterone.  (abst – 2016)  

Association between plasma endocannabinoids and appetite in hemodiaylsis patients: A pilot study.  (abst – 2016)  

Triazole Ureas Act as Diacylglycerol Lipase Inhibitors and Prevent Fasting-Induced Refeeding.  (abst – 2016)  
http://pubs.acs.org/doi/abs/10.1021/acs.jmedchem.6b01482

FERTILITY/ SEXUAL FUNCTION *

Characterization of the Endocannabinoid System in Human Spermatozoa and Involvement of Transient Receptor Potential Vanilloid 1 Receptor in Their Fertilizing Ability  (full – 2010)  
http://endo.endojournals.org/content/150/10/4692.full?sid=f5b14012-9fbc-4f10-890c-386313060cf8

N-Acylethanolamine Levels and Expression of Their Metabolizing Enzymes during Pregnancy  (full – 2010)  
http://endo.endojournals.org/content/151/8/3965.full

Human sperm anatomy: ultrastructural localization of the cannabinoid1 receptor and a potential role of anandamide in sperm survival and acrosome reaction.  (full – 2010)  

Cannabinoids and Reproduction: A Lasting and Intriguing History  
(link to PDF – 2010)  
http://www.mdpi.com/1424-8247/3/10/3275

From Fertilisation to Implantation in Mammalian Pregnancy—Modulation of Early Human Reproduction by the Endocannabinoid System  (link to PDF – 2010)  

Endocannabinoids and Human Sperm Cells  (link to PDF - 2010)  
http://www.mdpi.com/1424-8247/3/10/3200

Histomorphometric evaluation of cannabinoid receptor and anandamide modulating enzyme expression in the human endometrium through the menstrual cycle.  (abst – 2010)  


An endocannabinoid system is localized to the hypophysial pars tuberalis of Syrian hamsters and responds to photoperiodic changes. (abst – 2010) http://www.ncbi.nlm.nih.gov/pubmed/20165884

Anandamide capacitates bull spermatozoa through CB1 and TRPV1 activation. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3037938/?tool=pubmed

Modulation of the novel cannabinoid receptor - GPR55 - during rat fetoplacental development (full – 2011) http://www.placentajournal.org/article/S0143-4004%2811%2900110-X/fulltext


Uncovering a role for endocannabinoid signaling in autophagy in preimplantation mouse embryos (full – 2012) http://molehr.oxfordjournals.org/content/19/2/93.full

Anandamide regulates the expression of GnRH1, GnRH2, and GnRH-Rs in frog testis  
(full – 2012)  http://ajpendo.physiology.org/content/303/4/E475.long

Anandamide Induces Sperm Release from Oviductal Epithelia through Nitric Oxide Pathway in Bovines.  
(full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3281848/?tool=pubmed

The role of endocannabinoids in gonadal function and fertility along the evolutionary axis.  

Long-term use of HU210 adversely affects spermatogenesis in rats by modulating the endocannabinoid system.  

Anandamide Transforms Noncopulating Rats into Sexually Active Animals.  

Impact of reference gene selection for type 2 cannabinoid receptor gene expression studies in human spermatozoa  

Immunity and early pregnancy events: are endocannabinoids the missing link?  

Impact of reference gene selection for type 2 cannabinoid receptor gene expression studies in human spermatozoa  

Implantation failure in mice with a disruption in Phospholipase C beta 1 gene: lack of embryonic attachment, aberrant steroid hormone signalling and defective endocannabinoid metabolism  
(full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3632219/ 

Anandamide Levels Fluctuate in the Bovine Oviduct during the Oestrous Cycle.  

Embryonic diapause in humans: time to consider?  
( full – 2013)  http://www.rbej.com/content/11/1/92

Role of the Endocannabinoid System in the Central Regulation of Nonmammalian Vertebrate Reproduction  

Estrogens and Spermiogenesis: New Insights from Type 1 Cannabinoid Receptor Knockout Mice.  

Endocannabinoids as markers of sperm quality: hot spots  

The Endocannabinoid System and Spermatogenesis.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3864102/

Low 17beta-Estradiol Levels in Cnr1 Knock-Out Mice Affect Spermatid Chromatin Remodeling by Interfering with Chromatin Reorganization.  (full – 2013)  http://www.biolreprod.org/content/88/6/152.long


Synthetic cannabinoids and potential reproductive consequences.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3823745/

Of mice and (wo)men: factors influencing successful implantation including endocannabinoids.  (full – 2013)  http://humupd.oxfordjournals.org/content/20/3/415.long


The endocannabinoid anandamide induces apoptosis in cytotrophoblast cells: Involvement of both mitochondrial and death receptor pathways.  (full – 2014)  http://www.placentajournal.org/article/S0143-4004%2814%2900823-6/fulltext
Involvement of cannabinoid receptor-1 activation in mitochondrial depolarizing effect of lipopolysaccharide in human spermatzoa. (full – 2014)

Endocannabinoids as biomarkers of human reproduction. (full – 2014)
http://humupd.oxfordjournals.org/content/20/4/501.long

The biological networks in studying cell signal transduction complexity: The examples of sperm capacitation and of endocannabinoid system. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4212279/


Low anandamide doses facilitate male rat sexual behaviour through the activation of CB1 receptors. (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/24671517


The Cannabinoid Receptor 2 Q63R Variant Modulates the Relationship between Childhood Obesity and Age at Menarche. (full – 2015) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0140142


Dynamics of expression and localization of the cannabinoid system in granulosa cells during oocyte nuclear maturation. (full – 2015) http://www.fertstert.org/article/S0015-0282(15)00440-9/fulltext

Endocannabinoid signaling in the stress response of male and female songbirds. (link to PDF – 2015)
Participation of the endocannabinoid system (ECS) in the weight-gain and sensitization to LPS exposure in a maternal obesity model (article – 2015)
http://www.placentajournal.org/article/S0143-4004%2815%2900526-3/fulltext

Type 2 cannabinoid receptor contributes to the physiological regulation of spermatogenesis. (abst – 2015)

Anandamide Reduces the Ejaculatory Threshold of Sexually Sluggish Male Rats: Possible Relevance for Human Lifelong Delayed Ejaculation Disorder. (abst – 2015)

Lipopolysaccharide-induced murine embryonic resorption involves changes in endocannabinoid profiling and alters progesterone secretion and inflammatory response by a CB1-mediated fashion. (abst – 2015)

Anandamide restricts uterine stromal differentiation and is critical for complete decidualization. (abst – 2015)

Sperm Release from the Oviducal Epithelium Depends on Ca2+ Influx Upon Activation of CB1 and TRPV1 by Anandamide. (abst – 2015)

Strain and sex differences in puberty onset and the effects of THC administration on weight gain and brain volumes. (abst – 2015)

Biphasic effects of anandamide on behavioural responses: emphasis on copulatory behaviour. (abst – 2015)

Anandamide and Decidual Remodeling: COX-2 oxidative metabolism as a key regulator. (abst – 2015)

Anandamide acts via kisspeptin in the regulation of testicular activity of the frog, Pelophylax esculentus. (abst – 2015)

Endocannabinoid Regulation of Neuroendocrine Systems. (abst – 2015)

Progesterone and Endocannabinoid Interaction Alters Sperm Activation (full – 2016)
http://www.biolreprod.org/content/95/1/9.long
Characterization of non-olfactory GPCRs in human sperm with a focus on GPR18.  
(full – 2016)  http://www.nature.com/articles/srep32255

Elevated Systemic Levels of Endocannabinoids and Related Mediators Across the Menstrual Cycle in Women With Endometriosis.  

Role of the endocannabinoid system in the control of mouse myometrium contractility during the menstrual cycle.  

The endocannabinoid system in the human granulosa cell line KGN.  


Dynamic of expression and localization of cannabinoid-degrading enzymes FAAH and MGLL in relation to CB1 during meiotic maturation of human oocytes.  

Age of Sexual Debut and Cannabis Use in the United States.  

The endocannabinoid anandamide impairs in vitro decidualization of human cells.  

2-arachidonoylglycerol levels are increased in leukocytospermia and correlate with seminal macrophages.  

Intra-VTA anandamide infusion produces dose-based biphasic effects on male rat sexual behavior expression  

Endocannabinoid system in sexual motivational processes: is it a novel therapeutic horizon?  

Developmental Patterns of Adolescent Marijuana and Alcohol Use and Their Joint Association with Sexual Risk Behavior and Outcomes in Young Adulthood.  

FETAL ALCOHOL SPECTRUM DISORDER
Reduced expression of brain cannabinoid receptor 1 (Cnr1) is coupled with an increased complementary micro-RNA (miR-26b) in a mouse model of fetal alcohol spectrum disorders. (full – 2014) http://www.clinicalepigeneticsjournal.com/content/5/1/14


**FEVER/ TEMPERATURE CONTROL **


Contribution of Hypothermia and CB(1) Receptor Activation to Protective Effects of TAK-937, a Cannabinoid Receptor Agonist, in Rat Transient MCAO Model. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3397930/?tool=pubmed


Chronic administration of THC prevents the behavioral effects of intermittent adolescent MDMA administration and attenuates MDMA-induced hyperthermia and neurotoxicity in rats (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3189263/

Δ9-Tetrahydrocannabinol acts as a partial agonist/antagonist in mice. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3697741/

Determination of naphthalen-1-yl-(1-pentylindol-3-yl)methanone (JWH-018) in mouse blood and tissue after inhalation exposure to ‘buzz’ smoke by HPLC/MS/MS (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3697740/

Dissociation of the Pharmacological Effects of THC by mTOR Blockade. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3656376/

Cannabinoid (CB1) receptors are critical for the innate immune response to TLR4 stimulation. (full – 2013) http://ajpregu.physiology.org/content/305/3/R224


Improved Cardiac and Neurologic Outcomes With Postresuscitation Infusion of Cannabinoid Receptor Agonist WIN55, 212-2 Depend on Hypothermia in a Rat Model of Cardiac Arrest. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/24346544

Oleylethanolamide enhances β-adrenergic-mediated thermogenesis and white-to-brown adipocyte phenotype in epididymal white adipose tissue in rat (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3882055/

Effect of intermittent cold exposure on brown fat activation, obesity, and energy homeostasis in mice. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3895006/

Behavioral effects of the cannabinoid CB1 receptor allosteric modulator ORG27569 in rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4186448/


Cannabidiol fails to reverse hypothermia or locomotor suppression induced by Δ9-tetrahydrocannabinol in Sprague-Dawley rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4376456/

Genetic Dissection of Behavioural and Autonomic Effects of Δ9-Tetrahydrocannabinol in Mice (full – 2015) http://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.0050269

Cognitive Impairment Induced by Delta9-tetrahydrocannabinol Occurs through Heteromers between Cannabinoid CB1 and Serotonin 5-HT2A Receptors. (full – 2015) http://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.1002194

Hypothalamic control of brown adipose tissue thermogenesis. (full – 2015)  

Neural correlates of cannabidiol and Δ9-tetrahydrocannabinol interactions in mice: implications for medical cannabis. (full – 2015)  

Fever Is Mediated by Conversion of Endocannabinoid 2-Arachidonoylglycerol to Prostaglandin E2. (full – 2015)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0133663

Hyperthermia and severe rhabdomyolysis from synthetic cannabinoids (full – 2015)  
http://www.ajemjournal.com/article/S0735-6757(15)00490-8/fulltext

Rapid and profound rewiring of brain lipid signaling networks by acute diacylglycerol lipase inhibition. (full – 2015)  
http://www.pnas.org/content/113/1/26.long

Endocannabinoid Catabolic Enzymes Play Differential Roles in Thermal Homeostasis in Response to Environmental or Immune Challenge. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4477849/

Use of paracetamol during pregnancy and child neurological development. (full – 2015)  

Role of nociceptin/orphanin FQ in thermoregulation. (abst – 2015)  

JWH-018 impairs sensorimotor functions in mice. (abst – 2015)  

ENP11, a potential CB1R antagonist, induces anorexia in rats. (abst – 2015)  

Endocannabinoids, through opioids and prostaglandins, contribute to fever induced by key pyrogenic mediators. (abst – 2015)  


Repeated administration of phytocannabinoid Δ9-THC or synthetic cannabinoids JWH-018 and JWH-073 induces tolerance to hypothermia but not locomotor suppression in mice, and reduces CB1 receptor expression and function in a brain region-specific manner. (abst – 2015)  

Transient increase of interleukin-1β after prolonged febrile seizures promotes adult epileptogenesis through long-lasting upregulating endocannabinoid signaling.
Case Series of Synthetic Cannabinoid Intoxication from One Toxicology Center.

Prostaglandin E2 that triggers fever is synthesized through an endocannabinoid-dependent pathway.

A Curious Case of Inhalation Fever Caused by Synthetic Cannabinoid.

Hypothermic activity of acetaminophen; involvement of GABAA receptor, theoretical and experimental studies.

Effects of Cannabidiol and Hypothermia on Short-Term Brain Damage in New-Born Piglets after Acute Hypoxia-Ischemia.

Turning Up the Heat on Endocannabinoid Signaling.

Acetaminophen Use for Fever in Children Associated with Autism Spectrum Disorder.

α/β-Hydrolase Domain 6 in the Ventromedial Hypothalamus Controls Energy Metabolism Flexibility.

Behavioral Characterization of Kappa Opioid Receptor Agonist Spiradoline and Cannabinoid Receptor Agonist CP55940 Mixtures in Rats.

Effect of JWH-250, JWH-073 and their interaction on "tetrad", sensorimotor, neurological and neurochemical responses in mice.

Endocannabinoids, through opioids and prostaglandins, contribute to fever induced by key pyrogenic mediators.

Novel Psychoactive Substances: the pharmacology of stimulants and hallucinogens.

Pharmacological hypothermia: a potential for future stroke therapy?

Thermolytic degradation of synthetic cannabinoids: chemical exposures and pharmacological consequences  (link to download – 2017) http://jpet.aspetjournals.org/content/early/2017/01/13/jpet.116.238717.long

FIBROMYALGIA +

The Effects of Nabilone on Sleep in Fibromyalgia: Results of a Randomized Controlled Trial.  (full - 2010) http://journals.lww.com/anesthesia-analgesia/Fulltext/2010/02000/The_Effects_of_Nabilone_on_Sleep_in_Fibromyalgia_.56.aspx


Cannabis Use in Patients with Fibromyalgia: Effect on Symptoms Relief and Health-Related Quality of Life  (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3080871/?tool=pubmed


Clinical endocannabinoid deficiency (CECD) revisited: can this concept explain the therapeutic benefits of cannabis in migraine, fibromyalgia, irritable bowel syndrome and other treatment-resistant conditions?  (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/24977967


β-caryophyllene-complexed in β-cyclodextrin Produces Anti-hyperalgesic Activity in Animal Model for Fibromyalgia  
(abort – 2015)  
http://www.fasebj.org/content/29/1_Supplement/616.4.abstract?sid=edf921ac-0690-4aa6-ac81-0546314dd384

Expression of the endocannabinoid receptors in human fascial tissue.  
(full – 2016)  
http://www.ejh.it/index.php/ejh/article/view/2643/2590

Cannabinoids and autoimmune diseases: A systematic review.  
(abort – 2016)  

Nabilone for the Management of Pain.  
(abort – 2016)  

Medical Cannabis - another piece in the mosaic of autoimmunity?  
(abort – 2016)  

**FLU / INFLUENZA**

Deletion of cannabinoid receptors 1 and 2 exacerbates APC function to increase inflammation and cellular immunity during influenza infection.  
(full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3206470/

Δ9-tetrahydrocannabinol impairs the inflammatory response to influenza infection: role of antigen-presenting cells and the cannabinoid receptors 1 and 2.  
(full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3551428/

Palmitoylethanolamide is a New Possible Pharmacological Treatment for the Inflammation Associated with Trauma  
(abort – 2013)  
http://www.eurekaselect.com/106175/article

**FRAGILE X SYNDROME** - also see AUTISM

Enhanced endocannabinoid signaling elevates neuronal excitability in fragile X syndrome.  
(full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2906112/

Abnormal mGlu 5 receptor/endocannabinoid coupling in mice lacking FMRP and BC1 RNA.  
(full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3055456/

Pathological plasticity in fragile X syndrome. (full – 2012) [http://www.hindawi.com/journals/np/2012/275630/]


Antipurinergic therapy corrects the autism-like features in the Fragile X (Fmr1 knockout) mouse model. (full – 2015) [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4334917/]


Homer Protein-Metabotropic Glutamate Receptor Binding Regulates Endocannabinoid Signaling and Affects Hyperexcitability in a Mouse Model of Fragile X Syndrome. (full – 2015) [http://www.jneurosci.org/content/35/9/3938.long]


p21-activated kinase 1 restricts tonic endocannabinoid signaling in the hippocampus (full – 2016) [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4907698/]

Possible Therapeutic Doses of Cannabinoid Type 1 Receptor Antagonist Reverses Key Alterations in Fragile X Syndrome Mouse Model (full – 2016) [http://www.mdpi.com/2073-4425/7/9/56/htm]

Endocannabinoid signaling in social functioning: an RDoC perspective (full – 2016) [http://www.nature.com/tp/journal/v6/n9/full/tp2016169a.html]

Dissecting the signaling pathways involved in the crosstalk between mGlu5 and CB1 receptors. (link to PDF – 2016) [http://molpharm.aspetjournals.org/content/early/2016/06/23/mol.116.104372.long]

**GAMBLING**

Effects of various cannabinoid ligands on choice behaviour in a rat model of gambling. (full – 2016)  [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4803149/]


Independent Versus Co-occurring Substance Use in Relation to Gambling Outcomes in Older Adolescents and Young Adults. (abst – 2016)  [https://www.ncbi.nlm.nih.gov/pubmed/28011065]

**GASTRIC ULCERS +**

Inhibition of monoacylglycerol lipase (MAGL) attenuates NSAID-induced gastric hemorrhages in mice. (full – 2011)  [http://jpet.aspetjournals.org/content/early/2011/06/09/jpet.110.175778.long]

Peripheral FAAH inhibition causes profound antinociception and protects against indomethacin-induced gastric lesions. (full – 2012)  [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3738192/]

Cannabinoid CB1 Receptors Mediate the Gastroprotective Effect of Neurotensin. (full – 2013)  [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3586888/]


Gastric acid inhibitory and gastric protective effects of Cannabis and cannabinoids (full – 2016)  [http://www.sciencedirect.com/science/article/pii/S1995764516300712]

Unusual side effect of cannabis use: acute abdomen due to duodenal perforation (full – 2016)  [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4936980/]

**GATEWAY THEORY **

Evaluating the drug use "gateway" theory using cross-national data: Consistency and associations of the order of initiation of drug use among participants in the WHO World Mental Health Surveys. (full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2835832/?tool=pubmed

A Life-course Perspective on the "Gateway Hypothesis". (full – 2010)  
http://journals.sagepub.com/doi/full/10.1177/0022146510378238

Previous exposure to delta9-tetrahydrocannabinol enhances locomotor responding to but not self-administration of amphetamine. (full – 2011)  

Does the "gateway" sequence increase prediction of cannabis use disorder development beyond deviant socialization? Implications for prevention practice and policy. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3387340/


The Effect of Medical Marijuana Laws on Marijuana, Alcohol, and Hard Drug Use (abst – 2014)  
http://www.nber.org/papers/w20085#fromrss

Cannabis conundrum: Evidence of harm?: Opposition to marijuana use is often rooted in arguments about the drug's harm to children and adults, but the scientific evidence is seldom clear-cut (article – 2015)  

Marijuana’s role in optometry and beyond (article – 2015)  

Prioritizing Alcohol Prevention: Establishing Alcohol as the Gateway Drug and Linking Age of First Drink With Illicit Drug Use. (full – 2016)  

The Relationships of Cigarette and Alcohol Use With the Initiation, Reinitiation, and Persistence of Cannabis Use. (abst – 2016)  

Consuming energy drinks at the age of 14 predicted legal and illegal substance use at 16. (abst – 2016)  

**GENDER-BASED DIFFERENCES **

Sex Differences in the Effects of Marijuana on Simulated Driving Performance (full - 2010)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3033009/?tool=pmcentrez

Regulation of the Hypothalamic-Pituitary-Adrenal Axis Circadian Rhythm by Endocannabinoids Is Sexually Diergic (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2964781/?tool=pmcentrez

Exposure to a high-fat diet decreases sensitivity to Δ9-tetrahydrocannabinol-induced motor effects in female rats (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3014410/


How important are sex differences in cannabinoid action? (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931555/


Sex difference in cell proliferation in developing rat amygdala mediated by endocannabinoids has implications for social behavior (full – 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2996668/?tool=pubmed

Sex Differences in Cannabinoid 1 vs. Cannabinoid 2 Receptor-Selective Antagonism of Antinociception Produced by Δ9-Tetrahydrocannabinol and CP55,940 in the Rat (full – 2011)  http://jpet.aspetjournals.org/content/340/3/787.full

Sex, drugs, and cognition: effects of marijuana. (full– 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3089380/?tool=pubmed

Gender differences in adolescent marijuana use and associated psychosocial characteristics. (full – 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3359836/


Antinociception and sedation following intracerebroventricular administration of Δ⁹-tetrahydrocannabinol in female vs. male rats. (abst – 2011) http://www.unboundmedicine.com/medline/ebm/record/20692296/abstract/Antinociception_and_sedation_following_intracerebroventricular_administration_of_%CE%94%E2%81%B9_tetrahydrocannabinol_in_female_vs_male_rats


Cannabinoid Receptor 1 (CNR1) 4895 C/T Genetic Polymorphism was Associated with Obesity in Japanese Men. (full – 2012) https://www.jstage.jst.go.jp/article/jat/19/8/19_12732/_pdf

Effects of gonadal hormones on the peripheral cannabinoid receptor 1 (CB1R) system under a myositis condition in rats. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3578305/


Sex-specific tonic 2-arachidonoylglycerol signaling at inhibitory inputs onto dopamine neurons of Lister Hooded rats. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3867690/


The role of androgen receptor in transcriptional modulation of cannabinoid receptor type 1 gene in rat trigeminal ganglia. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3870904/

Endocannabinoid Signaling in Hypothalamic-Pituitary-Adrenocortical Axis Recovery Following Stress: Effects of Indirect Agonists and Comparison of Male and Female Mice. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3929302/


Stirring the Pot With Estrogens (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3697880/


Small animal PET imaging of the type 1 cannabinoid receptor in a rodent model for anorexia nervosa. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/24006151


Couples' Marijuana Use Is Inversely Related to Their Intimate Partner Violence Over the First 9 Years of Marriage. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4282761/

Sex differences in antinociceptive tolerance to delta-9-tetrahydrocannabinol in the rat. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4161674/

Investigation of sex-dependent effects of cannabis in daily cannabis smokers.
Differences in Δ9-Tetrahydrocannabinol Metabolism and In Vivo Pharmacology Following Acute and Repeated Dosing in Adolescent Rats. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4106361/


Sex-dependent vulnerability to Cannabis abuse in adolescence (full – 2015)

Changes in Plasma Levels of N-Arachidonoyl Ethanolamine and N-Palmitoylethanolamine following Bariatric Surgery in Morbidly Obese Females with Impaired Glucose Homeostasis. (full – 2015)

Cannabidiol causes endothelium-dependent vasorelaxation of human mesenteric arteries via CB1 activation. (full – 2015)
http://cardiovascres.oxfordjournals.org/content/early/2015/06/30/cvr.cvv179.long

PROGRESS REPORT Compassionate Use of Medical Cannabis Pilot Program Act July 1, 2014 through June 30, 2015 (full – 2015)

Effects of deleting cannabinoid receptor-2 on mechanical and material properties of cortical and trabecular bone (full – 2015)
http://www.tandfonline.com/doi/full/10.1080/23311916.2014.1001015


Neuropsychological sex differences associated with age of initiated use among young adult cannabis users. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4441859/

Perceived risk of regular cannabis use in the United States from 2002 to 2012: Differences by sex, age, and race/ethnicity. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4361312/

Long-term consequences of perinatal and adolescent cannabinoid exposure on neural and psychological processes. (full – 2015)

Cigarette smoking may modify the association between cannabis use and adiposity in males. (full – 2015) http://www.sciencedirect.com/science/article/pii/S0091305715001690


Sex Differences in Molecular Signaling at Inhibitory Synapses in the Hippocampus. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4532757/

Gonadal hormones do not alter the development of antinociceptive tolerance to delta-9-tetrahydrocannabinol in adult rats. (full - 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4430373/


http://www.drugandalcoholdependence.com/article/S0376-8716(15)01618-X/abstract


Chronic ethanol exposure increases voluntary home cage intake in adult male, but not female, Long-Evans rats. (abst – 2015)


CANNABIS: ALTERNATIVE REALITIES (CRA) (abst – 2015)

Patterns of cannabis use in patients with Inflammatory Bowel Disease: A population based analysis. (abst – 2015)

Being the Victim of Violence during a Date predicts Next-Day Cannabis Use among Female College Students. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26449928


Cannabinoids reverse the effects of early stress on neurocognitive performance in adulthood. (full – 2016) http://learnmem.cshlp.org/content/23/7/349.long
Effects of Adolescent Intermittent Alcohol Exposure on the Expression of Endocannabinoid Signaling-Related Proteins in the Spleen of Young Adult Rats. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5035052/


Exposure to a Highly Caloric Palatable Diet during the Perinatal Period Affects the Expression of the Endogenous Cannabinoid System in the Brain, Liver and Adipose Tissue of Adult Rat Offspring. (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0165432


Gender Differences in Associations Between Attention-Deficit/Hyperactivity Disorder and Substance Use Disorder. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/26903256


Simultaneous HPLC-APCI-MS/MS quantification of endogenous cannabinoids and glucocorticoids in hair
(abst – 2016)

Childhood weight status and timing of first substance use in an ethnically diverse sample
(abst – 2016)
http://www.drugandalcoholdependence.com/article/S0376-8716(16)30111-9/abstract

Mechanical and material properties of cortical and trabecular bone from cannabinoid receptor-1-null (Cnr1-/-) mice.
(abst – 2016)

Correlates of new psychoactive substance use among a self-selected sample of nightclub attendees in the United States.
(abst – 2016)

Female Mice are Resistant to Fabp1 Gene Ablation-Induced Alterations in Brain Endocannabinoid Levels
(abst – 2016)

Sex-dependent effects of cannabis-induced analgesia.
(abst – 2016)

Sex differences in alcohol consumption and alterations in nucleus accumbens endocannabinoid mRNA in alcohol-dependent rats.
(abst – 2016)

Pharmacological inhibition of fatty acid amide hydrolase attenuates social behavioural deficits in male rats prenatally exposed to valproic acid.
(abst – 2016)

Prevalence and Correlates of Vaping Cannabis in a Sample of Young Adults.
(abst – 2016)

Sexually-dimorphic alterations in cannabinoid receptor density depend upon prenatal/early postnatal history.
(abst – 2016)

Gonadal hormone modulation of Δ9-tetrahydrocannabinol-induced antinociception and metabolism in female versus male rats.
(abst – 2016)

UPPS-P model impulsivity and marijuana use behaviors in adolescents: A meta-analysis
(abst – 2016)
http://www.drugandalcoholdependence.com/article/S0376-8716(16)30923-1/abstract


Circulating levels of endocannabinoids respond acutely to voluntary exercise, are altered in mice selectively bred for high voluntary wheel running, and differ between the sexes. (abst – 2016) https://www.ncbi.nlm.nih.gov/pubmed/28017680


GERD/GASTRO-ESOPHAGEAL REFUX + - also see BOWEL DISORDERS


The Gastrointestinal Pharmacology of Cannabinoids: Focus on Motility. (full – 2012)
Localization of mGluR5, GABA(B), GABA(A), and cannabinoid receptors on the vago-vagal reflex pathway responsible for transient lower esophageal sphincter relaxation in humans: an immunohistochemical study. (full – 2012)

Discovery of agonists of cannabinoid receptor 1 with restricted CNS penetration aimed for treatment of gastroesophageal reflux disease. (abst – 2012)
http://pubs.acs.org/doi/abs/10.1021/jm301511h

Potential therapeutic applications of cannabinoids in gastrointestinal and liver diseases: Focus on ∆9-tetrahydrocannabinol pharmacology (abst – 2014)

Endocannabinoids and the Digestive Tract and Bladder in Health and Disease. (abst – 2015)
http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_14

Gastric acid inhibitory and gastric protective effects of Cannabis and cannabinoids (full – 2016)

**GERMINAL MATRIX HEMORRHAGE** - a brain-bleed/ stroke in premature infants

Cannabinoid CB2 receptor stimulation attenuates brain edema and neurological deficits in a germinatal matrix hemorrhage rat model. (abst – 2015)

http://link.springer.com/article/10.1007%2Fs12035-015-9154-x

Cannabinoid receptor 2 attenuates microglial accumulation and brain injury following germinatal matrix hemorrhage via ERK dephosphorylation in vivo and in vitro. (abst – 2015)

Pharmacological Preventions of Brain Injury Following Experimental Germinatal Matrix Hemorrhage: an Up-to-Date Review. (abst – 2015)

Cannabinoid receptor-2 stimulation suppresses neuroinflammation by regulating microglial M1/M2 polarization through the cAMP/PKA pathway in an experimental GMH rat model. (abst – 2016)
GLAUCOMA +* - also see VISION

Congenital cataracts (case report – undated)  
http://cannabisclinicians.org/view-all-case-reports/entry/819/

Pharmacology and toxicology of Cannabis derivatives and endocannabinoid agonists. (link to PDF – 2010)  
http://www.eurekaselect.com/85221/article

Canadian Ophthalmological Society policy statement on the medical use of marijuana for glaucoma. (article - 2010)  
http://www.canadianjournalofophthalmology.ca/article/S0008-4182%2810%2980129-2/abstract

Abnormal-Cannabidiol-Induced Increase in Aqueous Humor Outflow  (abst – 2010)  
http://iovs.arvojournals.org/article.aspx?articleid=2368788&resultClick=1

Ocular Hypotensive Efficacy and Safety of Oral Palmytoylethanolamide (Visimast®): Clinical Study  (abst – 2010)  
http://iovs.arvojournals.org/article.aspx?articleid=2369941&resultClick=1

Alternative therapy in glaucoma management: Is there any role?  (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3038502/?tool=pubmed

Ocular Hypotensive Effect of Oral Palmitoylethanolamide: A Clinical Trial  (full – 2011)  
http://www.iovs.org/content/52/9/6096.full?sid=b5ebf404-f190-49ee-9076-758ee6c9190d

Indirect Sympatholytic Actions at β-Adrenoceptors Account for the Ocular Hypotensive Actions of Cannabinoid Receptor Agonists  (full – 2011)  
http://jpet.aspetjournals.org/content/339/3/757.full.pdf+html

Cannabinoid applications in glaucoma.  (abst – 2011)  
http://www.unboundmedicine.com/medline/ebm/record/21414525/abstract/Cannabinoid_applications_in_glaucoma

A cannabinoid ligand, anandamide, exacerbates endotoxin-induced uveitis in rabbits.  (abst – 2011)  

Nonpsychotropic Cannabinoids, Abnormal Cannabidiol and Canabigerol-Dimethyl Heptyl, Act at Novel Cannabinoid Receptors to Reduce Intraocular Pressure.  (abst – 2011)  

Palmitoylethanolamide effects on intraocular pressure after Nd:YAG laser iridotomy: an experimental clinical study.  (abst – 2011)  
β-adrenergic Antagonists, Carbonic Anhydrase Inhibitors And α2-agonists Reduce The Effects Of Cannabinoids In A Rat Glaucoma Model  (abst – 2011)
http://iovs.arvojournals.org/article.aspx?articleid=2360875&resultClick=1

Comparison Of Rat And Human Eyes For The Presence And Distribution Of Cb1 And Cb2 Receptors  (abst - 2011)
http://iovs.arvojournals.org/article.aspx?articleid=2357116&resultClick=1

Effects of Palmitoylethanolamide on Aqueous Humor Outflow.  (full – 2012)
http://www.iovs.org/content/53/8/4416.long

Effect of ion pairing on in vitro transcorneal permeability of a Δ(9)-tetrahydrocannabinol prodrug: potential in glaucoma therapy.  (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4194211/

Targeting the endocannabinoid system with cannabinoid receptor agonists: pharmacological strategies and therapeutic possibilities  (full – 2012)
http://rstb.royalsocietypublishing.org/content/367/1607/3353.full?sid=1569c370-cd5c-4358-89ff-857201f5e069


Effect of Oleoylethanolamide on Aqueous Humor Outflow.  (abst – 2012)
http://iovs.arvojournals.org/article.aspx?articleid=2352002&resultClick=1

Effectiveness of palmitoylethanolamide on endothelial dysfunction in ocular hypertensive patients: a randomized, placebo-controlled cross-over study.  (full – 2013)
http://www.iovs.org/content/54/2/968.long


A GPR18-based signaling system regulates IOP in murine eye.  (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3687663/

An Effective Prodrug Strategy to Selectively Enhance Ocular Exposure of a Cannabinoid Receptor (CB1/2) Agonist.  (abst – 2013)
http://pubs.acs.org/doi/abs/10.1021/jm4004939


Marijuana for Glaucoma: A Recipe for Disaster or Treatment? (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4553646/


The Endocannabinoid System as a Therapeutic Target in Glaucoma (full – 2016) http://www.hindawi.com/journals/np/2016/9364091/

Endogenous and Synthetic Cannabinoids as Therapeutics in Retinal Disease (full – 2016) http://www.hindawi.com/journals/np/2016/8373020/

The intraocular pressure-lowering properties of intravenous paracetamol. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4948718/


Cannabinoid receptors and TRPA1 on neuroprotection in a model of retinal ischemia (abst – 2016) http://www.sciencedirect.com/science/article/pii/S0014483516304791


>GOUT + see News section
**GRANULOMA** + - a noncancerous inflammation in tissue


Palmitoylethanolamide reduces granuloma-induced hyperalgesia by modulation of mast cell activation in rats (full – 2011) [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3034677/?tool=pubmed](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3034677/?tool=pubmed)


**GRAVE'S DISEASE** + (overactive thyroid)


**GYNECOLOGY / FEMALE SEXUAL FUNCTION** +*

N-Acylethanolamine Levels and Expression of Their Metabolizing Enzymes during Pregnancy (full – 2010) [http://endo.endojournals.org/content/151/8/3965.full](http://endo.endojournals.org/content/151/8/3965.full)

Antiproliferative effects of cannabinoid agonists on deep infiltrating endometriosis. (full - 2010) [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2993285/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2993285/)


The relationship between plasma levels of the endocannabinoid, anandamide, sex steroids, and gonadotrophins during the menstrual cycle. (full - 2010) [http://www.fertilstert.org/article/S0015-0282%2808%2904739-0/fulltext](http://www.fertilstert.org/article/S0015-0282%2808%2904739-0/fulltext)

From Fertilisation to Implantation in Mammalian Pregnancy—Modulation of Early Human Reproduction by the Endocannabinoid System (link to PDF – 2010)


The role of sex steroid hormones, cytokines and the endocannabinoid system in female fertility.  (full – 2011)  http://humupd.oxfordjournals.org/content/17/3/347.long


Uncovering a role for endocannabinoid signaling in autophagy in preimplantation mouse embryos  (full – 2012)  http://molehr.oxfordjournals.org/content/19/2/93.full

Pharmacological characterization of the peripheral FAAH inhibitor URB937 in female rodents: interaction with the Abcg2 transporter in the blood-placenta barrier.  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3525865/


The role of endocannabinoids in pregnancy.  (full – 2013)  http://www.reproduction-online.org/content/early/2013/06/06/REP-12-0508.long
(2013) 

Embryonic diapause in humans: time to consider?  
(2013) 
http://www.rbej.com/content/11/1/92

Synthetic cannabinoids and potential reproductive consequences.  
(2013) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3823745(/

Of mice and (wo)men: factors influencing successful implantation including endocannabinoids.  
(2013) 
http://humupd.oxfordjournals.org/content/20/3/415.long

Differential expression of endocannabinoid system in normal and preeclamptic placentas: effects on nitric oxide synthesis.  
(2013) 
http://www.placentajournal.org/article/S0143-4004%2812%2900393-1/fulltext

Endocannabinoid receptor (CB1R) deficiency affects maternal care and alters the dam's hippocampal oxytocin receptor and BDNF expression  
(2013) 

The endocannabinoid anandamide induces apoptosis of rat decidual cells through a mechanism involving ceramide synthesis and p38 MAPK activation.  
(2013) 

The adjuvant use of N-palmitoylethanolamine and transpolydatin in the treatment of endometriotic pain.  
(2013) 

Administration of micronized palmitoylethanolamide (PEA)-transpolydatin in the treatment of chronic pelvic pain in women affected by endometriosis: preliminary results  
(2013) 

Effectiveness of vaginal adelmidrol for treating pelvic visceral discomforts and anxiety: a prospective observational study.  
(2013) 

Vestibulodynia: synergy between palmitoylethanolamide + transpolydatin and transcutaneous electrical nerve stimulation.  
(2013) 

Cannabinoid receptor 1 gene polymorphisms and nonalcoholic Fatty liver disease in women with polycystic ovary syndrome and in healthy controls.  
(2014) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4127238/

Endocannabinoids as biomarkers of human reproduction.  
(2014) 
http://humupd.oxfordjournals.org/content/20/4/501.long


Selected CNR1 polymorphisms and hyperandrogenemia as well as fat mass and fat distribution in women with polycystic ovary syndrome. (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/25093427

Lack of association of DRD3 and CNR1 polymorphisms with premenstrual dysphoric disorders. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4475771/

The Cannabinoid Receptor 2 Q63R Variant Modulates the Relationship between Childhood Obesity and Age at Menarche. (full – 2015) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0140142


The evolving role of the endocannabinoid system in gynaecological cancer. (full – 2015) http://humupd.oxfordjournals.org/content/21/4/517.long

Endocannabinoid system activation may be associated with insulin resistance in women with polycystic ovary syndrome. (full – 2015) http://www.fertstert.org/article/S0015-0282(15)00232-0/fulltext


http://www.mayoclinicproceedings.org/article/S0025-6196(16)30596-1/fulltext

Role of the endocannabinoid system in the control of mouse myometrium contractility during the menstrual cycle. (full – 2016)

COMPREHENSIVE MEDICAL MARIJUANA PATIENT STUDY


Dietary conjugated linoleic acid supplementation alters the expression of genes involved in the endocannabinoid system in the bovine endometrium and increases plasma progesterone concentrations. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27262886


Decreased expression of fatty acid amide hydrolase in women with polycystic ovary syndrome. (abst – 2017) https://www.ncbi.nlm.nih.gov/pubmed/28132572

HAIR +


TRP channel cannabinoid receptors in skin sensation, homeostasis, and inflammation. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4240254/


>HEADACHE - see MIGRAINE/HEADACHE

HEARING +* - also see TINNITUS; also see AM-111 in SYNTHETICS SECTION


Mutations in ABHD12 Cause the Neurodegenerative Disease PHARC: An Inborn of Endocannabinoid Metabolism (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2933347/?tool=pmcentrez

Protection against ischemic cochlear damage by intratympanic administration of AM-111.  

Disruptive effects of the prototypical cannabinoid Δ⁹-tetrahydrocannabinol and the fatty acid amide inhibitor URB-597 on go/no-go auditory discrimination performance and olfactory reversal learning in rats.  

Association between a cannabinoid receptor gene (CNR1) polymorphism and cannabinoid-induced alterations of the auditory event-related P300 potential.  
(ABST – 2011)  [http://www.unboundmedicine.com/medline/ebm/record/21513772/abstract/Association_between_a_cannabinoid_receptor_gene__CNR1__polymorphism_and_cannabinoid_induced_alterations_of_the_auditory_event_related_P300_potential]

Cannabinoid receptor expression at the MNTB-LSO synapse in developing rats.  
(FULL – 2012)  [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3406926/]

Depolarisation-induced suppression of a glycinergic synapse in the superior olivary complex by endocannabinoids.  

Molecular mechanisms involved in cochlear implantation trauma and the protection of hearing and auditory sensory cells by inhibition of c-Jun-N-terminal kinase signaling.  


Involvement of cannabinoid receptors in infrasonic noise-induced neuronal impairment.  

Audiograms, gap detection thresholds, and frequency difference limens in cannabinoid receptor 1 knockout mice.  

Spontaneous Cannabinoid Receptor 2 (CB2) Expression in the Cochlea of Adult Albino Rat and Its Up-Regulation after Cisplatin Treatment.  
(FULL – 2016)  [http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0161954]

Habituation of the startle reflex depends on attention in cannabis users  
Expression of Dopamine Receptor 1A and Cannabinoid Receptor 1 Genes in the Cochlea and Brain after Salicylate-Induced Tinnitus. (abst – 2016)

HEART DISEASE/ CARDIOVASCULAR +*

Acute administration of cannabidiol in vivo suppresses ischaemia-induced cardiac arrhythmias and reduces infarct size when given at reperfusion. (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2936031/?tool=pubmed

Inhibitor of fatty acid amide hydrolase normalizes cardiovascular function in hypertension without adverse metabolic effects. (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3003779/

The cardiac and haemostatic effects of dietary hempseed. (full - 2010)
http://www.nutritionandmetabolism.com/content/pdf/1743-7075-7-32.pdf

Endogenous cannabinoid signaling is essential for stress adaptation (full - 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2889099/?tool=pmcentrez

Interaction between anandamide and sphingosine-1-phosphate in mediating vasorelaxation in rat coronary artery (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2962826/?tool=pubmed

N-arachidonoyl glycine, an endogenous lipid that acts as a vasorelaxant via nitric oxide and large conductance calcium-activated potassium channels. (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931560/


Pharmacologically induced hypothermia with cannabinoid receptor agonist WIN55, 212-2 after cardiopulmonary resuscitation (abst – 2010)
http://journals.lww.com/ccmjournal/Abstract/2010/12000/Pharmacologically_induced_hypothermia_with.2.aspx

Altered expression of cannabinoid receptors 1 and 2 and activated endocannabinoid system in patients with severe chronic heart failure (abst – 2010)

Substantially altered expression pattern of cannabinoid receptor 2 and activated endocannabinoid system in patients with severe heart failure. (abst – 2010)

The Effects of Cannabis on Heart Rate Variability and Well-Being in Young Men
Cannabidiol injected into the bed nucleus of the stria terminalis modulates baroreflex activity through 5-HT1A receptors. (abst – 2010)

The potential for clinical use of cannabinoids in treatment of cardiovascular diseases. (full – 2011)

Endocannabinoid system in cardiovascular disorders - new pharmacotherapeutic opportunities (full – 2011)
http://www.jpbonline.org/article.asp?issn=0975-7406;year=2011;volume=3;issue=3;spage=350;page=360;aulast=Cunha

Variants at the endocannabinoid receptor CB1 gene (CNR1) and insulin sensitivity, type 2 diabetes, and coronary heart disease. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3686489/

Effects of intracisternal administration of cannabidiol on the cardiovascular and behavioral responses to acute restraint stress. (full – 2011)

Myocardial Infarction Associated With Use of the Synthetic Cannabinoid K2. (full – 2011)
http://pediatrics.aappublications.org/content/128/6/e1622.long

Is lipid signaling through cannabinoid 2 receptors part of a protective system? (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3062638/

The effects of hempseed meal intake and linoleic acid on Drosophila models of neurodegenerative diseases and hypercholesterolemia. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3933972/

Effect of substance abuse on defibrillation threshold in patients with implantable cardioverter-defibrillator. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3022948/

Cannabidiol as an anti-arrhythmic, the role of the CB1 receptors. (abst – 2011)
http://heart.bmj.com/content/97/24/e8.9.abstract

Medical cannabis: the opportunity versus the temptation (abst – 2011)

Distinctive effects of plant protein sources on renal disease progression and associated cardiac hypertrophy in experimental kidney disease. (abst – 2011)
G1359A polymorphism in the cannabinoid receptor-1 gene is associated with coronary artery disease in the Chinese Han population. (abst – 2011)  

Win 55,212-2 reduces cardiac ischaemia-reperfusion injury in zucker diabetic fatty rats: role of cb2 receptors and cardiac inos/enos expression. (abst – 2011)  
http://www.unboundmedicine.com/medline/ebm/record/21309057/abstract/Win_55212_2_reduces_cardiac_ischaemia_reperfusion_injury_in_zucker_diabetic_fatty_rats_role_of_cb2_receptors_and_cardiac_inos/enos_expression

Cannabinoid-2 Receptor Activation Protects against Infarct and Ischemia/Reperfusion Heart Injury. (abst – 2011)  

Endocannabinoids and the cardiovascular response to stress. (abst - 2011)  

Cardiotoxicity associated with the synthetic cannabinoid, K9, with laboratory confirmation. (abst – 2011)  

The effect of dietary hempseed on atherogenesis and contractile function in aortae from hypercholesterolemic rabbits. (abst – 2011)  

Targeting the Endocannabinoid System to Limit Myocardial and Cerebral Ischemic and Reperfusion Injury. (abst – 2011)  
http://www.unboundmedicine.com/medline/ebm/record/21470162/abstract/Targeting_the_Endocannabinod_System_to_Limit_Myocardial_and_Cerebral_Ischemic_and_Reperfusion_Injury

Endocannabinoid type 1 receptor gene (CNR1) polymorphisms (rs806381, rs10485170, rs6454674, rs2023239) and cardiovascular risk factors in postmenopausal women. (abst – 2011)  

Deficiency of type 1 cannabinoid receptors worsens acute heart failure induced by pressure overload in mice (full – 2012)  
http://eurheartj.oxfordjournals.org/content/33/24/3124.full

Cannabinoids and atherosclerotic coronary heart disease. (full – 2012)  

Angiotensin II induces vascular endocannabinoid release, which attenuates its vasoconstrictor effect via CB1 cannabinoid receptors. (full – 2012)  
http://www.jbc.org/content/early/2012/07/11/jbc.M112.346296.full.pdf+html

Metabolic effects of n-3 PUFA as phospholipids are superior to triglycerides in mice fed a high-fat diet: possible role of endocannabinoids. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3372498/
Phytoestrogens Enhance the Vascular Actions of the Endocannabinoid Anandamide in Mesenteric Beds of Female Rats  (full – 2012)  
http://www.hindawi.com/journals/ijht/2012/647856/

Enhanced vasorelaxant effects of the endocannabinoid-like mediator, oleamide, in hypertension.  (full – 2012)  

Targeting cannabinoid receptor CB2 in cardiovascular disorders: promises and controversies  (full – 2012)  

CNR1 genotype influences HDL-cholesterol response to change in dietary fat intake.  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3342253/

Rimonabant improves obesity but not the overall cardiovascular risk and quality of life; results from CARDIO-REDUSE (CARdiometabolic Risk reDuctIOn by Rimonabant: the Effectiveness in Daily practice and its USE)  (full – 2012)  
http://fampra.oxfordjournals.org/content/29/5/521.full

Tolerance to Effects of High-Dose Oral \{Delta\}9-Tetrahydrocannabinol and Plasma Cannabinoid Concentrations in Male Daily Cannabis Smokers.  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3584989/

Cannabinoid receptor CB2 protects against balloon-induced neointima formation.  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3774259/

The dose effects of short-term dronabinol (oral THC) maintenance in daily cannabis users.  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3546149/

Subjective, cognitive and cardiovascular dose-effect profile of nabilone and dronabinol in marijuana smokers.  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3335956/

Targeting the endocannabinoid system with cannabinoid receptor agonists: pharmacological strategies and therapeutic possibilities  (full – 2012)  
http://rstb.royalsocietypublishing.org/content/367/1607/3353.full?sid=1569c370-ed5c-4358-89ff-857201f5e069

Cannabis misinterpretation and misadventure in a coroner's court.  (full – 2012)  

Cannabinoid 1 (CB1) receptor mediates WIN55, 212-2 induced hypothermia and improved survival in a rat post-cardiac arrest model.  (abst – 2012)  

G1359A polymorphism in the cannabinoid receptor-1 gene is associated with the presence of coronary artery disease in patients with type 2 diabetes.  (abst – 2012)  
Vascular metabolism of anandamide to arachidonic acid affects myogenic constriction in response to intraluminal pressure elevation.  (abst – 2012)  

Anandamide enhances expression of heat shock protein 72 to protect against ischemia-reperfusion injury in rat heart.  (abst – 2012)  

Essential fatty acids and lipid mediators. Endocannabinoids  (abst – 2012)  

Update on the endocannabinoid-mediated regulation of gelatinase release in arterial wall physiology and atherosclerotic pathophysiology.  (abst – 2012)  

Reduced endothelium-dependent relaxation to anandamide in mesenteric arteries from young obese zucker rats.  (full – 2013)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0063449

Is the cardiovascular system a therapeutic target for cannabidiol?  (full – 2013)  

Endogenous cannabinoid receptor CB1 activation promotes vascular smooth muscle cell proliferation and neointima formation.  (full – 2013)  
http://www.jlr.org/content/early/2013/03/11/jlr.M035147.long

Modulating the endocannabinoid system in human health and disease: successes and failures  (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3684164/

Anandamide Reduces Intracellular Ca2+ Concentration through Suppression of Na+/Ca2+ Exchanger Current in Rat Cardiac Myocytes  (full – 2013)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0063386

Surinabant, a selective CB(1) antagonist, inhibits THC-induced central nervous system and heart rate effects in humans.  (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3703229/

Activation of Cannabinoid Type 2 Receptor by JWH133 Protects Heart Against Ischemia/Reperfusion-Induced Apoptosis.  (full – 2013)  

Improvement in coronary circulatory function in morbidly obese individuals after gastric bypass-induced weight loss: relation to alterations in endocannabinoids and adipocytokines  (full – 2013)  
http://eurheartj.oxfordjournals.org/content/34/27/2063.long

Inhibitory effects of endocannabinoid on the action potential of pacemaker cells in sinoatrial nodes of rabbits.  (full – 2013)  
Honokiol protects rat hearts against myocardial ischemia reperfusion injury by reducing oxidative stress and inflammation. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3523945/

Endocannabinoid system as a potential mechanism for n-3 long-chain polyunsaturated fatty acid mediated cardiovascular protection. (full – 2013) http://journals.cambridge.org/download.php?file=%2FPNS%2FPNS72_04%2FS0029665113003406a.pdf&code=4d9803611e5020e9388169e5ae3e5095

Effects of Acute Stress on Cardiac Endocannabinoids, Lipogenesis, and Inflammation in Rats. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3988664/

Common polymorphism in the cannabinoid type 1 receptor gene (CNR1) is associated with microvascular complications in type 2 diabetes. (full – 2013) http://www.jdcjournal.com/article/S1056-8727%2813%2900199-2/fulltext

Synthetic Cannabinoids: Crisis of The Decade (link to PDF - 2013) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.684.46&rank=8

Cardiorespiratory control as a function of wake-sleep behavior and diet in mice lacking CB1 cannabinoid receptors (abst – 2013) http://www.fasebj.org/content/27/1_Supplement/926.1.short


Improved Cardiac and Neurologic Outcomes With Postresuscitation Infusion of Cannabinoid Receptor Agonist WIN55, 212-2 Depend on Hypothermia in a Rat Model of Cardiac Arrest. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/24346544


Cannabidiol administration into the bed nucleus of the stria terminalis alters cardiovascular responses induced by acute restraint stress through 5-HT$_1$A receptor.


Recurrent myopericarditis as a complication of Marijuana use. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3921097/


Cyclooxygenase metabolism mediates vasorelaxation to 2-Arachidonoylglycerol (2-AG) in human mesenteric arteries. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3992009/


A Unique Case of Cardiac Arrest following K2 Abuse. (full – 2014) http://www.hindawi.com/journals/cric/2014/120607/

An exploratory study of the combined effects of orally administered methylphenidate and delta-9-tetrahydrocannabinol (THC) on cardiovascular function, subjective effects, and performance in healthy adults. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4250392/

GPR55 Deletion in Mice Leads to Age-Related Ventricular Dysfunction and Impaired Adrenoceptor-Mediated Inotropic Responses. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4183508/


Plasma-Free Fatty Acids, Fatty Acid-Binding Protein 4, and Mortality in Older Adults (from the Cardiovascular Health Study). (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4162821/

Cannabidiol improves vasorelaxation in Zucker Diabetic fatty rats through cyclooxygenase activation. (full – 2014) http://jpet.aspetjournals.org/content/351/2/457.long

Molecular Basis for the Improvement in Muscle Metaboreflex and Mechanoreflex Control in Exercise-Trained Humans with Chronic Heart Failure. (full – 2014) http://ajpheart.physiology.org/content/307/11/H1655


Endocannabinoids Anandamide and 2-Arachidonoylglycerol Are Substrates for Human CYP2J2 Epoxygenase (full – 2014) http://jpet.aspetjournals.org/content/351/3/616.full


Effects of cannabinoid receptor type 2 on endogenous myocardial regeneration by activating cardiac progenitor cells in mouse infarcted heart. (link to PDF – 2014) http://life.scichina.com:8082/sciCe/EN/abstract/abstract513395.shtml#


Cannabinoid and lipid-mediated vasorelaxation in retinal microvasculature. (abst – 2014)  

Role of endocannabinoid 2-arachidonoylglycerol in the physiology and pathophysiology of the cardiovascular system. (abst – 2014)  

The endocannabinoid-CB2 receptor axis protects the ischemic heart at the early stage of cardiomyopathy. (abst – 2014)  

Ligand Activation of Cannabinoid Receptors Attenuates Hypertrophy of Neonatal Rat Cardiomyocytes. (abst – 2014)  

Cannabinoid receptor CB2 prevents development of heart failure in a murine model of pressure overload. (abst – 2014)  
http://www.freedomwares.ca/p80cannabinoid-receptor-cb2-prevents-development-heart-failure-murine-model-pressure-overload/

Dual agonism of peripheral cannabinoid CB1/CB2 receptors suppresses cardiac myocyte hypertrophy (abst – 2014)  
http://www.fasebj.org/content/28/1_Supplement/652.9.abstract?sid=db987fd0-3ef0-4796-aff6-4103f0c84daf

Increased oxidative stress enhances endocannabinoid tone (abst – 2014)  
http://www.fasebj.org/content/27/1_Supplement/1097.3.abstract?sid=d2f0f68f-30c5-4027-9334-011c9f8fdd2e

MicroRNA-665 is involved in the regulation of the expression of the cardioprotective cannabinoid receptor CB2 in patients with severe heart failure. (abst – 2014)  

Cannabinoid receptor type 2 activation in atherosclerosis and acute cardiovascular diseases. (abst – 2014)  

Role of Cyclic Nucleotides and NO Synthase in Mechanisms of Cardioprotective Effects of Cannabinoid HU-210. (abst – 2014)  

Anti-aversive role of the endocannabinoid system in the periaqueductal gray stimulation model of panic attacks in rats. (abst – 2014)  

A case of law-evading herbs poisoning that induced shock and myocardial damage (abst – 2014)  
Cannabidiol protects against doxorubicin-induced cardiomyopathy by modulating mitochondrial function and biogenesis. (full – 2015)
http://static.smallworldlabs.com/molmedcommunity/content/pdfstore/14_261_Hao.pdf

Fatty Acid-Binding Protein 4 (FABP4): Pathophysiological Insights and Potent Clinical Biomarker of Metabolic and Cardiovascular Diseases. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4315049/


Cardiovascular side effects related with use of synthetic cannabinoids "bonzai": two case reports. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4462325/

Cannabidiol causes endothelium-dependent vasorelaxation of human mesenteric arteries via CB1 activation. (full – 2015)
http://cardiovascres.oxfordjournals.org/content/early/2015/06/30/cvr.cvv179.long

Pharmacological profiling of the hemodynamic effects of cannabinoid ligands: a combined in vitro and in vivo approach. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4492759/

http://jop.sagepub.com/content/early/2015/11/12/0269881115615104.long

Monoglyceride lipase deficiency modulates endocannabinoid signaling and improves plaque stability in ApoE-knockout mice. (full – 2015)

Cardioprotective effects of fatty acid amide hydrolase inhibitor URB694, in a rodent model of trait anxiety. (full – 2015) http://www.nature.com/articles/srep18218

Cannabinoid receptor activation in the juvenile rat brain results in rapid biomechanical alterations: Neurovascular mechanism as a putative confounding factor (full – 2015) http://jcb.sagepub.com/content/early/2015/09/23/0271678X15606923.long

Oxyradical Stress, Endocannabinoids, and Atherosclerosis. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4686160/

METABOLIC EFFECTS OF MARIJUANA USE AMONG BLACKS. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4523241/

Role of Endothelium in Abnormal Cannabidiol-Induced Vasoactivity in Retinal Arterioles. (full – 2015) http://iovs.arvojournals.org/article.aspx?articleid=2343105&resultClick=1


The effect of cannabidiol on ischemia/reperfusion-induced ventricular arrhythmias: the role of adenosine A1 receptors. (full – 2015) http://cpt.sagepub.com/content/20/1/76.long

The GPR55 agonist lysophosphatidylinositol mediates vasorelaxation of the rat mesenteric resistance artery and induces calcium release in rat mesenteric artery endothelial cells (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4459022/


Cannabis conundrum: Evidence of harm?: Opposition to marijuana use is often rooted in arguments about the drug's harm to children and adults, but the scientific evidence is seldom clear-cut (article – 2015) http://onlinelibrary.wiley.com/doi/10.1002/cncy.21516/full


Synthetic Cannabinoids and Their Effects on the Cardiovascular System. (abst – 2015)  

MIMICKING ISCHEMIC PRECONDITIONING PHENOMENON THROUGH THE IMPACT ON THE CANNABINOID RECEPTORS: ROLE OF PROTEIN KINASE AND NO-SYNTHASE. (abst – 2015)  

Oral Cannabidiol does not Alter the Subjective, Reinforcing or Cardiovascular Effects of Smoked Cannabis. (abst – 2015)  

Cannabinoids-Induced Vasodilation in Rat Mesenteric Artery: Possible Mechanisms of Action (abst – 2015)  
http://www.fasebj.org/content/29/1_Supplement/948.6.abstract?sid=edf921ac-0690-4aa6-ac81-0546314dd384

Acute myocardial infarction, associated with the use of a synthetic adamantyl-cannabinoid: a case report. (full – 2016)  

Chest pain, troponin rise, and ST-elevation in an adolescent boy following the use of the synthetic cannabis product K2. (full – 2016)  
http://www.annalspc.com/article.asp?issn=0974-2069;year=2016;volume=9;issue=1;spage=79;epage=81;aulast=Zaleta

Age-specific influences of chronic administration of the fatty acid amide hydrolase inhibitor URB597 on cardiovascular parameters and organ hypertrophy in DOCA-salt hypertensive rats (full – 2016)  

http://www.amjmed.com/article/S0002-9343(15)01024-4/fulltext

A Curious Case of Inhalation Fever Caused by Synthetic Cannabinoid. (full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4917070/

Inhibition of interleukin-1β-induced endothelial tissue factor expression by the synthetic cannabinoid WIN 55,212-2. (full – 2016)  
http://www.impactjournals.com/oncotarget/index.php?journal=oncotarget&page=article&op=view&path%5B%5D=11367&path%5B%5D=35984

Activation of Cannabinoid Receptor Type II by AM1241 Ameliorates Myocardial Fibrosis via Nrf2-Mediated Inhibition of TGF-β1/Smad3 Pathway in Myocardial Infarction Mice (full – 2016)  
http://www.karger.com/Article/FullText/447855
The endocannabinoid anandamide causes endothelium-dependent vasorelaxation in human mesenteric arteries. (full – 2016)

Signs and symptoms associated with synthetic cannabinoid toxicity: systematic review. (full - 2016)
http://journals.sagepub.com/doi/full/10.1177/1039856216663733

Components of the cannabinoid system in the dorsal periaqueductal gray are related to resting heart rate (full – 2016)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4982395/

CB1 receptor activation in the rat paraventricular nucleus induces bi-directional cardiovascular effects via modification of glutamatergic and GABAergic neurotransmission. (full – 2016)

Cannabinoid CB1 Receptors Are Localized in Striated Muscle Mitochondria and Regulate Mitochondrial Respiration. (full – 2016)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5078489/

Cannabinoids and haemostasis. (click “ICI” for download – 2016)

Cannabidiol limits T-cell-mediated chronic autoimmune myocarditis: implications to autoimmune disorders and organ transplantation. (click “Molecular Medicine” for PDF– 2016)

Can your heart handle the spice: A case of acute myocardial infarction and left ventricular apical thrombus (1st page – 2016)
http://www.internationaljournalofcardiology.com/article/S0167-5273(16)30735-5/abstract

Abrupt Quitting of Long-term Heavy Recreational Cannabis Use is Not Followed by Significant Changes in Blood Pressure and Heart Rate. (abst – 2016)

Adverse effects after the use of JWH-210 - a case series from the EU Spice II plus project. (abst – 2016)

Synthetic Cannabinoids and Their Effects on the Cardiovascular System (abst – 2016)

Potential Biomarkers for Depression Associated with Coronary Artery Disease: A Critical Review. (abst – 2016)

Protective role of cannabinoid CB1 receptors and vascular effects of chronic administration of FAAH inhibitor URB597 in DOCA-salt hypertensive rats. (abst – 2016)
Pharmacological inhibition of FAAH activity in rodents: a promising pharmacological approach for psychological - cardiac comorbidity? (abst – 2016)  

Clinical Effects of Synthetic Cannabinoid Receptor Agonists Compared with Marijuana in Emergency Department Patients with Acute Drug Overdose. (abst – 2016)  

MARIJUANA USE AND SHORT-TERM OUTCOMES IN PATIENTS HOSPITALIZED FOR ACUTE MYOCARDIAL INFARCTION (abst – 2016)  

Acute Toxicity Associated with Use of 5F-Derivations of Synthetic Cannabinoid Receptor Agonists with Analytical Confirmation. (abst – 2016)  

Involvement of endocannabinoid neurotransmission in the bed nucleus of stria terminalis in cardiovascular responses to acute restraint stress in rats. (abst – 2016)  

Circulating levels of endocannabinoids and oxylipins altered by dietary lipids in older women are likely associated with previously identified gene targets (abst – 2016)  

Repeated Thrombosis After Synthetic Cannabinoid Use. (abst – 2016)  

Selective modulator of cannabinoid receptor type 2 reduces memory impairment and infarct size during cerebral hypoperfusion and vascular dementia. (abst – 2016)  
http://www.ncbi.nlm.nih.gov/pubmed/27586843

Selective modulator of cannabinoid receptor type 2 reduces memory impairment and infarct size during cerebral hypoperfusion and vascular dementia. (abst – 2016)  
http://www.ncbi.nlm.nih.gov/pubmed/27586843

The Effect of Chronic Activation of the Novel Endocannabinoid Receptor GPR18 on Myocardial Function and Blood Pressure in Conscious Rats. (abst – 2016)  


The role of perivascular adipose tissue in obesity-induced vascular dysfunction. (abst – 2016)  
Synthetic Cannabinoid Abuse Resulting in ST-Segment Elevation Myocardial Infarction Requiring Percutaneous Coronary Intervention. (abst – 2016)

Overactivation of cannabinoid receptor type 1 in rostral ventrolateral medulla promotes cardiovascular responses in spontaneously hypertensive rats. (abst – 2016)

Targeting brain and peripheral plasticity of the lipidome in acute kainic acid-induced epileptic seizures in mice via quantitative mass spectrometry. (abst – 2016)

The endogenous lipid N-arachidonoyl glycine is hypotensive and nitric oxide-cGMP-dependent vasorelaxant. (abst – 2016)


Endocannabinoid 2-arachidonoylglycerol protects inflammatory insults from sulfur dioxide inhalation via cannabinoid receptors in the brain (abst – 2017)

HEMORRHAGIC SHOCK *+

Pharmacokinetics of a combination of Δ9-tetrahydro-cannabinol and celecoxib in a porcine model of hemorrhagic shock. (abst – 2011)
http://www.unboundmedicine.com/medline/ebm/record/21341278/abstract/Pharmacokinetics_of_a_combin ation_of_%CE%949_tetrahydro_cannabinol_and_celecoxib_in_a_porcine_model_of_hemorrhagic_shock

Low-volume binary drug therapy for the treatment of hypovolemia. (abst – 2011)
http://www.unboundmedicine.com/medline/ebm/record/21330941/abstract/Low_volume_binary_drug_ther apy_for_the_treatment_of_hypovolemia

HEMP / HEMP FIBER

Cannabis, Coca, & Poppy: Nature’s Addictive Plants - Cannabis (article – undated)
http://www.deamuseum.org/ccp/cannabis/history.html

History of Hemp Cultivation in Britain (news – undated)
Effects of increasing amounts of hempseed cake in the diet of dairy cows on the production and composition of milk. (full – 2010)
http://journals.cambridge.org/action/displayFulltext?type=6&fid=7909529&id=ANM&volumeId=4&issueId=11&aid=7909528&bodyId=&membershipNumber=&societyETOCSession=&fulltextType=RA&fileId=S1751731110001254

Effects of selected pectinolytic bacterial strains on water-retting of hemp and fibre properties. (full – 2010)


A three-thousand-year history of vegetation and human impact in Burgundy (France) reconstructed from pollen and non-pollen palynomorphs analysis. (abst – 2010)

EVALUATION OF GROWTH INDICES OF HEMP (CANNABIS SATIVA L.) AND SESAME (SESAMUM INDICUM L.) IN INTERCROPPING WITH REPLACEMENT AND ADDITIVE SERIES (abst – 2010)

Scientific Opinion on the safety of hemp (Cannabis genus) for use as animal feed (full – 2011) (deceptive title)

Influence of agroclimatic conditions on content of main cannabinoids in industrial hemp (Cannabis sativa L.) (full – 2011)


Influence of agroclimatic conditions on content of main cannabinoids in industrial hemp (Cannabis sativa L.) (full – 2011)

How hemp got high (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3333771/

Industrial Hemp (Cannabis sativa L.) – a High-Yielding Energy Crop (thesis – 2011)
http://pub.epsilon.slu.se/8415/1/prade_t_111102.pdf

Study on spectral reflectance characteristics of hemp canopies (abst – 2011)

Bioactive Prenylogous Cannabinoid from Fiber Hemp (Cannabis sativa). (abst - 2011)
http://pubs.acs.org/doi/abs/10.1021/np200500p
Bioconversion of industrial hemp to ethanol and methane: the benefits of steam pretreatment and co-production. (abst – 2011)

Cadmium Tolerance and Bioaccumulation of 18 Hemp Accessions. (abst – 2011)

Variations in Photosynthesis, Transpiration, Water Use and Cannabinoid Contents in Field Grown Drug Type Varieties of Cannabis sativa L. (abst – 2011)


EVALUATION ALLELOPATHIC EFFECT OF HEMP (CANNABIS SATIVA L.) ON GERMINATION AND GROWTH OF THREE KINDS OF WEEDS (abst – 2011)

Nutritive quality of romanian hemp varieties (Cannabis sativa L.) with special focus on oil and metal contents of seeds. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3543203/

Effect of feeding hemp seed and hemp seed oil on laying hen performance and egg yolk fatty acid content: Evidence of their safety and efficacy for laying hen diets. (full – 2012) http://ps.oxfordjournals.org/content/91/3/701.long


Hemp Around the World (article – 2012)

Hemp Products Information (article – 2012)

Hemp Food Storage (article – 2012)
http://www.innvista.com/health/foods/hemp/hemp-food-storage/

Hemp Biology - Industrial Hemp vs. Marijuana (article – 2012)


Fatty Acid Profile and Sensory Characteristics of Table Eggs from Laying Hens Fed Hempseed and Hempseed Oil. (abst – 2012)  

Variations and origin of the atmospheric pollen of Cannabis detected in the province of Tetouan (NW Morocco): 2008-2010 (abst – 2012)  

Complete sequence of a cryptic virus from hemp (Cannabis sativa). (abst – 2012)  

Enzymatic accessibility of fiber hemp is enhanced by enzymatic or chemical removal of pectin. (abst – 2012)  

The Studies on the Preparation, Structure and Physical Properties of Rubber Composites Filled with Hemp Hurd Powder (abst – 2012)  
http://www.dissertationtopic.net/doc/1482776

Biomass Yield Studies of Field Cultivated Cannabis sativa L. Plants (abst – 2012)  

THE EFFECTS OF JAMONATE ON PLASTIDAL TERPENOIDS ON CANNABIS SATIVA L. AT VEGETATIVE STAGE (abst – 2012)  

Effects of steam pretreatment and co-production with ethanol on the energy efficiency and process economics of combined biogas, heat and electricity production from industrial hemp (full – 2013)  
http://www.biotechnologyforbiofuels.com/content/6/1/56

Viking and early Middle Ages northern Scandinavian textiles proven to be made with hemp. (full – 2013)  
http://www.nature.com/srep/2013/131018/srep02686/pdf/srep02686.pdf

Industrial hemp decreases intestinal motility stronger than Indian hemp in mice. (link to PDF – 2013)  
http://www.europeanreview.org/article/3266

http://pubs.acs.org/doi/abs/10.1021/es401326a

The effect of particle shape and size distribution on the acoustical properties of mixtures of hemp particles. (abst – 2013)  

Medicinal chemistry and pharmacology focused on cannabidiol, a major component of the fiber-type cannabis (abst – 2013)  
Analysis of the genetic diversity of Chinese native Cannabis sativa cultivars by using ISSR and chromosome markers. (full – 2014)

Molecular cytogenetic characterization of the dioecious Cannabis sativa with an XY chromosome sex determination system. (full – 2014)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0085118

New green polymeric composites based on hemp and natural rubber processed by electron beam irradiation. (full – 2014)
http://www.hindawi.com/journals/tswj/2014/684047/

Medieval horse stable; the results of multi proxy interdisciplinary research. (full – 2014)
http://www.plosone.org/article/fetchObject.action?
uri=info:doi/10.1371/journal.pone.0089273&representation=PDF

Targeted mutation of Δ12 and Δ15 desaturase genes in hemp produce major alterations in seed fatty acid composition including a high oleic hemp oil. (full – 2014)

New evidence on the introduction, cultivation and processing of hemp (Cannabis sativa L.) in southern Sweden (link to download – 2014)
http://www.academia.edu/11727026/New_evidence_on_the_introduction_cultivation_and_processing_of_hemp_Cannabis_sativa_L._

Potential Oil Yield, Fatty Acid Composition, and Oxidation Stability of the Hempseed Oil from Four Cannabis sativa L. Cultivars. (abst – 2014)

Characterization of Byproducts Originating from Hemp Oil Processing (abst – 2014)
http://pubs.acs.org/doi/abs/10.1021/jf5044426

Ethanol production from industrial hemp: Effect of combined dilute acid/steam pretreatment and economic aspects (abst – 2014)

Interconnected carbon nanosheets derived from hemp for ultrafast supercapacitors with high energy (abst – 2014)
http://pubs.acs.org/doi/abs/10.1021/nn400731g

Omega-3 fatty acid production from enzyme saccharified hemp hydrolysate using a novel marine thraustochytrid strain. (abst – 2014)

Boosting accumulation of neutral lipids in Rhodosporidium kratochvilovae HIMP1 grown on hemp (Cannabis sativa Linn) seed aqueous extract as feedstock for biodiesel production. (abst – 2014)
Gamma-linolenic acid egg production enriched with hemp seed oil and evening primrose oil in diet of laying hens.  
(abort – 2014)  

Cannabinoid-free Cannabis sativa L. grown in the Po valley: evaluation of fatty acid profile, antioxidant capacity and metabolic content. 
(abort – 2014)  

Relationship between cannabinoids content and composition of fatty acids in hempseed oils.  
(abort – 2014)  

Molecular characterization of edestin gene family in Cannabis sativa L.  
(abort – 2014)  

Effects of Hemp (Cannabis sativa L.) Seed Oil Press-Cake and Decaffeinated Green Tea Leaves (Camellia sinensis) on Functional Characteristics of Gluten-Free Crackers.  
(abort – 2014)  

Cold acclimation induces distinctive changes in the chromatin state and transcript levels of COR genes in Cannabis sativa varieties with contrasting cold acclimation capacities.  
(abort – 2014)  

Characterization of 15 STR cannabis loci: nomenclature proposal and SNPSTR haplotypes.  
(abort – 2014)  

Fractionation of hemp hurs by organosolv pretreatment and its effect on production of lignin and sugars.  
(abort – 2014)  

EFFECT OF BIOFERTILIZER, UNDER SALINITY CONDITION ON THE YIELD AND OIL CONTENT OF THREE ECOTYPE OF HEMP (CANNABIS SATIVA L.)  
(abort – 2014)  

Allelopathic effect of fibre hemp (Cannabis sativa L.) on monocot and dicot plant species  
(abort – 2014)  

Intrusive growth of primary and secondary phloem fibres in hemp stem determines fibre bundle formation and structure.  
(full – 2015)  
http://aobpla.oxfordjournals.org/content/early/2015/05/27/aobpla.plv061.long

The Genetic Structure of Marijuana and Hemp.  
(full – 2015)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0133292

“Hemp as an Agricultural Commodity” (a congressional report - 2015)  

Characterisation of cannabinoid composition in a diverse Cannabis sativa L. germplasm collection  
(link to PDF – 2015)  
CONTROLLED SUBSTANCES CHAOS: THE DEPARTMENT OF JUSTICE’S NEW POLICY POSITION ON MARIJUANA AND WHAT IT MEANS FOR INDUSTRIAL HEMP FARMING IN NORTH DAKOTA (link to download - 2015)


Characterization of Lignanamides from Hemp (Cannabis sativa L.) Seed and their Antioxidant and Acetylcholinesterase Inhibitory Activities. (abst – 2015) http://pubs.acs.org/doi/10.1021/acs.jafc.5b05282


Cannabis sativa: The Plant of the Thousand and One Molecules (full – 2016)

Studying Secondary Growth and Bast Fiber Development: The Hemp Hypocotyl Peeks behind the Wall. (full – 2016)

Hemp as fibre and food? Regulatory developments and current issues (news/ link to PDF – 2016)

Evolution of the Cannabinoid and Terpene Content during the Growth of Cannabis sativa Plants from Different Chemotypes.  (abst – 2016)
http://pubs.acs.org/doi/abs/10.1021/acs.jnatprod.5b00949

Marijuana: Medical Applications, Recreational Use and Substance Abuse Disorders (abst – 2016)

Proteomic characterization of hempseed (Cannabis sativa L.) (abst – 2016)

Seed composition of ten industrial hemp cultivars approved for production in Canada (abst – 2016)

Phytotoxic Effect of Fiber Hemp Essential Oil on Germination of Some Weeds and Crops (abst – 2016)


Reducing exposure to pathogens in the horse; A preliminary study into the survival of bacteria on a range of equine bedding types.  (abst – 2016)

Phytoextraction of heavy metals by potential native plants and their microscopic observation of root growing on stabilised distillery sludge as a prospective tool for in situ phytoremediation of industrial waste.  (abst – 2016)

Bioactive spirans and other constituents from the leaves of Cannabis sativa f. sativa.  (abst – 2016)

Transcriptome differences between fiber-type and seed-type Cannabis sativa variety exposed to salinity. (abst – 2016)  http://www.ncbi.nlm.nih.gov/pubmed/27924117


HEPATITIS +


Role of Myeloid-Derived Suppressor Cells in Amelioration of Experimental Autoimmune Hepatitis Following Activation of TRPV1 Receptors by Cannabidiol (full – 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3069975/?tool=pmcentrez


Is lipid signaling through cannabinoid 2 receptors part of a protective system? (full – 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3062638/

Association between lipid accumulation and the cannabinoid system in Huh7 cells expressing HCV genes (link to PDF – 2011)  http://www.spandidos-publications.com/ijmm/27/5/619

The endocannabinoid N-arachidonoyl dopamine (NADA) selectively induces oxidative stress-mediated cell death in hepatic stellate cells but not in hepatocytes (full – 2012)  http://ajpgi.physiology.org/content/302/8/G873.long

Prevention of Fibrosis Progression in CCl4-Treated Rats: Role of the Hepatic Endocannabinoid and Apelin Systems (full – 2012)  http://jpet.aspetjournals.org/content/340/3/629.full


Multiple effects of Honokiol on the life cycle of hepatitis C virus. (abst - 2012)
Marijuana Smoking Does Not Accelerate Progression of Liver Disease in HIV-Hepatitis C Coinfection: A Longitudinal Cohort Analysis. (full – 2013) http://cid.oxfordjournals.org/content/early/2013/07/03/cid.cit378.long


Association Between a Polymorphism in Cannabinoid Receptor 2 and Severe Necroinflammation in Patients With Chronic Hepatitis C. (full – 2013) http://www.cghjournal.org/article/S1542-3565%2813%2900687-3/fulltext


Cannabinoid Receptor 2-63 QQ Variant Is Associated with Persistently Normal Aminotransferase Serum Levels in Chronic Hepatitis C. (full - 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4062424/

Cannabinoid Receptor 2-63 QQ Variant Is Associated with Persistently Normal Aminotransferase Serum Levels in Chronic Hepatitis C (full - 2014) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0099450


Marijuana use in hepatitis C infection does not affect liver biopsy histology or treatment outcomes. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4144456/


The impact of the CB2-63 polymorphism on the histological presentation of chronic hepatitis B. (link to full – 2015)
Elevated Levels of Endocannabinoids in Chronic Hepatitis C May Modulate Cellular Immune Response and Hepatic Stellate Cell Activation. (link to PDF- 2015)

Exogenous hepatitis B virus envelope proteins induce endoplasmic reticulum stress: involvement of cannabinoid axis in liver cancer cells. (full – 2016)

Cannabinoid receptors are involved in the protective effect of a novel curcumin derivative C66 against CCl4-induced liver fibrosis. (abst – 2016)

No significant effect of cannabis use on the count and percentage of circulating CD4 T-cells in HIV-HCV co-infected patients (ANRS CO13-HEPAVIH French cohort). (abst – 2016)

Marijuana Use Is Not Associated With Progression to Advanced Liver Fibrosis in HIV/Hepatitis C Virus-coinfected Women. (abst – 2016)

>HEREDITARY MULTIPLE EXOTOSES – see News section

HERPES VIRUS *


**HIBERNATION**

Endocannabinoid signalling: has it got rhythm?  
(full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931554/

Exploring the Bone Proteome to Help Explain Altered Bone Remodeling and Preservation of Bone Architecture and Strength in Hibernating Marmots.  
(full – 2016)  
http://www.journals.uchicago.edu/doi/full/10.1086/687413

>**HICCUPS** +*- see News section

**THE “HIGH”/ CANNABIMIMETIC EFFECTS**

Opioid antagonism enhances marijuana's effects in heavy marijuana smokers.  
(full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2923559/

Endocannabinoids and voluntary activity in mice: runner's high and long-term consequences in emotional behaviors.  
(abst – 2010)  

Non-CB1, non-CB2 receptors for endocannabinoids, plant cannabinoids, and synthetic cannabimimetics: focus on G-protein-coupled receptors and transient receptor potential channels.  
(abst – 2010)  
http://www.unboundmedicine.com/medline/ebm/record/19847654/abstract/Non_CB1_non_CB2_receptors_for_endocannabinoids_plant_cannabinoids_and_synthetic_cannabimimetics:_focus_on_G_protein_coupled_receptors_and_transient_receptor_potential_channels

Disposition of smoked cannabis with high Delta(9)-tetrahydrocannabinol content: A kinetic model.  
(abst – 2010)  

High-performance sport, marijuana, and cannabimimetics.  
(full – 2011)  
http://jat.oxfordjournals.org/content/35/9/624.long

How hemp got high  
(full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3333771/

Cannabis with high cannabidiol content is associated with fewer psychotic experiences.  
(full – 2011)  
http://www.schres-journal.com/article/S0920-9964%2811%2900224-6/fulltext
Subjective and physiological effects after controlled Sativex and oral THC administration. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3836266/


Wired to run: exercise-induced endocannabinoid signaling in humans and cursorial mammals with implications for the 'runner's high'. (full – 2012) http://jeb.biologists.org/content/215/8/1331.long


Naltrexone does not attenuate the effects of intravenous Δ9-tetrahydrocannabinol in healthy humans (full – 2012) http://ijnp.oxfordjournals.org/content/15/9/1251.long


Inverse relationship of cannabimimetic (R+)WIN 55, 212 on behavior and seizure threshold during the juvenile period. (abst – 2012) http://www.sciencedirect.com/science/article/pii/S0091305711003273

Cannabis, a complex plant: different compounds and different effects on individuals (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3736954/

Reducing cannabinoid abuse and preventing relapse by enhancing endogenous brain levels of kynurenic acid. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3835353/


Palmitoylethanolamide: From endogenous cannabimimetic substance to innovative medicine for the treatment of cannabis dependence. (abst – 2013)  

Pregnenolone can protect the brain from cannabis intoxication. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4057431/

Getting high on the endocannabinoid system. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3997295/

Cross-sectional and prospective relation of cannabis potency, dosing and smoking behaviour with cannabis dependence: an ecological study. (abst – 2014)  

Therapeutic Satisfaction and Subjective Effects of Different Strains of Pharmaceutical-Grade Cannabis. (abst – 2014)  

Discriminating the effects of Cannabis sativa and Cannabis indica: a web survey of medical cannabis users. (abst – 2014)  

Acute subjective effects after smoking joints containing up to 69 mg Δ9-tetrahydrocannabinol in recreational users: a randomized, crossover clinical trial. (abst – 2014)  

Effects of Δ9-tetrahydrocannabinol in individuals with a familial vulnerability to alcoholism. (abst – 2014)  

Just say 'know': how do cannabinoid concentrations influence users' estimates of cannabis potency and the amount they roll in joints? (abst – 2014)  

Guineensine is a novel inhibitor of endocannabinoid uptake showing cannabimimetic behavioral effects in BALB/c mice. (abst – 2014)  

Selective Monoacylglycerol Lipase Inhibitors: Antinociceptive versus Cannabimimetic Effects in Mice (full – 2015)  
http://jpet.aspetjournals.org/content/353/2/424.full.pdf+html

Understanding Cannabinoid Psychoactivity with Mouse Genetic Models (full – 2015)  
http://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.0050280

Controlled Cannabis Vaporizer Administration: Blood and Plasma Cannabinoids with and without Alcohol. (full – 2015)  
http://www.clinchem.org/content/61/6/850.long

Cognitive Impairment Induced by Delta9-tetrahydrocannabinol Occurs through Heteromers between Cannabinoid CB1 and Serotonin 5-HT2A Receptors. (full – 2015)  
http://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.1002194
Enhancing Brain Pregnenolone May Protect Cannabis Intoxication but Should Not Be Considered as an Anti-addiction Therapeutic: Hypothesizing Dopaminergic Blockade and Promoting Anti-Reward. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4545660/


Full Fatty Acid Amide Hydrolase Inhibition Combined with Partial Monoacylglycerol Lipase Inhibition: Augmented and Sustained Antinociceptive Effects with Reduced Cannabinimetic Side Effects in Mice (full – 2015) http://jpet.aspetjournals.org/content/354/2/111.full


CB1 receptor transgenic mice in the cannabinoid triad: a novel approach to assess in vivo efficacy of CB1 ligands. (abst – 2015) http://www.fasebj.org/content/29/1_Supplement/LB490.abstract?sid=edf921ac-0690-4aa6-ac81-0546314dd384


Comparisons of Δ9-tetrahydrocannabinol and Anandamide on a Battery of Cognition-related Behavior in Nonhuman Primates. (full – 2016) http://jpet.aspetjournals.org/content/early/2016/01/29/jpet.115.228189.long

AKT1 genotype moderates the acute psychotomimetic effects of naturalistically smoked cannabis in young cannabis smokers. (full – 2016) http://www.nature.com/tp/journal/v6/n2/full/tp2015219a.html

Identification of Psychoactive Degradants of Cannabidiol in Simulated Gastric and Physiological Fluid (full – 2016) http://online.liebertpub.com/doi/10.1089/can.2015.0004

Cannabinoid receptor type-1: breaking the dogmas. (full – 2016) http://f1000research.com/articles/5-990/v1

Effects of various cannabinoid ligands on choice behaviour in a rat model of gambling. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4803149/

Indirect Modulation of the Endocannabinoid System by Specific Fractions of Nutmeg Total Extract (full – 2016)
Indirect modulation of the endocannabinoid system by specific fractions of nutmeg total extract.

Beyond Cannabis: Plants and the Endocannabinoid System (full – 2016) http://ge.tt/3Rgtrsa2

Are adolescents more vulnerable to the harmful effects of cannabis than adults? A placebo-controlled study in human males (full – 2016) http://www.nature.com/tp/journal/v6/n11/full/tp2016225a.html


Should we care about sativex-induced neurobehavioral effects? A 6-month follow-up study. (link to PDF – 2016) http://www.europeanreview.org/article/11188


HIP REPLACEMENT – also see 2000-2009 section


HISTORICAL STUDIES and ARTICLES - PRE 1937 – a “fun” section mixing news and studies

Indian hemp and the dope fiends of Old England (article - undated) http://www.idmu.co.uk/indian.htm

Introduction to the Indian Hemp Drugs Commission Report (introduction – undated) http://cifas.us/analyses/Mikuriya1.html

Observations on the raising and dressing of hemp (1789) As text- http://memory.loc.gov/cgi-bin/query/r?ammem/faw:@field%28DOCID+icufawcbe0010%29


ON THE PREPARATIONS OF THE INDIAN HEMP, OR GUNJAH (1839) http://www.druglibrary.org/schaffer/history/e1850/gunjah.htm

DISPENSATORY OF THE UNITED STATES OF AMERICA Fifth Edition (1843)
On the Preparations of the Indian Hemp, or gunjah* Cannabis Indica Their Effects on the Animal System in Health, and their Utility in the Treatment of Tetanus and other Convulsive Diseases  (1843)  http://www.druglibrary.org/schaffer/history/e1850/gunjah.htm


Observations on the Cannabis Indica, or Indian Hemp  (1843)  http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=2490354&tool=pmcentrez

On Traumatic Tetanus and Its Treatment, with Some Remarks on the Extract of Cannabis Indica of Commerce  (1845)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2558904/?tool=pmcentrez&page=1

Case of Traumatic Tetanus — Exhibition of the Extract of Indian Hemp (Cannabis Indica)—Death—Autopsy  (1845)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2558623/?tool=pmcentrez&page=1

A Case of Dysmenorrhoea in Which the Tincture of Cannabis Indica Was Employed, with Some Observations upon That Drug  (1847)  https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2487155/

On the Haschisch or Cannabis Indica  (1857)  http://www.druglibrary.org/schaffer/hemp/history/bellhash.htm

On the Action of Cannabis Indica  (1883)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2372454/

Cannabis Indica  (1883)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2372636/?tool=pmcentrez&page=1

An Overdose of Hasheesh  (1884)  http://www.popsci.com/archive-viewer?id=vCoDAAAAMBAJ&pg=509


Physical, Mental, and Moral Effects of Marijuana: The Indian Hemp Drugs Commission Report  (1894)  http://www.druglibrary.org/schaffer/Library/effects.htm

Indian Hemp Drugs Commission Report  CHAPTER IX SOCIAL AND RELIGIOUS CUSTOMS.  (1894)  http://cifas.us/analyses/IndianCommChapIX.html
A Practical treatise on nervous exhaustion(neurasthenia) aka Chronic Fatigue Syndrome (link to download – 1894)  https://archive.org/details/apracticaltreat03beargoog

Cannabis Sativa Seu Indica: Indian Hemp        (1895)  

Cannabis Indica (U. S. P.)—Indian Cannabis. King's American Dispensatory     (1898)  
http://www.henriettesherbal.com/eclectic/kings/cannabis.html

A Contribution to the Pharmacology of Cannabis Indica     (1st page -1898)  
http://jamanetwork.com/journals/jama/article-abstract/1108339

Cannabis Indica Poisoning     (1899)  http://www.druglibrary.org/schaffer/hemp/history/oday.htm

The Pharmacology of Cannabis Indica     (1899)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2412674/

Two cases of Poisoning by Cannabis Indica     (1900)  
http://www.druglibrary.org/schaffer/history/foulis.htm

ON INDICATIONS OF THE HACHISH-VICE IN THE OLD TESTAMENT     (1903)  
http://www.druglibrary.org/schaffer/hemp/history/hashot.htm

A British Study of Cannabis     (Circa 1910)  http://www.ukcia.org/research/red-eye.php

The Physiological Activity of Cannabis Sativa     (1913)  
http://www.druglibrary.org/schaffer/hemp/history/japa.htm


Influence of Environment on Sexual Expression in Hemp     (1923)  
http://www.jstor.org/stable/2469863?seq=1#page_scan_tab_contents

Narcotic Control in the State of Washington     (full – forum repost - 1923)  

http://www.druglibrary.org/schaffer/hemp/history/vbchmed1.htm

Effects of Alcohol and Cannabis during Labor.     (article - forum repost - 1930)  

MARIAJUANA SMOKING IN PANAMA     (1933)  
http://www.druglibrary.org/schaffer/Library/studies/panama/panama1.htm
The British Pharmaceutical Codex (1934)
http://www.druglibrary.org/schaffer/hemp/medical/brit34.htm

CARBOHYDRATE-NITROGEN RATIOS WITH RESPECT TO THE SEXUAL EXPRESSION OF HEMP (1934) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC439101/

MARIHUANA INTOXICATION (abst - 1934)

TIME FACTOR IN UTILIZATION OF MINERAL NUTRIENTS BY HEMP by Sister Mary Etienne Tibeau (1936)

American Medical Association Opposes the Marijuana Tax Act of 1937 (1937)
http://www.marijuanalibrary.org/AMA_opposes_1937.html

The active principles of Cannabis indica resin. I (1939)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1264344/?page=1

Ganja in Jamaica (editorial – 1996)
http://www.cedro-uva.org/lib/boekhout.ganja.en.html


Cannabis Condemned: the Proscription of Indian Hemp. (abst – 2003)

The Emperor Wears No Clothes (book - 2007)

PMS, Menses, Menopause and Cannabis (news/abstracts – 2014)


Cannabis and Dr Piffard-A Century Ahead of the Curve. (article – 2016)
http://archderm.jamanetwork.com/article.aspx?articleid=2547236


**HISTORY - ANCIENT USE** – a “fun” section with no date restrictions

Cannabis, Coca, & Poppy: Nature’s Addictive Plants - Cannabis (article – undated)
http://www.deamuseum.org/ccp/cannabis/history.html
Ayurvedic Herbs – Cannabis (article – undated)
http://www.indianmirror.com/ayurveda/cannabis.html

Spiritual Use Of Cannabis (article – undated)
http://www.sparcsf.org/learning-center/spiritual-use-cannabis

History of Hemp Cultivation in Britain (news – undated)
http://www.ukcia.org/culture/history/hmpukhis.php

The Unconstitutional Prohibition of Cannabis (as a forum post- full – undated)
https://www.thcfarmer.com/community/threads/trolingers-history-of-cannabis.22328/

ON INDICATIONS OF THE HACHISH-VICE IN THE OLD TESTAMENT (1903)
http://www.druglibrary.org/schaffer/hemp/history/hashot.htm

HEMP AS A MEDICAMENT : History of the medicinal use of hemp (full - 1955)
http://www.bushka.cz/KabelikEN/history.html

The Use of the Cannabis Drugs in India (full – 1957)

Pharmacy in medieval Islam and the history of drug addiction. (full - 1972)

Effects of Chronic Smoking of Cannabis in Jamaica (download – 1972)

EARLY DIFFUSION AND FOLK USES OF HEMP (full – 1975)
http://khem-caigan.livejournal.com/3259.html

Marijuana - The First Twelve Thousand Years (book – 1980)
http://www.druglibrary.org/Schaffer/hemp/history/first12000/abel.htm

The Religious and Medicinal Uses of Cannabis in China, India and Tibet (full - 1981)

NEW FOSSIL EVIDENCE FOR THE PAST CULTIVATION AND PROCESSING OF HEMP (CANNABIS SATIVA L.) IN EASTERN ENGLAND (full – 1981)

Hashish in Islam 9th to 18th century. (full - 1982)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1805385/?tool=pmcentrez&page=1

Marijuana, Cannabis sativa L: Moraceae, Cannaboideae. (full – 1983)

Hashish and drug abuse in Egypt during the 19th and 20th centuries. (full - 1985)


Cannabis in Traditional Indian Herbal Medicine (full - 2001) http://www.academia.edu/188844/Cannabis_in_Traditional_Indian_Herbal_Medicine_pre-publication_draft_


Indigenous Uses and Ethnobotany of Cannabis sativa L. (Hemp) in Uttaranchal (India) (abst - 2004) http://www.informaworld.com/smpp/content db=all?content=10.1300/J237v09n01_07


Recent palaeoenvironmental evidence for the processing of hemp (Cannabis sativa L.) in eastern England during the medieval period (full – 2005) http://eprints.whiterose.ac.uk/1832/1/halla6.pdf
History of cannabis as a medicine: a review  (full - 2006)

A new insight into Cannabis sativa (Cannabaceae) utilization from 2500-year-old Yanghai Tombs, Xinjiang, China  (full – 2006)
https://www.researchgate.net/publication/6906615_A_New_Insight_into_Cannabis_sativa_Cannabaceae_Utilization_from_2500-year-old_Yanghai_Tombs_Xinjiang

Cannabis, hemp and hashish: always returning  (abst – 2006)

The Emperor Wears No Clothes  (book - 2007)

Phytochemical and genetic analyses of ancient cannabis from Central Asia (full - 2008)  http://jxb.oxfordjournals.org/cgi/content/full/59/15/4171

Results of molecular analysis of an archaeological hemp (Cannabis sativa L.) DNA sample from North West China  (full – forum repost - 2008)

The cultivation and utilisation of hemp in Scotland  (abst – 2008)

Hemp (Cannabis) Cultivation and Use in the Republic of Korea  (abst – 2008)
http://www.tandfonline.com/doi/abs/10.1300/J237v11n01_07?src=recsys

The Great Keneh Bosem Debate - Part 1  (article – 2009)

Part 2 of the Great Keneh Bosem Debate:  (article – 2009)


A three-thousand-year history of vegetation and human impact in Burgundy (France) reconstructed from pollen and non-pollen palynomorphs analysis.  (abst – 2010)

Marijuana in the Bible  (article - 2011)
https://patients4medicalmarijuana.wordpress.com/marijuana-info/marijuana-in-the-bible/

History of Cannabis in India  (article – 2011)
https://www.psychologytoday.com/blog/the-teenage-mind/201106/history-cannabis-in-india
Analysis of Cannabinoids from Leaves of Ancient Cannabis sativa Found in Yanghai Xinjiang, China (abst – 2011)
http://www.trew.ac.cn/EN/abstract/abstract8457.shtml

FROM GHENNAB TO CANNABIS: HOPES TO FIND A CURE FOR MULTIPLE SCLEROSIS ARE FLOURISHING (abst – 2011)

Archaeobotanical study of ancient food and cereal remains at the Astana cemeteries, Xinjiang, China. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3447823/

History of Hemp (article – 2012)
http://www.innvista.com/health/foods/hemp/history-of-hemp/

The Material Roots of Rastafarian Marijuana Symbolism (abst – 2007)
http://www.tandfonline.com/doi/abs/10.1080/02757200701234764


Viking and early Middle Ages northern Scandinavian textiles proven to be made with hemp. (full – 2013)
http://www.nature.com/srep/2013/131018/srep02686/pdf/srep02686.pdf


New evidence on the introduction, cultivation and processing of hemp (Cannabis sativa L.) in southern Sweden (link to download – 2014)
http://www.academia.edu/11727026/New_evidence_on_the_introduction_cultivation_and_processing_of_hemp_Cannabis_sativa_L_

Investigation of traditional medicinal floral knowledge of Sarban Hills, Abbottabad, KP, Pakistan. (abst – 2015)

Hashish in Morocco and Lebanon: A comparative study (abst – 2016)

Cannabimimetic phytochemicals in the diet - an evolutionary link to food selection and metabolic stress adaptation? (abst – 2016)


Textual research on Han-Chinese formulae collected in Tubo medical manuscript unearthed in 'Bum-pa-Che Tower. (abst – 2017)

**HISTORY - 1937 to present** – a “fun” section with no date restrictions

**VICTOR LICATA**: A RUSH TO JUDGEMENT  (ebook – undated)  
http://reefermadnessmuseum.org/VictorLicata/Chap00_Index.htm

MEDICINAL USE OF CANNABIS: HISTORY AND CURRENT STATUS  
(full – undated)  
http://www.parl.gc.ca/content/sen/committee/371/ille/presentation/kalant-e.htm

Cannabis, Coca, & Poppy: Nature’s Addictive Plants - Cannabis  (article – undated)  
http://www.deamuseum.org/ccp/cannabis/history.html

THE LEGEND OF THE HOT TAMALE PEDDLER: What the Newspapers were saying:  (news – undated)  

STATEMENT OF DR. WILLIAM C. WOODWARD, LEGISLATIVE COUNSEL, AMERICAN MEDICAL ASSOCIATION, CHICAGO, ILL.  (full – 1937)  
http://www.druglibrary.org/schaffer/hemp/taxact/woodward.htm

The active principles of Cannabis indica resin. I.  (full - 1938)  

THE RELATIVE ACTIVITY OF VARIOUS PURIFIED PRODUCTS OBTAINED FROM AMERICAN GROWN HASHISH  (abst - 1938)  
http://jpet.aspetjournals.org/content/62/2/239.abstract?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabis&searchid=1&FIRSTINDEX=640&resourcetype=HWCIT

Description of the Hashish Experience  (download - 1938)  
Description of the Hashish Experience - Cannabis Cure

Marihuana: America's New Drug Problem  (1939)  

The Active Principles of Cannabis and the Pharmacology of the Cannabinols  
(full - 1940)  

The La Guardia Committee Report  (1944)  
http://www.druglibrary.org/schaffer/Library/studies/lag/lagmenu.htm
The Marihuana Problem (1st page - 1944)
http://jama.ama-assn.org/cgi/reprint/125/8/594-a?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabis&searchid=1&FIRSTINDEX=80&resource=HWCIT

PERSONALITY STUDIES OF MARIHUANA ADDICTS (1945)
http://www.pep-web.org/document.php?id=paq.017.0131c

MARIHUANA, AN INTOXICANT (abst - 1945)

MARIHUANA AND AGGRESSIVE CRIME (abst - 1946)

The Use of the Cannabis Drugs in India (full – 1957)

Marijuana in medicine: past, present and future. (full - 1969)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1503422/?tool=pmcentrez

The marijuana problem. (full – 1971)

Survey of adolescent drug use. I. Sex and grade distribution. (full – 1971)

The Marihuana Tax Act of 1937 (full - 1971)
http://www.druglibrary.org/schaffer/hemp/taxact/mjtaxact.htm

The Report of the National Commission on Marihuana and Drug Abuse
Marihuana: A Signal of Misunderstanding (full – 1972)
http://www.druglibrary.org/schaffer/library/studies/nc/ncmenu.htm

Decriminalization, demythologizing, desymbolizing and deemphasizing marijuana. (full – 1972)

Untoward effects of drug education. (full – 1973)


Ganja in Jamaica (book download – 1975)
Ganja in Jamaica: A Medical Anthropological Study of Chronic Marihuana Use

Paraquat and marijuana: epidemiologic risk assessment. (full - 1978)
Detection and analysis of paraquat in confiscated marijuana samples. (abst – 1978)

Marijuana - The First Twelve Thousand Years (book – 1980)
http://www.druglibrary.org/Schaffer/hemp/history/first12000/abel.htm

http://cifas.us/analyses/drehercourt.html

Evolution of a Roots Daughter (download – 1987)
The Evolution of a Roots Daughter

MARIJUANA RESCHEDULING PETITION RULING- JUDGE FRANCIS L. YOUNG

Newborn Outcomes With Maternal Marihuana Use in Jamaican Women
(download - 1988)
Newborn Outcomes With Maternal Marihuana Use in Jamaican Women

Physicians' attitudes toward the legalization of marijuana use. (full – 1989)

A Comparative Appraisal of the Health and Psychological Consequences of Alcohol, Cannabis, Nicotine and Opiate Use (full – 1995)
http://www.druglibrary.org/SCHAFFER/hemp/general/who-index.htm

Workshop on the Medical Utility of Marijuana (full - 1997)
http://www.sky.org/data/laaketiede/MedicalMJ.html

Cannabis as medicine: time for the phoenix to rise? (full – 1998)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1112898/?tool=pubmed

Hemp and Marijuana:Myths & Realities (full – 1998)
http://www.naihc.org/hemp_information/content/hemp.mj.html

Cannabis Report of the Swiss Federal Commission For Drug Issues (EKDF)

MARIJUANA AND MEDICINE: ASSESSING THE SCIENCE BASE

The Relationship between Research and Drug Policy in the United States
(article – 1999) http://cifas.us/analyses/laniel.html

Cannabis: Time for Scientific Evaluation of This Ancient Remedy? (full - 2000)

A REPORT OF THE NATIONAL COMMISSION ON GANJA TO Rt. Hon. P.J. PATTERSON, Q.C., M.P. PRIME MINISTER OF JAMAICA (full - 2001)
HISTORICAL AND CULTURAL USES OF CANNABIS AND THE CANADIAN "MARIJUANA CLASH" (full – 2002)
http://www.parl.gc.ca/content/sen/committee/371/ille/library/spicer-e.htm


The Ganja Complex: Rastafari and Marijuana (download – 2002)
The Ganja Complex: Rastafari and Marijuana.

Chronic Cannabis Use in the Compassionate Investigational New Drug Program: An Examination of Benefits and Adverse Effects of Legal Clinical Cannabis (summary - 2002) http://www.letfreedomgrow.com/cmu/chronic_cannabis_use.htm


The war on marijuana: The transformation of the war on drugs in the 1990s (full - 2006) http://www.harmreductionjournal.com/content/3/1/6


Retail marijuana purchases in designer and commercial markets in New York City: sales units, weights, and prices per gram. (full – 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2077843/?tool=pmcentrez

In the Matter of Lyle E Craker, Ph.D. Docket No. 05-16 (full – 2007) http://www.maps.org/research-archive/mmj/ALJfindings.PDF


The Army’s Conquest-by-Cannabinoid Fantasy (article – 2008)
O’Shaughnessy’s in 2008

Mexico decriminalizes small-scale drug possession. (abst – 2009)

Popular intoxicants: what lessons can be learned from the last 40 years of alcohol and cannabis regulation? (full – 2011)

War on Drugs- Global Commission Drug Report
(links to full, various languages – 2011)
http://www.globalcommissionondrugs.org/Report

History of Cannabis in India (article – 2011)
https://www.psychologytoday.com/blog/the-teenage-mind/201106/history-cannabis-in-india

How well do international drug conventions protect public health?
(abst - register free for full – 2011)
http://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2811%2961423-2/fulltext

Reported value of cannabis seizures in Australian newspapers: are they accurate? (abst – 2011)

Medical grade cannabis (MGC): regulation mechanisms, the present situation around the world and in Israel (abst – 2011)

It can't hurt to ask; a patient-centered quality of service assessment of health canada's medical cannabis policy and program. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3285527/?tool=pubmed

Medical Marijuana: Clearing Away the Smoke (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3358713/

Medical marijuana laws in 50 states: Investigating the relationship between state legalization of medical marijuana and marijuana use, abuse and dependence. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3251168/

The medicalisation of revolt: a sociological analysis of medical cannabis users. (link to PDF – 2012)

Former Supreme Court justice blasts minimum sentences for marijuana offenders. (article - 2012)
http://www.cmaj.ca/content/184/8/E391

History of Hemp (article – 2012)
http://www.innvista.com/health/foods/hemp/history-of-hemp/


The cannabis conundrum (article – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3808660/

2012 Division of Medicinal Chemistry Award Address: Trekking the Cannabinoid Road: A Personal Perspective. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4064474/


Stigma among California’s Medical Marijuana Patients (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4341951/


Cannabis in the United States (report – 2016) http://self.gutenberg.org/article/WHEBN0020566488/Cannabis%20in%20the%20United%20States


Tackling the Pharmaceutical Frontier: Regulation of Cannabinoid-Based Medicines in Postwar Japan (link to PDF – 2016) http://online.liebertpub.com/doi/full/10.1089/can.2015.0011


Evidence-based policy? The re-medicalization of cannabis and the role of expert committees in the UK, 1972-1982.  (abst – 2016)


**HIV / AIDS**

Pharmacological Treatment of Painful HIV-Associated Sensory Neuropathy: A Systematic Review and Meta-Analysis of Randomised Controlled Trials  (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3010990/?tool=pmcentrez

Immunoregulation of a CB2 receptor agonist in a murine model of neuroAIDS.  (full – 2010)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3109320/

Cannabinoids and Viral Infections  (full - 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2903762/?tool=pmcentrez

Cannabinoid Administration Attenuates the Progression of Simian Immunodeficiency Virus  (full - 2010)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3131805/

Cannabinoid inhibition of macrophage migration to the trans-activating (Tat) protein of HIV-1 is linked to the CB(2) cannabinoid receptor.  (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2846023/?tool=pubmed

Marijuana Use is Not Associated with Cervical Human Papillomavirus Natural History or Cervical Neoplasia in HIV-Seropositive or HIV-Seronegative Women  (full - 2010)
http://cebp.aacrjournals.org/content/19/3/869.full.pdf+html

Efficacy and tolerability of high-dose dronabinol maintenance in HIV-positive marijuana smokers: a controlled laboratory study.  (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3325767/

Chronic cannabinoid administration lowers viral replication in lymph nodes of SIV infected Rhesus macaques  (abst - 2010)
http://www.fasebj.org/content/24/1_Supplement/752.6.abstract?sid=fbdd98b1-1fa3-4724-b0c2-afc89e3b0c46


Cannabinoid Neuroimmune Modulation of SIV Disease.  (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3208744/

Tolerance to chronic delta-9-tetrahydrocannabinol (Δ⁹-THC) in rhesus macaques infected with simian immunodeficiency virus. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3140653/?tool=pubmed

Activation of cannabinoid type 2 receptors inhibits HIV-1 envelope glycoprotein gp120-induced synapse loss. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3164336/


The Therapeutic Potential of Cannabis and Cannabinoids (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3442177/


Magnitude of stimulation dictates the cannabinoid-mediated differential T cell response to HIVgp120 (full – 2013) http://www.jleukbio.org/content/92/5/1093.full
Marijuana Smoking Does Not Accelerate Progression of Liver Disease in HIV-Hepatitis C Coinfection: A Longitudinal Cohort Analysis. (full – 2013)
http://cid.oxfordjournals.org/content/early/2013/07/03/cid.cit378.long

Efavirenz does not cause false-positive urine cannabis test in HIV-infected patients on Highly Active Anti-Retroviral Therapy. (full – 2013)


CB2 Receptor Agonists Protect Human Dopaminergic Neurons against Damage from HIV-1 gp120. (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0077577

Attenuation of HIV-1 replication in macrophages by cannabinoid receptor 2 agonists. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3629438/


CB2 cannabinoid agonist enhanced neurogenesis in GFAP/Gp120 transgenic mice displaying deficits in neurogenesis. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3904265/

Medicinal Cannabis and Painful Sensory Neuropathy (editorial – 2013) http://journalofethics.ama-assn.org/2013/05/oped1-1305.html


Marijuana and Body Weight (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4204468/


Δ(9)-Tetrahydrocannabinol treatment during human monocyte differentiation reduces macrophage susceptibility to HIV-1 infection. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4019698/


Chronic administration of Δ9-tetrahydrocannabinol induces intestinal anti-inflammatory microRNA expression during acute SIV infection of rhesus macaques. (full – 2014) http://jvi.asm.org/content/89/2/1168.long

Medical marijuana: more questions than answers. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4243838/

High-Intensity Cannabis Use and Adherence to Antiretroviral Therapy Among People Who Use Illicit Drugs in a Canadian Setting. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4289662/

Impaired Neurogenesis by HIV-1-Gp120 is Rescued by genetic deletion of Fatty Acid Amide Hydrolase Enzyme. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4594266/


Inhaled medicinal cannabis and the immunocompromised patient (full – 2014) MASSC (yes, that’s all the link!)


Cannabinoid Receptor-2 and HIV-Associated Neurocognitive Disorders. (abst – 2014)

Attenuation of persistent pain-related behavior by fatty acid amide hydrolase (FAAH) inhibitors in a rat model of HIV sensory neuropathy. (abst – 2014)

Drugs of Abuse in HIV infection and neurotoxicity (full – 2015)
http://journal.frontiersin.org/article/10.3389/fmicb.2015.00217/full

Cannabis in cancer care. (full – 2015)
http://escholarship.org/uc/item/6367m6vj#page-1

Differential immune mechanism to HIV-1 Tat variants and its regulation by AEA (full – 2015)
http://www.nature.com/srep/2015/150505/srep09887/full/srep09887.html

Cannabis Use and Reduced Risk of Insulin Resistance in HIV-HCV Infected Patients: A Longitudinal Analysis (ANRS CO13 HEPAVIH) (full – 2015)
http://cid.oxfordjournals.org/content/61/1/40.long

http://journal.frontiersin.org/article/10.3389/fmicb.2015.01452/full

Narrative review of the safety and efficacy of marijuana for the treatment of commonly state-approved medical and psychiatric disorders (full – 2015)

Neighborhood-level and individual-level correlates of cannabis use among young persons living with HIV/AIDS (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4447557/

Activation of Cannabinoid Type Two Receptors (CB2) Diminish Inflammatory Responses in Macrophages and Brain Endothelium. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4795159/


Longitudinal examination of the intestinal lamina propria cellular compartment of SIV-infected rhesus macaques provides broader and deeper insights into the link between aberrant microRNA expression and persistent immune activation. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4859716/


Medical use of cannabis products: Lessons to be learned from Israel and Canada. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/26767992

Cannabinoids Occlude the HIV-1 Tat-Induced Decrease in GABAergic Neurotransmission in Prefrontal Cortex Slices. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/26993829


**HOMEOSTASIS** + - keeping your body running like it should run.

N-oleoyldopamine enhances glucose homeostasis through the activation of GPR119. (full – 2010) http://mend.endojournals.org/content/24/1/161.long
Modulation of sweet taste sensitivity by orexigenic and anorexigenic factors. (full – 2010)  
https://www.jstage.jst.go.jp/article/endocrj/57/6/57_K10E-095/_pdf

Endocannabinoids selectively enhance sweet taste. (full – 2010)  
http://www.pnas.org/content/107/2/935.long

Effect of dietary fat on endocannabinoids and related mediators: consequences on energy homeostasis, inflammation and mood. (abst - 2010)  

GPR119 Regulates Murine Glucose Homeostasis Through Incretin Receptor-Dependent and Independent Mechanisms (full – 2011)  
http://endo.endojournals.org/content/152/2/374.full?sid=c7413b30-1046-4f9c-b028-c46f78f293d9

The Endocannabinoid System as Pharmacological Target Derived from Its CNS Role in Energy Homeostasis and Reward. Applications in Eating Disorders and Addiction (link to PDF - 2011)  

Homeostatic changes of the endocannabinoid system in Parkinson's disease. (abst – 2011)  
http://www.unboundmedicine.com/medline/ebm/record/21412829/abstract/Homeostatic_changes_of_the_endocannabinoid_system_in_Parkinson%27s_disease

Peripheral effects of the endocannabinoid system in energy homeostasis: adipose tissue, liver and skeletal muscle. (abst – 2011)  

Cannabinoid receptor 1 in the vagus nerve is dispensable for body weight homeostasis but required for normal gastrointestinal motility. (full – 2012)  
http://www.jneurosci.org/content/32/30/10331.long

Over-Expression of Monoacylglycerol Lipase (MGL) in Small Intestine Alters Endocannabinoid Levels and Whole Body Energy Balance, Resulting in Obesity. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3429419/

Cannabinoid receptor 1 in the vagus nerve is dispensable for body weight homeostasis but required for normal gastrointestinal motility. (full – 2012)  
http://www.jneurosci.org/content/32/30/10331.long

Cannabinoid receptor 1 in the vagus nerve is dispensable for body weight homeostasis but required for normal gastrointestinal motility. (full – 2012)  
http://www.jneurosci.org/content/32/30/10331.long

Hypothalamic CB1 Cannabinoid Receptors Regulate Energy Balance in Mice (full – 2012)  

Neural Substrates Underlying Interactions between Appetite Stress and Reward (full – 2012)  
https://www.karger.com/Article/FullText/338237
Cannabidiol affects the expression of genes involved in zinc homeostasis in BV-2 microglial cells. (abst – 2012)  


Cannabinoid signalling regulates inflammation and energy balance: The importance of the brain-gut axis. (abst – 2012)  

Moderation of antipsychotic-induced weight gain by energy balance gene variants in the RUPP autism network risperidone studies (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3693401/

Palmitoylethanolamide in Homeostatic and Traumatic Central Nervous System Injuries (link to PDF - 2013)  
http://www.eurekaselect.com/107976/article

Effect of intermittent cold exposure on brown fat activation, obesity, and energy homeostasis in mice. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3895006/

Endogenous Signaling by Omega-3 Docosahexaenoic Acid-derived Mediators Sustains Homeostatic Synaptic and Circuitry Integrity. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3180614/

The endocannabinoid system and the neuroendocrine control of hydromineral balance. (full – 2014)  

TRP channel cannabinoid receptors in skin sensation, homeostasis, and inflammation. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4240254/

Mitochondria: A Possible Nexus for the Regulation of Energy Homeostasis by the Endocannabinoid System? (full – 2014)  
http://ajpendo.physiology.org/content/ajpendo/307/1/E1.full.pdf

Cannabinoid Type 1 (CB1) Receptors on Sim1-Expressing Neurons Regulate Energy Expenditure in Male Mice (full – 2014)  

Cannabinoids, eating behaviour, and energy homeostasis. (abst – 2014)  

Endocannabinoids and energy homeostasis: An update. (abst – 2014)  

Homeostatic regulation of brain functions by endocannabinoid signaling (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4468750/
Changes in Plasma Levels of N-Arachidonoyl Ethanolamine and N-Palmitoylethanolamine following Bariatric Surgery in Morbidly Obese Females with Impaired Glucose Homeostasis. (full – 2015)

Global deletion of monoacylglycerol lipase in mice delays lipid absorption and alters energy homeostasis and diet-induced obesity. (full – 2015)
http://www.jlr.org/content/early/2015/04/04/jlr.M058586.long

Restoring homeostasis of CD4(+) T cells in hepatitis-B-virus-related liver fibrosis. (full – 2015)
http://www.wignet.com/1007-9327/full/v21/i38/10721.htm

Anticipatory and consummatory effects of (hedonic) chocolate intake are associated with increased circulating levels of the orexigenic peptide ghrelin and endocannabinoids in obese adults. (full – 2015)
http://www.foodandnutritionresearch.net/index.php/fnr/article/view/29678

Fine-tuning of synaptic upscaling at excitatory synapses by endocannabinoid signaling is mediated via the CB1 receptor. (full – 2015)
http://www.nature.com/articles/srep16257

Hypothalamic control of brown adipose tissue thermogenesis. (full – 2015)

Anti-Obesity Effect of the CB2 Receptor Agonist JWH-015 in Diet-Induced Obese Mice. (full – 2015)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0140592

Cannabinoid CB1 receptors and mTORC1 signalling pathway interact to modulate glucose homeostasis (full – 2015)
http://dmm.biologists.org/content/9/1/51.long

The role of AMP-activated protein kinase (AMPK) in the androgenic potentiation of cannabinoid-induced changes in energy homeostasis. (full – 2015)

Fetal endocannabinoids orchestrate the organization of pancreatic islet microarchitecture. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4653226/

Endocannabinoid Catabolic Enzymes Play Differential Roles in Thermal Homeostasis in Response to Environmental or Immune Challenge. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4477849/

Type 1 cannabinoid receptor modulates water deprivation-induced homeostatic responses. (full – 2015)
http://ajpregu.physiology.org/content/309/11/R1358.long

Type 1 cannabinoid receptor modulates water deprivation-induced homeostatic responses. (full – 2015)
http://ajpregu.physiology.org/content/309/11/R1358.long

The type-1 cannabinoid receptor modulates the hydroelectrolytic balance independently of the energy homeostasis during salt load (abst – 2015) http://www.sciencedirect.com/science/article/pii/S0018506X15301252


Endocannabinoid regulation in white and brown adipose tissue following thermogenic activation (full – 2016) http://www.jlr.org/content/early/2016/01/14/jlr.M065227.full.pdf+html?sid=da020ee7-4e2e-40b6-a400-27301739341e

CB1 receptor blockade counters age-induced insulin resistance and metabolic dysfunction. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4783351/

An Increase in the Omega-6/Omega-3 Fatty Acid Ratio Increases the Risk for Obesity (full – 2016) http://www.mdpi.com/2072-6643/8/3/128/htm

Modulation of cellular redox homeostasis by the endocannabinoid system. (full – 2016) http://rsob.royalsocietypublishing.org/content/6/4/150276


Mice Expressing a "Hyper-Sensitive" Form of the Cannabinoid Receptor 1 (CB1) Are Neither Obese Nor Diabetic. (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0160462

Interaction between Cannabinoid System and Toll-Like Receptors Controls Inflammation. (full – 2016) https://www.hindawi.com/journals/mi/2016/5831315/


Exposure to a Highly Caloric Palatable Diet during the Perinatal Period Affects the Expression of the Endogenous Cannabinoid System in the Brain, Liver and Adipose Tissue of Adult Rat Offspring. (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0165432


Childhood Maltreatment in the Migraine Patient. (abst – 2016) 

Endocannabinoid System in Neurological Disorders. (abst – 2016) 

Microglia activation states and cannabinoid system: Therapeutic implications. (abst – 2016) 

Heterologous Regulation of the Cannabinoid Type 1 Receptor by Angiotensin II in Astrocytes of Spontaneously Hypertensive Rats. (abst – 2016)  

Endocannabinoids in the gut. (abst – 2016) 

The gastrointestinal tract - a central organ of cannabinoid signaling in health and disease. (abst – 2016) 

From Phytocannabinoids to Cannabinoid Receptors and Endocannabinoids: Pleiotropic Physiological and Pathological Roles Through Complex Pharmacology. (abst – 2016) 

Cannabinoids and GI Disorders: Endogenous and Exogenous. (abst – 2016) 

Chronic FAAH inhibition during nicotine abstinence alters habenular CB1 receptor activity and precipitates depressive-like behaviors (abst – 2016) 

Revealing the role of the endocannabinoid system modulators, SR141716A, URB597 and VDM-11, in sleep homeostasis. (abst – 2016) 

Cannabimimetic phytochemicals in the diet - an evolutionary link to food selection and metabolic stress adaptation? (abst – 2016) 

From adolescent to elder rats: Motivation for palatable food and cannabinoids receptors. (abst – 2016) 
https://www.ncbi.nlm.nih.gov/pubmed/27935269

CB2 receptors regulate natural killer cells that limit allergic airway inflammation in a murine model of asthma. (abst – 2016) 

Targeting Cutaneous Cannabinoid Signaling in Inflammation - A “High”-way to Heal? (full – 2017) 
http://www.ebiomedicine.com/article/S2352-3964(17)30003-8/fulltext

The Endocannabinoid System and Its Role in Eczematous Dermatoses.
N-Oleoylglycine-induced hyperphagia was associated with the activation of AgRP neuron by CB1R. (abst – 2017) https://www.ncbi.nlm.nih.gov/pubmed/28102080


**HORMONES**

Endogenous cannabinoid signaling is essential for stress adaptation (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2889099/?tool=pmcentrez

Regulation of the Hypothalamic-Pituitary-Adrenal Axis Circadian Rhythm by Endocannabinoids Is Sexually Diergic (full – 2010) http://endo.endojournals.org/content/151/8/3720.full?sid=f9729eef-d221-42d4-81d8-8545db5df878

The relationship between plasma levels of the endocannabinoid, anandamide, sex steroids, and gonadotrophins during the menstrual cycle. (full - 2010) http://www.fertstert.org/article/S0015-0282(08)2904739-0/fulltext


An endocannabinoid system is localized to the hypophysial pars tuberalis of Syrian hamsters and responds to photoperiodic changes. (abst – 2010) http://www.ncbi.nlm.nih.gov/pubmed/20165884

The type 2 cannabinoid receptor protects against age-related bone loss and ovariectomy induced bone loss by stimulating bone formation (abst – 2010) http://www.thebonejournal.com/article/S8756-3282(10)2900619-8/abstract


The role of sex steroid hormones, cytokines and the endocannabinoid system in female fertility.  (full – 2011)  
http://humupd.oxfordjournals.org/content/17/3/347.long

Gut fat sensing in the negative feedback control of energy balance--recent advances.  (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3139739/

Endogenous Cannabinoid Production in the Rat Female Reproductive Tract Is Regulated by Changes in the Hormonal Milieu  (link to PDF – 2011)  
http://www.mdpi.com/1424-8247/4/6/933

Antinociception and sedation following intracerebroventricular administration of Δ⁹-tetrahydrocannabinol in female vs. male rats.  (abst – 2011)  
http://www.unboundmedicine.com/medline/ebm/record/20692296/abstract/Antinociception_and_sedation_following_intracerebroventricular_administration_of_Δ⁹%C2%B9_tetrahydrocannabinol_in_female_vs_male_rats

Interaction of endocannabinoid system and steroid hormones in the control of colon cancer cell growth.  (abst – 2011)  

CB1 cannabinoid receptor mediates glucocorticoid effects on hormone secretion induced by volume and osmotic changes.  (abst – 2011)  

Ghrelin-mediated appetite regulation in the central nervous system.  (abst – 2011)  

Sex Hormones Levels as Influenced by Cannabis sativa in Rats and Men  (full – 2012)  

Minireview: Endocannabinoids and Gonadal Hormones: Bidirectional Interactions in Physiology and Behavior  (full – 2012)  

Effects of gonadal hormones on the peripheral cannabinoid receptor 1 (CB1R) system under a myositis condition in rats.  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3578305/

Chronic Cannabis Abuse, Delta-9-tetrahydrocannabinol and Thyroid Function.  (full – 2012)  

Progesterone-dependent regulation of endometrial cannabinoid receptor type 1 (CB1-R) expression is disrupted in women with endometriosis and in isolated stromal cells exposed to 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD).  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3462249/
CHRONIC, NONINVASIVE GLUCOCORTICOID ADMINISTRATION SUPPRESSES LIMBIC ENDOCANNABINOID SIGNALING IN MICE
(full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3697830/

Neural Substrates Underlying Interactions between Appetite Stress and Reward

Effects of CP 55,940--agonist of CB1 cannabinoid receptors on ghrelin and somatostatin producing cells in the rat pancreas. (link to PDF – 2012)
https://journals.viamedica.pl/folia_histochemica_cytobiologica/article/view/18705

Cannabinoid CB(1) receptor mediates glucocorticoid effects on hormone secretion induced by volume and osmotic changes. (abst – 2012)

Implantation failure in mice with a disruption in Phospholipase C beta 1 gene: lack of embryonic attachment, aberrant steroid hormone signalling and defective endocannabinoid metabolism (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3632219/


The CB1 receptor mediates the peripheral effects of ghrelin on AMPK activity but not on growth hormone release (full – 2013) http://www.fasebj.org/content/27/12/5112.long

The Endocannabinoid System and Spermatogenesis. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3864102/

The Endocannabinoid System and Sex Steroid Hormone-Dependent Cancers (full – 2013) http://www.hindawi.com/journals/ije/2013/259676/

Food for thought: hormonal, experiential, and neural influences on feeding and obesity. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3818543/

Of mice and (wo)men: factors influencing successful implantation including endocannabinoids. (full – 2013)
http://humupd.oxfordjournals.org/content/20/3/415.long

The role of androgen receptor in transcriptional modulation of cannabinoid receptor type 1 gene in rat trigeminal ganglia. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3870904/

Endocannabinoid Signaling in Hypothalamic-Pituitary-Adrenocortical Axis Recovery Following Stress: Effects of Indirect Agonists and Comparison of Male and Female Mice. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3929302/


Pregnenolone can protect the brain from cannabis intoxication.  (full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4057431/


The effects of leptin in combination with a cannabinoid receptor 1 antagonist, AM 251, or cannabidiol on food intake and body weight in rats fed a high-fat or a free-choice high
sugar diet. (full – 2014)

Honokiol inhibits androgen receptor activity in prostate cancer cells (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3946953/

Role of corticosterone in the murine enteric nervous system during fasting. (full – 2014)
http://ajpgi.physiology.org/content/307/9/G905

Endocannabinoid Signaling within the Basolateral Amygdala Integrates Multiple Stress Hormone Effects on Memory Consolidation. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4397407/

Nutritional omega-3 modulates neuronal morphology in the prefrontal cortex along with depression-related behaviour through corticosterone secretion (full – 2014)
http://www.nature.com/tp/journal/v4/n9/full/tp201477a.html

Cyclic ovarian hormone modulation of supraspinal Δ9-tetrahydrocannabinol-induced antinociception and cannabinoid receptor binding in the female rat. (abst – 2014)

The role of gut hormones in appetite regulation (review). (abst – 2014)

Endocannabinoid Modulation of Synaptic Inputs to Magnocellular Neurons (abst - 2014)

Gastrointestinal hormonal responses on GPR119 activation in lean and diseased rodent models of type 2 diabetes. (abst – 2014)

2-Arachidonoyl glycerol sensitizes the pars distalis and enhances forskolin-stimulated prolactin secretion in Syrian hamsters. (abst – 2014)

Sex-dependent vulnerability to Cannabis abuse in adolescence (full – 2015)

Rapid Non-Genomic Glucocorticoid Actions in Male Mouse Hypothalamic Neuroendocrine Cells Are Dependent on the Nuclear Glucocorticoid Receptor. (full – 2015)

Hormonal status and age differentially affect tolerance to the disruptive effects of delta-9-tetrahydrocannabinol (Δ(9)-THC) on learning in female rats. (full – 2015)

Enhancing Brain Pregnenolone May Protect Cannabis Intoxication but Should Not Be Considered as an Anti-addiction Therapeutic: Hypothesizing Dopaminergic Blockade and
A synergistic interaction of 17-β-estradiol with specific cannabinoid receptor type 2 antagonist/inverse agonist on proliferation activity in primary human osteoblasts. (full – 2015)

Proapoptotic effect of endocannabinoids in prostate cancer cells. (full – 2015)

Corticotropic-Releasing Hormone Drives Anandamide Hydrolysis in the Amygdala to Promote Anxiety. (full - 2015)

The role of AMP-activated protein kinase (AMPK) in the androgenic potentiation of cannabinoid-induced changes in energy homeostasis. (full – 2015)

Fetal endocannabinoids orchestrate the organization of pancreatic islet microarchitecture. (full – 2015)

Gonadal hormones do not alter the development of antinociceptive tolerance to delta-9-tetrahydrocannabinol in adult rats. (full - 2015)

A New Perspective on the Pathophysiology of Borderline Personality Disorder: A Model of the Role of Oxytocin. (full – 2015)

Type 1 cannabinoid receptor modulates water deprivation-induced homeostatic responses. (full – 2015)

The impact of gonadal hormones on cannabinoid dependence. (full – 2015)

Progesterone and anandamide in pregnancy loss (full – 2015)

Sex-dependence of anxiety-like behavior in cannabinoid receptor 1 (Cnr1) knockout mice. (abst – 2015)

Dose-response estrogen promotes osteogenic differentiation via GPR40 (FFAR1) in murine BMMSCs. (abst - 2015)

Lipopolysaccharide-induced murine embryonic resorption involves changes in endocannabinoid profiling and alters progesterone secretion and inflammatory response by a CB1-mediated fashion. (abst – 2015)
Evidence against a critical role of CB1 receptors in adaptation of the hypothalamic-pituitary-adrenal axis and other consequences of daily repeated stress.  
(abst – 2015)  

The endocannabinoid anandamide affects the synthesis of human syncytiotrophoblast-related proteins.  
(abst – 2015)  

Rhythmic control of endocannabinoids in the rat pineal gland  

Effects of CB1 receptor agonism and antagonism on behavioral fear and physiological stress responses in adult intact, ovariectomized, and estradiol-replaced female rats.  
(abst – 2015)  

Endocannabinoids and the Endocrine System in Health and Disease.  

Intracellular postsynaptic cannabinoid receptors link thyrotropin-releasing hormone receptors to TRPC-like channels in thalamic paraventricular nucleus neurons.  
(abst – 2015)  

Inhibition of anandamide hydrolysis dampens the neuroendocrine response to stress in neonatal rats subjected to suboptimal rearing conditions.  
(abst – 2015)  

Endocannabinoid Regulation of Neuroendocrine Systems.  

The endocannabinoid 2-arachidonoylgllycerol dysregulates the synthesis of proteins by the human syncytiotrophoblast.  
(abst – 2015)  

Modulation of cannabinoid signaling by amygdala α2-adrenergic system in fear conditioning.  

Stress and memory: A selective review on recent developments in the understanding of stress hormone effects on memory and their clinical relevance.  
(abst – 2015)  

Endocannabinoid signaling integrates multiple stress hormone effects on memory  
(abst – 2015)  
http://www.psyneuen-journal.com/article/S0306-4530%2815%2900634-4/abstract

The fatty acid amide hydrolase inhibitor URB597 modulates serotonin-dependent emotional behaviour, and serotonin1A and serotonin2A/C activity in the hippocampus.  
(abst – 2015)  
Allosteric Modulation of CB1 by Pregnenolone  (abst – 2015)
http://www.fasebj.org/content/29/1_Supplement/LB60.abstract?sid=edf921ac-0690-4aa6-ac81-0546314dd384

Oxytocin Enhances Pleasure of Social Interactions by Stimulating Production of “Bliss Molecule”  (news & abstract – 2015)
http://neurosciencenews.com/oxytocin-anandamide-2926/

Modulation of Fear Extinction by Stress, Stress Hormones and Estradiol: A Review  (full – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4726806/

CB2 cannabinoid receptor is involved in the anti-inflammatory effects of leptin in a model of traumatic brain injury.  (full – 2016)

Estrogen Receptor Beta and 2-arachidonoylglycerol Mediate the Suppressive Effects of Estradiol on Frequency of Postsynaptic Currents in Gonadotropin-Releasing Hormone Neurons of Metestrous Mice: An Acute Slice Electrophysiological Study.  (full – 2016)

Cannabinoid receptor type-1: breaking the dogmas.  (full – 2016)
http://f1000research.com/articles/5-990/v1

Estradiol impacts the endocannabinoid system in female rats to influence behavioral and structural responses to cocaine.  (full – 2016)

Synthetic cannabinoids revealing adrenoleukodystrophy  (full – 2016)

Prolonged activation of human islet cannabinoid receptors in vitro induces adaptation but not dysfunction.  (full – 2016)

L-type calcium channels and MAP kinase contribute to thyrotropin-releasing hormone induced depolarization in thalamic paraventricular nucleus neurons.  (full – 2016)
http://ajpregu.physiology.org/content/310/11/R1120.long

5-lipoxygenase mediates docosahexaenoyl ethanolamide and N-arachidonoyl-L-alanine-induced reactive oxygen species production and inhibition of proliferation of head and neck squamous cell carcinoma cells.  (full – 2016)

Progesterone and Endocannabinoid Interaction Alters Sperm Activation  (full – 2016)
http://www.biolreprod.org/content/95/1/9.long
Exposure to a Highly Caloric Palatable Diet during the Perinatal Period Affects the Expression of the Endogenous Cannabinoid System in the Brain, Liver and Adipose Tissue of Adult Rat Offspring.  
(full – 2016)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0165432

Orexin-A represses satiety-inducing POMC neurons and contributes to obesity via stimulation of endocannabinoid signaling.  
(full – 2016)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4855580/

Selective Estrogen Receptor Modulators: Cannabinoid Receptor Inverse Agonists with Differential CB1 and CB2 Selectivity.  
(full – 2016)  

The endocannabinoid system in the human granulosa cell line KGN.  
(abst – 2016)  

Reductions in circulating endocannabinoid 2-arachidonoylglycerol levels in healthy human subjects exposed to chronic stressors.  
(abst – 2016)  

Sex Differences in Cannabinoid-Regulated Biology: A Focus on Energy Homeostasis  
(abst – 2016)  

Interactions between anandamide & corticotropin-releasing hormone signaling modulate human amygdala function & risk for anxiety disorders: An imaging genetics strategy for modeling molecular interactions  
(abst – 2016)  

Sustained glucocorticoid exposure recruits cortico-limbic CRH signaling to modulate endocannabinoid function.  
(abst – 2016)  

Regulation of Growth Hormone by the Splanchnic Area.  
(abst – 2016)  

Sex differences in hippocampal response to endocannabinoids after exposure to severe stress.  
(abst – 2016)  

Unconventional endocannabinoid signaling governs sperm activation via sex hormone progesterone.  
(abst – 2016)  

Interactions Between Anandamide and Corticotropin-Releasing Hormone Signaling Modulate Human Amygdala Function and Risk for Anxiety Disorders: An Imaging Genetics Strategy for Modeling Molecular Interactions.  
(abst – 2016)  

Sustained glucocorticoid exposure recruits cortico-limbic CRH signaling to modulate endocannabinoid function.  
(abst – 2016)  
http://www.psyneuen-journal.com/article/S0306-4530(16)30003-8/abstract
Dietary conjugated linoleic acid supplementation alters the expression of genes involved in the endocannabinoid system in the bovine endometrium and increases plasma progesterone concentrations. (abst – 2016)


Sex differences in alcohol consumption and alterations in nucleus accumbens endocannabinoid mRNA in alcohol-dependent rats. (abst – 2016)

Gonadal hormone modulation of Δ9-tetrahydrocannabinol-induced antinociception and metabolism in female versus male rats. (abst – 2016)

Revealing the role of the endocannabinoid system modulators, SR141716A, URB597 and VDM-11, in sleep homeostasis. (abst – 2016)

Parabens inhibit fatty acid amide hydrolase: A potential role in paraben-enhanced 3T3-L1 adipocyte differentiation. (abst – 2016)

Overlapping molecular pathways between cannabinoid receptors type 1 and 2 and estrogens/androgens on the periphery and their involvement in the pathogenesis of common diseases (Review). (abst – 2016)


The CB1 receptor is required for the establishment of the hyperlocomotor phenotype in developmentally-induced hypothyroidism in mice. (abst – 2016) http://www.sciencedirect.com/science/article/pii/S0028390816305822

**HPV/HUMAN PAPILLOMA VIRUS** +

Cannabinoids and Viral Infections (full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2903762/?tool=pmcentrez

Marijuana Use is Not Associated with Cervical Human Papillomavirus Natural History or Cervical Neoplasia in HIV-Seropositive or HIV-Seronegative Women (full - 2010)  
http://cebp.aacrjournals.org/content/19/3/869.full.pdf+html

**HUNTINGTON'S DISEASE** + - a progressive brain disorder caused by a defective gene

Widespread Decrease of Type 1 Cannabinoid Receptor Availability in Huntington Disease In Vivo (full – 2010)  
http://jnmp.snmjournals.org/cgi/content/full/51/9/1413

Enhancement of endocannabinoid signaling by fatty acid amide hydrolase inhibition: a neuroprotective therapeutic modality. (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2848893/?tool=pubmed

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931573/?tool=pubmed

Loss of cannabinoid CB1 receptor expression in the 6-hydroxydopamine-induced nigrostriatal terminal lesion model of Parkinson's disease in the rat. (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3659808/

Cannabinoids and Dementia: A Review of Clinical and Preclinical Data (link to PDF – 2010)  

The endocannabinoid system in gp120-mediated insults and HIV-associated dementia. (abst – 2010)  

Behavioural and molecular consequences of chronic cannabinoid treatment in Huntington's disease transgenic mice. (abst – 2010)  
http://www.unboundmedicine.com/medline/ebm/record/20600638/abstract/Behavioural_and_molecular_consequences_of_chronic_cannabinoid_treatment_in_Huntington%27s_disease_transgenic_mice

Is lipid signaling through cannabinoid 2 receptors part of a protective system? (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3062638/

Prospects for cannabinoid therapies in basal ganglia disorders. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165947/

Loss of striatal type 1 cannabinoid receptors is a key pathogenic factor in Huntington's disease. (full – 2011)  
http://brain.oxfordjournals.org/content/134/1/119.long


Metabolic and Type 1 cannabinoid receptor imaging of a transgenic rat model in the early phase of Huntington disease  (abst – 2011)  http://www.unboundmedicine.com/medline/ebm/record/21459091/abstract/Metabolic_and_Type_1_cannabinoid_receptor_imaging_of_a_transgenic_rat_model_in_the_early_phase_of_Huntington_disease


Sativex-like Combination of Phytocannabinoids is Neuroprotective in Malonate-Lesioned Rats, an Inflammatory Model of Huntington's Disease: Role of CB(1) and CB(2) Receptors.  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3382456/

Review article: The endocannabinoid system in normal and pathological brain ageing  (full – 2012)  http://rstb.royalsocietypublishing.org/content/367/1607/3326.full?sid=161e7b36-5055-448b-962e-697c782e901d


Cannabinoid Receptor 2 Signaling in Peripheral Immune Cells Modulates Disease Onset and Severity in Mouse Models of Huntington's Disease.  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3753072/

Cannabidiol for neurodegenerative disorders: important new clinical applications for this phytocannabinoid?  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3579248/

Downregulation of cannabinoid receptor 1 from neuropeptide Y interneurons in the basal ganglia of patients with Huntington's disease and mouse models.  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3699342/
Targeting the endocannabinoid system with cannabinoid receptor agonists: pharmacological strategies and therapeutic possibilities  (full – 2012)  
http://rstb.royalsocietypublishing.org/content/367/1607/3353.full?sid=1569c370-cd5c-4358-89ff-857201f5e069


The Influence of Cannabinoids on Generic Traits of Neurodegeneration.  (full – 2013)  

In vitro and in vivo models of Huntington's disease show alterations in the endocannabinoid system.  (full – 2013)  

Cannabinoids increase type 1 cannabinoid receptor expression in a cell culture model of striatal neurons: implications for Huntington's disease.  (abst – 2013)  

CNR1 variation is associated with the age at onset in Huntington disease.  (abst – 2013)  


The cytokine and endocannabinoid systems are co-regulated by NF-κB p65/RelA in cell culture and transgenic mouse models of Huntington's disease and in striatal tissue from Huntington's disease patients.  (abst – 2013)  

The endocannabinoid system: a putative role in neurodegenerative diseases.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4070159/

Differential effects of delayed aging on phenotype and striatal pathology in a murine model of huntington disease.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4236397/

http://www.mdpi.com/1420-3049/19/11/18781/htm

ABHD6 Blockade Exerts Antiepileptic Activity in PTZ-Induced Seizures and in Spontaneous Seizures in R6/2 Mice  (full – 2014)  

Neuroprotective Properties of Cannabigerol in Huntington's Disease: Studies in R6/2 Mice and 3-Nitropropionate-lesioned Mice.  (full - 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4322067/
Genetic rescue of CB1 receptors on medium spiny neurons prevents loss of excitatory striatal synapses but not motor impairment in HD mice. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4180675/

http://www.safeaccessnow.org/medical_cannabis_research_what_does_the_evidence_say

Mechanisms of synaptic dysfunction and excitotoxicity in Huntington's disease. (abst – 2014)  

Cannabinoid receptor CB2 is expressed on vascular cells, but not astroglial cells in the post-mortem human Huntington's disease brain. (abst – 2014)  

Early decrease of type 1 cannabinoid receptor binding and phosphodiesterase 10A activity in vivo in R6/2 Huntington mice. (abst – 2014)  

Chronic cannabinoid receptor stimulation selectively prevents motor impairments in a mouse model of Huntington's disease. (abst – 2014)  

The therapeutic efficacy of cannabinoid receptor type 1 ligands in Huntington's disease may depend on their functional selectivity (abst – 2014)  
http://www.fasebj.org/content/28/1_Supplement/846.6.abstract?sid=467bb529-0ecc-4ddc-af27-3f56f520a102

Components of the endocannabinoid and dopamine systems are dysregulated in Huntington's disease: analysis of publicly available microarray datasets (full - 2015)  

The CB1 cannabinoid receptor signals striatal neuroprotection via a PI3K/Akt/mTORC1/BDNF pathway. (full – 2015)  
http://www.nature.com/cdd/journal/vaop/current/full/cdd201511a.html

Biased Type 1 Cannabinoid Receptor Signalling Influences Neuronal Viability in a Cell Culture Model of Huntington Disease. (full – 2015)  
http://molpharm.aspetjournals.org/content/early/2015/12/23/mol.115.101980.long

The therapeutic potential of cannabinoids for movement disorders. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4357541/

Cannabinoids and Tremor Induced by Motor-related Disorders: Friend or Foe? (full – 2015)  


Endocannabinoids and Neurodegenerative Disorders: Parkinson's Disease, Huntington's Chorea, Alzheimer's Disease, and Others. (abst – 2015) http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_8

VCE-003.2, a novel cannabigerol derivative, enhances neuronal progenitor cell survival and alleviates symptomatology in murine models of Huntington's disease. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4949444/


Singular Location and Signaling Profile of Adenosine A2A-Cannabinoid CB1 Receptor Heteromers in the Dorsal Striatum. (link to download – 2017) http://www.nature.com/npp/journal/vaop/naam/abs/npp201712a.html
HYDROCEPHALUS

Cannabinoid Receptor 2 Activation Restricts Fibrosis and Alleviates Hydrocephalus after Intraventricular Hemorrhage. (abst – 2016)

>HYPEREKPLEXIA DISEASE – see STIFF PERSON SYNDROME

>HYPEREMESIS see CANNABINOID HYPEREMESIS SYNDROME

>HYSTERECTOMY - See PRE-2000 List

IBS/ IBD + - also see BOWEL DISORDERS

Small intestinal cannabinoid receptor changes following a single colonic insult with oil of mustard in mice. (full – 2010)

Cannabidiol reduces intestinal inflammation through the control of neuroimmune axis. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3232190/?tool=pubmed

Is lipid signaling through cannabinoid 2 receptors part of a protective system? (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3062638/

The endogenous cannabinoid system in the gut of patients with inflammatory bowel disease. (full – 2011) http://www.nature.com/mi/journal/v4/n5/full/mi201118a.html

Pharmacogenetic Trial of a Cannabinoid Agonist Shows Reduced Fasting Colonic Motility in Patients with Non-Constipated Irritable Bowel Syndrome. (full – 2011)

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3202649/

Cannabis use amongst patients with inflammatory bowel disease. (abst – 2011)

Cannabinoid receptor 1 gene polymorphism and irritable bowel syndrome in the Korean population: a hypothesis-generating study. (abst – 2011)

Role of cannabinoid receptors and RAGE in inflammatory bowel disease. (abst – 2011)

Irritable bowel syndrome: a dysfunction of the endocannabinoid system? (full – 2012)
http://www.gastrojournal.org/article/S0016-5085%2811%2901710-0/fulltext

The Gastrointestinal Pharmacology of Cannabinoids: Focus on Motility. (full – 2012)
http://www.karger.com/Article/FullText/339072

Genetic Epidemiology and Pharmacogenetics in Irritable Bowel Syndrome. (full - 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3362100/

Irritable Bowel Syndrome: Methods, Mechanisms, and Pathophysiology. Genetic epidemiology and pharmacogenetics in irritable bowel syndrome (full – 2012)
http://ajpgi.physiology.org/content/302/10/G1075

Randomized pharmacodynamic and pharmacogenetic trial of dronabinol effects on colon transit in irritable bowel syndrome-diarrhea. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3775711/

Gut microbiota and the development of obesity. (full – 2012)

The endocannabinoid system in inflammatory bowel diseases: from pathophysiology to therapeutic opportunity. (abst – 2012)

Cannabidiol in Inflammatory Bowel Diseases: A Brief Overview. (abst – 2012)

Agents that act luminally to treat diarrhoea and constipation. (abst – 2012)

Cannabis Finds Its Way into Treatment of Crohn's Disease. (full – 2013)
http://www.karger.com/Article/Pdf/356512

Irritable Bowel Syndrome and Migraine: Bystanders or Partners? (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3714407/

Endocannabinoid and Cannabinoid-Like Fatty Acid Amide Levels Correlate with Pain-Related Symptoms in Patients with IBS-D and IBS-C: A Pilot Study. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3874007/

Cannabinoid Receptor 1 Gene and Irritable Bowel Syndrome: Phenotype and Quantitative Traits. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3602676/

Inhibition of p38/Mk2 signaling pathway improves the anti-inflammatory effect of WIN55 on mouse experimental colitis. (full – 2013) http://www.nature.com/labinvest/journal/v93/n3/full/labinvest2012177a.html


Industrial hemp decreases intestinal motility stronger than indian hemp in mice. (link to PDF – 2013) http://www.europeanreview.org/article/3266


Interleukin 17A evoked mucosal damage is attenuated by cannabidiol and anandamide in a human colonic explant model. (abst – 2013) http://www.sciencedirect.com/science/article/pii/S1043466613007345


Care and Feeding of the Endocannabinoid System: A Systematic Review of Potential Clinical Interventions that Upregulate the Endocannabinoid System. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3951193/

Genetic polymorphism in pathogenesis of irritable bowel syndrome. (full – 2014)

Selected terpenoids from medicinal plants modulate endoplasmic reticulum stress in metabolic disorders (full – 2014)

Palmitoylethanolamide, a naturally-occurring lipid, is an orally effective intestinal anti-inflammatory agent. (full – 2014)

Cannabinoids Alleviate Experimentally Induced Intestinal Inflammation by Acting at Central and Peripheral Receptors. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4183544/

Endocannabinoid signalling and the deteriorating brain. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4471876/

Selective inhibition of FAAH produces antidiarrheal and antinociceptive effect mediated by endocannabinoids and cannabinoid-like fatty acid amides. (full – 2014)

Toward modulation of the endocannabinoid system for treatment of gastrointestinal disease: FAAHster but not "higher". (full – 2014)

Ultramicronized palmitoylethanolamide normalizes intestinal motility in a murine model of post-inflammatory accelerated transit: involvement of CB1 receptors and TRPV1. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4243976/

Medical Marijuana for Digestive Disorders: High Time to Prescribe? (full – 2014)
http://www.nature.com/ajg/journal/v110/n2/full/ajg2014245a.html

Antibiotic-induced dysbiosis alters host-bacterial interactions and leads to colonic sensory and motor changes in mice. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4615720/

N-Acylethanolamine-hydrolyzing acid amidase inhibition increases colon N-palmitoylethanolamine levels and counteracts murine colitis. (full – 2014)
http://www.fasebj.org/content/29/2/650.long

Association of cannabinoid type 1 receptor and fatty acid amide hydrolase genetic polymorphisms in Chinese patients with irritable bowel syndrome. (abst – 2014)
Switching cannabinoid response from CB2 agonists to FAAH inhibitors. (abst – 2014)

Vagal anandamide signaling via cannabinoid receptor 1 contributes to luminal 5-HT modulation of visceral nociception in rats. (abst – 2014)


Clinical endocannabinoid deficiency (CECD) revisited: can this concept explain the therapeutic benefits of cannabis in migraine, fibromyalgia, irritable bowel syndrome and other treatment-resistant conditions? (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/24977967


Monoglyceride lipase-deficiency causes desensitization of intestinal cannabinoid receptor type 1 and increased colonic μ-opioid receptor sensitivity. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4556478/

A Gut Microbial Metabolite of Linoleic Acid, 10-Hydroxy-cis-12-octadecenoic Acid, Ameliorates Intestinal Epithelial Barrier Impairment Partially via GPR40-MEK-ERK Pathway. (full – 2015) http://www.jbc.org/content/290/5/2902.long

AM841, a covalent cannabinoid ligand, powerfully slows gastrointestinal motility in normal and stressed mice in a peripherally-restricted manner. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4403103/
In vitro and non-invasive in vivo effects of the cannabinoid-1 receptor agonist AM841 on gastrointestinal motor function in the rat. (full – 2015) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4918633/


Metabolism of Anandamide by Human Cytochrome P450 2J2 in the Reconstituted System and Human Intestinal Microsomes. (full – 2016) http://jpet.aspetjournals.org/content/early/2016/03/21/jpet.116.232553.long


An Orally Active Cannabis Extract with High Content in Cannabidiol attenuates Chemically-induced Intestinal Inflammation and Hypermotility in the Mouse. (full - 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5047908/

Therapeutic Use of Cannabis in Inflammatory Bowel Disease (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5193087/


Medical use of cannabis products : Lessons to be learned from Israel and Canada. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/26767992


Docosahexaenoyl Serotonin, an endogenously formed n-3 fatty acid-serotonin conjugate has anti-inflammatory properties by attenuating IL-23–IL-17 signalling in macrophages (abst – 2016) http://www.sciencedirect.com/science/article/pii/S1388198116302499


Role of cannabis in digestive disorders (abst – 2017) http://www.ingentaconnect.com/search/article?option1=tka&value1=cannabinoid&sortDescending=true&sortField=prism_publicationDate&pageSize=10&index=3

**IMMUNE SYSTEM**

Cannabinoid-induced apoptosis in immune cells as a pathway to immunosuppression. (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3005548/?tool=pubmed
Cannabidiol attenuates delayed-type hypersensitivity reactions via suppressing T-cell and macrophage reactivity. (full - 2010)  
http://www.nature.com/aps/journal/v31/n12/full/aps2010155a.html

Do cannabinoids have a therapeutic role in transplantation? (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2923447/?tool=pubmed

Immunoregulation of a CB2 receptor agonist in a murine model of neuroAIDS. (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3109320/

Cannabinoid receptor activation leads to massive mobilization of myeloid-derived suppressor cells with potent immunosuppressive properties (full – 2010)  

Cannabinoids and Viral Infections (full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2903762/?tool=pmcentrez

Cannabinoids and the immune system: an overview. (abst – 2010)  

Role of Myeloid-Derived Suppressor Cells in Amelioration of Experimental Autoimmune Hepatitis Following Activation of TRPV1 Receptors by Cannabidiol (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3069975/?tool=pmcentrez

New blood brothers: the GPR55 and CB2 partnership (full – 2011)  
http://www.nature.com/cr/journal/vaop/ncurrent/full/cr201177a.html

Commentary: Functional Neuronal CB2 Cannabinoid Receptors in the CNS. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3137183/?tool=pubmed

Cannabinoids and B cells: emerging targets for treating progressive multiple sclerosis (full – 2011)  
http://msj.sagepub.com/content/17/3/259.long

Is lipid signaling through cannabinoid 2 receptors part of a protective system? (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3062638/

CNR2 functional variant (Q63R) influences childhood immune thrombocytopenic purpura. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3232275/

Cannabinoid Receptor 2 Is Critical for the Homing and Retention of Marginal Zone B Lineage Cells and for Efficient T-Independent Immune Responses (full – 2011)  
http://www.jimmunol.org/content/187/11/5720.full.pdf+html

Deletion of cannabinoid receptors 1 and 2 exacerbates APC function to increase inflammation and cellular immunity during influenza infection. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3206470/
Design and evaluation of a novel fluorescent CB2 ligand as probe for receptor visualization in immune cells. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3171627/

Modulation of the novel cannabinoid receptor - GPR55 - during rat fetoplacental development (full – 2011) http://www.placentajournal.org/article/S0143-4004%2811%2900110-X/fulltext


The endocannabinoid anandamide downregulates IL-23 and IL-12 subunits in a viral model of multiple sclerosis: evidence for a cross-talk between IL-12p70/IL-23 axis and IL-10 in microglial cells. (abst – 2011) http://www.ncbi.nlm.nih.gov/pubmed/21310228


Dynamic changes to the endocannabinoid system in models of chronic pain (full – 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3300.full?sid=1569c370-cd5c-4358-89ff-857201f5e069


Tumor necrosis factor activation of vagal afferent terminal calcium is blocked by cannabinoids. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3342927/

Cannabinoid Receptor 2 Signaling in Peripheral Immune Cells Modulates Disease Onset and Severity in Mouse Models of Huntington's Disease. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3753072/

Mast cell-glia axis in neuroinflammation and therapeutic potential of the anandamide congener palmitoylethanolamide. (full - 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3312.long
Endocannabinoid modulation of jejunal afferent responses to LPS  (full – 2012)  

Differential migratory properties of monocytes isolated from human subjects naïve and non-naïve to Cannabis.  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4476512/


Cannabinoid receptor-2-selective agonists improve recovery in experimental autoimmune encephalomyelitis  (abst – 2012)  
http://www.jimmunol.org/content/188/1_Supplement/116.7.abstract?sid=b1a0d6c8-40b1-4641-82a4-bb53f6c6e

Involvement of the endogenous cannabinoid 2 ligand 2-arachidonyl glycerol in allergic inflammation.  (abst – 2012)  

Immunity and early pregnancy events: are endocannabinoids the missing link?  (abst – 2012)  

Δ9-tetrahydrocannabinol impairs the inflammatory response to influenza infection: role of antigen-presenting cells and the cannabinoid receptors 1 and 2.  (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3551428/

Magnitude of stimulation dictates the cannabinoid-mediated differential T cell response to HIVgp120  (full – 2013)  
http://www.jleukbio.org/content/92/5/1093.full

Cannabinoid Receptor 2 Protects against Acute Experimental Sepsis in Mice.  (full – 2013)  
http://www.hindawi.com/journals/mi/2013/741303/

http://www.jbc.org/content/early/2013/11/07/jbc.M113.503037.long

The cannabinoid receptor type 2 as mediator of mesenchymal stromal cell immunosuppressive properties.  (full – 2013)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0080022

Cannabinoid Receptor 2 (CB2) Plays a Role in the Generation of Germinal Center and Memory B Cells, but Not in the Production of Antigen-Specific IgG and IgM, in Response to T-dependent Antigens  (full – 2013)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0067587

2-Arachidonoyl-glycerol- and arachidonic acid-stimulated neutrophils release antimicrobial effectors against E. coli, S. aureus, HSV-1, and RSV.  (full – 2013)  
http://www.jleukbio.org/content/93/2/267.long
Direct modulation of the outer mitochondrial membrane channel, voltage-dependent anion channel 1 (VDAC1) by cannabidiol: a novel mechanism for cannabinoid-induced cell death. (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3877544/

Effects on Immune Cells of a New 1,8-Naphthyridin-2-One Derivative and Its Analogues as Selective CB2 Agonists: Implications in Multiple Sclerosis. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3641032/

Δ9-tetrahydrocannabinol impairs the inflammatory response to influenza infection: role of antigen-presenting cells and the cannabinoid receptors 1 and 2. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3551428/

Multiple sclerosis and the blood-central nervous system barrier. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3562587/


Cannabinoid (CB)1 receptors are critical for the innate immune response to TLR4 stimulation. (full – 2013) http://ajpregu.physiology.org/content/305/3/R224

Neuroimmunmue interactions of cannabinoids in neurogenesis: focus on interleukin-1β (IL-1β) signalling. (full – 2013) http://www.biochemsoctrans.org/content/41/6/1577

Cannabinoids Inhibit T-cells via Cannabinoid Receptor 2 in an In Vitro Assay for Graft Rejection, the Mixed Lymphocyte Reaction. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3864984/

Cannabinoid receptor modulation of the endothelial cell inflammatory response (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2791499/


Targeting the Endocannabinoid System to Treat Sepsis (review – 2013) http://www.signavitae.com/2013/05/targeting-the-endocannabinoid-system-to-treat-sepsis/

Palmitoylethanolamide is a New Possible Pharmacological Treatment for the Inflammation Associated with Trauma  (abst – 2013)  
http://www.eurekaselect.com/106175/article

Inhibition of the cannabinoid 2 receptor in CNS-injury induced immunodeficiency syndrome  (abst – 2013)  
http://www.medical-hypotheses.com/article/S0306-9877%2814%2900117-0/abstract

G-protein coupled receptor 18 (GPR18) in channel catfish: expression analysis and efficacy as immunostimulant against Aeromonas hydrophila infection.  (abst – 2013)  

Cannabinoids decrease the th17 inflammatory autoimmune phenotype.  (abst – 2013)  

Therapeutic Utility of Cannabinoid Receptor Type 2 (CB2) Selective Agonists  (abst – 2013)  
http://pubs.acs.org/doi/abs/10.1021/jm4005626

Palmitoylethanolamide stimulates phagocytosis of Escherichia coli K1 by macrophages and increases the resistance of mice against infections.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4080545/

Anandamide Attenuates Th-17 Cell-Mediated Delayed-Type Hypersensitivity Response by Triggering IL-10 Production and Consequent microRNA Induction.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3974854/

Polyunsaturated Fatty Acid-Derived Lipid Mediators and T Cell Function  (full – 2014)  

Experimental cannabinoid 2 receptor-mediated immune modulation in sepsis.  (full – 2014)  
http://www.hindawi.com/journals/mi/2014/978678/

The in vitro GcMAF effects on endocannabinoid system transcriptionomics, receptor formation, and cell activity of autism-derived macrophages.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3996516/

The expression of cannabinoid receptor 1 is significantly increased in atopic patients  (full – 2014)  
http://www.jacionline.org/article/S0091-6749%2813%2902936-9/fulltext

Cannabinoid receptor 2 as a potential therapeutic target in rheumatoid arthritis.  (full – 2014)  
http://www.biomedcentral.com/1471-2474/15/275

A cannabigerol derivative suppresses immune responses and protects mice from experimental autoimmune encephalomyelitis.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3984273/
Antagonism of cannabinoid receptor 2 pathway suppresses IL-6-induced immunoglobulin IgM secretion. (full – 2014) http://www.biomedcentral.com/2050-6511/15/30

Characterization of endocannabinoid-mediated induction of myeloid-derived suppressor cells involving mast cells and MCP-1. (full – 2014) http://www.jleukbio.org/content/95/4/609.long


Cannabidiol enhances microglial phagocytosis via transient receptor potential (TRP) channel activation. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3997281/

The endocannabinoid/endovanilloid N-arachidonoyl dopamine (NADA) and synthetic cannabinoid WIN55,212-2 abate the inflammatory activation of human endothelial cells. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4036321/


What we know and do not know about the cannabinoid receptor 2 (CB2). (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4567276/

Role of Endocannabinoid Activation of Peripheral CB1 Receptors in the Regulation of Autoimmune Disease. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4261058/

Cannabis use by individuals with multiple sclerosis: effects on specific immune parameters. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4170074/

Inhaled medicinal cannabis and the immunocompromised patient. (full – 2014) MASSC (yes, that’s all the link!)

Interaction between Cannabinoid System and Toll-Like Receptors Controls Inflammation (full – 2016) https://www.hindawi.com/journals/mi/2016/5831315/


Possible Immunosuppressive Effects of Drug Exposure and Environmental and Nutritional Effects on Infection and Vaccination  (full – 2015)
http://www.hindawi.com/journals/mi/2015/349176/

Turning Over a New Leaf: Cannabinoid and Endocannabinoid Modulation of Immune Function.  (full – 2015)


Cannabidiol, a non-psychoactive cannabinoid, leads to EGR2-dependent anergy in activated encephalitogenic T cells.  (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4363052/


Pathogenesis of Systemic Sclerosis.  (full – 2015)

Differential immune mechanism to HIV-1 Tat variants and its regulation by AEA (full – 2015) http://www.nature.com/srep/2015/150505/srep09887/full/srep09887.html

Cannabinoid-based drugs targeting CB1 and TRPV1, the sympathetic nervous system, and arthritis.  (full – 2015) http://www.arthritis-research.com/content/17/1/226

Expression Analysis of CB2-GFP BAC Transgenic Mice  (full – 2015)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0138986

Cannabis – the Israeli perspective  (full – 2015)


Alcohol Versus Cannabinoids: A Review of Their Opposite Neuro-Immunomodulatory Effects and Future Therapeutic Potentials  (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4607066/
Cannabinoid-based drugs targeting CB1 and TRPV1, the sympathetic nervous system, and arthritis (full – 2015) http://link.springer.com/article/10.1186/s13075-015-0743-x


Regulation of inflammation by cannabinoids, the endocannabinoids 2-arachidonoyl-glycerol and arachidonoyl-ethanolamide, and their metabolites. (full – 2015) http://www.jleukbio.org/content/97/6/1049.long

Critical Role of Mast Cells and Peroxisome Proliferator-Activated Receptor γ in the Induction of Myeloid-Derived Suppressor Cells by Marijuana Cannabidiol In Vivo. (full – 2015) http://www.jimmunol.org/content/194/11/5211.long

A CB2-Selective Cannabinoid Suppresses T-Cell Activities and Increases Tregs and IL-10 (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4528965/

Targeting cannabinoid receptor-2 pathway by phenylacetylamide suppresses the proliferation of human myeloma cells through mitotic dysregulation and cytoskeleton disruption (full – 2015) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4504841/


For whom the endocannabinoid tolls: Modulation of innate immune function and implications for psychiatric disorders.  (abst – 2015)  

The endocannabinoid system and its therapeutic implications in rheumatoid arthritis.  (abst – 2015)  

Modulation of HIVGP120 Antigen-Specific Immune Responses In Vivo by Δ9-Tetrahydrocannabinol.  (abst – 2015)  

New quinolone- and 1,8-naphthyridine-3-carboxamides as selective CB2 receptor agonists with anticancer and immuno-modulatory activity.  (abst – 2015)  

Downstream effects of endocannabinoid on blood cells: implications for health and disease.  (abst – 2015)  

Pro-inflammatory obesity in aged cannabinoid-2 receptor deficient mice.  (abst – 2015)  

Cannabinoid receptor 1 but not 2 mediates macrophage phagocytosis by G(α)i/o /RhoA/ROCK signaling pathway.  (abst – 2015)  

http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_2

Neuroprotective Effect Is Driven Through the Upregulation of CB1 Receptor in Experimental Autoimmune Encephalomyelitis.  (abst – 2015)  

Combined effects of HIV and marijuana use on neurocognitive functioning and immune status.  (abst – 2015)  

Dietary Carbohydrates that Modulate the Immune System  (abst – 2015)  
http://www.ingentaconnect.com/content/ben/ciemd/2015/00000002/00000001/art00009?crawler=true

Behavioral, Metabolic, and Immune Consequences of Chronic Alcohol or Cannabinoids on HIV/AIDS: Studies in the Non-Human Primate SIV Model  (abst – 2015)  

Lipid signaling in adipose tissue: Connecting inflammation & metabolism  (abst – 2015)  

Actions of the dual FAAH/MAGL inhibitor JZL195 in a murine neuropathic pain model.  (full – 2016)  


A Randomized Placebo Controlled Trial of Ibuprofen for Respiratory Syncytial Virus Infection in a Bovine Model (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0152913


Acetaminophen Attenuates House Dust Mite Induced Allergic Airway Disease in Mice. (full – 2016) http://jpet.aspetjournals.org/content/early/2016/07/08/jpet.116.233684.long

Interaction between Cannabinoid System and Toll-Like Receptors Controls Inflammation. (full – 2016) https://www.hindawi.com/journals/mi/2016/5831315/


CB2 receptor activation prevents glial-derived neurotoxic mediator production, BBB leakage and peripheral immune cell infiltration and rescues dopamine neurons in the MPTP model of Parkinson's disease. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4892852/

Longitudinal examination of the intestinal lamina propria cellular compartment of SIV-infected rhesus macaques provides broader and deeper insights into the link between aberrant microRNA expression and persistent immune activation. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4859716/

Effects of Different Levels of Hemp Seed (Cannabis Sativa L.) and Dextran Oligosaccharide on Growth Performance and Antibody Titer Response of Broiler Chickens (full – 2016) http://www.tandfonline.com/doi/full/10.4081/ijas.2015.3473

Dendritic Cell Regulation by Cannabinoid-Based Drugs (link to PDF - 2010) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.429.7704&rank=67&q=cannabinoid&osm=&ossid=
Synthetic Cannabinoid-Induced Immunosuppression Augments Cerebellar Dysfunction in Tetanus-Toxin Treated Mice (link to PDF – 2016)
http://www.biomolther.org/journal/view.html?uid=731&vmd=Full

Cannabidiol limits Tcell-mediated chronic autoimmune myocarditis: implications to autoimmune disorders and organ transplantation. (click “Molecular Medicine” for PDF– 2016)

Anti-N-methyl-D-aspartate receptor encephalitis and drug abuse - the probable role of molecular mimicry or the overstimulation of CB receptors in a 17-year-old adolescent - case report. (link to download – 2016) http://www.mppt.hu/folyoirat/1/abstract?vol=18&issue=3&elsoidal=162

3D Structure of Protein That Guides the Immune System Uncovered (news & abst – 2016) http://neurosciencenews.com/trpv2-ion-channel-immune-system-3448/

The emerging role of the cannabinoid receptor family in peripheral and neuro-immune interactions. (abst – 2016) http://www.eurekaselect.com/138448/article


Expression analysis of cannabinoid receptors 1 and 2 in B cells during pregnancy and their role on cytokine production. (abst – 2016) http://www.jrijournal.org/article/S0165-0378%2816%2930026-2/abstract

Ethanol downregulates N-acyl phosphatidylethanolamine-phospholipase D expression in BV2 microglial cells via epigenetic mechanisms. (abst – 2016)  

Reduced Noradrenergic Signaling in the Spleen Capsule in the Absence of CB1 and CB2 Cannabinoid Receptors. (abst – 2016)  

Fatty acid amide hydrolase (FAAH) blockade ameliorates experimental colitis by altering microRNA expression and suppressing inflammation. (abst – 2016)  

Cannabinoids and Neuro-Inflammation: Regulation of Brain Immune Response.  
(abst – 2016)  

Microglia activation states and cannabinoid system: Therapeutic implications.  
(abst – 2016)  

Experimental Cannabinoid 2 Receptor Inhibition in CNS Injury-Induced Immunodeficiency Syndrome. (abst – 2016)  

Modulation of monocytes by bioactive lipid anandamide in multiple sclerosis involves distinct Toll-like receptors. (abst – 2016)  

Anandamide Suppresses Proinflammatory T Cell Responses In Vitro through Type-1 Cannabinoid Receptor-Mediated mTOR Inhibition in Human Keratinocytes. (abst – 2016)  

Effect of marijuana use on thyroid function and autoimmunity. (abst – 2016)  

Medical Cannabis - another piece in the mosaic of autoimmunity? (abst – 2016)  

Cannabidiol (CBD) induces functional Tregs in response to low-level T cell activation (abst – 2016)  

CB2 receptors regulate natural killer cells that limit allergic airway inflammation in a murine model of asthma. (abst – 2016)  

Identification of an endocannabinoid system in the rat pars tuberalis-a possible interface in the hypothalamic-pituitary-adrenal system? (abst – 2016)  


**IMMUNE THROMBOCYTOPENIA**


CNR2 functional variant (Q63R) influences childhood immune thrombocytopenic purpura. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3232275/


Synthetic marijuana "K2" induced ITP. (abst – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4614031/

Synthetic marijuana "K2" induced ITP. (abst – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4614031/


>*INCONTINENCE* - see BLADDER/ URINARY FUNCTIONS
INDICATIONS AND CLINICAL USES


Cannabis and Its Derivatives: Review of Medical Use (full – 2011) http://www.jabfm.org/cgi/content/full/24/4/452

An Analysis of Applicants Presenting to a Medical Marijuana Specialty Practice in California (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3673028/


Medical Marijuana: Clearing Away the Smoke (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3358713/


The Therapeutic Potential of Cannabis and Cannabinoids (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3442177/


Cannabis Strain Explorer (web page - 2012) http://www.leafly.com/explore


Cannabis for therapeutic purposes: Patient characteristics, access, and reasons for use. (full – 2013) http://www.ijdp.org/article/S0955-3959%2813%2900135-7/fulltext


Synthetic cannabis: a comparison of patterns of use and effect profile with natural cannabis in a large global sample. (abst – 2013)

Therapeutic benefits of cannabis: a patient survey. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3998228/

Medical marijuana: more questions than answers. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4243838/

The Comprehensive Report on the Cannabis Extract Movement and the Use of Cannabis Extracts to Treat Diseases (link to upload - 2014)
http://www.slideshare.net/TheHempSolution/comprehensive-report-on-the-cannabis-extract-movement

http://www.safeaccessnow.org/medical_cannabis_research_what_does_the_evidence_say


Medicinal cannabis. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4674028/

Evidence for Medicinal Use of Cannabis (article – 2016)


INFANTS (0 to 2 years or equivalent) also see GERMINAL MATRIX HEMORRHAGE


The cannabinoid WIN55212-2 promotes neural repair after neonatal hypoxia-ischemia. (full - 2010) http://stroke.ahajournals.org/content/41/12/2956.long

CNR2 functional variant (Q63R) influences childhood immune thrombocytopenic purpura. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3232275/

Examining the Health and Drug Exposures among Canadian Children Residing in Drug-Producing Homes (abst – 2011) http://www.jpeds.com/article/S0022-3476%2811%2900522-1/abstract


Unresolved Discrepancies between Cannabinoid Test Results for Infant Urine (full – 2012) http://www.clinchem.org/content/58/9/1364.full


New horizons for newborn brain protection: enhancing endogenous neuroprotection.  
(full – 2015)  
http://fn.bmj.com/content/early/2015/06/10/archdischild-2014-306284.long

A cannabinoid-intoxicated child treated with dexmedetomidine: a case report  
(full – 2015)  
http://www.jmedicalcasereports.com/content/9/1/152

Unintentional Pediatric Exposure to a Synthetic Cannabinoid (AB-PINACA) Resulting in Coma and Intubation  
(full – 2015)  
http://www.annemergmed.com/article/S0196-0644%2815%2900426-6/fulltext

Lipid mediator profile in vernix caseosa reflects skin barrier development  
(full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4629127/

Perinatal asphyxia results in altered expression of the hippocampal acylethanolamide/endocannabinoid signaling system associated to memory impairments in postweaned rats.  
(full – 2015)  

Prenatal exposure to recreational drugs affects global motion perception in preschool children.  
(full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4652269/

Long-term consequences of perinatal and adolescent cannabinoid exposure on neural and psychological processes.  
(full – 2015)  

Association between paracetamol use in infancy or childhood with body mass index.  
(full – 2015)  

Use of paracetamol during pregnancy and child neurological development.  
(full – 2015)  

Role of the endocannabinoid system in the mechanisms involved in the LPS-induced preterm labor.  
(full– 2015)  
http://www.reproduction-online.org/content/150/6/463.long

Cannabidiol in patients with treatment-resistant epilepsy: an open-label interventional trial  
(abst – 2015)  
http://www.thelancet.com/journals/laneur/article/PIIS1474-4422%2815%2900379-8/abstract

(abst – 2015)  

Endocannabinoid Levels in Newborns in Relation to the Mode of Delivery.  
(abst – 2015)  

Cannabinoid receptor 2 attenuates microglial accumulation and brain injury following germinal matrix hemorrhage via ERK dephosphorylation in vivo and in vitro.
Retrospective Analysis of Tetrahydrocannabinol Based on 31 Neurologically Critically Ill Children  

Maternal marijuana use and neonatal morbidity.  

Pharmacological Preventions of Brain Injury Following Experimental Germinal Matrix Hemorrhage: an Up-to-Date Review.  

Association between marijuana use and adverse obstetrical and neonatal outcomes.  

Marijuana use and pregnancy: prevalence, associated characteristics, and birth outcomes.  

Sudden onset unexplained encephalopathy in infants: think of cannabis intoxication  

Transient increase of interleukin-1β after prolonged febrile seizures promotes adult epileptogenesis through long-lasting upregulating endocannabinoid signaling.  
http://www.nature.com/articles/srep21931

Maternal marijuana use has independent effects on risk for spontaneous preterm birth but not other common late pregnancy complications  

Maternal Caloric Restriction Implemented during the Preconceptional and Pregnancy Period Alters Hypothalamic and Hippocampal Endocannabinoid Levels at Birth and Induces Overweight and Increased Adiposity at Adulthood in Male Rat Offspring  

Acetaminophen Use for Fever in Children Associated with Autism Spectrum Disorder.  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5044872/

Detecting biomarkers of secondhand marijuana smoke in young children  
http://www.nature.com/pr/journal/vaop/naam/abs/pr2016261a.html

Nutritional n-3 PUFA Deficiency Abolishes Endocannabinoid Gating of Hippocampal Long-Term Potentiation.  

Marijuana Use and Its Effects in Pregnancy.  
Sexually-dimorphic alterations in cannabinoid receptor density depend upon prenatal/early postnatal history.  
(abst – 2016)  

Neuroprotective Effects of Cannabidiol In Hypoxic Ischemic Insult: The Therapeutic Window In Newborn Mice. 
(abst – 2016)  

Cannabinoid Receptor 2 Activation Restricts Fibrosis and Alleviates Hydrocephalus after Intraventricular Hemorrhage. 
(abst – 2016)  

Evaluating a switch from meconium to umbilical cord tissue for newborn drug testing: A retrospective study at an academic medical center. 
(abst – 2016)  

Fetal Syndrome of Endocannabinoid Deficiency (FSECD) In Maternal Obesity. 
(abst – 2016)  

**INFLAMMATION**

Cannabinoid-induced apoptosis in immune cells as a pathway to immunosuppression.  
(full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3005548/?tool=pubmed

Cannabinoids and Viral Infections 
(full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2903762/?tool=pmcentrez

The endocannabinoid system as a target for the treatment of neurodegenerative disease 
(full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931550/?tool=pubmed

The effects of Delta-tetrahydrocannabinol and cannabidiol alone and in combination on damage, inflammation and in vitro motility disturbances in rat colitis.  
(full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931570/?tool=pubmed

Regulatory Role of Cannabinoid Receptor 1 in Stress-Induced Excitotoxicity and Neuroinflammation  
(full - 2010)  
http://www.nature.com/npp/journal/vaop/ncurrent/full/npp2010214a.html

Synthesis of Novel Cannabinoid Ligands and Their Use as Anti-Glioma and Anti-Inflammatory Agents 
(full – 2010)  

Anti-inflammatory effects of the neurotransmitter agonist Honokiol in a mouse model of allergic asthma.  
(full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3197781/
N-arachidonoyl glycine, an abundant endogenous lipid, potently drives directed cellular migration through GPR18, the putative abnormal cannabidiol receptor (full – 2010)
http://www.biomedcentral.com/1471-2202/11/44

Acute administration of cannabidiol in vivo suppresses ischaemia-induced cardiac arrhythmias and reduces infarct size when given at reperfusion. (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2936031/?tool=pubmed

Naphthalen-1-yl-(4-pentyloxynaphthalen-1-yl)methanone (SAB378), a peripherally restricted cannabinoid CB1/CB2 receptor agonist, inhibits gastrointestinal motility but has no effect on experimental colitis in mice. (full – 2010)
http://jpet.aspetjournals.org/content/334/3/973.long

The Potential Role of Cannabinoids in Modulating Serotonergic Signaling by Their Influence on Tryptophan Metabolism (full – 2010)


Beneficial effects of cannabinoids (CB) in a murine model of allergen-induced airway inflammation: Role of CB(1)/CB(2) receptors. (abst - 2010)
http://www.unboundmedicine.com/medline/ebm/record/21056512/abstract/Beneficial_effects_of_cannabinoids__CB__in_a_murine_model_of_allergen_induced_airway_inflammation:_Role_of_CB_1_/CB_2__receptors_

Levels of endocannabinoids and palmitoylethanolamide and their pharmacological manipulation in chronic granulomatous inflammation in rats. (abst – 2010)

Cannabidiol reduces lipopolysaccharide-induced vascular changes and inflammation in the mouse brain: an intravital microscopy study (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3034694/?tool=pmcentre

Cannabidiol Reduces Aβ-Induced Neuroinflammation and Promotes Hippocampal Neurogenesis through PPARγ Involvement (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3230631/?tool=pubmed

Evaluation of the Cyclooxygenase Inhibiting Effects of Six Major Cannabinoids Isolated from Cannabis sativa (full – 2011)
https://www.jstage.jst.go.jp/article/bpb/34/5/34_5_774/_pdf

Gut feelings about the endocannabinoid system (full – 2011)
Cannabidiol reduces intestinal inflammation through the control of neuroimmune axis. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3232190/?tool=pubmed

Local activation of cannabinoid CB1 receptors in the urinary bladder reduces the inflammation-induced sensitization of bladder afferents. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3115893/

Cannabinoid CB2 Receptors Contribute to Upregulation of β-endorphin in Inflamed Skin Tissues by Electroacupuncture (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3281798/

Cannabidiol protects against hepatic ischemia/reperfusion injury by attenuating oxidative stress, inflammatory response, and cell death. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3081988/

Cannabinoids mediate opposing effects on inflammation-induced intestinal permeability. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423254/


Cannabinoid Receptor Type 1 Protects Nigrostriatal Dopaminergic Neurons against MPTP Neurotoxicity by Inhibiting Microglial Activation. (full – 2011) http://www.jimmunol.org/content/187/12/6508.full?sid=c3422dd2-7ad0-42e4-a862-845dc670f7cf


Cannabidiol as an emergent therapeutic strategy for lessening the impact of inflammation on oxidative stress. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3085542/


Inhibition of COX-2 expression by endocannabinoid 2-arachidonoylglycerol is mediated via PPAR-γ (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165961/

Deletion of cannabinoid receptors 1 and 2 exacerbates APC function to increase inflammation and cellular immunity during influenza infection. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3206470/

US Patent 7884133 B2 Cannabidiol derivatives such as 3-(2,6-dihydroxy-4-pentylphenyl)-4-prop-1-en-2-ylcyclohexene-1-carboxylic acid, used as as analgesics, antiinflammatory and antidiarrheal agents (full – 2011) https://www.google.com/patents/US7884133?dq=patent+7884133&hl=en&sa=X&ei=Ujb0U_6EEIWK5ogSi84LYDg&ved=0CB4Q6AEwAA


A synthetic cannabinoid, CP55940, inhibits lipopolysaccharide-induced cytokine mRNA expression in a cannabinoid receptor-independent mechanism in rat cerebellar granule cells. (abst – 2011) http://www.unboundmedicine.com/medline/ebm/record/21492165/abstract/A_synthetic_cannabinoid_CP55940_inhibits_lipopolysaccharide_induced_cytokine_mRNA_expression_in_a_cannabinoid_receptor_independent_mechanism_in_rat_cerebellar_granule_cells

The endocannabinoid anandamide downregulates IL-23 and IL-12 subunits in a viral model of multiple sclerosis: evidence for a cross-talk between IL-12p70/IL-23 axis and IL-10 in microglial cells. (abst – 2011) http://www.ncbi.nlm.nih.gov/pubmed/21310228


Cannabidiol Dampens Streptozotocin-Induced Retinal Inflammation by Targeting of Microglial Activation (abst - 2011) http://www.abstractsonline.com/plan/ViewAbstract.aspx?sKey=94b35de1-74b2-4d46-b062-7c104b5df681&cKey=eca34a2d-da44-4938-b0fa-3a6e652a1756

Prolonged oral Cannabinoid Administration prevents Neuroinflammation, lowers beta-amyloid Levels and improves Cognitive Performance in Tg APP 2576 Mice.

The fatty acid amide hydrolase inhibitor URB597 exerts anti-inflammatory effects in hippocampus of aged rats and restores an age-related deficit in long-term potentiation (full – 2012) http://www.jneuroinflammation.com/content/9/1/79

Mechanistic and Pharmacological Characterization of PF-04457845: A Highly Potent and Selective Fatty Acid Amide Hydrolase Inhibitor That Reduces Inflammatory and Noninflammatory Pain (full – 2012) http://jpet.aspetjournals.org/content/338/1/114.full

The synthetic cannabinoid R(+)WIN55,212-2 augments interferon-β expression via peroxisome proliferator-activated receptor-α (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3408184/


Can the benefits of cannabinoid receptor stimulation on neuroinflammation, neurogenesis and memory during normal aging be useful in AD prevention? (full – 2012) http://www.jneuroinflammation.com/content/9/1/10

Update on the role of cannabinoid receptors after ischemic stroke. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3337695/?tool=pubmed


Palmitoylethanolamide exerts neuroprotective effects in mixed neuroglial cultures and organotypic hippocampal slices via peroxisome proliferator-activated receptor-α. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3315437/?tool=pubmed

The fatty acid amide hydrolase inhibitor URB597 exerts anti-inflammatory effects in hippocampus of aged rats and restores an age-related deficit in long-term potentiation (full – 2012) http://www.jneuroinflammation.com/content/9/1/79
Peripheral FAAH inhibition causes profound antinociception and protects against indomethacin-induced gastric lesions. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3738192/


Fish oil and inflammatory status alter the n-3 to n-6 balance of the endocannabinoid and oxylipin metabolomes in mouse plasma and tissues (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3483099/

Review article: The endocannabinoid system in normal and pathological brain ageing (full – 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3326.full?sid=161e7b36-5055-448b-962e-697c782e901d

Dietary linoleic acid elevates endogenous 2-arachidonoylglycerol and anandamide in Atlantic salmon (Salmo salar L.) and mice, and induces weight gain and inflammation in mice. (full - 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3548985/

Cannabidiol for neurodegenerative disorders: important new clinical applications for this phytocannabinoid? (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3579248/

β−Amyloid exacerbates inflammation in astrocytes lacking fatty acid amide hydrolase through a mechanism involving PPAR-α, PPAR-γ and TRPV1, but not CB1 or CB2 receptors (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3417461/

The fatty acid amide hydrolase (FAAH) inhibitor PF-3845 acts in the nervous system to reverse LPS-induced tactile allodynia in mice (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423256/


Differential Modulation by Delta(9)-Tetrahydrocannabinoi (Δ (9)-THC) of CD40 Ligand (CD40L) Expression in Activated Mouse Splenic CD4(+) T cells. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3657729/

Methylhonokiol attenuates neuroinflammation: a role for cannabinoid receptors? (full – 2012) http://www.jneuroinflammation.com/content/9/1/135

Activation of Cannabinoid Receptor 2 reduces inflammation in acute experimental pancreatitis via intra-acinar activation of p38 and MK2-dependent mechanisms.
Cannabidiol (CBD) enhances lipopolysaccharide (LPS)-induced pulmonary inflammation in C57BL/6 mice. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3632657/

Cannabinoids suppress inflammatory and neuropathic pain by targeting α3 glycine receptors. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3371734/


Activation of cannabinoid receptor 2 attenuates leukocyte-endothelial cell interactions and blood-brain barrier dysfunction under inflammatory conditions. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3325902/

Signaling through cannabinoid receptor 2 suppresses murine dendritic cell migration by inhibiting matrix metalloproteinase 9 expression. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3488886/


Mast cell-glia axis in neuroinflammation and therapeutic potential of the anandamide congener palmitoylethanolamide. (full - 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3312.long

Endocannabinoids limit excessive mast cell maturation and activation in human skin. (full – 2012) http://www.jacionline.org/article/S0091-6749%2811%2901796-9/fulltext


Cannabinoids suppress inflammatory and neuropathic pain by targeting α3 glycine receptors (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3371734/


Cannabinoid receptor-2-selective agonists improve recovery in experimental autoimmune encephalomyelitis. (abst – 2012)  http://www.jimmunol.org/content/188/1_Supplement/116.7.abstract?sid=b1a0d6e8-40b1-4641-82a4-b6b539cebc6e


Electroacupuncture reduces the expression of proinflammatory cytokines in inflamed skin tissues through activation of cannabinoid CB2 receptors. (abst – 2012) http://www.ncbi.nlm.nih.gov/pubmed/22337285


Molecular evidence for the involvement of PPAR-δ and PPAR-γ in anti-inflammatory and neuroprotective activities of palmitoylethanolamide after spinal cord trauma (full – 2013) http://www.jneuroinflammation.com/content/10/1/20

The cannabinoid receptor type 2 as mediator of mesenchymal stromal cell immunosuppressive properties. (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0080022

The cannabinoid TRPA1 agonist cannabichromene inhibits nitric oxide production in macrophages and ameliorates murine colitis. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3632250/

Monoacylglycerol Lipase (MAGL) Inhibition Attenuates Acute Lung Injury in Mice. (full – 2013) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3808422/

The monoacylglycerol lipase inhibitor JZL184 suppresses inflammatory pain in the mouse carrageenan model. (full – 2013) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3717616/

The cannabinoid CB2 receptor-selective phytocannabinoid beta-caryophyllene exerts analgesic effects in mouse models of inflammatory and neuropathic pain (full – 2013) 
http://www.europeanneuropsychopharmacology.com/article/S0924-977X%2813%2900302-7/fulltext

The Dual Effect of Cannabinoid Receptor-1 Deficiency on the Murine Postoperative Ileus (full – 2013) 
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0067427

Palmitoylethanolamide and luteolin ameliorate development of arthritis caused by injection of collagen type II in mice (full – 2013) 
http://arthritis-research.com/content/15/6/R192

The Influence of Cannabinoids on Generic Traits of Neurodegeneration. (full – 2013) 

A new co-ultramicronized composite including palmitoylethanolamide and luteolin to prevent neuroinflammation in spinal cord injury (full – 2013) 
http://www.jneuroinflammation.com/content/10/1/91

Implication of the anti-inflammatory bioactive lipid prostaglandin D2-glycerol ester in the control of macrophage activation and inflammation by ABHD6. (full – 2013) 
http://www.pnas.org/content/110/43/17558.long

Selective Activation of Cannabinoid Receptor 2 in Leukocytes Suppresses Their Engagement of the Brain Endothelium and Protects the Blood-Brain Barrier. (full – 2013) 
http://ajp.amjpathol.org/article/S0002-9440%2813%2900557-9/fulltext

Cannabinoid receptor 2 suppresses leukocyte inflammatory migration by modulating the JNK/c-Jun/Alox5 pathway. (full – 2013) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3650391/

Cannabinoid 1 Receptors in Keratinocytes Modulate Proinflammatory Chemokine Secretion and Attenuate Contact Allergic Inflammation. (full – 2013) 
http://www.jimmunol.org/content/190/10/4929.long

Cannabidiol provides long-lasting protection against the deleterious effects of inflammation in a viral model of multiple sclerosis: A role for A2A receptors. (full – 2013) 

Inhibition of p38/Mk2 signaling pathway improves the anti-inflammatory effect of WIN55 on mouse experimental colitis. (full – 2013) 
http://www.nature.com/labinvest/journal/v93/n3/full/labinvest2012177a.html
Effects on Immune Cells of a New 1,8-Naphthyridin-2-One Derivative and Its Analogues as Selective CB2 Agonists: Implications in Multiple Sclerosis. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3641032/


CB1 Cannabinoid Receptor Agonist Prevents NGF-Induced Sensitization of TRPV1 in Sensory Neurons. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3752375/

Anti-inflammatory effects of Cannabinoid 2 Receptor activation in endotoxin-induced uveitis. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3954484/


Cannabinoid receptor modulation of the endothelial cell inflammatory response (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2791499/


Reduces Formalin-Induced Neuropathic-Like Behaviour Through Spinal Glial/Microglial Phenotypical Changes in Mice (link to PDF – 2013) http://www.eurekaselect.com/107975/article

Neuroglial Roots of Neurodegenerative Diseases: Therapeutic Potential of Palmitoylethanolamide in Models of Alzheimer’s Disease (link to PDF– 2013) http://www.eurekaselect.com/107977/article

New Insights in Mast Cell Modulation by Palmitoylethanolamide. (link to PDF – 2013) http://www.eurekaselect.com/107979/article


Cannabinoid CB2 receptors as novel target for inhibiting house dust mite induced allergic airway inflammation (abst – 2013) http://www.jimmunol.org/content/190/1_Supplement/120.12


The endocannabinoid/endovanilloid N-arachidonoyl dopamine (NADA) and synthetic cannabinoid WIN55,212-2 abate the inflammatory activation of human endothelial cells. (full – 2014) http://www.jbc.org/content/early/2014/03/18/jbc.M113.536953.long


Inhibition of Fatty Acid binding proteins elevates brain anandamide levels and produces analgesia. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3976407/


Cannabinoid-induced autophagy regulates suppressor of cytokine signaling (SOCS)-3 in intestinal epithelium. (full – 2014) http://ajpgi.physiology.org/content/307/2/G140

CB2 Receptor Activation Ameliorates the Proinflammatory Activity in Acute Lung Injury Induced by Paraquat. (full – 2014) http://www.hindawi.com/journals/bmri/2014/971750/

Cannabidiol exerts sebostatic and antiinflammatory effects on human sebocytes. (full – 2014) http://www.jci.org/articles/view/64628

Activation of GPR40 attenuates chronic inflammation induced impact on pancreatic β-cells health and function. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4083038/
Cannabinoid receptor 2 as a potential therapeutic target in rheumatoid arthritis.  
(full – 2014)  http://www.biomedcentral.com/1471-2474/15/275

Endocannabinoids and inflammatory response in periodontal ligament cells.  

Protective effects of cannabidiol on lesion-induced intervertebral disc degeneration.  

Celastrol Attenuates Inflammatory and Neuropathic Pain Mediated by Cannabinoid Receptor Type 2.  (full– 2014)  http://www.mdpi.com/1422-0067/15/8/13637/htm

Cannabidiol: Pharmacology and potential therapeutic role in epilepsy and other neuropsychiatric disorders  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4707667/

Palmitoylethanolamide controls reactive gliosis and exerts neuroprotective functions in a rat model of Alzheimer's disease.  (full – 2014)  
http://www.nature.com/cddis/journal/v5/n9/full/cddis2014376a.html

Tapping into the endocannabinoid system to ameliorate acute inflammatory flares and associated pain in mouse knee joints.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4201700/

Cannabinoid receptor type-2 stimulation, blockade, and deletion alters the vascular inflammatory responses to traumatic brain injury.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4248435/

Palmitoylethanolamide, a naturally-occurring lipid, is an orally effective intestinal anti-inflammatory agent.  (full – 2014)  

Cannabinoids Alleviate Experimentally Induced Intestinal Inflammation by Acting at Central and Peripheral Receptors.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4183544/

Cannabinoid inhibits HIV-1 Tat-stimulated adhesion of human monocyte-like cells to extracellular matrix proteins.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4089388/

Cannabidiol enhances microglial phagocytosis via transient receptor potential (TRP) channel activation  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3997281/

Endocannabinoid signalling and the deteriorating brain.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4471876/
Chronic administration of Δ9-tetrahydrocannabinol induces intestinal anti-inflammatory microRNA expression during acute SIV infection of rhesus macaques. (full – 2014) http://jvi.asm.org/content/89/2/1168.long

The cannabinoid CB₂ receptor-selective phytocannabinoid beta-caryophyllene exerts analgesic effects in mouse models of inflammatory and neuropathic pain. (full – 2014) http://www.europeanneuropsychopharmacology.com/article/S0924-977X%2813%2900302-7/fulltext

Systemic Administration of Oleoylethanolamide Protects from Neuroinflammation and Anhedonia Induced by LPS in Rats (full – 2014) http://ijnp.oxfordjournals.org/content/18/6/pyu111

Cannabinoid type 2 receptor stimulation attenuates brain edema by reducing cerebral leukocyte infiltration following subarachnoid hemorrhage in rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4067767/

N-Acylethanolamine-hydrolyzing acid amidase inhibition increases colon N-palmitoylethanolamine levels and counteracts murine colitis. (full – 2014) http://www.fasebj.org/content/29/2/650.long

Molecular Basis for the Improvement in Muscle Metaboreflex and Mechanoreflex Control in Exercise-Traine d Humans with Chronic Heart Failure. (full – 2014) http://ajpheart.physiology.org/content/307/11/H1655

Role of Endocannabinoid Activation of Peripheral CB1 Receptors in the Regulation of Autoimmune Disease. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4261058/


Treatment with a Heme Oxygenase 1 Inducer Enhances the Antinociceptive Effects of μ-Opioid, δ-Opioid, and Cannabinoid 2 Receptors during Inflammatory Pain (full – 2014) http://jpet.aspetjournals.org/content/351/1/224.long


In Vitro Anticancer Activity of Plant-Derived Cannabidiol on Prostate Cancer Cell Lines (full – 2014) http://file.scirp.org/Html/5-2500510_47691.htm


Cannabinoid receptor activation inhibits cell cycle progression by modulating 14-3-3β (link to PDF – 2014) http://www.degruyter.com/view/j/cmble.2014.19.issue-3/s11658-014-0200-x/s11658-014-0200-x.xml


Trans-Caryophyllene Suppresses Hypoxia-Induced Neuroinflammatory Responses by Inhibiting NF-κB Activation in Microglia. (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/24488604


Increased oxidative stress enhances endocannabinoid tone (abst – 2014) http://www.fasebj.org/content/27/1_Supplement/1097.3.abstract?sid=d2f0f68f-30c5-4027-9334-011c9f8fdd2e


The differential characterization of GPR55 receptor in human peripheral blood reveals a distinctive expression in monocytes and NK cells and a proinflammatory role in these innate cells. (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/25344934


Protective role of the cannabinoid receptor system in A2E-mediated photo-toxicity to retinal pigment epithelium (RPE) cells in an in-vitro model of age-related macular degeneration (AMD) (abst – 2014) http://iovs.arvojournals.org/article.aspx?articleid=2271845&resultClick=1

NONRETROGRADE ENDOCANNABINOID SIGNALING MODULATES RETINAL GANGLION CELL CALCIUM HOMEOSTASIS THROUGH THE TRPV1 CATION CHANNEL (abst - 2014) http://iovs.arvojournals.org/article.aspx?articleid=2268407&resultClick=1

Palmitoylethanolamide improves colon inflammation through an enteric glia/toll like receptor 4-dependent PPAR-α activation (abst – 2014) http://gut.bmj.com/content/63/8/1300.abstract?sid=a8fb2a13-4493-4045-8855-9a0babe1e5d51


Cannabinoid Receptor CB2 Is Involved in Tetrahydrocannabinol-Induced Anti-Inflammation against Lipopolysaccharide in MG-63 Cells (full – 2015)
Blockade of monoacylglycerol lipase inhibits oligodendrocyte excitotoxicity and prevents demyelination in vivo (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4407719/

Monoacylglycerol lipase inhibitor JZL184 reduces neuroinflammatory response in APdE9 mice and in adult mouse glial cells. (full – 2015)
http://www.jneuroinflammation.com/content/12/1/81

Turning Over a New Leaf: Cannabinoid and Endocannabinoid Modulation of Immune Function. (full – 2015)


Cannabidiol, a non-psychoactive cannabinoid, leads to EGR2-dependent anergy in activated encephalitogenic T cells. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4363052/

New horizons for newborn brain protection: enhancing endogenous neuroprotection. (full – 2015) http://fn.bmj.com/content/early/2015/06/10/archdischild-2014-306284.long

Cannabinoid CB2 Receptors in a Mouse Model of Aβ Amyloidosis: Immunohistochemical Analysis and Suitability as a PET Biomarker of Neuroinflammation. (full - 2015) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0129618

Anandamide, Acting via CB2 Receptors, Alleviates LPS-Induced Neuroinflammation in Rat Primary Microglial Cultures. (full – 2015)
http://www.hindawi.com/journals/np/2015/130639/

CB2R orchestrates fibrogenesis through regulation of inflammatory response during the repair of skeletal muscle contusion. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4466920/

Time-Dependent Protection of CB2 Receptor Agonist in Stroke. (full – 2015)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0132487

Differential immune mechanism to HIV-1 Tat variants and its regulation by AEA (full – 2015) http://www.nature.com/srep/2015/150505/srep09887/full/srep09887.html

http://ijnp.oxfordjournals.org/content/early/2015/09/04/ijnp.pyv095.long
Cannabinoid-based drugs targeting CB1 and TRPV1, the sympathetic nervous system, and arthritis. (full – 2015) http://www.arthritis-research.com/content/17/1/226

Expression Analysis of CB2-GFP BAC Transgenic Mice (full – 2015) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0138986


Oxyradical Stress, Endocannabinoids, and Atherosclerosis. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4686160/


Anti-inflammatory effects of N-acylethanolamines in rheumatoid arthritis synovial cells are mediated by TRPV1 and TRPA1 in a COX-2 dependent manner. (full – 2015) http://www.arthritis-research.com/content/17/1/321


Dietary DHA reduced downstream endocannabinoid and inflammatory gene expression, epididymal fat mass, and improved aspects of glucose use in muscle in C57BL/6J mice. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4722239/
HU-446 and HU-465, derivatives of the non-psychoactive cannabinoid cannabidiol, decrease the activation of encephalitogenic T cells.  (full – 2015)  

Nitric oxide secretion in human conjunctival fibroblasts is inhibited by alpha linolenic acid.  (full – 2015)  

4'-O-methylhonokiol increases levels of 2-arachidonoyl glycerol in mouse brain via selective inhibition of its COX-2-mediated oxygenation.  (full – 2015)  

Δ9 Tetrahydrocannabinol attenuates Staphylococcal enterotoxin B-induced inflammatory lung injury and prevents mortality in mice by modulation of miR-17-92 cluster and induction of T-regulatory cells.  (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4376457/

Transdermal cannabidiol reduces inflammation and pain-related behaviours in a rat model of arthritis.  (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4851925/

Activation of Cannabinoid Type Two Receptors (CB2) Diminish Inflammatory Responses in Macrophages and Brain Endothelium.  (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4795159/

Effects of Cannabinoids on T-cell Function and Resistance to Infection.  (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4470840/

Regulation of inflammation by cannabinoids, the endocannabinoids 2-arachidonoyl-glycerol and arachidonoyl-ethanolamide, and their metabolites.  (full – 2015)  
http://www.jleukbio.org/content/97/6/1049.long

Overcoming the Bell-Shaped Dose-Response of Cannabidiol by Using Cannabis Extract Enriched in Cannabidiol  (full – 2015)  
http://file.scirp.org/Html/5-2500582_53912.htm

Endogenous 2-Arachidonoylglycerol Alleviates Cyclooxygenases-2 Elevation-Mediated Neuronal Injury from SO2 Inhalation via PPARγ Pathway.  (full – 2015)  
http://toxsci.oxfordjournals.org/content/147/2/535.long

http://www.tandfonline.com/doi/full/10.1517/13543776.2015.1067683

Polyunsaturated fatty acids and inflammation.  (full – 2015)  

The effect of FAAH, MAGL, and Dual FAAH/MAGL inhibition on inflammatory and colorectal distension-induced visceral pain models in Rodents.  (full – 2015)  
Distribution of Bioactive Lipid Mediators in Human Skin.  
(link to full through Elsevier – 2015)  

Tonic Modulation of Nociceptive Behavior and Allodynia by Cannabinoid Receptors in Formalin Test in Rats  
(click Full Text Links for PDF – 2015)  

Cannabinoid receptor-specific mechanisms to ameliorate pain in sickle cell anemia via inhibition of mast cell activation and neurogenic inflammation.  
(link to PDF – 2015)  
http://www.haematologica.org/content/early/2015/12/21/haematol.2015.136523.long

Neuroprotection in Experimental Autoimmune Encephalomyelitis and Progressive Multiple Sclerosis by Cannabis-Based Cannabinoids.  
(abst – 2015)  
http://link.springer.com/article/10.1007%2Fs11481-014-9575-8

Activation of cannabinoid receptor 2 attenuates synovitis and joint destruction in collagen-induced arthritis.  
(abst – 2015)  

Cannabinoid Signaling and Neuroinflammatory Diseases: A Melting pot for the Regulation of Brain Immune Responses.  
(abst – 2015)  

Magnolol inhibits the inflammatory response in mouse mammary epithelial cells and a mouse mastitis model.  
(abst - 2015)  

Activation of murine microglial N9 cells is attenuated through cannabinoid receptor CB2 signaling.  
(abst – 2015)  

Cannabidiol (CBD) and its analogs: a review of their effects on inflammation.  
(abst – 2015)  

For whom the endocannabinoid tolls: Modulation of innate immune function and implications for psychiatric disorders.  
(abst – 2015)  

The endocannabinoid system and its therapeutic implications in rheumatoid arthritis.  
(abst – 2015)  

Minocycline Attenuates Neonatal Germinal-Matrix-Hemorrhage-Induced Neuroinflammation and Brain Edema by Activating Cannabinoid Receptor 2.  
(abst – 2015)  
http://link.springer.com/article/10.1007%2Fs12035-015-9154-x

Potential of the cannabinoid CB2 receptor as a pharmacological target against inflammation in Parkinson's disease.  
(abst – 2015)  


Fatty acids, endocannabinoids and inflammation.  

Endocannabinoid regulation of amyloid-induced neuroinflammation.  

Lipopolysaccharide Suppresses Carboxylesterase 2g Activity and 2-Arachidonyleglycerol Hydrolysis: A Possible Mechanism to Regulate Inflammation.  

Cannabinoid 2 receptor activation reduces leukocyte adhesion and improves capillary perfusion in the iridial microvasculature during systemic inflammation.  

Neuroprotective Effect Is Driven Through the Upregulation of CB1 Receptor in Experimental Autoimmune Encephalomyelitis.  

Deletion of G-protein coupled receptor 55 promotes obesity by reducing physical activity.  

Cannabinoid Receptor Type 2 Agonist Attenuates Acute Neurogenic Pulmonary Edema by Preventing Neutrophil Migration after Subarachnoid Hemorrhage in Rats.  

A Double Whammy: Targeting Both Fatty Acid Amide Hydrolase (FAAH) and Cyclooxygenase (COX) To Treat Pain and Inflammation.  


Inhibitors of Fatty Acid Amide Hydrolase and Monoacylglycerol Lipase: New Targets for Future Antidepressants.  
http://www.eurekaselect.com/132200/article

Adelmidrol increases the endogenous concentrations of palmitoylethanolamide in canine keratinocytes and down-regulates an inflammatory reaction in an in vitro model of contact allergic dermatitis.  

Endocannabinoids - at the crossroads between the gut microbiota and host metabolism.  
http://www.nature.com/nrendo/journal/v12/n3/full/nrendo.2015.211.html

Cell type-specific modulation of lipid mediator's formation in murine adipose tissue by omega-3 fatty acids.  
http://www.sciencedirect.com/science/article/pii/S0006291X15310603
Cannabinoid receptor 2 deficiency results in reduced neuroinflammation in an Alzheimer's disease mouse model.  (abst – 2015)  


Lipid signaling in adipose tissue: Connecting inflammation & metabolism  (abst – 2015)  

Actions of the dual FAAH/MAGL inhibitor JZL195 in a murine neuropathic pain model.  (full – 2016)  

Myeloid-Specific Deletion of Diacylglycerol Lipase α Inhibits Atherogenesis in ApoE-Deficient Mice.  (full – 2016)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0146267

Monoglyceride lipase deficiency modulates endocannabinoid signaling and improves plaque stability in ApoE-knockout mice  (full – 2016)  

Characterization of a novel adult murine immortalized microglial cell line and its activation by amyloid-beta.  (full – 2016)  

Up-regulation of immunomodulatory effects of mouse bone-marrow derived mesenchymal stem cells by tetrahydrocannabinol pre-treatment involving cannabinoid receptor CB2.  (full – 2016)  

Selective Cannabinoid Receptor-1 Agonists Regulate Mast Cell Activation in an Oxazolone-Induced Atopic Dermatitis Model.  (full – 2016)  

Vaccenic acid suppresses intestinal inflammation by increasing the endocannabinoid anandamide and non-cannabinoid signaling molecules in a rat model of the metabolic syndrome.  (full – 2016)  
http://www.jlr.org/content/early/2016/02/17/jlr.M066308.long

Differential Regulation of Eicosanoid and Endocannabinoid Production by Inflammatory Mediators in Human Choriodecidua.  (full – 2016)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0148306

Exogenous hepatitis B virus envelope proteins induce endoplasmic reticulum stress: involvement of cannabinoid axis in liver cancer cells.  (full – 2016)  


Protective Action of Anandamide and its COX-2 Metabolite against L-Homocysteine-induced NLRP3 Inflammasome Activation and Injury in Podocytes. (full – 2016)  http://jpet.aspetjournals.org/content/early/2016/05/10/jpet.116.233239.long


Gastric acid inhibitory and gastric protective effects of Cannabis and cannabinoids (full – 2016)  http://www.sciencedirect.com/science/article/pii/S1995764516300712


Amyloid proteotoxicity initiates an inflammatory response blocked by cannabinoids (full – 2016)  http://www.nature.com/articles/npjamd201612


The Cannabinoid Receptor 2 Protects Against Alcoholic Liver Disease Via a Macrophage Autophagy-Dependent Pathway. (full – 2016)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4921859/

The synthetic cannabinoid WIN55,212-2 mesylate decreases the production of inflammatory mediators in rheumatoid arthritis synovial fibroblasts by activating CB2, TRPV1, TRPA1 and yet unidentified receptor targets. (full – 2016)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4858820/

Immunohistochemical analysis of cannabinoid receptor 1 expression in steatotic rat livers. (full– 2016)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4812478/
Cannabinoid receptor 2 modulates susceptibility to experimental cerebral malaria through a CCL17-dependent mechanism. (full – 2016) http://www.jbc.org/content/early/2016/07/29/jbc.M116.746594.long

Spontaneous Cannabinoid Receptor 2 (CB2) Expression in the Cochlea of Adult Albino Rat and Its Up-Regulation after Cisplatin Treatment. (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0161954

Interaction between Cannabinoid System and Toll-Like Receptors Controls Inflammation. (full – 2016) https://www.hindawi.com/journals/mi/2016/5831315/


Effects of Adolescent Intermittent Alcohol Exposure on the Expression of Endocannabinoid Signaling-Related Proteins in the Spleen of Young Adult Rats. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5035052/


Longitudinal examination of the intestinal lamina propria cellular compartment of SIV-infected rhesus macaques provides broader and deeper insights into the link between aberrant microRNA expression and persistent immune activation. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4859716/

An Orally Active Cannabis Extract with High Content in Cannabidiol attenuates Chemically-induced Intestinal Inflammation and Hypermotility in the Mouse. (full - 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5047908/
Activation of Cannabinoid Receptor 2 Ameliorates DSS-Induced Colitis through Inhibiting NLRP3 Inflammasome in Macrophages. (full – 2016)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5017608/

Target regulation of PI3K/Akt/mTOR pathway by cannabidiol in treatment of experimental multiple sclerosis. (full – 2016)

Interaction between Cannabinoid System and Toll-Like Receptors Controls Inflammation (full – 2016)
https://www.hindawi.com/journals/mi/2016/5831315/

Cannabinoid receptor 2 as anti-obesity target: inflammation, fat storage and browning modulation. (link to PDF- 2016)

Cannabidiol limits Tcell-mediated chronic autoimmune myocarditis: implications to autoimmune disorders and organ transplantation. (click “Molecular Medicine” for PDF– 2016)

Dendritic Cell Regulation by Cannabinoid-Based Drugs (link to PDF - 2010)

Getting into the weed: the role of the endocannabinoid system in the brain-gut axis. (link to full via ELSEVIER – 2016)

G protein-coupled receptor 18: A potential role for endocannabinoid signalling in metabolic dysfunction. (abst – 2016)

Cannabinoid Receptor Type 2 Agonist Attenuates Acute Neurogenic Pulmonary Edema by Preventing Neutrophil Migration after Subarachnoid Hemorrhage in Rats (abst - 2016)
http://link.springer.com/chapter/10.1007/978-3-319-18497-5_24

The emerging role of the cannabinoid receptor family in peripheral and neuro-immune interactions. (abst – 2016)
http://www.eurekaselect.com/138448/article

β-Caryophyllene, a natural sesquiterpene lactone attenuates hyperglycemia mediated oxidative and inflammatory stress in experimental diabetic rats (abst – 2016)

The Endogenous Cannabinoid Anandamide Increases Human Airway Epithelial Cell Permeability through an Arachidonic Acid Metabolite (abst – 2016)

Endocannabinoids in Cerebrovascular Regulation. (abst – 2016)  

Anti-Inflammatory and Osteoprotective Effects of Cannabinoid-2 Receptor Agonist Hu-308 in a Rat Model of Lipopolysaccharide-Induced Periodontitis. (abst – 2016)  

Cannabinoids for the Treatment of Schizophrenia: An Overview. (abst – 2016)  
http://www.eurekaselect.com/139245/article

Stimulation of cannabinoid CB1 receptors prevents nerve-mediated airway hyperreactivity in NGF-induced inflammation in mouse airways. (abst – 2016)  

Role of cannabinoids in gastrointestinal mucosal defense and inflammation. (abst – 2016)  
http://www.eurekaselect.com/140045/article

Endocannabinoid concentrations in hair are associated with PTSD symptom severity. (abst – 2016)  
http://www.psyneuen-journal.com/article/S0306-4530%2816%2930040-3/abstract

N-acyl ethanolamide and eicosanoid involvement in irritant dermatitis. (abst – 2016)  

Cannabinoids Occlude the HIV-1 Tat-Induced Decrease in GABAergic Neurotransmission in Prefrontal Cortex Slices. (abst – 2016)  

Marijuana-derived Δ-9-tetrahydrocannabinol suppresses Th1/Th17 cell-mediated delayed-type hypersensitivity through microRNA regulation. (abst – 2016)  

Production of endocannabinoids by activated T cells and B cells modulates inflammation associated with delayed type hypersensitivity. (abst – 2016)  

2-pentadecyl-2-oxazoline: identification in coffee, synthesis and activity in a rat model of carrageenan-induced hindpaw inflammation (abst – 2016)  

Anandamide and its metabolites: what are their roles in the kidney? (abst – 2016)  

Crosstalk between liver antioxidant and the endocannabinoid systems after chronic administration of the FAAH inhibitor, URB597, to hypertensive rats. (abst – 2016)  

Mustard vesicants alter expression of the endocannabinoid system in mouse skin. (abst – 2016)  
Endocannabinoid 2-Arachidonoylglycerol Suppresses LPS-Induced Inhibition of A-Type Potassium Channel Currents in Caudate Nucleus Neurons Through CB1 Receptor. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27129498


Docosahexaenoic acid attenuates in endocannabinoid synthesis in RAW 264.7 macrophages activated with benzo(a)pyrene and lipopolysaccharide. (abst – 2016)
Cannabinoids and Neuro-Inflammation: Regulation of Brain Immune Response. (abst – 2016)  

LINOLEIC ACID AND THE PATHOGENESIS OF OBESITY. (abst – 2016)  

Microglia activation states and cannabinoid system: Therapeutic implications. (abst – 2016)  

The cannabinoid 2 receptor agonist β-caryophyllene modulates the inflammatory reaction induced by Mycobacterium bovis BCG by inhibiting neutrophil migration. (abst – 2016)  

Deficient adolescent social behavior following early-life inflammation is ameliorated by augmentation of anandamide signaling. (abst – 2016)  

Peripheral interactions between cannabinoid and opioid receptor agonists in a model of inflammatory mechanical hyperalgesia. (abst – 2016)  

Cannabinoids, inflammation, and fibrosis. (abst – 2016)  

Expression of the Endocannabinoid Receptor 1 in Human Stroke: An Autoptic Study. (abst – 2016)  

Heterologous Regulation of the Cannabinoid Type 1 Receptor by Angiotensin II in Astrocytes of Spontaneously Hypertensive Rats. (abst – 2016)  

The gastrointestinal tract - a central organ of cannabinoid signaling in health and disease. (abst – 2016)  

Endocannabinoids inhibit neurogenic inflammation in murine joints by a non-canonical cannabinoid receptor mechanism. (abst – 2016)  
http://www.neuropeptidesjournal.com/article/S0143-4179(16)30047-6/abstract

Cannabinoid 2 receptor is a novel anti-inflammatory target in experimental proliferative vitreoretinopathy. (abst – 2016)  

Oleoylethanolamine and palmitoylethanolamine modulate intestinal permeability in vitro via TRPV1 and PPARα. (abst – 2016)  
Δ9-Tetrahydrocannabinol Reverses TNFα-induced Increase in Airway Epithelial Cell Permeability through CB2 Receptors  
(abst – 2016)  

N-palmitoylethanolamide in the anterior cingulate cortex attenuates inflammatory pain behaviour indirectly via a CB1 receptor-mediated mechanism.  
(abst – 2016)  

Docosahexaenoyl Serotonin, an endogenously formed n-3 fatty acid-serotonin conjugate has anti-inflammatory properties by attenuating IL-23–IL-17 signalling in macrophages  
(abst – 2016)  

Anandamide Suppresses Proinflammatory T Cell Responses In Vitro through Type-1 Cannabinoid Receptor-Mediated mTOR Inhibition in Human Keratinocytes.  
(abst – 2016)  

Gingival Stromal Cells as an In Vitro Model: Cannabidiol Modulates Genes Linked with Amyotrophic Lateral Sclerosis.  
(abst – 2016)  

Activation of Cannabinoid Receptor 2 Attenuates Mechanical Alldynia and Neuroinflammatory Responses in a Chronic Post-Ischemic Pain Model of Complex Regional Pain Syndrome Type I in Rats.  
(abst – 2016)  

Palmitoylethanolamide reduces inflammation and itch in a mouse model of contact allergic dermatitis.  
(abst – 2016)  

Cannabinoids prevent the amyloid β-induced activation of astroglial hemichannels: A neuroprotective mechanism.  
(abst – 2016)  

Therapeutic potential of fatty acid amide hydrolase, monoacylglycerol lipase, and N-acylethanolamine acid amidase inhibitors.  
(abst – 2016)  
http://pubs.acs.org/doi/abs/10.1021/acs.jmedchem.6b00538

Experimental cannabidiol treatment reduces early pancreatic inflammation in type 1 diabetes.  
(abst – 2016)  

Oxyradical Stress Increases the Biosynthesis of 2-Arachidonoylglycerol: Involvement of NADPH Oxidase.  
(abst – 2016)  

Cannabinoids, inflammation, and fibrosis.  
(abst – 2016)  

Medical Marijuana: Just the Beginning of a Long, Strange Trip?  
(abst – 2016)  
Cannabinoids in the Management of Musculoskeletal or Rheumatic Diseases.  
(abst – 2016)  

Antagonism of cannabinoid receptor 1 attenuates the anti-inflammatory effects of electroacupuncture in a rodent model of migraine.  
(abst – 2016)  

The combination of β-caryophyllene, baicalin and catechin synergistically suppresses the proliferation and promotes the death of RAW267.4 macrophages in vitro.  
(abst – 2016)  

Cannabidiol reduces neuroinflammation and promotes neuroplasticity and functional recovery after brain ischemia.  
(abst – 2016)  

CB2 receptors regulate natural killer cells that limit allergic airway inflammation in a murine model of asthma.  
(abst – 2016)  

The Anti-Inflammatory Effect and Intestinal Barrier Protection of HU210 Differentially Depend on TLR4 Signaling in Dextran Sulfate Sodium-Induced Murine Colitis  
(abst – 2016)  

Inflammation of peripheral tissues and injury to peripheral nerves induce differing effects in the expression of the calcium-sensitive anandamide-synthesising enzyme and related molecules in rat primary sensory neurons.  
(abst – 2016)  

WWL70 attenuates PGE2 production derived from 2-arachidonoylglycerol in microglia by ABHD6-independent mechanism  
(full – 2017)  

Targeting Cutaneous Cannabinoid Signaling in Inflammation - A “High”-way to Heal?  
(full – 2017)  
http://www.ebiomedicine.com/article/S2352-3964(17)30003-8/fulltext

Compensatory Activation of Cannabinoid CB2 Receptor Inhibition of GABA Release in the Rostral Ventromedial Medulla in Inflammatory Pain.  
(abst – 2017)  

Involvement of the endocannabinoid system in the physiological response to transient common carotid artery occlusion and reperfusion.  
(abst – 2017)  

Beta-caryophyllene protects against alcoholic steatohepatitis by attenuating inflammation and metabolic dysregulation in mice.  
(abst – 2017)  


-INFLUENZA- see FLU/ INFLUENZA

-INJURIES - see WOUNDS AND INJURIES

INTERACTIONS WITH OTHER DRUGS +*.

THC Prevents MDMA Neurotoxicity in Mice. (full - 2010)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2824821/

Attenuation of morphine antinociceptive tolerance by a CB(1) receptor agonist and an NMDA receptor antagonist: Interactive effects. (full – 2010)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2813317/?tool=pubmed


Methamphetamine neurotoxicity increases brain expression and alters behavioral functions of CB₁ cannabinoid receptors. (abst – 2010)


Probable Interaction Between Warfarin and Marijuana Smoking (abst - 2010)
http://www.unboundmedicine.com/medline/ebm/record/19531696/abstract/Probable_Interaction_Between_Warfarin_and_Marijuana_Smoking__July/August__

Cannabidiol Attenuates Cisplatin-Induced Nephrotoxicity by Decreasing Oxidative/Nitrosative Stress, Inflammation, and Cell Death (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2682269/

The safety of modafinil in combination with oral ∆9-tetrahydrocannabinol in humans (full - 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3645879/

Acute effects of MDMA (3,4-methylenedioxymethamphetamine) on EEG oscillations: alone and in combination with ethanol or THC (delta-9-tetrahydrocannabinol) (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3033515/?tool=pmcentrez

Inhibition of monoacylglycerol lipase (MAGL) attenuates NSAID-induced gastric hemorrhages in mice. (full – 2011) http://jpet.aspetjournals.org/content/early/2011/06/09/jpet.110.175778.long


Combined effects of THC and caffeine on working memory in rats. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423236/

Clozapine and SCH 23390 prevent the spatial working memory disruption induced by ∆9-THC administration into the medial prefrontal cortex. (full – 2011) http://www.sciencedirect.com/science/article/pii/S0006899311001533

Cannabinoid system and cyclooxygenases inhibitors (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3056416/?tool=pubmed


Combined effects of acute, very-low-dose ethanol and delta(9)-tetrahydrocannabinol in healthy human volunteers (full - 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3018238/
A combined preclinical therapy of cannabinoids and temozolomide against glioma.  
(full – 2011)  
http://mct.aacrjournals.org/content/10/1/90.full

Efavirenz interference in urine screening immunoassays for tetrahydrocannabinol.  
(full – 2011)  
http://acb.sagepub.com/content/49/2/194.long

Cannabis in Palliative Medicine: Improving Care and Reducing Opioid-Related Morbidity  
(link to download - 2011)  
http://ajh.sagepub.com/content/28/5/297

Possible involvement of the endocannabinoid system in memory modulation effect of general anesthetics  
(abst - 2011)  
http://www.unboundmedicine.com/medline/ebm/record/2155187/abstract/Possible_involvement_of_the_endocannabinoid_system_in_memory_modulation_effect_of_general_anesthetics

Role of GLT-1 transporter activation in prevention of cannabinoid tolerance by the β-lactam antibiotic, ceftriaxone, in mice.  
(abst – 2011)  

Cannabinoid-opioid interaction in chronic pain.  
(abst – 2011)  
http://www.unboundmedicine.com/medline/ebm/record/22048225/abstract/Cannabinoid_opioid_interaction_in_chronic_pain

Cannabidiol potentiates Δ(9)-tetrahydrocannabinol (THC) behavioural effects and alters THC pharmacokinetics during acute and chronic treatment in adolescent rats.  
(abst - 2011)  

(abst - 2011)  

The interplay of cannabinoid and NMDA glutamate receptor systems in humans: preliminary evidence of interactive effects of cannabidiol and ketamine in healthy human subjects.  
(abst – 2011)  

THC-methadone and THC-naltrexone interactions on discrimination, antinociception, and locomotion in rats.  
(abst - 2011)  
http://www.unboundmedicine.com/medline/ebm/record/21716095/abstract/THC_methadone_and_THC_naltrexone_interactions_on_discrimination_antinociception_and_locomotion_in_rats

Pharmacokinetics of a combination of Δ9-tetrahydro-cannabinol and celecoxib in a porcine model of hemorrhagic shock.  
(abst – 2011)  

Low-volume binary drug therapy for the treatment of hypovolemia.  
(abst – 2011)
β-adrenergic Antagonists, Carbonic Anhydrase Inhibitors And α2-agonists Reduce The Effects Of Cannabinoids In A Rat Glaucoma Model (abst – 2011)
http://iovs.arvojournals.org/article.aspx?articleid=2360875&resultClick=1


Chronic administration of THC prevents the behavioral effects of intermittent adolescent MDMA administration and attenuates MDMA-induced hyperthermia and neurotoxicity in rats (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3189263/

The periaqueductal gray contributes to bidirectional enhancement of antinociception between morphine and cannabinoids. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3959123/

Effects of ethanol, Δ(9)-tetrahydrocannabinol, or their combination on object recognition memory and object preference in adolescent and adult male rats. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3477605/

β-Caryophyllene ameliorates cisplatin-induced nephrotoxicity in a cannabinoid 2 receptor-dependent manner. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3312970/


Effect of ACEA-a selective cannabinoid CB1 receptor agonist on the protective action of different antiepileptic drugs in the mouse pentylenetetrazole-induced seizure model.


Interactions between mu opioid receptor agonists and cannabinoid receptor agonists in rhesus monkeys: antinociception, drug discrimination, and drug self-administration. (full – 2013)  http://jpet.aspetjournals.org/content/early/2013/03/27/jpet.113.204099.long


A Phase I, open-label, randomized, crossover study in three parallel groups to evaluate the effect of Rifampicin, Ketoconazole, and Omeprazole on the pharmacokinetics of THC/CBD oromucosal spray in healthy volunteers  (full – 2013)  http://www.springerplus.com/content/2/1/236

Dual Inhibition of Endocannabinoid Catabolic Enzymes Produces Enhanced Anti-Withdrawal Effects in Morphine-Dependent Mice.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3656376/

Dissociation of the Pharmacological Effects of THC by mTOR Blockade.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3656376/

AM281, Cannabinoid Antagonist/Inverse agonist, Ameliorates Scopolamine-Induced Cognitive Deficit.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3586915/


Differential drug-drug interactions of the synthetic Cannabinoids JWH-018 and JWH-073: implications for drug abuse liability and pain therapy.  (full - 2013)  http://jpet.aspetjournals.org/content/early/2013/06/25/jpet.113.206003.long

Prior Exposure to THC Increases the Addictive Effects of Nicotine in Rats.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3656362/

Efavirenz does not cause false-positive urine cannabis test in HIV-infected patients on Highly Active Anti-Retroviral Therapy.  (full – 2013)
Acute Δ9-tetrahydrocannabinol blocks gastric hemorrhages induced by the nonsteroidal anti-inflammatory drug diclofenac sodium in mice. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4053165/

The effects of cannabidiol and its synergism with bortezomib in multiple myeloma cell lines. A role for transient receptor potential vanilloid type-2 (full – 2013)

Acute Psychosis Associated with Recreational Use of Benzofuran 6-(2-Aminopropyl)Benzofuran (6-APB) and Cannabis. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3770991/

Impact of Cannabis Use during Stabilization on Methadone Maintenance Treatment. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4717827/

Exogenous cannabinoids as substrates, inhibitors, and inducers of human drug metabolizing enzymes: a systematic review. (full– 2013)


Cannabis and Cigarettes (article – 2013)
http://jama.jamanetwork.com/article.aspx?articleid=1681388&amp;resultClick=3

Interactions between mu opioid receptor agonists and cannabinoid receptor agonists CP55940 and WIN55212-2 in rhesus monkeys: evaluation of treatment- and abuse-related effects (abst – 2013)
http://www.fasebj.org/content/27/1_Supplement/1097.3.abstract?sid=b188b212-67f6-4544-827b-5e857c313f2e

Role of intra-accumbal cannabinoid CB1 receptors in the potentiation, acquisition and expression of morphine-induced conditioned place preference. (abst – 2013)

Additive antiemetic efficacy of low-doses of the cannabinoid CB1/2 receptor agonist Δ9-THC with ultralow-doses of the vanilloid TRPV1 receptor agonist resiniferatoxin in the least shrew (Cryptotis parva). (abst – 2013)

Activation of type-2 cannabinoid receptor inhibits neuroprotective and antiinflammatory actions of glucocorticoid receptor α: when one is better than two. (abst – 2013)
Cannabidiol inhibits the reward-facilitating effect of morphine: involvement of 5-HT1A receptors in the dorsal raphe nucleus.  (abst – 2013)  

Effects of WIN 55,212-2 (a non-selective cannabinoid CB1 and CB2 receptor agonist) on the protective action of various classical antiepileptic drugs in the mouse 6 Hz psychomotor seizure model.  (full – 2014)  

Cyclosporine and Herbal Supplement Interactions  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3913293/

Updates on the Clinical Evidenced Herb-Warfarin Interactions.  (full – 2014)  
http://www.hindawi.com/journals/ecam/2014/957362/

Δ9-tetrahydrocannabinol prevents methamphetamine-induced neurotoxicity.  (full – 2014)  

Combining rimonabant and fentanyl in a single entity: preparation and pharmacological results  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3934591/

Pregnenolone can protect the brain from cannabis intoxication.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4057431/

An exploratory study of the combined effects of orally administered methylphenidate and delta-9-tetrahydrocannabinol (THC) on cardiovascular function, subjective effects, and performance in healthy adults.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4250392/

Impact of efficacy at the mu opioid receptor on antinociceptive effects of combinations of mu opioid receptor agonists and cannabinoid receptor agonists.  (full – 2014)  
http://jpet.aspetjournals.org/content/early/2014/09/05/jpet.114.216648.long

Δ9-THC exposure attenuates aversive effects and reveals appetitive effects of K2/'Spice' constituent JWH-018 in mice.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4157458/

Acute administration of Δ9 tetrahydrocannabinol does not prevent enhancement of sensory gating by clozapine in DBA/2 mice.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3945413/

Cannabis Withdrawal in Patients With and Without Opioid Dependence.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4127106/

Prior stimulation of the endocannabinoid system prevents methamphetamine-induced dopaminergic neurotoxicity in the striatum through activation of CB2 receptors.


Analgesic tolerance and cross-tolerance to the cannabinoid receptors ligands hemopressin, VD-hemopressin(α) and WIN55,212-2 at the supraspinal level in mice. (abst – 2014) http://www.sciencedirect.com/science/article/pii/S0304394014005394

Effects of opioids and cannabinoids during chronic morphine treatment in rhesus monkeys (abst – 2014) http://www.fasebj.org/content/28/1_Supplement/658.3.abstract?sid=467bb529-0ecc-4ddc-af27-3f56f520a102


THE EFFECT OF EPIDIOLEX (CANNABIDIOL) ON SERUM LEVELS OF CONCOMITANT ANTI-EPILEPTIC DRUGS IN CHILDREN AND YOUNG ADULTS WITH TREATMENT-RESISTANT EPILEPSY IN AN EXPANDED ACCESS PROGRAM (abst – 2014) https://www.aesnet.org/meetings_events/annual_meeting_abstracts/view/1868391#sthash.xubwugdh.dpuf

RESOLUTION OF SEIZURES AND NORMALIZATION OF EEG AFTER INITIATION OF CBD IN A PATIENT WITH DOOSE SYNDROME (abst – 2014) https://www.aesnet.org/meetings_events/annual_meeting_abstracts/view/1868186#sthash.4suBa1in.dpuf


Controlled Cannabis Vaporizer Administration: Blood and Plasma Cannabinoids with and without Alcohol. (full – 2015) http://www.clinchem.org/content/61/6/850.long


Enhancing Brain Pregnenolone May Protect Cannabis Intoxication but Should Not Be Considered as an Anti-addiction Therapeutic: Hypothesizing Dopaminergic Blockade and Promoting Anti-Reward. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4545660/


13-Year-Old Girl With Recurrent, Episodic, Persistent Vomiting: Out of the Pot and Into the Fire. (full – 2015) http://pediatrics.aappublications.org/content/135/4/e1060.long

Cigarette smoking may modify the association between cannabis use and adiposity in males. (full – 2015) http://www.sciencedirect.com/science/article/pii/S0091305715001690

Novel associations between FAAH genetic variants and postoperative central opioid-related adverse effects. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4492912/


Veterans Health Administration Policy on Cannabis as an Adjunct to Pain Treatment with Opiates (article – 2015) http://journalofethics.ama-assn.org/2015/06/pfor2-1506.html
Effects of WIN 55,212-2 (a synthetic cannabinoid CB1 and CB2 receptor agonist) on the anticonvulsant activity of various novel antiepileptic drugs against 6 Hz-induced psychomotor seizures in mice. (abst – 2015)

Anaesthetic consideration in a cannabis addict. (abst – 2015)


Genetic inactivation and prolonged pharmacologic inhibition of monoacylglycerol lipase have opposite effects on anesthetic sensitivity to propofol (abst – 2015) http://www.sciencedirect.com/science/article/pii/S0014299915302247


Low-Dose Cannabinoid Type 2 Receptor Agonist Attenuates Tolerance to Repeated Morphine Administration via Regulating μ-Opioid Receptor Expression in Walker 256 Tumor-Bearing Rats. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26720619


Combined Treatment with Morphine and Δ9-Tetrahydrocannabinol (THC) in Rhesus Monkeys: Antinociceptive Tolerance and Withdrawal (abst – 2015) http://www.fasebj.org/content/29/1_Supplement/616.9.abstract?sid=edf921ac-0690-4aa6-ac81-0546314dd384

Nicotine Changes Marijuana’s Effect on the Brain  (news & abstract - 2015)  

Cannabinoids for pediatric epilepsy? Up in smoke or real science?  (full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4729003/

Effects of Cannabinoid Exposure during Adolescence on the Conditioned Rewarding Effects of WIN 55212-2 and Cocaine in Mice: Influence of the Novelty-Seeking Trait.  (full – 2016)  
http://www.hindawi.com/journals/np/2016/6481862/

A Study of the Impact of Cannabis on Doses of Discharge Antipsychotic Medication in Individuals with Schizophrenia or Schizoaffective Disorder.  (full – 2016)  

Interactions between cannabinoid receptor agonists and mu opioid receptor agonists in rhesus monkeys discriminating fentanyl.  (full – 2016)  

Delta-9-tetrahydrocannabinol protects against MPP+ toxicity in SH-SY5Y cells by restoring proteins involved in mitochondrial biogenesis.  (full – 2016)  
http://www.impactjournals.com/oncotarget/index.php?journal=oncotarget&page=article&op=view&path%5B%5D=10314&path%5B%5D=32486

Effect of interaction between acute administration of morphine and cannabinoid compounds on spontaneous excitatory and inhibitory postsynaptic currents of magnocellular neurons of supraoptic nucleus.  (full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4951608/

High on Cannabis and Calcineurin Inhibitors: A Word of Warning in an Era of Legalized Marijuana  (full – 2016)  
https://www.hindawi.com/journals/crit/2016/4028492/

Current Therapeutic Cannabis Controversies and Clinical Trial Design Issues  (full – 2016)  

Cannabidiol Prevents Motor and Cognitive Impairments Induced by Reserpine in Rats  (full – 2016)  

Cannabinoids synergize with carfilzomib, reducing multiple myeloma cells viability and migration.  (full – 2016)  
http://www.impactjournals.com/oncotarget/index.php?journal=oncotarget&page=article&op=view&path%5B%5D=12721&path%5B%5D=40316

The selective monoacylglycerol lipase inhibitor MJN110 produces opioid sparing effects in a mouse neuropathic pain model.  (link to PDF – 2016)  
http://jpet.aspetjournals.org/content/early/2016/01/20/jpet.115.229971.abstract?sid=97527854-e2fb-4d74-ad96-6ab0744de240

Behavioral Characterization of Kappa Opioid Receptor Agonist Spiradoline and Cannabinoid Receptor Agonist CP55940 Mixtures in Rats.
Ketamine and MAG Lipase Inhibitor-Dependent Reversal of Evolving Depressive Behavior during Forced Abstinence from Alcohol Drinking. (abst – 2016)  

The endocannabinoid system and NGF are involved in the mechanism of action of resveratrol: a multi-target nutraceutical with therapeutic potential in neuropsychiatric disorders. (abst – 2016)  

CB1 Cannabinoid Agonist (WIN55,212-2) Within the Basolateral Amygdala Induced Sensitization to Morphine and Increased the Level of μ-Opioid Receptor and c-fos in the Nucleus Accumbens (abst – 2016)  

Combined treatment with morphine and Δ9-tetrahydrocannabinol (THC) in rhesus monkeys: antinociceptive tolerance and withdrawal. (abst – 2016)  

Involvement of TRPV1 channels in the activity of the cannabinoid WIN 55,212-2 in an acute rat model of temporal lobe epilepsy. (abst – 2016)  

The Effect of Medicinal Cannabis on Pain and Quality of Life Outcomes in Chronic Pain: A Prospective Open-label Study. (abst – 2016)  

Medical cannabis associated with decreased opiate medication use in retrospective cross-sectional survey of chronic pain patients. (abst – 2016)  

Pharmacokinetic Drug Interactions with Tobacco, Cannabinoids and Smoking Cessation Products. (abst – 2016)  

Anti-inflammatory and antioxidant effects of a combination of cannabidiol and moringin in LPS-stimulated macrophages. (abst – 2016)  

Opioid and cannabinoid synergy in a mouse neuropathic pain model. (abst – 2016)  

Marijuana Use and Its Effects in Pregnancy. (abst – 2016)  

Substitution and Complementarity of Alcohol and Cannabis: A Review of the Literature. (abst – 2016)  


Basolateral amygdala CB1 cannabinoid receptors are involved in cross state-dependent memory retrieval between morphine and ethanol. (abst – 2016) http://www.sciencedirect.com/science/article/pii/S0091305716301083


Interactions between cannabidiol and Δ9-THC following acute and repeated dosing:
Rebound hyperactivity, sensorimotor gating and epigenetic and neuroadaptive changes in
the mesolimbic pathway. (abst – 2016)

**INTRA VENTRICULAR HEMORRHAGE** - bleeding into the fluid-filled areas (ventricles) of the brain

Cannabinoid Receptor 2 Activation Restricts Fibrosis and Alleviates Hydrocephalus after
Intraventricular Hemorrhage. (abst – 2016)

**ISAACS’ SYNDROME/ ACQUIRED NEUROMYOTONIA** +

Dramatic improvement of refractory Isaacs' syndrome after treatment with dronabinol.

>**ITCH** – see PRURITIS

**IQ/ MEMORY/ COGNITIVE EFFECTS** +*

Influence of cannabis use trajectories, grade repetition and family background on the
school-dropout rate at the age of 17 years in France. (full - 2010)
http://eurpub.oxfordjournals.org/content/20/2/157.long

Cannabidiol ameliorates cognitive and motor impairments in bile-duct ligated mice via 5-
HT1A receptor activation. (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2829220/?tool=pubmed

Enhanced endocannabinoid signaling elevates neuronal excitability in fragile X
Impact of cannabidiol on the acute memory and psychotomimetic effects of smoked cannabis: naturalistic study. (full - 2010) http://bjp.rcpsych.org/content/197/4/285.long


Evaluating the effect of aquatic extraction of Cannabis sativa seed on spatial memory consolidation (abst - 2010) http://www.annals-general-psychiatry.com/content/9/S1/S143

Evaluating the effect of Cannabis sativa seed extraction on memory (abst - 2010) http://www.annals-general-psychiatry.com/content/9/S1/S208


Combined effects of THC and caffeine on working memory in rats. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423236/

Tolerance and cross-tolerance to neurocognitive effects of THC and alcohol in heavy cannabis users. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3045517/

Sex, drugs, and cognition: effects of marijuana. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3089380/?tool=pubmed

Clozapine and SCH 23390 prevent the spatial working memory disruption induced by Δ9-THC administration into the medial prefrontal cortex. (full – 2011) http://www.sciencedirect.com/science/article/pii/S0006899311001533

Cannabidiol improves brain and liver function in a fulminant hepatic failure-induced model of hepatic encephalopathy in mice. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3057300/
Intelligence across childhood in relation to illegal drug use in adulthood: 1970 British Cohort Study (full – 2011) (must register)
http://www.academia.edu/1090026/Intelligence_across_childhood_in_relation_to_illegal_drug_use_in_adulthood_1970_British_Cohort_Study

Sexually dimorphic effects of cannabinoid compounds on emotion and cognition. (full - 2011)

Effects of endocannabinoid system modulation on cognitive and emotional behavior. (full – 2011)

Regulation of hippocampal cannabinoid CB1 receptor actions by adenosine A1 receptors and chronic caffeine administration: implications for the effects of Δ9-tetrahydrocannabinol on spatial memory. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3055664/

Pharmacological elevation of anandamide impairs short-term memory by altering the neurophysiology in the hippocampus. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3156972/

Endocannabinoid signaling in the amygdala: anatomy, synaptic signaling, behavior, and adaptations to stress. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3236282/

The Dopamine and Cannabinoid Interaction in the Modulation of Emotions and Cognition: Assessing the Role of Cannabinoid CB1 Receptor in Neurons Expressing Dopamine D1 Receptors. (full - 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3156975/

Propofol Enhances Memory Formation via an Interaction with the Endocannabinoid System. (full – 2011)

Fish oil promotes survival and protects against cognitive decline in severely undernourished mice by normalizing satiety signals. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3117120/

Effects of Chronic Marijuana Use on Brain Activity During Monetary Decision-Making. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3260974/

The dual neuroprotective-neurotoxic profile of cannabinoid drugs. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165949/

Patent WO 2010012506 A1 - CANNABINOIDS FOR USE IN TREATING OR PREVENTING COGNITIVE IMPAIRMENT AND DEMENTIA (full - 2011)
Possible involvement of the endocannabinoid system in memory modulation effect of general anesthetics (abst - 2011)
http://www.unboundmedicine.com/medline/ebm/record/21555187/abstract/ Possible involvement of the endocannabinoid system in memory modulation effect of general anesthetics

Early onset of aging-like changes is restricted to cognitive abilities and skin structure in Cnr1(-/-) mice. (abst – 2011) http://www.ncbi.nlm.nih.gov/pubmed/20724033


Assessing topographical orientation skills in cannabis users. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3259701/?tool=pubmed

Dual fatty acid amide hydrolase and monoacylglycerol lipase blockade produces THC-like Morris water maze deficits in mice. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3382457/

Loss of CB1 receptors leads to differential age-related changes in reward-driven learning and memory. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3514639/

Extinction learning of rewards in the rat: is there a role for CB1 receptors? (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3161161/


Can the benefits of cannabinoid receptor stimulation on neuroinflammation, neurogenesis and memory during normal aging be useful in AD prevention? (full – 2012) http://www.jneuroinflammation.com/content/9/1/10


The endocannabinoid system: a key modulator of emotions and cognition (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3490098/
Endocannabinoids in nervous system health and disease: the big picture in a nutshell (full – 2012)  http://rstb.royalsocietypublishing.org/content/367/1607/3193.full

Cellular and intracellular mechanisms involved in the cognitive impairment of cannabinoids (full - 2012)  http://rstb.royalsocietypublishing.org/content/367/1607/3254.full?sid=1569c370-cd5c-4358-89ff-857201f6e069

Involvement of the endocannabinoid system in reward processing in the human brain (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3266503/


The endocannabinoid, anandamide, augments Notch-1 signaling in cultured cortical neurons exposed to amyloid-β and in the cortex of aged rats. (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3464574/


Acute cannabinoids impair working memory through astroglial CB1 receptor modulation of hippocampal LTD. (full – 2012)  http://www.sciencedirect.com/science/article/pii/S0092867412001420

Effects of ethanol, Δ(9)-tetrahydrocannabinol, or their combination on object recognition memory and object preference in adolescent and adult male rats. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3477605/


Cannabinoid CB1 receptor deficiency increases contextual fear memory under highly aversive conditions and long-term potentiation in vivo. (abst – 2012) http://www.sciencedirect.com/science/article/pii/S1074742712000585


Modulation of the Endocannabinoids N-Arachidonylethanolamine (AEA) and 2-Arachidonoylglycerol (2-AG) on Executive Functions in Humans (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0066387


Effects of magnolol on impairment of learning and memory abilities induced by scopolamine in mice. (full – 2013) https://www.jstage.jst.go.jp/article/bpb/36/5/36_b12-00880/_html

Correlations between cannabis use and IQ change in the Dunedin cohort are consistent with confounding from socioeconomic status. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3600466/


Inhibition of FAAH and activation of PPAR: New approaches to the treatment of cognitive dysfunction and drug addiction. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3662489/

COMT val158met and 5-HTTLPR genetic polymorphisms moderate executive control in cannabis users (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3682154/

AM281, Cannabinoid Antagonist/Inverse agonist, Ameliorates Scopolamine-Induced Cognitive Deficit. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3586915/
Cannabinoids ameliorate impairments induced by chronic stress to synaptic plasticity and short-term memory. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3682147/

Novelty-Induced Emotional Arousal Modulates Cannabinoid Effects on Recognition Memory and Adrenocortical Activity (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3656371/

Dissociation of the Pharmacological Effects of THC by mTOR Blockade. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3656376/

Δ9-THC-Caused Synaptic and Memory Impairments Are Mediated through COX-2 Signaling (full – 2013)  
http://www.cell.com/cell/abstract/S0092-8674%2813%2901360-3?_returnURL=http%3A%2F%2Flinkinghub.elsevier.com%2Fretrieve%2Fpii%2FS0092867413013603%3Fshowall%3Dtrue

Impact of ADHD and cannabis use on executive functioning in young adults. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3820098/

Impulsivity, Variation in the Cannabinoid Receptor (CNR1) and Fatty Acid Amide Hydrolase (FAAH) Genes, and Marijuana-Related Problems. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3817049/

Cannabidiol attenuates deficits of visuo-spatial associative memory induced by Δ9 tetrahydrocannabinol. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3838683/

Effects of a novel CB1 agonist on visual attention in male rats: Role of strategy and expectancy in task accuracy. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4006576/

CB1 Receptor-Mediated Signaling Underlies the Hippocampal Synaptic, Learning and Memory Deficits Following Treatment with JWH-081, a New Component of Spice/K2 Preparations. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3959795/

Differential effects of the cannabinoid agonist WIN55,212-2 on delay and trace eyeblink conditioning (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3963426/

CB1 receptor signaling regulates social anxiety and memory. (full – 2013)  

Performance in working memory and attentional control is associated with the rs2180619 SNP in the CNR1 gene. (full – 2013)  

The neuroprotective effects of cocoa flavanol and its influence on cognitive performance (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3575938/


Effect of cannabinoid CB2 receptor agonism on learning and memory in a mouse model of photothrombosis (abst – 2013) http://www.fasebj.org/content/27/1_Supplement/1097.4.abstract?sid=01da6a98-e459-4153-9d22-acca30408ac8

Cannabidiol attenuates the long lasting cognitive deficits and anxiogenic-like behaviors promoted by murine cerebral malaria (abst – 2013) http://www.fasebj.org/content/27/1_Supplement/1097.9.abstract?sid=e40dd288-3dae-4e7a-b928-8e0c67991453


Cannabis abuse is associated with better emotional memory in schizophrenia: A functional magnetic resonance imaging study. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/23906663


Reduced expression of brain cannabinoid receptor 1 (Cnr1) is coupled with an increased complementary micro-RNA (miR-26b) in a mouse model of fetal alcohol spectrum disorders. (full – 2014) http://www.clinicalepigeneticsjournal.com/content/5/1/14


An exploratory study of the combined effects of orally administered methylphenidate and delta-9-tetrahydrocannabinol (THC) on cardiovascular function, subjective effects, and performance in healthy adults. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4250392/

Neurocognition in college-aged daily marijuana users (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4074777/

Synaptic and Cognitive Improvements by Inhibition of 2-AG Metabolism Are through Upregulation of MicroRNA-188-3p in a Mouse Model of Alzheimer's Disease. (full - 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4220026/

Impaired Fear Memory Specificity Associated with Deficient Endocannabinoid-Dependent Long-Term Plasticity. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4023141/

Cannabinoid Transmission in the Prefrontal Cortex Bi-Phasically Controls Emotional Memory Formation via Functional Interactions with the Ventral Tegmental Area. (full – 2014) http://www.jneurosci.org/content/34/39/13096.long


Fatty Acid-binding Protein 5 (FABP5) Regulates Cognitive Function Both by Decreasing Anandamide Levels and by Activating the Nuclear Receptor Peroxisome Proliferator-activated Receptor β/δ (PPARβ/δ) in the Brain (full – 2014) http://www.jbc.org/content/289/18/12748.full.pdf+html

Acute effects of delta-9-tetrahydrocannabinol, cannabidiol and their combination on facial emotion recognition: A randomised, double-blind, placebo-controlled study in cannabis users. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4398332/

Elevation of Endogenous Anandamide Impairs LTP, Learning and Memory through CB1 Receptor Signaling in Mice. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4077345/


Cannabinoid modulation of prefrontal-limbic activation during fear extinction learning and recall in humans (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3960373/

Endocannabinoid Signaling within the Basolateral Amygdala Integrates Multiple Stress Hormone Effects on Memory Consolidation. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4397407/


Chronic cannabidiol treatment improves social and object recognition in double transgenic APPswe/PS1ΔE9 mice. (abst – 2014)


Defects in fatty acid amide hydrolase 2 in a male with neurologic and psychiatric symptoms. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4423390/

Effects of high-fructose diets on central appetite signaling and cognitive function. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4429636/


Task-specific enhancement of hippocampus-dependent learning in mice deficient in monoacylglycerol lipase, the major hydrolyzing enzyme of the endocannabinoid 2-arachidonoylglycerol. (full – 2015) http://journal.frontiersin.org/article/10.3389/fnbeh.2015.00134/full

Cognitive Impairment Induced by Delta9-tetrahydrocannabinol Occurs through Heteromers between Cannabinoid CB1 and Serotonin 5-HT2A Receptors. (full – 2015) http://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.1002194


Homeostatic regulation of brain functions by endocannabinoid signaling  (full – 2015)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4468750/


The effect of five day dosing with THCV on THC-induced cognitive, psychological and physiological effects in healthy male human volunteers: A placebo-controlled, double-blind, crossover pilot trial.  (full – 2015)  http://jop.sagepub.com/content/early/2015/11/12/0269881115615104.long


The effect of BLA GABA(A) receptors in anxiolytic-like effect and aversive memory deficit induced by ACPA.  (full – 2015)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4669909/


Biased Type 1 Cannabinoid Receptor Signalling Influences Neuronal Viability in a Cell Culture Model of Huntington Disease.  (full – 2015)  http://molpharm.aspetjournals.org/content/early/2015/12/23/mol.115.101980.long

Neuropsychological sex differences associated with age of initiated use among young adult cannabis users.  (full – 2015)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4441859/


Role of the endocannabinoid system in the emotional manifestations of osteoarthritis pain. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4770330/

Training-Associated Emotional Arousal Shapes Endocannabinoid Modulation of Spatial Memory Retrieval in Rats. (full – 2015) http://www.jneurosci.org/content/35/41/13962.long


A selective cannabinoid CB2 agonist attenuates damage and improves memory retention following stroke in mice. (full – 2015) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4552583/

Habenular CB1 Receptors Control the Expression of Aversive Memories (full – 2015) http://www.cell.com/neuron/fulltext/S0896-6273(15)00729-1


The cannabinoid system in the retrosplenial cortex modulates fear memory consolidation, reconsolidation, and extinction. (full – 2015) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4749733/

Cannabis conundrum: Evidence of harm?: Opposition to marijuana use is often rooted in arguments about the drug's harm to children and adults, but the scientific evidence is seldom clear-cut (article – 2015) http://onlinelibrary.wiley.com/doi/10.1002/cncy.21516/full


Modulation of the effects of the cannabinoid agonist, ACPA, on spatial and non-spatial novelty detection in mice by dopamine D1 receptor drugs infused into the basolateral
Involvement of the serotonergic system of the ventral hippocampus (CA3) on amnesia induced by ACPA in mice. (abst – 2015)  

Effects of cannabinoid and glutamate receptor antagonists and their interactions on learning and memory in male rats. (abst – 2015)  

Intraperirhinal cortex administration of the synthetic cannabinoid, HU210, disrupts object recognition memory in rats. (abst – 2015)  

The potential of inhibitors of endocannabinoid metabolism as anxiolytic and antidepressive drugs-A practical view. (abst – 2015)  

Cannabinoid receptor agonist WIN55,212-2 and fatty acid amide hydrolase inhibitor URB597 suppress chronic cerebral hypoperfusion-induced neuronal apoptosis by inhibiting c-Jun N-terminal kinase signaling. (abst – 2015)  

Effects of URB597 as an inhibitor of fatty acid amide hydrolase on WIN55, 212-2-induced learning and memory deficits in rats. (abst – 2015)  

The effects of chronic marijuana use on circadian entrainment. (abst – 2015)  

The dual effect of CA1 NMDA receptor modulation on ACPA-induced amnesia in step-down passive avoidance learning task. (abst – 2015)  

The interactive role of cannabinoid and vanilloid systems in hippocampal synaptic plasticity in rats. (abst – 2015)  

Cannabinoid functions in the amygdala contribute to conditioned fear memory in streptozotocin-induced diabetic mice: interaction with glutamatergic functions. (abst – 2015)  

The endocannabinoid system and associative learning and memory in zebrafish. (abst – 2015)  

Astroglial type-1 cannabinoid receptors (CB1): A new player in the tripartite synapse. (abst – 2015)  
Endocannabinoid-mediated improvement on a test of aversive memory in a mouse model of fragile X syndrome.  
(abst – 2015)  

Involvement of cannabinoid receptors in infrasonic noise-induced neuronal impairment.  
(abst – 2015)  

The influence of cannabinoids on learning and memory processes of the dorsal striatum.  
(abst – 2015)  

Caffeine protects against memory loss induced by high and non-anxiolytic dose of cannabidiol in adult zebrafish (Danio rerio).  
(abst – 2015)  

Inhibition of fatty-acid amide hydrolyse (FAAH) exerts cognitive improvements in male but not female rats.  
(abst – 2015)  

No additive effect of cannabis on cognition in schizophrenia.  
(abst – 2015)  

Fatty acid amide hydrolase inhibitor URB597 prevented tolerance and cognitive deficits induced by chronic morphine administration in rats.  
(abst – 2015)  

Cannabinoids and Glucocorticoids in the Basolateral Amygdala Modulate Hippocampal-Accumbens Plasticity after Stress.  
(abst – 2015)  

Blockade of GPR55 in the dorsolateral striatum impairs performance of rats in a T-maze paradigm.  
(abst – 2015)  

Effect of nucleus accumbens shell 5-HT4 receptors on the impairment of ACPA-induced emotional memory consolidation in male Wistar rats.  
(abst – 2015)  

Providing a food reward reduces inhibitory avoidance learning in zebrafish.  
(abst – 2015)  

Enhanced Glutamatergic Synaptic Plasticity in the Hippocampal CA1 Field of Food-Restricted Rats: Involvement of CB1 Receptors.  
(abst – 2015)  

Anandamide mediates cognitive judgement bias in rats.  
(abst – 2015)  

GABAA receptors in the central amygdala are involved in memory retention deficits induced by cannabinoids in rats.  
(abst – 2015)  
Effect of combined doses of Δ9-tetrahydrocannabinol (THC) and cannabidiolic acid (CBDA) on acute and anticipatory nausea using rat (Sprague-Dawley) models of conditioned gaping. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26381155


Evaluating the relationship between cannabis use and IQ in youth and young adults at clinical high risk of psychosis. (abst – 2015) http://www.psy-journal.com/article/S0165-1781%2815%2930166-9/abstract

Deletion of CB2 cannabinoid receptors reduces synaptic transmission and long-term potentiation in the mouse hippocampus. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26663094


Involvement of the infralimbic cortex and CA1 hippocampal area in reconsolidation of a contextual fear memory through CB1 receptors: effects of CP55,940. (abst – 2015) http://www.sciencedirect.com/science/article/pii/S1074742715002257


CB1 receptors in the formation of the different phases of memory-related processes in the inhibitory avoidance test in mice. (abst – 2015) http://www.sciencedirect.com/science/article/pii/S0166432815303326


Endocannabinoid signaling integrates multiple stress hormone effects on memory (abst – 2015) http://www.psyneuen-journal.com/article/S0306-4530%2815%2900634-4/abstract
Effects of Synthetic Cannabinoid JWH-018 and Phytocannabinoid Δ9-THC on Learning and Memory in Mice (abst – 2015)
http://www.fasebj.org/content/29/1_Supplement/615.5.abstract?sid=edf921ac-0690-4aa6-ac81-0546314dd384

Ultra-low doses of tetrahydrocannabinol contribute to the survival of newly-born cells in the dentate gyrus of adult rats (abst – 2015)
http://link.springer.com/article/10.1134/S1819712415030046

Changes Marijuana’s Effect on the Brain (news & abstract - 2015)

Cannabinoid Receptors May Control Aversive Memories (news & abstract - 2015)
http://neurosciencenews.com/habenula-cb1-receptors-memory-2742/

Are IQ and educational outcomes in teenagers related to their cannabis use? A prospective cohort study (full – 2016)
http://jop.sagepub.com/content/early/2016/01/06/026988115622241.full

Correlations between the Memory-Related Behavior and the Level of Oxidative Stress Biomarkers in the Mice Brain, Provoked by an Acute Administration of CB Receptor Ligands (full – 2016)
http://www.hindawi.com/journals/np/2016/9815092/

CB2 Cannabinoid Receptor Knockout in Mice Impairs Contextual Long-Term Memory and Enhances Spatial Working Memory (full – 2016)
http://www.hindawi.com/journals/np/2016/9817089/

Comparisons of Δ9-tetrahydrocannabinol and Anandamide on a Battery of Cognition-related Behavior in Nonhuman Primates. (full – 2016)
http://jpet.aspetjournals.org/content/early/2016/01/29/jpet.115.228189.long

GABA and Endocannabinoids Mediate Depotentiation of Schaffer Collateral Synapses Induced by Stimulation of Temperoammonic Inputs. (full – 2016)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0149034

http://www.nature.com/articles/srep22429

http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0157060

Endocannabinoid control of glutamate NMDA receptors: the therapeutic potential and consequences of dysfunction. (full – 2016)
http://www.impactjournals.com/oncotarget/index.php?journal=oncotarget&page=article&op=view&path%5B%5D=10095&path%5B%5D=31745


Are adolescents more vulnerable to the harmful effects of cannabis than adults? A placebo-controlled study in human males (full – 2016) http://www.nature.com/tp/journal/v6/n11/full/tp2016225a.html

Cannabinoids reverse the effects of early stress on neurocognitive performance in adulthood. (full – 2016) http://learnmem.cshlp.org/content/23/7/349.long


Rescue of Impaired mGluR5-Driven Endocannabinoid Signaling Restores Prefrontal Cortical Output to Inhibit Pain in Arthritic Rats. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4719019/

Possible Therapeutic Doses of Cannabinoid Type 1 Receptor Antagonist Reverses Key Alterations in Fragile X Syndrome Mouse Model (full – 2016) http://www.mdpi.com/2073-4425/7/9/56/htm


Synthetic Cannabinoid-Induced Immunosuppression Augments Cerebellar Dysfunction in Tetanus-Toxin Treated Mice (link to PDF – 2016) http://www.biomolther.org/journal/view.html?uid=731&vmd=Full

Should we care about sativex-induced neurobehavioral effects? A 6-month follow-up study. (link to PDF – 2016) http://www.europeanreview.org/article/11188

Δ9-Tetrahydrocannabinol decreases willingness to exert cognitive effort in male rats. (link to PDF – 2016) http://jpn.ca/articles-in-press/41-6-150363/


Cannabinoids Occlude the HIV-1 Tat-Induced Decrease in GABAergic Neurotransmission in Prefrontal Cortex Slices.  (abst – 2016)  http://www.ncbi.nlm.nih.gov/pubmed/26993829


Because difficulty is not the same for everyone: the impact of complexity in working memory is associated with cannabinoid 1 receptor genetic variation in young adults.  (abst – 2016)  http://www.ncbi.nlm.nih.gov/pubmed/27108777


Activation of endocannabinoid system in the rat basolateral amygdala improved scopolamine-induced memory consolidation impairment.  (abst – 2016)  

Prefrontal activity during working memory is modulated by the interaction of variation in CB1 and COX2 coding genes and correlates with frequency of cannabis use  


Inhibitors of diacylglycerol lipases in neurodegenerative and metabolic disorders.  

Consequences of adolescent use of alcohol and other drugs: Studies using rodent models.  

Effects of the cannabinoid 1 receptor peptide ligands hemopressin, (m)RVD-hemopressin(α) and (m)VD-hemopressin(α) on memory in novel object and object location recognition tasks in normal young and Aβ1-42-treated mice.  

The endocannabinoid system and Post Traumatic Stress Disorder (PTSD): From preclinical findings to innovative therapeutic approaches in clinical settings.  


Endocannabinoid signaling and memory dynamics: a synaptic perspective.


The use of the Emotional – Object Recognition as an assay to assess learning and memory associated to an aversive stimulus in rodents (abst – 2016)  

CB1 Cannabinoid Receptors Mediate Cognitive Deficits and Structural Plasticity Changes During Nicotine Withdrawal. (abst – 2016) 

Cannabinoid Modulation of Memory Consolidation within the Cerebellum (abst – 2016)  

A cannabinoid link between mitochondria and memory. (abst – 2016)  

A longitudinal examination of the relationship between cannabis use and cognitive function in mid-life adults. (abst – 2016)  

Alcohol, tobacco and cannabis use: Do students with mild-intellectual disability mimic students in the general population? (abst – 2016)  

Neuromodulatory effects of the dorsal hippocampal endocannabinoid system in dextromethorphan/morphine-induced amnesia. (abst – 2016)  

The effects of cannabis use on salience attribution: a systematic review. (abst – 2016)  

A systematic review of the effect of cannabidiol on cognitive function: Relevance to schizophrenia. (abst – 2016)  

Cannabidiol reduces neuroinflammation and promotes neuroplasticity and functional recovery after brain ischemia. (abst – 2016)  

The anabolic steroid nandrolone alters cannabinoid self-administration and brain CB1 receptor density and function. (abst – 2016)  

Occupational transdermal poisoning with synthetic cannabinoid cumyl-PINACA. (abst – 2016)  

URB597 improves cognitive impairment induced by chronic cerebral hypoperfusion by inhibiting mTOR-dependent autophagy. (abst – 2016)  


KIDNEYS +

Cannabinoid Receptor 1 Blockade Ameliorates Albuminuria in Experimental Diabetic Nephropathy (full – 2010) http://diabetes.diabetesjournals.org/content/59/4/1046.full?sid=0be8e3fa-5275-4b19-8ace-4ace5d9ac384

Cannabinoid-2 receptor limits inflammation, oxidative/nitrosative stress, and cell death in nephropathy. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2869084/?tool=pubmed
Expression of cannabinoid receptors in human kidney. (abst – 2010)

Cannabidiol Attenuates Cisplatin-Induced Nephrotoxicity by Decreasing Oxidative/Nitrosative Stress, Inflammation, and Cell Death (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2682269/

Pharmacology of GPR55 in yeast and identification of GSK494581A as a mixed-activity glycine transporter subtype 1 inhibitor and GPR55 agonist. (full – 2011)
http://jpet.aspetjournals.org/content/337/1/236.long

Is lipid signaling through cannabinoid 2 receptors part of a protective system? (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3062638/

Protective Role of Cannabinoid Receptor Type 2 in a Mouse Model of Diabetic Nephropathy. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3161308/

Is there a legitimate role for the therapeutic use of cannabinoids for symptom management in chronic kidney disease? (full – 2011)
http://www.jpsmjournal.com/article/S0885-3924%2810%2900979-6/fulltext


β-Caryophyllene ameliorates cisplatin-induced nephrotoxicity in a cannabinoid 2 receptor-dependent manner. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3312970/


Targeting the endocannabinoid system with cannabinoid receptor agonists: pharmacological strategies and therapeutic possibilities (full – 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3353.full?sid=1569c370-cd5c-4358-89ff-857201f5e069


Palmitoylethanolamide reduces early renal dysfunction and injury caused by experimental ischemia and reperfusion in mice. (abst – 2012)
Cannabinoid Receptor 2 Expression in Human Proximal Tubule Cells is Regulated by Albumin Independent of ERK1/2 Signaling. (full – 2013)
http://www.karger.com/Article/Pdf/354529

Common polymorphism in the cannabinoid type 1 receptor gene (CNR1) is associated with microvascular complications in type 2 diabetes. (full – 2013)
http://www.jdcjournal.com/article/S1056-8727(13)00199-2/fulltext

First Metabolic Profile of XLR-11, a Novel Synthetic Cannabinoid, Obtained by Using Human Hepatocytes and High-Resolution Mass Spectrometry. (full – 2013)
http://www.clinchem.org/content/59/11/1638.long

Acute Kidney Injury Associated with Synthetic Cannabinoid Use — Multiple States, 2012 (report – 2013) http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6206a1.htm


Overactive cannabinoid 1 receptor in podocytes drives type 2 diabetic nephropathy (full – 2014)
http://www.pnas.org/content/111/50/E5420.full?sid=66cd362f-ac53-47ba-920e-b7dae50940a2

http://www.spandidos-publications.com/ijmm/34/4/1117

Nephrotoxic Effects of Common and Emerging Drugs of Abuse. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4220747/

Evaluation of the pharmacokinetics and safety of a single oral dose of fasiglifam in subjects with normal or varying degrees of impaired renal function. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4269813/

Nephrotoxic effects of designer drugs: synthetic is not better! (abst – 2014)
http://www.nature.com/nrneph/journal/v10/n6/full/nrneph.2014.44.html

Therapeutic Potential of Cannabinoids in Counteracting Chemotherapy-induced Adverse Effects: An Exploratory Review. (abst – 2014)

Deficiency of cannabinoid receptor of type 2 worsens renal functional and structural abnormalities in streptozotocin-induced diabetic mice. (abst – 2014)

Acute kidney injury associated with smoking synthetic cannabinoid. (abst – 2014)


Overexpression of g-protein-coupled receptor 40 enhances the mitogenic response to epoxyeicosatrienoic acids. (full – 2015)  http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0113130


Synthetic cannabinoids and acute kidney injury (full – 2015)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4569229/


Chronic administration with AM251 improves albuminuria and renal tubular structure in obese rats. (full – 2015)  http://joe.endocrinology-journals.org/content/225/2/113.long
The endocannabinoid system in renal cells: regulation of Na+ transport by CB1 receptors through distinct cell signalling pathways (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4594267/


The emerging role of the endocannabinoid system in the pathogenesis and treatment of kidney diseases. (link to PDF – 2015)

High-throughput salting-out assisted liquid-liquid extraction with acetonitrile for the determination of anandamide in plasma of hemodialysis patients with liquid chromatography tandem mass spectrometry. (abst – 2015)


Enhanced vasorelaxation effect of endogenous anandamide on thoracic aorta in renal vascular hypertension rats. (abst – 2015)

Novel case of synthetic cannabinoid hyperemesis resulting in rhabdomyolysis and acute renal failure (abst – 2015)
http://www.ajemjournal.com/article/S0735-6757%2815%2900743-3/abstract

Therapy with a Selective Cannabinoid Receptor Type 2 Agonist Limits Albuminuria and Renal Injury in Mice with Type 2 Diabetic Nephropathy. (abst – 2015)

Adelmidrol increases the endogenous concentrations of palmitoylethanolamide in canine keratinocytes and down-regulates an inflammatory reaction in an in vitro model of contact allergic dermatitis. (abst – 2015)


http://jpet.aspetjournals.org/content/early/2016/05/10/jpet.116.233239.long

Cannabinoid Hyperemesis Syndrome Associated With Compulsive Showering and Acute Kidney Injury (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4874760/


AM251 Suppresses Epithelial-Mesenchymal Transition of Renal Tubular Epithelial Cells (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0167848


Thermolytic degradation of synthetic cannabinoids: chemical exposures and pharmacological consequences  (link to download – 2017)
http://jpet.aspetjournals.org/content/early/2017/01/13/jpet.116.238717.long

KNEE REPLACEMENT

Plasma endocannabinoid behaviour in total knee and hip arthroplasty.

LEGIONAIRES DISEASE  +  (the news is not good)

Legionnaires disease in cannabis smokers.  (full – 2011)

LEISHMANIASIS  +  a disease caused by protozoan parasites that are spread by sandflies

Antileishmanial phytochemical phenolics: Molecular docking to potential protein targets.

LIVER/LIVER DISEASE - NON HEPATITIS/LIVER FUNCTIONS  +*  - also see HEPATITIS

Effect of (-)-Delta(9)-tetrahydrocannabinoid on the hepatic redox state of mice.
(full – 2010)

Cannabidiol ameliorates cognitive and motor impairments in bile-duct ligated mice via 5-HT1A receptor activation.  (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2829220/?tool=pubmed

Recent advances in the understanding of the role of the endocannabinoid system in liver diseases.  (full - 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3033442/
Role of the endocannabinoid system in alcoholic liver disease.  (abst – 2010)
hhttp://www.ncbi.nlm.nih.gov/pubmed/21525760

Cannabinoid receptor type 1 expression modulates alcohol-induced liver fibrosis: Role of Acetaldehyde (abst – 2010)

Endogenous cannabinoids in liver disease: Many darts for a single target  (abst – 2010)

Nonalcoholic fatty liver disease: pathology and pathogenesis.  (abst – 2010)

Endocannabinoids in liver disease.  (full – 2011)

Hyperactivation of anandamide synthesis and regulation of cell-cycle progression via cannabinoid type 1 (CB1) receptors in the regenerating liver  (full – 2011)
http://www.pnas.org/content/108/15/6323.full

Cannabidiol causes activated hepatic stellate cell death through a mechanism of endoplasmic reticulum stress-induced apoptosis.  (full – 2011)

Cannabidiol, a Major Phytocannabinoid, as a Potent Atypical Inhibitor for Cytochrome P450 2D6.  (full – 2011)
http://dmd.aspetjournals.org/content/early/2011/08/05/dmd.111.041384.long

Cannabidiol protects against hepatic ischemia/reperfusion injury by attenuating inflammatory signaling and response, oxidative/nitrative stress, and cell death.  (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3081988/pdf/nihms278422.pdf

Is lipid signaling through cannabinoid 2 receptors part of a protective system?  (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3062638/

Central Endocannabinoid Signaling Regulates Hepatic Glucose Production and Systemic Lipolysis  (full – 2011)  http://diabetes.diabetesjournals.org/content/60/4/1055.full


Hepatic n-3 Polyunsaturated Fatty Acid Depletion Promotes Steatosis and Insulin Resistance in Mice: Genomic Analysis of Cellular Targets  (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3154437/

Cannabidiol improves brain and liver function in a fulminant hepatic failure-induced model of hepatic encephalopathy in mice.  (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3057300/
Cannabidiol protects against hepatic ischemia/reperfusion injury by attenuating oxidative stress, inflammatory response, and cell death (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3081988/

Altered endocannabinoid signalling after a high-fat diet in Apoe(-/-) mice: relevance to adipose tissue inflammation, hepatic steatosis and insulin resistance. (full – 2011)  

Cannabinoid CB2 receptors protect against alcoholic liver disease by regulating kupffer cell polarization in mice. (full – 2011)  

A new cannabinoid 2 receptor agonist HU-910 attenuates oxidative stress, inflammation, and cell death associated with hepatic ischemia/reperfusion injury. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423243/

Therapeutic potential of cannabidiol against ischemia/reperfusion liver injury in rats. (abst – 2011)  

Identification of cytochrome P450 enzymes responsible for metabolism of cannabidiol by human liver microsomes. (abst – 2011)  

The novel endocannabinoid virodhamine selectively induces cell death in hepatic stellate cells but not in hepatocytes (abst – 2011)  

Effect of cannabidiol treatment in alimentary induced fatty liver (abst – 2011)  

Peripheral effects of the endocannabinoid system in energy homeostasis: adipose tissue, liver and skeletal muscle. (abst – 2011)  

Cannabinoid receptor type 2 functional variant influences liver damage in children with non-alcoholic Fatty liver disease. (full – 2012)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0042259

Prevention of Fibrosis Progression in CCl4-Treated Rats: Role of the Hepatic Endocannabinoid and Apelin Systems (full – 2012)  
http://jpet.aspetjournals.org/content/340/3/629.full

Δ(8) -Tetrahydrocannabivarin prevents hepatic ischaemia/reperfusion injury by decreasing oxidative stress and inflammatory responses through cannabinoid CB(2) receptors. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423240/

Peripheral FAAH inhibition causes profound antinociception and protects against indomethacin-induced gastric lesions. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3738192/

Targeting the endocannabinoid system with cannabinoid receptor agonists: pharmacological strategies and therapeutic possibilities (full – 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3353.full?sid=1569c370-cd5c-4358-89ff-857201f5e069


The endocannabinoid 2-arachidonoylglycerol decreases calcium induced cytochrome c release from liver mitochondria. (abst – 2012) http://www.springerlink.com/content/54jm40088728t0pn/


Hepatic Cannabinoid Receptor Type 1 Mediates Alcohol-Induced Regulation of Bile Acid Enzyme Genes Expression Via CREBH (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0068845

The serine hydrolase ABHD6 Is a critical regulator of the metabolic syndrome. (full – 2013) http://www.cell.com/cell-reports/fulltext/S2211-1247%2813%2900507-X

Monounsaturated fatty acids generated via stearoyl CoA desaturase-1 are endogenous inhibitors of fatty acid amide hydrolase. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3839776/

Cannabinoid signaling and liver therapeutics.  
http://www.journal-of-hepatology.eu/article/S0168-8278%2813%2900212-2/fulltext

The role of endocannabinoids system in fatty liver disease and therapeutic potentials.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3745655/

US Patent Application 20130171145 - METHODS OF TREATING LIVER DISEASE  

Effects of anandamide on proliferation of and pErk expression in primary hepatic stellate cells of schistosome-induced liver fibrosis mice  

Fatty acid amide hydrolase but not monoacyl glycerol lipase controls cell death induced by the endocannabinoid 2-arachidonoyl glycerol in hepatic cell populations.  

Curcumin modulates cannabinoid receptors in liver fibrosis in vivo and inhibits extracellular matrix expression in hepatic stellate cells by suppressing cannabinoid receptor type-1 in vitro.  

Functional relevance of the cannabinoid receptor 2 - heme oxygenase pathway: A novel target for the attenuation of portal hypertension.  

Protective effect of cannabidiol against cadmium hepatotoxicity in rats.  

The novel endocannabinoid noladin ether holds putative anti-fibrotic properties by selectively inducing cell death in hepatic stellate cells  

A new face of endocannabinoids in pharmacotherapy. Part II. Role of endocannabinoids in inflammation-derived cardiovascular diseases.  

Endocannabinoid Receptors Gene Expression in Morbidly Obese Women with Nonalcoholic Fatty Liver Disease  
http://www.hindawi.com/journals/bmri/2014/502542/

Hepatic cannabinoid-1 receptors mediate diet-induced insulin resistance by increasing de novo synthesis of long-chain ceramides.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3839256/

Vascular targets for cannabinoids: animal and human studies.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3954478/
Cannabinoid receptor 1 gene polymorphisms and nonalcoholic fatty liver disease in women with polycystic ovary syndrome and in healthy controls. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4127238/

Cannabidiol protects liver from binge alcohol-induced steatosis by mechanisms including inhibition of oxidative stress and increase in autophagy (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4112960/


The peripheral cannabinoid receptor 1 antagonist VD60 efficiently inhibits carbon tetrachloride-intoxicated hepatic fibrosis progression. (full – 2014) http://journals.sagepub.com/doi/full/10.1177/1535370213514922

Inhibitory effect of synthetic cannabinoids on CYP1A activity in mouse liver microsomes. (link to PDF – 2014) https://www.jstage.jst.go.jp/article/jts/39/6/39_815/_article


Protective Role of CB2 Receptor Activation in Galactosamine/LPS-induced Acute Liver Failure Through Regulation of Macrophage Polarization and miRNAs. (full – 2015) http://jpet.aspetjournals.org/content/early/2015/03/06/jpet.114.220368.long

Cannabidiol Rescues Acute Hepatic Toxicity and Seizure Induced by Cocaine (full – 2015) http://www.hindawi.com/journals/mi/2015/523418/


α/β Hydrolase Domain-Containing 6 (ABHD6) Degrades the Late Endosomal/Lysosomal Lipid Bis(monoacylglycerol)phosphate. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4705992/


Protective effect of Xingnaojia formulation on rats with brain and liver damage caused by chronic alcoholism (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4665616/

Orphan nuclear receptor oestrogen-related receptor γ (ERRγ) plays a key role in hepatic cannabinoid receptor type 1-mediated induction of CYP7A1 gene expression (full – 2015) http://ajpendo.physiology.org/content/308/7/E583.long

Regulation of inflammation by cannabinoids, the endocannabinoids 2-arachidonoylglycerol and arachidonoyl-ethanolamide, and their metabolites. (full – 2015) http://www.jleukbio.org/content/97/6/1049.long
Intake of farmed Atlantic salmon fed soybean oil increases hepatic levels of arachidonic acid-derived oxylipins and ceramides in mice. (full – 2015)  

Fasiglifam (TAK-875) Inhibits Hepatobiliary Transporters: A Possible Factor Contributing to Fasiglifam-Induced Liver Injury. (full – 2015)  
http://dmd.aspetjournals.org/content/43/11/1751.long

CB1R antagonist increases hepatic insulin clearance in fat-fed dogs likely via upregulation of liver adiponectin receptors. (full – 2015)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4609878/

Two non-psychoactive cannabinoids reduce intra-cellular lipid levels and inhibit hepatosteatosis. (abst – 2015)  

Anandamide Drives Cell Cycle Progression through CB1 Receptors in a Rat Model of Synchronized Liver Regeneration. (abst – 2015)  

Rimonabant inhibits proliferation, collagen secretion and induces apoptosis in hepatic stellate cells. (abst – 2015)  

Major urinary protein 1 interacts with cannabinoid receptor type 1 in fatty acid-induced hepatic insulin resistance in a mouse hepatocyte model. (abst – 2015)  


Effects of dietary CLA on n-3 HUFA score and N-acyl ethanolamides biosynthesis in the liver of obese Zucker rats. (abst – 2015)  

CB1 receptor blockade counters age-induced insulin resistance and metabolic dysfunction. (full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4783351/

Vaccenic acid suppresses intestinal inflammation by increasing the endocannabinoid anandamide and non-cannabinoid signaling molecules in a rat model of the metabolic syndrome. (full – 2016)  
http://www.jlr.org/content/early/2016/02/17/jlr.M066308.long

The Cannabinoid Receptor 2 Protects Against Alcoholic Liver Disease Via a Macrophage Autophagy-Dependent Pathway. (full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4921859/

Immunohistochemical analysis of cannabinoid receptor 1 expression in steatotic rat livers. (full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4812478/
The Orphan Nuclear Receptor ERRγ Regulates Hepatic CB1 Receptor-Mediated Fibroblast Growth Factor 21 Gene Expression (full – 2016)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0159425

Hybrid inhibitor of peripheral cannabinoid-1 receptors and inducible nitric oxide synthase mitigates liver fibrosis (full – 2016)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4979564/

Human CB1 Receptor Isoforms, present in Hepatocytes and β-cells, are Involved in Regulating Metabolism. (full – 2016)
http://www.nature.com/articles/srep33302

Exposure to a Highly Caloric Palatable Diet during the Perinatal Period Affects the Expression of the Endogenous Cannabinoid System in the Brain, Liver and Adipose Tissue of Adult Rat Offspring. (full – 2016)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0165432

Orexin-A represses satiety-inducing POMC neurons and contributes to obesity via stimulation of endocannabinoid signaling. (full – 2016)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4855580/

Early Low Fat Diet Enriched with Linolenic Acid Reduces Liver Endocannabinoid Tone and Improves Late Glycemic Control After a High Fat Diet Challenge in Mice. (full – 2016)
http://diabetes.diabetesjournals.org/content/65/7/1824.long

Bisphenol A Induces Fatty Liver by an Endocannabinoid-Mediated Positive Feedback Loop. (full – 2016)

Identification of New Synthetic Cannabinoid ADB-CHMINACA (MAB-CHMINACA) Metabolites in Human Hepatocytes (full – 2016)

Long-Term Effects of Prenatal Exposure to Undernutrition on Cannabinoid Receptor-Related Behaviors: Sex and Tissue-Specific Alterations in the mRNA Expression of Cannabinoid Receptors and Lipid Metabolic Regulators. (full – 2016)

In vitro metabolism of a novel synthetic cannabinoid, EAM-2201, in human liver microsomes and human recombinant cytochrome P450s (abst – 2016)

Curcumin and hemopressin treatment attenuates cholestasis-induced liver fibrosis in rats: role of CB1 receptors (abst – 2016)

Cannabinoid receptor type 1 mediates high-fat diet-induced insulin resistance by increasing forkhead box O1 activity in a mouse model of obesity. (abst – 2016) http://www.spandidos-publications.com/10.3892/ijmm.2016.2475

Cannabinoid receptors are involved in the protective effect of a novel curcumin derivative C66 against CCl4-induced liver fibrosis. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/26945822


Fatty Acid Binding Protein-1 (FABP1) and the Human FABP1 T94A Variant: Roles in the Endocannabinoid System and Dyslipidemias. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27117865

Intake of a Western diet containing cod instead of pork alters fatty acid composition in tissue phospholipids and attenuates obesity and hepatic lipid accumulation in mice. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27155918


Female Mice are Resistant to Fabp1 Gene Ablation-Induced Alterations in Brain Endocannabinoid Levels  (abst – 2016)  

FABP1: A Novel Hepatic Endocannabinoid and Cannabinoid Binding Protein  
(abst – 2016)  http://pubs.acs.org/doi/abs/10.1021/acs.biochem.6b00446

Role of cannabis in digestive disorders.  

Serum levels of endocannabinoids are independently associated with nonalcoholic fatty liver disease.  

A systematic review of the effect of cannabidiol on cognitive function: Relevance to schizophrenia.  

Using proteomics to discover novel biomarkers for fatty liver development and response to CB1R antagonist treatment in an obese mouse model.  

Design, Synthesis and Biological Evaluation of Novel, Non-Brain Penetrant, Hybrid Cannabinoid CB1R Inverse Agonist/Inducible Nitric Oxide Synthase (iNOS) Inhibitors for the Treatment of Liver Fibrosis  
(abst – 2017)  http://pubs.acs.org/doi/abs/10.1021/acs.jmedchem.6b01504

Beta-caryophyllene protects against alcoholic steatohepatitis by attenuating inflammation and metabolic dysregulation in mice.  

LONG TERM/ HEAVY USE EFFECTS +*

Effects of cannabis on lung function: a population-based cohort study.  
(full - 2010)  http://erj.ersjournals.com/content/35/1/42.long

Opioid antagonism enhances marijuana's effects in heavy marijuana smokers.  
(full – 2010)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2923559/

Does cannabis use increase the risk of death? Systematic review of epidemiological evidence on adverse effects of cannabis use.  

An Evidence Based Review of Acute and Long-Term Effects of Cannabis Use on Executive Cognitive Functions  
(full – 2011)  https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3037578/
Tolerance and cross-tolerance to neurocognitive effects of THC and alcohol in heavy cannabis users. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3045517/


Characterizing smoking topography of cannabis in heavy users. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3641906/


Psychomotor Performance, Subjective and Physiological Effects and Whole Blood Δ9-Tetrahydrocannabinol Concentrations in Heavy, Chronic Cannabis Smokers Following Acute Smoked Cannabis (full – 2012) http://jat.oxfordjournals.org/content/36/6/405.full

Prevalences of illicit drug use in people aged 50 years and over from two surveys. (full – 2012) http://ageing.oxfordjournals.org/content/41/4/553.long


Acute effects of THC on time perception in frequent and infrequent cannabis users

A placebo-controlled, parallel-group, randomized withdrawal study of subjects with symptoms of spasticity due to multiple sclerosis who are receiving long-term Sativex® (nabiximols). http://msi.sagepub.com/content/18/2/219.long


Assessing topographical orientation skills in cannabis users. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3259701/?tool=pubmed


Impact of prolonged cannabinoid excretion in chronic daily cannabis smokers' blood on per se drugged driving laws. (full – 2013) http://www.clinchem.org/content/59/3/519.full?sid=c00c9727-29e8-493c-83b8-456467e158b9


Cannabis Cue Reactivity and Craving Among Never, Infrequent and Heavy Cannabis Users.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3957117/


Marijuana’s dose-dependent effects in daily marijuana smokers.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4547548/

Around-the-clock oral THC effects on sleep in male chronic daily cannabis smokers.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4537525/


Couples' Marijuana Use Is Inversely Related to Their Intimate Partner Violence Over the First 9 Years of Marriage.  (full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4282761/


High-Intensity Cannabis Use and Adherence to Antiretroviral Therapy Among People Who Use Illicit Drugs in a Canadian Setting.  (full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4289662/
Cannabis use by individuals with multiple sclerosis: effects on specific immune parameters. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4170074/


Daily marijuana use is not associated with brain morphometric measures in adolescents or adults. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4308597/


Chronic Adolescent Marijuana Use as a Risk Factor for Physical and Mental Health Problems in Young Adult Men. (full– 2015) http://www.ncbi.nlm.nih.gov/pubmed/26237286

Plasma Cannabinoid Pharmacokinetics After Controlled Smoking and Ad libitum Cannabis Smoking in Chronic Frequent Users. (full – 2015) http://jat.oxfordjournals.org/content/39/8/580.long

Effects of quitting cannabis on respiratory symptoms. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4780250/


Cannabis conundrum: Evidence of harm?: Opposition to marijuana use is often rooted in arguments about the drug's harm to children and adults, but the scientific evidence is seldom clear-cut (article – 2015) http://onlinelibrary.wiley.com/doi/10.1002/cncy.21516/full


Association Between Regular Cannabis Use and Ganglion Cell Dysfunction (full – 2016) http://jamanetwork.com/journals/jamaophthalmology/fullarticle/2589167


fMRI study of neural sensitization to hedonic stimuli in long-term, daily cannabis users. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5012952/

Grey Matter Changes Associated with Heavy Cannabis Use: A Longitudinal sMRI Study (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0152482


Are We Using the Right Model of Cannabis Tolerance? (abst – 2016)  

The effects of cannabis use on salience attribution: a systematic review.  

Alcohol and cannabis: Comparing their adverse health effects and regulatory regimes.  

Peer Network Counseling as Brief Treatment for Urban Adolescent Heavy Cannabis Users.  

Medicinal versus recreational cannabis use: Patterns of cannabis use, alcohol use, and cued-arousal among veterans who screen positive for PTSD.  

**LUNG FUNCTION**

Does cannabis use predispose to chronic airflow obstruction?  
(full – 2010)  http://erj.ersjournals.com/content/35/1/3.full?ijkey=d1405bb2470ed2aff675335858f284f7f470fbbc&keytype2=tf_ipsecsha

"Bong lung" in cystic fibrosis: a case report  
(full - 2010)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2998526/?tool=pmcentrez

Targeting the cannabinoid pathway limits the development of fibrosis and autoimmunity in a mouse model of systemic sclerosis.  
(full – 2010)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2893662/

Effects of cannabis on lung function: a population-based cohort study.  
(full - 2010)  http://erj.ersjournals.com/content/35/1/42.long

DOSE-DEPENDENT EFFECTS ON VENTILATION AT REST INDUCED BY HIGH DOSES OF CANNABINOIDS IN RATS  

Cannabinoid effects on ventilation and breathlessness: A pilot study of efficacy and safety  
(link to download – 2011)  http://journals.sagepub.com/doi/abs/10.1177/1479972310391283

Honokiol rescues sepsis-associated acute lung injury and lethality via the inhibition of oxidative stress and inflammation.  
The histopathology of drugs of abuse  (abst – 2011)

Association Between Marijuana Exposure and Pulmonary Function Over 20 Years


Cannabidiol (CBD) enhances lipopolysaccharide (LPS)-induced pulmonary inflammation in C57BL/6 mice.  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3632657/


Monoacylglycerol Lipase (MAGL) Inhibition Attenuates Acute Lung Injury in Mice.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3808422/

High Times, Low Sats: Diffuse Pulmonary Infiltrates Associated with Chronic Synthetic Cannabinoid Use.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3657026/


Synthetic Cannabinoids as a Cause for Black Carbonaceous Bronchoalveolar Lavage.
Diffuse Hemorrhagic Pulmonary Infiltrates: Unique Complication Of Synthetic Cannabinoid Abuse  

The Synthetic Cannabinoid Ajulemic Acid Exerts Anti-Fibrotic Effects In Bleomycin-Induced Pulmonary Fibrosis  

CB2 Receptor Activation Ameliorates the Proinflammatory Activity in Acute Lung Injury Induced by Paraquat.  
http://www.hindawi.com/journals/bmri/2014/971750/

Cardiorespiratory Anomalies in Mice Lacking CB1 Cannabinoid Receptors.  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0100536

Effect of melilotus extract on lung injury by upregulating the expression of cannabinoid CB2 receptors in septic rats.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3995869/

Cannabinoids inhibit cholinergic contraction in human airways through prejunctional CB1 receptors.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4243853/

http://www.atsjournals.org/doi/full/10.1513/AnnalsATS.201407-333OC#.VrA9xVJA44A

Pulmonary Effects of Synthetic Marijuana: Chest Radiography and CT Findings.  

Does cannabis smoking predispose to lung bulla formation?  
http://journals.sagepub.com/doi/full/10.1177/0218492313478954

Cannabidiol improves lung function and inflammation in mice submitted to LPS-induced acute lung injury.  

The Endocannabinoid Anandamide Mediates Hypoxic Pulmonary Vasoconstriction And Pulmonary Hypertension  

Acute Lung Injury Due To Synthetic Cannabis  

Cannabis, tobacco smoking, and lung function: a cross-sectional observational study in a general practice population.  
http://bjgp.org/content/65/631/e89

Synthetic cannabinoids as a cause for black carbonaceous bronchoalveolar lavage
Unintentional Pediatric Exposure to a Synthetic Cannabinoid (AB-PINACA) Resulting in Coma and Intubation


The Wide and Unpredictable Scope of Synthetic Cannabinoids Toxicity.

No smoke, no fire: What the initial literature suggests regarding vapourized cannabis and respiratory risk

Δ9 Tetrahydrocannabinol attenuates Staphylococcal enterotoxin B-induced inflammatory lung injury and prevents mortality in mice by modulation of miR-17-92 cluster and induction of T-regulatory cells.

The effect of phytocannabinoids on airway hyper-responsiveness, airway inflammation, and cough

Effects of quitting cannabis on respiratory symptoms.

Endogenous 2-Arachidonoylglycerol Alleviates Cyclooxygenases-2 Elevation-Mediated Neuronal Injury from SO2 Inhalation via PPARγ Pathway.

Protection from Radiation-Induced Pulmonary Fibrosis by Peripheral Targeting of Cannabinoid Receptor-1.

How beneficial is vaping cannabis to respiratory health compared to smoking?

Cannabis conundrum: Evidence of harm?: Opposition to marijuana use is often rooted in arguments about the drug's harm to children and adults, but the scientific evidence is seldom clear-cut

A New Threat: Synthetic Marijuana Associated Lung Disease
Dabble With Danger: A Case Of Severe Respiratory Failure Following Inhalation Of Butane Hash Oil  (abst – 2015)

Acute Eosinophilic Pneumonia With Respiratory Failure Induced By 'Bonzai' (Synthetic Cannabinoid) Inhalation  (abst – 2015)

Cannabinoid Receptor Type 2 Agonist Attenuates Acute Neurogenic Pulmonary Edema by Preventing Neutrophil Migration after Subarachnoid Hemorrhage in Rats.  (abst – 2015)  http://link.springer.com/chapter/10.1007/978-3-319-18497-5_24

Genotoxic properties of XLR-11, a widely consumed synthetic cannabinoid, and of the benzoyl indole RCS-4  (full – 2016)

A Randomized Placebo Controlled Trial of Ibuprofen for Respiratory Syncytial Virus Infection in a Bovine Model  (full – 2016)  http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0152913

Legal regulated markets have the potential to reduce population levels of harm associated with cannabis use  (full – 2016)  http://onlinelibrary.wiley.com/doi/10.1111/add.13390/full

Case Series of Synthetic Cannabinoid Intoxication from One Toxicology Center.  (full – 2016)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4899060/


Acute Eosinophilic Pneumonia with Respiratory Failure Induced by Synthetic Cannabinoid Inhalation.  (full – 2016)  https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5156457/

Acetylcholine receptors from human muscle as pharmacological targets for ALS therapy.  (full – 2016)  https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4801305/

Cannabinoid Receptor Type 2 Agonist Attenuates Acute Neurogenic Pulmonary Edema by Preventing Neutrophil Migration after Subarachnoid Hemorrhage in Rats  (abst - 2016)  http://link.springer.com/chapter/10.1007/978-3-319-18497-5_24

The Endogenous Cannabinoid Anandamide Increases Human Airway Epithelial Cell Permeability through an Arachidonic Acid Metabolite  (abst – 2016)

Stimulation of cannabinoid CB1 receptors prevents nerve-mediated airway hyperreactivity in NGF-induced inflammation in mouse airways. (abst – 2016)

Cannabinoids: Medical implications. (abst – 2016)

Cannabis - Position Paper of the German Respiratory Society (DGP) (abst – 2016)

Activation of cannabinoid CB1 receptors suppresses the ROS-induced hypersensitivity of rat vagal lung C-fiber afferents. (abst – 2016)

The cannabinoid 2 receptor agonist β-caryophyllene modulates the inflammatory reaction induced by Mycobacterium bovis BCG by inhibiting neutrophil migration. (abst – 2016)

Alveolar haemorrhage following a cannabis water pipe (abst – 2016)

Acute effects of cannabis on breath-holding duration. (abst – 2016)

Repeated Thrombosis After Synthetic Cannabinoid Use. (abst – 2016)

Δ9-Tetrahydrocannabinol Reverses TNFα-induced Increase in Airway Epithelial Cell Permeability through CB2 Receptors (abst – 2016)

Targeting brain and peripheral plasticity of the lipidome in acute kainic acid-induced epileptic seizures in mice via quantitative mass spectrometry. (abst – 2016)

The consequences of chronic cannabis smoking in vulnerable adolescents. (abst – 2016)

Influence of history of cannabis smoking in selected donors on the outcomes of lung transplantation. (abst – 2017)

>LUPUS ERYTHEMATOSUS + see News section
LYME DISEASE see News section

MACROPHAGES + - your body’s “clean up crew” cells

Cannabinoid inhibition of macrophage migration to the trans-activating (Tat) protein of HIV-1 is linked to the CB(2) cannabinoid receptor. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2846023/?tool=pubmed


Cannabinoid type 2 receptor activation downregulates stroke-induced classic and alternative brain macrophage/microglial activation concomitant to neuroprotection. (full – 2012) http://stroke.ahajournals.org/content/43/1/211.long


The cannabinoid TRPA1 agonist cannabichromene inhibits nitric oxide production in macrophages and ameliorates murine colitis. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3632250/

Implication of the anti-inflammatory bioactive lipid prostaglandin D2-glycerol ester in the control of macrophage activation and inflammation by ABHD6. (full – 2013) http://www.pnas.org/content/110/43/17558.long

Attenuation of HIV-1 replication in macrophages by cannabinoid receptor 2 agonists. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3629438/

The cannabinoid TRPA1 agonist cannabichromene inhibits nitric oxide production in macrophages and ameliorates murine colitis. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3632250/

Palmitoylethanolamide stimulates phagocytosis of Escherichia coli K1 by macrophages and increases the resistance of mice against infections. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4080545/

The in vitro GcMAF effects on endocannabinoid system transcriptionomics, receptor formation, and cell activity of autism-derived macrophages. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3996516/


Protective Role of CB2 Receptor Activation in Galactosamine/LPS-induced Acute Liver Failure Through Regulation of Macrophage Polarization and miRNAs. (full – 2015) http://jpet.aspetjournals.org/content/early/2015/03/06/jpet.114.220368.long


Activation of GPR55 Receptors Exacerbates oxLDL-Induced Lipid Accumulation and Inflammatory Responses, while Reducing Cholesterol Efflux from Human Macrophages. (full – 2015) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0126839

Primary Macrophage Chemotaxis Induced by Cannabinoid Receptor 2 Agonists Occurs Independently of the CB2 Receptor. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4451551/

Activation of Cannabinoid Type Two Receptors (CB2) Diminish Inflammatory Responses in Macrophages and Brain Endothelium. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4795159/


Activation of Cannabinoid Receptor 2 Ameliorates DSS-Induced Colitis through Inhibiting NLRP3 Inflammasome in Macrophages. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5017608/


Docosahexaenoyl Serotonin, an endogenously formed n-3 fatty acid-serotonin conjugate has anti-inflammatory properties by attenuating IL-23–IL-17 signalling in macrophages (abst – 2016) http://www.sciencedirect.com/science/article/pii/S1388198116302499


Developmental Role of Macrophage Cannabinoid-1 Receptor Signaling in Type-2 Diabetes (abst – 2017) http://diabetes.diabetesjournals.org/content/early/2017/01/11/db16-1199.long


MACULAR DEGENERATION +


The role of Cannabinoid receptors on light-induced photoreceptor degeneration (abst – 2013) http://iovs.arvojournals.org/article.aspx?articleid=2149928&resultClick=1

Protective role of the cannabinoid receptor system in A2E-mediated photo-toxicity to retinal pigment epithelium (RPE) cells in an in-vitro model of age-related macular degeneration (AMD) (abst – 2014) http://iovs.arvojournals.org/article.aspx?articleid=2271845&resultClick=1
MAD COW/ CRUETZFELDT-JACOB DISEASE +  - also see PRIONS


MAGNETIC STIMULATION +


MALARIA


Cannabidiol attenuates the long lasting cognitive deficits and anxiogenic-like behaviors promoted by murine cerebral malaria  (abst – 2013)  http://www.fasebj.org/content/27/1_Supplement/1097.9.abstract?sid=c40dd288-3dae-4c7a-b928-8ed67991453


Cannabinoid receptor 2 modulates susceptibility to experimental cerebral malaria through a CCL17-dependent mechanism.  (full – 2016)  http://www.jbc.org/content/early/2016/07/29/jbc.M116.746594.long
A systematic review of the effect of cannabidiol on cognitive function: Relevance to schizophrenia. (abst – 2016)

MALE SEXUAL FUNCTION *

Energetic Metabolism and Human Sperm Motility: Impact of CB1 Receptor Activation
(full – 2010) http://endo.endojournals.org/content/151/12/5882.full

Characterization of the Endocannabinoid System in Human Spermatozoa and Involvement of Transient Receptor Potential Vaniloid 1 Receptor in Their Fertilizing Ability  (full – 2010)
http://endo.endojournals.org/content/150/10/4692.full?sid=f5b14012-9fbe-4f10-890c-386313060cf8

Human sperm anatomy: ultrastructural localization of the cannabinoid1 receptor and a potential role of anandamide in sperm survival and acrosome reaction.  (full – 2010)

Endocannabinoids and Human Sperm Cells  (link to PDF - 2010)
http://www.mdpi.com/1424-8247/3/10/3200


Anandamide capacitates bull spermatozoa through CB1 and TRPV1 activation. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3037938/?tool=pubmed


Effect of capacitation on the endocannabinoid system of mouse sperm.  (abst – 2011)


Sex Hormones Levels as Influenced by Cannabis sativa in Rats and Men  (full – 2012)
Anandamide regulates the expression of GnRH1, GnRH2, and GnRH-Rs in frog testis (full – 2012)  
http://ajpendo.physiology.org/content/303/4/E475.long

Minireview: Endocannabinoids and Gonadal Hormones: Bidirectional Interactions in Physiology and Behavior  (full – 2012)  

The role of endocannabinoids in gonadal function and fertility along the evolutionary axis.  (full – 2012)  


Long-term use of HU210 adversely affects spermatogenesis in rats by modulating the endocannabinoid system  (abst – 2012)  

Honokiol attenuates torsion/detorsion-induced testicular injury in rat testis by way of suppressing endoplasmic reticulum stress-related apoptosis.  (abst - 2012)  

Treatment with CB 2 Agonist JWH-133 Reduces Histological Features Associated with Erectile Dysfunction in Hypercholesterolemic Mice.  (full – 2013)  
http://www.hindawi.com/journals/cdi/2013/263846/

Estrogens and Spermiogenesis: New Insights from Type 1 Cannabinoid Receptor Knockout Mice.  (full – 2013)  
http://www.hindawi.com/journals/ije/2013/501350/

Anandamide Levels Fluctuate in the Bovine Oviduct during the Oestrous Cycle.  (full – 2013)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0072521

The Endocannabinoid System and Spermatogenesis.  (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3864102/

Endocannabinoids as markers of sperm quality: hot spots  (full – 2013)  

Brain Levels of Prostaglandins, Endocannabinoids, and Related Lipids Are Affected by Mating Strategies  (full – 2013)  
http://www.hindawi.com/journals/ije/2013/436252/

Low 17beta-Estradiol Levels in Cnr1 Knock-Out Mice Affect Spermatid Chromatin Remodeling by Interfering with Chromatin Reorganization.  (full – 2013)  
http://www.bioreprod.org/content/88/6/152.long

Anandamide modulates human sperm motility: implications for men with asthenozoospermia and oligoasthenoteratozoospermia.  (full – 2013)  
http://humrep.oxfordjournals.org/content/28/8/2058.long
Endocannabinoids are Involved in Male Vertebrate Reproduction: Regulatory Mechanisms at Central and Gonadal Level. (full – 2014)

A role for endocannabinoids in acute stress-induced suppression of the hypothalamic-pituitary-gonadal axis in male rats. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3913894/

Involvement of cannabinoid receptor-1 activation in mitochondrial depolarizing effect of lipopolysaccharide in human spermatozoa. (full – 2014)

Endocannabinoids as biomarkers of human reproduction. (full – 2014)
http://humupd.oxfordjournals.org/content/20/4/501.long

The biological networks in studying cell signal transduction complexity: The examples of sperm capacitation and of endocannabinoid system. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4212279/

Priapism in a patient with sickle cell trait using marijuana. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4025395/

Low anandamide doses facilitate male rat sexual behaviour through the activation of CB1 receptors. (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/24671517

Cannabinoid receptor type 1 receptors on GABAergic vs. glutamatergic neurons differentially gate sex-dependent social interest in mice. (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/24698342


Effects of Neuroendocrine CB1 Activity on Adult Leydig Cells. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4891325/

Characterization of non-olfactory GPCRs in human sperm with a focus on GPR18. (full – 2016) http://www.nature.com/articles/srep32255

Progesterone and Endocannabinoid Interaction Alters Sperm Activation (full – 2016) http://www.biolreprod.org/content/95/1/9.long


2-arachidonoylglycerol levels are increased in leukocytospermia and correlate with seminal macrophages. (abst – 2016) https://www.ncbi.nlm.nih.gov/pubmed/27863106


MARFAN’S SYNDROME


MASSAGE

Endocannabinoids and related lipids in blood plasma following touch massage: a randomised, crossover study. (full – 2015)

**MAST CELLS** + - immune cells involved with allergies, wound healing, and fighting germs

Systemic mastocytosis and medical marijuana (case report- undated)
http://cannabisclinicians.org/view-all-case-reports/entry/645/

Acute administration of cannabidiol in vivo suppresses ischaemia-induced cardiac arrhythmias and reduces infarct size when given at reperfusion. (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2936031/?tool=pubmed

Cannabidiol Reduces Intestinal Inflammation through the Control of Neuroimmune Axis (full - 2011) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0028159

Cannabinoid receptor-2 (CB2) agonist ameliorates colitis in IL-10(-/-) mice by attenuating the activation of T cells and promoting their apoptosis. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4117838/

New cannabinoid-like chromane and chromene derivatives from Rhododendron anthopogonoides. (full – 2011)
https://www.jstage.jst.go.jp/article/cpb/59/11/59_11_1409/_pdf


Effects of palmitoylethanolamide on release of mast cell peptidases and neurotrophic factors after spinal cord injury. (abst – 2011)


Mast cell-glia axis in neuroinflammation and therapeutic potential of the anandamide congener palmitoylethanolamide. (full - 2012)
http://rstb.royalsocietypublishing.org/content/367/1607/3312.long

Inhibitory effect of topical adelmidrol on antigen-induced skin wheal and mast cell behavior in a canine model of allergic dermatitis. (full – 2012)
http://www.biomedcentral.com/1746-6148/8/230

Endocannabinoids limit excessive mast cell maturation and activation in human skin. (full – 2012) http://www.jacionline.org/article/S0091-6749%2811%2901796-9/fulltext


Treatment of chronic regional pain syndrome type 1 with palmitoylethanolamide and topical ketamine cream: modulation of nonneuronal cells (full - 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3643547/


Increased levels of palmitoylethanolamide and other bioactive lipid mediators and enhanced local mast cell proliferation in canine atopic dermatitis. (full – 2014) http://www.biomedcentral.com/1746-6148/10/21
Characterization of endocannabinoid-mediated induction of myeloid-derived suppressor cells involving mast cells and MCP-1. (full – 2014)  
http://www.jleukbio.org/content/95/4/609.long

Palmitoylethanolamide Regulates Development of Intestinal Radiation Injury in a Mast Cell-Dependent Manner. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4213290/


Palmitoylethanolamide inhibits rMCP-5 expression by regulating MITF activation in rat chronic granulomatous inflammation. (abst – 2014)  

Palmitoylethanolamide, a naturally occurring disease-modifying agent in neuropathic pain. (abst – 2014)  

Life Threatening Idiopathic Recurrent Angioedema Responding to Cannabis. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4519555/

Critical Role of Mast Cells and Peroxisome Proliferator-Activated Receptor γ in the Induction of Myeloid-Derived Suppressor Cells by Marijuana Cannabidiol In Vivo. (full – 2015)  
http://www.jimmunol.org/content/194/11/5211.long

Cannabinoid receptor-specific mechanisms to ameliorate pain in sickle cell anemia via inhibition of mast cell activation and neurogenic inflammation. (link to PDF – 2015)  
http://www.haematologica.org/content/early/2015/12/21/haematol.2015.136523.long

Selective Cannabinoid Receptor-1 Agonists Regulate Mast Cell Activation in an Oxazolone-Induced Atopic Dermatitis Model. (full – 2016)  

Palmitoylethanolamide reduces inflammation and itch in a mouse model of contact allergic dermatitis. (abst – 2016)  

**MEDICAL MARIJUANA – STUDIES +**

MEDICINAL USE OF CANNABIS: HISTORY AND CURRENT STATUS (full – undated)  
http://www.parl.gc.ca/content/sen/committee/371/ille/presentation/kalant-e.htm

Indian hemp and the dope fiends of Old England (article - undated)  
http://www.idmu.co.uk/indian.htm
Medical Marijuana and the Law (full - 2010)
http://content.nejm.org/cgi/content/full/362/16/1453?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=2080&re
sourcectype=HWCIT

DEA- Listing of Approved Drug Products Containing Dronabinol in Schedule III

Necessity or nastiness? The hidden law denying cannabis for medical use.
(full/news – 2010)
http://prof davidnutt.wordpress.com/2010/12/13/necessity-or-nastiness-the-hidden-law-denying-cannabis-
for-medicinal-use/

Illicit and Nonmedical Drug Use Among Older Adults: A Review (link to PDF – 2010)
http://journals.sagepub.com/doi/abs/10.1177/0898264310386224

Accommodating the medical use of marijuana: surveying the differing legal approaches
in Australia, the United States and Canada. (abst – 2010)

Denial of hepatic transplantation on the basis of smoking: is it ethical? (abst – 2010)

Medical Marijuana Laws, Traffic Fatalities, and Alcohol Consumption (full – 2011)

An Analysis of Applicants Presenting to a Medical Marijuana Specialty Practice in
California (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3673028/

The prevalence of cannabis-involved driving in California. (full – 2011)

Medical marijuana: medical necessity versus political agenda. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3628147/

"But my Doctor Recommended Pot": Medical Marijuana and the Patient-Physician
Relationship. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3208453/

Popular intoxicants: what lessons can be learned from the last 40 years of alcohol and
cannabis regulation? (full – 2011)

The intersection between cannabis and cancer in the United States. (full – 2011)
http://www.croh-online.com/article/S1040-8428(11)00231-9/fulltext

Examining the Health and Drug Exposures among Canadian Children Residing in Drug-
Producing Homes (abst – 2011)
http://www.jpeds.com/article/S0022-3476%2811%2900522-1/abstract
Medical cannabis: the opportunity versus the temptation       (abst – 2011)  

Assessment of hospice health professionals' knowledge, views, and experience with medical marijuana.       (abst – 2011)  

The Rhode Island medical marijuana program: an exploratory study.       (abst – 2011)  

High on Life? Medical Marijuana Laws and Suicide       (full – 2012) 

Medical Marijuana Laws and Teen Marijuana Use       (full – 2012) 

Clinical Service Desires of Medical Cannabis Patients.       (full – 2012) 

Blurred Boundaries: The Therapeutics and Politics of Medical Marijuana       (full – 2012) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3538401/

Societal images of Cannabis use: comparing three countries.       (full – 2012) 

Exploring the ecological association between crime and medical marijuana dispensaries       (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3364319/

Medical marijuana laws in 50 states: Investigating the relationship between state legalization of medical marijuana and marijuana use, abuse and dependence.       (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3251168/

Medical marijuana: the supremacy clause, federalism, and the interplay between state and federal laws.       (full – 2012)  
http://fas.org/sgp/crs/misc/R42398.pdf

It can't hurt to ask; a patient-centered quality of service assessment of health canada's medical cannabis policy and program       (full – 2012)  
http://www.harmreductionjournal.com/content/9/1/2

Cannabis as a substitute for alcohol and other drugs: A dispensary-based survey of substitution effect in Canadian medical cannabis patients       (full – 2012)  

Do medical marijuana laws increase marijuana use? Replication study and extension.       (full – 2012)  
http://www.annalsofepidemiology.org/article/S1047-2797%2811%2900372-3/fulltext

Cannabis—A Valuable Drug That Deserves Better Treatment       (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3498425/
Prospectively Surveying Health-Related Quality of Life and Symptom Relief in a Lot-Based Sample of Medical Cannabis-Using Patients in Urban Washington State Reveals Managed Chronic Illness and Debility. (full – 2012) 
http://journals.sagepub.com/doi/full/10.1177/1049909112454215


Medical Marijuana and Related Legal Aspects (full – 2013) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3875249/

Colorado family physicians' attitudes toward medical marijuana. (full – 2013) 
http://www.jabfm.org/content/26/1/52.long

The pharmacologic and clinical effects of medical cannabis. (full – 2013) 

Legalization of medical marijuana and marijuana use among youths. (full – 2013) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3638722/

Availability of tobacco products associated with use of marijuana cigars (blunts). (full – 2013) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3883305/

Effects of State Medical Marijuana Laws on Adolescent Marijuana Use. (full – 2013) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4007871/

Cannabis for therapeutic purposes: Patient characteristics, access, and reasons for use. (full – 2013) 
http://www.ijidp.org/article/S0955-3959%2813%2900135-7/fulltext

The economic geography of medical cannabis dispensaries in California. (full – 2013) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4162636/

Establishing expertise: Canadian community-based medical cannabis dispensaries as embodied health movement organisations. (full – 2013) 
http://www.ijidp.org/article/S0955-3959%2813%2900232-6/fulltext

Using cannabis to help you sleep: Heightened frequency of medical cannabis use among those with PTSD. (full – 2013) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3929256/


The role of child protection in cannabis grow-operations. (full – 2013)
Clinical decisions. Medicinal use of marijuana--polling results. (article – 2013)

Medical Marijuana Coverage Still Lost in the Legal Weeds (article – 2013)
http://www.managedcaremag.com/linkout/2013/1/23

Integrating Cannabis Into Clinical Care (article – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3875042/

(Re)introducing medicinal cannabis (article – 2013)

Medicinal Cannabis and Painful Sensory Neuropathy (editorial – 2013)
http://virtualmentor.ama-assn.org/2013/05/oped1-1305.html


Correspondence (letter to the editor): Cannabis Therapy (letter – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3601285/

Anticipated Medical Effects on Children From Legalization of Marijuana in Colorado and Washington State (1st page – 2013)
http://archpedi.jamanetwork.com/article.aspx?articleid=1691419&resultClick=3

A review of the cultivation and processing of cannabis (Cannabis sativa L.) for production of prescription medicines in the UK. (abst – 2013)

Effects of Schedule I drug laws on neuroscience research and treatment innovation. (abst – 2013)

From 32 ounces to zero: a medical geographic study of dispensing a cultivated batch of "plum" cannabis flowers to medical marijuana patients in Washington State. (abst – 2013)

Characteristics of adults seeking medical marijuana certification. (abst – 2013)

The medicinal use of cannabis and cannabinoids--an international cross-sectional survey on administration forms. (abst – 2013)
http://www.unboundmedicine.com/medline/citation/24175484/The_medicinal_use_of_cannabis_and_cannabinoids--an_international_cross-sectional_survey_on_administration_forms

Still Dazed and Confused: Midlife Marijuana Use by the Baby Boom Generation (abst – 2013)
http://www.tandfonline.com/doi/abs/10.1080/01639625.2014.889994
Prescribing smoked cannabis for chronic noncancer pain: Preliminary recommendations. (full – 2014) http://www.cfp.ca/content/60/12/1083.long


2012 Division of Medicinal Chemistry Award Address: Trekking the Cannabinoid Road: A Personal Perspective. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4064474/

PTSD symptom reports of patients evaluated for the New Mexico Medical Cannabis Program. (full – 2014) http://www.tandfonline.com/doi/full/10.1080/02791072.2013.873843#tabModule

Rheumatologists lack confidence in their knowledge of cannabinoids pertaining to the management of rheumatic complaints. (full – 2014) http://www.biomedcentral.com/content/pdf/1471-2474-15-258.pdf


Physicians as gatekeepers in the use of medical marijuana (full – 2014) http://www.jaapl.org/content/39/4/460.long

Medical marijuana: more questions than answers. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4243838/

High-Intensity Cannabis Use and Adherence to Antiretroviral Therapy Among People Who Use Illicit Drugs in a Canadian Setting. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4289662/

Positive posttraumatic stress disorder screens among first-time medical cannabis patients: Prevalence and association with other substance use. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4299455/

The Medicinal Cannabis Treatment Agreement: Providing Information to Chronic Pain Patients via a Written Document. (full – 2014)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4417655/


Pharmacological management of chronic neuropathic pain: Revised consensus statement from the Canadian Pain Society. (link to PDF – 2014)
http://www.hindawi.com/journals/prm/2014/754693/abs/

Marijuana Resource Center: State Laws Related to Marijuana (article – 2014)
http://www.whitehouse.gov/ondcp/state-laws-related-to-marijuana

Up in smoke: A neurologist's approach to “medical marijuana” (article – 2014)

Medical marijuana: 4 experts on benefits vs. risks (article – 2014)
https://www.elsevier.com/connect/medical-marijuana-4-experts-on-benefits-vs-risks

A Review and Critique of Dr. Sanjay Gupta's Weed 2: Cannabis Madness on CNN (article – 2014)
http://cms.herbalgram.org/heg/volume11/04April/CNNGupataWEED2critique.html

Medical Marijuana Laws and Suicides by Gender and Age (abst – 2014)


The Impact of Marijuana Policies on Youth: Clinical, Research, and Legal Update.  (full – 2015)  http://pediatrics.aappublications.org/content/early/2015/01/20/peds.2014-4147.long


Illegal drugs laws: clearing a 50-year-old obstacle to research.  (full – 2015)  http://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.1002047


High prevalence of cannabis use among Aka foragers of the Congo Basin and its possible relationship to helminthiasis  (full – 2015)
Use of Prescription Pain Medications Among Medical Cannabis Patients: Comparisons of Pain Levels, Functioning, and Patterns of Alcohol and Other Drug Use. (full – 2015)

The cannabis conundrum: Thinking outside the THC box. (full – 2015)

Medical marijuana laws and adolescent marijuana use in the USA from 1991 to 2014: results from annual, repeated cross-sectional surveys (full – 2015)

Current Status and Future of Cannabis Research (full – 2015)

Levels of selected metals in leaves of Cannabis sativa L. cultivated in Ethiopia. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4503701/

Stigma among California’s Medical Marijuana Patients (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4341951/

PROGRESS REPORT Compassionate Use of Medical Cannabis Pilot Program Act July 1, 2014 through June 30, 2015 (full – 2015)

Cannabis – the Israeli perspective (full – 2015)

Plant derived substances with anti-cancer activity: from folklore to practice (full – 2015)
http://journal.frontiersin.org/article/10.3389/fpls.2015.00799/full

http://www.hindawi.com/journals/ecam/2015/238482/

Human rights, public health and medicinal cannabis use. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4662098/

http://cmajopen.ca/content/3/2/E251.full?sid=139f05c1-b441-476b-99ff-addf8c918e1a

Cannabinoids for Medical Use A Systematic Review and Meta-analysis (full – 2015)
http://jama.jamanetwork.com/article.aspx?articleid=2338251&resultClick=24


Medicinal cannabis. (full – 2015) [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4674028/]


Sequelae of Cannabis as Medicine (full – 2015) [http://painmedicine.oxfordjournals.org/content/16/7/1447]


Overcoming the Bell-Shaped Dose-Response of Cannabidiol by Using Cannabis Extract Enriched in Cannabidiol (full – 2015) [http://file.scirp.org/Html/5-2500582_53912.htm]

THE EFFECT OF MEDICAL MARIJUANA LAWS ON BODY WEIGHT (full – 2015) The Effect of Medical Marijuana Laws on Body Weight
An Overview of Products and Bias in Research (full – 2015)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4604179/

ADOLESCENTS’ USE OF MEDICAL MARIJUANA: A SECONDARY ANALYSIS OF MONITORING THE FUTURE DATA (full – 2015)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4514911/

Marijuana: A Time-Honored but Untested Treatment for Epilepsy. (full – 2015)  

Clinical perspectives on medical marijuana (cannabis) for neurologic disorders. (full – 2015)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4549715/

Cannabis microbiome sequencing reveals several mycotoxic fungi native to dispensary grade Cannabis flowers (link to PDF – 2015) 
http://r.search.yahoo.com/_ylt=AwrTcdRexG1XgyoAtagnl1Q_ylu=X3oDMTEVyanRsZ2RrBGNgG8DZ3ExBHbcwvMxBH20aWQDQlyNzRfMQRzzZWMDc3l-RV=2/RE=1466480287/RO=10/RU=http%3a%2f%2fbiorxiv.org%2fcontent%2fbiorxiv%2fearly%2f2015%2f11%2f06%2f030775.full.pdf/RK=0/RS=7LyvwyweD2gvwo06N 0cEX_XySE-

Assessment of Israeli Physicians' Knowledge, Experience and Attitudes towards Medical Cannabis: A Pilot Study (link to PDF – 2015)  

Do Medical Marijuana Laws Reduce Addictions and Deaths Related to Pain Killers? (link to download - 2015)  
Do Medical Marijuana Laws Reduce Addiction and Deaths Related...

Ending the U.S. government’s war on medical marijuana research (report – 2015)  
https://www.brookings.edu/research/ending-the-u-s-governments-war-on-medical-marijuana-research/

Veterans Health Administration Policy on Cannabis as an Adjunct to Pain Treatment with Opiates (article – 2015)  
http://journalofethics.ama-assn.org/2015/06/pfor2-1506.html

Marijuana gears up for production high in US labs (article – 2015)  
http://www.nature.com/news/marijuana-gears-up-for-production-high-in-us-labs-1.17129

Marijuana Research with Human Subjects (article – 2015)  
http://www.fda.gov/newsevents/publichealthfocus/ucm421173.htm

Marijuana’s role in optometry and beyond (article – 2015)  

Peaceful feeling, or up in smoke? Medical marijuana in medicolegal context (article – 2015)  
The entourage effect: Synergistic actions of plant cannabinoids  (letter – 2015)
https://www.researchgate.net/publication/268878607_Medical_marijuana_in_neurology

Profiles of medicinal cannabis patients attending compassion centers in rhode island.  

Is cannabis an illicit drug or a medicine? A quantitative framing analysis of Israeli newspaper coverage.  

(1)H NMR and HPLC/DAD for Cannabis sativa L. chemotype distinction, extract profiling and specification.  

Cannabis species and cannabinoid concentration preference among sleep-disturbed medicinal cannabis users.  

Do Cannabinoid Receptor Agonists Have A Role In The Intensive Care Unit? ... Totally Dude!  

From badness to illness: Medical cannabis and self-diagnosed attention deficit hyperactivity disorder  

Polypharmacology Shakes Hands with Complex Aetiopathology.  

Substituting cannabis for prescription drugs, alcohol and other substances among medical cannabis patients: The impact of contextual factors.  

The prescription of medical cannabis by a transitional pain service to wean a patient with complex pain from opioid use following liver transplantation : a case report.  

Medicinal Cannabis: A Survey Among Health Care Providers in Washington State.  

In the weeds: a baseline view of cannabis use among legalizing states and their neighbours.  

Prevalence of Marijuana and Other Substance Use Before and After Washington State's Change from Legal Medical Marijuana to Legal Medical and Non-Medical Marijuana: Cohort Comparisons in a Sample of Adolescents.  


Medical marijuana programs - Why might they matter for public health and why should we better understand their impacts? (full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4721313/

The Role of Medicinal Cannabis in Clinical Therapy: Pharmacists' Perspectives  
(full – 2016)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0155113

Legal regulated markets have the potential to reduce population levels of harm associated with cannabis use  
(full – 2016)  

Medicinal cannabis in Australia: the missing links  
(full – 2016)  

Evaluating the Effects of Gamma-Irradiation for Decontamination of Medicinal Cannabis.  
(full – 2016)  

Medicinal Use of Marijuana: What School Nurses Need to Know.  
(full – 2016)  
http://nas.sagepub.com/content/31/3/170.long

Attitudes of Israeli Rheumatologists to the Use of Medical Cannabis as Therapy for Rheumatic Disorders.  
(full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4839539/

Is the medical use of cannabis a therapeutic option for children?  
(full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4758425/

(full – 2016)  
http://www.ijdp.org/article/S0955-3959(16)00038-4/fulltext

Model Guidelines for the Recommendation of Marijuana in Patient Care  
“Model Guidelines for the Recommendation of Marijuana in Patient Care”  

Tracking Dabbing Using Search Query Surveillance: A Case Study in the United States.  
(full – 2016)  
http://www.jmir.org/2016/9/e252/

Splendor in the Grass? A Pilot Study Assessing the Impact of Medical Marijuana on Executive Function  
(full – 2016)  

Medical cannabis use in Canada: vapourization and modes of delivery  
(full – 2016)  

Federal barriers to Cannabis research.  
(full – 2016)  
http://science.sciencemag.org/content/352/6290/1182.1.long
Preparation and Distribution of Cannabis and Cannabis-Derived Dosage Formulations for Investigational and Therapeutic Use in the United States (full – 2016)
http://journal.frontiersin.org/article/10.3389/fphar.2016.00285/full#B14

Dietary fats and pharmaceutical lipid excipients increase systemic exposure to orally administered cannabis and cannabis-based medicines (full – 2016)

Current Therapeutic Cannabis Controversies and Clinical Trial Design Issues (full – 2016)

Marijuana - How Safe is it Really? (full – 2016)
https://journals.mcmaster.ca/iScientist/article/download/1104/991

Minnesota Pharmacists and Medical Cannabis: A Survey of Knowledge, Concerns, and Interest Prior to Program Launch. (full – 2016)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5083080/

Establishment of a New Drug Code for Marihuana Extract. Final rule. (full – 2016)

Marijuana: Views on Its Medical Use Recorded at the Slovak Social Network. (full – 2016)
http://journals.sagepub.com/doi/full/10.1177/0047237916646442

Opinions of Hospital Pharmacists in Canada Regarding Marijuana for Medical Purposes. (full – 2016)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4853179/

Medical Marijuana Laws Reduce Prescription Medication Use In Medicare Part D. (full – 2016)
http://content.healthaffairs.org/content/35/7/1230.long

Preparation and Distribution of Cannabis and Cannabis-Derived Dosage Formulations for Investigational and Therapeutic Use in the United States (full – 2016)
http://journal.frontiersin.org/article/10.3389/fphar.2016.00285/full#B14

Metagenomic analysis of medicinal Cannabis samples; pathogenic bacteria, toxigenic fungi, and beneficial microbes grow in culture-based yeast and mold tests. (full – 2016)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5089129/

Therapeutic Use of Cannabis in Inflammatory Bowel Disease (full – 2016)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5193087/

A user’s guide to cannabinoid therapies in oncology (full – 2016)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5176373/
Establishment of a New Drug Code for Marihuana Extract (full – 2016)

David Casarett's Stoned: A Doctor's Case for Medical Marijuana. (full – book review - 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4938260/


Tackling the Pharmaceutical Frontier: Regulation of Cannabinoid-Based Medicines in Postwar Japan (link to PDF – 2016) http://online.liebertpub.com/doi/full/10.1089/can.2015.0011


Cannabis in the United States (report – 2016) http://self.gutenberg.org/article/WHEBN0020566488/Cannabis%20in%20the%20United%20States


Why I chose to use cannabis (article – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4791147/


Opioids Out, Cannabis In (1st page – 2016)
http://jamanetwork.com/journals/jama/article-abstract/2576617

Cannabis and Cannabinoids. (1st page – 2016)
http://jamanetwork.com/journals/jama/article-abstract/2592497

Expectations for Physicians Prescribing Marijuana. (1st page – 2016)
http://jamanetwork.com/journals/jama/article-abstract/2592491

Farming medical ganja in Jamaica. (click ELSEVIER for 1st page – 2016)

The Effect of Medical Marijuana on Sickness Absence. (abst – 2016)


Medical use of cannabis products: Lessons to be learned from Israel and Canada. (abst – 2016)

Dental treatment planning considerations for patients using cannabis: A case report. (abst – 2016)

Marijuana: Medical Applications, Recreational Use and Substance Abuse Disorders (abst – 2016)

Chapter 2 – Biosynthesis and Pharmacology of Phytocannabinoids and Related Chemical Constituents (abst – 2016)

Chapter 3 – Medical Cannabis Formulations (abst – 2016)

Chapter 4 – Analytical Methods in Formulation Development and Manufacturing (abst – 2016)

Chapter 6 – The Roles of Research and Regulation (abst – 2016)
http://www.sciencedirect.com/science/article/pii/B978012804646463000060

Chapter 7 – The Future of Cannabinoid Therapeutics (abst – 2016)
http://www.sciencedirect.com/science/article/pii/B978012804646463000072

Medical cannabis: considerations for the anesthesiologist and pain physician. (abst – 2016)

The Changing Drug Culture: Medical and Recreational Marijuana. (abst – 2016)
Cannabinoids: Medical implications. (abst – 2016)


Pediatric oncology providers and use of medical marijuana in children with cancer. (abst – 2016) http://meetinglibrary.asco.org/content/170798-176


Qualitative research in Spanish cannabis social clubs: "The moment you enter the door, you are minimising the risks". (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27461986


Medical Marijuana: Just the Beginning of a Long, Strange Trip?  (abst – 2016)  

Efficacy, tolerability, and safety of cannabinoids in gastroenterology: A systematic review  

Cannabis: A Treasure Trove or Pandora's Box?  (abst – 2016)  
https://www.ncbi.nlm.nih.gov/pubmed/27719666

Clearing the haze: the complexities and challenges of research on state marijuana laws.  

Prevalence and correlates of "Vaping" as a route of cannabis administration in medical cannabis patients.  

Pseudo-Underage Assessment of Compliance With Identification Regulations at Retail Marijuana Outlets in Colorado.  

Pros and cons of medical cannabis use by people with chronic brain disorders.  

The Impact of Medical Marijuana Laws on the Labor Supply and Health of Older Adults: Evidence from the Health and Retirement Study  
(abst – 2016) http://www.nber.org/papers/w22688

Survey of herbal cannabis (marijuana) use in rheumatology clinic attenders with a rheumatologist confirmed diagnosis.  

Medical Cannabis - another piece in the mosaic of autoimmunity?  

Understanding and learning from the diversification of cannabis supply laws.  

Attitudes to cannabis and patterns of use among Canadians with multiple sclerosis  

Phytocannabinoids: a growing family of plant natural products with increasing pharmacological and clinical importance  

Cannabinoids - a new weapon against cancer?  (abst – 2016)  

Stakeholders' Views on Barriers to Research on Controversial Controlled Substances.  


Migraine Frequency Decreased by Medical Marijuana (news & abst – 2016) http://neurosciencenews.com/medical-marijuana-migraine-3440/


Cannabis use in persons with traumatic spinal cord injury in Denmark. (link to PDF- 2017) https://www.medicaljournals.se/jrm/content/abstract/10.2340/16501977-2105


>MEIGE’S SYNDROME – see Pre-2000 list

>MEMORY- see IQ/ MEMORY/ COGNITIVE EFFECTS

>MENIERE’S SYNDROME + see News section

MENINGITIS *


MENOPAUSE/ OVARIECTOMY ++* - also see AGING, GYNOCOLOGY
The relationship between plasma levels of the endocannabinoid, anandamide, sex steroids, and gonadotrophins during the menstrual cycle. (full - 2010) http://www.fertstert.org/article/S0015-0282%2808%2904739-0/fulltext


The type 2 cannabinoid receptor protects against age-related bone loss and ovariectomy induced bone loss by stimulating bone formation (abst – 2010) http://www.thebonejournal.com/article/S8756-3282%2810%2900619-8/abstract

The Type 2 Cannabinoid Receptor Regulates Bone Mass and Ovariectomy-Induced Bone Loss by Affecting Osteoblast Differentiation and Bone Formation (full – 2011) http://press.endocrine.org/doi/full/10.1210/en.2010-0930


Endocannabinoid type 1 receptor gene (CNR1) polymorphisms (rs806381, rs10485170, rs6454674, rs2023239) and cardiovascular risk factors in postmenopausal women. (abst – 2011) http://www.ncbi.nlm.nih.gov/pubmed/21480765


Circulating levels of endocannabinoids and oxylipins altered by dietary lipids in older women are likely associated with previously identified gene targets (abst – 2016)

MENTAL DISORDERS - see SCHIZOPHRENIA/ MENTAL DISORDERS, DEPRESSION, PTSD

METABOLIC SYNDROME

G1359A polymorphism in the cannabinoid receptor-1 gene is associated with metabolic syndrome in the Chinese Han population. (abst – 2010)

385 C/A polymorphism of the fatty acid amide hydrolase gene is associated with metabolic syndrome in the Chinese Han population. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3258756/

Acipimox reduces circulating levels of insulin and associated neutrophilic inflammation in metabolic syndrome. (full – 2011) http://ajpendo.physiology.org/content/300/4/E681.long

Are endocannabinoid type 1 receptor gene (CNR1) polymorphisms associated with obesity and metabolic syndrome in postmenopausal Polish women? (full – 2011)
http://www.nature.com/ijo/journal/v35/n3/full/ijo2010145a.html

The potential use of cannabidiol in the therapy of metabolic syndrome (abst – 2012)

The serine hydrolase ABHD6 Is a critical regulator of the metabolic syndrome. (full – 2013) http://www.cell.com/cell-reports/fulltext/S2211-1247%2813%2900507-X

Novel effects of the cannabinoid inverse agonist AM 251 on parameters related to metabolic syndrome in obese Zucker rats. (abst – 2013)


The effects of obesity, diabetes and metabolic syndrome on the hydrolytic enzymes of the endocannabinoid system in animal and human adipocytes. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3995979/


Exposure to a Highly Caloric Palatable Diet during the Perinatal Period Affects the Expression of the Endogenous Cannabinoid System in the Brain, Liver and Adipose Tissue of Adult Rat Offspring. (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0165432


**METHODS OF USE – CAPSULES** ++also see MARINOL, NABILONE

Getting high on the endocannabinoid system. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3997295/


Evaluation of divided attention psychophysical task performance and effects on pupil sizes following smoked, vaporized and oral cannabis administration. (abst – 2017)

METHODS OF USE – “DABS”/ HASH OIL/CONCENTRATES


The Dabbing Dilemma: A Call for Research on Butane Hash Oil and Other Alternate Forms of Cannabis Use. (full – 2015)
https://www.researchgate.net/publication/280691408_The_Dabbing_Dilemma_A_Call_for_Research_on_Butane_Hash_Oil_and_Other_Alternate_Forms_of_Cannabis_Use


Understanding dabs: contamination concerns of cannabis concentrates and cannabinoid transfer during the act of dabbing. (link to PDF – 2015)
https://www.jstage.jst.go.jp/article/jts/40/6/40_797/_article

Dabble With Danger: A Case Of Severe Respiratory Failure Following Inhalation Of Butane Hash Oil (abst – 2015)

Displays of dabbing marijuana extracts on YouTube. (abst – 2015)
http://www.drugandalcoholdependence.com/article/S0376-8716(15)01613-0/abstract


Establishment of a New Drug Code for Marihuana Extract. Final rule. (full – 2016)

A Case of Butane Hash Oil (Marijuana Wax)-Induced Psychosis. (abst – 2016)
Exploring Butane Hash Oil Use: A Research Note. (abst – 2016)

Cannabis-induced psychosis associated with high potency "wax dabs". (abst – 2016)

A content analysis of tweets about high-potency marijuana. (abst – 2016)

**METHODS OF USE – DECARBOXYLATION**

Decarboxilation (article – undated) http://theweedscene.com/recipe/decarboxilation/

How-to: Paleo's Potent Cannabis Oil (Edibles Technique) (forum post – 2011)


Potency 101 (printable card set – 2015)
http://greenstyleconsulting.com/potency-101/


**METHODS OF USE - E-CIGARETTES**

High School Students' Use of Electronic Cigarettes to Vaporize Cannabis. (full – 2015) http://pediatrics.aappublications.org/content/136/4/611.long


Confirmation of the trials and tribulations of vaping (article – 2015)

How beneficial is vaping cannabis to respiratory health compared to smoking? (article – 2015)


Evaluation of Two Commercially Available Cannabidiol Formulations for Use in Electronic Cigarettes (full – 2016)

Tracking Dabbing Using Search Query Surveillance: A Case Study in the United States. (full – 2016)
http://www.jmir.org/2016/9/e252/

Medical cannabis use in Canada: vapourization and modes of delivery (full – 2016)

Analysis of a commercial marijuana e-cigarette formulation. (abst – 2016)
(This article has a delayed release and will be available in PMC on June 1, 2017)

Analysis of a Commercial Marijuana e-Cigarette Formulation. (abst – 2016)

Prevalence of Use of Electronic Nicotine Delivery Systems (ENDS) to Vape Recreational Drugs by Club Patrons in South London. (abst – 2016)

Prevalence and Correlates of Vaping Cannabis in a Sample of Young Adults. (abst – 2016)

METHODS OF USE – EDIBLES – GENERAL USE + *

Cannabis as a Unique Functional Food (full – 2011)
http://apothecary-genetics.spruz.com/gfile/75r4!-!HLKELE!-!svyr5/cannabis_as_a_unique_functional_food.pdf

http://www.google.com/patents/US20110097283


Notes from the Field: Death Following Ingestion of an Edible Marijuana Product — Colorado, March 2014 (full – 2015)  http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6428a6.htm


With education, nurses can help to bridge the marijuana gap (article – 2015)  http://cannabistoday.bangordailynews.com/2015/07/09/home/with-education-nurses-can-help-to-bridge-the-marijuana-gap/


When Weed Is The Cure: A Doctor's Case for Medical Marijuana  (interview – 2015)  
http://www.npr.org/sections/health-shots/2015/07/14/422876973/when-weed-is-the-cure-a-doctors-case-for-medical-marijuana?utm_medium=RSS&utm_campaign=authorinterviews

Effects of Medical Marijuana on Migraine Headache Frequency in an Adult Population. (full – 2016)  

Identification of Psychoactive Degradants of Cannabidiol in Simulated Gastric and Physiological Fluid  (full – 2016)  
http://online.liebertpub.com/doi/10.1089/can.2015.0004

High on Cannabis and Calcineurin Inhibitors: A Word of Warning in an Era of Legalized Marijuana  (full – 2016)  
https://www.hindawi.com/journals/crit/2016/4028492/

Dietary fats and pharmaceutical lipid excipients increase systemic exposure to orally administered cannabis and cannabis-based medicines  (full – 2016)  

A user’s guide to cannabinoid therapies in oncology  (full – 2016)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5176373/

The use of medical-grade cannabis in patients non-responders to Nabiximols  
(1st page – 2016)  

Smoking, vaping, eating: Is legalization impacting the way people use cannabis?  
(abst – 2016)  

"Those edibles hit hard": Exploration of Twitter data on cannabis edibles in the U.S.  
(abst – 2016)  
http://www.drugandalcoholdependence.com/article/S0376-8716%2816%2930056-4/abstract

Medicinal cannabis: Principal cannabinoids concentration and their stability evaluated by a high performance liquid chromatography coupled to diode array and quadrupole time of flight mass spectrometry method.  
(abst – 2016)  

Edible Cannabis Products: It is Time for FDA Oversight.  
(abst – 2016)  

Cannabinoid disposition in oral fluid after controlled smoked, vaporized, and oral cannabis administration.  
(abst – 2016)  

Accidental cannabis poisoning in the elderly.  
(abst – 2016)  

Tasty THC: Promises and Challenges of Cannabis Edibles.  
(abst – 2016)  

METHODS – EDIBLES – BEVERAGES – OTHER +*


>METHODS - EDIBLES- BEVERAGES - CANNABIS TEA +* - see News section

METHODS – EDIBLES – FOODS +*

Recreational use and overdose of ingested processed cannabis (Majoon Birjandi) in the eastern Iran. (full – 2012) http://journals.sagepub.com/doi/full/10.1177/0960327112446814


METHODS - EDIBLES - RAW UNHEATED CANNABIS JUICE +

Cannabis as a Unique Functional Food (full – 2011)
No Heat ACTIVE cannabis smoothie recipe...this is real. Experience report
(forum post – 2015)

**METHODS – EDIBLES - RECIPES**

Bhang Recipes for Holi  (collection- undated)
http://www.indiankitchenfood.com/bhang-recipes-holi/

Recipes from "Onlinapot"  (collection- undated)  http://www.onlinepot.org/recipes.htm

Hemp Seed Recipes  (collection- undated)  http://manitobaharvest.com/recipes.html

{{Easy}} How to prepare Bhang Receipes at home Easily.  (collection- undated)
http://www.theholi.com/2015/03/how-to-prepare-bhang-receipes.html

Edible Marijuana Recipes  (collection - undated)  http://theweedscape.com/edible-recipes/

Alice B. Toklas brownies: the recipe!  (recipe – 1994)
http://www.straightdope.com/columns/read/880/alice-b-toklas-brownies-the-recipe

Cannabis Recipes  (forum thread/collection - 2004)

Cannabutter In 7 Easy Steps!  (forum thread/ recipe- 2005)

Cooking with Cannabis  (article – 2008)

IC Recipe Guide  (forum thread/ collection - 2008)

Cannabis Cooking Tips From Uncle Buck  (article– 2010)


Ask Old Hippie: What Can I Do With Marijuana Cooking Oil?  (article – 2010)
BadKat's CannaPharm: Canna Caps, UV Reactive GLOWING Hash Candy, Canna 'Bombs' & more  (forum post/ collection - 2011)  

Cannabis Decarboxylation – THC Preparation for Unheated Edibles  
(news/ recipe – 2012)  

How To Blast Off With Nutella Firecrackers  
(recipe – 2012)  
http://beyondchronic.com/2012/01/how-to-blast-off-nutella-firecrackers/

Pineapple Express Upside Down Cake  
(recipe – 2012)  
http://www.foodrepublic.com/recipes/pineapple-express-upside-down-cake/

Kitchen Kush: The best cannabutter in America? Yep, in just 7 easy steps  
(news - 2013)  
http://www.thecannabist.co/2013/12/27/kitchenweed/1244/

How To Make Cannabis Infused Sweet Potatoes That Are Vegan, Gluten-free  
(recipe – 2013)  
http://www.medicaljane.com/2014/12/01/how-to-make-vegan-gluten-free-cannabis-infused-sweet-potatoes/

Stoner Sundae: How to Make Weed Ice Cream  
(news - 2013)  
http://www.thefader.com/2013/07/03/stoner-sundae-how-to-make-weed-ice-cream/

One Bunch of Fresh Cannabis Leaves (Underground Pop-Up Weed-Dinner Green Congee)  
(news/ recipe - 2013)  
http://www.newyorker.com/culture/culture-desk/one-bunch-of-fresh-cannabis-leaves

Cooking with Cannabis: How to Make Weed Butter  
(recipe – 2014)  
http://gizmodo.com/cooking-with-cannabis-how-to-make-weed-butter-1500453696

Cooking With Cannabis: 8 Delicious Marijuana Recipes  
(collection – 2014)  

How-To Make A Cannabis Infused Blueberry Banana Smoothie  
(news – 2014)  

Marijuana Spa Products You Can Make at Home  
(news – 2014)  
https://www.mainstreet.com/article/marijuana-spa-products-you-can-make-home-0

How to Make Non-Psychoactive Cannabis & Carrot Juice  
(news – 2015)  
http://www.medicaljane.com/2015/01/14/non-psychoactive-cannabis-carrot-juice-recipe/

Bhang Recipe  
(news – 2015)  
https://www.whaxy.com/learn/bhang-recipe

Cannapple Ginger Juice  
(news – 2015)  
http://twicebakedinwashington.com/2015/01/01/cannapple-ginger-juice/
Medicated Coffee Creamer Recipe (forum post – 2015)

Not Your Mother’s Pot Brownie (news/recipe – 2015)
http://hereandnow.wbur.org/2015/05/25/pot-edibles-recipes?utm_medium=RSS&utm_campaign=storiesfromnpr

Spice up Your Coffee with Cannabis (news – 2015)
http://www.buydutchseeds.com/blog/spice-up-your-coffee-with-cannabis.html

Cannabis Infused Sugar Cookies: Recipe (news/recipe – 2015)
https://www.hellomd.com/health-wellness/cannabis-infused-sugar-cookies-recipe

12 Delicious Bhang Recipes That You Should Definitely Try Out This Holi (collection – 2016) https://www.scoopwhoop.com/bhang-recipes-for-holi/

Make your own cannabutter in seven easy steps [PHOTOS] (news/recipe – 2016)
http://www.denverpost.com/2016/05/26/cannabutter-marijuana-infused-butter/

Cannabis-Infused Dark Chocolate Coconut Balls (news/recipe – 2016)

Ask a Stoner: How Can I Have a Merryjuana Christmas? (news/recipe – 2016)
http://www.houstonpress.com/news/ask-a-stoner-how-can-i-have-a-merryjuana-christmas-9040585

**METHODS OF USE – HASHISH**

Prolonged coma in a child due to hashish ingestion with quantitation of THC metabolites in urine. (abst – 2011)
http://www.unboundmedicine.com/medline/ebm/record/20634020/abstract/Prolonged_coma_in_a_child_due_to_hashish_ingestion_with_quantitation_of_THC_metabolites_in_urine


Water pipe smoking and psychoactive substances (abst – 2012)

Extraction of high quality DNA from seized moroccan cannabis resin (hashish). (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3790795/

What are young adults smoking in their hookahs? A latent class analysis of substances smoked. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4091668/


Are Moroccan cannabis growers able to adapt to recent European market trend? (full – 2015) http://www.ijdp.org/article/S0955-3959%2814%2900336-3/fulltext


False hashish without cannabis resin (abst – 2015) http://www.ingentaconnect.com/search/article?option1=title&value1=false+haseish&pageSize=10&index=1

Traditional marijuana, high-potency cannabis and synthetic cannabinoids: increasing risk for psychosis. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5032490/


METHODS OF USE – INHALERS +


**METHODS OF USE – INJECTION +*- DO NOT TRY A DIY! (see PRE-2000 studies!)


Naltrexone does not attenuate the effects of intravenous Δ9-tetrahydrocannabinol in healthy humans (full – 2012) http://ijnp.oxfordjournals.org/content/15/9/1251.long


N-Palmitoylethanolamine depot injection increased its tissue levels and those of other acylethanolamide lipids (full – 2013) http://www.ncbi.nlm.nih.gov/pubmed/23976843

How Cannabis Causes Paranoia: Using the Intravenous Administration of Δ9-Tetrahydrocannabinol (THC) to Identify Key Cognitive Mechanisms Leading to Paranoia. (full – 2014) http://schizophreniabulletin.oxfordjournals.org/content/early/2014/07/01/schbul.sbu098.long


Intravenous Delta-9-Tetrahydrocannabinol to Prevent Postoperative Nausea and Vomiting: A Randomized Controlled Trial (abst – 2015)

http://link.springer.com/article/10.1007/s40262-014-0195-5

Distribution of Synthetic cannabinoids JWH-210, RCS-4 and ∆9-Tetrahydrocannabinol After Intravenous Administration to Pigs. (abst – 2016)

METHODS OF USE – NANOPLATFORMS/ NANOPARTICLES, etc.


Engineering of Δ9-tetrahydrocannabinol delivery systems based on surface modified-PLGA nanoplatforms. (abst – 2014)

Lipid nanoparticles as an emerging platform for cannabinoid delivery: physicochemical optimization and biocompatibility. (abst – 2015)

The Use of Styrene Maleic Acid Nanomicelles Encapsulating the Synthetic Cannabinoid Analog WIN55,212-2 for the Treatment of Cancer. (abst – 2015)

Encapsulation of cannabinoid drugs in nanostructured lipid carriers. (abst – 2016)

Mesoporous Silica Particles as a Multifunctional Delivery System for Pain Relief in Experimental Neuropathy. (abst – 2016)

Application of carbon nanotubes as the carriers of the cannabinoid, 2-arachidonoylglycerol: Towards a novel treatment strategy in colitis. (abst – 2016)
**METHODS OF USE - NASAL SPRAYS**


**METHODS OF USE – RSO / RICK SIMPSON'S OIL/ HEMP OIL/ PHOENIX OIL**


Cannabis extract treatment for terminal acute lymphoblastic leukemia with a Philadelphia chromosome mutation (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3901602/


The Comprehensive Report on the Cannabis Extract Movement and the Use of Cannabis Extracts to Treat Diseases (link to upload - 2014) http://www.slideshare.net/TheHempSolution/comprehensive-report-on-the-cannabis-extract-movement

Integrating cannabis into clinical cancer care. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4791148/

Safety and Efficacy of Medical Cannabis Oil for Behavioral and Psychological Symptoms of Dementia: An-Open Label, Add-On, Pilot Study.  (abst – 2016)  

Review of Various Herbal Supplements as Complementary Treatments for Oral Cancer.  (abst – 2016)  

Limitations to the Dutch cannabis toleration policy: Assumptions underlying the reclassification of cannabis above 15% THC.  (abst – 2016)  

**METHODS OF USE – SECOND-HAND SMOKE +**

Evaluating the athlete's claim of an unintentional positive urine drug test.  (abst – 2011)  

Non-smoker exposure to secondhand cannabis smoke. I. Urine screening and confirmation results.  (full – 2015)  
http://www.researchgate.net/publication/267043767_Non-Smoker_Exposure_to_Secondhand_Cannabis_Smoke._I._Urine_Screening_and_Confirmation_Results

Nonsmoker Exposure to Secondhand Cannabis Smoke. III. Oral Fluid and Blood Drug Concentrations and Corresponding Subjective Effects.  (full – 2015)  
http://jat.oxfordjournals.org/content/39/7/497.long

Finding cannabinoids in hair does not prove cannabis consumption.  (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4595642/

Non-smoker exposure to secondhand cannabis smoke II: Effect of room ventilation on the physiological, subjective, and behavioral/cognitive effects.  (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4747424/

Analysis of Cannabinoids and Their Metabolites in Human Urine.  (abst – 2015)  
http://pubs.acs.org/doi/10.1021/acs.analchem.5b02603

Detecting biomarkers of secondhand marijuana smoke in young children  (link to PDF– 2016)  
http://www.nature.com/pr/journal/vaop/naam/abs/pr2016261a.html

A systematic review of passive exposure to cannabis.  (abst – 2016)  
http://www.fsijournal.org/article/S0379-0738(16)30493-5/abstract
**METHODS OF USE - SMOKING** +* - also see SMOKED CANNABIS AS MEDICINE

Smoked cannabis for chronic neuropathic pain: a randomized controlled trial  
(full – 2010)  [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2950205/?tool=pmcentrez](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2950205/?tool=pmcentrez)

Opioid antagonism enhances marijuana's effects in heavy marijuana smokers.  

Does cannabis use predispose to chronic airflow obstruction?  
(full – 2010)  [http://erj.ersjournals.com/content/35/1/3.full?ikey=d1405bb2fe0ed2aff675335858f284f7f470fbbc&keytype2=tf_ipsecsha](http://erj.ersjournals.com/content/35/1/3.full?ikey=d1405bb2fe0ed2aff675335858f284f7f470fbbc&keytype2=tf_ipsecsha)

Impact of cannabidiol on the acute memory and psychotomimetic effects of smoked cannabis: naturalistic study.  
(full - 2010)  [http://bjp.rcpsych.org/content/197/4/285.long](http://bjp.rcpsych.org/content/197/4/285.long)

Disposition of smoked cannabis with high Delta(9)-tetrahydrocannabinol content: A kinetic model.  

Effects of smoking cannabis on lung function  
(full - 2011)  [http://tandfonline.com/doi/full/10.1586/ers.11.40](http://tandfonline.com/doi/full/10.1586/ers.11.40)

Drug-Intake Methods and Social Identity: The Use of Marijuana in Blunts Among Southeast Asian Adolescents and Emerging Adults.  
(full – 2011)  [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3193281/?tool=pubmed](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3193281/?tool=pubmed)

Quantification and comparison of marijuana smoking practices: blunts, joints, and pipes.  
(full – 2011)  [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3025094/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3025094/)

Characterizing smoking topography of cannabis in heavy users.  
(full – 2011)  [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3641906/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3641906/)

US Patent EP 2560512 A1 - Smoke and Odor Elimination Filters, Devices and Methods  

Prevalence and co-use of marijuana among young adult cigarette smokers: An anonymous online national survey  

Patterns of blunt use among rural young adult african-american men.  
(full – 2012)  [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3244685/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3244685/)

The dose effects of short-term dronabinol (oral THC) maintenance in daily cannabis users.  
Can oral fluid cannabinoid testing monitor medication compliance and/or cannabis smoking during oral THC and oromucosal Sativex administration?  
[full – 2012]
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3612560/

The changing demographic of blunt smokers across birth cohorts.  
[abst – 2012]

Water pipe smoking and psychoactive substances  
[abst – 2012]

Availability of tobacco products associated with use of marijuana cigars (blunts).  
[full – 2013]  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3883305/

Statistics on cannabis users skew perceptions of cannabis use  
[full – 2013]  

Marijuana’s dose-dependent effects in daily marijuana smokers.  
[full – 2013]  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4547548/

Determination of Pesticide Residues in Cannabis Smoke  
[full – 2013]  
https://www.hindawi.com/journals/jt/2013/378168/

Cannabis and the Lung: No More Smoking Gun?  
[editorial – 2013]  

Comparison of cannabinoid concentrations in oral fluid and whole blood between occasional and regular cannabis smokers prior to and after smoking a cannabis joint.  
[abst – 2013]  

Smoking mull: a grounded theory model on the dynamics of combined tobacco and cannabis use among adult men.  
[abst – 2013]  

Getting high on the endocannabinoid system.  
[full – 2014]  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3997295/

What are young adults smoking in their hookahs? A latent class analysis of substances smoked.  
[full – 2014]  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4091668/

Oral fluid cannabinoids in chronic frequent cannabis smokers during ad libitum cannabis smoking.  
[full – 2014]  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4362971/

Inhaled medicinal cannabis and the immunocompromised patient  
[MASSC]  
[yes, that’s all the link!]

Does cannabis smoking predispose to lung bulla formation?  
[full – 2014]


Marijuana use in hepatitis C infection does not affect liver biopsy histology or treatment outcomes. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4144456/

Cannabis, Cigarettes, and Their Co-Occurring Use: Disentangling Differences in Gray Matter Volume. (full – 2015) http://ijnp.oxfordjournals.org/content/18/10/pyv061


Behavioral Characterization of the Effects of Cannabis Smoke and Anandamide in Rats. (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0153327

No Smoke without Tobacco: A Global Overview of Cannabis and Tobacco Routes of Administration and Their Association with Intention to Quit. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4933835/


A user’s guide to cannabinoid therapies in oncology (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5176373/


Working on a Standard Joint Unit: A pilot test. (link to download in English– 2016) Descargar el archivo PDF


Alterations in taste perception due to recreational drug use are due to smoking a substance rather than ingesting it.  
((abst – 2016)  

Acute effects of cannabis on breath-holding duration.  
(abst – 2016)  

Limitations to the Dutch cannabis toleration policy: Assumptions underlying the reclassification of cannabis above 15% THC.  
(abst – 2016)  

A review of the additive health risk of cannabis and tobacco co-use.  
(abst – 2016)  

Does marijuana "blunt" smoking contribute to nicotine exposure?: Preliminary product testing of nicotine content in wrappers of cigars commonly used for blunt smoking.  
(abst – 2016)  

Cannabinoid disposition in oral fluid after controlled smoked, vaporized, and oral cannabis administration.  
(abst – 2016)  

Free and Glucuronide Whole Blood Cannabinoids' Pharmacokinetics after Controlled Smoked, Vaporized, and Oral Cannabis Administration in Frequent and Occasional Cannabis Users: Identification of Recent Cannabis Intake.  
(abst – 2016)  

Thermolytic degradation of synthetic cannabinoids: chemical exposures and pharmacological consequences  
(link to download – 2017)  
http://jpet.aspetjournals.org/content/early/2017/01/13/jpet.116.238717.long

Evaluation of divided attention psychophysical task performance and effects on pupil sizes following smoked, vaporized and oral cannabis administration.  
(abst – 2017)  

METHODS OF USE – SUPPOSITORIES *

Topical and Systemic Cannabidiol Improves Trinitrobenzene Sulfonic Acid Colitis in Mice.  
(link to PDF - 2012)  
http://www.karger.com/Article/FullText/336871
METHODS OF USE – TINCTURES

Marijuana Tincture (article & video – 2010)
http://patients4medicalmarijuana.wordpress.com/medical-use-of-cannabis-video/marijuana-tincture/

WildWill's Glycerin Tincture HOW-TO (forum thread - 2010)

Heat Exposure of Cannabis sativa Extracts Affects the Pharmacokinetic and Metabolic Profile in Healthy Male Subjects. (abst – 2012)

Optimisation and characterisation of marihuana extracts obtained by supercritical fluid extraction and focused ultrasound extraction and retention time locking GC-MS. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/23505258

Establishment of a New Drug Code for Marihuana Extract. Final rule. (full – 2016)

Why I chose to use cannabis (article – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4791147/

Medicinal cannabis: Principal cannabinoids concentration and their stability evaluated by a high performance liquid chromatography coupled to diode array and quadrupole time of flight mass spectrometry method. (abst – 2016)


METHODS OF USE - TOPICAL OINTMENTS

Local application of the endocannabinoid hydrolysis inhibitor URB597 reduces nociception in spontaneous and chemically induced models of osteoarthritis. (abst – 2010)
http://www.unboundmedicine.com/medline/ebm/record/21185649/abstract/Local_application_of_the_endocannabinoid_hydrolysis_inhibitor_URB597_reduces_nociception_in_spontaneous_and_chemically_induced_models_of_osteoarthritis


Topical Cannabis Healing Salve (recipe – 2010)
http://patients4medicalmarijuana.wordpress.com/2010/04/30/topical-cannabis-healing-salve/


Treatment of chronic regional pain syndrome type 1 with palmitoylethanolamide and topical ketamine cream: modulation of nonneuronal cells (full - 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3643547/


Topical application of THC containing products is not able to cause positive cannabinoid finding in blood or urine. (abst – 2017) https://www.ncbi.nlm.nih.gov/pubmed/28122323  

**METHODS OF USE - TRANSDERMAL PATCH +**  


Transdermal delivery of cannabidiol attenuates binge alcohol-induced neurodegeneration in a rodent model of an alcohol use disorder. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4096899/  

**METHODS OF USE – VAPORIZERS +**  


Getting high on the endocannabinoid system. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3997295/

A protocol for the delivery of cannabidiol (CBD) and combined CBD and 9-tetrahydrocannabinol (THC) by vapourisation. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4274767/


Controlled Cannabis Vaporizer Administration: Blood and Plasma Cannabinoids with and without Alcohol. (full – 2015) http://www.clinchem.org/content/61/6/850.long


No smoke, no fire: What the initial literature suggests regarding vapourized cannabis and respiratory risk (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4456813/

Confirmation of the trials and tribulations of vaping  (article – 2015)

How beneficial is vaping cannabis to respiratory health compared to smoking?  (article – 2015)


In the weeds: a baseline view of cannabis use among legalizing states and their neighbours.  (abst – 2015)

Online survey characterizing vaporizer use among cannabis users.  (abst – 2015)
http://www.drugandalcoholdependence.com/article/S0376-8716(15)01835-9/abstract

Prescribing medical cannabis in Canada: Are we being too cautious?  (abst – 2015)

Medicinal Cannabis: In Vitro Validation of Vaporizers for the Smoke-Free Inhalation of Cannabis.  (full – 2016)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0147286

Drug vaping applied to cannabis: Is "Cannavaping" a therapeutic alternative to marijuana?  (full – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4881394/

No Smoke without Tobacco: A Global Overview of Cannabis and Tobacco Routes of Administration and Their Association with Intention to Quit.  (full – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4933835/

Tracking Dabbing Using Search Query Surveillance: A Case Study in the United States (full – 2016)
http://www.jmir.org/2016/9/e252/

A user’s guide to cannabinoid therapies in oncology  (full – 2016)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5176373/

http://cfamm.ca/patient-recommendations/

Smoking, vaping, eating: Is legalization impacting the way people use cannabis?  (abst – 2016)

An Exploratory Human Laboratory Experiment Evaluating Vaporized Cannabis in the Treatment of Neuropathic Pain from Spinal Cord Injury and Disease  (abst – 2016)


Thermolytic degradation of synthetic cannabinoids: chemical exposures and pharmacological consequences (link to download – 2017) http://jpet.aspetjournals.org/content/early/2017/01/13/jpet.116.238717.long


METHODS OF USE - VARIOUS +**-


Scientific Opinion on the safety of hemp (Cannabis genus) for use as animal feed

Medical Marijuana: Clearing Away the Smoke (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3358713/

Cannabinoid derivate-loaded PLGA nanocarriers for oral administration: formulation, characterization, and cytotoxicity studies (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3511186/


Integrating Cannabis Into Clinical Care (article – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3875042/

Getting high on the endocannabinoid system. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3997295/


Legal regulated markets have the potential to reduce population levels of harm associated with cannabis use (full – 2016) http://onlinelibrary.wiley.com/doi/10.1111/add.13390/full


A user’s guide to cannabinoid therapies in oncology (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5176373/


Medical Marijuana: Just the Beginning of a Long, Strange Trip? (abst – 2016)

Evaluation of divided attention psychophysical task performance and effects on pupil sizes following smoked, vaporized and oral cannabis administration. (abst – 2017)

**MIDLIFE ADULT USE** – ages 30 to 65 in humans

Prevalences of illicit drug use in people aged 50 years and over from two surveys. (full – 2012) http://ageing.oxfordjournals.org/content/41/4/553.long


http://www.cdc.gov/mmwr/volumes/65/ss/ss6511a1.htm?s_cid=ss6511a1_e

The Effect of Medical Marijuana on Sickness Absence. (abst – 2016)


A longitudinal examination of the relationship between cannabis use and cognitive function in mid-life adults. (abst – 2016)


Association Between Use of Cannabis in Adolescence and Weight Change into Midlife (link to download – 2017) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0168897
Alterations of the endocannabinoid system in an animal model of migraine: Evaluation in cerebral areas of rat (full - 2010)

The endocannabinoid system and migraine. (abst – 2010)

Effects of anandamide in migraine: data from an animal model. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3072518/

Migraines, Marijuana, and Chocolate (article – 2011)


Interictal Type 1 Cannabinoid Receptor Binding is Increased in Female Migraine Patients. (abst – 2011) http://www.ncbi.nlm.nih.gov/pubmed/22077199

Use of cannabis among 139 cluster headache sufferers. (full – 2012)
http://journals.sagepub.com/doi/full/10.1177/0333102412468669

Hallucinogens and cannabinoids for headache. (abst – 2012)


Irritable Bowel Syndrome and Migraine: Bystanders or Partners? (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3714407/

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3771033/

Effect of Cannabinoid Receptor Activation on Spreading Depression. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3586901/

Activation of CB2 receptors as a potential therapeutic target for migraine: evaluation in an animal model (full – 2014)
Exposure to Bisphenol A Exacerbates Migraine-Like Behaviors in a Multibehavior Model of Rat Migraine (full – 2014)
http://toxsci.oxfordjournals.org/content/137/2/416.full.pdf+html

Intraganglionic injection of a nitric oxide donor induces afferent mechanical sensitization that is attenuated by palmitoylethanolamide (full – 2014)
http://journals.sagepub.com/doi/full/10.1177/0333102414521510

Nocebo and placebo modulation of hypobaric hypoxia headache involves the cyclooxygenase-prostaglandins pathway. (abst – 2014)

Discriminating the effects of Cannabis sativa and Cannabis indica: a web survey of medical cannabis users. (abst – 2014)

Clinical endocannabinoid deficiency (CECD) revisited: can this concept explain the therapeutic benefits of cannabis in migraine, fibromyalgia, irritable bowel syndrome and other treatment-resistant conditions? (abst – 2014)

Chronic Adolescent Marijuana Use as a Risk Factor for Physical and Mental Health Problems in Young Adult Men. (full – 2015)

The use of illicit drugs as self-medication in the treatment of cluster headache: Results from an Italian online survey. (full – 2015)
http://journals.sagepub.com/doi/full/10.1177/03331024155583145

Effects of peripheral FAAH blockade on NTG-induced hyperalgesia-evaluation of URB937 in an animal model of migraine. (full – 2015)
http://journals.sagepub.com/doi/full/10.1177/0333102414566862

Diet-induced changes in n-3 and n-6 derived endocannabinoids and reductions in headache pain and psychological distress. (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4522350/

The modulatory effect of anandamide on nitroglycerin-induced sensitization in the trigeminal system of the rat (full – 2015)
http://journals.sagepub.com/doi/full/10.1177/0333102415613766

Osler on Migraine. (abst – 2015)

Inhibition of FAAH reduces nitroglycerin-induced migraine-like pain and trigeminal neuronal hyperactivity in mice. (abst – 2015)

Comprehensive Review of Medicinal Marijuana, Cannabinoids, and Therapeutic Implications in Medicine and Headache: What a Long Strange Trip It's Been ….
THE MILITARY and the CANNABINOIDS


Spice, bath salts, and the U.S. military: the emergence of synthetic cannabinoid receptor agonists and cathinones in the U.S. Armed Forces. (abst – 2012)  

Alcohol and cannabis consumption in the French Army: determination of consumer profiles to focus on prevention and care. (abst – 2012)  

Cognitive ability in early adulthood as a predictor of habitual drug use during later military service and civilian life: the Vietnam Experience Study. (abst – 2012)  


The accuracy of self-reported data concerning recent cannabis use in the French armed forces. (full – 2013)  
http://eurpub.oxfordjournals.org/content/23/2/328.long

Correspondence (letter to the editor): Cannabis Therapy (letter – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3601285/


Is serving in the armed forces associated with tobacco or cannabis initiation? A study of onset sequences before and after joining the French armed forces. (abst – 2013)  

Poor sleep quality as a risk factor for lapse following a cannabis quit attempt. (abst – 2013)  

Posttraumatic stress disorder and cannabis use characteristics among military veterans with cannabis dependence. (abst – 2013)  

Urinary prevalence, metabolite detection rates, temporal patterns and evaluation of suitable LC-MS/MS targets to document synthetic cannabinoid intake in US military urine specimens. (abst – 2014)  

Spicing up the military: Use and effects of synthetic cannabis in substance abusing army personnel. (abst – 2014)  

Prevalence of psychotropic drug use in military police units. (full – 2015)  

Veterans Health Administration Policy on Cannabis as an Adjunct to Pain Treatment with Opiates (article – 2015)  
http://journalofethics.ama-assn.org/2015/06/pfor2-1506.html


MISCELLANEOUS STUFF – STUDIES - a “fun” section with no date restrictions

VICTOR LICATA : A RUSH TO JUDGEMENT  (ebook – undated)  http://reefermadnessmuseum.org/VictorLicata/Chap00_Index.htm

Drug War Clock: Money Spent on the War On Drugs this Year (links to studies - undated)  http://www.drugsense.org/cms/wodclock


The Use of the Cannabis Drugs in India  (full – 1957)


Mr. X by Carl Sagan  (article - 1969)  http://marijuana-uses.com/mr-x/

Effects of Chronic Smoking of Cannabis in Jamaica  (download – 1972)  Effects of Chronic Smoking of Cannabis in Jamaica


Barba Jacob and the history of marihuana  (abst – 1986)
Retrieving impacted cannabis resin with ear drops. (full – 1987)

UV-B radiation effects on photosynthesis, growth and cannabinoid production of two Cannabis sativa chemotypes (download – 1987)

The Business of Drug Dealing in Milwaukee (download – 1988)

Stability of Cannabinoids in Dried Samples of Cannabis Dating from Around 1896-1905. (abst – 1990)

The Intangible Rewards from Crime: The Case of Domestic Marijuana Cultivation (link to download - 1991)


Flashback Following Use of Cannabis--a Review (abst – 1991)


Economics of Cannabis Legalization (article – 1993)

Economics of Legalization (full – 1994)

Preference for High- Versus Low-potency Marijuana. (abst – 1994)

DRUG USE AND HUMAN RIGHTS: PRIVACY, VULNERABILITY, DISABILITY, AND HUMAN RIGHTS INFRINGEMENTS (article – 1996)

Immunochemical localization of tetrahydrocannabinol (THC) in cryofixed glandular trichomes of Cannabis (Cannabaceae) (full – 1997)

Cannabis Hemp: The Invisible Prohibition Revealed. (link to PDF – 1997)
Feasibility of Industrial Hemp Production in the United States Pacific Northwest
(link to PDF – 1998)
https://catalog.extension.oregonstate.edu/sb681

Drugs in Prehistory: Chemical Analysis of Ancient Human Hair.
(link to download– 1998)

Providing medical marijuana: the importance of cannabis clubs.  (abst – 1998)

Schedules of controlled substances: rescheduling of the Food and Drug Administration approved product containing synthetic dronabinol [(-) - [DELTA] less than 9 greater than -(trans)-tetrahydrocannabinol] in sesame oil and encapsulated in soft gelatin capsules from schedule II to schedule III. Department of Justice (DOJ), Drug Enforcement Administration (DEA). Final rule.  (full – 1999)

A Critical Look at the D.A.R.E. Program and Effective Youth Programs
(3 articles - 1999)
https://web.stanford.edu/class/e297c/poverty_prejudice/ganginterv/criticallook.htm

The Relationship between Research and Drug Policy in the United States
(article – 1999)  http://cifas.us/analyses/laniel.html


Project DARE: no effects at 10-year follow-up.  (abst – 1999)


Cannabinoid mimics in chocolate utilized as an argument in court  (abst – 2000)

New Tropical Industrial Hemp  (full – 2001)

Industrial Hemp (Cannabis sativa L.) as a Papermaking Raw Material in Minnesota: Technical, Economic, and Environmental Considerations  (full – 2001)

Distortion of Teatree Stems by Twine As a Means to Determine the Number of Years That the Stems Have Been Used to Support Cannabis Plants. (abst – 2001)

Cannabis-induced Koro in Americans. (abst – 2001)

The economics of cannabis-cultivation in Europe (full - 2002)
http://www.cedro-uva.org/lib/jansen.economics.html


The endocannabinoid system in invertebrates (link to PDF – 2002)

The Ganja Complex: Rastafari and Marijuana (download – 2002)
The Ganja Complex: Rastafari and Marijuana.

Chronic Cannabis Use in the Compassionate Investigational New Drug Program: An Examination of Benefits and Adverse Effects of Legal Clinical Cannabis (summary - 2002)
http://www.letfreedomgrow.com/cmu/chronic_cannabis_use.htm


http://jod.sagepub.com/content/34/3/623.full.pdf+html

Patent 6503492 - Antiperspirant or deodorant compositions (full – 2003)
http://www.google.com/patents/US6503492


California and U.S. Officials Conspired to Block Prop 215 (article – 2004)
The Disimplementation of Prop 215.

Burns from illegal drug manufacture: case series and management. (abst – 2004)
A biological oil adsorption filter. (abst – 2004)

God forbid! Substance use among religious and non-religious youth. (full – 2005)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3043382/

Cannabimimetic Effects of Osteopathic Manipulative Treatment (full – 2005)
http://jaoa.org/article.aspx?articleid=2093088&resultClick=1

Mother's milk and the muffin man: grassroots innovations in medical marijuana delivery systems. (abst – 2005)


Fibre crops as alternative land use for radioactively contaminated arable land. (abst – 2005)

Waterborne Lead Exposure Affects Brain Endocannabinoid Content in Male but Not Female Fathead Minnows (Pimephales Promelas). (abst – 2005)

Strong increase in total delta-THC in cannabis preparations sold in Dutch coffee shops. (abst – 2005)

Marijuana Production in the United States (full – 2006)

Explicit and Implicit Effects of Anti-marijuana and Anti-tobacco Tv Advertisements. (abst – 2006)

Cannabis and Endocannabinoids: The Old Man and the Teenagers (full – 2007)

"Usual" cannabis abuse producing an unusual incident (abst – 2007)
(The Valsalva maneuver is performed by attempting to forcibly exhale while keeping the mouth and nose closed. Don’t do it! It won’t get you higher, but it will damage your lungs!)

Apparent increase in biomass and see productivity in hemp (Cannabis sativa) resulting from branch proliferation caused by the European corn borer (Ostrinia nubilalis). (abst – 2007)
http://www.agr.gc.ca/eng/abstract/?id=956100000564

Detection method for the ability of hemp (Cannabis sativa L.) seed germination by the use of 2,3,5-triphenyl-2H-tetrazolium chloride (TTC) (full - 2008)

The Army’s Conquest-by-Cannabinoid Fantasy (article – 2008)
O'Shaughnessy's in 2008

Scheduling process at DEA - the example of cannabidiol    (abst – 2008) http://www.fasebj.org/cgi/content/meeting_abstract/22/1_MeetingAbstracts/711.1


Cannabinoids Excite Circadian Clock Neurons    (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2927117/?tool=pmcentrez


Characteristics of Cannabis sativa L.: seed morphology, germination and growth characteristics, and distinction from Hibiscus cannabinus L      (link to PDF – 2010) https://www.jstage.jst.go.jp/article/yakushi/130/2/130_2_237/_article


The results of an experimental indoor hydroponic Cannabis growing study, using the 'Screen of Green' (ScrOG) method-Yield, tetrahydrocannabinol (THC) and DNA analysis. (abst – 2010) http://www.ncbi.nlm.nih.gov/pubmed/20462712


The feasibility of converting Cannabis sativa L. oil into biodiesel     (abst - 2010)
Effect of various concentrations of Crocus sativus and Cannabis sativa extracts on luminescent biosensor Escherichia coli SM10 S1 (full – 2011)

Bilateral testicular self-castration due to cannabis abuse: a case report (full – 2011)
(warning - graphic pictures) http://www.jmedicalcasereports.com/content/5/1/404

Cannabinoid CB2 Receptors Contribute to Upregulation of β-endorphin in Inflamed Skin Tissues by Electroacupuncture (full – 2011)

Cannabinomimetic lipid from a marine cyanobacterium. (full – 2011)

High-performance sport, marijuana, and cannabimimetics. (full – 2011)

"But my Doctor Recommended Pot": Medical Marijuana and the Patient-Physician Relationship. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3208453/

How well do international drug conventions protect public health? (abst - register free for full – 2011)

Examining the Health and Drug Exposures among Canadian Children Residing in Drug-Producing Homes (abst – 2011)

Study on spectral reflectance characteristics of hemp canopies (abst – 2011)


Bioconversion of industrial hemp to ethanol and methane: the benefits of steam pretreatment and co-production. (abst – 2011)

Cadmium Tolerance and Bioaccumulation of 18 Hemp Accessions. (abst – 2011)

Reported value of cannabis seizures in Australian newspapers: are they accurate? (abst – 2011)

Molecular analysis of genetic fidelity in Cannabis sativa L. plants grown from synthetic (encapsulated) seeds following in vitro storage. (abst – 2011)
Investigations into the Hypothesis of Transgenic Cannabis  

The Effect of Electrical Lighting Power and Irradiance on Indoor-Grown Cannabis Potency and Yield.  

Electroacupuncture reduces the expression of proinflammatory cytokines in inflamed skin tissues through activation of cannabinoid CB2 receptors.  

Cannabis use in a central region of Tunisia.  

EVALUATION ALLELOPATHIC EFFECT OF HEMP (CANNABIS SATIVA L.) ON GERMINATION AND GROWTH OF THREE KINDS OF WEEDS  

High on Life? Medical Marijuana Laws and Suicide  

Medical Marijuana Laws and Teen Marijuana Use  

Clinical Service Desires of Medical Cannabis Patients.  

Societal images of Cannabis use: comparing three countries.  

The Relationship between Plants Used to Sustain Finches (Fringillidae) and Uses for Human Medicine in Southeast Spain.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3350861/?tool=pubmed

Nutritive quality of romanian hemp varieties (Cannabis sativa L.) with special focus on oil and metal contents of seeds.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3543203/

Using dopamine research to generate rational cannabinoid drug policy.  

Cannabis sativa - An Important Subsistence Pollen Source for Apis mellifera  

Cannabis in the Media: Film Perspectives on the Least Illicit Schedule 1 Drug  
Marine Cyanobacterial Fatty Acid Amides Acting on Cannabinoid Receptors. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3748600/


Prospectively Surveying Health-Related Quality of Life and Symptom Relief in a Lot-Based Sample of Medical Cannabis-Using Patients in Urban Washington State Reveals Managed Chronic Illness and Debility. (full – 2012) http://journals.sagepub.com/doi/full/10.1177/1049909112454215


Cannabis Genome Uncloaked: Commentary on the Scientific Implications (article – 2012) http://www.icrs.co/content/Cannabis_Genome_Uncloaked.pdf


Enzymatic accessibility of fiber hemp is enhanced by enzymatic or chemical removal of pectin. (abst – 2012) http://www.sciencedirect.com/science/article/pii/S0960852411018657


Left-handedness is statistically linked to lifetime experimentation with illicit drugs.  


Shiva, lord of bhang.  


Investigation of drugs of abuse and relevant metabolites in Dutch sewage water by liquid chromatography coupled to high resolution mass spectrometry.  

An age–period–cohort analysis of cannabis use prevalence and frequency in Germany, 1990–2009  
(abst – 2012)  http://jech.bmj.com/content/early/2011/10/20/jech-2011-200180

The underdiagnosis of cannabis use disorders and other Axis-I disorders among military veterans within VHA.  

The prevalence of substance use among patients at a dental school clinic in Michigan.  

Comparison of Random and Postaccident Urine Drug Tests in Southern Indiana Coal Miners.  

Synthetic Cannabinoid and Cathinone Use Among US Soldiers.  

Effects of parabolic flight and spaceflight on the endocannabinoid system in humans.  

Why small-scale cannabis growers stay small: Five mechanisms that prevent small-scale growers from going large scale.  

Profiles of illicit drug use during annual key holiday and control periods in Australia: wastewater analysis in an urban, a semi-rural and a vacation area.  

Predictors of stigmatization towards use of various illicit drugs among emerging adults.  

Analysis of cannabinoids in laser-microdissected trichomes of medicinal Cannabis sativa using LCMS and cryogenic NMR.  
http://www.brookings.edu/research/papers/2013/05/29-politics-marijuana-legalization-galston-dionne

Harms and benefits associated with psychoactive drugs: findings of an international survey of active drug users. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4107777/

The Global Epidemiology and Contribution of Cannabis Use and Dependence to the Global Burden of Disease: Results from the GBD 2010 Study (full – 2013)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0076635

Perceptions of cannabis as a stigmatized medicine: a qualitative descriptive study. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3584982/

Electroacupuncture inhibition of hyperalgesia in rats with adjuvant arthritis: involvement of cannabinoid receptor 1 and dopamine receptor subtypes in striatum. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3677619/

Why should Cannabis be Considered Doping in Sports? (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3654312/

Effects of steam pretreatment and co-production with ethanol on the energy efficiency and process economics of combined biogas, heat and electricity production from industrial hemp (full – 2013)  
http://www.biotechnologyforbiofuels.com/content/6/1/56

Identity Formation, Marijuana and “The Self”: A Study of Cannabis Normalization among University Students (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3847659/

Weeding out the information: an ethnographic approach to exploring how young people sense of the evidence on cannabis (full – 2013)  
http://www.harmreductionjournal.com/content/10/1/34

"Body packers" in Israel: a case series. (full – 2013)  
http://www.ima.org.il/FilesUpload/IMAJ/0/65/32679.pdf

In planta imaging of Δ9-tetrahydrocannabinolic acid in Cannabis sativa L. with hyperspectral coherent anti-Stokes Raman scattering microscopy (full – 2013)  

Extraction of high quality DNA from seized moroccan cannabis resin (hashish). (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3790795/

Viking and early Middle Ages northern Scandinavian textiles proven to be made with hemp. (full – 2013)  
http://www.nature.com/srep/2013/131018/srep02686/pdf/srep02686.pdf


From “Social Supply” to “Real Dealing”: Drift, Friendship, and Trust in Drug-Dealing Careers (link to PDF – 2013) http://search.proquest.com/openview/7fca7d95539590726bee9e62d624e4e1/?pq-origsite=gscholar&cbl=34918


Cloud point extraction of Δ(9)-tetrahydrocannabinol from cannabis resin. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/23354583


Secondary Metabolites from Eupenicillium parvum and Their in Vitro Binding Affinity for Human Opioid and Cannabinoid Receptors.  (abst – 2013)  

Nematicidal activities of Cannabis sativa L. and Zanthoxylum alatum Roxb. against Meloidogyne incognita  (abst – 2013)  

Use of Silk Road, the online drug marketplace, in the UK, Australia and the USA.  (abst – 2013)  

LCMS Spectral Evidence of the Occurrence of Cannabinoid in Cannabis sativa Cell Cultures  (abst – 2013)  

An Examination of Opinions Toward Marijuana Policies Among High School Seniors in the United States  (full – 2014)  
http://www.tandfonline.com/doi/full/10.1080/02791072.2014.962716#tabModule

Rheumatologists lack confidence in their knowledge of cannabinoids pertaining to the management of rheumatic complaints.  (full – 2014)  
http://www.biomedcentral.com/content/pdf/1471-2474-15-258.pdf

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4314612/

Hashish revival in Morocco.  (full – 2014)  
http://www.ijdp.org/article/S0955-3959%2814%2900003-6/fulltext

Genetic identification of Cannabis sativa using chloroplast trnL-F gene  (full – 2014)  
http://www.fsigenetics.com/article/S1872-4973%2814%2900219-1/fulltext

Couples’ Marijuana Use Is Inversely Related to Their Intimate Partner Violence Over the First 9 Years of Marriage.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4282761/


Cannabinoid modulation of drug reward and the implications of marijuana legalization.  (full – 2014)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4442758/

http://journals.sagepub.com/doi/full/10.1177/1557988314546667
“A Little Dab Will Do Ya”: An Emergency Department Case Series Related to a New Form of “High-Potency” Marijuana Known as “Wax”  (article – 2014)
http://www.annemergmed.com/article/S0196-0644%2814%2901025-7/fulltext

Identification and quantification of synthetic cannabinoids in 'spice-like' herbal mixtures: A snapshot of the German situation in the autumn of 2012.  (abst – 2014)

Early phytocannabinoid chemistry to endocannabinoids and beyond  (abst – 2014)
http://www.nature.com/nrn/journal/v15/n11/full/nrn3811.html

Hashish as cash in a post-Soviet Kyrgyz village.  (abst – 2014)


Boosting accumulation of neutral lipids in Rhodosporidium kratochvilovae HIMPA1 grown on hemp (Cannabis sativa Linn) seed aqueous extract as feedstock for biodiesel production.  (abst – 2014)

Ethanol production from industrial hemp: Effect of combined dilute acid/steam pretreatment and economic aspects  (abst – 2014)

Just say 'know': how do cannabinoid concentrations influence users' estimates of cannabis potency and the amount they roll in joints?  (abst – 2014)

Post-Soviet Central Asia: A summary of the drug situation.  (abst – 2014)


Interconnected carbon nanosheets derived from hemp for ultrafast supercapacitors with high energy  (abst – 2014) http://pubs.acs.org/doi/abs/10.1021/nn400731g

Effective Phytoextraction of Cadmium (Cd) with Increasing Concentration of Total Phenolics and Free Proline in Cannabis sativa (L) Plant Under Various Treatments of Fertilizers, Plant Growth Regulators and Sodium Salt.  (abst – 2014)

Attitudes of cannabis growers to regulation of cannabis cultivation under a non-prohibition cannabis model.  (abst – 2014)


Using Web searches to track interest in synthetic cannabinoids (aka ‘herbal incense’) (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4412351/

The globalisation of cannabis cultivation: A growing challenge (full – 2015) http://www.ijdp.org/article/S0955-3959%2815%2900003-1/fulltext

Comparative risk assessment of alcohol, tobacco, cannabis and other illicit drugs using the margin of exposure approach (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4311234/


Global patterns of domestic cannabis cultivation: Sample characteristics and patterns of growing across eleven countries. (full – 2015) http://www.ijdp.org/article/S0955-3959%2814%2900363-6/fulltext


Human rights, public health and medicinal cannabis use. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4662098/
Public opinion and medical cannabis policies: examining the role of underlying beliefs and national medical cannabis policies. (full – 2015)  

Cannabis Mobile Apps: A Content Analysis. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4705020/

U.S. Policy Responses to Calls for the Medical Use of Cannabis. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4553645/

Enrichment and identification of Δ(9)-Tetrahydrocannabinolic acid synthase from Pichia pastoris culture supernatants. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4560726/

Are cannabis laws used for political repression in the Arab Spring countries? (full – 2015)  

Predicting Alcohol, Cigarette, and Marijuana Use From Preferential Music Consumption. (full – 2015)  
http://journals.sagepub.com/doi/full/10.1177/0047237915607283

Risk of emergency medical treatment following consumption of cannabis or synthetic cannabinoids in a large global sample. (full – 2015)  
http://journals.sagepub.com/doi/full/10.1177/0269881115574493

Marijuana gears up for production high in US labs (article – 2015)  
http://www.nature.com/news/marijuana-gears-up-for-production-high-in-us-labs-1.17129

Marijuana Research with Human Subjects (article – 2015)  
http://www.fda.gov/newsevents/publichealthfocus/ucm421173.htm

http://pubs.acs.org/doi/abs/10.1021/es505349s

Assessing the harms of cannabis cultivation in Belgium. (abst – 2015)  

"Should I Buy or Should I Grow?" How drug policy institutions and drug market transaction costs shape the decision to self-supply with cannabis in the Netherlands and the Czech Republic. (abst – 2015)  

Is cannabis an illicit drug or a medicine? A quantitative framing analysis of Israeli newspaper coverage. (abst – 2015)  

Stability of cosmetic emulsion containing different amount of hemp oil. (abst – 2015)  
From substance use to homelessness or vice versa? (abst – 2015)  


Production of Δ9-tetrahydrocannabinolic acid from cannabigerolic acid by whole cells of Pichia (Komagataella) pastoris expressing Δ9-tetrahydrocannabinolic acid synthase from Cannabis sativa L. (abst – 2015)  
http://link.springer.com/article/10.1007%2Fs10529-015-1853-x

Δ9-Tetrahydrocannabinolic acid synthase production in Pichia pastoris enables chemical synthesis of cannabinoids. (abst – 2015)  

Are the last grade medical students aware of the danger of synthetic cannabinoids? (abst – 2015)  

Phytoaccumulation of Heavy Metals in Natural Vegetation at the Municipal Wastewater Site in Abbottabad, Pakistan. (abst – 2015)  

Merck Manual - Marijuana (Cannabis) Professional version (full – 2016)  
http://www.merckmanuals.com/professional/special-subjects/recreational-drugs-and-intoxicants/marijuana-cannabis


δ-Ctenitoxin-Pn1a, a Peptide from Phoneutria nigriventer Spider Venom, Shows Antinociceptive Effect Involving Opioid and Cannabinoid Systems, in Rats (full – 2016)  

Evaluating the Effects of Gamma-Irradiation for Decontamination of Medicinal Cannabis. (full – 2016)  

High Time for Conservation: Adding the Environment to the Debate on Marijuana Liberalization. (full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4776720/

Indirect Modulation of the Endocannabinoid System by Specific Fractions of Nutmeg Total Extract (full – 2016)  
Indirect modulation of the endocannabinoid system by specific fractions of nutmeg total extract.

Beyond Cannabis: Plants and the Endocannabinoid System (full – 2016)  
http://ge.tt/3Rgrtsa2
The US as an example of how not to legalize marijuana?  

Highlights of the 2011 Drug Abuse Warning Network (DAWN) Findings on Drug-Related Emergency Department Visits  
http://www.ncbi.nlm.nih.gov/books/NBK384680/

A spider derived peptide, PnPP-19, induces central antinociception mediated by opioid and cannabinoid systems  

Cannabis Legalization: Focusing on Patient Needs: Five Recommendations on Access, Affordability, and Research  
http://cfamm.ca/patient-recommendations/

Analysis of a commerical marijuana e-cigarette formulation.  
(This article has a delayed release and will be available in PMC on June 1, 2017)  

The Effect of Medical Marijuana on Sickness Absence.  

Acute Neurologic Disorder from an Inhibitor of Fatty Acid Amide Hydrolase.  

The effect of cannabis on regular cannabis consumers' ability to ride a bicycle  

A Genetic Component to National Differences in Happiness  

Brain reactivity to alcohol and cannabis marketing during sobriety and intoxication.  

Systematic review of the toxicological and radiological features of body packing.  

Tightening the Dutch coffee shop policy: Evaluation of the private club and the residence criterion.  

Age of Sexual Debut and Cannabis Use in the United States.  

Cannabis policy and the uptake of treatment for cannabis-related problems.  

Estimating the production, consumption and export of cannabis: The Dutch case.  
MITOCHONDRIA ++ they act like a cell’s digestive system taking in nutrients for energy

Cannabinoid receptor stimulation impairs mitochondrial biogenesis in mouse white adipose tissue, muscle, and liver: the role of eNOS, p38 MAPK, and AMPK pathways. (link to PDF – 2010)  http://diabetes.diabetesjournals.org/content/59/11/2826.full.pdf+html


Review article: Endocannabinoids in neuroendopsychology: multiphasic control of mitochondrial function (full – 2012)  http://rsth.royalsocietypublishing.org/content/367/1607/3342.full?sid=dd42995f-c629-4f8c-86a0-5e962e352fda


The endocannabinoid 2-arachidonoylglicerol decreases calcium induced cytochrome c release from liver mitochondria. (abst – 2012)  http://www.springerlink.com/content/54jm40088728t0pn/
Direct modulation of the outer mitochondrial membrane channel, voltage-dependent anion channel 1 (VDAC1) by cannabidiol: a novel mechanism for cannabinoid-induced cell death. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3877544/


Antibodies to cannabinoid type 1 receptor co-react with stomatin-like protein 2 in mouse brain mitochondria. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3902808/

Δ9-Tetrahydrocannabinol is protective through PPARγ dependent mitochondrial biogenesis in a cell culture model of Parkinson’s Disease (abst – 2013) http://jnnp.bmj.com/content/84/11/e2.58.abstract


The endocannabinoid anandamide induces apoptosis in cytotrophoblast cells: Involvement of both mitochondrial and death receptor pathways. (full – 2014) http://www.placentajournal.org/article/S0143-4004%2814%2900823-6/fulltext


Cannabinoid-induced changes in respiration of brain mitochondria.  (abst – 2014)

Cannabinoid receptor agonists reduce the short-term mitochondrial dysfunction and oxidative stress linked to excitotoxicity in the rat brain.  (abst – 2014)

Blockade of monoacylglycerol lipase inhibits oligodendrocyte excitotoxicity and prevents demyelination in vivo  (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4407719/

Motor, Visual and Emotional Deficits in Mice after Closed-Head Mild Traumatic Brain Injury Are Alleviated by the Novel CB2 Inverse Agonist SMM-189  (full – 2015)
http://www.mdpi.com/1422-0067/16/1/758/htm

Cannabidiol protects against doxorubicin-induced cardiomyopathy by modulating mitochondrial function and biogenesis.  (full – 2015)
http://static.smallworldlabs.com/molmedcommunity/content/pdfstore/14_261_Hao.pdf

Hypothalamic POMC neurons promote cannabinoid-induced feeding  (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4496586/

Non-Selective Cannabinoid Receptor Antagonists, Hinokiresinols Reduce Infiltration of Microglia/Macrophages into Ischemic Brain Lesions in Rat via Modulating 2-Arachidonoylglycerol-Induced Migration and Mitochondrial Activity.  (full – 2015)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0141600

Pharmacological Blockade of Cannabinoid CB1 Receptors in Diet-Induced Obesity Regulates Mitochondrial Dihydrolipoamide Dehydrogenase in Muscle.  (full – 2015)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0145244

Mitochondrial CB1 receptor is involved in ACEA-induced protective effects on neurons and mitochondrial functions.  (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4516969/

Dissecting the cannabinergic control of behavior: The where matters.  (abst – 2015)

Cannabinoid-Induced Changes in the Activity of Electron Transport Chain Complexes of Brain Mitochondria.  (abst – 2015)

Major urinary protein 1 interacts with cannabinoid receptor type 1 in fatty acid-induced hepatic insulin resistance in a mouse hepatocyte model.  (abst – 2015)

6B.09: EFFECT OF CANNABINOID RECEPTOR ACTIVATION ON ABERRANT MITOCHONDRIAL BIOENERGETICS IN HYPERTROPHIED CARDIAC MYOCYTES.  (abst – 2015)


Cannabinoid receptor type-1: breaking the dogmas. (full – 2016) http://f1000research.com/articles/5-990/v1

Modulation of cellular redox homeostasis by the endocannabinoid system. (full – 2016) http://rsob.royalsocietypublishing.org/content/6/4/150276

Delta-9-tetrahydrocannabinol protects against MPP+ toxicity in SH-SY5Y cells by restoring proteins involved in mitochondrial biogenesis. (full – 2016) http://www.impactjournals.com/oncotarget/index.php?journal=oncotarget&page=article&op=view&path%5B%5D=10314&path%5B%5D=32486

Controlled downregulation of the cannabinoid CB1 receptor provides a promising approach for the treatment of obesity and obesity-derived type 2 diabetes. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4679742/

Acute upregulation of neuronal mitochondrial type-1 cannabinoid receptor and it's role in metabolic defects and neuronal apoptosis after TBI. (full – 2016) http://molecularbrain.biomedcentral.com/articles/10.1186/s13041-016-0257-8


Alteration of SLP2-like immunolabeling in mitochondria signifies early cellular damage in developing and adult mouse brain (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4784115/
Long-Term Effects of Prenatal Exposure to Undernutrition on Cannabinoid Receptor-Related Behaviors: Sex and Tissue-Specific Alterations in the mRNA Expression of Cannabinoid Receptors and Lipid Metabolic Regulators. (full – 2016)

Cannabidiol attenuates OGD/R-induced damage by enhancing mitochondrial bioenergetics and modulating glucose metabolism via pentose-phosphate pathway in hippocampal neurons. (full – 2016)

Harvesting Benefits from Cannabinoids. (article – 2016)
http://www.cell.com/cell/fulltext/S0092-8674(16)31675-0

Cannabinoid receptor type 1 mediates high-fat diet-induced insulin resistance by increasing forkhead box O1 activity in a mouse model of obesity (abst – 2016)
http://www.spandidos-publications.com/10.3892/ijmm.2016.2475

Metabolomic-Driven Elucidation of Serum Disturbances Associated with Alzheimer's Disease and Mild Cognitive Impairment. (abst – 2016)


Delineating the molecular mechanisms of tamoxifen's oncolytic actions in estrogen receptor-negative cancers. (abst – 2016)

Experimental Evidence that 3-Methylglutaric Acid Disturbs Mitochondrial Function and Induced Oxidative Stress in Rat Brain Synaptosomes: New Converging Mechanisms. (abst – 2016)

Inhibition of autophagy and enhancement of endoplasmic reticulum stress increase sensitivity of osteosarcoma Saos-2 cells to cannabinoid receptor agonist WIN55,212-2. (abst – 2016)

Endocannabinoid System in Neurological Disorders. (abst – 2016)

The bright side of psychoactive substances: cannabinoid-based drugs in motor diseases. (abst – 2016)

Gingival Stromal Cells as an In Vitro Model: Cannabidiol Modulates Genes Linked with Amyotrophic Lateral Sclerosis. (abst – 2016)
A cannabinoid link between mitochondria and memory. (abst – 2016)

Using proteomics to discover novel biomarkers for fatty liver development and response to CB1R antagonist treatment in an obese mouse model. (abst – 2016)

(S)Pot on Mitochondria: Cannabinoids Disrupt Cellular Respiration to Limit Neuronal Activity (abst – 2017)

URB597 and the Cannabinoid WIN55,212-2 Reduce Behavioral and Neurochemical Deficits Induced by MPTP in Mice: Possible Role of Redox Modulation and NMDA Receptors. (abst – 2017)

MORNING SICKNESS + - also see NAUSEA

Cannabinoid hyperemesis syndrome: an underreported entity causing nausea and vomiting of pregnancy. (abst – 2011)

Medical Marijuana: Can Pot Help Pregnant Women With Vomiting and Nausea? (article – 2011)

Plasma Anandamide and Related N-acylethanolamide Levels are not Elevated in Pregnancies Complicated by Hyperemesis Gravidarum. (abst – 2013)

MORTALITY RATES/ DEATH +*

Does cannabis use increase the risk of death? Systematic review of epidemiological evidence on adverse effects of cannabis use. (abst – 2010)

An index of fatal toxicity for drugs of misuse. (abst - 2010)

A summary of the health harms of drugs - Section 5 Cannabis (full – 2011)
Annual Causes of Death in the United States (article – 2011)
http://drugwarfacts.org/cms/?q=node/30

High on Life? Medical Marijuana Laws and Suicide (full – 2012)

Alcohol and cannabis use and mortality in people with schizophrenia and related psychotic disorders. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3392453/

Cannabidiol exerts anti-convulsant effects in animal models of temporal lobe and partial seizures. (full – 2012)
http://www.seizure-journal.com/article/S1059-1311%2812%2900057-X/fulltext

Cannabis misinterpretation and misadventure in a coroner's court. (full – 2012)

The Global Epidemiology and Contribution of Cannabis Use and Dependence to the Global Burden of Disease: Results from the GBD 2010 Study (full – 2013)
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0076635

The medical use of cannabis for reducing morbidity and mortality in patients with HIV/AIDS. (full – 2013)

Expression of the cannabinoid type I receptor and prognosis following surgery in colorectal cancer. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3576207/


Diacylglycerol lipase regulates lifespan and oxidative stress response by inversely modulating TOR signaling in Drosophila and C. elegans (full – 2014)


Plasma-Free Fatty Acids, Fatty Acid-Binding Protein 4, and Mortality in Older Adults (from the Cardiovascular Health Study). (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4162821/

The culpability of drivers killed in New Zealand road crashes and their use of alcohol and other drugs. (abst – 2014)

Effect of Marijuana Use on Outcomes in Traumatic Brain Injury. (abst – 2014)
Comparative risk assessment of alcohol, tobacco, cannabis and other illicit drugs using the margin of exposure approach. (full – 2015) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4311234/

Cannabinoids receptor type 2, CB2, expression correlates with human colon cancer progression and predicts patient survival. (full – 2015) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4381706/

Notes from the Field: Death Following Ingestion of an Edible Marijuana Product — Colorado, March 2014 (full – 2015) 
http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6428a6.htm

Point-of-care heart-type fatty acid binding protein versus high-sensitivity troponin T testing in emergency patients at high risk for acute coronary syndrome. (full – 2015) 
http://journals.sagepub.com/doi/full/10.1177/2048872615570221

Do Medical Marijuana Laws Reduce Addictions and Deaths Related to Pain Killers? (link to download - 2015) 
Do Medical Marijuana Laws Reduce Addictions and Deaths Related ...

Cannabis conundrum: Evidence of harm?: Opposition to marijuana use is often rooted in arguments about the drug's harm to children and adults, but the scientific evidence is seldom clear-cut (article – 2015) 

Case reports of synthetic cannabinoid XLR-11 associated fatalities. (abst – 2015) 


Maternal marijuana use and neonatal morbidity. (abst – 2015) 


Evaluation of cannabinoid CB1 and CB2 receptors expression in mobile tongue squamous cell carcinoma: associations with clinicopathological parameters and patients' survival. (abst – 2015) 

The effects of adolescent cannabinoid exposure on seizure susceptibility and lethality in adult male rats. (abst – 2015) 
Association between marijuana use and adverse obstetrical and neonatal outcomes.  

Case Series of Synthetic Cannabinoid Intoxication from One Toxicology Center.  
(full – 2016)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4899060/

Acute Neurologic Disorder from an Inhibitor of Fatty Acid Amide Hydrolase.  

Synthetic cannabinoid drug use as a cause or contributory cause of death  

Trends of novel psychoactive substances (NPSs) and their fatal cases  

Pharmacokinetics of Cannabis in Cancer Cachexia-Anorexia Syndrome.  

A multicenter retrospective survey of poisoning after consumption of products containing novel psychoactive substances from 2013 to 2014 in Japan.  

MARIJUANA USE AND SHORT-TERM OUTCOMES IN PATIENTS HOSPITALIZED FOR ACUTE MYOCARDIAL INFARCTION  


State Medical Marijuana Laws and the Prevalence of Opioids Detected Among Fatally Injured Drivers  


MDMB-CHMICA: Availability, Patterns of Use, and Toxicity Associated With This Novel Psychoactive Substance.  

Thermolytic degradation of synthetic cannabinoids: chemical exposures and pharmacological consequences  
(link to download – 2017)  http://jpet.aspetjournals.org/content/early/2017/01/13/jpet.116.238717.long

Rocky Mountain High: Preventing Cannabis-Related Injuries  
MOTION SICKNESS +

Motion Sickness, Stress and the Endocannabinoid System  (full - 2010)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2873996/?tool=pmcentrez


MRSA/ METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS +*


Taming THC: potential cannabis synergy and phytocannabinoid-terpenoid entourage effects.  (full - 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165946/

Transcriptional Profiles of the Response of Methicillin-Resistant Staphylococcus aureus to Pentacyclic Triterpenoids  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3577688/

2-Arachidonoyl-glycerol- and arachidonic acid-stimulated neutrophils release antimicrobial effectors against E. coli, S. aureus, HSV-1, and RSV.  (full – 2013)  http://www.jleukbio.org/content/93/2/267.long


MULTIPLE SCLEROSIS/ MS +*

Standardized Cannabis in Multiple Sclerosis: A Case Report  (full - 2010)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2806860/?tool=pubmed

Cannabinoid-induced apoptosis in immune cells as a pathway to immunosuppression. (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3005548/?tool=pubmed


Meta-analysis of the efficacy and safety of Sativex (nabiximols), on spasticity in people with multiple sclerosis (link to download - 2010) http://journals.sagepub.com/doi/abs/10.1177/1352458510367462

Pharmacology and toxicology of Cannabis derivatives and endocannabinoid agonists. (link to PDF – 2010) http://www.eurekaselect.com/85221/article


Anandamide inhibits Theiler's virus induced VCAM-1 in brain endothelial cells and reduces leukocyte transmigration in a model of blood brain barrier by activation of CB1 receptors. (full – 2011) http://www.jneuroinflammation.com/content/pdf/1742-2094-8-102.pdf

Cannabidiol inhibits pathogenic T cells, decreases spinal microglial activation and ameliorates multiple sclerosis-like disease in C57BL/6 mice. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165959/


Is lipid signaling through cannabinoid 2 receptors part of a protective system? (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3062638/

Identification of the synthetic cannabinoid R(+)WIN55,212-2 as a novel regulator of IFN regulatory factor 3 (IRF3) activation and IFN-{bet}a expression: relevance to therapeutic effects in models of multiple sclerosis. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3060486/
Cannabinoids and B cells: emerging targets for treating progressive multiple sclerosis (full – 2011)  http://msj.sagepub.com/content/17/3/259.long

Emerging treatment options for spasticity in multiple sclerosis; clinical utility of cannabinoids (link to PDF – 2011)  
http://www.dovepress.com/articles.php?article_id=7675

Role of Cannabinoids in Multiple Sclerosis (link to PDF - 2011) 
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.659.8269&rank=26

Acute and chronic cannabinoid extracts administration affects motor function in a CREAЕ model of multiple sclerosis. (abst – 2011) 

The endocannabinoid anandamide downregulates IL-23 and IL-12 subunits in a viral model of multiple sclerosis: evidence for a cross-talk between IL-12p70/IL-23 axis and IL-10 in microglial cells. (abst – 2011)  

Medical cannabis: the opportunity versus the temptation (abst – 2011)  

Inhibitory Effect of Standardized Cannabis sativa Extract and Its Ingredient Cannabidiol on Rat and Human Bladder Contractility. (abst – 2011)  

A randomized, double-blind, placebo-controlled, parallel-group, enriched-design study of nabiximols* (Sativex®), as add-on therapy, in subjects with refractory spasticity caused by multiple sclerosis. (abst – 2011)  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=322

Treating pain in multiple sclerosis. (abst – 2011)  

THC and CBD oromucosal spray (Sativex®) in the management of spasticity associated with multiple sclerosis. (abst - 2011)  
http://www.unboundmedicine.com/medline/ebm/record/21456949/abstract/THC_and_CBD_oromucosal_spray_Sativex%C2%AE_in_the_management_of_spasticity_associated_with_multiple_sclerosis

Endocannabinoid pathways and their role in multiple sclerosis-related muscular dysfunction. (abst – 2011)  

FROM GHENNAB TO CANNABIS: HOPES TO FIND A CURE FOR MULTIPLE SCLEROSIS ARE FLOURISHING (abst – 2011)  
The synthetic cannabinoid R(+)WIN55,212-2 augments interferon-β expression via peroxisome proliferator-activated receptor-α (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3408184/

Multiple Sclerosis and Extract of Cannabis: results of the MUSEC trial. (full – 2012) http://jnnp.bmj.com/content/83/11/1125.long

A placebo-controlled, parallel-group, randomized withdrawal study of subjects with symptoms of spasticity due to multiple sclerosis who are receiving long-term Sativex® (nabiximols). (full – 2012) http://msj.sagepub.com/content/18/2/219.long


Smoked cannabis for spasticity in multiple sclerosis: a randomized, placebo-controlled trial. (full – 2012) http://www.cmaj.ca/content/184/10/1143.long

The Therapeutic Potential of Cannabis and Cannabinoids (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3442177/


Medical Marijuana: Clearing Away the Smoke (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3358713/

Multimodal stepped care approach with acupuncture and PPAR-α agonist palmitoylethanolamide in the treatment of a patient with multiple sclerosis and central neuropathic pain. (full – 2012) http://aim.bmj.com/content/30/1/53.long


Cannabinoid receptor 2 agonists inhibit migration of activated dendritic cells via modulation of MMP-9 (abst – 2012)
A questionnaire survey of patients and carers of patients prescribed Sativex as an unlicensed medicine. (abst – 2012)  

Potential Control of Multiple Sclerosis by Cannabis and the Endocannabinoid System. (abst – 2012)  

Evaluation of the safety and tolerability profile of Sativex: is it reassuring enough? (abst – 2012)  

Clinical efficacy and effectiveness of Sativex, a combined cannabinoid medicine, in multiple sclerosis-related spasticity. (abst – 2012)  

Nabiximols in the treatment of spasticity, pain and urinary symptoms due to multiple sclerosis. (abst – 2012)  

A Cannabigerol Quinone Alleviates Neuroinflammation in a Chronic Model of Multiple Sclerosis. (abst – 2012)  

Treatment of spasticity in multiple sclerosis: new perspectives regarding the use of cannabinoids (abst – 2012)  

Cost Effectiveness of Oromucosal Cannabis-Based Medicine (Sativex®) for Spasticity in Multiple Sclerosis. (abst – 2012)  

CD200-CD200R1 interaction contributes to neuroprotective effects of anandamide on experimentally induced inflammation (abst – 2012)  

What place for cannabis extract in MS? (abst – 2012)  
http://dtb.bmj.com/content/50/12/141.abstract


The biology that underpins the therapeutic potential of cannabis-based medicines for the control of spasticity in multiple sclerosis. (abst – 2012)  

Treatment failure of intrathecal baclofen and supra-additive effect of nabiximols in multiple sclerosis-related spasticity: a case report (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3625014/
Genetic Background Can Result in a Marked or Minimal Effect of Gene Knockout (GPR55 and CB2 Receptor) in Experimental Autoimmune Encephalomyelitis Models of Multiple Sclerosis. (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0076907


Association between a Genetic Variant of Type-1 Cannabinoid Receptor and Inflammatory Neurodegeneration in Multiple Sclerosis (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3877004/

Multiple sclerosis and the blood-central nervous system barrier. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3562587/

Association of Expanded Disability Status Scale and Cytokines after Intervention with Co-supplemented Hemp Seed, Evening Primrose Oils and Hot-natured Diet in Multiple Sclerosis Patients (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3648912/


Control of spasticity in a multiple sclerosis model using central nervous system-excluded CB1 cannabinoid receptor agonists. (full – 2013) http://www.fasebj.org/content/28/1/117.long


Control of experimental spasticity by targeting the degradation of endocannabinoids using selective fatty acid amide hydrolase inhibitors. (full – 2013) http://journals.sagepub.com/doi/full/10.1177/1352458513485982

Effect of dronabinol on progression in progressive multiple sclerosis (CUPID): a randomised, placebo-controlled trial (link to PDF – 2013) http://www.thelancet.com/journals/laneur/article/PIIS1474-4422%2813%2970159-5/abstract

Medicinal Cannabis and Painful Sensory Neuropathy (editorial – 2013)
Therapeutic potential of cannabinoid medicines. (abst – 2013)

Endocannabinoid system modulator use in everyday clinical practice in the UK and Spain. (abst – 2013)

Sativex long-term use: an open-label trial in patients with spasticity due to multiple sclerosis. (abst – 2013)


Interplay of cannabinoid 2 (CB2) receptors with nitric oxide synthases, oxidative and nitrative stress, and cell death during remote neurodegeneration (abst – 2013)

A review of the cultivation and processing of cannabis (Cannabis sativa L.) for production of prescription medicines in the UK. (abst – 2013)

Cannabinoids Decrease the Th17 Inflammatory Autoimmune Phenotype. (abst – 2013)


Advances in the management of multiple sclerosis spasticity: experiences from recent studies and everyday clinical practice. (abst – 2013)

http://www.neurology.org/content/82/17/1556.long

Who Benefits Most from THC:CBD Spray? Learning from Clinical Experience. (full – 2014)
http://www.karger.com/Article/FullText/357743

THC:CBD Spray and MS Spasticity Symptoms: Data from Latest Studies. (full – 2014)
http://www.karger.com/Article/FullText/357742

http://www.neurology.org/content/82/12/1083.full


Cannabis use by individuals with multiple sclerosis: effects on specific immune parameters. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4170074/


Nabiximols (THC/CBD Oromucosal Spray, Sativex®) in Clinical Practice - Results of a Multicenter, Non-Interventional Study (MOVE 2) in Patients with Multiple Sclerosis Spasticity. (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/24525548

Delta-9-Tetrahydrocannabinol/Cannabidiol (Sativex®): A Review of Its Use in Patients with Moderate to Severe Spasticity Due to Multiple Sclerosis. (abst – 2014)


Blockade of monoacylglycerol lipase inhibits oligodendrocyte excitotoxicity and prevents demyelination in vivo (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4407719/

Nabilone as an Adjunctive to Gabapentin for Multiple Sclerosis-Induced Neuropathic Pain: A Randomized Controlled Trial (full – 2015) http://onlinelibrary.wiley.com/doi/10.1111/pme.12569/full


Cannabidiol, a non-psychoactive cannabinoid, leads to EGR2-dependent anergy in activated encephalitogenic T cells.  (full – 2015)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4363052/


Purified Cannabidiol, the main non-psychotropic component of Cannabis sativa, alone, counteracts neuronal apoptosis in experimental multiple sclerosis. (link to PDF – 2015) http://www.europeanreview.org/article/10049


Endocannabinoids in Multiple Sclerosis and Amyotrophic Lateral Sclerosis. (abst – 2015) http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_7


Alteration of delta-6-desaturase (FADS2), secretory phospholipase-A2 (sPLA2) enzymes by Hot-nature diet with co-supplemented hemp seed, evening primrose oils intervention
in multiple sclerosis patients. (abst – 2015)  

Neuroprotection in Experimental Autoimmune Encephalomyelitis and Progressive Multiple Sclerosis by Cannabis-Based Cannabinoids. (abst – 2015)  
http://link.springer.com/article/10.1007%2Fs11481-014-9575-8

Evidence for the efficacy and effectiveness of THC-CBD oromucosal spray in symptom management of patients with spasticity due to multiple sclerosis (full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4710104/

Systematic Review of Pharmacological Properties of the Oligodendrocyte Lineage. (full – 2016)  

THC:CBD Observational Study Data: Evolution of Resistant MS Spasticity and Associated Symptoms. (full – 2016)  
http://www.karger.com/Article/FullText/444235

THC:CBD in Daily Practice: Available Data from UK, Germany and Spain. (full – 2016)  
http://www.karger.com/Article/FullText/444234

Oral Palmitoylethanolamide Treatment Is Associated with Reduced Cutaneous Adverse Effects of Interferon-β1a and Circulating Proinflammatory Cytokines in Relapsing-Remitting Multiple Sclerosis. (full – 2016)  

Modulation of cellular redox homeostasis by the endocannabinoid system. (full – 2016)  
http://rsob.royalsocietypublishing.org/content/6/4/150276

Pathways and gene networks mediating the regulatory effects of cannabidiol, a nonpsychoactive cannabinoid, in autoimmune T cells. (full – 2016)  

Efficacy and safety of cannabinoid oromucosal spray for multiple sclerosis spasticity. (full – 2016)  
http://jnnp.bmj.com/content/early/2016/05/08/jnnp-2015-312591.long

Interaction between interleukin-1β and type-1 cannabinoid receptor is involved in anxiety-like behavior in experimental autoimmune encephalomyelitis. (full – 2016)  

The impact of drugs for multiple sclerosis on sleep. (full – 2016)  
http://journals.sagepub.com/doi/full/10.1177/1352458516664034

Target regulation of PI3K/Akt/mTOR pathway by cannabidiol in treatment of experimental multiple sclerosis. (full – 2016)  

The use of medical-grade cannabis in patients non-responders to Nabiximols (1st page – 2016)  
Cannabis and Cannabinoids. (1st page – 2016)
http://jamanetwork.com/journals/jama/article-abstract/2592497


The emerging role of the cannabinoid receptor family in peripheral and neuro-immune interactions. (abst – 2016)
http://www.eurekaselect.com/138448/article

Evaluating Sativex® in Neuropathic Pain Management: A Clinical and Neurophysiological Assessment in Multiple Sclerosis. (abst – 2016)

Medical use of cannabis products: Lessons to be learned from Israel and Canada. (abst – 2016)

Cannabinoids and autoimmune diseases: A systematic review. (abst – 2016)

http://pubs.acs.org/doi/abs/10.1021/acs.jmedchem.5b01812

Cannabinoids: Medical implications. (abst – 2016)

The effect of cannabinoids on the stretch reflex in multiple sclerosis spasticity. (abst – 2016)

Toll-like receptor signalling as a cannabinoid target in Multiple Sclerosis. (abst – 2016)

MEDICAL CANNABIS (abst – 2016)

Chromenopyrazole, a Versatile Cannabinoid Scaffold with in Vivo Activity in a Model of Multiple Sclerosis. (abst – 2016)
http://pubs.acs.org/doi/abs/10.1021/acs.jmedchem.6b00397

Influence of Previous Failed Antispasticity Therapy on the Efficacy and Tolerability of THC:CBD Oromucosal Spray for Multiple Sclerosis Spasticity. (abst – 2016)

Refractory trigeminal neuralgia responsive to nabiximols in a patient with multiple sclerosis. (abst – 2016)
Role of nurses in the managements of symptoms associated with spasticity in patients with multiple sclerosis (abst – 2016)

Modulation of monocytes by bioactive lipid anandamide in multiple sclerosis involves distinct Toll-like receptors. (abst – 2016)

Cortical and spinal excitability in patients with multiple sclerosis and spasticity after oromucosal cannabinoid spray. (abst – 2016)
https://www.ncbi.nlm.nih.gov/pubmed/27772772

Potential Future Pharmacological Treatment of Bladder Dysfunction. (abst – 2016)


Cannabinoid Receptors in the Central Nervous System: Their Signaling and Roles in Disease. (full – 2017)


MULTIPLE SYSTEM ATROPHY

Loss of cannabinoid CB1 receptor expression in the 6-hydroxydopamine-induced nigrostriatal terminal lesion model of Parkinson's disease in the rat. (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3659808/
Cannabis Overdose (case report – undated)
http://cannabisclinicians.org/view-all-case-reports/entry/96/?pagenum=3

Cannabinoid receptor stimulation impairs mitochondrial biogenesis in mouse white adipose tissue, muscle, and liver: the role of eNOS, p38 MAPK, and AMPK pathways.
(link to PDF – 2010) http://diabetes.diabetesjournals.org/content/59/11/2826.full.pdf+html

The endocannabinoid signaling system: a marriage of PUFA and musculoskeletal health.

The cannabinoid receptor type 2 is time-dependently expressed during skeletal muscle wound healing in rats

High levels of N-palmitoylethanolamide and N-stearoylethanolamide in microdialysate samples from myalgic trapezius muscle in women.
(full – 2011) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0027257

Expression of the cannabinoid system in muscle: effects of a high fat diet and CB1 receptor blockade
(full – 2011) http://www.biochemj.org/content/433/1/175

Endocannabinoid pathways and their role in multiple sclerosis-related muscular dysfunction.

Peripheral effects of the endocannabinoid system in energy homeostasis: adipose tissue, liver and skeletal muscle.

Cannabinoid Receptor Antagonist-Induced Striated Muscle Toxicity and Ethylmalonic-Adipic Aciduria in Beagle Dogs
(full – 2012) http://toxsci.oxfordjournals.org/content/129/2/268.full

Hind limb suspension and long-chain omega-3 PUFA increase mRNA endocannabinoid system levels in skeletal muscle.

Cannabinoids and muscular pain. Effectiveness of the local administration in rat.

The role of the endocannabinoid system in skeletal muscle and metabolic adaptations to exercise: potential implications for the treatment of obesity.
Effect of omega-3 polyunsaturated fatty acids on the endocannabinoid system in osteoblast-like cells and muscle (abst – 2012) http://docs.lib.purdue.edu/dissertations/AAI3444794/

Endogenous cannabinoid receptor CB1 activation promotes vascular smooth muscle cell proliferation and neointima formation. (full – 2013) http://www.jlr.org/content/early/2013/03/11/jlr.M035147.long

GPR55, a G-Protein Coupled Receptor for Lysophosphatidylinositol, Plays a Role in Motor Coordination. (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0060314


The endocannabinoid 2-AG controls skeletal muscle cell differentiation via CB1 receptor-dependent inhibition of Kv7 channels. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4066524/

Increased angiotensin II contraction of the uterine artery at early gestation in a transgenic model of hypertensive pregnancy is reduced by inhibition of endocannabinoid hydrolysis. (full – 2014) http://hyper.ahajournals.org/content/64/3/619.long
Molecular Basis for the Improvement in Muscle Metaboreflex and Mechanoreflex Control in Exercise-Trained Humans with Chronic Heart Failure.  (full – 2014)  
http://ajpheart.physiology.org/content/307/11/H1655

Effects of Two Different Specific Neck Exercise Interventions on Palmitoylethanolamide and Stearoylethanolamide Concentrations in the Interstitium of the Trapezius Muscle in Women with Chronic Neck Shoulder Pain  (full – 2014)  
http://painmedicine.oxfordjournals.org/content/15/8/1379.long

Comparative biochemical characterization of the monoacylglycerol lipase inhibitor KML29 in brain, spinal cord, liver, spleen, fat and muscle tissue.  (full – 2014)  

Effects of cannabinoids on tension induced by acetylcholine and choline in slow skeletal muscle fibers of the frog.  (abst – 2014)  

Clinical endocannabinoid deficiency (CECD) revisited: can this concept explain the therapeutic benefits of cannabis in migraine, fibromyalgia, irritable bowel syndrome and other treatment-resistant conditions?  (abst – 2014)  

Presence and Colocalization of Type-1 Cannabinoid Receptors with Acetylcholine Receptors in the Motor End-Plate of Twitch Skeletal Muscle Fibers in the Frog.  (abst – 2014)  

Severe rhabdomyolysis and intracranial hemorrhage associated with synthetic cannabinoid: a case report  (abst – 2014)  

Capsaicin and N-Arachidonoyl-dopamine (NADA) Decrease Tension by Activating Both Cannabinoid and Vanilloid Receptors in Fast Skeletal Muscle Fibers of the Frog.  (abst – 2014)  

The endocannabinoid anandamide regulates the peristaltic reflex by reducing neuro-neuronal and neuro-muscular neurotransmission in ascending myenteric reflex pathways in rats.  (abst – 2014)  

Involvement of central and peripheral cannabinoid receptors on antinociceptive effect of tetrahydrocannabinol in muscle pain.  (abst – 2014)  

CB2R orchestrates fibrogenesis through regulation of inflammatory response during the repair of skeletal muscle contusion.  (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4466920/

Pharmacological Blockade of Cannabinoid CB1 Receptors in Diet-Induced Obesity Regulates Mitochondrial Dihydrolipoamide Dehydrogenase in Muscle.  (full – 2015)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0145244
Dietary DHA reduced downstream endocannabinoid and inflammatory gene expression, epididymal fat mass, and improved aspects of glucose use in muscle in C57BL/6J mice. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4722239/


CB1 receptor blockade counters age-induced insulin resistance and metabolic dysfunction. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4783351/

Docosahexaenoic acid-supplementation prior to fasting prevents muscle atrophy in mice. (full – 2016) http://onlinelibrary.wiley.com/doi/10.1002/jcsm.12103/full

Acetylcholine receptors from human muscle as pharmacological targets for ALS therapy. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4801305/


Circulating levels of endocannabinoids and oxylipins altered by dietary lipids in older women are likely associated with previously identified gene targets (abst – 2016)


MUSCULAR DYSTROPHY/ MD +*

Aberrant Location of Inhibitory Synaptic Marker Proteins in the Hippocampus of Dystrophin-Deficient Mice: Implications for Cognitive Impairment in Duchenne Muscular Dystrophy. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4178163/

MYOCLONUS DIAPHRAGMATIC FLUTTER – see News section

NAIL-PATELLA SYNDROME + – see News section

NARCOLEPSY

Marijuana helps narcolepsy (case report – undated)
http://cannabisclinicians.org/view-all-case-reports/entry/598/?pagenum=2

NAUSEA +* - also see MORNING SICKNESS, MOTION SICKNESS, RADIATION-INDUCED NAUSEA

Preliminary efficacy and safety of an oromucosal standardized cannabis extract in chemotherapy-induced nausea and vomiting (full - 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2997305/pdf/bcp0070-0656.pdf

Motion Sickness, Stress and the Endocannabinoid System (full - 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2873996/?tool=pmcentrez

Cannabinoid-Induced Hyperemesis: A Conundrum—From Clinical Recognition to Basic Science Mechanisms (full - 2010)
Mechanisms of Broad-Spectrum Antiemetic Efficacy of Cannabinoids against Chemotherapy-Induced Acute and Delayed Vomiting (link to PDF – 2010)
http://www.mdpi.com/1424-8247/3/7/2163/htm

Pharmacology and toxicology of Cannabis derivatives and endocannabinoid agonists. (link to PDF – 2010)
http://www.eurekaselect.com/85221/article

The abuse potential of the synthetic cannabinoid nabilone. (abst – 2010)

Cannabidiol, a Non-Psychotropic Component of Cannabis, Attenuates Vomiting and Nausea-like Behaviour via Indirect Agonism of 5-HT(1A) Somatodendritic: Autoreceptors in the Dorsal Raphe Nucleus. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423241/

Regulation of nausea and vomiting by cannabinoids (full - 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165951/

The intersection between cannabis and cancer in the United States. (full – 2011)
http://www.croh-online.com/article/S1040-8428(11)00231-9/fulltext

Medical Marijuana: Can Pot Help Pregnant Women With Vomiting and Nausea? (article – 2011)

Interaction between non-psychotropic cannabinoids in marihuana: effect of cannabigerol (CBG) on the anti-nausea or anti-emetic effects of cannabidiol (CBD) in rats and shrews. (abst – 2011)

Medical cannabis: the opportunity versus the temptation (abst – 2011)

Medical Marijuana: Clearing Away the Smoke (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3358713/

Cannabidiol for neurodegenerative disorders: important new clinical applications for this phytocannabinoid? (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3579248/

The anti-nausea effects of CB(1) agonists are mediated by an action at the visceral insular cortex. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3492992/

The Therapeutic Potential of Cannabis and Cannabinoids (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3442177/
Tumor necrosis factor activation of vagal afferent terminal calcium is blocked by cannabinoids. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3342927/

Inhibition of monoacylglycerol lipase attenuates vomiting in Suncus murinus and 2-arachidonoyl glycerol attenuates nausea in rats. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423233/


Inhibition of monoacylglycerol lipase attenuates vomiting in Suncus murinus and 2-arachidonoyl glycerol attenuates nausea in rats. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423233/


Cannabidiolic acid prevents vomiting in Suncus murinus and nausea-induced behaviour in rats by enhancing 5-HT(1A) receptor activation. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3596650/

Effect of low doses of cannabidiolic acid and ondansetron on LiCl-induced conditioned gaping (a model of nausea-induced behaviour) in rats. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3682714/

Evaluation of the potential of the phytocannabinoids, cannabidivarín (CBDV) and Δ9-tetrahydrocannabivarín (THCV), to produce CB1 receptor inverse agonism symptoms of nausea in rats. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3792004/

Anandamide transport inhibition by ARN272 attenuates nausea-induced behaviour in rats, and vomiting in shrews (Suncus murinus). (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3949659/

Regulation of nausea and vomiting by cannabinoids and the endocannabinoid system. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3883513/

Tetrahydrocannabinoilic acid reduces nausea-induced conditioned gaping in rats and vomiting in Suncus murinus. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3792001/


Dronabinol Treatment of Refractory Nausea and Vomiting Related to Peritoneal Carcinomatosis. (full – 2013) http://ajh.sagepub.com/content/32/1/5.long
Therapeutic potential of cannabinoid medicines.  (abst – 2013)  

Additive antiemetic efficacy of low-doses of the cannabinoid CB1/2 receptor agonist Δ9-THC with ultralow-doses of the vanilloid TRPV1 receptor agonist resiniferatoxin in the least shrew (Cryptotis parva).  (abst – 2013)  

Additive antiemetic efficacy of Δ9-THC with vanilloid TRPV1 receptor agonists in the least shrew (Cryptotis parva)  (abst - 2013)  

2-arachidonoylglycerol interferes with lithium-induced vomiting in the house musk shrew, Suncus murinus.  (abst – 2013)  

Suppression of lithium chloride-induced conditioned gaping (a model of nausea-induced behaviour) in rats (using the taste reactivity test) with metoclopramide is enhanced by cannabidiolic acid.  (abst – 2013)  

Nabilone for Non-chemotherapy Associated Nausea and Weight Loss due to Medical Conditions: A Review of the Clinical Effectiveness and Guidelines [Internet].  
(full – 2014)  

Medical marijuana for cancer.  (full – 2014)  

Toward modulation of the endocannabinoid system for treatment of gastrointestinal disease: FAAHster but not "higher".  (full – 2014)  

Medical marijuana: more questions than answers.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4243838/

K2-Not the Spice of Life; Synthetic Cannabinoids and ST Elevation Myocardial Infarction: A Case Report.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4371021/

Dexamethasone alleviates motion sickness in rats in part by enhancing the endocannabinoid system.  (abst – 2014)  

A comparison of cannabidiolic acid with other treatments for anticipatory nausea using a rat model of contextually elicited conditioned gaping.  (abst – 2014)  

Meta-analysis of adjunctive non-NK1 receptor antagonist medications for the control of acute and delayed chemotherapy-induced nausea and vomiting.  (abst – 2014)  
Effect of selective inhibition of monoacylglycerol lipase (MAGL) on acute nausea, anticipatory nausea, and vomiting in rats and Suncus murinus. (abst – 2014)

Therapeutic Potential of Cannabinoids in Counteracting Chemotherapy-induced Adverse Effects: An Exploratory Review. (abst – 2014)

Potential applications of marijuana and cannabinoids in medicine (abst – 2014)

The successful use of dronabinol for failure to thrive secondary to intestinal dysmotility. (full – 2015)
http://www.casereports.com/article/S2210-2612%2815%2900219-9/pdf

Cannabis in cancer care. (full – 2015)
http://escholarship.org/uc/item/6367m6vj#page-1

Cannabinoid hyperemesis syndrome: Marijuana is both antiemetic and proemetic. (full – 2015) http://www.ccjm.org/index.php?id=107953&tx_ttnews[tt_news]=412809&cHash=0c1f8670f2fa499ee88aeef79ee2a47e


Novel associations between FAAH genetic variants and postoperative central opioid-related adverse effects. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4492912/


The role of cannabinoids in regulation of nausea and vomiting, and visceral pain.


Interference with acute nausea and anticipatory nausea in rats by fatty acid amide hydrolase (FAAH) inhibition through a PPARα and CB1 receptor mechanism, respectively: a double dissociation. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26297326


Effect of combined doses of Δ9-tetrahydrocannabinol (THC) and cannabidiolic acid (CBDA) on acute and anticipatory nausea using rat (Sprague- Dawley) models of conditioned gaping. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26381155


Cannabis and cancer: toward a new understanding (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4791146/

Integrating cannabis into clinical cancer care. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4791148/
Dronabinol for chemotherapy-induced nausea and vomiting unresponsive to antiemetics.  (full – 2016)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4869612/


The involvement of TRPV1 in emesis and anti-emesis.  (full – 2016)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4843889/

A user’s guide to cannabinoid therapies in oncology  (full – 2016)  https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5176373/


Using Medical Cannabis in an Oncology Practice  (article – 2016)  (needs free registration)  http://www.cancernetwork.com/oncology-journal/using-medical-cannabis-oncology-practice/sthash.CjT8fR9n.uWvEhfSG.dpuf

Using Medical Cannabis in an Oncology Practice  (1st page – 2016)  http://www.cancernetwork.com/oncology-journal/using-medical-cannabis-oncology-practice/sthash.CjT8fR9n.dpuf


Medical use of cannabis products : Lessons to be learned from Israel and Canada.  (abst – 2016)  http://www.ncbi.nlm.nih.gov/pubmed/26767992

Adverse effects after the use of JWH-210 - a case series from the EU Spice II plus project.  (abst – 2016)  http://www.ncbi.nlm.nih.gov/pubmed/26768345


A comparison of novel, selective fatty acid amide hydrolase (FAAH), monoacylglycerol lipase (MAGL) or dual FAAH/MAGL inhibitors to suppress acute and anticipatory nausea in rat models. (abst – 2016)  

Cannabinoid 2 (CB2) receptor agonism reduces lithium chloride-induced vomiting in Suncus murinus and nausea-induced conditioned gaping in rats. (abst – 2016)  


Effect of combined oral doses of Δ9-tetrahydrocannabinol (THC) and cannabidiolic acid (CBDA) on acute and anticipatory nausea in rat models. (abst – 2016)  

Hypophosphatemia in Users of Cannabis. (abst – 2016)  

NEOINTIMA – a thickening of arterial walls

Targeting cannabinoid receptor CB2 in cardiovascular disorders: promises and controversies (full – 2012)  

Cannabinoid receptor CB2 protects against balloon-induced neointima formation. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3774259/

Endogenous cannabinoid receptor CB1 activation promotes vascular smooth muscle cell proliferation and neointima formation. (full – 2013)  
http://www.jlr.org/content/early/2013/03/11/jlr.M035147.long

Magnolol inhibits migration of vascular smooth muscle cells via cytoskeletal remodeling pathway to attenuate neointima formation. (abst – 2013)  
**NEUROGENESIS** + - the formation of new neurons

Cannabinoid receptor CB1 mediates baseline and activity-induced survival of new neurons in adult hippocampal neurogenesis  (full - 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2898685/?tool=pmcentrez

Loss of retrograde endocannabinoid signaling and reduced adult neurogenesis in diacylglycerol lipase knock-out mice.  (full – 2010)
http://www.jneurosci.org/content/30/6/2017.long

Converging action of alcohol consumption and cannabinoid receptor activation on adult hippocampal neurogenesis.  (full – 2010)
http://ijnp.oxfordjournals.org/content/13/2/191.long

CB1 receptor deficiency decreases wheel-running activity: consequences on emotional behaviours and hippocampal neurogenesis.  (abst – 2010)

Cannabidiol Reduces Aβ-Induced Neuroinflammation and Promotes Hippocampal Neurogenesis through PPARγ Involvement  (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3230631/?tool=pubmed

CB2 Cannabinoid Receptors Promote Neural Progenitor Cell Proliferation via mTORC1 Signaling  (full – 2011)  http://www.jbc.org/content/287/2/1198.full

EFFECT OF CANNABIS SATIVA ALCOHOLIC EXTRACT ON HIPPOCAMPUS NEURONAL DENSITY IN RATS  (abst – 2011)

Can the benefits of cannabinoid receptor stimulation on neuroinflammation, neurogenesis and memory during normal aging be useful in AD prevention?  (full – 2012)
http://www.jneuroinflammation.com/content/9/1/10

Endocannabinoids via CB₁ receptors act as neurogenic niche cues during cortical development.  (full – 2012)
http://rstb.royalsocietypublishing.org/content/367/1607/3229.long

Relationships between dietary macronutrients and adult neurogenesis in the regulation of energy metabolism.  (full - 2013)
http://journals.cambridge.org/action/displayFulltext?

Activation of Type 1 Cannabinoid Receptor (CB1R) Promotes Neurogenesis in Murine Subventricular Zone Cell Cultures (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0063529

The anxiolytic effect of cannabidiol on chronically stressed mice depends on hippocampal neurogenesis: involvement of the endocannabinoid system. (full – 2013) http://ijnp.oxfordjournals.org/content/16/6/1407.long

Neuroimmunemune interactions of cannabinoids in neurogenesis: focus on interleukin-1β (IL-1β) signalling. (full – 2013) http://www.biochemsoctrans.org/content/41/6/1577

CB2 cannabinoid agonist enhanced neurogenesis in GFAP/Gp120 transgenic mice displaying deficits in neurogenesis. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3904265/


Impaired Neurogenesis by HIV-1-Gp120 is Rescued by genetic deletion of Fatty Acid Amide Hydrolase Enzyme. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4594266/

Nutritional omega-3 modulates neuronal morphology in the prefrontal cortex along with depression-related behaviour through corticosterone secretion (full – 2014) http://www.nature.com/tp/journal/v4/n9/full/tp201477a.html

Blockade of 2-arachidonoylglycerol hydrolysis produces antidepressant-like effects and enhances adult hippocampal neurogenesis and synaptic plasticity (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4517601/


Programming and reprogramming neural cells by (endo-) cannabinoids: from physiological rules to emerging therapies (full – 2014) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4765324/
Pharmacological activation of CB2 receptors counteracts the deleterious effect of ethanol on cell proliferation in the main neurogenic zones of the adult rat brain. (full – 2015) http://journal.frontiersin.org/article/10.3389/fncel.2015.00379/full

The role of cannabinoids in adult neurogenesis. (full – 2015) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4543605/


ACEA (a highly selective cannabinoid CB1 receptor agonist) stimulates hippocampal neurogenesis in mice treated with antiepileptic drugs. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26225920


Immunohistochemical distribution of the cannabinoid receptor 1 and fatty acid amide hydrolase in the dog claustrum. (abst – 2016) http://www.sciencedirect.com/science/article/pii/S0891061815300405


**NEUROMYELITIS OPTICA/ DEVIC’S DISEASE** - a disorder causing swelling of the eye nerves.


**NEURONS/ BRAIN CELLS** +*

Cyclooxygenase-2 Mediates Anandamide Metabolism in the Mouse Brain (full – 2010) http://jpet.aspetjournals.org/content/335/2/380.full?sid=af53ea87-ab4b-426e-9c7e-8f750e9e4a17

Cannabinoids Excite Circadian Clock Neurons (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2927117/?tool=pmcentrez

Cannabinoid receptor CB1 mediates baseline and activity-induced survival of new neurons in adult hippocampal neurogenesis (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2898685/?tool=pmcentrez

Delta9-tetrahydrocannabinol is a full agonist at CB1 receptors on GABA neuron axon terminals in the hippocampus. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2882293/pdf/nihms200194.pdf

AAV vector-mediated overexpression of CB1 cannabinoid receptor in pyramidal neurons of the hippocampus protects against seizure-induced excitotoxicity. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3006205/?tool=pubmed

Sex difference in cell proliferation in developing rat amygdala mediated by endocannabinoids has implications for social behavior. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2996668/?tool=pubmed

CB1 cannabinoid receptors increase neuronal precursor proliferation through AKT/glycogen synthase kinase-3beta/beta-catenin signaling. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2843172/?tool=pubmed

Converging action of alcohol consumption and cannabinoid receptor activation on adult hippocampal neurogenesis. (full – 2010) http://ijnp.oxfordjournals.org/content/13/2/191.long

The serine hydrolase ABHD6 controls the accumulation and efficacy of 2-AG at cannabinoid receptors.  (full – 2010)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2970523/

Regulatory Role of Cannabinoid Receptor 1 in Stress-Induced Excitotoxicity and Neuroinflammation  (full - 2010)  http://www.nature.com/npp/journal/vaop/ncurrent/full/npp2010214a.html


Dopamine modulation of excitatory currents in the striatum is dictated by the expression of D1 or D2 receptors and modified by endocannabinoids.  (abst – 2010)  http://www.ncbi.nlm.nih.gov/pubmed/20092552

Cannabidiol Reduces Aβ-Induced Neuroinflammation and Promotes Hippocampal Neurogenesis through PPARγ Involvement  (full – 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3230631/?tool=pubmed

A synaptogenic amide N-docosahexaenoylethanolamide promotes hippocampal development  (full – 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3215906/

A catalytically silent FAAH-1 variant drives anandamide transport in neurons.  (full – 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3245783/

Sex difference in cell proliferation in developing rat amygdala mediated by endocannabinoids has implications for social behavior  (full – 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2996668/?tool=pubmed

Dual inhibition of alpha/beta hydrolase domain 6 and fatty acid amide hydrolase increases endocannabinoid levels in neurons.  (full – 2011)  http://www.jbc.org/content/286/33/28723.full

Endocannabinoid hydrolysis generates brain prostaglandins that promote neuroinflammation  (full – 2011)
CNS effects of CB2 cannabinoid receptors: beyond neuro-immuno-cannabinoid activity
(full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3388033/

Activation of cannabinoid type 2 receptors inhibits HIV-1 envelope glycoprotein gp120-induced synapse loss. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3164336/


Cannabinoid receptor-mediated regulation of neuronal activity in the main olfactory bulb (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3397690/

Cannabinoid receptor agonist protects cultured dopaminergic neurons from the death by the proteasomal dysfunction. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3145842/?tool=pubmed

CB2 Cannabinoid Receptors Promote Neural Progenitor Cell Proliferation via mTORC1 Signaling (full – 2011) http://www.jbc.org/content/287/2/1198.full


Cannabinoid Receptor Type 1 Protects Nigrostriatal Dopaminergic Neurons against MPTP Neurotoxicity by Inhibiting Microglial Activation. (full – 2011) http://www.jimmunol.org/content/187/12/6508.full?sid=c3422dd2-7ad0-42e4-a862-845dc670f7cf


The Dopamine and Cannabinoid Interaction in the Modulation of Emotions and Cognition: Assessing the Role of Cannabinoid CB1 Receptor in Neurons Expressing Dopamine D1 Receptors. (full - 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3156975/

Pharmacological activation/inhibition of the cannabinoid system affects alcohol withdrawal-induced neuronal hypersensitivity to excitotoxic insults. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3158793/


The major central endocannabinoid directly acts at GABA(A) receptors. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3207709/
N-Docosahexanoyllethanolamide promotes development of hippocampal neurons (full – 2011) http://www.biochemj.org/content/435/2/327

Alterations in Corticolimbic Dendritic Morphology and Emotional Behavior in Cannabinoid CB1 Receptor–Deficient Mice Parallel the Effects of Chronic Stress (full – 2011) http://cercor.oxfordjournals.org/content/21/9/2056.full


α-Tocopherol and α-tocopheryl phosphate interact with the cannabinoid system in the rodent hippocampus. (abst - 2011) http://www.sciencedirect.com/science/article/pii/S0891584911004539


Nutritional omega-3 deficiency abolishes endocannabinoid-mediated neuronal functions. Figure 1: n-3/n-6 PUFA dietary imbalance alters PUFAs level in mouse brain. (charts – 2011) http://www.nature.com/neuro/journal/v14/n3/fig_tab/nn.2736_F1.html

Δ(9)-THC and WIN55,212-2 affect brain tissue levels of excitatory amino acids in a phenotype-, compound-, dose-, and region-specific manner (abst – 2011) http://www.unboundmedicine.com/medline/ebm/record/21645556/abstract/%CE%94_9__THC_and_WIN55212_2_affect_brain_tissue_levels_of_excitatory_amino_acids_in_a_phenotype__compound__dose__and_region_specific_manner


Increased vulnerability to 6-hydroxydopamine lesion and reduced development of dyskinesias in mice lacking CB1 cannabinoid receptors (abst – 2011) http://eurpmed.org/abstract/med/19419794

Endocannabinoids in nervous system health and disease: the big picture in a nutshell (full – 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3193.long

Role of CB1 cannabinoid receptors on GABAergic neurons in brain aging (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3131310/?tool=pubmed

Type-1 Cannabinoid Receptor Signaling in Neuronal Development. (full – 2012) http://www.karger.com/Article/FullText/339075

Cortisol-mediated adhesion of synovial fibroblasts is dependent on the degradation of anandamide and activation of the endocannabinoid system (full - 2012) http://onlinelibrary.wiley.com/doi/10.1002/art.37684/pdf

Synaptic Targets of Δ9-Tetrahydrocannabinol in the Central Nervous System. (full – 2012) http://perspectivesinmedicine.cshlp.org/content/early/2012/12/03/cshperspect.a012237.long

Endocannabinoids and the processing of value-related signals. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3270484/?tool=pubmed


Palmitoylethanolamide exerts neuroprotective effects in mixed neuroglial cultures and organotypic hippocampal slices via peroxisome proliferator-activated receptor-α. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3315437/?tool=pubmed
Review article: The endocannabinoid system in normal and pathological brain ageing (full – 2012)
http://rstb.royalsocietypublishing.org/content/367/1607/3326.full?sid=161e7b36-5055-448b-962e-697c782e901d

Excitability of prefrontal cortical pyramidal neurons is modulated by activation of 98 intracellular type-2 cannabinoid receptors. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3295302/

Intrinsic Up-Regulation of 2-AG Favors an Area Specific Neuronal Survival in Different In Vitro Models of Neuronal Damage. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3527460/

Functional diversity on synaptic plasticity mediated by endocannabinoids (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3481528/

Endocannabinoids via CB₁ receptors act as neurogenic niche cues during cortical development. (full – 2012)
http://rstb.royalsocietypublishing.org/content/367/1607/3229.long

The CB(2)-preferring agonist JWH015 also potently and efficaciously activates CB(1) in autaptic hippocampal neurons. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3601544/

Long-lasting potentiation of hippocampal synaptic transmission by direct cortical input is mediated via endocannabinoids (full – 2012) http://jp.physoc.org/content/590/10/2305.full

The CB1 Cannabinoid Receptor Drives Corticospinal Motor Neuron Differentiation through the Ctip2/Satb2 Transcriptional Regulation Axis. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3545190/

Multiple functions of endocannabinoid signaling in the brain. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4273654/

Psychopharmacology of the endocannabinoids: far beyond anandamide. (full – 2012)

Endocannabinoid-Goα signalling inhibits axon regeneration in Caenorhabditis elegans by antagonizing Gqα-PKC-JNK signalling (full – 2012)
http://www.nature.com/ncomms/journal/v3/n10/full/ncomms2136.html
Pharmacological manipulation of cannabinoid neurotransmission reduces neuroinflammation associated with normal aging  (full – 2012)  
http://file.scirp.org/Html/1-8201656_23229.htm

A cell population that strongly expresses the CB1 cannabinoid receptor in the ependyma of the rat spinal cord  (abst – 2012)  

Mitochondrial CB(1) receptors regulate neuronal energy metabolism.  (abst – 2012)  

Effects of cannabinoids Δ(9)-tetrahydrocannabinol, Δ(9)-tetrahydrocannabinolic acid and cannabidiol in MPP(+) affected murine mesencephalic cultures.  (abst – 2012)  

Cannabinoid modulation of midbrain urocortin 1 neurones during acute and chronic stress.  (abst – 2012)  

Manipulating brain connectivity with δ(9)-tetrahydrocannabinol: A pharmacological resting state FMRI study.  (abst – 2012)  

Cannabinoid CB(1) receptor in the modulation of stress coping behaviour in mice: the role of serotonin and different forebrain neuronal subpopulations.  (abst – 2012)  

Type-1 (CB(1)) Cannabinoid Receptor Promotes Neuronal Differentiation and Maturation of Neural Stem Cells.  (full – 2013)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0054271

Orexin neurons use endocannabinoids to break obesity-induced inhibition  (full – 2013)  
http://www.pnas.org/content/110/24/9625.full

Signaling Pathways Involved in Striatal Synaptic Plasticity are Sensitive to Temporal Pattern and Exhibit Spatial Specificity.  (full – 2013)  
http://www.ploscompbiol.org/article/info%3Adoi%2F10.1371%2Fjournal.pcbi.1002953

A biophysical model of endocannabinoid-mediated short term depression in hippocampal inhibition.  (full – 2013)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0058926

The endocannabinoid system, cannabinoids, and pain  (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3820295/

Activation of Type 1 Cannabinoid Receptor (CB1R) Promotes Neurogenesis in Murine Subventricular Zone Cell Cultures  (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3734775/

Using the endocannabinoid system as a neuroprotective strategy in perinatal hypoxic-ischemic brain injury.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4146074/

HINT1 protein cooperates with cannabinoid 1 receptor to negatively regulate glutamate NMDA receptor activity  
http://www.molecularbrain.com/content/6/1/42

Obesity-driven synaptic remodeling affects endocannabinoid control of orexinergic neurons  
http://www.pnas.org/content/110/24/E2229.full

Cannabinoid- and lysophosphatidylinositol-sensitive receptor GPR55 boosts neurotransmitter release at central synapses.  
http://www.pnas.org/content/early/2013/03/06/1211204110.full.pdf+html

Stimulatory and Inhibitory Roles of Brain 2-Arachidonoylglycerol in Bombesin-Induced Central Activation of Adrenomedullary Outflow in Rats.  
https://www.jstage.jst.go.jp/article/jphs/121/2/121_12208FP/_pdf

Association between a genetic variant of type-1 cannabinoid receptor and inflammatory neurodegeneration in multiple sclerosis.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3877004/

Relationships between dietary macronutrients and adult neurogenesis in the regulation of energy metabolism.  
http://journals.cambridge.org/action/displayFulltext?type=6&fid=8904779&jid=BJN&volumeId=109&issueId=09&aid=8904778&bodyId=&membershipNumber=&societyETOCSession=&fulltextType=RV&fileId=S000711451200579X

Food for thought: hormonal, experiential, and neural influences on feeding and obesity.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3818543/

Temporal changes of CB1 cannabinoid receptor in the basal ganglia as a possible structure-specific plasticity process in 6-OHDA lesioned rats.  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0076874

Neuroprotective effects of Cannabis sativa leaves extracts on α-Motoneurons density after sciatic nerve injury in rats  

Neuron-type specific cannabinoid-mediated G protein signalling in mouse hippocampus.  

Diacylglycerol Lipaseα (DAGLα) and DAGLβ Cooperatively Regulate the Production of 2-Arachidonoyl Glycerol in Autaptic Hippocampal Neurons  
CB2 Receptor Agonists Protect Human Dopaminergic Neurons against Damage from HIV-1 gp120. (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0077577

Astroglial CB1 cannabinoid receptors regulate leptin signaling in mouse brain astrocytes. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3854987/

Sex-specific tonic 2-arachidonoylglycerol signaling at inhibitory inputs onto dopamine neurons of Lister Hooded rats. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3867690/

Insulin induces long-term depression of VTA dopamine neurons via endocannabinoids (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4072656/

Rapid Glucocorticoid-Induced Activation of TRP and CB1 Receptors Causes Biphasic Modulation of Glutamate Release in Gastric-Related Hypothalamic Preautonomic Neurons. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3560102/

Activation-dependent plasticity of polarized GPCR distribution on the neuronal surface. (full – 2013) http://jmcb.oxfordjournals.org/content/5/4/250.long

Therapeutic Opportunities through the Modulation of Endocannabinoid Transport (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4255948/

CB2 cannabinoid agonist enhanced neurogenesis in GFAP/Gp120 transgenic mice displaying deficits in neurogenesis. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3904265/

CB1 Cannabinoid Receptors Promote Maximal FAK Catalytic Activity By Stimulating Cooperative Signaling Between Receptor Tyrosine Kinases and Integrins in Neuronal Cells. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4165595/


Optogenetic identification of an intrinsic cholinergically driven inhibitory oscillator sensitive to cannabinoids and opioids in hippocampal CA1 (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3903354/

Induction of Endocannabinoid Levels in Juvenile Rat Brain Following Developmental Chlorpyrifos Exposure. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3954109/
High fat diet and body weight have different effects on cannabinoid CB1 receptor expression in rat nodose ganglia.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3866822/


2-AG into the lateral hypothalamus increases REM sleep and cFos expression in melanin concentrating hormone neurons in rats.  (abst – 2013)  http://www.sciencedirect.com/science/article/pii/S0091305713001007


Motor effects of the non-psychotropic phytocannabinoid cannabidiol that are mediated by 5-HT1A receptors  (abst – 2013)  http://www.sciencedirect.com/science/article/pii/S0028390813003419

Δ(9)-THC and N-arachidonoyl glycine regulate BV-2 microglial morphology and cytokine release plasticity: implications for signaling at GPR18.  (full - 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3877838/


Endogenous Signaling by Omega-3 Docosahexaenoic Acid-derived Mediators Sustains Homeostatic Synaptic and Circuitry Integrity.  (full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3180614/
Cannabinoid, melanocortin and opioid receptor expression on DRD1 and DRD2 subpopulations in rat striatum. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3972466/

Anandamide Protects HT22 Cells Exposed to Hydrogen Peroxide by Inhibiting CB1 Receptor-Mediated Type 2 NADPH Oxidase. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4127243/

Regulatory effects of anandamide on intracellular Ca(2+) concentration increase in trigeminal ganglion neurons. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4146256/

Endocannabinoid-dependent modulation of phasic dopamine signaling encodes external and internal reward-predictive cues. (full – 2014)

Cannabinoid receptors contribute to astroglial Ca2+-signalling and control of synaptic plasticity in the neocortex. (full – 2014)
http://rstb.royalsocietypublishing.org/content/369/1654/20140077.long

Cannabinoid CB2 receptors modulate midbrain dopamine neuronal activity and dopamine-related behavior in mice. (full – 2014)
http://www.pnas.org/content/early/2014/10/30/1413210111.long

High hopes for CB(2) receptors in neurogenesis. (full – 2014)

Input- and Cell-Type-Specific Endocannabinoid-Dependent LTD in the Striatum. (full – 2014)
http://www.cell.com/cell-reports/fulltext/S2211-1247%2814%2901016-X

Individual differences in response to positive and negative stimuli: endocannabinoid-based insight on approach and avoidance behaviors. (full – 2014)

CB1 cannabinoid receptor in SF1-expressing neurons of the ventromedial hypothalamus determines metabolic responses to diet and leptin. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4209357/

CB1 augments mGluR5 function in medial prefrontal cortical neurons to inhibit amygdala hyperactivity in an arthritis pain model. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4288820/

β-Amyloid Inhibits E-S Potentiation through Suppression of Cannabinoid Receptor 1-Dependent Synaptic Disinhibition. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4114400/

Control of Inhibition by the Direct Action of Cannabinoids on GABAA Receptors. (full – 2014)
http://cercor.oxfordjournals.org/content/early/2014/03/18/cercor.bhu045.long


Fatty Acid-binding Protein 5 (FABP5) Regulates Cognitive Function Both by Decreasing Anandamide Levels and by Activating the Nuclear Receptor Peroxisome Proliferator-activated Receptor β/δ (PPARβ/δ) in the Brain (full – 2014) http://www.jbc.org/content/289/18/12748.full.pdf+html


Control of synaptic function by endocannabinoid-mediated retrograde signaling. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4237895/

Effects of pubertal cannabinoid administration on attentional set-shifting and dopaminergic hyper-responsivity in a developmental disruption model of schizophrenia. (full – 2014) http://ijnp.oxfordjournals.org/content/ijnp/18/2/pyu018.full.pdf


Astrocytes in endocannabinoid signalling. (full – 2014) http://rstb.royalsocietypublishing.org/content/369/1654/20130599

Systemic Administration of Oleoylethanolamide Protects from Neuroinflammation and Anhedonia Induced by LPS in Rats (full – 2014) http://ijnp.oxfordjournals.org/content/18/6/pyu111

Cannabinoid Receptor Type 2 Agonist Attenuates Apoptosis by Activation of Phosphorylated CREB-Bcl-2 Pathway After Subarachnoid Hemorrhage in Rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4194247/

Molecular Basis for the Improvement in Muscle Metaboreflex and Mechanoreflex Control in Exercise-Traineds Humans with Chronic Heart Failure. (full – 2014) http://ajpheart.physiology.org/content/307/11/H1655

Role of corticosterone in the murine enteric nervous system during fasting.
Impaired Neurogenesis by HIV-1-Gp120 is Rescued by genetic deletion of Fatty Acid Amide Hydrolase Enzyme. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4594266/

Genetic rescue of CB1 receptors on medium spiny neurons prevents loss of excitatory striatal synapses but not motor impairment in HD mice. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4180675/

Morphological and Behavioural Evidence for Impaired Prefrontal Cortical Function in Female CB1 Receptor Deficient Mice. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4128323/

Endocannabinoid modulation by FAAH and MAGL within the analgesic circuitry of the periaqueductal grey. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4294036/

Activation of CB1 inhibits NGF-induced sensitization of TRPV1 in adult mouse afferent neurons. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4626020/

Developmental Increase in Hippocampal Endocannabinoid Mobilization: Role of Metabotropic Glutamate Receptor Subtype 5 and Phospholipase C (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4233278/

Type 1 Cannabinoid Receptor Ligands Display Functional Selectivity in a Cell Culture Model of Striatal Medium Spiny Projection Neurons (full – 2014) http://www.jbc.org/content/289/36/24845.long


Prior stimulation of the endocannabinoid system prevents methamphetamine-induced dopaminergic neurotoxicity in the striatum through activation of CB2 receptors. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4939842/
Multifractal analysis of information processing in hippocampal neural ensembles during working memory under Δ9-tetrahydrocannabinol administration. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4312266/

Endocannabinoids in Synaptic Plasticity and Neuroprotection. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4143501/

Chronic activation of CB2 cannabinoid receptors in the hippocampus increases excitatory synaptic transmission. (full - 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4398527/


The Neurobiology of Cancer Pain (full – 2014)
http://journals.sagepub.com/doi/full/10.1177/1073858414525828

http://journals.sagepub.com/doi/full/10.1177/0269881114550355

Programming and reprogramming neural cells by (endo-) cannabinoids: from physiological rules to emerging therapies (full – 2014)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4765324/

Nutritional omega-3 modulates neuronal morphology in the prefrontal cortex along with depression-related behaviour through corticosterone secretion (full – 2014)
http://www.nature.com/tp/journal/v4/n9/full/tp201477a.html

Anandamide in primary sensory neurons: too much of a good thing? (abst – 2014)

Trans-Caryophyllene Suppresses Hypoxia-Induced Neuroinflammatory Responses by Inhibiting NF-κB Activation in Microglia. (abst – 2014)

Endocannabinoid 2-Arachidonylglycerol Protects Primary Cultured Neurons Against LPS-Induced Impairments in Rat Caudate Nucleus. (abst – 2014)


Inhibition of Peripheral Fatty Acid Amide Hydrolase Depresses Activities of Bladder Mechano-sensitive Nerve Fibers of the Rat. (abst – 2014)  

Effect of N-Arachidonoyl Dopamine on Activity of Neuronal Network in Primary Hippocampus Culture upon Hypoxia Modelling. (abst – 2014)  

Roles of fatty acid ethanolamides (FAE) in traumatic and ischemic brain injury. (abst – 2014)  

Endocannabinoid signaling modulates neurons of the pedunculopontine nucleus (PPN) via astrocytes. (abst – 2014)  

Cannabinoid Receptor-2 and HIV-Associated Neurocognitive Disorders. (abst – 2014)  

Cannabinoid receptor intracellular signalling: The long journey from binding sites to biological effects (abst – 2014)  

The interaction between serotonergic and cannabinoergic modulations involved in the fear extinction (abst – 2014)  

Descending modulation of pain: the GABA disinhibition hypothesis of analgesia. (abst – 2014)  

Chronic cannabinoid receptor stimulation selectively prevents motor impairments in a mouse model of Huntington's disease. (abst – 2014)  

Analysis in conditional cannabinoid 1 receptor-knockout mice reveals neuronal subpopulation-specific effects on epileptogenesis in the kindling paradigm. (abst – 2014)  

Cannabinoid-mediated short-term plasticity in hippocampus. (abst – 2014)  

Differential regulation of NMDAR and NMDAR-mediated metaplasticity by anandamide and 2-AG in the hippocampus. (abst – 2014)  

Cannabinoid-induced changes in respiration of brain mitochondria. (abst – 2014)  

Inhibition of endocannabinoid neuronal uptake and hydrolysis as strategies for developing anxiolytic drugs. (abst – 2014)  
Differences in receptor binding affinity of several phytocannabinoids does not explain their effects on neural cell cultures. (abst – 2014) 

Post-status epilepticus treatment with the cannabinoid agonist WIN 55,212-2 prevents chronic epileptic hippocampal damage in rats. (abst – 2014) 

Cannabinoid receptor agonists reduce the short-term mitochondrial dysfunction and oxidative stress linked to excitotoxicity in the rat brain. (abst – 2014) 


Cerebellar Endocannabinoids: Retrograde Signaling from Purkinje Cells. (abst - 2014) 

Protective effects of cannabidiol against hippocampal cell death and cognitive impairment induced by bilateral common carotid artery occlusion in mice. (abst – 2014) 

Magnolol protects neurons against ischemia injury via the downregulation of p38/MAPK, CHOP and nitrotyrosine. (abst – 2014) 

Endocannabinoid Modulation of Synaptic Inputs to Magnocellular Neurons (abst - 2014) 

Nonpsychotropic Plant Cannabinoids, Cannabidivarin (CBDV) and Cannabidiol (CBD), Activate and Desensitize Transient Receptor Potential Vanilloid 1 (TRPV1) Channels in Vitro: Potential for the Treatment of Neuronal Hyperexcitability (abst – 2014) 
http://pubs.acs.org/doi/abs/10.1021/cn5000524

Augmented Inhibition from Cannabinoid-Sensitive Interneurons Diminishes CA1 Output after Traumatic Brain Injury. (full – 2015) 

Blockade of monoacylglycerol lipase inhibits oligodendrocyte excitotoxicity and prevents demyelination in vivo (full – 2015) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4407719/

Cocaine-induced endocannabinoid release modulates behavioral and neurochemical sensitization in mice (full – 2015) 

Genetic Dissection of Behavioural and Autonomic Effects of Δ9-Tetrahydrocannabinol in Mice (full – 2015) http://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.0050269


Negative Regulation of Leptin-induced ROS Formation by CB1 Receptor Activation in Hypothalamic Neurons. (full – 2015) http://www.jbc.org/content/early/2015/04/13/jbc.M115.646885.full.pdf+html


Exposure to Allergen Causes Changes in NTS Neural Activities after Intratracheal Capsaicin Application, in Endocannabinoid Levels and in the Glia Morphology of NTS. (full – 2015) http://www.hindawi.com/journals/bmri/2015/980983/


Role for Endogenous BDNF in Endocannabinoid-Mediated Long-Term Depression at Neocortical Inhibitory Synapses (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4415885/


Involvement of GluR2 up-regulation in neuroprotection by electroacupuncture pretreatment via cannabinoid CB1 receptor in mice. (full – 2015) http://www.nature.com/srep/2015/150330/srep09490/full/srep09490.html

Effects of high-fructose diets on central appetite signaling and cognitive function. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4429636/

Rapid Non-Genomic Glucocorticoid Actions in Male Mouse Hypothalamic Neuroendocrine Cells Are Dependent on the Nuclear Glucocorticoid Receptor.
The CB1 cannabinoid receptor signals striatal neuroprotection via a PI3K/Akt/mTORC1/BDNF pathway. (full – 2015) http://www.nature.com/cdd/journal/vaop/ncurrent/full/cdd201511a.html

Cannabinoid CB2 Receptors in a Mouse Model of Aβ Amyloidosis: Immunohistochemical Analysis and Suitability as a PET Biomarker of Neuroinflammation. (full - 2015) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0129618


Tonic endocannabinoid-mediated modulation of GABA release is independent of the CB1 content of axon terminals. (full – 2015) http://www.nature.com/ncomms/2015/150420/ncomms7557/full/ncomms7557.html

Anandamide, Acting via CB2 Receptors, Alleviates LPS-Induced Neuroinflammation in Rat Primary Microglial Cultures. (full – 2015) http://www.hindawi.com/journals,np/2015/130639/

Hypothalamic POMC neurons promote cannabinoid-induced feeding (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4496586/

Homeostatic regulation of brain functions by endocannabinoid signaling (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4468750/

Metabolic Interplay between Astrocytes and Neurons Regulates Endocannabinoid Action. (full – 2015) http://www.cell.com/cell-reports/fulltext/S2211-1247%2815%2900725-1


Multiple Forms of Endocannabinoid and Endovanilloid Signaling Regulate the Tonic Control of GABA Release (full – 2015) http://www.jneurosci.org/content/35/27/10039.full?sid=7e769d1b-9b77-42fe-92d0-8b337b34b9b6

Endogenous vs Exogenous Allosteric Modulators in GPCRs: A dispute for shuttling CB1 among different membrane microenvironments. (full – 2015) http://www.nature.com/articles/srep15453

Pharmacological activation of CB2 receptors counteracts the deleterious effect of ethanol on cell proliferation in the main neurogenic zones of the adult rat brain. (full – 2015) http://journal.frontiersin.org/article/10.3389/fncel.2015.00379/full
The Cannabinoid Receptor CB1 Interacts with the WAVE1 Complex and Plays a Role in Actin Dynamics and Structural Plasticity in Neurons.  (full – 2015)
http://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.1002286

Increased Cortical Inhibition in Autism-Linked Neuroligin-3R451C Mice Is Due in Part to Loss of Endocannabinoid Signaling.  (full – 2015)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0140638

Coordinated Regulation of Synaptic Plasticity at Striatopallidal and Striatonigral Neurons Orchestrates Motor Control  (full – 2015)
http://www.cell.com/cell-reports/fulltext/S2211-1247%2815%2901163-8

Fine-tuning of synaptic upscaling at excitatory synapses by endocannabinoid signaling is mediated via the CB1 receptor.  (full – 2015)
http://www.nature.com/articles/srep16257

Fetal Alcohol Spectrum Disorder: Potential Role of Endocannabinoids Signaling.  (full – 2015)

Endocannabinoid signaling mediates oxytocin-driven social reward.  (full – 2015)
http://www.pnas.org/content/112/45/14084.full

Ventral tegmental area dopamine and GABA neurons: Physiological properties and expression of mRNA for endocannabinoid biosynthetic elements.  (full – 2015)
http://www.nature.com/articles/srep16176

Loss of Either Rac1 or Rac3 GTPase Differentially Affects the Behavior of Mutant Mice and the Development of Functional GABAergic Networks.  (full – 2015)
http://cercor.oxfordjournals.org/content/early/2015/11/17/cercor.bhv274.long

Hypothalamic control of brown adipose tissue thermogenesis.  (full – 2015)

CB1 cannabinoid receptor enrichment in the ependymal region of the adult human spinal cord.  (full – 2015)
http://www.nature.com/articles/srep17745

Endocannabinoids Mediate Muscarinic Acetylcholine Receptor-Dependent Long-Term Depression in the Adult Medial Prefrontal Cortex.  (full – 2015)

Cannabinoid receptor activation in the juvenile rat brain results in rapid biomechanical alterations: Neurovascular mechanism as a putative confounding factor (full – 2015)
http://jcb.sagepub.com/content/early/2015/09/23/0271678X15606923.long

cnrip1 is a regulator of eye and neural development in Xenopus laevis.  (full – 2015)

To Act or Not to Act: Endocannabinoid/Dopamine Interactions in Decision-Making.

Increasing levels of the endocannabinoid 2-AG is neuroprotective in the 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine mouse model of Parkinson's disease. (full – 2015) http://www.sciencedirect.com/science/article/pii/S0014488615300583

Deletion of Monoglyceride Lipase in Astrocytes Attenuates Lipopolysaccharide-Induced Neuroinflammation. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4705409/


Interactions between ethanol and the endocannabinoid system at GABAergic synapses on basolateral amygdala principal neurons. (full – 2015) http://www.alcoholjournal.org/article/S0741-8329%2815%2930019-7/fulltext

Corticotropin-Releasing Hormone Drives Anandamide Hydrolysis in the Amygdala to Promote Anxiety. (full - 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4348185/

Mitochondrial CB1 receptor is involved in ACEA-induced protective effects on neurons and mitochondrial functions. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4516969/

VGLuT3-Expressing CCK-Positive Basket Cells Construct Invaginating Synapses Enriched with Endocannabinoid Signaling Proteins in Particular Cortical and Cortex-Like Amygdaloid Regions of Mouse Brains (full – 2015) http://www.jneurosci.org/content/35/10/4215.long

Cannabinoid CB1 Receptor Calibrates Excitatory Synaptic Balance in the Mouse Hippocampus. (full – 2015) http://www.jneurosci.org/content/35/9/3842.long

Role of dopamine type 1 receptors and DARPP-32 in Δ9-THC-mediated induction of ΔFosB in the mouse forebrain. (full – 2015) http://jpet.aspetjournals.org/content/early/2015/06/22/jpet.115.224428.long


Endocannabinoid Signaling in Motivation, Reward, and Addiction: Influences on Mesocorticolimbic Dopamine Function. (full – 2015)

Acute and Chronic Ethanol Exposure Differentially Regulate CB1 Receptor Function at Glutamatergic Synapses in the Rat Basolateral Amygdala. (full – 2015)

Postnatal ethanol exposure alters levels of 2-arachidonoylglycerol-metabolizing enzymes and pharmacological inhibition of monoacrylglycerol (MAGL) does not cause neurodegeneration in neonatal mice. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4490952/

Enhancement of endocannabinoid signalling protects against cocaine-induced neurotoxicity. (full – 2015)

Cannabinoid-dopamine interactions in the physiology and physiopathology of the basal ganglia. (full – 2015)

Opposite control of frontocortical 2-arachidonoylglycerol turnover rate by cannabinoid type-1 (CB1) receptors located on glutamatergic neurons and on astrocytes. (full – 2015)

Simultaneous inhibition of fatty acid amide hydrolase (FAAH) and monoacrylglycerol lipase (MAGL) shares discriminative stimulus effects with ∆9-THC in mice. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4407717/

Peroxide-Dependent MGL Sulphenylation Regulates 2-AG-Mediated Endocannabinoid Signaling in Brain Neurons. (full – 2015)

A highly selective, reversible inhibitor identified by comparative chemoproteomics modulates diacylglycerol lipase activity in neurons. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4773911/

Anandamide Depresses Glycinergic and GABAergic Inhibitory Transmissions in Adult Rat Substantia Gelatinosa Neurons (full – 2015)
http://file.scirp.org/Html/1-2500613_54452.htm

Cannabinoid receptor interacting protein (CRIP1a) attenuates CB1R signaling in neuronal cells. (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4332989/

Cannabinoid Receptor–Interacting Protein 1a Modulates CB1 Receptor Signaling and Regulation. (full – 2015)
http://molpharm.aspetjournals.org/content/87/4/747.long


The role of cannabinoids in adult neurogenesis. (full – 2015) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4543605/


An endocannabinoid system is present in the mouse olfactory epithelium but does not modulate olfaction. (full – 2015) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4485596/


Habenular CB1 Receptors Control the Expression of Aversive Memories (full – 2015) http://www.cell.com/neuron/fulltext/S0896-6273(15)00729-1


Detection of cannabinoid receptors CB1 and CB2 within basal ganglia output neurons in macaques: changes following experimental parkinsonism (link to PDF – 2015) http://link.springer.com/article/10.1007/s00429-014-0823-8


Active endocannabinoids are secreted on extracellular membrane vesicles. (abst – 2015) http://embor.embopress.org/content/early/2015/01/07/embr.201439668


2-AG promotes the expression of conditioned fear via cannabinoid receptor type 1 on GABAergic neurons. (abst – 2015) http://link.springer.com/article/10.1007%2Fs00213-015-3917-y


Dissociation between the panicolytic effect of cannabidiol microinjected into the substantia nigra, pars reticulata, and fear-induced antinociception elicited by bicuculline administration in deep layers of the superior colliculus: The role of CB1-endocannabinoid receptor in the ventral mesencephalon. (abst – 2015)

Emerging concepts of pain therapy based on neuronal mechanisms. (abst – 2015)
http://link.springer.com/chapter/10.1007%2F978-3-662-46450-2_1

Potential of the cannabinoid CB2 receptor as a pharmacological target against inflammation in Parkinson's disease. (abst – 2015)

Inhibition of FAAH reduces nitroglycerin-induced migraine-like pain and trigeminal neuronal hyperactivity in mice. (abst – 2015)

Enhanced function of inhibitory presynaptic cannabinoid CB1 receptors on sympathetic nerves of DOCA-salt hypertensive rats. (abst – 2015)


ACEA (a highly selective cannabinoid CB1 receptor agonist) stimulates hippocampal neurogenesis in mice treated with antiepileptic drugs. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26225920


Dopamine-dependent CB1 receptor dysfunction at corticostriatal synapses in homozygous PINK1 knockout mice. (abst – 2015) http://www.sciencedirect.com/science/article/pii/S0028390815301441
The brain in bone and fuel metabolism. (abst – 2015)  

Maternal separation and early stress cause long-lasting effects on dopaminergic and endocannabinergic systems and alters dendritic morphology in the nucleus accumbens and frontal cortex in rats. (abst – 2015)  

The neuroprotection of cannabidiol against MPP+-induced toxicity in PC12 cells involves trkA receptors, upregulation of axonal and synaptic proteins, neuritogenesis, and might be relevant to Parkinson's disease (abst – 2015)  

The interactive role of CB1 and GABAB receptors in hippocampal synaptic plasticity in rats. (abst – 2015)  

The Endocannabinoid System and Its Role in Regulating the Intrinsic Neural Circuitry of the Gastrointestinal Tract. (abst – 2015)  


Signaling Mechanism of Cannabinoid Receptor-2 Activation-Induced β-Endorphin Release. (abst – 2015)  

Oxytocin Enhances Pleasure of Social Interactions by Stimulating Production of “Bliss Molecule” (news & abstract – 2015)  
http://neurosciencenews.com/oxytocin-anandamide-2926/

Cannabinoid Receptors May Control Aversive Memories (news & abstract - 2015)  
http://neurosciencenews.com/habenula-cb1-receptors-memory-2742/

Expression and Function of the Endocannabinoid System in the Retina and the Visual Brain (full – 2016)  
http://www.hindawi.com/journals/np/2016/9247057/

Characterization of a novel adult murine immortalized microglial cell line and its activation by amyloid-beta. (full – 2016)  

GABABR-Dependent Long-Term Depression at Hippocampal Synapses between CB1-Positive Interneurons and CA1 Pyramidal Cells (full – 2016)  

GABA and Endocannabinoids Mediate Depotentiation of Schaffer Collateral Synapses Induced by Stimulation of Temporoammonic Inputs. (full – 2016)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0149034
Endogenous and Synthetic Cannabinoids as Therapeutics in Retinal Disease  
(full – 2016)  
http://www.hindawi.com/journals/np/2016/8373020/

Systematic Review of Pharmacological Properties of the Oligodendrocyte Lineage.  
(full – 2016)  

Monoacylglycerol lipase inhibitors produce pro- or antidepressant responses via hippocampal CA1 GABAergic synapses.  
(full – 2016)  
http://www.nature.com/mp/journal/vaop/ncurrent/full/mp201622a.html

Estrogen Receptor Beta and 2-arachidonoylglycerol Mediate the Suppressive Effects of Estradiol on Frequency of Postsynaptic Currents in Gonadotropin-Releasing Hormone Neurons of Metestrous Mice: An Acute Slice Electrophysiological Study.  
(full – 2016)  

Cannabis for posttraumatic stress disorder: A neurobiological approach to treatment  
(full – 2016)  

Synthetic Ligands of Cannabinoid Receptors Affect Dauer Formation in the Nematode Caenorhabditis elegans.  
(full – 2016)  
http://www.g3journal.org/content/early/2016/04/11/g3.116.026997.long

Impaired Ethanol-Induced Sensitization and Decreased Cannabinoid Receptor-1 in a Model of Posttraumatic Stress Disorder.  
(full – 2016)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0155759#pone.0155759.ref024

Neuronal and Astrocytic Monoacylglycerol Lipase Limit the Spread of Endocannabinoid Signaling in the Cerebellum.  
(full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4865651/

Cannabinoid receptor type-1: breaking the dogmas.  
(full – 2016)  
http://f1000research.com/articles/5-990/v1

CB2 Cannabinoid Receptor As Potential Target against Alzheimer's Disease  
(full – 2016)  

p21-activated kinase 1 restricts tonic endocannabinoid signaling in the hippocampus  
(full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4907698/

Endocannabinoid Modulation of Orbitostriatal Circuits Gates Habit Formation  
(full – 2016)  
http://www.cell.com/neuron/fulltext/S0896-6273%2816%2930157-X

Stimulation of brain glucose uptake by cannabinoid CB2 receptors and its therapeutic potential in Alzheimer's disease.  
(full – 2016)  
Amyloid proteotoxicity initiates an inflammatory response blocked by cannabinoids (full – 2016) http://www.nature.com/articles/npjamd201612

Enkephalin levels and the number of neuropeptide Y-containing interneurons in the hippocampus are decreased in female cannabinoid-receptor 1 knock-out mice. (full – 2016) http://www.sciencedirect.com/science/article/pii/S0304394016301689

Impaired Excitatory Neurotransmission in the Urinary Bladder from the Obese Zucker Rat: Role of Cannabinoid Receptors. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4902197/

Endocannabinoid control of glutamate NMDA receptors: the therapeutic potential and consequences of dysfunction. (full – 2016) http://www.impactjournals.com/oncotarget/index.php?journal=oncotarget&page=article&op=view&path%5B%5D=10095&path%5B%5D=31745

L-type calcium channels and MAP kinase contribute to thyrotropin-releasing hormone induced depolarization in thalamic paraventricular nucleus neurons. (full – 2016) http://ajpregu.physiology.org/content/310/11/R1120.long


Effect of interaction between acute administration of morphine and cannabinoid compounds on spontaneous excitatory and inhibitory postsynaptic currents of magnocellular neurons of supraoptic nucleus. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4951608/


Endocannabinoids and Heterogeneity of Glial Cells in Brain Function (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4932105/

Orchestrated activation of mGluR5 and CB1 promotes neuroprotection (full – 2016) http://molecularbrain.biomedcentral.com/articles/10.1186/s13041-016-0259-6

A role of CB1R in inducing θ-rhythm coordination between the gustatory and gastrointestinal insula. (full – 2016) http://www.nature.com/articles/srep32529


fMRI study of neural sensitization to hedonic stimuli in long-term, daily cannabis users. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5012952/


Cannabinoids reverse the effects of early stress on neurocognitive performance in adulthood. (full – 2016) http://learnmem.cshlp.org/content/23/7/349.long


Acetylcholine receptors from human muscle as pharmacological targets for ALS therapy. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4801305/


Orexin-A represses satiety-inducing POMC neurons and contributes to obesity via stimulation of endocannabinoid signaling. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4855580/

CB2 receptor activation prevents glial-derived neurotoxic mediator production, BBB leakage and peripheral immune cell infiltration and rescues dopamine neurons in the MPTP model of Parkinson's disease. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4892852/

Target-specific modulation of the descending prefrontal cortex inputs to the dorsal raphe nucleus by cannabinoids. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4868450/


Cannabidiol Counteracts Amphetamine-Induced Neuronal and Behavioral Sensitization of the Mesolimbic Dopamine Pathway through a Novel mTOR/p70S6 Kinase Signaling Pathway. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4854973/

Spatial Distribution of the Cannabinoid Type 1 and Capsaicin Receptors May Contribute to the Complexity of Their Crosstalk. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5032030/

Coordinated regulation of endocannabinoid-mediated retrograde synaptic suppression in the cerebellum by neuronal and astrocytic monoacylglycerol lipase. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5075776/


Alteration of SLP2-like immunolabeling in mitochondria signifies early cellular damage in developing and adult mouse brain (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4784115/


Major dorsoventral differences in the modulation of the local CA1 hippocampal network by NMDA, mGlu5, adenosine A2A and cannabinoid CB1 receptors. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/26762803


Antagonism of dopamine receptor 2 long (D2L) affects cannabinoid receptor 1 (CB1) signaling in a cell culture model of striatal medium spiny projection neurons. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27053685

Targeting the cannabinoid CB2 receptor to attenuate the progression of motor deficits in LRRK2-transgenic mice. (abst – 2016) http://www.sciencedirect.com/science/article/pii/S1043661816302663


Broad impact of deleting endogenous cannabinoid hydrolyzing enzymes and the CB1 cannabinoid receptor on the endogenous cannabinoid-related lipidome in eight regions of
the mouse brain. (abst – 2016)


Endocannabinoid 2-Arachidonoylglycerol Suppresses LPS-Induced Inhibition of A-Type Potassium Channel Currents in Caudate Nucleus Neurons Through CB1 Receptor. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27129498

Cannabinoid Type 2 Receptors Mediate a Cell Type-Specific Plasticity in the Hippocampus (abst – 2016)
http://www.cell.com/neuron/abstract/S0896-6273%2816%2930025-3

Stimulated CB1 Cannabinoid Receptor Inducing Ischemic Tolerance and Protecting Neuron from Cerebral Ischemia. (abst – 2016)

Direct presynaptic and indirect astrocyte-mediated mechanisms both contribute to endocannabinoid signaling in the pedunculopontine nucleus of mice. (abst – 2016)

Phytocannabinoids and cannabimimetic drugs: recent patents in central nervous system disorders. (abst – 2016)


Differences in Chloride Gradients Allow for Three Distinct Types of Synaptic Modulation by Endocannabinoids. (abst – 2016)

Pharmacological characterization of emerging synthetic cannabinoids in HEK293T cells and hippocampal neurons. (abst – 2016)

Effect of synthetic cannabinoids on spontaneous neuronal activity: Evaluation using Ca2+ spiking and multi-electrode arrays. (abst – 2016)

Aberrant epilepsy-associated mutant Nav1.6 sodium channel activity can be targeted with cannabidiol. (abst – 2016)

Upregulation of the cannabinoid CB2 receptor in environmental and viral inflammation-driven rat models of Parkinson's disease. (abst – 2016)  

Ischemic Stroke, Excitatory Amino Acids Toxicity and the Adjustment of Acupuncture Intervention (abst – 2016)  

FABP1 in wonderland. (abst – 2016)  

Cannabinoids and Neuro-Inflammation: Regulation of Brain Immune Response. (abst – 2016)  

Microglia activation states and cannabinoid system: Therapeutic implications. (abst – 2016)  

Inhibitors of diacylglycerol lipases in neurodegenerative and metabolic disorders. (abst – 2016)  

Expression of the Endocannabinoid Receptor 1 in Human Stroke: An Autoptic Study. (abst – 2016)  

Cannabinoid receptor agonist WIN55,212-2 and fatty acid amide hydrolase inhibitor URB597 may protect against cognitive impairment in rats of chronic cerebral hypoperfusion via PI3K/AKT signaling. (abst – 2016)  

Projection-Specific Dynamic Regulation of Inhibition in Amygdala Micro-Circuits (abst – 2016)  

Acute Stress Suppresses Synaptic Inhibition and Increases Anxiety via Endocannabinoid Release in the Basolateral Amygdala. (abst – 2016)  

Peripheral and central CB1 cannabinoid receptors control stress-induced impairment of memory consolidation. (abst – 2016)  

Regulated endosomal trafficking of Diacylglycerol lipase alpha (DAGLα) generates distinct cellular pools; implications for endocannabinoid signaling. (abst – 2016)  

PAK1 regulates inhibitory synaptic function via a novel mechanism mediated by endocannabinoids. (abst – 2016)  

Cannabinoids: Glutamatergic Transmission and Kynurenines. (abst – 2016)  
Restricted vs. unrestricted wheel running in mice: Effects on brain, behavior and endocannabinoids. (abst – 2016)
http://www.sciencedirect.com/science/article/pii/S0018506X16301799

Functions of synapse adhesion molecules neurexin/neurexins and neurodevelopmental disorders. (abst – 2016)

Interaction between hippocampal serotonin and cannabinoid systems in reactivity to spatial and object novelty detection. (abst – 2016)

CB1 Cannabinoid Receptors Mediate Cognitive Deficits and Structural Plasticity Changes During Nicotine Withdrawal. (abst – 2016)

Chronic stress leads to epigenetic dysregulation of neuropeptide-Y and cannabinoid CB1 receptor in the mouse cingulate cortex. (abst – 2016)

Cannabinoids prevent the amyloid β-induced activation of astroglial hemichannels: A neuroprotective mechanism. (abst – 2016)

Descending serotonergic and noradrenergic systems do not regulate the antipruritic effects of cannabinoids. (abst – 2016)

The central cannabinoid receptor type-2 (CB2) and chronic pain. (abst – 2016)

Regulation of fear extinction by long-term depression: the roles of endocannabinoids and brain derived neurotrophic factor. (abst – 2016)

The cannabinoid beta-caryophyllene (BCP) induces neuritogenesis in PC12 cells by a cannabinoid-receptor-independent mechanism. (abst – 2016)

Cannabidiol reduces neuroinflammation and promotes neuroplasticity and functional recovery after brain ischemia. (abst – 2016)

Cannabinoid Type-2 Receptor Drives Neurogenesis and Improves Functional Outcome After Stroke. (abst – 2016)

Cannabidiol Activates Neuronal Precursor Genes in Human Gingival Mesenchymal Stromal Cells. (abst – 2016)


Singular Location and Signaling Profile of Adenosine A2A-Cannabinoid CB1 Receptor Heteromers in the Dorsal Striatum. (link to download – 2017) http://www.nature.com/npp/journal/vaop/naam/abs/npp201712a.html


N-Oleoylglycine-induced hyperphagia was associated with the activation of AgRP neuron by CB1R. (abst – 2017) https://www.ncbi.nlm.nih.gov/pubmed/28102080


Antihyperalgesic effect of CB1 receptor activation involves the modulation of P2X3 receptor in the primary afferent neuron. (abst – 2017) https://www.ncbi.nlm.nih.gov/pubmed/28131783
**NEUROPATHIC PAIN**

Cannabinoid-mediated modulation of neuropathic pain and microglial accumulation in a model of murine type I diabetic peripheral neuropathic pain (full - 2010)

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2845559/?tool=pmcentrez

R-Flurbiprofen Reduces Neuropathic Pain in Rodents by Restoring Endogenous Cannabinoids (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2869361/


Smoked cannabis for chronic neuropathic pain: a randomized controlled trial (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2950205/?tool=pmcentrez


**AMELIORATIVE POTENTIAL OF CANNABIS SATIVA EXTRACT ON DIABETES INDUCED NEUROPATHIC PAIN IN RATS** (link to PDF – 2010) http://search.proquest.com/openview/55b14Fee70957a172b19e93f47304c37/1?pq-origsite=gscholar


Cannabinoid Agonists Inhibit Neuropathic Pain Induced by Brachial Plexus Avulsion in Mice by Affecting Glial Cells and MAP Kinases.  (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3172222/?tool=pubmed


Mutations in ABHD12 cause the neurodegenerative disease PHARC: An inborn error of endocannabinoid metabolism.  (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2933347/?tool=pubmed

Cannabidiol as an emergent therapeutic strategy for lessening the impact of inflammation on oxidative stress.  (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3085542/

Activation of spinal and supraspinal cannabinoid-1 receptors leads to antinociception in a rat model of neuropathic spinal cord injury pain.  (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3159760/


The maintenance of cisplatin- and paclitaxel-induced mechanical and cold alldynia is suppressed by cannabinoid CB2 receptor activation and independent of CXCR4 signaling in models of chemotherapy-induced peripheral neuropathy  (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3502129/


Endocannabinoids in nervous system health and disease: the big picture in a nutshell (full – 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3193.full

The Therapeutic Potential of Cannabis and Cannabinoids  (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3442177/

Dynamic changes to the endocannabinoid system in models of chronic pain
(full – 2012)
http://rstb.royalsocietypublishing.org/content/367/1607/3300.full?sid=1569c370-cd5c-4358-89ff-857201f5e069

Low-Dose Vaporized Cannabis Significantly Improves Neuropathic Pain. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3566631/

Modulation of neuropathic-pain-related behaviour by the spinal endocannabinoid/endovanilloid system (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3481534/

Prevention of Paclitaxel-Induced Neuropathy Through Activation of the Central Cannabinoid Type 2 Receptor System (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3334436/

The Novel Reversible Fatty Acid Amide Hydrolase Inhibitor ST4070 Increases Endocannabinoid Brain Levels and Counteracts Neuropathic Pain in Different Animal Models (full – 2012)
http://jpet.aspetjournals.org/content/342/1/188.full.pdf+html

Peripheral FAAH inhibition causes profound antinociception and protects against indomethacin-induced gastric lesions. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3738192/

Cannabinoids suppress inflammatory and neuropathic pain by targeting α3 glycine receptors. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3371734/

Alterations in endocannabinoid tone following chemotherapy-induced peripheral neuropathy: effects of endocannabinoid deactivation inhibitors targeting fatty-acid amide hydrolase and monoacylglycerol lipase in comparison to reference analgesics following cisplatin treatment. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3525790/

Cannabinoids suppress inflammatory and neuropathic pain by targeting α3 glycine receptors (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3371734/

Local Peripheral Effects of β-Caryophyllene through CB2 Receptors in Neuropathic Pain in Mice (full – 2012)
http://file.scirp.org/Html/23613.html

http://aim.bmj.com/content/30/1/53.long

The atypical cannabinoid O-1602 increases hind paw sensitisation in the chronic constriction injury model of neuropathic pain. (abst – 2012)
Cannabinoid agonist WIN 55,212-2 prevents the development of paclitaxel-induced peripheral neuropathy in rats. Possible involvement of spinal glial cells. (abst – 2012)  

Low brain penetrant CB1 receptor agonists for the treatment of neuropathic pain. (abst - 2012)  

Characterization of cannabinoid-induced relief of neuropathic pain in rat models of type 1 and type 2 diabetes. (abst – 2012)  

A Randomized, Double-Blind, Placebo Controlled, Parallel Assignment, Flexible Dose, Efficacy Study of Nabilone as Adjuvant in the Treatment of Diabetic Peripheral Neuropathic Pain Using an Enriched Enrollment Randomized Withdrawal Design (abst – 2012)  

An enriched-enrolment, randomized withdrawal, flexible-dose, double-blind, placebo-controlled, parallel assignment efficacy study of nabilone as adjuvant in the treatment of diabetic peripheral neuropathic pain. (abst – 2012)  

Peripheral antinociceptive effect of anandamide and drugs that affect the endocannabinoid system on the formalin test in normal and streptozotocin-diabetic rats. (abst – 2012)  


The Major Brain Endocannabinoid 2-AG Controls Neuropathic Pain and Mechanical Hyperalgesia in Patients with Neuromyelitis Optica. (full – 2013)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0071500

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3558695/

Full Inhibition of Spinal FAAH Leads to TRPV1-Mediated Analgesic Effects in Neuropathic Rats and Possible Lipoxygenase-Mediated Remodeling of Anandamide Metabolism (full – 2013)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0060040

The cannabinoid CB2 receptor-selective phytocannabinoid beta-caryophyllene exerts analgesic effects in mouse models of inflammatory and neuropathic pain (full – 2013)  
http://www.europeanneuropsychopharmacology.com/article/S0924-977X%2813%2900302-7/fulltext

The endocannabinoid system, cannabinoids, and pain (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3820295/
Bilateral changes of cannabinoid receptor type 2 protein and mRNA in the dorsal root ganglia of a rat neuropathic pain model. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3707359/


Palmitoylethanolamide Reduces Formalin-Induced Neuropathic-Like Behaviour Through Spinal Glial/Microglial Phenotypical Changes in Mice (link to PDF – 2013) http://www.eurekaselect.com/107975/article

Different Classes of CB2 Ligands Potentially Useful in the Treatment of Pain (link to PDF – 2013) http://www.eurekaselect.com/108399/article

Medicinal Cannabis and Painful Sensory Neuropathy (editorial – 2013) http://virtualmentor.ama-assn.org/2013/05/oped1-1305.html


Palmitoylethanolamide is a New Possible Pharmacological Treatment for the Inflammation Associated with Trauma (abst – 2013) http://www.eurekaselect.com/106175/article


Endocannabinoids decrease neuropathic pain-related behavior in mice through the activation of one or both peripheral CB1 and CB2 receptors. (abst – 2013) http://www.sciencedirect.com/science/article/pii/S0028390813004802

Prescribing smoked cannabis for chronic noncancer pain: Preliminary recommendations. (full – 2014) http://www.cfp.ca/content/60/12/1083.long

Cannabidiol inhibits paclitaxel-induced neuropathic pain through 5-HT1A receptors without diminishing nervous system function or chemotherapy efficacy. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3969077/

Prophylactic cannabinoid administration blocks the development of paclitaxel-induced neuropathic nociception during analgesic treatment and following cessation of drug delivery. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3998744/


CB2 cannabinoid receptors as a therapeutic target - What does the future hold? (full – 2014) http://molpharm.aspetjournals.org/content/early/2014/08/08/mol.114.094649.long


NMP-7 inhibits chronic inflammatory and neuropathic pain via block of Cav3.2 T-type calcium channels and activation of CB2 receptors. (full – 2014) http://www.molecularpain.com/content/pdf/1744-8069-10-77.pdf

Celastrol Attenuates Inflammatory and Neuropathic Pain Mediated by Cannabinoid Receptor Type 2. (full – 2014) http://www.mdpi.com/1422-0067/15/8/13637/htm

Glucose concentration in culture medium affects mRNA expression of TRPV1 and CB1 receptors and changes capsaicin toxicity in PC12 cells. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4322151/

Hemopressin, an inverse agonist of cannabinoid receptors, inhibits neuropathic pain in rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4112957/


The cannabinoid CB₂ receptor-selective phytocannabinoid beta-caryophyllene exerts analgesic effects in mouse models of inflammatory and neuropathic pain. (full – 2014) http://www.europeanneuropsychopharmacology.com/article/S0924-977X%2813%2900302-7/fulltext
JZL184 is anti-hyperalgesic in a murine model of cisplatin-induced peripheral neuropathy. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4268146/


Inhibition of anandamide hydrolysis attenuates nociceptor sensitization in a murine model of chemotherapy-induced peripheral neuropathy. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4346731/

Dual inhibition of monoacylglycerol lipase and cyclooxygenases synergistically reduces neuropathic pain in mice. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4376450/


Nabilone as an Adjunctive to Gabapentin for Multiple Sclerosis-Induced Neuropathic Pain: A Randomized Controlled Trial (full – 2015) http://onlinelibrary.wiley.com/doi/10.1111/pme.12569/full

Cannabis in cancer care. (full – 2015) http://escholarship.org/uc/item/6367m6vj#page-1

Coadministration of indomethacin and minocycline attenuates established paclitaxel-induced neuropathic thermal hyperalgesia: Involvement of cannabinoid CB1 receptors. (full – 2015) http://www.nature.com/srep/2015/150618/srep10541/pdf/srep10541.pdf


TRPV1 channel inhibition contributes to the antinociceptive effects of Croton macrostachyus extract in mice (full – 2015) http://bmccomplementalternmed.biomedcentral.com/articles/10.1186/s12906-015-0816-z


CB1 Knockout Mice Unveil Sustained CB2-Mediated Anti-Allodynic Effects of the Mixed CB1/CB2 Agonist CP55,940 in a Mouse Model of Paclitaxel-Induced Neuropathic Pain. (full – 2015) http://molpharm.aspetjournals.org/content/88/1/64.long

Selective Monoacylglycerol Lipase Inhibitors: Antinociceptive versus Cannabimimetic Effects in Mice (full – 2015) http://jpet.aspetjournals.org/content/353/2/424.full.pdf+html
Combined inhibition of monoacylglycerol lipase and cyclooxygenases synergistically reduces neuropathic pain in mice  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4376450/

Efficacy of Inhaled Cannabis on Painful Diabetic Neuropathy.  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5152762/

A Cannabinoid CB1 Receptor Positive Allosteric Modulator Reduces Neuropathic Pain in the Mouse with no Psychoactive Effects.  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4864630/

Spinal RGS4 inhibition effectively attenuates neuropathic hyperalgesia and restores cannabinoid receptor type 1 signaling.  

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4666747/

Tonic Modulation of Nociceptive Behavior and Allodynia by Cannabinoid Receptors in Formalin Test in Rats  

Medical marijuana: Hints of headway? Despite a conflicted regulatory landscape, support for medical marijuana is growing amid increasing evidence of potential benefits  

The entourage effect: Synergistic actions of plant cannabinoids  
https://www.researchgate.net/publication/268878607_Medical_marijuana_in_neurology

The Effectiveness of Cannabinoids in the Management of Chronic Nonmalignant Neuropathic Pain: A Systematic Review.  

Influence of nitric oxide synthase or cyclooxygenase inhibitors on cannabinoids activity in streptozotocin-induced neuropathy.  

CB1 receptors modulate affective behaviour induced by neuropathic pain.  

N-Palmitoylethanolamine and Neuroinflammation: a Novel Therapeutic Strategy of Resolution.  
Minimizing chemotherapy-induced peripheral neuropathy: preclinical and clinical development of new perspectives. (abst – 2015)  

Clinical pharmacology of medical cannabinoids in chronic pain (abst – 2015)  


The Efficacy of Eslicarbazepine Acetate in Models of Trigeminal, Neuropathic, and Visceral Pain: The Involvement of 5-HT1B/1D Serotonergic and CB1/CB2 Cannabinoid Receptors. (abst – 2015)  

Analysis of the anti-allodynic effects of combination of a synthetic cannabinoid and a selective noradrenaline re-uptake inhibitor in nerve injury-induced neuropathic mice. (abst – 2015)  


Prescribing medical cannabis in Canada: Are we being too cautious? (abst – 2015)  

Actions of the dual FAAH/MAGL inhibitor JZL195 in a murine neuropathic pain model. (full – 2016)  

Integrating cannabis into clinical cancer care. (full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4791148/

The effect of spinally administered WIN 55,212-2, a cannabinoid agonist, on thermal pain sensitivity in diabetic rats. (full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4887712/

Neuropathic Pain Treatment: Still a Challenge. (full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4935814/

Cannabinoid Buccal Spray for Chronic Non-Cancer or Neuropathic Pain: A Review of Clinical Effectiveness, Safety, and Guidelines (full – 2016)  
https://www.ncbi.nlm.nih.gov/books/NBK395789/

A preliminary evaluation of the relationship of cannabinoid blood concentrations with the analgesic response to vaporized cannabis. (link to PDF – 2016)  

The selective monoacylglycerol lipase inhibitor MJN110 produces opioid sparing effects in a mouse neuropathic pain model. (link to PDF – 2016)
Using Medical Cannabis in an Oncology Practice  (article – 2016)  
(please register for full access) 
http://www.cancernetwork.com/oncology-journal/using-medical-cannabis-oncology-practice/stash.CjT8fR9n.uWvEhSG.dpdf

Using Medical Cannabis in an Oncology Practice  (1st page – 2016) 
http://www.cancernetwork.com/oncology-journal/using-medical-cannabis-oncology-practice/stash.CjT8fR9n.dpuf

Evaluating Sativex® in Neuropathic Pain Management: A Clinical and Neurophysiological Assessment in Multiple Sclerosis.  (abst – 2016)  

Medical use of cannabis products : Lessons to be learned from Israel and Canada.  (abst – 2016)  

The endocannabinoid system and neuropathic pain.  (abst – 2016)  

Efficacy, tolerability and safety of cannabinoids for chronic neuropathic pain : A systematic review of randomized controlled studies.  (scroll down for English version)  
(abst – 2016)  

Cannabinoids and autoimmune diseases: A systematic review.  (abst – 2016)  

Nabilone for the Management of Pain.  (abst – 2016)  

Polypharmacological Properties and Therapeutic Potential of β-Caryophyllene: a Dietary Phytocannabinoid of Pharmaceutical Promise.  (abst – 2016)  

Endovanilloid control of pain modulation by the rostroventromedial medulla in an animal model of diabetic neuropathy.  (abst – 2016)  

The role of carbon monoxide on the anti-nociceptive effects and expression of cannabinoid 2 receptors during painful diabetic neuropathy in mice.  (abst – 2016)  

Mesoporous Silica Particles as a Multifunctional Delivery System for Pain Relief in Experimental Neuropathy.  (abst – 2016)  


Peripherally selective cannabinoid 1 receptor (CB1R) agonists for the treatment of neuropathic pain. (abst – 2016) http://pubs.acs.org/doi/abs/10.1021/acs.jmedchem.6b00516


NEUROPROTECTION +*

Learning and memory performances in adolescent users of alcohol and marijuana: interactive effects. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2965487/

The effects of Delta-tetrahydrocannabinol and cannabidiol alone and in combination on damage, inflammation and in vitro motility disturbances in rat colitis. (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931570/?tool=pubmed


THC Prevents MDMA Neurotoxicity in Mice. (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2824821/


Cannabinoid receptor agonist protects cultured dopaminergic neurons from the death by the proteasomal dysfunction. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3145842/?tool=pubmed

Inhibition of COX-2 expression by endocannabinoid 2-arachidonoylglycerol is mediated via PPAR-γ (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165961/

Cannabinoids and B cells: emerging targets for treating progressive multiple sclerosis (full – 2011) http://msj.sagepub.com/content/17/3/259.long

N-arachidonoyl--serine is neuroprotective after traumatic brain injury by reducing apoptosis (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3170948/

Cannabinoid Receptor Type 1 Protects Nigrostriatal Dopaminergic Neurons against MPTP Neurotoxicity by Inhibiting Microglial Activation. (full – 2011) http://www.jimmunol.org/content/187/12/6508.full?sid=c3422dd2-7ad0-42e4-a862-845dc670f7cf

Pharmacological activation/inhibition of the cannabinoid system affects alcohol withdrawal-induced neuronal hypersensitivity to excitotoxic insults. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3158793/

Endocannabinoid 2-arachidonoylglycerol protects neurons against β-amyloid insults. (full – 2011)  

The dual neuroprotective-neurotoxic profile of cannabinoid drugs. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165949/


Cannabinoids and Innate Immunity: Taking a Toll on Neuroinflammation (link to PDF – 2011)  

Role of Cannabinoids in Multiple Sclerosis (link to PDF - 2011)  
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.659.8269&rank=26

Overexpression of CB2 cannabinoid receptors results in neuroprotection against behavioral and neurochemical alterations induced by intracaudate administration of 6-hydroxydopamine. (abst – 2011)  

The endocannabinoid anandamide downregulates IL-23 and IL-12 subunits in a viral model of multiple sclerosis: evidence for a cross-talk between IL-12p70/IL-23 axis and IL-10 in microglial cells. (abst – 2011)  

Immunomodulatory properties of kappa opioids and synthetic cannabinoids in HIV-1 neuropathogenesis. (abst – 2011)  

Effects of palmitoylethanolamide on release of mast cell peptidases and neurotrophic factors after spinal cord injury. (abst – 2011)  

Functional and Structural Protection by N-Acylethanolamines in Diabetic Retinopathy (abst - 2011)  
http://iovs.arvojournals.org/article.aspx?articleid=2356082&resultClick=1

Update on the role of cannabinoid receptors after ischemic stroke. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3337695/?tool=pubmed

Palmitoylethanolamide exerts neuroprotective effects in mixed neuroglial cultures and organotypic hippocampal slices via peroxisome proliferator-activated receptor-α. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3315437/?tool=pubmed

Dimerization with Cannabinoid Receptors Allosterically Modulates Delta Opioid Receptor Activity during Neuropathic Pain (full – 2012)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0049789

Contribution of Hypothermia and CB(1) Receptor Activation to Protective Effects of TAK-937, a Cannabinoid Receptor Agonist, in Rat Transient MCAO Model.
Early Endogenous Activation of CB1 and CB2 Receptors after Spinal Cord Injury Is a Protective Response Involved in Spontaneous Recovery (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3496738/

Palmitoylethanolamide exerts neuroprotective effects in mixed neuroglial cultures and organotypic hippocampal slices via peroxisome proliferator-activated receptor-α (full – 2012) http://www.jneuroinflammation.com/content/9/1/49

Endocannabinoids in nervous system health and disease: the big picture in a nutshell (full – 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3193.full

Intrinsic Up-Regulation of 2-AG Favors an Area Specific Neuronal Survival in Different In Vitro Models of Neuronal Damage. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3527460/

Cannabidiol for neurodegenerative disorders: important new clinical applications for this phytocannabinoid? (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3579248/

Review article: The endocannabinoid system in normal and pathological brain ageing (full – 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3326.full?sid=161e7b36-5055-448b-962e-697c782e901d

Sativex-like Combination of Phytocannabinoids is Neuroprotective in Malonate-Lesioned Rats, an Inflammatory Model of Huntington's Disease: Role of CB(1) and CB(2) Receptors. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3382456/

Prevention of Paclitaxel-Induced Neuropathy Through Activation of the Central Cannabinoid Type 2 Receptor System (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3334436/

Cannabinoid type 2 receptor activation downregulates stroke-induced classic and alternative brain macrophage/microglial activation concomitant to neuroprotection. (full – 2012) http://stroke.ahajournals.org/content/43/1/211.long

Neuroprotection by inhibiting the c-Jun N-terminal kinase pathway after cerebral ischemia occurs independently of interleukin-6 and keratinocyte-derived chemokine (KC/CXCL1) secretion. (full – 2012) http://www.jneuroinflammation.com/content/9/1/76

CB1 cannabinoid receptor activation rescues amyloid β-induced alterations in behaviour and intrinsic electrophysiological properties of rat hippocampal CA1 pyramidal neurones. (full – 2012) http://www.karger.com/Article/Pdf/338494
WIN55,212-2 protects oligodendrocyte precursor cells in stroke penumbra following permanent focal cerebral ischemia in rats. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4086494/

WIN55, 212-2 promotes differentiation of oligodendrocyte precursor cells and improve remyelination through regulation of the phosphorylation level of the ERK 1/2 via cannabinoid receptor 1 after stroke-induced demyelination. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4086494/


Specific inhibition of the JNK pathway promotes locomotor recovery and neuroprotection after mouse spinal cord injury. (abst – 2012)  

The biology that underpins the therapeutic potential of cannabis-based medicines for the control of spasticity in multiple sclerosis. (abst – 2012)  


WIN55212-2 attenuates amyloid-beta-induced neuroinflammation in rats through activation of cannabinoid receptors and PPAR-γ pathway. (abst – 2012)  

NEUROPROTECTIVE EFFECTS OF CANNABIS SATIVA ALCOHOLIC EXTRACT AGAINST SPINAL ALPHA MOTONEURONS DEGENERATION IN MALE TYPE II DIABETIC RATS  
(abst – 2012)  

Structural and Functional Protection of the Retina by N-Acylethanolamines in Glaucoma (abst – 2012)  
http://iovs.arvojournals.org/article.aspx?articleid=2350521&resultClick=1

Molecular evidence for the involvement of PPAR-δ and PPAR-γ in anti-inflammatory and neuroprotective activities of palmitoylethanolamide after spinal cord trauma (full – 2013)  
http://www.jneuroinflammation.com/content/10/1/20

Using the endocannabinoid system as a neuroprotective strategy in perinatal hypoxic-ischemic brain injury. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4146074/

Neuroprotective effects of Cannabis sativa leaves extracts on α-Motoneurons density after sciatic nerve injury in rats (full – 2013)  

HINT1 protein cooperates with cannabinoid 1 receptor to negatively regulate glutamate NMDA receptor activity (full – 2013)  
http://www.molecularbrain.com/content/6/1/42

CB2 Receptor Agonists Protect Human Dopaminergic Neurons against Damage from HIV-1 gp120. (full – 2013)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0077577

Molecular targets underlying SUMO-mediated neuroprotection in brain ischemia (full – 2013)  

A new co-ultramicronized composite including palmitoylethanolamide and luteolin to prevent neuroinflammation in spinal cord injury (full – 2013)


Does the neuroprotective role of anandamide display diurnal variations? (full – 2013) http://www.mdpi.com/1422-0067/14/12/23341/htm

Transdermal delivery of cannabidiol attenuates binge alcohol-induced neurodegeneration in a rodent model of an alcohol use disorder. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4096899/

Neuroimmune interactions of cannabinoids in neurogenesis: focus on interleukin-1β (IL-1β) signalling. (full – 2013) http://www.biochemsoctrans.org/content/41/6/1577

CB2 cannabinoid agonist enhanced neurogenesis in GFAP/Gp120 transgenic mice displaying deficits in neurogenesis. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3904265/


CB1 and CB2 Cannabinoid Receptor Antagonists Prevent Minocycline-Induced Neuroprotection Following Traumatic Brain Injury in Mice. (full – 2013) http://cercor.oxfordjournals.org/content/25/1/35.long


Palmitoylethanolamide in Homeostatic and Traumatic Central Nervous System Injuries (link to PDF - 2013) http://www.eurekaselect.com/107976/article

Neuroglial Roots of Neurodegenerative Diseases: Therapeutic Potential of Palmitoylethanolamide in Models of Alzheimer’s Disease (link to PDF – 2013) http://www.eurekaselect.com/107977/article


Nicotine-Induced Neuroprotection Against Ischemic Injury Involves Activation of Endocannabinoid System in Rats (abst – 2013) http://link.springer.com/article/10.1007/s11664-012-0927-6


Mechanisms Of Cannabidiol Neuroprotection In Hypoxic-Ischemic Newborn Pigs: Role Of 5HT1A And CB2 Receptors.  (abst – 2013)  http://www.sciencedirect.com/science/article/pii/S0028390813001238


Activation of STAT3 is involved in neuroprotection by electroacupuncture pretreatment via cannabinoid CB1 receptors in rats.  (abst – 2013)  http://www.ncbi.nlm.nih.gov/pubmed/23880371

Δ9-Tetrahydrocannabinol is protective through PPARγ dependent mitochondrial biogenesis in a cell culture model of Parkinson’s Disease  (abst – 2013)  http://jnnp.bmj.com/content/84/11/e2.58.abstract


The Cannabinoid Agonist HU210 Delays Retinal Degeneration and Vision Loss  (abst – 2013)  http://iovs.arvojournals.org/article.aspx?articleid=2148029&resultClick=1


A restricted population of CB1 cannabinoid receptors with neuroprotective activity. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4050577/


Anandamide Protects HT22 Cells Exposed to Hydrogen Peroxide by Inhibiting CB1 Receptor-Mediated Type 2 NADPH Oxidase. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4127243/


Glucose concentration in culture medium affects mRNA expression of TRPV1 and CB1 receptors and changes capsaicin toxicity in PC12 cells. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4322151/


The fatty acid amide hydrolase inhibitor PF-3845 promotes neuronal survival, attenuates inflammation and improves functional recovery in mice with traumatic brain injury. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4437642/
Impaired Neurogenesis by HIV-1-Gp120 is Rescued by genetic deletion of Fatty Acid Amide Hydrolase Enzyme. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4594266/


Prior stimulation of the endocannabinoid system prevents methamphetamine-induced dopaminergic neurotoxicity in the striatum through activation of CB2 receptors. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4939842/


Cannabinoid receptor activation inhibits cell cycle progression by modulating 14-3-3β (link to PDF – 2014) http://www.degruyter.com/view/j/cmble.2014.19.issue-3/s11658-014-0200-x/s11658-014-0200-x.xml


Trans-Caryophyllene Suppresses Hypoxia-Induced Neuroinflammatory Responses by Inhibiting NF-κB Activation in Microglia. (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/24488604


The monoacylglycerol lipase inhibitor JZL184 is neuroprotective and alters glial cell phenotype in the chronic MPTP mouse model. (abst – 2014) http://www.neurobiologyofaging.org/article/S0197-4580(14)00384-4/abstract


The CB1 cannabinoid receptor signals striatal neuroprotection via a PI3K/Akt/mTORC1/BDNF pathway. (full – 2015)  http://www.nature.com/cdd/journal/vaop/ncurrent/full/cdd201511a.html


New horizons for newborn brain protection: enhancing endogenous neuroprotection. (full – 2015)  http://fn.bmj.com/content/early/2015/06/10/archdischild-2014-306284.long


Increasing levels of the endocannabinoid 2-AG is neuroprotective in the 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine mouse model of Parkinson's disease. (full – 2015)  http://www.sciencedirect.com/science/article/pii/S0014488615300583


Mitochondrial CB1 receptor is involved in ACEA-induced protective effects on neurons and mitochondrial functions. (full – 2015)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4516969/

Enhancement of endocannabinoid signalling protects against cocaine-induced neurotoxicity. (full – 2015)

A sativex-like combination of phytocannabinoids as a disease-modifying therapy in a viral model of multiple sclerosis. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4507161/

Cannabinoids in Neurodegenerative Disorders and Stroke/Brain Trauma: From Preclinical Models to Clinical Applications. (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4604192/

Endogenous 2-Arachidonoylglycerol Alleviates Cyclooxygenases-2 Elevation-Mediated Neuronal Injury from SO2 Inhalation via PPARγ Pathway. (full – 2015)
http://toxsci.oxfordjournals.org/content/147/2/535.long

Cannabinoid receptor type 1 agonist ACEA improves motor recovery and protects neurons in ischemic stroke in mice. (full – 2015)

Purified Cannabidiol, the main non-psychotropic component of Cannabis sativa, alone, counteracts neuronal apoptosis in experimental multiple sclerosis.
(link to PDF – 2015) http://www.europeanreview.org/article/10049


Cannabidiol increases survival and promotes rescue of cognitive function in a murine model of Cerebral Malaria. (abst – 2015)

N-stearoyltyrosine protects primary cortical neurons against Aβ(1-40)-induced injury through inhibiting endocannabinoid degradation (abst – 2015)


Cannabinoid receptor agonist WIN55,212-2 and fatty acid amide hydrolase inhibitor URB597 suppress chronic cerebral hypoperfusion-induced neuronal apoptosis by inhibiting c-Jun N-terminal kinase signaling. (abst – 2015)

Elevation of Plasma 2-Arachidonoylglycerol Levels in Alzheimer's Disease Patients as a Potential Protective Mechanism against Neurodegenerative Decline. (abst – 2015)


Synthetic and endogenous cannabinoids protect retinal neurons from AMPA excitotoxicity in vivo, via activation of CB1 receptors: Involvement of PI3K/Akt and MEK/ERK signaling pathways.  (abst – 2015)  http://www.sciencedirect.com/science/article/pii/S0014483515001554


Endocannabinoids in Multiple Sclerosis and Amyotrophic Lateral Sclerosis. (abst – 2015)  http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_7
Endocannabinoids and Neurodegenerative Disorders: Parkinson's Disease, Huntington's Chorea, Alzheimer's Disease, and Others. (abst – 2015)  
http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_8

N-Palmitoyl serotonin alleviates scopolamine-induced memory impairment via regulation of cholinergic and antioxidant systems, and expression of BDNF and p-CREB in mice. (abst – 2015)  

The effect of WIN 55,212-2 suggests a cannabinoid-sensitive component in the early toxicity induced by organic acids accumulating in glutaric acidemia type I and in related disorders of propionate metabolism in rat brain synaptosomes. (abst – 2015)  

Neuroprotective Effect Is Driven Through the Upregulation of CB1 Receptor in Experimental Autoimmune Encephalomyelitis. (abst – 2015)  

The neuroprotection of cannabidiol against MPP+-induced toxicity in PC12 cells involves trkA receptors, upregulation of axonal and synaptic proteins, neuritogenesis, and might be relevant to Parkinson's disease (abst – 2015)  

THC exerts neuroprotective effect in glutamate affected murine primary mesencephalic cultures and neuroblastoma N18TG2 cells (abst – 2015)  

Cannabidiol protects an in vitro model of the blood brain barrier (BBB) from oxygen-glucose deprivation via PPARγ and 5-HT1A. (abst – 2015)  

Ultra-low doses of tetrahydrocannabinol contribute to the survival of newly-born cells in the dentate gyrus of adult rats (abst – 2015)  
http://link.springer.com/article/10.1134/S1819712415030046

Cannabinoid CB2 Receptor Mediates Nicotine-Induced Anti-Inflammation in N9 Microglial Cells Exposed to β Amyloid via Protein Kinase C (full – 2016)  
http://www.hindawi.com/journals/mi/2016/4854378/

The Endocannabinoid System as a Therapeutic Target in Glaucoma (full – 2016)  
http://www.hindawi.com/journals/np/2016/9364091/

http://www.nature.com/articles/srep22429


Cannabinoid 1 receptor knockout mice display cold allodynia, but enhanced recovery from spared-nerve injury-induced mechanical hypersensitivity. (full – 2016) http://mpx.sagepub.com/content/12/1744806916649191.long


Amyloid proteotoxicity initiates an inflammatory response blocked by cannabinoids (full – 2016) http://www.nature.com/articles/npjamd201612

Delta-9-tetrahydrocannabinol protects against MPP+ toxicity in SH-SY5Y cells by restoring proteins involved in mitochondrial biogenesis. (full – 2016) http://www.impactjournals.com/oncotarget/index.php?journal=oncotarget&page=article&op=view&path%5B%5D=10314&path%5B%5D=32486


Neuroprotective effect of endogenous cannabinoids on ischemic brain injury induced by the excess microglia-mediated inflammation. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4931157/

VCE-003.2, a novel cannabigerol derivative, enhances neuronal progenitor cell survival and alleviates symptomatology in murine models of Huntington's disease. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4949444/

Orchestrated activation of mGluR5 and CB1 promotes neuroprotection (full – 2016) http://molecularbrain.biomedcentral.com/articles/10.1186/s13041-016-0259-6


CB2 receptor activation prevents glial-derived neurotoxic mediator production, BBB leakage and peripheral immune cell infiltration and rescues dopamine neurons in the MPTP model of Parkinson's disease. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4892852/


Cannabinoids Occlude the HIV-1 Tat-Induced Decrease in GABAergic Neurotransmission in Prefrontal Cortex Slices. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/26993829

Endocannabinoid 2-Arachidonoylglycerol Suppresses LPS-Induced Inhibition of A-Type Potassium Channel Currents in Caudate Nucleus Neurons Through CB1 Receptor. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27129498


Gingival Stromal Cells as an In Vitro Model: Cannabidiol Modulates Genes Linked with Amyotrophic Lateral Sclerosis. (abst – 2016)

Activation of Cannabinoid Receptor 2 Attenuates Mechanical Allodynia and Neuroinflammatory Responses in a Chronic Post-Ischemic Pain Model of Complex Regional Pain Syndrome Type I in Rats. (abst – 2016)

Cannabinoids prevent the amyloid β-induced activation of astroglial hemichannels: A neuroprotective mechanism. (abst – 2016)

The cannabinoid beta-caryophyllene (BCP) induces neuritogenesis in PC12 cells by a cannabinoid-receptor-independent mechanism. (abst – 2016)

Cannabinoid beta-caryophyllene (BCP) induces neuritogenesis in PC12 cells by a cannabinoid-receptor-independent mechanism. (abst – 2016)

Cannabidiol reduces neuroinflammation and promotes neuroplasticity and functional recovery after brain ischemia. (abst – 2016)

The arguments for and against cannabinoids application in glaucomatous retinopathy. (abst – 2016)

Up-regulation of CB2 receptors in reactive astrocytes in canine degenerative myelopathy, a disease model of amyotrophic lateral sclerosis (full – 2017)
http://dmm.biologists.org/content/early/2017/01/06/dmm.028373.long

Effect of inhibition of fatty acid amide hydrolase on MPTP-induced dopaminergic neuronal damage. (abst – 2017)

Endocannabinoid 2-arachidonoylglycerol protects inflammatory insults from sulfur dioxide inhalation via cannabinoid receptors in the brain (abst – 2017)

>NIEMANN-PICK DISEASE – see PRE-2000 list

NUTRITION – GENERAL +* - also see OMEGA3/ CB 1 CONNECTION, METHODS OF USE-EDIBLES
Exposure to a high-fat diet decreases sensitivity to Δ9-tetrahydrocannabinol-induced motor effects in female rats (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3014410/

Cannabis as a Unique Functional Food (full – 2011)  
http://apothecary-genetics.spruz.com/gfile/75r4!-!HLKELE!-!svyr5/cannabis_as_a_unique_functional_food.pdf

Hemp Food Storage (article – 2012)  
http://www.innvista.com/health/foods/hemp/hemp-food-storage/

Changes on metabolic parameters induced by acute cannabinoid administration (CBD, THC) in a rat experimental model of nutritional vitamin A deficiency (full – 2013)  

Nutritional omega-3 modulates neuronal morphology in the prefrontal cortex along with depression-related behaviour through corticosterone secretion (full – 2014)  
http://www.nature.com/tp/journal/v4/n9/full/tp201477a.html

Endocannabinoid signaling and its regulation by nutrients. (abst – 2014)  

Developmentally vitamin D-deficient rats show enhanced prepulse inhibition after acute Δ9-tetrahydrocannabinol. (abst – 2014)  

Characterization of Byproducts Originating from Hemp Oil Processing (abst – 2014)  
http://pubs.acs.org/doi/abs/10.1021/jf5044426

Maternal Caloric Restriction Implemented during the Preconceptional and Pregnancy Period Alters Hypothalamic and Hippocampal Endocannabinoid Levels at Birth and Induces Overweight and Increased Adiposity at Adulthood in Male Rat Offspring (full – 2016)  

Exposure to a Highly Caloric Palatable Diet during the Perinatal Period Affects the Expression of the Endogenous Cannabinoid System in the Brain, Liver and Adipose Tissue of Adult Rat Offspring. (full – 2016)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0165432

Long-Term Effects of Prenatal Exposure to Undernutrition on Cannabinoid Receptor-Related Behaviors: Sex and Tissue-Specific Alterations in the mRNA Expression of Cannabinoid Receptors and Lipid Metabolic Regulators. (full – 2016)  

Lipids in psychiatric disorders and preventive medicine. (abst – 2016)  

Fabp1 gene ablation inhibits high fat diet-induced increase in brain endocannabinoids. (abst – 2016)  
Cannabimimetic phytochemicals in the diet - an evolutionary link to food selection and metabolic stress adaptation?  (abst – 2016)


NUTRITION – HEMP SEED +*

The cardiac and haemostatic effects of dietary hempseed.  (full - 2010)
http://www.nutritionandmetabolism.com/content/pdf/1743-7075-7-32.pdf

Effects of increasing amounts of hempseed cake in the diet of dairy cows on the production and composition of milk.  (full – 2010)
http://journals.cambridge.org/action/displayFulltext?type=6&fid=7909529&jid=ANM&volumeId=4&issueId=11&aid=7909528&bodyId=&membershipNumber=&societyETOCSession=&fulltextType=RA&fileId=S1751731110001254


Dietary intakes in a group of marihuana smoking patients  (abst – 2010)

Evaluating the Quality of Protein from Hemp Seed (Cannabis sativa L.) Products Through the use of the Protein Digestibility-Corrected Amino Acid Score Method (abst - 2010)  http://pubs.acs.org/doi/abs/10.1021/jf102636b

Efficacy of a Chinese herbal proprietary medicine (Hemp Seed Pill) for functional constipation.  (full – 2011)  http://www.nature.com/ajg/journal/v106/n1/pdf/ajg2010305a.pdf

The effects of hempseed meal intake and linoleic acid on Drosophila models of neurodegenerative diseases and hypercholesterolemia.  (full – 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3933972/

Isolation and Characterization of Edestin from Cheungsam Hempseed.  (link to PDF – 2011)  http://koreascience.or.kr/article/ArticleFullRecord.jsp?en=E1OQBF_2011_v54n2_84

Distinctive effects of plant protein sources on renal disease progression and associated
cardiac hypertrophy in experimental kidney disease. (abst – 2011)

Searching for health beneficial n-3 and n-6 fatty acids in plant seeds. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3380567/?tool=pubmed

Archaeobotanical study of ancient food and cereal remains at the Astana cemeteries,
Xinjiang, China. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3447823/

Nutritive quality of romanian hemp varieties (Cannabis sativa L.) with special focus on
oil and metal contents of seeds. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3543203/

Effect of feeding hemp seed and hemp seed oil on laying hen performance and egg yolk
fatty acid content: Evidence of their safety and efficacy for laying hen diets.
(full – 2012) http://ps.oxfordjournals.org/content/91/3/701.long

Comparative Study of Sedation, Pre-Anesthetic and Anti-Anxiety Effects of Hemp Seed
Extract and Diazepam in Rats (full – 2012)

Hemp Food Storage (article – 2012)
http://www.innvista.com/health/foods/hemp/hemp-food-storage/


Hemp Seeds as Medicine (article – 2012)

Proteomic profiling of hempseed proteins from Cheungsam. (abst - 2012)

Fatty Acid Profile and Sensory Characteristics of Table Eggs from Laying Hens Fed
Hempseed and Hempseed Oil. (abst – 2012)

The isolation and identification of two compounds with predominant radical scavenging
activity in hensseed (seed of Cannabis sativa L.). (abst – 2012)

Agents that act luminally to treat diarrhoea and constipation. (abst – 2012)

Association of Expanded Disability Status Scale and Cytokines after Intervention with Co-supplemented Hemp Seed, Evening Primrose Oils and Hot-natured Diet in Multiple Sclerosis Patients  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3648912/


Characterization of Lignanamides from Hemp (Cannabis sativa L.) Seed and their Antioxidant and Acetylcholinesterase Inhibitory Activities.  (abst – 2015)  http://pubs.acs.org/doi/10.1021/acs.jafc.5b05282


Alteration of delta-6-desaturase (FADS2), secretory phospholipase-A2 (sPLA2) enzymes by Hot-nature diet with co-supplemented hemp seed, evening primrose oils intervention in multiple sclerosis patients.  (abst – 2015)  http://www.ncbi.nlm.nih.gov/pubmed/26365444


Variability in Seed Traits in a Collection of Cannabis sativa L. Genotypes
Effects of Different Levels of Hemp Seed (Cannabis Sativa L.) and Dextran Oligosaccharide on Growth Performance and Antibody Titer Response of Broiler Chickens (full – 2016) http://www.tandfonline.com/doi/full/10.3389/fpls.2016.00688/full


NUTRITION – HEMP SEED OIL +* - also see OMEGA 3/ CB1 CONNECTION


Nutritional omega-3 deficiency abolishes endocannabinoid-mediated neuronal functions. Figure 1: n-3/n-6 PUFA dietary imbalance alters PUFAs level in mouse brain. (charts – 2011) http://www.nature.com/neuro/journal/v14/n3/fig_tab/nn.2736_F1.html

Searching for health beneficial n-3 and n-6 fatty acids in plant seeds. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3380567/

Antioxidant Activities and Oxidative Stabilities of Some Unconventional Oilseeds
Effect of feeding hemp seed and hemp seed oil on laying hen performance and egg yolk fatty acid content: Evidence of their safety and efficacy for laying hen diets.

Antimicrobial Activity of Cannabis sativa L. (full – 2012)

Fatty Acid Profile and Sensory Characteristics of Table Eggs from Laying Hens Fed Hempseed and Hempseed Oil. (abst – 2012)

Nutritional suitability of linseed and oil hemp from fatty acids profile perspective (abst – 2012)

Chemical Composition and Characterization of Hemp (Cannabis sativa) Seed oil and essential fatty acids by HPLC Method (full – 2013)

Targeted mutation of Δ12 and Δ15 desaturase genes in hemp produce major alterations in seed fatty acid composition including a high oleic hemp oil. (full – 2014)

Hemp (Cannabis sativa L.) seed oil: Analytical and phytochemical characterization of unsaponifiable fraction. (abst – 2014)

Effects of Hemp (Cannabis sativa L.) Seed Oil Press-Cake and Decaffeinated Green Tea Leaves (Camellia sinensis) on Functional Characteristics of Gluten-Free Crackers. (abst – 2014)

Potential Oil Yield, Fatty Acid Composition, and Oxidation Stability of the Hempseed Oil from Four Cannabis sativa L. Cultivars. (abst – 2014)


Cannabinoid-free Cannabis sativa L. grown in the Po valley: evaluation of fatty acid profile, antioxidant capacity and metabolic content. (abst – 2014)

Relationship between cannabinoids content and composition of fatty acids in hempseed oils. (abst – 2014)

Characterization of Byproducts Originating from Hemp Oil Processing (abst – 2014)
Effect of ultrasound pre-treatment of hemp (Cannabis sativa L.) seed on supercritical CO2 extraction of oil. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4348290/


NUTRITION- HEMP SEED PROTEIN ISOLATES/ POWDERS


OBESITY/ ADIPOSE TISSUE ++

Alterations in the hippocampal endocannabinoid system in diet-induced obese mice. (full – 2010) http://www.jneurosci.org/content/30/18/6273.long

Differential alterations of the concentrations of endocannabinoids and related lipids in the subcutaneous adipose tissue of obese diabetic patients (full - 2010) http://www.lipidworld.com/content/9/1/43

Expression of cannabinoid CB1 receptors by vagal afferent neurons: kinetics and role in influencing neurochemical phenotype (full – 2010) http://ajpgi.physiology.org/content/299/1/G63.full?sid=fc6948f0-78cf-405e-981b-aafa05ee417c
Polymorphisms in the endocannabinoid receptor 1 in relation to fat mass distribution (full – 2010)  http://www.eje-online.org/content/163/3/407.full

The endocannabinoid system links gut microbiota to adipogenesis  (full - 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2925525/


A common CNR1 (cannabinoid receptor 1) haplotype attenuates the decrease in HDL cholesterol that typically accompanies weight gain.  (full – 2010)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3013130/?tool=pubmed


The novel cannabinoid CB1 antagonist AM6545 suppresses food intake and food-reinforced behavior.  (full – 2010)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3522179/

Peripheral CB1 cannabinoid receptor blockade improves cardiometabolic risk in mouse models of obesity.  (full – 2010)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2912197/

A common polymorphism in the cannabinoid receptor 1 (CNR1) gene is associated with antipsychotic-induced weight gain in Schizophrenia.  (full – 2010)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3055343/?tool=pubmed


Cannabidiol Attenuates the Appetitive Effects of Δ9-Tetrahydrocannabinol in Humans Smoking Their Chosen Cannabis  (full - 2010)  http://www.nature.com/npp/journal/v35/n9/full/npp201058a.html

A novel peripherally restricted cannabinoid receptor antagonist, AM6545, reduces food intake and body weight, but does not cause malaise, in rodents. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2990160/


A clinical trial assessing the safety and efficacy of the CB1R inverse agonist taranabant in obese and overweight patients: low-dose study (full – 2010) http://www.nature.com/ijo/journal/v34/n5/full/ijo201021a.html

The endocannabinoid system modulates the valence of the emotion associated to food ingestion (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3116974/

Cannabinoid receptor stimulation impairs mitochondrial biogenesis in mouse white adipose tissue, muscle, and liver: the role of eNOS, p38 MAPK, and AMPK pathways. (link to PDF – 2010) http://diabetes.diabetesjournals.org/content/59/11/2826.full.pdf+html


Cannabis Use and Obesity and Young Adults (abst - 2010) http://informahealthcare.com/doi/abs/10.3109/00952990.2010.500438

Nonalcoholic fatty liver disease: pathology and pathogenesis. (abst – 2010)

Resistance to diet-induced adiposity in cannabinoid receptor-1 deficient mice is not due to impaired adipocyte function (full – 2011)
http://www.nutritionandmetabolism.com/content/8/1/93

Krill oil significantly decreases 2-arachidonoylglycerol plasma levels in obese subjects. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3048484/?tool=pubmed

Effect of dietary krill oil supplementation on the endocannabinoidome of metabolically relevant tissues from high-fat-fed mice (full – 2011)
http://www.nutritionandmetabolism.com/content/8/1/51

Lipid transport function is the main target of oral oleoylethanolamide to reduce adiposity in high-fat-fed mice (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3111743/?tool=pubmed

The activity of the endocannabinoid metabolising enzyme fatty acid amide hydrolase in subcutaneous adipocytes correlates with BMI in metabolically healthy humans (full – 2011)
http://www.lipidworld.com/content/10/1/129

Effects of the cannabinoid-1 receptor antagonist rimonabant on psychiatric symptoms in overweight people with schizophrenia: a randomized, double-blind, pilot study. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3717343/

Sympathetic activity controls fat-induced oleoylethanolamide signaling in small intestine. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3084524/?tool=pubmed

The association of the rs1049353 polymorphism of the CNR1 gene with hypoadiponectinemia. (full – 2011)

The central cannabinoid CB1 receptor is required for diet-induced obesity and rimonabant's antiobesity effects in mice (full – 2011)

Gadolinium-HU-308-incorporated micelles. (full – 2011)

Adipose tissue endocannabinoid system gene expression: depot differences and effects of diet and exercise (full – 2011)
http://www.lipidworld.com/content/10/1/194

385 C/A polymorphism of the fatty acid amide hydrolase gene is associated with metabolic syndrome in the Chinese Han population. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3258756/

Greasing the wheels of managing overweight and obesity with omega-3 fatty acids.
Cannabinoid type 1 receptor mediates depot-specific effects on differentiation, inflammation and oxidative metabolism in inguinal and epididymal white adipocytes.  

Association of genetic variation in cannabinoid mechanisms and gastric motor functions and satiation in overweight and obesity.  

Obesity and Cannabis Use: Results From 2 Representative National Surveys  

Psychiatric adverse effects of rimonobant in adults with Prader Willi syndrome.  

The neutral cannabinoid CB$_1$ receptor antagonist AM4113 regulates body weight through changes in energy intake in the rat.  

Effects of Chronic Oral Rimonabant Administration on Energy Budgets of Diet-Induced Obese C57BL/6 Mice.  

Expression of the cannabinoid system in muscle: effects of a high fat diet and CB1 receptor blockade  

Investigations of the human endocannabinoid system in two subcutaneous adipose tissue depots in lean subjects and in obese subjects before and after weight loss  

Are endocannabinoid type 1 receptor gene (CNR1) polymorphisms associated with obesity and metabolic syndrome in postmenopausal Polish women?  

Roles of G1359A polymorphism of the cannabinoid receptor gene (CNR1) on weight loss and adipocytokines after a hypocaloric diet  

Sweet taste and (AAT)12 repeat in the cannabinoid receptor gene in obese females  

The role of central CB2 cannabinoid receptors on food intake in neonatal chicks.


To Be or Not To Be—Obese (full – 2012)  http://endo.endojournals.org/content/152/10/3592.long

The L-α-lysophosphatidylinositol/GPR55 system and its potential role in human obesity. (full – 2012)  http://diabetes.diabetesjournals.org/content/61/2/281.long

Resistance to diet-induced adiposity in cannabinoid receptor-1 deficient mice is not due to impaired adipocyte function. (full – 2012)  http://www.nutritionandmetabolism.com/content/pdf/1743-7075-8-93.pdf

Fatty acid amide hydrolase ablation promotes ectopic lipid storage and insulin resistance due to centrally mediated hypothyroidism. (full - 2012)  http://www.pnas.org/content/109/37/14966.long


Cannabinoid Receptor 1 (CNR1) 4895 C/T Genetic Polymorphism was Associated with Obesity in Japanese Men. (full – 2012)  https://www.jstage.jst.go.jp/article/jat/19/8/19_12732/_pdf

Relationships between glucose, energy intake and dietary composition in obese adults with type 2 diabetes receiving the cannabinoid 1 (CB1) receptor antagonist, rimonabant (full – 2012)  http://www.nutritionj.com/content/11/1/50

Excess of the endocannabinoid anandamide during lactation induces overweight, fat accumulation and insulin resistance in adult mice (full – 2012)  http://www.dmsjournal.com/content/4/1/35

Dietary linoleic acid elevates endogenous 2-AG and anandamide and induces obesity. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3458187/


Endocannabinoids measurement in human saliva as potential biomarker of obesity. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3409167/?tool=pubmed

Metabolic effects of n-3 PUFA as phospholipids are superior to triglycerides in mice fed a high-fat diet: possible role of endocannabinoids. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3372498/


CNR1 genotype influences HDL-cholesterol response to change in dietary fat intake. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3342253/


Dietary linoleic acid elevates endogenous 2-arachidonoylglycerol and anandamide in Atlantic salmon (Salmo salar L.) and mice, and induces weight gain and inflammation in mice. (full - 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3548985/


Cannabinoid Type 1 Receptor Gene Polymorphism and Macronutrient Intake.

Dietary conditions and highly palatable food access alter rat cannabinoid receptor expression and binding density.  (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3621143/


Photoperiodic Changes in Endocannabinoid Levels and Energetic Responses to Altered Signalling at CB1 Receptors in Siberian Hamsters  (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4060156/


Simultaneous postprandial deregulation of the orexigenic endocannabinoid anandamide and the anorexigenic peptide YY in obesity  (full – 2012) http://www.nature.com/ijo/journal/v36/n6/full/ijo2011165a.html


Anti-obesity effects of the combined administration of CB1 receptor antagonist rimonabant and melanin-concentrating hormone antagonist SNAP-94847 in diet-inudced obese mice.  (abst – 2012) http://www.ncbi.nlm.nih.gov/pubmed/22473329


Fatty acid flux and oxidation are increased by rimonabant in obese women. (abst – 2012) http://www.ncbi.nlm.nih.gov/pubmed/22445512

Dietary Linoleic Acid Elevates the Endocannabinoids 2-AG and Anandamide and Promotes Weight Gain in Mice Fed a Low Fat Diet (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3889814/

The impact of marijuana use on glucose, insulin, and insulin resistance among US adults (full – 2013) http://www.amjmed.com/article/S0002-9343%2813%2900200-3/fulltext

The cannabinoid Δ(9)-tetrahydrocannabivarin (THCV) ameliorates insulin sensitivity in two mouse models of obesity. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3671751/

Reduced endothelium-dependent relaxation to anandamide in mesenteric arteries from young obese zucker rats. (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0063449
Chronic treatment with krill powder reduces plasma triglyceride and anandamide levels in mildly obese men. (full – 2013) http://www.lipidworld.com/content/12/1/78


Obesity-driven synaptic remodeling affects endocannabinoid control of orexinergic neurons. (full – 2013) http://www.pnas.org/content/110/24/E2229.full

Food for thought: hormonal, experiential, and neural influences on feeding and obesity. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3818543/


Orexin neurons use endocannabinoids to break obesity-induced inhibition. (full – 2013) http://www.pnas.org/content/110/24/9625.full

Effect of high fat-diet and obesity on gastrointestinal motility. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3890396/

Insulin induces long-term depression of VTA dopamine neurons via endocannabinoids. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4072656/

Reduced Food Intake is the Major Contributor to the Protective Effect of Rimonabant on Islet in Established Obesity-Associated Type 2 Diabetes. (full – 2013) http://www.eymj.org/DOIx.php?id=10.3349/ymj.2013.54.5.1127

Developmental Role for Endocannabinoid Signaling in Regulating Glucose Metabolism and Growth. (full – 2013) http://diabetes.diabetesjournals.org/content/62/7/2359.full?sid=2f5bda2b-a9c7-432a-9588-80c99189164d

Monounsaturated fatty acids generated via stearoyl CoA desaturase-1 are endogenous inhibitors of fatty acid amide hydrolase. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3839776/

Relationships between dietary macronutrients and adult neurogenesis in the regulation of energy metabolism. (full - 2013) http://journals.cambridge.org/action/displayFulltext?type=6&fid=8904779&jid=BJN&volumeId=109&issueId=09&aid=8904778&bodyId=&membershipNumber=&societyETOCSession=&fulltextType=RV&fileId=S000711451200579X

Fatty Acid Modulation of the Endocannabinoid System and the Effect on Food Intake and Metabolism (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3677644/


The serine hydrolase ABHD6 Is a critical regulator of the metabolic syndrome. (full – 2013) http://www.cell.com/cell-reports/fulltext/S2211-1247%2813%2900507-X

A potential role for GPR55 in gastrointestinal functions. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3660623/


Endocannabinoid crosstalk between placenta and maternal fat in a baboon model (Papio spp.) of obesity. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3827983/

High fat diet and body weight have different effects on cannabinoid CB1 receptor expression in rat nodose ganglia. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3866822/

Endocannabinoid crosstalk between placenta and maternal fat in a baboon model (Papio spp.) of obesity (full – 2013) http://www.placentajournal.org/article/S0143-4004%2813%2900692-9/fulltext


Pathophysiology of Human Visceral Obesity: An Update (full – 2013) http://physrev.physiology.org/content/93/1/359.long

A novel fluorophosphonate inhibitor of the biosynthesis of the endocannabinoid 2-arachidonoylglycerol with potential anti-obesity effects. (full – 2013) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3687659/

Genetic variation in the cannabinoid receptor gene (CNR1) (G1359A polymorphism) and their influence on anthropometric parameters and metabolic parameters under a high monounsaturated vs. high polyunsaturated fat hypocaloric diets. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/23337343


Effects of CB1 receptor blockade on monosodium glutamate induced hypometabolic and hypothalamic obesity in rats. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/23620336


Role of Genetic Variation in the Cannabinoid Receptor Gene (CNR1) (G1359A Polymorphism) on Weight Loss and Cardiovascular Risk Factors After Liraglutide Treatment in Obese Patients With Diabetes Mellitus Type 2. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/24322329


Effects of C358A polymorphism of the endocannabinoid degrading enzyme fatty acid
amide hydrolase (FAAH) on weight loss, adipocytokines levels, and insulin resistance
after a high polyunsaturated fat diet in obese patients. (abst – 2013)

Marijuana and Body Weight (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4204468/

Oleoylthanolamide enhances β-adrenergic-mediated thermogenesis and white-to-brown
adipocyte phenotype in epididymal white adipose tissue in rat (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3882055/

Oleoylthanolamide: a novel potential pharmacological alternative to cannabinoid
antagonists for the control of appetite (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3996326/

Vascular targets for cannabinoids: animal and human studies. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3954478/

Long-term changes in the ghrelin-CB1R axis associated with the maintenance of lower
body weight after sleeve gastrectomy (full – 2014)
http://www.nature.com/nutd/journal/v4/n7/full/nutd201424a.html

A diet containing a nonfat dry milk matrix significantly alters systemic oxylipins and the
endocannabinoid 2-arachidonoylglycerol (2-AG) in diet-induced obese mice. (full – 2014)
http://www.nutritionandmetabolism.com/content/11/1/24

Effect of intermittent cold exposure on brown fat activation, obesity, and energy
homeostasis in mice. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3895006/

The Endocannabinoid System - Back to the Scene of Cardiometabolic Risk Factors
Control? (full – 2014)

The effects of obesity, diabetes and metabolic syndrome on the hydrolytic enzymes of the
endocannabinoid system in animal and human adipocytes. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3995979/

Influence of dietary fat intake on the endocannabinoid system in lean and obese subjects.

Endocannabinoid Receptors Gene Expression in Morbidly Obese Women with
Nonalcoholic Fatty Liver Disease (full – 2014)
http://www.hindawi.com/journals/bmri/2014/502542/
Dietary Non-Esterified Oleic Acid Decreases the Jejunal Levels of Anorectic N-Acylethanolamines (full – 2014) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0100365


Hepatic cannabinoid-1 receptors mediate diet-induced insulin resistance by increasing de novo synthesis of long-chain ceramides. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3839256/

Behavioral effects of the cannabinoid CB1 receptor allosteric modulator ORG27569 in rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4186448/

CB1 cannabinoid receptor in SF1-expressing neurons of the ventromedial hypothalamus determines metabolic responses to diet and leptin. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4209357/

Neural Effects of Cannabinoid CB1 Neutral Antagonist Tetrahydrocannabivar in (THCv) on Food Reward and Aversion in Healthy Volunteers. (full – 2014) http://ijnp.oxfordjournals.org/content/18/6/pyu094.long


Modulation of plasma N-acylethanolamine levels and physiological parameters by dietary fatty acid composition in humans. (full – 2014) http://www.jlr.org/content/55/12/2655.long
Oleoylthanolamide and Human Neural Responses to Food Stimuli in Obesity

Baseline Anandamide Levels and Body Weight Impact the Weight Loss Effect of CB1 Receptor Antagonism in Male Rats                  (full – 2014)

Cannabis use in relation to obesity and insulin resistance in the inuit population.

Endocannabinoid signaling and food addiction. (full – 2014)

Haloperidol and rimonabant increase delay discounting in rats fed high-fat and standard-chow diets. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4772744/

Cannabinoid Type 1 (CB1) Receptors on Sim1-Expressing Neurons Regulate Energy Expenditure in Male Mice                     (full – 2014)

Cannabinoids, eating behaviour, and energy homeostasis. (abst – 2014)


Glucose metabolism: Focus on gut microbiota, the endocannabinoid system and beyond. (abst – 2014)

Endocannabinoids and energy homeostasis: An update. (abst – 2014)

The endocannabinoid system and appetite: relevance for food reward. (abst – 2014)

GPR55: From orphan to metabolic regulator? (abst – 2014)


Selected CNR1 polymorphisms and hyperandrogenemia as well as fat mass and fat distribution in women with polycystic ovary syndrome. (abst – 2014)

Gut microbiota and obesity: Role in aetiology and potential therapeutic target. (abst – 2014)


Global deletion of monoacylglycerol lipase in mice delays lipid absorption and alters energy homeostasis and diet-induced obesity. (full – 2015) http://www.jlr.org/content/early/2015/04/04/jlr.M058586.long

Leptin Levels Are Negatively Correlated with 2-Arachidonoylglycerol in the Cerebrospinal Fluid of Patients with Osteoarthritis. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4383333/

Fat Diet-Induced Insulin Resistance Does Not Increase Plasma Anandamide Levels or Potentiate Anandamide Insulinotropic Effect in Isolated Canine Islets. (full – 2015) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0123558

Role of the endocannabinoid system in obesity induced by neuropeptide Y overexpression in noradrenergic neurons. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4423197/


A cannabinoid receptor agonist N-arachidonoyl dopamine inhibits adipocyte differentiation in human mesenchymal stem cells. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4428713/

The endocannabinoid anandamide during lactation increases body fat content and CB1 receptor levels in mice adipose tissue. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4491858/

Adipose tissue NAPE-PLD controls fat mass development by altering the browning process and gut microbiota. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4382707/

Tetrahydrocannabivarin (THCv) reduces Default Mode Network and increases Executive Control Network Resting State Functional Connectivity in Healthy Volunteers.
N-Oleoyl glycine, a lipoamino acid, stimulates adipogenesis associated with activation of CB1 receptor and Akt signaling pathway in 3T3-L1 adipocyte. (full – 2015)

The Cannabinoid Receptor 2 Q63R Variant Modulates the Relationship between Childhood Obesity and Age at Menarche. (full – 2015)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0140142

Anticipatory and consummatory effects of (hedonic) chocolate intake are associated with increased circulating levels of the orexigenic peptide ghrelin and endocannabinoids in obese adults. (full – 2015)
http://www.foodandnutritionresearch.net/index.php/fnr/article/view/29678

Circulating Endocannabinoids and the Polymorphism 385C>A in Fatty Acid Amide Hydrolase (FAAH) Gene May Identify the Obesity Phenotype Related to Cardiometabolic Risk: A Study Conducted in a Brazilian Population of Complex Interethnic Admixture. (full – 2015)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0142728

Hypothalamic control of brown adipose tissue thermogenesis. (full – 2015)

Prevention of Diet-Induced Obesity Effects on Body Weight and Gut Microbiota in Mice Treated Chronically with Δ9-Tetrahydrocannabinol. (full – 2015)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0144270

Pharmacological Blockade of Cannabinoid CB1 Receptors in Diet-Induced Obesity Regulates Mitochondrial Dihydrolipoamide Dehydrogenase in Muscle. (full – 2015)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0145244

METABOLIC EFFECTS OF MARIJUANA USE AMONG BLACKS. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4523241/

Anti-Obesity Effect of the CB2 Receptor Agonist JWH-015 in Diet-Induced Obese Mice. (full – 2015)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0140592

Dietary DHA reduced downstream endocannabinoid and inflammatory gene expression, epididymal fat mass, and improved aspects of glucose use in muscle in C57BL/6J mice. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4722239/

α/β Hydrolase Domain-Containing 6 (ABHD6) Degrades the Late Endosomal/Lysosomal Lipid Bis(monoacylglycerol)phosphate. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4705992/
Orexin-A and Endocannabinoid Activation of the Descending Antinociceptive Pathway Underlies Altered Pain Perception in Leptin Signalling Deficiency.  
http://www.nature.com/npp/journal/v41/n2/full/npp2015173a.html

Role of the Endocannabinoid System in Diabetes and Diabetic Complications.  

Cigarette smoking may modify the association between cannabis use and adiposity in males.  

Association of G1359A polymorphism of the cannabinoid receptor gene (CNR1) with macronutrient intakes in obese females.  


Regulation of inflammation by cannabinoids, the endocannabinoids 2-arachidonoyl-glycerol and arachidonoyl-ethanolamide, and their metabolites.  
http://www.jleukbio.org/content/97/6/1049.long

Association between paracetamol use in infancy or childhood with body mass index.  

Chronic administration with AM251 improves albuminuria and renal tubular structure in obese rats.  
http://joe.endocrinology-journals.org/content/225/2/113.long

Fatty acid binding protein 5 (FABP5) regulates diet-induced obesity (DIO) via GIP secretion from enteroendocrine K-cells in response to fat ingestion.  
http://ajpendo.physiology.org/content/308/7/E583.long

Modulation of sweet taste sensitivities by endogenous leptin and endocannabinoids in mice.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4461413/

The Cannabinoid Receptor-1 is an imaging biomarker of Brown Adipose Tissue.  
http://jnm.snmjournals.org/content/56/12/1937.full.pdf+html

THE EFFECT OF MEDICAL MARIJUANA LAWS ON BODY WEIGHT (full – 2015)  
The Effect of Medical Marijuana Laws on Body Weight

Intake of farmed Atlantic salmon fed soybean oil increases hepatic levels of arachidonic acid-derived oxylipins and ceramides in mice  

Epigenetic and Proteomic Expression Changes Promoted by Eating Addictive-like Behavior.  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4864655/
Sleep Restriction Enhances the Daily Rhythm of Circulating Levels of Endocannabinoid 2-arachidonoylglycerol. (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4763355/

Endocannabinoid system activation may be associated with insulin resistance in women with polycystic ovary syndrome. (full – 2015)
http://www.fertstert.org/article/S0015-0282(15)00232-0/fulltext

Saliva of obese patients - is it different? (click “ICI” for download – 2015)

The emerging role of the endocannabinoid system in the pathogenesis and treatment of kidney diseases. (link to PDF – 2015)

Participation of the endocannabinoid system (ECS) in the weight-gain and sensitization to LPS exposure in a maternal obesity model (article – 2015)
http://www.placentajournal.org/article/S0143-4004%2815%2900526-3/fulltext

Two non-psychoactive cannabinoids reduce intra-cellular lipid levels and inhibit hepatosteatosis. (abst – 2015)

Effects of a High-Protein/Low-Carbohydrate versus a Standard Hypocaloric Diet on Weight and Cardiovascular Risk Factors during 9 Months: Role of a Genetic Variation in the Cannabinoid Receptor Gene (CNR1) (G1359A Polymorphism). (abst – 2015)

Analysis of FABP4 expression pattern in rump fat deposition and metabolism of Altay sheep. (abst – 2015)

A comprehensive patents review on cannabinoid 1 receptor antagonists as antiobesity agents. (abst – 2015)

Strain and sex differences in puberty onset and the effects of THC administration on weight gain and brain volumes. (abst – 2015)

The endocannabinoid system role in the pathogenesis of obesity and depression (abst – 2015)

Pro-inflammatory obesity in aged cannabinoid-2 receptor deficient mice. (abst – 2015)

New insights on the role of the endocannabinoid system in the regulation of energy balance. (abst – 2015)
Endocannabinoids and Metabolic Disorders. (abst – 2015)
http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_10

The Endocannabinoid System: Pivotal Orchestrator of Obesity and Metabolic Disease. (abst – 2015)

Deletion of G-protein coupled receptor 55 promotes obesity by reducing physical activity. (abst – 2015)

The brain in bone and fuel metabolism. (abst – 2015)

Development and validation of an HPLC-MS method for the simultaneous quantification of key oxysterols, endocannabinoids, and ceramides: variations in metabolic syndrome. (abst – 2015)

Approaches for the development of drugs for treatment of obesity and metabolic syndrome. (abst – 2015)

Endocannabinoids - at the crossroads between the gut microbiota and host metabolism. (abst – 2015)
http://www.nature.com/nrendo/journal/v12/n3/full/nrendo.2015.211.html

Cell type-specific modulation of lipid mediator's formation in murine adipose tissue by omega-3 fatty acids. (abst – 2015)
http://www.sciencedirect.com/science/article/pii/S0006291X15310603


Lipid signaling in adipose tissue: Connecting inflammation & metabolism (abst – 2015)

Effects of dietary CLA on n-3 HUFA score and N-acylethanolamides biosynthesis in the liver of obese Zucker rats. (abst – 2015)

Intermittent access to liquid sucrose differentially modulates energy intake and related central pathways in control or high-fat fed mice. (abst – 2015)

Endocannabinoid regulation in white and brown adipose tissue following thermogenic activation (full – 2016)
http://www.jlr.org/content/early/2016/01/14/jlr.M065227.full.pdf+html?sid=da020ee7-4e2e-40b6-a400-27301739341e

Actions of the dual FAAH/MAGL inhibitor JZL195 in a murine neuropathic pain model. (full – 2016)
CB1 receptor blockade counters age-induced insulin resistance and metabolic dysfunction. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4783351/

Exposure to a Highly Caloric Palatable Diet During Pregestational and Gestational Periods Affects Hypothalamic and Hippocampal Endocannabinoid Levels at Birth and Induces Adiposity and Anxiety-Like Behaviors in Male Rat Offspring. (full – 2016) http://journal.frontiersin.org/article/10.3389/fnbeh.2015.00339/full

Vaccenic acid suppresses intestinal inflammation by increasing the endocannabinoid anandamide and non-cannabinoid signaling molecules in a rat model of the metabolic syndrome. (full – 2016) http://www.jlr.org/content/early/2016/02/17/jlr.M066308.long

An Increase in the Omega-6/Omega-3 Fatty Acid Ratio Increases the Risk for Obesity (full – 2016) http://www.mdpi.com/2072-6643/8/3/128/htm


Impaired Excitatory Neurotransmission in the Urinary Bladder from the Obese Zucker Rat: Role of Cannabinoid Receptors. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4902197/


The potential relevance of the endocannabinoid, 2-arachidonoylglycerol, in diffuse large B-cell lymphoma. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4751914/

Controlled downregulation of the cannabinoid CB1 receptor provides a promising approach for the treatment of obesity and obesity-derived type 2 diabetes. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4679742/


Mice Expressing a "Hyper-Sensitive" Form of the Cannabinoid Receptor 1 (CB1) Are Neither Obese Nor Diabetic. (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0160462

Human CB1 Receptor Isoforms, present in Hepatocytes and β-cells, are Involved in Regulating Metabolism. (full – 2016) http://www.nature.com/articles/srep33302


Exposure to a Highly Caloric Palatable Diet during the Perinatal Period Affects the Expression of the Endogenous Cannabinoid System in the Brain, Liver and Adipose Tissue of Adult Rat Offspring. (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0165432


An Increase in the Omega-6/Omega-3 Fatty Acid Ratio Increases the Risk for Obesity (full - 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4808858/

Orexin-A represses satiety-inducing POMC neurons and contributes to obesity via stimulation of endocannabinoid signaling. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4855580/

Targeting the endocannabinoid/CB1 receptor system for treating obesity in Prader-Willi syndrome. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5123200/


Early Low Fat Diet Enriched with Linolenic Acid Reduces Liver Endocannabinoid Tone and Improves Late Glycemic Control After a High Fat Diet Challenge in Mice. (full – 2016) http://diabetes.diabetesjournals.org/content/65/7/1824.long

Dietary olive oil induces cannabinoid CB2 receptor expression in adipose tissue of ApcMin/+ transgenic mice (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5166557/


The CB1 neutral antagonist AM4113 retains the therapeutic efficacy of the inverse agonist rimonabant for nicotine dependence and weight loss, with better psychiatric tolerability. (link to PDF – 2016) http://ijnp.oxfordjournals.org/content/early/2016/08/03/ijnp.pyw068.long

The inhibitory effect of combination treatment with leptin and cannabinoid CB1 receptor agonist on food intake and body weight gain is mediated by serotonin 1B and 2C receptors. (click Full Text Links for PDF – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27512006


Cannabinoid receptor type 1 mediates high-fat diet-induced insulin resistance by increasing forkhead box O1 activity in a mouse model of obesity (abst – 2016) http://www.spandidos-publications.com/10.3892/tjem.2016.2475


Fatty Acid Binding Protein-1 (FABP1) and the Human FABP1 T94A Variant: Roles in the Endocannabinoid System and Dyslipidemias. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27117865

Driving the need to feed: Insight into the collaborative interaction between ghrelin and endocannabinoid systems in modulating brain reward systems. (abst – 2016) http://www.sciencedirect.com/science/article/pii/S0149763415301494

Intake of a Western diet containing cod instead of pork alters fatty acid composition in tissue phospholipids and attenuates obesity and hepatic lipid accumulation in mice. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27155918


Simultaneous HPLC-APCI-MS/MS quantification of endogenous cannabinoids and glucocorticoids in hair (abst – 2016) http://www.sciencedirect.com/science/article/pii/S1570023216303786


Formation of OX-1R/CB1R heteromeric complexes in embryonic mouse hypothalamic cells: Effect on intracellular calcium, 2-arachidonoyl-glycerol biosynthesis and ERK
phosphorylation. (abst – 2016)  

Cannabis and a lower BMI in psychosis: What is the role of AKT1?  

Disturbances of sleep and circadian rhythms: novel risk factors for obesity.  

Endocannabinoid receptor blockade increases vascular endothelial growth factor and inflammatory markers in obese women with polycystic ovary syndrome.  

Parabens inhibit fatty acid amide hydrolase: A potential role in paraben-enhanced 3T3-L1 adipocyte differentiation. (abst – 2016)  

Marijuana Use and Type 2 Diabetes Mellitus: a Review. (abst – 2016)  

The role of perivascular adipose tissue in obesity-induced vascular dysfunction.  

Fabp1 gene ablation inhibits high fat diet-induced increase in brain endocannabinoids.  

Cannabimimetic phytochemicals in the diet - an evolutionary link to food selection and metabolic stress adaptation? (abst – 2016)  


Using proteomics to discover novel biomarkers for fatty liver development and response to CB1R antagonist treatment in an obese mouse model. (abst – 2016)  

Fetal Syndrome of Endocannabinoid Deficiency (FSECD) In Maternal Obesity. (abst – 2016)  

Plasma palmitoylethanolamide (PEA) as a potential biomarker for impaired coronary function. (abst – 2016)  

Association Between Use of Cannabis in Adolescence and Weight Change into Midlife (link to download – 2017)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0168897

Peripheral endocannabinoid signaling controls hyperphagia in western diet-induced obesity. (abst – 2017)  


Plasma and brain pharmacokinetic profile of cannabidiol (CBD), cannabidivarine (CBDV), Δ(9)-tetrahydrocannabivarin (THCV) and cannabigerol (CBG) in rats and mice following oral and intraperitoneal administration and CBD action on obsessive-compulsive behaviour.  (abst – 2011)  http://www.ncbi.nlm.nih.gov/pubmed/21796370


Multiple mechanisms involved in the large-spectrum therapeutic potential of cannabidiol in psychiatric disorders.  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3481531/


Cannabidiol reverses the mCPP-induced increase in marble-burying behavior.  (abst – 2013)  http://www.ncbi.nlm.nih.gov/pubmed/24118015


OLDER ADULTS

The use of Cannabidiol (CBD) to Reduce Insomnia and the Urge To Use Alcohol in a Geriatric person in on going Behavior Therapy. (case report – undated) http://cannabisclinicians.org/view-all-case-reports/entry/420/?pagenum=2

Illicit and Nonmedical Drug Use Among Older Adults: A Review (link to PDF – 2010) http://journals.sagepub.com/doi/abs/10.1177/0898264310386224


Prevalences of illicit drug use in people aged 50 years and over from two surveys. (full – 2012) http://ageing.oxfordjournals.org/content/41/4/553.long


Responsible and controlled use: Older cannabis users and harm reduction.
Safety, pharmacodynamics, and pharmacokinetics of multiple oral doses of delta-9-tetrahydrocannabinol in older persons with dementia (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4480847/

THE EFFECT OF MEDICAL MARIJUANA LAWS ON BODY WEIGHT  
(full – 2015)  
The Effect of Medical Marijuana Laws on Body Weight

With education, nurses can help to bridge the marijuana gap (article – 2015)  


A safer alternative: Cannabis substitution as harm reduction. (abst – 2015)  

Substituting cannabis for prescription drugs, alcohol and other substances among medical cannabis patients: The impact of contextual factors. (abst – 2015)  

Patterns of cannabis use in patients with Inflammatory Bowel Disease: A population based analysis. (abst – 2015)  

http://www.cdc.gov/mmwr/volumes/65/ss/ss6511a1.htm?s_cid=ss6511a1_e

Medical Marijuana Laws Reduce Prescription Medication Use In Medicare Part D. (full – 2016)  
http://content.healthaffairs.org/content/35/7/1230.long

Older-adult marijuana users and ex-users: Comparisons of sociodemographic characteristics and mental and substance use disorders. (abst – 2016)  

Agitation in Alzheimer Disease as a Qualifying Condition for Medical Marijuana in the United States. (abst – 2016)  

Circulating levels of endocannabinoids and oxylipins altered by dietary lipids in older women are likely associated with previously identified gene targets (abst – 2016)  

Bongs and baby boomers: Trends in cannabis use among older Australians. (abst – 2016)  
Older marijuana users: Life stressors and perceived social support. (abst – 2016)

Pros and cons of medical cannabis use by people with chronic brain disorders.

The Impact of Medical Marijuana Laws on the Labor Supply and Health of Older Adults: Evidence from the Health and Retirement Study (abst – 2016)
http://www.nber.org/papers/w22688

Accidental cannabis poisoning in the elderly. (abst – 2016)

Demographic trends among older cannabis users in the United States, 2006–13 (abst – 2016)

From adolescent to elder rats: Motivation for palatable food and cannabinoids receptors. (abst – 2016)
https://www.ncbi.nlm.nih.gov/pubmed/27935269

Protective effects of trans-caryophyllene on maintaining osteoblast function (abst – 2016)

**OMEGA-3/ CB1 CONNECTION** **+** - Docosahexaenoic acid (DHA), α-Linolenic acid (ALA), Eicosapentaenoic acid (EPA)- Without Omega 3, new CB1 receptors are made imperfectly. Hemp seed, flax seed, walnut and canola oils have ALA and EPA in them. Wild-caught salmon, sardines, mackerel, and also fish oil, krill oil and some algae supplements supply DHA. Also see NUTRITION – HEMP SEED OIL, CBR- CB1 RECEPTORS

Cannabinoid receptor-dependent and -independent anti-proliferative effects of omega-3 ethanolamides in androgen receptor-positive and -negative prostate cancer cell lines. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2930808/?tool=pubmed

Maternal Dietary Fat Determines Metabolic Profile and the Magnitude of Endocannabinoid Inhibition of the Stress Response in Neonatal Rat Offspring (full – 2010)
http://endo.endojournals.org/content/151/4/1685.full?sid=f9729c8f-d221-42d4-81d8-8545db5df878

Dietary docosahexaenoic acid supplementation alters select physiological endocannabinoid-system metabolites in brain and plasma (full – 2010)
http://www.jlr.org/content/51/6/1416.full.pdf+html

Pitfalls in the sample preparation and analysis of N-acylethanolamines (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2936757/
Effect of dietary fat on endocannabinoids and related mediators: consequences on energy homeostasis, inflammation and mood. (abst – 2010)

Effect of dietary krill oil supplementation on the endocannabinoidome of metabolically relevant tissues from high-fat-fed mice (full – 2011)
http://www.nutritionandmetabolism.com/content/8/1/51

Fish oil promotes survival and protects against cognitive decline in severely undernourished mice by normalizing satiety signals. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3117120/

A synaptogenic amide N-docosahexaenoylethanolamide promotes hippocampal development (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3215906/

Greasing the wheels of managing overweight and obesity with omega-3 fatty acids. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3210336/

Hepatic n-3 Polyunsaturated Fatty Acid Depletion Promotes Steatosis and Insulin Resistance in Mice: Genomic Analysis of Cellular Targets (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3154437/

N-Docosahexanoyllethanolamide promotes development of hippocampal neurons (full – 2011) http://www.biochemj.org/content/435/2/327


Nutritional omega-3 deficiency abolishes endocannabinoid-mediated neuronal functions. Figure 1: n-3/n-6 PUFA dietary imbalance alters PUFAs level in mouse brain. (charts – 2011) http://www.nature.com/neuro/journal/v14/n3/fig_tab/nn.2736_F1.html


Omega-3 N-acylethanolamines are endogenously synthesised from omega-3 fatty acids in different human prostate and breast cancer cell lines. (abst – 2011)


Metabolic effects of n-3 PUFA as phospholipids are superior to triglycerides in mice fed a high-fat diet: possible role of endocannabinoids. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3372498/

Dietary linoleic acid elevates endogenous 2-AG and anandamide and induces obesity. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3458187/
Type 2 Diabetes Associated Changes in the Plasma Non-Esterified Fatty Acids, Oxylipins and Endocannabinoids  
(full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3493609/  

Fish oil and inflammatory status alter the n-3 to n-6 balance of the endocannabinoid and oxylipin metabolomes in mouse plasma and tissues  
(full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3483099/  

N-acyl amines of docosahexaenoic acid and other n-3 polyunsaturated fatty acids – From fishy endocannabinoids to potential leads  
(full – 2012)  

Metabolic effects of n-3 PUFA as phospholipids are superior to triglycerides in mice fed a high-fat diet: possible role of endocannabinoids.  
(full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3372498/  

Searching for health beneficial n-3 and n-6 fatty acids in plant seeds.  
(full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3380567/  

Dietary linoleic acid elevates endogenous 2-arachidonoylglycerol and anandamide in Atlantic salmon (Salmo salar L.) and mice, and induces weight gain and inflammation in mice.  
(full - 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3548985/  

The biochemical complexity of the endocannabinoid system with some remarks on stress and related disorders: a minireview  
(abst – 2012)  

Nutritional n-3 polyunsaturated fatty acids deficiency alters cannabinoid receptor signaling pathway in the brain and associated anxiety-like behavior in mice.  
(abst – 2012)  
http://www.springerlink.com/content/ur5784gm34782505/  

Essential fatty acids and lipid mediators. Endocannabinoids  
(abst – 2012)  

Cannabinoids and omega-3/6 endocannabinoids as cell death and anticancer modulators.  
(abst – 2012)  

Effect of omega-3 polyunsaturated fatty acids on the endocannabinoid system in osteoblast-like cells and muscle  
(abst – 2012)  
http://docs.lib.purdue.edu/dissertations/AAI3444794/  

Acetaminophen, pesticide, and diethylhexyl phthalate metabolites, anandamide, and fatty acids in deciduous molars: potential biomarkers of perinatal exposure  
(abst – 2012)  


Effect of dietary fat type on anxiety-like and depression-like behavior in mice (full – 2013) http://www.springerplus.com/content/2/1/165

Chronic treatment with krill powder reduces plasma triglyceride and anandamide levels in mildly obese men (full – 2013) http://www.lipidworld.com/content/12/1/78

Voluntary Running in Young Adult Mice Reduces Anxiety-Like Behavior and Increases the Accumulation of Bioactive Lipids in the Cerebral Cortex (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0081459

Nutritional properties of dietary omega-3-enriched phospholipids. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3747496/

Association of Expanded Disability Status Scale and Cytokines after Intervention with Co-supplemented Hemp Seed, Evening Primrose Oils and Hot-natured Diet in Multiple Sclerosis Patients (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3648912/

Synaptamide, endocannabinoid-like derivative of docosahexaenoic acid with cannabinoid-independent function. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3541447/

Relationships between dietary macronutrients and adult neurogenesis in the regulation of energy metabolism. (full - 2013) http://journals.cambridge.org/action/displayFulltext?type=6&fid=8904779&jid=Bijn&volumeId=109&issueId=09&aid=8904778&bodyId=&membershipNumber=&societyETOCSession=&fulltextType=RV&fileId=S000711451200579X

Endocannabinoid system as a potential mechanism for n-3 long-chain polyunsaturated fatty acid mediated cardiovascular protection. (full – 2013) http://journals.cambridge.org/download.php?file=%2F MPS%2F7_04%2FS0029665113003406a.pdf&code=4d9803611c5020e9388169e5ae3c5095


Chemical Composition and Characterization of Hemp (Cannabis sativa) Seed oil and essential fatty acids by HPLC Method  (full – 2013)  

Acyl migration evaluation in monoacylglycerols from Echium plantagineum seed oil and Marinol.  (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3933826/

Molecular Mechanisms of Depression: Perspectives on New Treatment Strategies  (full – 2013)  
http://www.karger.com/Article/FullText/350094

DHA prevents altered 5-HT1(A), 5-HT2(A), CB1 and GABA(A) receptor binding densities in the brain of male rats fed a high-saturated-fat diet.  (abst – 2013)  

Fat to treat fat: Emerging relationship between dietary PUFA, endocannabinoids, and obesity.  (abst – 2013)  

Polyunsaturated Fatty Acid-Derived Lipid Mediators and T Cell Function  (full – 2014)  

Docosahexaenoyl ethanolamide improves glucose uptake and alters endocannabinoid system gene expression in proliferating and differentiating C2C12 myoblasts.  (full – 2014)  

Endogenous Signaling by Omega-3 Docosahexaenoic Acid-derived Mediators Sustains Homeostatic Synaptic and Circuitry Integrity.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3180614/

Docosahexaenoic acid, G protein-coupled receptors, and melanoma: is G protein-coupled receptor 40 a potential therapeutic target?  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4057893/

Modulation of plasma N-acylethanolamine levels and physiological parameters by dietary fatty acid composition in humans.  (full – 2014)  
http://www.jlr.org/content/55/12/2655.long

Modulation of Fear Memory by Dietary Polyunsaturated Fatty Acids via Cannabinoid Receptors  (full – 2014)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4059893/

Nutritional omega-3 modulates neuronal morphology in the prefrontal cortex along with depression-related behaviour through corticosterone secretion  (full – 2014)  
http://www.nature.com/tp/journal/v4/n9/full/tp201477a.html

Potential Oil Yield, Fatty Acid Composition, and Oxidation Stability of the Hempseed Oil from Four Cannabis sativa L. Cultivars.  (abst – 2014)  
Endocannabinoid signaling and its regulation by nutrients. (abst – 2014)  

(abst – 2014)  

Cannabinoid receptor antagonists and fatty acids alter endocannabinoid system gene expression and COX activity.  
(abst – 2014)  

Cannabinoid-free Cannabis sativa L. grown in the Po valley: evaluation of fatty acid profile, antioxidant capacity and metabolic content.  
(abst – 2014)  

Cannabinoid receptor expression in femora and tibiae of C57/blk6 mice fed DHA and relationship to bone ash and BMC. (bone mineral content)  
(abst – 2014)  
http://www.fasebj.org/content/28/1_Supplement/1032.2

Relationship between cannabinoids content and composition of fatty acids in hempseed oils.  
(abst – 2014)  

Omega-3 fatty acid production from enzyme saccharified hemp hydrolysate using a novel marine thraustochytrid strain.  
(abst – 2014)  

Inhibition of COX-2-mediated eicosanoid production plays a major role in the anti-inflammatory effects of the endocannabinoid N-docosahexaenoylethanolamine (DHEA) in macrophages  
(full – 2015)  

The endocannabinoid system: directing eating behavior and macronutrient metabolism.  
(full – 2015)  

Dietary DHA reduced downstream endocannabinoid and inflammatory gene expression, epididymal fat mass, and improved aspects of glucose use in muscle in C57BL/6J mice. 
(full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4722239/

Nitric oxide secretion in human conjunctival fibroblasts is inhibited by alpha linolenic acid.  
(full – 2015)  

Fetal endocannabinoids orchestrate the organization of pancreatic islet microarchitecture. 
(full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4653226/

Intake of farmed Atlantic salmon fed soybean oil increases hepatic levels of arachidonic acid-derived oxylipins and ceramides in mice  
(full – 2015)  

Polyunsaturated fatty acids and inflammation.  
(full – 2015)  
Diet-induced changes in n-3 and n-6 derived endocannabinoids and reductions in headache pain and psychological distress. (full – 2015)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4522350/  

Distribution of Bioactive Lipid Mediators in Human Skin.  
(link to full through Elsevier – 2015)  

Fatty acids, endocannabinoids and inflammation. (abst – 2015)  

Biosynthesis and Fate of Endocannabinoids. (abst – 2015)  
http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_2  

Cell type-specific modulation of lipid mediator's formation in murine adipose tissue by omega-3 fatty acids. (abst – 2015)  
http://www.sciencedirect.com/science/article/pii/S0006291X15310603  

Lipid signaling in adipose tissue: Connecting inflammation & metabolism (abst – 2015)  

Docosahexaenoic acid-supplementation prior to fasting prevents muscle atrophy in mice. (full – 2016)  

Cannabinoid receptor-dependent and -independent anti-proliferative effects of omega-3 ethanolamides in androgen receptor-positive and -negative prostate cancer cell lines. (full – 2016)  
http://carcin.oxfordjournals.org/content/31/9/1584.long  

Lipid mediators involved in the oxidative stress and antioxidant defence of human lung cancer cells (full – 2016)  

An Increase in the Omega-6/Omega-3 Fatty Acid Ratio Increases the Risk for Obesity (full - 2016)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4808858/  

Modulation of Long-Term Potentiation of Cortico-Amygdala Synaptic Responses and Auditory Fear Memory by Dietary Polyunsaturated Fatty Acid. (full – 2016)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4993868/  

Early Low Fat Diet Enriched with Linolenic Acid Reduces Liver Endocannabinoid Tone and Improves Late Glycemic Control After a High Fat Diet Challenge in Mice. (full – 2016)  
http://diabetes.diabetesjournals.org/content/65/7/1824.long  

Effects of Different Levels of Hemp Seed (Cannabis Sativa L.) and Dextran Oligosaccharide on Growth Performance and Antibody Titer Response of Broiler Chickens (full – 2016)  
http://www.tandfonline.com/doi/full/10.4081/ijas.2015.3473
Dietary olive oil induces cannabinoid CB2 receptor expression in adipose tissue of ApcMin/+ transgenic mice (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5166557/


Intake of a Western diet containing cod instead of pork alters fatty acid composition in tissue phospholipids and attenuates obesity and hepatic lipid accumulation in mice. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27155918


Circulating levels of endocannabinoids and oxylipins altered by dietary lipids in older women are likely associated with previously identified gene targets (abst – 2016) http://www.sciencedirect.com/science/article/pii/S1388198116302013

Docosahexaenoyl Serotonin, an endogenously formed n-3 fatty acid-serotonin conjugate has anti-inflammatory properties by attenuating IL-23–IL-17 signalling in macrophages (abst – 2016) http://www.sciencedirect.com/science/article/pii/S1388198116302499

OMEGA-6/ENDOCANNABINOID CONNECTION + - Arachidonic acid, linoleic acid-
Endocannabinoids are made from Omega 6, so you do need it, but it's also pro-inflammatory, so too much is not
good for you. Modern diets can have up to a 50 parts Omega 6 to 1 part Omega 3, when 3 to 4 parts Omega 6 to 1
part Omega 3 is optimal. Omega 6 is found corn, soy, safflower, grape seed, sunflower, and “mixed vegetable” oils.

Exposure to a high-fat diet decreases sensitivity to Δ9-tetrahydrocannabinol-induced
motor effects in female rats (full - 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3014410/

Pitfalls in the sample preparation and analysis of N-acylethanolamines (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2936757/

Hepatic n-3 Polyunsaturated Fatty Acid Depletion Promotes Steatosis and Insulin
Resistance in Mice: Genomic Analysis of Cellular Targets (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3154437/

Endocannabinoid signaling and energy metabolism: a target for dietary intervention.

Dietary linoleic acid elevates endogenous 2-arachidonoylglycerol and anandamide in
Atlantic salmon (Salmo salar L.) and mice, and induces weight gain and inflammation in
mice. (full - 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3548985/

N-acyl amines of docosahexaenoic acid and other n-3 polyunsaturated fatty acids – From
fishy endocannabinoids to potential leads (full – 2012)

Dietary linoleic acid elevates endogenous 2-AG and anandamide and induces obesity.
(full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3458187/

Fish oil and inflammatory status alter the n-3 to n-6 balance of the endocannabinoid and
oxylipin metabolomes in mouse plasma and tissues (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3483099/

Searching for health beneficial n-3 and n-6 fatty acids in plant seeds. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3380567/

Cannabinoids and omega-3/6 endocannabinoids as cell death and anticancer modulators.

Nutritional suitability of linseed and oil hemp from fatty acids profile perspective

Voluntary Running in Young Adult Mice Reduces Anxiety-Like Behavior and Increases
the Accumulation of Bioactive Lipids in the Cerebral Cortex (full – 2013)
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0081459
Association of Expanded Disability Status Scale and Cytokines after Intervention with Co-supplemented Hemp Seed, Evening Primrose Oils and Hot-natured Diet in Multiple Sclerosis Patients  
(full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3648912/

PUFA-derived endocannabinoids: an overview.  
(full – 2013)  
http://journals.cambridge.org/download.php?file=%2FPNS%2FPNS72_04%2FS0029665113003418a.pdf&code=405a8238eac28021a52396b9f4b0cece

Chemical Composition and Characterization of Hemp (Cannabis sativa) Seed oil and essential fatty acids by HPLC Method  
(full – 2013)  

Impact of omega-6 polyunsaturated fatty acid supplementation and γ-aminobutyric acid on astrogliogenesis through the endocannabinoid system  
(abst – 2013)  

Polyunsaturated Fatty Acid-Derived Lipid Mediators and T Cell Function  
(full – 2014)  

Docosahexaenoyl ethanolamide improves glucose uptake and alters endocannabinoid system gene expression in proliferating and differentiating C2C12 myoblasts.  
(full – 2014)  

Docosahexaenoic acid, G protein-coupled receptors, and melanoma: is G protein-coupled receptor 40 a potential therapeutic target?  
(full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4057893/

Modulation of Fear Memory by Dietary Polyunsaturated Fatty Acids via Cannabinoid Receptors  
(full – 2014)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4059893/

Potential Oil Yield, Fatty Acid Composition, and Oxidation Stability of the Hempseed Oil from Four Cannabis sativa L. Cultivars.  
(abst – 2014)  

Endocannabinoid signaling and its regulation by nutrients.  
(abst – 2014)  

Gamma-linolenic acid egg production enriched with hemp seed oil and evening primrose oil in diet of laying hens.  
(abst – 2014)  

Cannabinoid-free Cannabis sativa L. grown in the Po valley: evaluation of fatty acid profile, antioxidant capacity and metabolic content.  
(abst – 2014)  

Relationship between cannabinoids content and composition of fatty acids in hempseed oils.  
(abst – 2014)  


Lipid mediator profile in vernix caseosa reflects skin barrier development (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4629127/

Dietary DHA reduced downstream endocannabinoid and inflammatory gene expression, epididymal fat mass, and improved aspects of glucose use in muscle in C57BL/6J mice. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4722339/


Diet-induced changes in n-3 and n-6 derived endocannabinoids and reductions in headache pain and psychological distress. (full – 2015) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4522350/


Biosynthesis and Fate of Endocannabinoids. (abst – 2015) http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_2


An Increase in the Omega-6/Omega-3 Fatty Acid Ratio Increases the Risk for Obesity (full – 2016) http://www.mdpi.com/2072-6643/8/3/128/htm


An Increase in the Omega-6/Omega-3 Fatty Acid Ratio Increases the Risk for Obesity (full - 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4808858/

Modulation of Long-Term Potentiation of Cortico-Amygdala Synaptic Responses and Auditory Fear Memory by Dietary Polyunsaturated Fatty Acid. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4993868/

Early Low Fat Diet Enriched with Linolenic Acid Reduces Liver Endocannabinoid Tone and Improves Late Glycemic Control After a High Fat Diet Challenge in Mice. (full – 2016) http://diabetes.diabetesjournals.org/content/65/7/1824.long

Effects of Different Levels of Hemp Seed (Cannabis Sativa L.) and Dextran Oligosaccharide on Growth Performance and Antibody Titer Response of Broiler Chickens (full – 2016) http://www.tandfonline.com/doi/full/10.4081/ijas.2015.3473
Dietary olive oil induces cannabinoid CB2 receptor expression in adipose tissue of ApcMin/+ transgenic mice  (full – 2016)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5166557/

Lifelong imbalanced linoleic/alpha-linolenic acid intake impairs emotional and cognitive behavior in adult rats via changes in brain endocannabinoid system.
(click “Full Text Links” to download  – 2016)

Intake of a Western diet containing cod instead of pork alters fatty acid composition in tissue phospholipids and attenuates obesity and hepatic lipid accumulation in mice.

Dietary conjugated linoleic acid supplementation alters the expression of genes involved in the endocannabinoid system in the bovine endometrium and increases plasma progesterone concentrations.

Association between plasma endocannabinoids and appetite in hemodialysis patients: A pilot study.

LINOLEIC ACID AND THE PATHOGENESIS OF OBESITY.  (abst – 2016)

Circulating levels of endocannabinoids and oxylipins altered by dietary lipids in older women are likely associated with previously identified gene targets  (abst – 2016)

OMEGA-9 - Oleic acid, found in Olive oil

Pitfalls in the sample preparation and analysis of N-acylethanolamines  (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2936757/

Multiple Changes in Peptide and Lipid Expression Associated with Regeneration in the Nervous System of the Medicinal Leech  (link to PDF – 2011)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.713.3790&rank=102

Targeted mutation of Δ12 and Δ15 desaturase genes in hemp produce major alterations in seed fatty acid composition including a high oleic hemp oil  (full – 2014)

Dietary olive oil induces cannabinoid CB2 receptor expression in adipose tissue of ApcMin/+ transgenic mice  (full – 2016)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5166557/
ORGANIC ACIDEMIAS - a group of metabolic disorders that disrupt normal amino acid metabolism


ORGAN TRANSPLANTS +*

Do cannabinoids have a therapeutic role in transplantation? (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2923447/?tool=pubmed


Targeting cannabinoid receptors as a novel approach in the treatment of graft-versus-host disease: Evidence from an experimental murine model. (full – 2011) http://jpet.aspetjournals.org/content/early/2011/06/14/jpet.111.182717.long


Cannabinoids Inhibit T-cells via Cannabinoid Receptor 2 in an In Vitro Assay for Graft Rejection, the Mixed Lymphocyte Reaction. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3864984/


A CB2-Selective Cannabinoid Suppresses T-Cell Activities and Increases Tregs and IL-10 (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4528965/


Developmental Role of Macrophage Cannabinoid-1 Receptor Signaling in Type-2 Diabetes (abst – 2017) http://diabetes.diabetesjournals.org/content/early/2017/01/11/db16-1199.long

Hypothalamic regulation of bone. (full – 2010)  
http://jme.endocrinology-journals.org/cgi/content/full/45/4/175

Cannabinoid Receptors as Target for Treatment of Osteoporosis: A Tale of Two Therapies  
(full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3001217/?tool=pubmed

Tissue Engineering of Cartilage; Can Cannabinoids Help?  
(full – 2010)  

Endocannabinoids Are Expressed in Bone Marrow Stromal Niches and Play a Role in Interactions of Hematopoietic Stem and Progenitor Cells with the Bone Marrow Microenvironment  
(full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2975171/?tool=pubmed

A cannabinoid 2 receptor agonist attenuates bone cancer-induced pain and bone loss.  
(full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2871326/

CB2 Cannabinoid Receptor Targets Mitogenic Gi Protein–Cyclin D1 Axis in Osteoblasts  
(full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3179350/

Cannabinoids and Bone: Friend or Foe?  
(abst - 2010)  

Activation of cannabinoid receptor CB2 regulates osteogenic and osteoclastogenic gene expression in human periodontal ligament cells.  
(abst – 2010)  

The endocannabinoid signaling system: a marriage of PUFA and musculoskeletal health.  
(abst – 2010)  

Control of bone remodeling by nervous system. Nervous system and bone  
(abst – 2010)  

Peripheral cannabinoid type 2 receptor regulates osteoclast formation, MDA-MB-231 breast cancer cell migration and bone marrow/tumour cell interaction via PI3 kinase/AKT and P38 pathways  
(abst – 2010)  
http://www.thebonejournal.com/article/S8756-3282%2810%2901828-4/abstract

Loss of the cannabinoid receptor CB2 alters the mechanical but not the material properties of bone  
(abst – 2010)  
http://www.thebonejournal.com/article/S8756-3282%2810%2900716-7/abstract

The type 2 cannabinoid receptor protects against age-related bone loss and ovariectomy induced bone loss by stimulating bone formation  
(abst – 2010)  
http://www.thebonejournal.com/article/S8756-3282%2810%2900619-8/abstract
Is lipid signaling through cannabinoid 2 receptors part of a protective system? (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3062638/


The Type 2 Cannabinoid Receptor Regulates Bone Mass and Ovariectomy-Induced Bone Loss by Affecting Osteoblast Differentiation and Bone Formation (full – 2011) http://press.endocrine.org/doi/full/10.1210/en.2010-0930

Skeletal lipidomics: regulation of bone metabolism by fatty acid amide family. (full - 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165954/


The role of cannabinoid receptors in bone remodeling in a CB1/2 double knockout mouse (abst – 2011) http://www.fasebj.org/content/25/1_Supplement/492.5.abstract?sid=83333c52-526d-49fe-9599-25820e32f00b


The CB2 receptor regulates osteoclast formation, breast cancer cell migration and osteoclast/tumour cell interaction via the PI3 Kinase/AKT pathway (abst – 2011) http://www.thebonejournal.com/article/S8756-3282%2811%2900177-3/abstract

Role of cannabinoids in the regulation of bone remodeling (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3499879/


THE CO-EXPRESSION OF THE ENDOCANNABINOID SYSTEM AND THE RANK/RANKL SIGNALLING PATHWAY IN HUMAN BONE AND OSTEOCLAST CULTURE  (abst – 2012)
http://www.bjjprocs.boneandjoint.org.uk/content/94-B/SUPP_XVIII/7.abstract?
maxtoshow=&hits=25&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=130&sor
tspec=date&resourcetype=HWCIT

Cannabinoids: novel therapies for arthritis?  (abst – 2012)

Combined deficiency of the CB1 and CB2 receptors enhances peak bone mass by
inhibiting osteoclast differentiation but increases age-related bone loss by promoting
adipocyte differentiation and reducing osteoblast differentiation  (abst – 2012)
http://www.thebonejournal.com/article/S8756-3282%2812%2900153-6/abstract

Magnolol Ameliorates Ligature-Induced Periodontitis in Rats and Osteoclastogenesis: In
Vivo and In Vitro Study  (full – 2013)  http://www.hindawi.com/journals/ecam/2013/634095/

Cannabinoid WIN-55,212-2 Mesylate Inhibits Interleukin-1β Induced Matrix
Metalloproteinase and Tissue Inhibitor of Matrix Metalloproteinase Expression in Human
Chondrocytes.  (full – 2013)
http://www.oarsijournal.com/article/S1063-4584%2813%2900999-0/fulltext

The cannabinoid receptor type 1 is essential for mesenchymal stem cell survival and
differentiation: implications for bone health.  (full – 2013)
http://www.hindawi.com/journals/sci/2013/796715/

The 17-β-oestradiol inhibits osteoclast activity by increasing the cannabinoid CB2
receptor expression.  (abst – 2013)

Increase of mesenchymal stem cell migration by Cannabidiol via activation of p42/44
MAPK.  (abst – 2013)

Modulation of Strain-Specific Differences in Gene Expression by Cannabinoid Type 2


Iron overload causes osteoporosis in Thalassemia Major patients through interaction with
TRPV1 channels.  (full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4258755/

Therapeutical Potential of CB2 Receptors in Immune-Related Diseases.  (abst – 2014)
Cannabinoid receptor expression in femora and tibiae of C57/blk6 mice fed DHA and relationship to bone ash and BMC. (bone mineral content) (abst – 2014)
http://www.fasebj.org/content/28/1_Supplement/1032.2

Stimulation of cannabinoid receptors by using Rubus coreanus extracts to control osteoporosis in aged male rats. (abst – 2014)


Type-2 cannabinoid receptor regulates proliferation, apoptosis, differentiation, and OPG/RANKL ratio of MC3T3-E1 cells exposed to Titanium particles. (abst – 2014)

Genetic background modifies the effects of type 2 cannabinoid receptor deficiency on bone mass and bone turnover. (abst – 2014)

Activation of Cannabinoid Receptor 2 Enhances Osteogenic Differentiation of Bone Marrow Derived Mesenchymal Stem Cells (full – 2015)
http://www.hindawi.com/journals/bmri/2015/874982/

Activation of cannabinoid receptor 2 enhances osteogenic differentiation of bone marrow derived mesenchymal stem cells. (full – 2015)
http://www.hindawi.com/journals/bmri/2015/874982/

Bone cell-autonomous contribution of type 2 cannabinoid receptor to breast cancer induced osteolysis. (full – 2015)
http://www.jbc.org/content/early/2015/07/20/jbc.M115.649608.long

Cannabis – the Israeli perspective (full – 2015)

The Effects of the Endocannabinoids Anandamide and 2-Arachidonoylglycerol on Human Osteoblast Proliferation and Differentiation (full – 2015)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0136546

The skeletal endocannabinoid system: clinical and experimental insights (full – 2015)


Effects of deleting cannabinoid receptor-2 on mechanical and material properties of cortical and trabecular bone (full – 2015)
http://www.tandfonline.com/doi/full/10.1080/23311916.2014.1001015
Cannabidiol, a Major Non-Psychotrophic Cannabis Constituent Enhances Fracture Healing and Stimulates Lysyl Hydroxylase Activity in Osteoblasts.  

CB1 cannabinoid receptors mediate endochondral skeletal growth attenuation by Δ9-tetrahydrocannabinol  

Dose-response estrogen promotes osteogenic differentiation via GPR40 (FFAR1) in murine BMMSCs.  

Osseous Characteristics of Mice Lacking Cannabinoid Receptor 2 after Pulp Exposure.  

CB2 and TRPV1 receptors oppositely modulate in vitro human osteoblast activity.  

The brain in bone and fuel metabolism.  

Effects of bioactive fatty acid amide derivatives in zebrafish scale model of bone metabolism and disease.  

A collaboration investigating endocannabinoid signalling in brain and bone  

The synthetic cannabinoid WIN55,212-2 mesylate decreases the production of inflammatory mediators in rheumatoid arthritis synovial fibroblasts by activating CB2, TRPV1, TRPA1 and yet unidentified receptor targets.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4858820/

Exploring the Bone Proteome to Help Explain Altered Bone Remodeling and Preservation of Bone Architecture and Strength in Hibernating Marmots.  
http://www.journals.uchicago.edu/doi/full/10.1086/687413

Selective Estrogen Receptor Modulators: Cannabinoid Receptor Inverse Agonists with Differential CB1 and CB2 Selectivity.  

Cannabinoind WIN-55,212-2 mesylate inhibits ADAMTS-4 activity in human osteoarthritic articular chondrocytes by inhibiting expression of syndecan-1.  

Anti-Inflammatory and Osteoprotective Effects of Cannabinoid-2 Receptor Agonist Hu-308 in a Rat Model of Lipopolysaccharide-Induced Periodontitis.  
Mechanical and material properties of cortical and trabecular bone from cannabinoid receptor-1-null (Cnr1-/-) mice. (abst – 2016) http://www.medengphys.com/article/S1350-4533(16)30148-5/abstract

Circulating levels of endocannabinoids and oxylipins altered by dietary lipids in older women are likely associated with previously identified gene targets (abst – 2016) http://www.sciencedirect.com/science/article/pii/S1388198116302013


OVARIAN CYSTS +


Cannabinoid receptor 1 gene polymorphisms and nonalcoholic Fatty liver disease in women with polycystic ovary syndrome and in healthy controls. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4127238/
Selected CNR1 polymorphisms and hyperandrogenemia as well as fat mass and fat distribution in women with polycystic ovary syndrome. (abst – 2014)  

Endocannabinoid system activation may be associated with insulin resistance in women with polycystic ovary syndrome. (full – 2015)  
http://www.fertstert.org/article/S0015-0282(15)00232-0/fulltext

Endocannabinoid receptor blockade increases vascular endothelial growth factor and inflammatory markers in obese women with polycystic ovary syndrome.  
(abst – 2016)  

Decreased expression of fatty acid amide hydrolase in women with polycystic ovary syndrome.  
(abst – 2017)  

**OVERDOSES on CANNABINOIDs** *Natural cannabinoid overdoses are NEVER fatal. Overdoses on SYNTHETIC cannabinoids CAN be fatal. - also see CANNABINOID HYPEREMESIS*

Cannabis Overdose  
(case report – undated)  
http://cannabisclinicians.org/view-all-case-reports/entry/96/?pagenum=3

Information for Health Care Professionals- Marihuana (marijuana, cannabis) dried plant for administration by ingestion or other means (Health Canada)  
(full – 2010)  

Accidental cannabis poisoning in children: report of four cases in a tertiary care center from southern Spain  
(abst – 2011)  
http://www.unboundmedicine.com/medline/ebm/record/21283933/abstract/%5BAccidental_cannabis_poisoning_in_children:_report_of_four_cases_in_a_tertiary_care_center_from_southern_Spain%5D

Prolonged coma in a child due to hashish ingestion with quantitation of THC metabolites in urine.  
(abst – 2011)  
http://www.unboundmedicine.com/medline/ebm/record/20634020/abstract/Prolonged_coma_in_a_child_due_to_hashish_ingestion_with_quantitation_of_THC_metabolites_in_urine

Pharmacological interventions in the treatment of the acute effects of cannabis: a systematic review of literature  
(full – 2012)  
http://www.harmreductionjournal.com/content/9/1/7

Recreational use and overdose of ingested processed cannabis (Majoon Birjandi) in the eastern Iran.  
(full – 2012)  
http://journals.sagepub.com/doi/full/10.1177/0960327112446814
Acute cannabis poisoning in a 10-month-old infant. (abst – 2012)

Pregnenolone can protect the brain from cannabis intoxication. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4057431/

Intoxication from accidental ingestion of hashish: Analysis of eight cases.

A cannabinoid-intoxicated child treated with dexmedetomidine: a case report
(full – 2015) http://www.jmedicalcasereports.com/content/9/1/152

Notes from the Field: Death Following Ingestion of an Edible Marijuana Product —
Colorado, March 2014 (full – 2015)
http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6428a6.htm

A non-classical cannabinoid syndrome. (abst – 2015)

Sudden onset unexplained encephalopathy in infants: think of cannabis intoxication

Merck Manual - Marijuana (Cannabis) Professional version (full – 2016)
http://www.merckmanuals.com/professional/special-subjects/recreational-drugs-and-intoxicants/marijuana-
cannabis


Evidence for Medicinal Use of Cannabis (article – 2016)

"Those edibles hit hard": Exploration of Twitter data on cannabis edibles in the U.S.
(abst – 2016)
http://www.drugandalcoholdependence.com/article/S0376-8716%2816%2930056-4/abstract

Clinical Effects of Synthetic Cannabinoid Receptor Agonists Compared with Marijuana
in Emergency Department Patients with Acute Drug Overdose. (abst – 2016)

Marijuana Misadventures in Children: Exploration of a Dose-Response Relationship and
Summary of Clinical Effects and Outcomes. (abst – 2016)

Accidental cannabis poisoning in the elderly. (abst – 2016)

Occupational transdermal poisoning with synthetic cannabinoid cumyl-PINACA.
Storage and disposal of medical cannabis among patients with cancer: Assessing the risk of diversion and unintentional digestion. (abst – 2016)

Tasty THC: Promises and Challenges of Cannabis Edibles. (abst – 2016)

OVERDOSE PREVENTION- OPIATE/OPIOID

Cannabis in Palliative Medicine: Improving Care and Reducing Opioid-Related Morbidity (link to download - 2011) http://ajh.sagepub.com/content/28/5/297


Cannabinoid and opioid interactions: implications for opiate dependence and withdrawal. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3742578/


Veterans Health Administration Policy on Cannabis as an Adjunct to Pain Treatment with Opiates (article – 2015) http://journalofethics.ama-assn.org/2015/06/pfor2-1506.html


Opioids Out, Cannabis In (1st page – 2016) http://jamanetwork.com/journals/jama/article-abstract/2576617


OVERVIEWS +*

Information for Health Care Professionals- Marihuana (marijuana, cannabis) dried plant for administration by ingestion or other means (Health Canada) (full – 2010)

Cannabis and Its Derivatives: Review of Medical Use (full – 2011)
http://www.jabfm.org/cgi/content/full/24/4/452

Is lipid signaling through cannabinoid 2 receptors part of a protective system? (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3062638/

Global Commission Drug Reports (links to full in various languages – 2011)
http://www.globalcommissionondrugs.org/Report

Scientific Opinion on the safety of hemp (Cannabis genus) for use as animal feed (full – 2011) (deceptive title)

The endocannabinoid system: an overview (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3303140/

The Therapeutic Potential of Cannabis and Cannabinoids (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3442177/

Blurred Boundaries: The Therapeutics and Politics of Medical Marijuana (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3538401/

2012 Division of Medicinal Chemistry Award Address: Trekking the Cannabinoid Road: A Personal Perspective. (full– 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4064474/


http://www.safeaccessnow.org/medical_cannabis_research_what_does_the_evidence_say

An Overview of Products and Bias in Research (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4604179/

Cannabis conundrum: Evidence of harm?: Opposition to marijuana use is often rooted in arguments about the drug's harm to children and adults, but the scientific evidence is seldom clear-cut (Part 1 of 2) (article – 2015)
Medical marijuana: Hints of headway? Despite a conflicted regulatory landscape, support for medical marijuana is growing amid increasing evidence of potential benefits (Part 2 of 2) (article – 2015)  

Endocannabinoids (article – 2015)  
http://emedicine.medscape.com/article/1361971-overview#showall

Marijuana Legalization and Decriminalization Overview (article – 2015)  

Cannabis in the United States (report – 2016)  
http://self.gutenberg.org/article/WHEBN0020566488/Cannabis%20in%20the%20United%20States

Cannabinoids in the Brain: New Vistas on an Old Dilemma (article – 2016)  
http://www.hindawi.com/journals/np/2016/9146713/

**PAIN**

Evidence for a Role of Endocannabinoids, Astrocytes and p38 Phosphorylation in the Resolution of Postoperative Pain (full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2878341/?tool=pmcentrez

Endocannabinoid involvement in endometriosis. (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2972363/

A cannabinoid 2 receptor agonist attenuates bone cancer-induced pain and bone loss. (full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2871326/

Anandamide suppresses pain initiation through a peripheral endocannabinoid mechanism (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3260554/?tool=pubmed

http://www.jpsmjournal.com/article/S0885-3924%2809%2900787-8/fulltext

Historical essay: An Arabic surgeon, Ibn al Quff’s (1232-1286) account on surgical pain relief. (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4173333/

Anandamide suppresses pain initiation through a peripheral endocannabinoid mechanism (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3260554/
NSAIDs, Opioids, Cannabinoids and the Control of Pain by the Central Nervous System. (full – 2010)  https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4033984/


The Role of Cannabinoid Receptors in the Descending Modulation of Pain (link to PDF - 2010)  http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.634.4866&rank=72


A catalytically silent FAAH-1 variant drives anandamide transport in neurons. (full – 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3245783/


Palmitoylethanolamide reduces granuloma-induced hyperalgesia by modulation of mast cell activation in rats (full – 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3034677/?tool=pubmed

Cannabinoid CB2 Receptors Contribute to Upregulation of β-endorphin in Inflamed Skin Tissues by Electroacupuncture (full – 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3281798/

Is lipid signaling through cannabinoid 2 receptors part of a protective system? (full – 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3062638/

Non-psychoactive cannabinoids modulate the descending pathway of antinociception in anaesthetized rats through several mechanisms of action  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3041249/

Increasing 2-arachidonoyl glycerol signaling in the periphery attenuates mechanical hyperalgesia in a model of bone cancer pain.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3104059/

Sex Differences in Cannabinoid 1 vs. Cannabinoid 2 Receptor-Selective Antagonism of Antinociception Produced by Δ9-Tetrahydrocannabinol and CP55,940 in the Rat  
(http://jpet.aspetjournals.org/content/340/3/787.full)

Pharmacological characterization of AM1710, a putative cannabinoid CB(2) agonist from the cannabialactone class: Antinociception without central nervous system side-effects.  
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3089437/pdf/nihms280008.pdf)

Cannabinoids for Treatment of Chronic Non-Cancer Pain; a Systematic Review of Randomized Trials.  
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3243008/)

Fatty acid amide hydrolase blockade attenuates the development of collagen-induced arthritis and related thermal hyperalgesia in mice.  
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3164582/)

Mouse models for studying pain in sickle disease: effects of strain, age, and acuteness.  
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3779783/)

High levels of N-palmitoylethanolamide and N-stearoylethanolamide in microdialysate samples from myalgic trapezius muscle in women.  
(http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0027257)

Cannabinoid potentiation of glycine receptors contributes to cannabis-induced analgesia.  
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3388539/)

Cannabinoids attenuate cancer pain and proliferation in a mouse model.  
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3099480/)

US Patent 7884133 B2  
Cannabinol derivatives such as 3-(2,6-dihydroxy-4-pentylphenyl)-4-prop-1-en-2-ylcyclohexene-1-carboxylic acid, used as as analgesics, antiinflammatory and anti diarrheal agents  
(https://www.google.com/patents/US7884133?dq=patent+7884133&hl=en&sa=X&ei=Ujb0U_6EEIW5ogSl84LYDg&ved=0CB4Q6AEwAA)

TRPA1 mediates spinal antinociception induced by acetaminophen and the cannabinoid Δ9-tetrahydrocannabinol.  
(http://www.nature.com/ncomms/journal/v2/n11/full/ncomms1559.html)

Role of Cannabinoids in Multiple Sclerosis   (link to PDF - 2011) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.659.8269&rank=26

Cannabis in Palliative Medicine: Improving Care and Reducing Opioid-Related Morbidity   (link to download - 2011) http://ajh.sagepub.com/content/28/5/297


Antinociception and sedation following intracerebroventricular administration of Δ⁹-


The antinociceptive potency of N-arachidonoyl-dopamine (NADA) and its interaction with endomorphin-1 at the spinal level.   (abst – 2011) http://www.sciencedirect.com/science/article/pii/S0091305711001626


Medical Marijuana: Clearing Away the Smoke   (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3358713/
The periaqueductal gray contributes to bidirectional enhancement of antinociception between morphine and cannabinoids. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3959123/

Spinal administration of the monoacylglycerol lipase inhibitor JZL184 produces robust inhibitory effects on nociceptive processing and the development of central sensitization in the rat (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3525864/

Differences in peripheral endocannabinoid modulation of scratching behavior in facial vs. spinally-innervated skin. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3394407/

"Redundancy" of endocannabinoid inactivation: new challenges and opportunities for pain control. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3382450/

Therapeutic modulation of cannabinoid lipid signaling: Metabolic profiling of a novel antinociceptive cannabinoid-2 receptor agonist. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3493696/

Clinical implications for cannabinoid use in the rheumatic diseases: potential for help or harm? (full - 2012)  

The effects of peptide and lipid endocannabinoids on arthritic pain at the spinal level. (full – 2012)  

Synergistic interaction of pregabalin with the synthetic cannabinoid WIN 55,212-2 mesylate in the hot-plate test in mice: an isobolographic analysis. (full – 2012)  
http://www.if-pan.krakow.pl/pjp/pdf/2012/3_723.pdf

Mechanistic and Pharmacological Characterization of PF-04457845: A Highly Potent and Selective Fatty Acid Amide Hydrolase Inhibitor That Reduces Inflammatory and Noninflammatory Pain (full – 2012)  
http://jpet.aspetjournals.org/content/338/1/114.full

Cannabidiol in humans-the quest for therapeutic targets. (full – 2012)  

The fatty acid amide hydrolase (FAAH) inhibitor PF-3845 acts in the nervous system to reverse LPS-induced tactile allodynia in mice (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423256/

The major brain endocannabinoid 2-AG controls neuropathic pain and mechanical hyperalgesia in patients with neuromyelitis optica. (full – 2012)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0071500
Neonatal DSP-4 Treatment Modifies Antinociceptive Effects of the CB(1) Receptor Agonist Methanandamide in Adult Rats. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3526738/  

The Therapeutic Potential of Cannabis and Cannabinoids (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3442177/  

Effects of gonadal hormones on the peripheral cannabinoid receptor 1 (CB1R) system under a myositis condition in rats. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3578305/  

Activation of Type 5 Metabotropic Glutamate Receptors and Diacylglycerol Lipase-α Initiates 2-Arachidonoylglycerol Formation and Endocannabinoid-Mediated Analgesia. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3652685/  

Cannabinoid type-1 receptor reduces pain and neurotoxicity produced by chemotherapy. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3366638/  

The maintenance of cisplatin- and paclitaxel-induced mechanical and cold allodynia is suppressed by cannabinoid CB2 receptor activation and independent of CXCR4 signaling in models of chemotherapy-induced peripheral neuropathy (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3502129/  

Endocannabinoid modulation of jejunal afferent responses to LPS (full – 2012)  

Therapeutic utility of palmitoylethanolamide in the treatment of neuropathic pain associated with various pathological conditions: a case series (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3500919/  

Targeting Fatty Acid Binding Protein (FABP) Anandamide Transporters – A Novel Strategy for Development of Anti-Inflammatory and Anti-Nociceptive Drugs (full – 2012)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0050968  

Mast cell-glia axis in neuroinflammation and therapeutic potential of the anandamide congener palmitoylethanolamide. (full - 2012)  
http://rstb.royalsocietypublishing.org/content/367/1607/3312.full  

Endocannabinoids in nervous system health and disease: the big picture in a nutshell (full – 2012)  
http://rstb.royalsocietypublishing.org/content/367/1607/3193.full  

Dynamic changes to the endocannabinoid system in models of chronic pain (full – 2012)  
http://rstb.royalsocietypublishing.org/content/367/1607/3300.full?sid=1569c370-cd5c-4358-89ff-857201f5e069  

Monoacylglycerol lipase – a target for drug development? (full – 2012)  
Intrathecal cannabilactone CB(2)R agonist, AM1710, controls pathological pain and restores basal cytokine levels. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3603341/

Cannabinoids suppress inflammatory and neuropathic pain by targeting α3 glycine receptors. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3371734/

Targeting the endocannabinoid system with cannabinoid receptor agonists: pharmacological strategies and therapeutic possibilities (full – 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3353.full?sid=1569c370-cd5c-4358-89ff-857201f5e069

Cannabinoids suppress inflammatory and neuropathic pain by targeting α3 glycine receptors (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3371734/


The interaction between intrathecal administration of low doses of palmitoylethanolamide and AM251 in formalin-induced pain related behavior and spinal cord IL1-β expression in rats. (abst – 2012) http://www.ncbi.nlm.nih.gov/pubmed/2201038


Electroacupuncture reduces the expression of proinflammatory cytokines in inflamed skin tissues through activation of cannabinoid CB2 receptors. (abst – 2012) http://www.ncbi.nlm.nih.gov/pubmed/22337285


Interactions between mu opioid receptor agonists and cannabinoid receptor agonists in rhesus monkeys: antinociception, drug discrimination, and drug self-administration. (full – 2013) http://jpet.aspetjournals.org/content/early/2013/03/27/jpet.113.204099.long


Role of endogenous cannabinoid system in the gut. (full - 2013)

Treatment of chronic regional pain syndrome type 1 with palmitoylethanolamide and topical ketamine cream: modulation of nonneuronal cells (full - 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3643547/

The monoacylglycerol lipase inhibitor JZL184 suppresses inflammatory pain in the mouse carrageenan model. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3717616/

Cannabinoid CB2 Receptors Regulate Central Sensitization and Pain Responses Associated with Osteoarthritis of the Knee Joint. (full – 2013)
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0080440

The cannabinoid CB2 receptor-selective phytocannabinoid beta-caryophyllene exerts analgesic effects in mouse models of inflammatory and neuropathic pain. (full – 2013)
http://www.europeanneuropsychopharmacology.com/article/S0924-977X(13)00302-7/fulltext

Analgesic effect of a mixed T-type channel inhibitor/CB2 receptor agonist (full – 2013) http://www.molecularpain.com/content/9/1/32

On the g-protein-coupled receptor heteromers and their allosteric receptor-receptor interactions in the central nervous system: focus on their role in pain modulation. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3730365/

The endocannabinoid system, cannabinoids, and pain (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3820295/


Amygdala activity contributes to the dissociative effect of cannabis on pain perception. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3549497/

Dissociation of the Pharmacological Effects of THC by mTOR Blockade. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3656376/


CB1 and CB2 Cannabinoid Receptor Agonists Induce Peripheral Antinociception by Activation of the Endogenous Noradrenergic System. (full – 2013) http://journals.lww.com/anesthesia-analgesia/Fulltext/2013/02000/CB1_and_CB2_Cannabinoid_Receptor_Agonists_Induce.31.aspx
Repeated Low Dose Administration of the Monoacylglycerol Lipase Inhibitor JZL184 Retains CB1 Receptor Mediated Antinociceptive and Gastroprotective Effects. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3657109/


The role of androgen receptor in transcriptional modulation of cannabinoid receptor type 1 gene in rat trigeminal ganglia. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3870904/

CB1 Cannabinoid Receptor Agonist Prevents NGF-Induced Sensitization of TRPV1 in Sensory Neurons. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3752375/


The Subjective Psychoactive Effects of Oral Dronabinol Studied in a Randomized, Controlled Crossover Clinical Trial For Pain. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4013220/

Targeting the cannabinoid system for pain relief? (full – 2013) http://www.e-aat.com/article/S1875-4597%2813%2900119-7/fulltext


Different Classes of CB2 Ligands Potentially Useful in the Treatment of Pain (link to PDF – 2013) http://www.eurekaselect.com/108399/article
The role of endocannabinoids in pain modulation. (abst – 2013)  

Interactions between mu opioid receptor agonists and cannabinoid receptor agonists CP55940 and WIN55212-2 in rhesus monkeys: evaluation of treatment- and abuse-related effects  (abst – 2013)  
http://www.fasebj.org/content/27/1_Supplement/1097.3.abstract?sid=b188b212-67f6-4544-827b-5e857c313f2e

Antinociceptive effects of the selective CB2 agonist MT178 in inflammatory and chronic rodent pain models. (abst – 2013)  

Involvement of the opioid and cannabinoid systems in pain control: new insights from knockout studies. (abst – 2013)  

Endocannabinoids: A unique opportunity to develop multitarget analgesics. (abst – 2013)  

Adolescent peer-rejection persistently alters pain perception and CB1 receptor expression in female rats. (abst – 2013)  

Effects of the cannabinoid 2 receptor-selective agonist GW405833 in assays of acute pain-stimulated and paindepressed behavior in rats (abst – 2013)  
http://www.fasebj.org/content/27/1_Supplement/886.9.abstract?sid=6740ccbc-1f93-4779-b975-a966a2a4ac87

Therapeutic Utility of Cannabinoid Receptor Type 2 (CB2) Selective Agonists (abst – 2013)  
http://pubs.acs.org/doi/abs/10.1021/jm4005626

Sex differences in anti-allodynic, anti-hyperalgesic and anti-edema effects of Δ9-tetrahydrocannabinol in the rat. (abst – 2013)  

CB1 and CB2 contribute to antinociceptive and anti-inflammatory effects of electroacupuncture on experimental arthritis of the rat temporomandibular joint. (abst – 2013)  

Administration of micronized palmitoylethanolamide (PEA)-transpolydatin in the treatment of chronic pelvic pain in women affected by endometriosis: preliminary results (abst – 2013)  

Pharmacology of Cannabinoid Receptor Agonists and a Cyclooxygenase-2 Inhibitor in Rat Bone Tumor Pain. (abst – 2013)  

Involvement of cannabinoid CB1 receptors in the antinociceptive effect of dipyrone. (abst – 2013)  
Palmitoylethanolamide and stearoylethanolamide levels in the interstitium of the trapezius muscle of women with chronic widespread pain and chronic neck-shoulder pain correlate with pain intensity and sensitivity. (abst – 2013)  

Anandamide produced by Ca2+-insensitive enzymes induces excitation in primary sensory neurons. (abst – 2013)  

Peripheral and Spinal Activation of Cannabinoid Receptors by Joint Mobilization Alleviates Postoperative Pain in Mice. (abst – 2013)  

The endocannabinoid system mediates aerobic exercise-induced antinociception in rats. (abst – 2013)  

The adjuvant use of N-palmitoylethanolamine and transpolydatin in the treatment of endometriotic pain. (abst – 2013)  

Endocannabinoids: a unique opportunity to develop multitarget analgesics. (abst – 2013)  

Postoperative Analgesia in the Jamaican Cannabis User (abst – 2013)  

New insights in mast cell modulation by palmitoylethanolamide. (abst – 2013)  

Non-neuronal cell modulation relieves neuropathic pain: efficacy of the endogenous lipid palmitoylethanolamide. (abst – 2013)  

Vestibulodynia: synergy between palmitoylethanolamide + transpolydatin and transcutaneous electrical nerve stimulation. (abst – 2013)  

Therapeutic Utility of Cannabinoid Receptor Type 2 (CB2) Selective Agonists (abst – 2013)  
http://pubs.acs.org/doi/abs/10.1021/jm4005626

A Systems Pharmacology Perspective on the Clinical Development of Fatty Acid Amide Hydrolase Inhibitors for Pain (full – 2014)  
http://www.nature.com/psp/journal/v3/n1/full/psp201372a.html

Inhibition of Fatty Acid binding proteins elevates brain anandamide levels and produces analgesia. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3976407/

The consequences of pain in early life: injury-induced plasticity in developing pain pathways. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4264936/
CB2 cannabinoid receptors as a therapeutic target - What does the future hold? (full – 2014) http://molpharm.aspetjournals.org/content/early/2014/08/08/mol.114.094649.long


Involvement of cannabinoid receptors in peripheral and spinal morphine analgesia (full – 2014) http://www.sciencedirect.com/science/article/pii/S0306452213010531

Prolonged monoacylglycerol lipase blockade causes equivalent CB1-receptor mediated adaptations in FAAH wild type and knockout mice. (full – 2014) http://jpet.aspetjournals.org/content/early/2014/05/21/jpet.114.212753.long

Heterogeneous presynaptic distribution of monoacylglycerol lipase, a multipotent regulator of nociceptive circuits in the mouse spinal cord. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3979158/

Prophylactic cannabinoid administration blocks the development of paclitaxel-induced neuropathic nociception during analgesic treatment and following cessation of drug delivery. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3998744/

R-flurbiprofen attenuates experimental autoimmune encephalomyelitis in mice. (full – 2014) http://embomolmed.embopress.org/content/6/11/1398.long

Impact of efficacy at the mu opioid receptor on antinociceptive effects of combinations of mu opioid receptor agonists and cannabinoid receptor agonists. (full – 2014) http://jpet.aspetjournals.org/content/early/2014/09/05/jpet.114.216648.long

Cannabinoid receptor 2 agonist attenuates pain related behavior in rats with chronic alcohol / high fat diet induced pancreatitis. (full – 2014) http://www.molecularpain.com/content/10/1/66

NMP-7 inhibits chronic inflammatory and neuropathic pain via block of Cav3.2 T-type calcium channels and activation of CB2 receptors. (full – 2014) http://www.molecularpain.com/content/pdf/1744-8069-10-77.pdf

Celastrol Attenuates Inflammatory and Neuropathic Pain Mediated by Cannabinoid Receptor Type 2. (full – 2014) http://www.mdpi.com/1422-0067/15/8/13637/htm

Tapping into the endocannabinoid system to ameliorate acute inflammatory flares and associated pain in mouse knee joints. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4201700/

CB1 augments mGluR5 function in medial prefrontal cortical neurons to inhibit amygdala hyperactivity in an arthritis pain model. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4288820/

Effects of the fatty acid amide hydrolase inhibitor URB597 on pain-stimulated and pain-depressed behavior in rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3963812/

TRP channel cannabinoid receptors in skin sensation, homeostasis, and inflammation. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4240254/


A lipid gate for the peripheral control of pain. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4228127/


The cannabinoid CB₂ receptor-selective phytocannabinoid beta-caryophyllene exerts analgesic effects in mouse models of inflammatory and neuropathic pain. (full – 2014) http://www.europeanneuropsychopharmacology.com/article/S0924-977X%2813%2900302-7/fulltext

Sex differences in antinociceptive tolerance to delta-9-tetrahydrocannabinol in the rat. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4161674/


Treatment with a Heme Oxygenase 1 Inducer Enhances the Antinociceptive Effects of µ-Opioid, δ-Opioid, and Cannabinoid 2 Receptors during Inflammatory Pain (full – 2014) http://jpet.aspetjournals.org/content/351/1/224.long

Endocannabinoid modulation by FAAH and MAGL within the analgesic circuitry of the periaqueductal grey. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4294036/

Activation of CB1 inhibits NGF-induced sensitization of TRPV1 in adult mouse afferent neurons. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4626020/

The analgesic effect of dipyrone in peripheral tissue involves two different mechanisms: Neuronal KATP channel opening and CB1 receptor activation. (full – 2014) http://www.sciencedirect.com/science/article/pii/S0014299914005561

Effects of Two Different Specific Neck Exercise Interventions on Palmitoylethanolamide and Stearoylthanolamide Concentrations in the Interstitium of the Trapezius Muscle in Women with Chronic Neck Shoulder Pain (full – 2014) http://painmedicine.oxfordjournals.org/content/15/8/1379.long


The Medicinal Cannabis Treatment Agreement: Providing Information to Chronic Pain Patients via a Written Document. (full – 2014)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4417655/

The Neurobiology of Cancer Pain (full – 2014)  
http://journals.sagepub.com/doi/full/10.1177/1073858414525828

Intraganglionic injection of a nitric oxide donator induces afferent mechanical sensitization that is attenuated by palmitoylethanolamide (full – 2014)  
http://journals.sagepub.com/doi/full/10.1177/0333102414521510

Cannabinoid Receptor Type 1 Antagonist, AM251, Attenuates Mechanical Allodynia and Thermal Hyperalgesia after Burn Injury (link to PDF – 2014)  
http://anesthesiology.pubs.asahq.org/article.aspx?articleid=1936541&resultClick=3

The Comprehensive Report on the Cannabis Extract Movement and the Use of Cannabis Extracts to Treat Diseases (link to download - 2014)  
http://www.slideshare.net/TheHempSolution/comprehensive-report-on-the-cannabis-extract-movement

http://www.safeaccessnow.org/medical_cannabis_research_what_does_the_evidence_say

The oral administration of trans-caryophyllene attenuates acute and chronic pain in mice (abst – 2014)  

Peripheral neurobiologic mechanisms of antiallodynic effect of warm water immersion therapy on persistent inflammatory pain. (abst – 2014)  

Involvement of the endocannabinoid system in osteoarthritis pain. (abst – 2014)  

Therapeutic Potential of Cannabinoids in Counteracting Chemotherapy-induced Adverse Effects: An Exploratory Review. (abst – 2014)  

Microinjection of 2-arachidonoyl glycerol into the rat ventral hippocampus differentially modulates contextually induced fear, depending on a persistent pain state. (abst – 2014)  

Neurotrophins, endocannabinoids and thermo-transient receptor potential: a threesome in pain signalling. (abst – 2014)  

Anandamide in primary sensory neurons: too much of a good thing? (abst – 2014)  


Analgiesic tolerance and cross-tolerance to the cannabinoid receptors ligands hemopressin, VD-hemopressin(α) and WIN55,212-2 at the supraspinal level in mice. (abst – 2014)  http://www.sciencedirect.com/science/article/pii/S0304394014005394

Effects of opioids and cannabinoids during chronic morphine treatment in rhesus monkeys (abst – 2014)  http://www.fasebj.org/content/28/1_Supplement/658.3.abstract?sid=467bb529-0ecc-4ddc-af27-3f56f520a102


Selective Monoacylglycerol Lipase Inhibitors: Antinociceptive versus Cannabimimetic Effects in Mice (full – 2015) http://jpet.aspetjournals.org/content/353/2/424.full.pdf+html
The Lysophosphatidylinositol Receptor GPR55 Modulates Pain Perception in the Periaqueductal Grey. (full – 2015)  
http://molpharm.aspetjournals.org/content/early/2015/05/12/mol.115.099333.long

Full Fatty Acid Amide Hydrolase Inhibition Combined with Partial Monoacylglycerol Lipase Inhibition: Augmented and Sustained Antinociceptive Effects with Reduced Cannabimimetic Side Effects in Mice (full – 2015)  
http://jpet.aspetjournals.org/content/354/2/111.full

Use of Prescription Pain Medications Among Medical Cannabis Patients: Comparisons of Pain Levels, Functioning, and Patterns of Alcohol and Other Drug Use. (full – 2015)  

Intrathecal cannabinoid-1 receptor agonist prevents referred hyperalgesia in acute acrolein-induced cystitis in rats. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4446380/

Cannabis in cancer care. (full – 2015)  
http://escholarship.org/uc/item/6367m6vj#page-1

Selective blockade of the hydrolysis of the endocannabinoid 2-arachidonoylglycerol impairs learning and memory performance while producing antinociceptive activity in rodents. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4284516/

Coadministration of indomethacin and minocycline attenuates established paclitaxel-induced neuropathic thermal hyperalgesia: Involvement of cannabinoid CB1 receptors. (full – 2015)  
http://www.nature.com/srep/2015/150618/srep10541/pdf/srep10541.pdf

A survey of cannabis (marijuana) use and self-reported benefit in men with chronic prostatitis/chronic pelvic pain syndrome. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4277530/

Cognitive Impairment Induced by Delta9-tetrahydrocannabinol Occurs through Heteromers between Cannabinoid CB1 and Serotonin 5-HT2A Receptors. (full – 2015)  
http://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.1002194

Cannabis and Cannabinoids–for health professionals (PDQ®) (full – 2015)  
http://www.cancer.gov/about-cancer/treatment/cam/hp/cannabis-pdq#section/all

http://www.ncbi.nlm.nih.gov/books/NBK65875/

http://ijnp.oxfordjournals.org/content/early/2015/09/04/ijnp.pyv095.long
The Cannabinoid Receptor CB1 Interacts with the WAVE1 Complex and Plays a Role in Actin Dynamics and Structural Plasticity in Neurons. (full – 2015) http://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.1002286


Prevalence and determinants of cannabinoid prescription for the management of chronic noncancer pain: a postal survey of physicians in the Abitibi-Témiscamingue region of Quebec (full – 2015) http://cmajopen.ca/content/3/2/E251.full?sid=139f05c1-b441-476b-99ff-addf8c918e1a


TRPV1 channel inhibition contributes to the antinociceptive effects of Croton macrostachyus extract in mice (full – 2015) http://bmccomplementalternmed.biomedcentral.com/articles/10.1186/s12906-015-0816-z


Prevalence and determinants of cannabinoid prescription for the management of chronic noncancer pain: a postal survey of physicians in the Abitibi-Témiscamingue region of Quebec (full – 2015) http://cmajopen.ca/content/3/2/E251.full?sid=139f05c1-b441-476b-99ff-addf8c918e1a

Endocannabinoids and acute pain after total knee arthroplasty. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4299927/

Cannabinoids in the management of chronic pain: a front line clinical perspective. (full – 2015)  

Role of the endocannabinoid system in the emotional manifestations of osteoarthritis pain. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4770330/

Patterns of Use of Medical Cannabis Among Israeli Cancer Patients: A Single Institution Experience (full – 2015)  
http://www.jpsmjournal.com/article/S0885-3924(14)00312-1/fulltext

Gonadal hormones do not alter the development of antinociceptive tolerance to delta-9-tetrahydrocannabinol in adult rats. (full - 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4430373/

Medical Marijuana for Treatment of Chronic Pain and Other Medical and Psychiatric Problems: A Clinical Review. (full – 2015)  

Medical Marijuana: Is the Cart Before the Horse? (full – 2015)  

Sequelae of Cannabis as Medicine (full – 2015)  
http://painmedicine.oxfordjournals.org/content/16/7/1447

Anandamide Depresses Glycinergic and GABAergic Inhibitory Transmissions in Adult Rat Substantia Gelatinosa Neurons (full – 2015)  
http://file.scirp.org/Html/1-2500613_54452.htm

Use of paracetamol during pregnancy and child neurological development. (full – 2015)  

Efficacy of Inhaled Cannabis on Painful Diabetic Neuropathy. (full – 2015)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5152762/

http://www.tandfonline.com/doi/full/10.1517/13543776.2015.1067683

Clinical perspectives on medical marijuana (cannabis) for neurologic disorders. (full – 2015)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4549715/

The modulatory effect of anandamide on nitroglycerin-induced sensitization in the trigeminal system of the rat (full – 2015)  
http://journals.sagepub.com/doi/full/10.1177/0333102415613766
Diet-induced changes in n-3 and n-6 derived endocannabinoids and reductions in headache pain and psychological distress. (full – 2015) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4522350/


Cannabinoid receptor-specific mechanisms to ameliorate pain in sickle cell anemia via inhibition of mast cell activation and neurogenic inflammation. (link to PDF – 2015) http://www.haematologica.org/content/early/2015/12/21/haematol.2015.136523.long


Veterans Health Administration Policy on Cannabis as an Adjunct to Pain Treatment with Opiates (article – 2015) http://journalofethics.ama-assn.org/2015/06/pfor2-1506.html


Cannabinoids for the Treatment of Chronic Non-Cancer Pain: An Updated Systematic Review of Randomized Controlled Trials. (abst – 2015)  

The Effectiveness of Cannabinoids in the Management of Chronic Nonmalignant Neuropathic Pain: A Systematic Review. (abst – 2015)  

Acute administration of a cannabinoid CB1 receptor antagonist impairs stress-induced antinociception in fish. (abst – 2015)  

Peripherally Restricted Cannabinoids for the Treatment of Pain. (abst – 2015)  

Profiles of medicinal cannabis patients attending compassion centers in rhode island. (abst – 2015)  

The role of cannabinoids in regulation of nausea and vomiting, and visceral pain. (abst – 2015)  

Cannabinoid CB1 receptors mediate the effects of dipyrone. (abst – 2015)  

Dissociation between the panicolytic effect of cannabidiol microinjected into the substantia nigra, pars reticulata, and fear-induced antinociception elicited by bicuculline administration in deep layers of the superior colliculus: The role of CB1-endocannabinoid receptor in the ventral mesencephalon. (abst – 2015)  

The role of the endocannabinoid system in pain. (abst – 2015)  

Emerging concepts of pain therapy based on neuronal mechanisms. (abst – 2015)  
http://link.springer.com/chapter/10.1007%2F978-3-662-46450-2_1


Lipid nanoparticles as an emerging platform for cannabinoid delivery: physicochemical optimization and biocompatibility. (abst – 2015)  

Signaling Mechanism of Cannabinoid Receptor-2 Activation-Induced β-Endorphin Release. (abst – 2015)  
Modulatory effects by CB1 receptors on rat spinal locomotor networks after sustained application of agonists or antagonists. (abst – 2015)

Retrospective Analysis of Tetrahydrocannabinol Based on 31 Neurologically Critically Ill Children (abst – 2015)

Cross-tolerance to cannabinoids in morphine-tolerant rhesus monkeys. (abst – 2015)

Microinjection of orexin-A into the rat locus coeruleus nucleus induces analgesia via cannabinoid type-1 receptors. (abst – 2015)

Clinical pharmacology of medical cannabinoids in chronic pain (abst – 2015)

Neuropeptide VF Enhances Cannabinoid Agonist WIN55,212-2-Induced Antinociception in Mice. (abst – 2015)

A 4-Week Pilot Study With the Cannabinoid Receptor Agonist Dronabinol and Its Effect on Metabolic Parameters in a Randomized Trial. (abst – 2015)


Chronic stress and peripheral pain: Evidence for distinct, region-specific changes in visceral and somatosensory pain regulatory pathways. (abst – 2015)

The Efficacy of Eslicarbazepine Acetate in Models of Trigeminal, Neuropathic, and Visceral Pain: The Involvement of 5-HT1B/1D Serotonergic and CB1/CB2 Cannabinoid Receptors. (abst – 2015)

A Double Whammy: Targeting Both Fatty Acid Amide Hydrolase (FAAH) and Cyclooxygenase (COX) To Treat Pain and Inflammation. (abst – 2015)


Receptome: Interactions between three pain-related receptors or the "Triumvirate" of cannabinoid, opioid and TRPV1 receptors. (abst – 2015)

The long-term functional consequences of acute infectious diarrhea. (abst – 2015)

Use of Cannabinoids for Spasticity and Pain Management in MS. (abst – 2015)

Low-Dose Cannabinoid Type 2 Receptor Agonist Attenuates Tolerance to Repeated Morphine Administration via Regulating μ-Opioid Receptor Expression in Walker 256 Tumor-Bearing Rats. (abst – 2015)

Effects of metabolites of the analgesic agent dipyrone (metamizol) on rostral ventromedial medulla cell activity in mice. (abst – 2015)

Signaling Mechanism of Cannabinoid Receptor-2 Activation-Induced β-Endorphin Release. (abst – 2015)

Analysis of the anti-allodynic effects of combination of a synthetic cannabinoid and a selective noradrenaline re-uptake inhibitor in nerve injury-induced neuropathic mice. (abst – 2015)

Combined Treatment with Morphine and Δ9-Tetrahydrocannabinol (THC) in Rhesus Monkeys: Antinociceptive Tolerance and Withdrawal (abst – 2015)


Efficacy and safety of nabiximols (Sativex®) on multiple sclerosis spasticity in a real-life Italian monocentric study (abst – 2015)

Intrathecal Injection of JWH-015 Attenuates Bone Cancer Pain Via Time-Dependent Modification of Pro-inflammatory Cytokines Expression and Astrocytes Activity in Spinal Cord (abst – 2015)


Is cannabis use associated with less opioid use among people who inject drugs? (abst – 2015)


A pro-nociceptive phenotype unmasked in mice lacking fatty-acid amide hydrolase (full – 2016) http://mpx.sagepub.com/content/12/1744806916649192.long


Cannabinoid 1 receptor knockout mice display cold allodynia, but enhanced recovery from spared-nerve injury-induced mechanical hypersensitivity. (full – 2016) http://mpx.sagepub.com/content/12/1744806916649191.long

Tolerance to the diuretic effects of cannabinoids and cross-tolerance to a kappa-opioid agonist in THC-treated mice. (full – 2016) http://jpet.aspetjournals.org/content/early/2016/05/26/jpet.116.232132.long


Chest pain, troponin rise, and ST-elevation in an adolescent boy following the use of the synthetic cannabis product K2. (full – 2016) http://www.annalspc.com/article.asp?issn=0974-2069;year=2016;volume=9;issue=1;spage=79;epage=81;aulast=Zaleta


Rescue of Impaired mGluR5-Driven Endocannabinoid Signaling Restores Prefrontal Cortical Output to Inhibit Pain in Arthritic Rats. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4719019/


A user’s guide to cannabinoid therapies in oncology (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5176373/


Marijuana Compounds: A Nonconventional Approach to Parkinson’s Disease Therapy (full – 2016) https://www.hindawi.com/journals/pd/2016/1279042/

Dissecting the signaling pathways involved in the crosstalk between mGlu5 and CB1 receptors. (link to PDF – 2016) http://molpharm.aspetjournals.org/content/early/2016/06/23/mol.116.104372.long

Getting into the weed: the role of the endocannabinoid system in the brain-gut axis. (link to full via ELSEVIER – 2016)  

Behavioral Characterization of Kappa Opioid Receptor Agonist Spiradoline and Cannabinoid Receptor Agonist CP55940 Mixtures in Rats. (link to download – 2016)  
http://jpet.aspetjournals.org/content/early/2016/11/30/jpet.116.235630.long

Using Medical Cannabis in an Oncology Practice (article – 2016)  
(needs free registration)  
http://www.cancernetwork.com/oncology-journal/using-medical-cannabis-oncology-practice/shash.CjT8fR9n.uWvEhNS.dpuf

Using Medical Cannabis in an Oncology Practice (1st page – 2016)  
http://www.cancernetwork.com/oncology-journal/using-medical-cannabis-oncology-practice/shash.CjT8fR9n.dpuf

Opioids Out, Cannabis In (1st page – 2016)  
http://jamanetwork.com/journals/jama/article-abstract/2576617

Cannabis and Cannabinoids. (1st page – 2016)  
http://jamanetwork.com/journals/jama/article-abstract/2592497

Effect of cannabinoids on CGRP release in the isolated rat lumbar spinal cord. (abst – 2016)  

Medical use of cannabis products: Lessons to be learned from Israel and Canada. (abst – 2016)  

Effect of JWH-250, JWH-073 and their interaction on "tetrad", sensorimotor, neurological and neurochemical responses in mice. (abst – 2016)  

Quantification of pain in sickle mice using facial expressions and body measurements (abst – 2016)  

CB1 Cannabinoid Agonist (WIN55,212-2) Within the Basolateral Amygdala Induced Sensitization to Morphine and Increased the Level of μ-Opioid Receptor and c-fos in the Nucleus Accumbens (abst – 2016)  

Efficacy, tolerability, and safety of cannabinoids in gastroenterology: A systematic review (abst – 2016)  


Medical cannabis: considerations for the anesthesiologist and pain physician.  

β-caryophyllene, a dietary cannabinoid, complexed with β-cyclodextrin produced anti-hyperalgesic effect involving the inhibition of Fos expression in superficial dorsal horn.  

(abst – 2016)  http://pubs.acs.org/doi/abs/10.1021/acs.jmedchem.5b01812

Stress induces analgesia via orexin 1 receptor-initiated endocannabinoid/CB1 signaling in the mouse periaqueductal gray.  

Cannabinoids: Medical implications.  

Nabilone for the Management of Pain.  

A Single Intrathecal or Intraperitoneal Injection of CB2 Receptor Agonist Attenuates Bone Cancer Pain and Induces a Time-Dependent Modification of GRK2.  

Role of cannabinoids in gastrointestinal mucosal defense and inflammation.  
(abst – 2016)  http://www.eurekaselect.com/140045/article

Combined treatment with morphine and Δ9-tetrahydrocannabinol (THC) in rhesus monkeys: antinociceptive tolerance and withdrawal.  

Effects of cannabinoid receptor activation by CP55,940 on normal bladder function and irritation-induced bladder overactivity in non-awake anaesthetised rats.  

Sickle Cell Crisis Complicated by Synthetic Cannabinoid Abuse: A Case Report.  
Cannabis in Pain Treatment: Clinical & Research Considerations. (abst – 2016)  

The Effect of Medicinal Cannabis on Pain and Quality of Life Outcomes in Chronic Pain: A Prospective Open-label Study. (abst – 2016)  

Rational Basis for the Use of Bergamot Essential Oil in Complementary Medicine to Treat Chronic Pain. (abst – 2016)  

Medical cannabis associated with decreased opiate medication use in retrospective cross-sectional survey of chronic pain patients. (abst – 2016)  

Mesoporous Silica Particles as a Multifunctional Delivery System for Pain Relief in Experimental Neuropathy. (abst – 2016)  

Piperidinyl thiazole isoxazolines: A new series of highly potent, slowly reversible FAAH inhibitors with analgesic properties. (abst – 2016)  

Adolescent social rejection alters pain processing in a CB1 receptor dependent manner. (abst – 2016)  

Pain, Cannabis Species, and Cannabis Use Disorders. (abst – 2016)  

MEDICAL CANNABIS (abst – 2016)  

Differences in Chloride Gradients Allow for Three Distinct Types of Synaptic Modulation by Endocannabinoids. (abst – 2016)  

TRPV1-FAAH-COX: The Couples Game in Pain Treatment. (abst – 2016)  

Pharmacologic and non-pharmacologic treatments for chronic pain in individuals with HIV: a systematic review. (abst – 2016)  

Transmission Pathways and Mediators as the Basis for Clinical Pharmacology of Pain. (abst – 2016)  

The multiplicity of spinal AA-5-HT anti-nociceptive action in a rat model of neuropathic pain. (abst – 2016)  


Changes in nociceptin/orphanin FQ levels in rat brain regions after acute and chronic cannabinoid treatment in conjunction with the development of antinociceptive tolerance. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27371029


Hemopressin peptides as modulators of the endocannabinoid system and their potential applications as therapeutic tools. (abst – 2016) http://www.eurekaselect.com/146167/article

Therapeutic potential of fatty acid amide hydrolase, monoacylglycerol lipase, and N-acylethanolamine acid amidase inhibitors. (abst – 2016) http://pubs.acs.org/doi/abs/10.1021/acs.jmedchem.6b00538


Cannabinoids in the Management of Musculoskeletal or Rheumatic Diseases.
Antagonism of cannabinoid receptor 1 attenuates the anti-inflammatory effects of electroacupuncture in a rodent model of migraine.  

Cannabinoid receptor ligand bias: implications in the central nervous system.  

The central cannabinoid receptor type-2 (CB2) and chronic pain.  

State of the evidence: Cannabinoids and cancer pain-A systematic review.  

The endocannabinoid hydrolysis inhibitor SA-57: Intrinsic antinociceptive effects, augmented morphine-induced antinoceptive, and attenuated heroin seeking behavior in mice.  

A novel inhibitor of endocannabinoid catabolic enzymes sheds light on behind the scene interplay between chronic pain, analgesic tolerance, and heroin dependence  

Attitudes to cannabis and patterns of use among Canadians with multiple sclerosis  

Pain in amyotrophic lateral sclerosis.  

Inflammation of peripheral tissues and injury to peripheral nerves induce differing effects in the expression of the calcium-sensitive anandamide-synthesising enzyme and related molecules in rat primary sensory neurons.  

Experts' Perspectives on the Role of Medical Marijuana in Oncology: a semi-structured interview study.  

Cannabis use in persons with traumatic spinal cord injury in Denmark.  
[link to PDF](https://www.medicaljournals.se/jrm/content/abstract/10.2340/16501977-2105)

Medical Cannabis in the Palliation of Malignant Wounds—A Case Report  
(article – 2017)  

Compensatory Activation of Cannabinoid CB2 Receptor Inhibition of GABA Release in the Rostral Ventromedial Medulla in Inflammatory Pain.  

Role of cannabis in digestive disorders  
(abst – 2017)
Antihyperalgesic effect of CB1 receptor activation involves the modulation of P2X3 receptor in the primary afferent neuron.  (abst – 2017)


**PANCREAS/ PANCREATITIS +**

Expression and function of cannabinoid receptors in mouse islets.  (full – 2010)

www.tandfonline.com/doi/pdf/10.4161/isl.2.5.12729

Cannabinoid Receptors are Coupled to Stimulation of Insulin Secretion from Mouse MIN6 β-cells  (full – 2010)  http://www.karger.com/Article/Pdf/320527

Cannabinoid agonist WIN55,212 in vitro inhibits interleukin-6 (IL-6) and monocyte chemo-attractant protein-1 (MCP-1) release by rat pancreatic acini and in vivo induces dual effects on the course of acute pancreatitis  (full – 2010)


G1359A polymorphism of the cannabinoid receptor gene (CNR1) and clinical results of biliopancreatic diversion  (link to PDF – 2010)

http://www.europeanreview.org/article/724

The role of small molecule GPR119 agonist, AS1535907, in glucose-stimulated insulin secretion and pancreatic β-cell function  (abst – 2010)


Cannabinoids inhibit insulin receptor signaling in pancreatic β-cells.  (full – 2011)


Gut feelings about the endocannabinoid system  (full – 2011)


The role of the endocannabinoid system in islet biology.  (abst – 2011)


The CB-1 Receptor Antagonist Rimonabant Modulates the Interaction Between Adipocytes and Pancreatic Beta-Cells in Vitro  (abst – 2011)


Cannabinoid HU210 Protects Isolated Rat Stomach against Impairment Caused by Serum of Rats with Experimental Acute Pancreatitis.  (full - 2012)

http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0052921
Activation of Cannabinoid Receptor 2 reduces inflammation in acute experimental pancreatitis via intra-acinar activation of p38 and MK2-dependent mechanisms. (full – 2012) http://ajpgi.physiology.org/content/304/2/G181


Islet protection and amelioration of diabetes type 2 in Psammomys obesus by treatment with cannabidiol (full - 2012) http://file.scirp.org/Html/17302.html

Effects of CP 55,940--agonist of CB1 cannabinoid receptors on ghrelin and somatostatin producing cells in the rat pancreas. (link to PDF – 2012) https://journals.viamedica.pl/folia_histochemica_cytobiologica/article/view/18705


Cannabinoid HU210 Protects Isolated Rat Stomach against Impairment Caused by Serum of Rats with Experimental Acute Pancreatitis (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0052921


Cannabinoid receptor 2 agonist attenuates pain related behavior in rats with chronic alcohol / high fat diet induced pancreatitis. (full – 2014) http://www.molecularpain.com/content/10/1/66


Activation of GPR40 attenuates chronic inflammation induced impact on pancreatic β-cells health and function. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4083038/

Oxidative stress and cannabinoid receptor expression in type-2 diabetic rat pancreas following treatment with Δ9-THC. (abst – 2014)

Role of the endocannabinoid system in obesity induced by neuropeptide Y overexpression in noradrenergic neurons. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4423197/

Cannabinoid CB1 receptors and mTORC1 signalling pathway interact to modulate glucose homeostasis. (full – 2015)
http://dmm.biologists.org/content/9/1/51.long

Role of the Endocannabinoid System in Diabetes and Diabetic Complications. (full – 2015)

Fetal endocannabinoids orchestrate the organization of pancreatic islet microarchitecture. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4653226/

Food Liking Enhances the Plasma Response of 2-Arachidonoylglycerol and of Pancreatic Polypeptide upon Modified Sham Feeding in Humans. (full – 2015)
http://jn.nutrition.org/content/145/9/2169.long

Cannabinoids Regulate Bcl-2 and Cyclin D2 Expression in Pancreatic β Cells. (full – 2016)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0150981

Endocannabinoid regulation of β-cell functions: Implications for glycemic control and diabetes. (full – 2016)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5045244/

Cannabinoid receptor subtype 2 (CB2R) agonist, GW405833 reduces agonist-induced Ca(2+) oscillations in mouse pancreatic acinar cells. (full – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4949433/

β-Caryophyllene, a natural sesquiterpene lactone attenuates hyperglycemia mediated oxidative and inflammatory stress in experimental diabetic rats (abst – 2016)

Efficacy, tolerability, and safety of cannabinoids in gastroenterology: A systematic review (abst – 2016)

GPR55-dependent stimulation of insulin secretion from isolated mouse and human islets of Langerhans. (abst – 2016)

Efficacy and Safety of Cannabidiol and Tetrahydrocannabivarin on Glycemic and Lipid Parameters in Patients With Type 2 Diabetes: A Randomized, Double-Blind, Placebo-Controlled, Parallel Group Pilot Study. (abst – 2016)


Developmental Role of Macrophage Cannabinoid-1 Receptor Signaling in Type-2 Diabetes (abst – 2017) http://diabetes.diabetesjournals.org/content/early/2017/01/11/db16-1199.long

**PARKINSON'S DISEASE**


Cannabinoid receptor agonist protects cultured dopaminergic neurons from the death by the proteasomal dysfunction. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3145842/?tool=pubmed

Is lipid signaling through cannabinoid 2 receptors part of a protective system? (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3062638/

Prospects for cannabinoid therapies in basal ganglia disorders. (full – 2011)
Symptom-relieving and neuroprotective effects of the phytoannabinoid D(9) -THCV in animal models of Parkinson's disease  

Cannabinoid Receptor Type 1 Protects Nigrostriatal Dopaminergic Neurons against MPTP Neurotoxicity by Inhibiting Microglial Activation.  

Cannabinoid receptor signalling in neurodegenerative diseases: a potential role for membrane fluidity disturbance.  

Endocannabinoid hydrolysis generates brain prostaglandins that promote neuroinflammation  

Therapeutic Potential of Cannabinoids in the Treatment of Neuroinflammation Associated with Parkinson's Disease  

Regional changes in type 1 cannabinoid receptor availability in Parkinson's disease in vivo  

Neuropathology of sporadic Parkinson disease before the appearance of parkinsonism: preclinical Parkinson disease.  

Homeostatic changes of the endocannabinoid system in Parkinson's disease.  

Increased vulnerability to 6-hydroxydopamine lesion and reduced development of dyskinesias in mice lacking CB1 cannabinoid receptors  

The dynamic nature of type 1 cannabinoid receptor (CB1) gene transcription  

The Therapeutic Potential of Cannabis and Cannabinoids  

Cannabinoid modulation of neuroinflammatory disorders.
Review article: The endocannabinoid system in normal and pathological brain ageing (full – 2012)
http://rstb.royalsocietypublishing.org/content/367/1607/3326.full?sid=161e7b36-5055-448b-962e-697c782e901d

The cannabinoid agonist WIN55212-2 decreases l-DOPA-induced PKA activation and dyskinetic behavior in 6-OHDA-treated rats. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3273613/

Cannabinoids and value-based decision making: implications for neurodegenerative disorders. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3496267/

The decrease of dopamine D(2)/D(3) receptor densities in the putamen and nucleus caudatus goes parallel with maintained levels of CB(1) cannabinoid receptors in Parkinson's disease: A preliminary autoradiographic study with the selective dopamine D(2)/D(3) antagonist [(3)H]raclopride and the novel CB(1) inverse agonist [(125)I]SD7015. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4180092/

Targeting the endocannabinoid system with cannabinoid receptor agonists: pharmacological strategies and therapeutic possibilities (full – 2012)
http://rstb.royalsocietypublishing.org/content/367/1607/3353.full?sid=1569c370-cd5c-4358-89ff-857201f5e069

Δ(9) -THC exerts a direct neuroprotective effect in a human cell culture model of Parkinson's disease. (abst – 2012)

Contribution of genetic variants to pain susceptibility in Parkinson disease.
(abst – 2012)

Evaluation of the role of striatal cannabinoid CB1 receptors on movement activity of parkinsonian rats induced by reserpine. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3730975/

Striatal Molecular Signature of Subchronic Subthalamic Nucleus High Frequency Stimulation in Parkinsonian Rat. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3617149/

Temporal changes of CB1 cannabinoid receptor in the basal ganglia as a possible structure-specific plasticity process in 6-OHDA lesioned rats. (full – 2013)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0076874

The Influence of Cannabinoids on Generic Traits of Neurodegeneration. (full – 2013)

Cannabidiol attenuates catalepsy induced by distinct pharmacological mechanisms via 5-HT1A receptors activation in mice. (full – 2013)
A spontaneous deletion of α-Synuclein is associated with an increase in CB1 mRNA transcript and receptor expression in the hippocampus and amygdala: Effects on alcohol consumption  (full – 2013)  [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3931467/]

Natural Cannabinoids Improve Dopamine Neurotransmission and Tau and Amyloid Pathology in a Mouse Model of Tauopathy.  (link to PDF – 2013)  [http://content.iospress.com/articles/journal-of-alzheimers-disease/jad130050]


Δ9-Tetrahydrocannabinol is protective through PPARγ dependent mitochondrial biogenesis in a cell culture model of Parkinson’s Disease  (abst – 2013)  [http://jnnp.bmj.com/content/84/11/e2.58.abstract]


L-DOPA-treatment in primates disrupts the expression of A(2A) adenosine-CB(1) cannabinoid-D(2) dopamine receptor heteromers in the caudate nucleus.  (abst – 2013)  [http://www.sciencedirect.com/science/article/pii/S0028390813005121]

The endocannabinoid system: a putative role in neurodegenerative diseases.  (full – 2014)  [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4070159/]

The CB1 cannabinoid receptor agonist reduces L-DOPA-induced motor fluctuation and ERK1/2 phosphorylation in 6-OHDA-lesioned rats.  (full – 2014)  [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4226453/]

Endocannabinoid signalling and the deteriorating brain.  (full – 2014)  [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4471876/]


Activation of PPAR gamma receptors reduces levodopa-induced dyskinesias in 6-OHDA-lesioned rats.  (full – 2014)  [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4323744/]


The monoacylglycerol lipase inhibitor JZL184 is neuroprotective and alters glial cell phenotype in the chronic MPTP mouse model. (abst – 2014) http://www.neurobiologyofaging.org/article/S0197-4580(14)00384-4/abstract


Coordinated Regulation of Synaptic Plasticity at Striatopallidal and Striatonigral Neurons Orchestrates Motor Control (full – 2015) http://www.cell.com/cell-reports/fulltext/S2211-1247%2815%2901163-8

Increasing levels of the endocannabinoid 2-AG is neuroprotective in the 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine mouse model of Parkinson's disease. (full – 2015) http://www.sciencedirect.com/science/article/pii/S0014488615300583
The therapeutic potential of cannabinoids for movement disorders. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4357541/

Endocannabinoid Signaling in Motivation, Reward, and Addiction: Influences on Mesocorticolimbic Dopamine Function. (full – 2015)


Cannabinoids in Neurodegenerative Disorders and Stroke/Brain Trauma: From Preclinical Models to Clinical Applications. (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4604192/

Detection of cannabinoid receptors CB1 and CB2 within basal ganglia output neurons in macaques: changes following experimental parkinsonism (link to PDF – 2015)
http://link.springer.com/article/10.1007/s00429-014-0823-8

Potential of the cannabinoid CB2 receptor as a pharmacological target against inflammation in Parkinson's disease. (abst – 2015)

The role of cannabinoids and leptin in neurological diseases. (abst – 2015)

Differential upregulation of the cannabinoid CB2 receptor in neurotoxic and inflammation-driven rat models of Parkinson's disease. (abst – 2015)


Cannabinoids for the Treatment of Movement Disorders. (abst – 2015)

Endocannabinoids and Neurodegenerative Disorders: Parkinson's Disease, Huntington's Chorea, Alzheimer's Disease, and Others. (abst – 2015)
http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_8

Dopamine-dependent CB1 receptor dysfunction at corticostriatal synapses in homozygous PINK1 knockout mice. (abst – 2015)
The neuroprotection of cannabidiol against MPP+-induced toxicity in PC12 cells involves trkA receptors, upregulation of axonal and synaptic proteins, neuritogenesis, and might be relevant to Parkinson's disease (abst – 2015) http://www.sciencedirect.com/science/article/pii/S0887233315300047


Modulation of cellular redox homeostasis by the endocannabinoid system. (full – 2016) http://rsob.royalsocietypublishing.org/content/6/4/150276

Delta-9-tetrahydrocannabinol protects against MPP+ toxicity in SH-SY5Y cells by restoring proteins involved in mitochondrial biogenesis. (full – 2016) http://www.impactjournals.com/oncotarget/index.php?journal=oncotarget&page=article&op=view&path%5B%5D=10314&path%5B%5D=32486


CB2 receptor activation prevents glial-derived neurotoxic mediator production, BBB leakage and peripheral immune cell infiltration and rescues dopamine neurons in the MPTP model of Parkinson's disease. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4892852/

Marijuana Compounds: A Nonconventional Approach to Parkinson’s Disease Therapy (full – 2016) https://www.hindawi.com/journals/pd/2016/1279042/

Targeting the cannabinoid CB2 receptor to attenuate the progression of motor deficits in LRRK2-transgenic mice. (abst – 2016) http://www.sciencedirect.com/science/article/pii/S1043661816302663


Endocannabinoid System in Neurological Disorders. (abst – 2016)

The bright side of psychoactive substances: cannabinoid-based drugs in motor diseases.

Co-administration of cannabidiol and capsazepine reduces L-DOPA-induced dyskinesia in mice: Possible mechanism of action. (abst – 2016)

Type-2 cannabinoid receptors in neurodegeneration. (abst – 2016)

Nature of the placebo and nocebo effect in relation to functional neurologic disorders. (abst – 2016)

Effect of medical cannabis on thermal quantitative measurements of pain in patients with Parkinson's disease. (abst – 2016)

Pros and cons of medical cannabis use by people with chronic brain disorders. (abst – 2016)

Effect of inhibition of fatty acid amide hydrolase on MPTP-induced dopaminergic neuronal damage. (abst – 2017)

PATENTS RELATED TO CANNABINOIDS +*-


US Patent 7884133 B2 Cannabidiol derivatives such as 3-(2,6-dihydroxy-4-pentylphenyl)-4-prop-1-en-2-ylcyclohexene-1-carboxylic acid, used as as analgesics, antiinflammatory and antidiarrheal agents (full – 2011)  https://www.google.com/patents/US7884133?dq=patent+7884133&hl=en&sa=X&ei=Ujb0U_6EEIW5ogSl84LYDg&ved=0CB4Q6AEwAA


NEW USE FOR CANNABINOIDS

Phytocannabinoids for use in the treatment of cancer

Controlled cannabis decarboxylation

Use of the phytocannabinoid cannabidivarin (cbdv) in the treatment of epilepsy

Process for production of delta-9-tetrahydrocannabinol

Transdermal delivery of cannabidiol

Food Products Derived From Cannabinoid-Administered Livestock

METHODS OF TREATING LIVER DISEASE
PERINATAL ASPHYXIA - brain damage due to a lack of oxygen during birth

Perinatal asphyxia results in altered expression of the hippocampal acylethanolamide/endocannabinoid signaling system associated to memory impairments in postweaned rats. (full – 2015)

New horizons for newborn brain protection: enhancing endogenous neuroprotection. (full – 2015) http://fn.bmj.com/content/100/6/F541.full.pdf+html

PERINATAL HYPOXIC-ISCHEMIC INJURY + – stroke in infants - also see STROKES

Synergistic neuroprotective therapies with hypothermia. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2892736/?tool=pubmed

The cannabinoid WIN55212-2 promotes neural repair after neonatal hypoxia-ischemia. (full - 2010) http://stroke.ahajournals.org/content/41/12/2956.long

Cannabidiol reduces brain damage and improves functional recovery after acute hypoxia-ischemia in newborn pigs.  
(full – 2011)  
http://www.nature.com/pr/journal/v70/n3/pdf/pr2011171a.pdf

The Cannabinoid WIN 55212-2 Mitigates Apoptosis and Mitochondrial Dysfunction After Hypoxia Ischemia.  
(abst – 2011)  

Cannabinoid as a neuroprotective strategy in perinatal hypoxic-ischemic injury.  
(abst - 2011)  

Therapeutic potential of the endocannabinoid system in perinatal asphyxia  
(abst – 2011)  

Reduced infarct size and accumulation of microglia in rats treated with WIN 55,212-2 after neonatal stroke.  
(full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3446851/

Cannabidiol administration after hypoxia-ischemia to newborn rats reduces long-term brain injury and restores neurobehavioral function.  
(abst – 2012)  

Endocannabinoids reduce cerebral damage after hypoxic-ischemic injury in perinatal rats.  
(abst – 2012)  

Using the endocannabinoid system as a neuroprotective strategy in perinatal hypoxic-ischemic brain injury.  
(full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4146074/

Mechanisms Of Cannabidiol Neuroprotection In Hypoxic-Ischemic Newborn Pigs: Role Of 5HT1A And CB2 Receptors.  
(abst – 2013)  

Mitochondrial JNK phosphorylation as a novel therapeutic target to inhibit neuroinflammation and apoptosis after neonatal ischemic brain damage.  
(abst – 2013)  

(full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4061885/

Cannabidiol: Pharmacology and potential therapeutic role in epilepsy and other neuropsychiatric disorders  
(full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4707667/

New horizons for newborn brain protection: enhancing endogenous neuroprotection.  
(full – 2015)  
http://fn.bmj.com/content/early/2015/06/10/archdischild-2014-306284.long
Cannabinoids in Neurodegenerative Disorders and Stroke/Brain Trauma: From Preclinical Models to Clinical Applications. (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4604192/

Effects of Cannabidiol and Hypothermia on Short-Term Brain Damage in New-Born Piglets after Acute Hypoxia-Ischemia. (full – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4940392/


Neuroprotective Effects of Cannabidiol In Hypoxic Ischemic Insult: The Therapeutic Window In Newborn Mice. (abst – 2016)

>PHANTOM LIMB SYNDROME + - see News section, also see NEUROPATHIC PAIN

PHARC/ POLYNEUROPATHY, HEARING LOSS, ATAXIA, RETINITIS PIGMENTOSA, and CATARACT SYNDROME

Mutations in ABHD12 cause the neurodegenerative disease PHARC: An inborn error of endocannabinoid metabolism. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2933347/?tool=pubmed

The serine hydrolases MAGL, ABHD6 and ABHD12 as guardians of 2-
arachidonoylglycerol signalling through cannabinoid receptors (full – 2011)

Targeted next-generation sequencing identifies a homozygous nonsense mutation in ABHD12, the gene underlying PHARC, in a family clinically diagnosed with Usher syndrome type 3 (full – 2012) http://www.ojrd.com/content/7/1/59

ABHD12 controls brain lysophosphatidylserine pathways that are deregulated in a murine model of the neurodegenerative disease PHARC. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3557017/

Discovery of triterpenoids as reversible inhibitors of α/β-hydrolase domain containing 12 (ABHD12).  (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4045134/


PLACEBO EFFECT


FAAH selectively influences placebo effects.  (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4222079/


The sweetest pill to swallow: How patient neurobiology can be harnessed to maximise placebo effects  (abst – 2014) http://www.sciencedirect.com/science/article/pii/S0149763413002157


Placebos: Honest fakery (article – 2016)
http://www.nature.com/nature/journal/v535/n7611_supp/full/535S14a.html

Placebo effect: clinical, biological and therapeutical involvements in depression

An Exploratory Human Laboratory Experiment Evaluating Vaporized Cannabis in the Treatment of Neuropathic Pain from Spinal Cord Injury and Disease

Nature of the placebo and nocebo effect in relation to functional neurologic disorders.

**POISONING – HEAVY METAL +**

Protective effect of cannabidiol against cadmium hepatotoxicity in rats. (abst – 2013)


Arsenic decreases antinociceptive activity of paracetamol: Possible involvement of serotonergic and endocannabinoid receptors (abst – 2014)

Effective Phytoextraction of Cadmium (Cd) with Increasing Concentration of Total Phenolics and Free Proline in Cannabis sativa (L) Plant Under Various Treatments of Fertilizers, Plant Growth Regulators and Sodium Salt. (abst – 2014)


Phytoaccumulation of Heavy Metals in Natural Vegetation at the Municipal Wastewater Site in Abbottabad, Pakistan. (abst – 2015)


Comparative effects of chlorpyrifos in wild type and cannabinoid Cb1 receptor knockout mice. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3205254/

Effect of Developmental Chlorpyrifos Exposure on Endocannabinoid Metabolizing Enzymes in the Brain of Juvenile Rats. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3143466/

Inhibition of recombinant human carboxylesterase 1 and 2 and monoacylglycerol lipase by chlorpyrifos oxon, paraoxon and methyl paraoxon. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3345137/


Induction of Endocannabinoid Levels in Juvenile Rat Brain Following Developmental Chlorpyrifos Exposure. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3954109/

Comparative effects of parathion and chlorpyrifos on extracellular endocannabinoid levels in rat hippocampus: Influence on cholinergic toxicity. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3831619/

Low Level Chlorpyrifos Exposure Increases Anandamide Accumulation in Juvenile Rat Brain in the Absence of Brain Cholinesterase Inhibition. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4071163/


The cannabinoid receptor antagonist AM251 increases paraoxon and chlorpyrifos oxon toxicity in rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4448943/


Muscarinic M1 receptor and cannabinoid CB1 receptor do not modulate paraoxon-induced seizures (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4317231/


**POISONING - OTHER**


**POISONING – PARAQUAT**


CB2 Receptor Activation Ameliorates the Proinflammatory Activity in Acute Lung Injury Induced by Paraquat. (full – 2014) http://www.hindawi.com/journals/bmri/2014/971750/

POISONING –ROtenone

Phytocannabinoids tetrahydrocannabinol and cannabidiol act against rotenone induced damages in murine cell cultures (abst – 2012)

The effect of cannabis on oxidative stress and neurodegeneration induced by intrastriatal rotenone injection in rats (abst – 2015)
http://link.springer.com/article/10.1007/s00580-014-1907-9

Cannabinoid Type 2 (CB2) Receptors Activation Protects against Oxidative Stress and Neuroinflammation Associated Dopaminergic Neurodegeneration in Rotenone Model of Parkinson's Disease. (full – 2016)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4969295/

POLLS and SURVEYS +

Survey on the use of psychotropic drugs by twelve military police units in the municipalities of Goiânia and Aparecida de Goiânia, state of Goiás, Brazil. (full – 2010)


Prevalence and co-use of marijuana among young adult cigarette smokers: An anonymous online national survey (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3507655/

Cannabis as a substitute for alcohol and other drugs: A dispensary-based survey of substitution effect in Canadian medical cannabis patients (full – 2012)
Prospectively Surveying Health-Related Quality of Life and Symptom Relief in a Lot-Based Sample of Medical Cannabis-Using Patients in Urban Washington State Reveals Managed Chronic Illness and Debility. (full – 2012) http://journals.sagepub.com/doi/full/10.1177/1049909112454215


Harms and benefits associated with psychoactive drugs: findings of an international survey of active drug users. (full– 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4107777/


The medicinal use of cannabis and cannabinoids--an international cross-sectional survey on administration forms. (abst – 2013) http://www.unboundmedicine.com/medline/citation/24175484/The_medicinal_use_of_cannabis_and_cannabinoids--an_international_cross-sectional_survey_on_administration_forms.


Medical marijuana laws and adolescent marijuana use in the USA from 1991 to 2014: results from annual, repeated cross-sectional surveys (full – 2015)

A survey of cannabis (marijuana) use and self-reported benefit in men with chronic prostatitis/chronic pelvic pain syndrome. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4277530/

Drugs and Crime Facts (full – 2015) http://www.bjs.gov/content/dcf/ptrpa.cfm


http://cmajopen.ca/content/3/2/E251.full?sid=139f05c1-b441-476b-99ff-addf8c918e1a

High School Students' Use of Electronic Cigarettes to Vaporize Cannabis. (full – 2015) http://pediatrics.aappublications.org/content/136/4/611.long


Perceived risk of regular cannabis use in the United States from 2002 to 2012: Differences by sex, age, and race/ethnicity. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4361312/

ADOLESCENTS’ USE OF MEDICAL MARIJUANA: A SECONDARY ANALYSIS OF MONITORING THE FUTURE DATA (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4514911/


Legal issues for German-speaking cannabis growers. Results from an online survey. (abst – 2015) http://www.ijdp.org/article/S0955-3959(15)00315-1/abstract


Adult attention deficit hyperactivity disorder symptom profiles and concurrent problems with alcohol and cannabis: sex differences in a representative, population survey.  

Genome-wide association study of lifetime cannabis use based on a large meta-analytic sample of 32 330 subjects from the International Cannabis Consortium.  

The Role of Medicinal Cannabis in Clinical Therapy: Pharmacists' Perspectives  
(full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0155113

Attitudes of Israeli Rheumatologists to the Use of Medical Cannabis as Therapy for Rheumatic Disorders.  
(full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4839539/

Drug abuse in slum population.  
(full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4776588/

Socio-Demographic Factors Associated with Psychoactive Substance Use among Commercial Motorcycle Operators in Kano, Nigeria  

(full – 2016) http://www.cdc.gov/mmwr/volumes/65/ss/ss6511a1.htm?s_cid=ss6511a1_e

Highlights of the 2011 Drug Abuse Warning Network (DAWN) Findings on Drug-Related Emergency Department Visits  

Effectiveness of the synthetic cannabinoids seminar.  
(full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5121273/

Minnesota Pharmacists and Medical Cannabis: A Survey of Knowledge, Concerns, and Interest Prior to Program Launch.  
(full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5083080/

Marijuana: Views on Its Medical Use Recorded at the Slovak Social Network.  

Opinions of Hospital Pharmacists in Canada Regarding Marijuana for Medical Purposes.  
(full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4853179/

American Attitudes toward Substance Use in the United States  

COMPREHENSIVE MEDICAL MARIJUANA PATIENT STUDY  
Working on a Standard Joint Unit: A pilot test.  
(link to download in English – 2016)  
Descargar el archivo PDF

The widening gender gap in marijuana use prevalence in the U.S. during a period of economic change, 2002-2014.  
(link via ELSEVIER to Full Text – 2016)  

Drug abuse in nursing students.  
(abst – 2016)  

Comparing adults who use cannabis medically with those who use recreationally: Results from a national sample.  
(abst – 2016)  

Traffic accidentability and risky driving behavior in young people in New Caledonia.  
Results of study  
(abst – 2016)  

Pediatric oncology providers and use of medical marijuana in children with cancer.  
(abst – 2016)  
http://meetinglibrary.asco.org/content/170798-176

New Zealand Health Survey 2012/13: characteristics of medicinal cannabis users.  
(abst – 2016)  

The association between cannabis use and anxiety disorders: Results from a population-based representative sample.  
(abst – 2016)  
http://www.ncbi.nlm.nih.gov/pubmed/26775742

A comparison between wastewater-based drug data and an illicit drug use survey in a selected community.  
(abst – 2016)  

Integrating environmental and self-report data to refine cannabis prevalence estimates in a major urban area of Switzerland.  
(abst – 2016)  

Early Survey Results from the Minnesota Medical Cannabis Program.  
(abst – 2016)  

Clinical trials of medicinal cannabis for appetite-related symptoms from advanced cancer: A survey of preferences, attitudes and beliefs among patients willing to consider participation.  
(abst – 2016)  

Risky substance use and peer pressure in Swiss young men: Test of moderation effects.  
(abst – 2016)  

The replicability of cannabis use prevalence estimates in the United States.  
(abst – 2016)  
Bongs and baby boomers: Trends in cannabis use among older Australians. (abst – 2016)  

Determining Cannabis Use Status From a Photograph: An Assessment of the "Jay-dar" in Neuropsychologists. (abst – 2016)  

Pseudo-Underage Assessment of Compliance With Identification Regulations at Retail Marijuana Outlets in Colorado. (abst – 2016)  

Survey of herbal cannabis (marijuana) use in rheumatology clinic attenders with a rheumatologist confirmed diagnosis. (abst – 2016)  
https://www.ncbi.nlm.nih.gov/pubmed/27842047


Attitudes to cannabis and patterns of use among Canadians with multiple sclerosis (abst – 2016)  

Demographic trends among older cannabis users in the United States, 2006–13 (abst – 2016)  

The association between cannabis use and motivation and intentions to quit tobacco within a sample of Australian socioeconomically disadvantaged smokers. (abst – 2016)  

Is the Legalization of Marijuana Associated With Its Use by Adolescents? (abst – 2016)  

Attitudes to cannabis and patterns of use among Canadians with multiple sclerosis (abst – 2016)  

Attitudes towards drug policies in Latin America: Results from a Latin-American Survey. (abst – 2016)  

Substance Use, Health, and Functioning Characteristics of Medical Marijuana Program Participants Compared to the General Adult Population in Ontario (Canada). (abst – 2016)  

Irish general practitioner attitudes toward decriminalisation and medical use of cannabis: results from a national survey (full – 2017)  

Cannabis use in persons with traumatic spinal cord injury in Denmark. (link to PDF- 2017)


**POLLUTION /ENVIRONMENT** - also see Drug Testing – Wastewater


Patterns of Natural and Human-Caused Mortality Factors of a Rare Forest Carnivore, the Fisher (Pekania pennanti) in California. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4633177/


The increase of cannabis use may indirectly affect the health status of a freshwater species. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27496769


>**PORPHYRIA** + see News section

**POST-OPERATIVE PAIN** +

Evidence for a Role of Endocannabinoids, Astrocytes and p38 Phosphorylation in the Resolution of Postoperative Pain (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2878341/?tool=pmcentrez


The prescription of medical cannabis by a transitional pain service to wean a patient with complex pain from opioid use following liver transplantation: a case report.


POST POLIO SYNDROME

Post-Polio Syndrome and Marijuana Information: Treat Post-Polio Syndrome With Cannabis

Medical Marijuana Coverage Still Lost in the Legal Weeds
(article – 2013) http://www.managedcaremag.com/linkout/2013/1/23

POST-TRAUMATIC STRESS DISORDER/ FEAR EXTINCTION

The use of Cannabidiol (CBD) and Meditation to reduce Binge Drinking, Anxiety and to improve Emotional Regulation in Long Term Behavior Therapy
(case report – undated) http://cannabisclinicians.org/view-all-case-reports/entry/437/?pagenum=2

PTSD contributes to teen and young adult cannabis use disorders.
(full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2784238/?tool=pubmed

Endocannabinoids and psychiatric disorders: the road ahead

Cannabinoids modulate hippocampal memory and plasticity.

The relationship between substance use and posttraumatic stress disorder in a methadone maintenance treatment program.
The role of cannabinoids in modulating emotional and non-emotional memory processes in the hippocampus. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3124830/?tool=pubmed


Anti-Aversive Effects of Cannabidiol on Innate Fear-Induced Behaviors Evoked by an Ethological Model of Panic Attacks Based on a Prey vs the Wild Snake Epicrates cenchria cenchria Confrontation Paradigm. (full - 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3242302/


Cannabino...
Bimodal Control of Fear-Coping Strategies by CB1 Cannabinoid Receptors. (full – 2012)  http://www.jneurosci.org/content/32/21/7109.long


Failure to extinguish fear and genetic variability in the human cannabinoid receptor 1.  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3565211/


Cannabinoid CB1 receptor deficiency increases contextual fear memory under highly aversive conditions and long-term potentiation in vivo.  (abst – 2012)  http://www.sciencedirect.com/science/article/pii/S1074742712000585


Cannabinoid type 1 receptors and transient receptor potential vanilloid type 1 channels in fear and anxiety—two sides of one coin?  (abst – 2012)  http://www.ncbi.nlm.nih.gov/pubmed/21906661


Cannabidiol injected into the bed nucleus of the stria terminalis reduces the expression of contextual fear conditioning via 5-HT1A receptors. (abst – 2012) http://www.ncbi.nlm.nih.gov/pubmed/21148020


Recent Progress in Understanding the Pathophysiology of Post-Traumatic Stress Disorder: Implications for Targeted Pharmacological Treatment. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3629370/

Translational evidence for the involvement of the endocannabinoid system in stress-related psychiatric illnesses. (full – 2013) http://www.biolmooodanxietydisord.com/content/3/1/19

Cannabinoid facilitation of fear extinction memory recall in humans. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3445738/

Involvement of prelimbic medial prefrontal cortex in panic-like elaborated defensive behaviour and innate fear-induced antinociception elicited by GABAA receptor blockade
in the dorsomedial and ventromedial hypothalamic nuclei: role of the endocannabinoid CB1 receptor.  
(full – 2013)  
http://ijnp.oxfordjournals.org/content/16/8/1781.long

The endocannabinoid system and emotional processing: A pharmacological fMRI study with Δ9-tetrahydrocannabinol  
(full – 2013)  
http://www.europeanneuropsychopharmacology.com/article/S0924-977X%2813%2900195-8/fulltext

Reductions in circulating endocannabinoid levels in individuals with post-traumatic stress disorder following exposure to the world trade center attacks.  
(full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3870889/

Amygdala FAAH and anandamide: mediating protection and recovery from stress.  
(full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4169112/

Using cannabis to help you sleep: Heightened frequency of medical cannabis use among those with PTSD.  
(full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3929256/

Toward Rational Pharmacotherapy for Posttraumatic Stress Disorder: Reprise  
(editorial – 2013)  

Correspondence (letter to the editor): Cannabis Therapy  
(letter – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3601285/

The endocannabinoid system provides an avenue for evidence-based treatment development for PTSD.  
(1st page – 2013)  

A current overview of cannabinoids and glucocorticoids in facilitating extinction of aversive memories: Potential extinction enhancers.  
(abst – 2013)  

Predator threat stress promotes long lasting anxiety-like behaviors and modulates synaptophysin and CB1 receptors expression in brain areas associated with PTSD symptoms.  
(abst – 2013)  

Cannabidiol enhances consolidation of explicit fear extinction in humans.  
(abst – 2013)  

Cannabinoids and traumatic stress modulation of contextual fear extinction and GR expression in the amygdala-hippocampal-prefrontal circuit.  
(abst – 2013)  

Infusion of cannabidiol into infralimbic cortex facilitates fear extinction via CB1 receptors.  
(abst – 2013)  

Cannabinoids and glucocorticoids modulate emotional memory after stress.
Effects of endocannabinoid and endovanilloid systems on aversive memory extinction.

Fatty acid ethanolamide levels are altered in borderline personality and complex posttraumatic stress disorders.

Posttraumatic stress disorder and cannabis use characteristics among military veterans with cannabis dependence.

PTSD Symptom Reports of Patients Evaluated for the New Mexico Medical Cannabis Program

Impaired Fear Memory Specificity Associated with Deficient Endocannabinoid-Dependent Long-Term Plasticity.

Translational evidence for a role of endocannabinoids in the etiology and treatment of posttraumatic stress disorder.

Cannabinoid Modulation of Amygdala Subregion Functional Connectivity to Social Signals of Threat.

Cannabinoid Transmission in the Prefrontal Cortex Bi-Phasically Controls Emotional Memory Formation via Functional Interactions with the Ventral Tegmental Area.

Use of a Synthetic Cannabinoid in a Correctional Population for Posttraumatic Stress Disorder-Related Insomnia and Nightmares, Chronic Pain, Harm Reduction, and Other Indications: A Retrospective Evaluation.

Stress regulates endocannabinoid-CB1 receptor signaling.

Drug discovery strategies that focus on the endocannabinoid signaling system in psychiatric disease.

Cannabinoid Type 1 Receptor Availability in the Amygdala Mediates Threat Processing in Trauma Survivors.
Positive posttraumatic stress disorder screens among first-time medical cannabis patients: Prevalence and association with other substance use.  (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4299455/

Interaction between the Cholecystokinin and Endogenous Cannabinoid Systems in Cued Fear Expression and Extinction Retention.  (full – 2014)
http://www.nature.com/npp/journal/v40/n3/full/npp2014225a.html

Toward a translational approach to targeting the endocannabinoid system in posttraumatic stress disorder: A critical review of preclinical research.  (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4465924/

Cannabinoid modulation of prefrontal-limbic activation during fear extinction learning and recall in humans  (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3960373/

Endocannabinoid Signaling within the Basolateral Amygdala Integrates Multiple Stress Hormone Effects on Memory Consolidation.  (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4397407/

Modulation of Fear Memory by Dietary Polyunsaturated Fatty Acids via Cannabinoid Receptors  (full – 2014)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4059893/

Cannabinoids Prevent the Effects of a Footshock Followed by Situational Reminders on Emotional Processing.  (link to PDF – 2014)
http://www.nature.com/npp/journal/v39/n12/full/npp2014132a.html

Modulation of the extinction of fear learning.  (abst – 2014)

When time stands still: an integrative review on the role of chronodisruption in posttraumatic stress disorder.  (abst – 2014)

Marijuana, expectancies, and post-traumatic stress symptoms: a preliminary investigation.  (abst – 2014)

The interaction between serotonergic and cannabinoergic modulations involved in the fear extinction  (abst – 2014)

Preliminary, open-label, pilot study of add-on oral δ(9)-tetrahydrocannabinol in chronic post-traumatic stress disorder.  (abst – 2014)

The learning of fear extinction.  (abst – 2014)

PTSD Growth and Substance Abuse Among a College Student Community: Coping Strategies after 2009 L’aquila Earthquake  (full – 2015)
Increased contextual fear conditioning in iNOS knockout mice: additional evidence for the involvement of nitric oxide in stress-related disorders and contribution of the endocannabinoid system. (full – 2015)
http://ijnp.oxfordjournals.org/content/18/8/pyv005.long

http://www.psyneuen-journal.com/article/S0306-4530%2814%2900413-2/fulltext

Metabolite profiling in posttraumatic stress disorder. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4367823/

Targeting the endocannabinoid system to treat anxiety-related disorders. (full – 2015)


Narrative review of the safety and efficacy of marijuana for the treatment of commonly state-approved medical and psychiatric disorders (full – 2015)

Brain transcriptome profiles in mouse model simulating features of post-traumatic stress disorder (full – 2015)

Metabolite profiling in posttraumatic stress disorder (full – 2015)

The endocannabinoid system in guarding against fear, anxiety and stress. (full – 2015)
http://www.europeanneuropsychopharmacology.com/article/S0924-977X(15)00364-8/fulltext

Training-Associated Emotional Arousal Shapes Endocannabinoid Modulation of Spatial Memory Retrieval in Rats. (full – 2015)
http://www.jneurosci.org/content/35/41/13962.long

Cannabidiol as a Potential Treatment for Anxiety Disorders (full – 2015)


Anxiety, Stress, and Fear Response in Mice with Reduced Endocannabinoid Levels.
Role of the endocannabinoid 2-arachidonoylglycerol in aversive responses mediated by the dorsolateral periaqueductal grey. (link to PDF – 2015)
http://www.europeanneuropsychopharmacology.com/article/S0924-977X(15)00364-8/abstract

Investigational drugs under development for the treatment of PTSD (abst – 2015)

Δ9-Tetrahydrocannabinol alone and combined with cannabidiol mitigate fear memory through reconsolidation disruption. (abst – 2015)

2-AG promotes the expression of conditioned fear via cannabinoid receptor type 1 on GABAergic neurons (abst – 2015)

Dissociation between the panicolytic effect of cannabidiol microinjected into the substantia nigra, pars reticulata, and fear-induced antinociception elicited by bicuculline administration in deep layers of the superior colliculus: The role of CB1-endocannabinoid receptor in the ventral mesencephalon. (abst – 2015)

The influence of cannabinoids on learning and memory processes of the dorsal striatum. (abst – 2015)

Use and effects of cannabinoids in military veterans with posttraumatic stress disorder. (abst – 2015)

Providing a food reward reduces inhibitory avoidance learning in zebrafish. (abst – 2015)

Endocannabinoids and Mental Disorders. (abst – 2015)
http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_8

Modulation of cannabinoid signaling by amygdala α2-adrenergic system in fear conditioning. (abst – 2015)

Dorsolateral periaqueductal gray matter CB1 and TRPV1 receptors exert opposite modulation on expression of contextual fear conditioning (abst – 2015)

Marijuana dependence moderates the effect of posttraumatic stress disorder on trauma cue reactivity in substance dependent patients (abst – 2015)
Being the Victim of Violence during a Date predicts Next-Day Cannabis Use among Female College Students.  (abst – 2015)  http://www.ncbi.nlm.nih.gov/pubmed/26449928


CB2 Cannabinoid Receptor Knockout in Mice Impairs Contextual Long-Term Memory and Enhances Spatial Working Memory  (full – 2016)  http://www.hindawi.com/journals/np/2016/9817089/


Impaired Ethanol-Induced Sensitization and Decreased Cannabinoid Receptor-1 in a Model of Posttraumatic Stress Disorder.  (full – 2016)  http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0155759#pone.0155759.ref024

Cyclooxygenase-2 inhibition reduces stress-induced affective pathology.  (full – 2016)  https://elifesciences.org/content/5/e14137


Modulation of Long-Term Potentiation of Cortico-Amygdala Synaptic Responses and Auditory Fear Memory by Dietary Polyunsaturated Fatty Acid.  (full – 2016)  https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4993868/


Medical use of cannabis products: Lessons to be learned from Israel and Canada. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/26767992


Endocannabinoid concentrations in hair are associated with PTSD symptom severity. (abst – 2016) http://www.psyneuen-journal.com/article/S0306-4530%2816%2930040-3/abstract


CB1 cannabinoid receptor-mediated anandamide signalling reduces the defensive behaviour evoked through GABAA receptor blockade in the dorsomedial division of the ventromedial hypothalamus. (abst – 2016) http://www.sciencedirect.com/science/article/pii/S0028390816301393


Dorsal hippocampus cannabinoid type 1 receptors modulate the expression of contextual fear conditioning in rats: Involvement of local glutamatergic/nitricergic and GABAergic neurotransmissions. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27591981


**POTENCY+***


Cannabis Strain Explorer (web page - 2012) http://www.leafly.com/explore


Cannabis, a complex plant: different compounds and different effects on individuals (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3736954/


Just say 'know': how do cannabinoid concentrations influence users' estimates of cannabis potency and the amount they roll in joints? (abst – 2014)  

Acute subjective effects after smoking joints containing up to 69 mg Δ9-tetrahydrocannabinol in recreational users: a randomized, crossover clinical trial. (abst – 2014)  

Selective Monoacylglycerol Lipase Inhibitors: Antinociceptive versus Cannabimimetic Effects in Mice (full – 2015)  
http://jpet.aspetjournals.org/content/353/2/424.full.pdf+html

No smoke, no fire: What the initial literature suggests regarding vapourized cannabis and respiratory risk (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4456813/

Δ9-Tetrahydrocannabinol-like effects of novel synthetic cannabinoids found on the gray market. (full – 2015)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4497846/

Marijuana gears up for production high in US labs (article – 2015)  
http://www.nature.com/news/marijuana-gears-up-for-production-high-in-us-labs-1.17129

Cannabinoid Dose and Label Accuracy in Edible Medical Cannabis Products (letter – 2015)  

Potency 101 (printable card set – 2015)  
http://greenstyleconsulting.com/potency-101/

Metabolism of classical cannabinoids and the synthetic cannabinoid JWH-018. (abst – 2015)  


Effect of induced polyploidy on some biochemical parameters in Cannabis sativa L. (abst – 2015)  

Evaluation of elemental profiling methods, including laser-induced breakdown spectroscopy (LIBS), for the differentiation of Cannabis plant material grown in different nutrient solutions. (abst – 2015)  

(1)H NMR and HPLC/DAD for Cannabis sativa L. chemotype distinction, extract profiling and specification. (abst – 2015)  


Legal regulated markets have the potential to reduce population levels of harm associated with cannabis use (full – 2016)  http://onlinelibrary.wiley.com/doi/10.1111/add.13390/full


Drug vaping applied to cannabis: Is "Cannavaping" a therapeutic alternative to marijuana? (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4881394/


Dietary fats and pharmaceutical lipid excipients increase systemic exposure to orally administered cannabis and cannabis-based medicines (full – 2016)  http://www.ajtr.org/files/ajtr0030292.pdf

Traditional marijuana, high-potency cannabis and synthetic cannabinoids: increasing risk for psychosis. (full – 2016)  https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5032490/


Analysis of a commercial marijuana e-cigarette formulation. (abst – 2016)  (This article has a delayed release and will be available in PMC on June 1, 2017)  https://www.ncbi.nlm.nih.gov/pubmed/27059691


Limitations to the Dutch cannabis toleration policy: Assumptions underlying the reclassification of cannabis above 15% THC. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27471078


PRADER WILLI SYNDROME


Targeting the endocannabinoid/CB1 receptor system for treating obesity in Prader-Willi syndrome. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5123200/

PREGNANCY/ PRENATAL EXPOSURE ++ - also see PERINATAL HYPOXIC-ISCHEMIC INJURY, CHILDREN

N-Acylethanolamine Levels and Expression of Their Metabolizing Enzymes during Pregnancy (full – 2010) http://endo.endojournals.org/content/151/8/3965.full


Tocolytic Effect of Δ9-Tetrahydrocannabinol in Mice Model of Lipopolysaccharide—Induced Preterm Delivery: Role of Nitric Oxide (link to download - 2010) http://journals.sagepub.com/doi/abs/10.1177/1933719109358456


A common variation in the cannabinoid 1 receptor (CNR1) gene is associated with pre-eclampsia in the Central European population. (abst - 2010) http://www.ncbi.nlm.nih.gov/pubmed/21129839


Sex difference in cell proliferation in developing rat amygdala mediated by endocannabinoids has implications for social behavior (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2996668/?tool=pubmed

The role of sex steroid hormones, cytokines and the endocannabinoid system in female fertility. (full – 2011) http://humupd.oxfordjournals.org/content/17/3/347.long


Modulation of the novel cannabinoid receptor - GPR55 - during rat fetoplacental development (full – 2011) http://www.placentajournal.org/article/S0143-4004%2811%2900110-X/fulltext


Uncovering a role for endocannabinoid signaling in autophagy in preimplantation mouse embryos (full – 2012) http://molehr.oxfordjournals.org/content/19/2/93.full


Pharmacological characterization of the peripheral FAAH inhibitor URB937 in female rodents: interaction with the Abcg2 transporter in the blood-placenta barrier. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3525865/

Endocannabinoids via CB₁ receptors act as neurogenic niche cues during cortical development. (full – 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3229.long

Cannabinoid modulation of mother-infant interaction: is it just about milk?  
(abst – 2012)  

(full – 2013)  

Detection of In Utero Marijuana Exposure by GC–MS, Ultra-Sensitive ELISA and LC–TOF–MS Using Umbilical Cord Tissue  
(full – 2013)  
http://jat.oxfordjournals.org/content/early/2013/07/09/jat.bkt052.full

The role of endocannabinoids in pregnancy.  
(full – 2013)  
http://www.reproduction-online.org/content/early/2013/06/06/REP-12-0508.long

Embryonic diapause in humans: time to consider?  
(full – 2013)  
http://www.rbej.com/content/11/1/92

The Effect of Mifepristone (RU486) on the Endocannabinoid System in Human Plasma and First Trimester Trophoblast of Women undergoing Termination of Pregnancy.  
(full – 2013)  

Synthetic cannabinoids and potential reproductive consequences.  
(full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3823745/

Differential expression of endocannabinoid system in normal and preeclamptic placentas: effects on nitric oxide synthesis.  
(full - 2013)  
http://www.placentajournal.org/article/S0143-4004%2812%2900393-1/fulltext

Of mice and (wo)men: factors influencing successful implantation including endocannabinoids.  
(full – 2013)  
http://humupd.oxfordjournals.org/content/20/3/415.long

Endocannabinoid crosstalk between placenta and maternal fat in a baboon model (Papio spp.) of obesity.  
(full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3827983/

Long-term consequences of perinatal fatty acid amino hydrolase inhibition  
(full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3954482/

Endocannabinoid crosstalk between placenta and maternal fat in a baboon model (Papio spp.) of obesity  
(full – 2013)  
http://www.placentajournal.org/article/S0143-4004%2813%2900692-9/fulltext

Differential expression of endocannabinoid system in normal and preeclamptic placentas: Effects on nitric oxide synthesis  
(full – 2013)  
http://www.placentajournal.org/article/S0143-4004%2812%2900393-1/fulltext
Detection of the endocannabinoid metabolome in human plasma and breast milk
(abst – 2013)  http://www.fasebj.org/content/27/1_Supplement/45.8.short

Endocannabinoid receptor (CB1R) deficiency affects maternal care and alters the dam's hippocampal oxytocin receptor and BDNF expression  (abst – 2013)


Plasma Anandamide and Related N-acylethanolamide Levels are not Elevated in Pregancies Complicated by Hyperemesis Gravidarum.  (abst – 2013)

Increased placental expression of cannabinoid receptor 1 in preeclampsia: an observational study.  (full – 2014)

The endocannabinoid anandamide induces apoptosis in cytotrophoblast cells: Involvement of both mitochondrial and death receptor pathways.  (full – 2014)
http://www.placentajournal.org/article/S0143-4004%2814%2900823-6/fulltext

Endocannabinoids as biomarkers of human reproduction.  (full – 2014)
http://humupd.oxfordjournals.org/content/20/4/501.long

Endocannabinoid Regulation in Human Endometrium Across the Menstrual Cycle.  (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4527420/

Fatty Acid Binding Protein-4 is expressed in the mouse placental labyrinth, yet is dispensable for placental triglyceride accumulation and fetal growth (full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4170794/

Increased angiotensin II contraction of the uterine artery at early gestation in a transgenic model of hypertensive pregnancy is reduced by inhibition of endocannabinoid hydrolysis.  (full – 2014)
http://hyper.ahajournals.org/content/64/3/619.long


Activity of anandamide (AEA) metabolic enzymes in rat placental bed.  (abst – 2014)

Local uterine Ang-(1-7) infusion augments the expression of cannabinoid receptors and differentially alters endocannabinoid metabolizing enzymes in the decidualized uterus of pseudopregnant rats. (full – 2015) http://www.rbej.com/content/13/1/5


Decreased circulating anandamide levels in preeclampsia. (full – 2015) http://www.nature.com/hr/journal/v38/n6/full/hr201520a.html

Lipid mediator profile in vernix caseosa reflects skin barrier development (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4629127/


Dynamics of expression and localization of the cannabinoid system in granulosa cells during oocyte nuclear maturation. (full – 2015) http://www.fertstert.org/article/S0015-0282(15)00440-9/fulltext

Role of the endocannabinoid system in the mechanisms involved in the LPS-induced preterm labor. (full – 2015) http://www.reproduction-online.org/content/150/6/463.long

Progesterone and anandamide in pregnancy loss (full – 2015) http://www.placentajournal.org/article/S0143-4004%2815%2900515-9/fulltext

Cannabis conundrum: Evidence of harm?: Opposition to marijuana use is often rooted in arguments about the drug’s harm to children and adults, but the scientific evidence is seldom clear-cut (article – 2015) http://onlinelibrary.wiley.com/doi/10.1002/cncy.21516/full

Participation of the endocannabinoid system (ECS) in the weight-gain and sensitization to LPS exposure in a maternal obesity model (article – 2015) http://www.placentajournal.org/article/S0143-4004%2815%2900526-3/fulltext


Vasoactive lipid mediators control uterine vascular reactivity at early pregnancy in the transgenic hAGNhxhREN rat. (abst – 2015)  
http://www.pregnancyhypertension.org/article/S2210-7789%2814%2900121-4/abstract

Endocannabinoid Levels in Newborns in Relation to the Mode of Delivery. (abst – 2015)  

Lipopolysaccharide-induced murine embryonic resorption involves changes in endocannabinoid profiling and alters progesterone secretion and inflammatory response by a CB1-mediated fashion. (abst – 2015)  

Anandamide restricts uterine stromal differentiation and is critical for complete decidualization. (abst – 2015)  

Maternal marijuana use and neonatal morbidity. (abst – 2015)  

The endocannabinoid anandamide affects the synthesis of human syncytiotrophoblast-related proteins. (abst – 2015)  

Association between marijuana use and adverse obstetrical and neonatal outcomes. (abst – 2015)  

Marijuana use and pregnancy: prevalence, associated characteristics, and birth outcomes. (abst – 2015)  

Maternal age and trajectories of cannabis use. (abst – 2015)  
http://www.drugandalcoholdependence.com/article/S0376-8716%2815%2901662-2/abstract

Exposure to a Highly Caloric Palatable Diet During Pregestational and Gestational Periods Affects Hypothalamic and Hippocampal Endocannabinoid Levels at Birth and Induces Adiposity and Anxiety-Like Behaviors in Male Rat Offspring. (full – 2016)  

Sustained Endocannabinoid Signaling Compromises Decidual Function and Promotes Inflammation-induced Preterm Birth. (full – 2016)  
http://www.jbc.org/content/early/2016/02/21/jbc.M115.707836.long

Differential Regulation of Eicosanoid and Endocannabinoid Production by Inflammatory Mediators in Human Choriodecidua. (full – 2016)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0148306

Maternal marijuana use has independent effects on risk for spontaneous preterm birth but not other common late pregnancy complications. (full – 2016)  
Targeting anandamide metabolism rescues core and associated autistic-like symptoms in rats prenatally exposed to valproic acid.  (full – 2016)  
http://www.nature.com/tp/journal/v6/n9/full/tp2016182a.html

Exposure to a Highly Caloric Palatable Diet during the Perinatal Period Affects the Expression of the Endogenous Cannabinoid System in the Brain, Liver and Adipose Tissue of Adult Rat Offspring.  (full – 2016)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0165432

Maternal Caloric Restriction Implemented during the Preconceptional and Pregnancy Period Alters Hypothalamic and Hippocampal Endocannabinoid Levels at Birth and Induces Overweight and Increased Adiposity at Adulthood in Male Rat Offspring  (full – 2016)  


The endocannabinoid system: an emergent player in human placentation.  (abst – 2016)  

Alcohol, Methamphetamine, and Marijuana Exposure Have Distinct Effects on the Human Placenta.  (abst – 2016)  

Conceptus development and transcriptome at preimplantation stages in lactating dairy cows of distinct genetic groups and estrous cyclic statuses.  (abst – 2016)  

Expression analysis of cannabinoid receptors 1 and 2 in B cells during pregnancy and their role on cytokine production.  (abst – 2016)  
http://www.jrijournal.org/article/S0165-0378(16)30026-2/abstract

Dietary conjugated linoleic acid supplementation alters the expression of genes involved in the endocannabinoid system in the bovine endometrium and increases plasma progesterone concentrations.  (abst – 2016)  

Marijuana Use and Its Effects in Pregnancy.  (abst – 2016)  

Heparin exerts anti-apoptotic effects on uterine explants by targeting the endocannabinoid system.  (abst – 2016)  

A role for the endocannabinoid system in premature luteal regression and progesterone withdrawal in lipopolysaccharide-induced early pregnancy loss model.  (abst – 2016)  


>PROMM/ PROXIMAL MYOTONIC MYOPATHY – see 2000-2009

PRIONS +

Alteration of the Endocannabinoid System In Mouse Brain During Prion Disease. (abst – 2011) http://www.unboundmedicine.com/medline/ebm/record/21195746/abstract/Alteration_of_the_Endocannabinoid_System_In_Mouse_Brain_During_Prion_Disease
**PROSTATIC HYPERPLASIA/ BPH/ ENLARGED PROSTATE GLAND** +

Transient receptor potential A1 and cannabinoid receptor activity in human normal and hyperplastic prostate: relation to nerves and interstitial cells  (abst – 2010)

Distribution and Possible Function of Cannabinoid Receptor Subtype 1 in the Human Prostate*—An Inhibitory Role for Growth in the Human Prostate Cancer (full – 2013)  http://file.scirp.org/Html/12-5000121_31406.htm


Stimulation of cannabinoid receptors by using Rubus coreanus extracts to control osteoporosis in aged male rats.  (abst – 2014)  http://www.ncbi.nlm.nih.gov/pubmed/25136745


**PRURITIS/ ITCH** + - chronic itch_


Is there a legitimate role for the therapeutic use of cannabinoids for symptom management in chronic kidney disease?  (full – 2011)  http://www.ipsmjournal.com/article/S0885-3924%2810%2900979-6/fulltext


Differences in peripheral endocannabinoid modulation of scratching behavior in facial vs. spinally-innervated skin.  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3394407/

Discovery of S-444823, a potent CB1/CB2 dual agonist as an antipruritic agent.
Discovery of S-777469: an orally available CB2 agonist as an antipruritic agent.

On the g-protein-coupled receptor heteromers and their allosteric receptor-receptor interactions in the central nervous system: focus on their role in pain modulation.
(full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3730365/


Palmitoylethanolamide is a New Possible Pharmacological Treatment for the Inflammation Associated with Trauma (abst – 2013) http://www.eurekaselect.com/106175/article


PSEUDOMONAS AERUGINOSA

Discovery of Desketoraloxifene Analogues as Inhibitors of Mammalian, Pseudomonas aeruginosa, and NAPE Phospholipase D Enzymes (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4336625/

PSORIASIS +


Anandamide Suppresses Proinflammatory T Cell Responses In Vitro through Type-1 Cannabinoid Receptor-Mediated mTOR Inhibition in Human Keratinocytes. (abst – 2016) https://www.ncbi.nlm.nih.gov/pubmed/27694494


QUITTING CANNABIS +*- also see ADDICTION, WITHDRAWAL

Aerobic Exercise Training Reduces Cannabis Craving and Use in Non-Treatment Seeking Cannabis-Dependent Adults (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3050879/?tool=pmcentrez


A proof-of-concept randomized controlled study of gabapentin: effects on cannabis use, withdrawal and executive function deficits in cannabis-dependent adults. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3358737/

Reducing cannabinoid abuse and preventing relapse by enhancing endogenous brain levels of kynurenic acid. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3835353/

A Randomized Double-blind, Placebo Controlled Trial of Venlafaxine-Extended Release for Co-occurring Cannabis Dependence and Depressive Disorders (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3636166/

Nabilone decreases marijuana withdrawal and a laboratory measure of marijuana relapse. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3682150/

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3641687/

Effectiveness of a self-guided web-based cannabis treatment program: randomized controlled trial. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3636012/

Pharmacokinetic and Pharmacodynamic Profile of Supratherapeutic Oral Doses of Δ9-THC in Cannabis Users. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3691290/

Computer and therapist based brief interventions among cannabis-using adolescents presenting to primary care: One year outcomes. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3770780/

Cannabis use during a voluntary quit attempt: An analysis from ecological momentary assessment. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3770798/

Motivations to quit cannabis use in an adult non-treatment sample: Are they related to relapse? (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3681844/

Self-Efficacy and Motivation to Quit Marijuana Use among Young Women. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4913034/

A human laboratory study investigating the effects of quetiapine on marijuana withdrawal and relapse in daily marijuana smokers. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3465638/

Taking Note of Over-the-Counter Remedies for Adolescents With Cannabis Dependence (editorial – 2013)  

Cannabinol for the treatment of cannabis withdrawal syndrome: a case report. (abst – 2013)  
Use of micronutrients attenuates cannabis and nicotine abuse as evidenced from a reversal design: a case study (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/23909004


Poor sleep quality as a risk factor for lapse following a cannabis quit attempt. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/23098380

Baclofen in the management of cannabis dependence syndrome. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3896138/


Cigarette smoking during an N-acetylcysteine-assisted cannabis cessation trial in adolescents. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4118750/


Pregnenolone can protect the brain from cannabis intoxication. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4057431/


Physical activity and cannabis cessation. (abst – 2014)  

Potential use of Magnolia officinalis bark polyphenols in the treatment of cannabis dependence. (abst – 2014)  

http://eurpub.oxfordjournals.org/content/25/suppl_2/73.long

Enhancing Brain Pregnenolone May Protect Cannabis Intoxication but Should Not Be Considered as an Anti-addiction Therapeutic: Hypothesizing Dopaminergic Blockade and Promoting Anti-Reward. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4545660/

Cannabis use history and characteristics of quit attempts: A comparison study of treatment-seeking and non-treatment-seeking cannabis users (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4250402/

Craving is associated with amygdala volumes in adolescent marijuana users during abstinence. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4568004/


Cognitive performance in a placebo-controlled pharmacotherapy trial for youth with marijuana dependence. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4373963/

Effects of quitting cannabis on respiratory symptoms. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4780250/

If at first you don't succeed: characterization of smokers with late smoking abstinence onset. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4454339/

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4633378/

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4569951/

Sex differences in cannabis withdrawal symptoms among treatment-seeking cannabis users. (full – 2015)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4747417/

Assessing the efficacy of MOTI-4 for reducing the use of cannabis among youth in the Netherlands: a randomized controlled trial. (link to PDF – 2015)  
http://www.journalofsubstanceabusetreatment.com/article/S0740-5472%2815%2900296-2/abstract
A review of co-morbid tobacco and cannabis use disorders: Possible mechanisms to explain high rates of co-use. (abst – 2015)  

Effect of oral THC pretreatment on marijuana cue-induced responses in cannabis dependent volunteers  (abst – 2015)  


http://www.drugandalcoholdependence.com/article/S0376-8716(15)01778-0/abstract

The prospective effects of perceived and laboratory indices of distress tolerance on cannabis use following a self-guided quit attempt. (abst – 2015)  

Difficulties in emotion regulation are associated with panic symptom severity following a quit attempt among cannabis dependent veterans. (abst – 2015)  

Digital Interventions for Problematic Cannabis Users in Non-Clinical Settings: Findings from a Systematic Review and Meta-Analysis. (full – 2016)  
http://www.karger.com/Article/FullText/445716

Rapid Changes in Cannabinoid 1 Receptor Availability in Cannabis-Dependent Male Subjects After Abstinence From Cannabis (full – 2016)  

Attempts to Stop or Reduce Daily Cannabis Use: An Intensive Natural History Study.  (full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4877269/

No Smoke without Tobacco: A Global Overview of Cannabis and Tobacco Routes of Administration and Their Association with Intention to Quit. (full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4933835/

Cognitive behavioral therapy program for cannabis use cessation in first-episode psychosis patients: study protocol for a randomized controlled trial. (full – 2016)  

Ecological Momentary Assessment and Smartphone Application Intervention in Adolescents with Substance Use and Comorbid Severe Psychiatric Disorders: Study Protocol.  (full – 2016)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5028912/
Black–White Disparities in Criminal Justice Referrals to Drug Treatment: Addressing Treatment Need or Expanding the Diagnostic Net?  (full – 2016)
http://www.mdpi.com/2076-328X/6/4/21/htm


Cannabis Withdrawal, Posttreatment Abstinence, and Days to First Cannabis Use Among Emerging Adults in Substance Use Treatment: A Prospective Study.  (full – 2016)  https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4748964/

Hippocampal harms, protection and recovery following regular cannabis use  (full – 2016)  http://www.nature.com/tp/journal/v6/n1/full/tp2015201a.html


Low Pretreatment Impulsivity and High Medication Adherence Increase the Odds of Abstinence in a Trial of N-Acetylcysteine in Adolescents with Cannabis Use Disorder.  (abst – 2016)  http://www.journalofsubstanceabusetreatment.com/article/S0740-5472(15)00313-X/abstract

Gender differences in cannabis use disorder treatment: Change readiness and taking steps predict worse cannabis outcomes for women. (abst – 2016)

Comorbid Cannabis and Tobacco Use in Adolescents and Adults. (abst – 2016)

Sativex Associated With Behavioral-Relapse Prevention Strategy as Treatment for Cannabis Dependence: A Case Series (abst – 2016)

Co-occurrent cannabis and tobacco uses: Clinical knowledge and therapeutic prospects (abst – 2016)

Exercise as an adjunctive treatment for cannabis use disorder. (abst – 2016)


Are Alcohol Anti-relapsing and Alcohol Withdrawal Drugs Useful in Cannabinoid Users? (abst – 2016)

Synthetic cannabinoids to avoid urine drug screens: Implications for contingency management and other treatments for drug dependence. (abst – 2016)


Alcohol use during a trial of N-acetylcysteine for adolescent marijuana cessation. (abst – 2016)

Oxytocin for the treatment of drug and alcohol use disorders. (abst – 2016)

Peer Network Counseling as Brief Treatment for Urban Adolescent Heavy Cannabis Users. (abst – 2017)
QUITTING OTHER DRUGS +*

Harm Reduction: Alcohol Use Disorder, Cannabis-induced Psychotic Disorder and a tale of two Hemp Oils, in a Patient diagnosed with a Cluster A & B Personality Disorders in Long Term Behavior Therapy. (case report – undated)
http://cannabisclinicians.org/view-all-case-reports/entry/601/?pagenum=2

Medical marijuana users in substance abuse treatment. (full - 2010)
http://www.harmreductionjournal.com/content/pdf/1477-7517-7-3.pdf

Attenuation of morphine antinociceptive tolerance by a CB(1) receptor agonist and an NMDA receptor antagonist: Interactive effects. (full – 2010)
hhttp://www.ncbi.nlm.nih.gov/pmc/articles/PMC2813317/?tool=pubmed


Brain cannabinoid CB2 receptors modulate cocaine's actions in mice (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3164946/


Pharmacological activation/inhibition of the cannabinoid system affects alcohol withdrawal-induced neuronal hypersensitivity to excitotoxic insults. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3158793/

Nicotine-induced anxiety-like behavior in a rat model of the novelty-seeking phenotype is associated with long-lasting neuropeptidergic and neuroplastic adaptations in the amygdala: Effects of the cannabinoid receptor 1 antagonist AM251. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3697052/


Targeting the endocannabinoid system with cannabinoid receptor agonists: pharmacological strategies and therapeutic possibilities (full – 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3353.full?sid=1569c370-cd5c-4358-89ff-857201f5e069

AM404 attenuates reinstatement of nicotine seeking induced by nicotine-associated cues and nicotine priming but does not affect nicotine- and food-taking. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4058760/

THC reduces the anticipatory nucleus accumbens response to reward in subjects with a nicotine addiction. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3590996/


Cannabinoid and opioid interactions: implications for opiate dependence and withdrawal. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3742578/

Impact of Cannabis Use during Stabilization on Methadone Maintenance Treatment. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4717827/


Chronic stimulation of the tone of endogenous anandamide reduces cue- and stress-induced relapse in rats. (full – 2014) http://ijnp.oxfordjournals.org/content/18/1/pyu025.long

Cigarette smoking during an N-acetylcysteine-assisted cannabis cessation trial in adolescents. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4118750/

Can Cannabis be Considered a Substitute Medication for Alcohol? (full – 2014) http://alcalc.oxfordjournals.org/content/early/2014/01/07/alcalc.agt182.full

Changes in Cerebral CB1 Receptor Availability after Acute and Chronic Alcohol Abuse and Monitored Abstinence. (full – 2014) http://www.jneurosci.org/content/34/8/2822.long
Effects of the cannabinoid CB1 receptor allosteric modulator ORG 27569 on reinstatement of cocaine- and methamphetamine-seeking behavior in rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4161648/


Do Medical Marijuana Laws Reduce Addictions and Deaths Related to Pain Killers? (link to download - 2015) Do Medical Marijuana Laws Reduce Addiction and Deaths Related...
Addressing the stimulant treatment gap: A call to investigate the therapeutic benefits potential of cannabinoids for crack-cocaine use. (link through Elsevier to get link to PDF – 2015)


No Smoke without Tobacco: A Global Overview of Cannabis and Tobacco Routes of Administration and Their Association with Intention to Quit. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4933835/


RACE/ETHNICITY and CANNABIS

Drug-Intake Methods and Social Identity: The Use of Marijuana in Blunts Among Southeast Asian Adolescents and Emerging Adults. (full – 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3193281/?tool=pubmed
Racial differences in trajectories of heavy drinking and regular marijuana use from ages 13 to 24 among African-American and White males.  (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3258364/  

Patterns of blunt use among rural young adult african-american men.  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3244685/  

The War on Marijuana in Black and White  (full – 2013)  

Paranoid Personality Disorder in the United States: The Role of Race, Illicit Drug Use, and Income  (full – 2014)  
http://www.tandfonline.com/doi/full/10.1080/15332640.2013.850463  

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4331066/  

Circulating Endocannabinoids and the Polymorphism 385C>A in Fatty Acid Amide Hydrolase (FAAH) Gene May Identify the Obesity Phenotype Related to Cardiometabolic Risk: A Study Conducted in a Brazilian Population of Complex Interethnic Admixture.  (full – 2015)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0142728  

METABOLIC EFFECTS OF MARIJUANA USE AMONG BLACKS.  (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4523241/  

Perceived risk of regular cannabis use in the United States from 2002 to 2012: Differences by sex, age, and race/ethnicity.  (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4361312/  

Twitter Chatter about Marijuana  (full – 2015)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4306811/  

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4712655/  

KAT2B polymorphism identified for drug abuse in African Americans with regulatory links to drug abuse pathways in human prefrontal cortex.  (abst – 2015)  

http://www.drugandalcoholdependence.com/article/S0376-8716(15)01618-X/abstract  


Characteristics associated with synthetic cannabinoid use among patients treated in a public psychiatric emergency setting.  (abst – 2016)

The consequences of chronic cannabis smoking in vulnerable adolescents.  (abst – 2016)

Whole genome sequence study of cannabis dependence in two independent cohorts.  (abst – 2017)

Cannabis Use and Disorder From Childhood to Adulthood in a Longitudinal Community Sample With American Indians.  (abst – 2017)

Cannabis use, COMT, BDNF and age at first-episode psychosis.  (abst – 2017)

**RADIATION THERAPY**

Honokiol radiosensitizes colorectal cancer cells: enhanced activity in cells with mismatch repair defects.  (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3220322/

Combined antiproliferative effects of the aminoalkylindole WIN55,212-2 and radiation in breast cancer cells.  (full – 2013)
http://jpet.aspetjournals.org/content/early/2013/11/20/jpet.113.205120.long

Honokiol as a Radiosensitizing Agent for Colorectal cancers.  (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3844429/

The Combination of Cannabidiol and Δ9-Tetrahydrocannabinol Enhances the Anticancer Effects of Radiation in an Orthotopic Murine Glioma Model.  (full – 2014)
http://mct.aacrjournals.org/content/13/12/2955.long

Therapeutic Potential of Cannabinoids in Counteracting Chemotherapy-induced Adverse Effects: An Exploratory Review.  (abst – 2014)

Protection from Radiation-Induced Pulmonary Fibrosis by Peripheral Targeting of Cannabinoid Receptor-1.  (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4599364/

Potential use of N-stearoyl ethanolamine in radiation medicine.  (abst – 2015)
Medical marijuana use in head and neck squamous cell carcinoma patients treated with radiotherapy. (abst – 2016)

**RADIATION SICKNESS/ CONTAMINATION**


Tumor necrosis factor activation of vagal afferent terminal calcium is blocked by cannabinoids.  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3342927/

Palmitoylethanolamide Regulates Development of Intestinal Radiation Injury in a Mast Cell-Dependent Manner.  (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4213290/

Protection from Radiation-Induced Pulmonary Fibrosis by Peripheral Targeting of Cannabinoid Receptor-1. (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4599364/

Neurophysiology of space travel: energetic solar particles cause cell type-specific plasticity of neurotransmission. (full – 2016)

**RECREATIONAL USE**

Indian hemp and the dope fiends of Old England  (article - undated)
http://www.idmu.co.uk/indian.htm

Illicit and Nonmedical Drug Use Among Older Adults: A Review  (link to PDF – 2010)
http://journals.sagepub.com/doi/abs/10.1177/0898264310386224


The social contagion effect of marijuana use among adolescents. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3018468/?tool=pubmed

Racial differences in trajectories of heavy drinking and regular marijuana use from ages 13 to 24 among African-American and White males.  (full – 2011)
Prevalence and co-use of marijuana among young adult cigarette smokers: An anonymous online national survey  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3507655/  
(full – 2012)  

Medical Marijuana Laws and Teen Marijuana Use  
(full – 2012)  

Do medical marijuana laws increase marijuana use? Replication study and extension.  
http://www.annalsofepidemiology.org/article/S1047-2797%2811%2900372-3/fulltext  
(full – 2012)  

Recreational use and overdose of ingested processed cannabis (Majoon Birjandi) in the eastern Iran.  
http://journals.sagepub.com/doi/full/10.1177/0960327112446814  
(full – 2012)  

Synthetic cannabinoid and marijuana exposures reported to poison centers.  
http://journals.sagepub.com/doi/full/10.1177/0960327111421945  
(full – 2012)  

Former Supreme Court justice blasts minimum sentences for marijuana offenders.  
http://www.cmaj.ca/content/184/8/E391  
(article - 2012)  

'It's just a social thing': Drug use, friendship and borderwork among marginalized young people.  
(abst – 2012)  

Sex and grade level differences in marijuana use among youth.  
(abst – 2012)  

Alcohol and cannabis consumption in the French Army: determination of consumer profiles to focus on prevention and care.  
(abst – 2012)  

Acute Psychosis Associated with Recreational Use of Benzofuran 6-(2-Aminopropyl)Benzofuran (6-APB) and Cannabis.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3770991/  
(full – 2013)  

Identity Formation, Marijuana and “The Self”: A Study of Cannabis Normalization among University Students  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3847659/  
(full – 2013)  

Correlations between cannabis use and IQ change in the Dunedin cohort are consistent with confounding from socioeconomic status.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3600466/  
(full – 2013)  

Effects of State Medical Marijuana Laws on Adolescent Marijuana Use.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4007871/  
(full – 2013)  

Legalization of medical marijuana and marijuana use among youths.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3638722/  
(full – 2013)
Weeding out the information: an ethnographic approach to exploring how young people sense of the evidence on cannabis (full – 2013)
http://www.harmreductionjournal.com/content/10/1/34

Do societal wealth, family affluence and gender account for trends in adolescent cannabis use? A 30 country cross-national study. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3947129/

Statistics on cannabis users skew perceptions of cannabis use (full – 2013)

Higher rates of adolescent substance use in child welfare versus community populations in the United States. (full - 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3817044/

The role of child protection in cannabis grow-operations. (full – 2013)
www.canorml.org/child.welfare.pdf


From “Social Supply” to “Real Dealing”: Drift, Friendship, and Trust in Drug-Dealing Careers (link to PDF – 2013)
http://search.proquest.com/openview/7fca7d95539590726beef9e62d624e4c/1?pq-origsite=gscholar&cbl=34918


An Examination of Opinions Toward Marijuana Policies Among High School Seniors in the United States (full – 2014)
http://www.tandfonline.com/doi/full/10.1080/02791072.2014.962716#tabModule


Correlates of intentions to use cannabis among US high school seniors in the case of cannabis legalization. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4071130/

Frequent marijuana use is associated with greater nicotine addiction in adolescent smokers. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4097075/
Interpersonal Guilt and Substance Use in College Students. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4782605/


Recreational drug use and binge drinking: Stimulant but not cannabis intoxication is associated with excessive alcohol consumption. (abst – 2014)


The Impact of Marijuana Policies on Youth: Clinical, Research, and Legal Update. (full – 2015)  http://pediatrics.aappublications.org/content/early/2015/01/20/peds.2014-4147.long


High School Students' Use of Electronic Cigarettes to Vaporize Cannabis. (full – 2015)  http://pediatrics.aappublications.org/content/136/4/611.long

Chronic Adolescent Marijuana Use as a Risk Factor for Physical and Mental Health Problems in Young Adult Men. (full – 2015)  http://www.ncbi.nlm.nih.gov/pubmed/26237286


Associations between cigarette smoking and cannabis dependence: A longitudinal study of young cannabis users in the United Kingdom. (link to PDF – 2015) http://www.drugandalcoholdependence.com/article/S0376-8716(15)00010-1/abstract


Legal regulated markets have the potential to reduce population levels of harm associated with cannabis use (full – 2016) http://onlinelibrary.wiley.com/doi/10.1111/add.13390/full

The commercial focus of US cannabis regulation models should not close our eyes to other options (full – 2016) http://onlinelibrary.wiley.com/doi/10.1111/add.13383/full


National Estimates of Marijuana Use and Related Indicators — National Survey on Drug Use and Health, United States, 2002–2014 (full – 2016) http://www.cdc.gov/mmwr/volumes/65/ss/ss6511a1.htm?s_cid=ss6511a1_e


"When 'Bad' is 'Good'": Identifying Personal Communication and Sentiment in Drug-Related Tweets. (full – 2016) http://publichealth.jmir.org/2016/2/e162/

Cannabis Use as Risk or Protection for Type 2 Diabetes: A Longitudinal Study of 18 000 Swedish Men and Women. (full – 2016) https://www.hindawi.com/journals/jdr/2016/6278709/


Subjective aggression during alcohol and cannabis intoxication before and after aggression exposure. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4988999/

Solitary cannabis use frequency mediates the relationship between social anxiety and cannabis use and related problems. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5147422/

Psychiatric comorbidity associated with synthetic cannabinoid use compared to cannabis. (full – 2016) http://journals.sagepub.com/doi/full/10.1177/0269881116658990


The legalization of cannabis derivatives in Spain: Hypothesis on a potential emerging market. (link to PDF – 2016) PDF (English)


Working on a Standard Joint Unit: A pilot test. (link to download in English – 2016) Descargar el archivo PDF


Cannabis in the United States (report – 2016) http://self.gutenberg.org/article/WHEBN0020566488/Cannabis%20in%20the%20United%20States
Dose of Reality: The Effect of State Marijuana Legalizations           (report – 2016)

Expectations for Physicians Prescribing Marijuana.                  (1st page – 2016)
http://jamanetwork.com/journals/jama/article-abstract/2592491

Analysis of a commercial marijuana e-cigarette formulation.   (abst – 2016)
(This article has a delayed release and will be available in PMC on June 1, 2017)

The Changing Drug Culture: Medical and Recreational Marijuana.      (abst – 2016)

Marijuana: Medical Applications, Recreational Use and Substance Abuse Disorders

Abrupt Quitting of Long-term Heavy Recreational Cannabis Use is Not Followed by
Significant Changes in Blood Pressure and Heart Rate.               (abst – 2016)

Cannabis policy and the uptake of treatment for cannabis-related problems.

The genetic relationship between cannabis and tobacco cigarette use in European- and
African-American female twins and siblings.                  (abst – 2016)

"Those edibles hit hard": Exploration of Twitter data on cannabis edibles in the U.S.
(abst – 2016)  http://www.drugandalcoholdependence.com/article/S0376-8716%2816%2930056-4/abstract

Evaluating the public health impacts of legalizing recreational cannabis use in the USA.

Declining Prevalence of Marijuana Use Disorders Among Adolescents in the United
States, 2002 to 2013            (abst – 2016)
http://www.jaacap.com/article/S0890-8567%2816%2930101-0/abstract

Clinical Effects of Synthetic Cannabinoid Receptor Agonists Compared with Marijuana
in Emergency Department Patients with Acute Drug Overdose.   (abst – 2016)

Marijuana Use and Its Effects in Pregnancy.                     (abst – 2016)

Comparing adults who use cannabis medically with those who use recreationally: Results
Marijuana-Related Posts on Instagram. (abst – 2016)  

Substitution and Complementarity of Alcohol and Cannabis: A Review of the Literature.  

Craving Cannabis: A Meta-analysis of Self-Report and Psychophysiological Cue-Reactivity Studies  

Field observations of the developing legal recreational cannabis economy in Washington State.  

Secondary Effects of an Alcohol Prevention Program Targeting Students and/or Parents  

Assessing the risk of marijuana use disorder among adolescents and adults who use marijuana.  

Childhood weight status and timing of first substance use in an ethnically diverse sample  

Why it is probably too soon to assess the public health effects of legalisation of recreational cannabis use in the USA.  

Cross-section and panel estimates of peer effects in early adolescent cannabis use: With a little help from my 'friends once removed'.  

Cannabis consumption patterns among frequent consumers in Uruguay.  

Alveolar haemorrhage following a cannabis water pipe  (abst – 2016)  

Anxiety, depression and risk of cannabis use: Examining the internalising pathway to use among Chilean adolescents.  

Qualitative research in Spanish cannabis social clubs: "The moment you enter the door, you are minimising the risks".  

Assessing the Validity of Online Drug Forums as a Source for Estimating Demographic and Temporal Trends in Drug Use.  
Limitations to the Dutch cannabis toleration policy: Assumptions underlying the reclassification of cannabis above 15% THC. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27471078


Storage and disposal of medical cannabis among patients with cancer: Assessing the risk of diversion and unintentional digestion. (abst – 2016)

Tasty THC: Promises and Challenges of Cannabis Edibles. (abst – 2016)

Irish general practitioner attitudes toward decriminalisation and medical use of cannabis: results from a national survey (full – 2017)

Cannabis use in persons with traumatic spinal cord injury in Denmark. (link to PDF- 2017)
https://www.medicaljournals.se/jrm/content/abstract/10.2340/16501977-2105

Cannabis: high time for evidence-based policies (editorial – 2017)
http://www.thelancet.com/journals/lanonc/article/PIIS1470-2045(16)30642-8/fulltext

Rocky Mountain High: Preventing Cannabis-Related Injuries (1st page – 2017)
http://www.jenonline.org/article/S0099-1767(16)30339-7/abstract

Support for Marijuana Legalization and Predictors of Intentions to Use Marijuana More Often in Response to Legalization Among U.S. Young Adults. (abst – 2017)

Association of cannabis use with the development of elevated anxiety symptoms in the general population: a meta-analysis. (abst – 2017)


Modelling possible causality in the associations between unemployment, cannabis use, and alcohol misuse. (abst – 2017)


**RECTAL SPASMS/ LEVATOR ANI SYNDROME/ PROCTALGIA FUGAX**

Rectal spasms (case report – undated)
http://cannabisclinicians.org/view-all-case-reports/entry/791/

**REFLEX SYMPATHETIC DYSTROPHY**

Control of bone remodeling by nervous system. Nervous system and bone (abst – 2010)

**RELIGION and CANNABIS**

Marijuana in the Bible with cognate study of KNH, BSM & MKNH in the literal Word with Genesis 4:1; 14:19,22; 1st Kings 14:15, Ezekiel 31:9, Matthew 11:7, Luke 7:24 for the revelatory Word (article – undated)

Spiritual Use Of Cannabis (article – undated)
http://www.sparscf.org/learning-center/spiritual-use-cannabis

Marijuana in the Bible (article - 2011)
https://patients4medicalmarijuana.wordpress.com/marijuana-info/marijuana-in-the-bible/

History of Cannabis in India (article – 2011)
https://www.psychologytoday.com/blog/the-teenage-mind/201106/history-cannabis-in-india

Comment on "Did Jesus use cannabis?" (forum post – 2011)


Seshat’s Secret (article – 2012) http://cannabisrising.blogspot.com/2012/06/seshats-secret.html

Cannabis in the Holy Anointing Oil? "Exodus 30:23" (article – 2013)

Jesus & Cannabis (article/ recipe – 2015)
SAVE EARTH WITH LORD SHIVA'S WONDER CANNABIS MAGIC IN THC OF CANNABIS, HEMP OIL, MEDICAL MARIJUANA (article – 2015)


>RESTLESS LEG SYNDROME – see 2000-2009

REM SLEEP BEHAVIOR DISORDER


RETINITIS PIGMENTOSA +*

ABHD12 controls brain lysophosphatidylserine pathways that are deregulated in a murine model of the neurodegenerative disease PHARC. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3557017/

The Cannabinoid Agonist HU210 Delays Retinal Degeneration and Vision Loss (abst – 2013) http://iovs.arvojournals.org/article.aspx?articleid=2148029&resultClick=1

The role of Cannabinoid receptors on light-induced photoreceptor degeneration (abst – 2013) http://iovs.arvojournals.org/article.aspx?articleid=2149928&resultClick=1


**Rhabdomyolysis** - the rapid break-down of muscle tissues

Psychosis and Severe Rhabdomyolysis Associated with Synthetic Cannabinoid Use.  

Severe rhabdomyolysis and intracranial hemorrhage associated with synthetic cannabinoid: a case report  

Rhabdomyolysis and Acute Kidney Injury Requiring Dialysis as a Result of Concomitant Use of Atypical Neuroleptics and Synthetic Cannabinoids.  

Hyperthermia and severe rhabdomyolysis from synthetic cannabinoids  

Synthetic cannabinoids: the multi-organ failure and metabolic derangements associated with getting high.  

Novel case of synthetic cannabinoid hyperemesis resulting in rhabdomyolysis and acute renal failure  

Case Series of Synthetic Cannabinoid Intoxication from One Toxicology Center.  
(full – 2016) [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4899060/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4899060/)

Acute Rhabdomyolysis Following Synthetic Cannabinoid Ingestion.  
(full – 2016) [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4960936/](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4960936/)

Dangerous drugs: products containing synthetic chemicals  

Novel Psychoactive Substances: the pharmacology of stimulants and hallucinogens.  

A multicenter retrospective survey of poisoning after consumption of products containing novel psychoactive substances from 2013 to 2014 in Japan.  
SAFETY AS A MEDICINE

Information for Health Care Professionals- Marihuana (marijuana, cannabis) dried plant for administration by ingestion or other means (Health Canada) (full – 2010)

Drug Harms in the UK (abst - 2010) (needs free registration for full)
http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(10)61462-6/fulltext#

Does cannabis use increase the risk of death? Systematic review of epidemiological evidence on adverse effects of cannabis use. (abst – 2010)


A summary of the health harms of drugs - Section 5 Cannabis (full – 2011)

Safety and Side Effects of Cannabidiol, a Cannabis sativa Constituent. (full - 2011)

Role of Cannabinoids in Multiple Sclerosis (link to PDF - 2011)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.659.8269&rank=26

Cannabinoid effects on ventilation and breathlessness: A pilot study of efficacy and safety (link to download – 2011)
http://journals.sagepub.com/doi/abs/10.1177/1479972310391283

Annual Causes of Death in the United States (article – 2011)
http://drugwarfacts.org/cms/?q=node/30

Prescribing Cannabis for Harm Reduction. (full – 2012)
http://www.harmreductionjournal.com/content/pdf/1477-7517-9-1.pdf

Medical Marijuana: Clearing Away the Smoke (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3358713/

Synthetic cannabinoid and marijuana exposures reported to poison centers. (full – 2012) http://journals.sagepub.com/doi/full/10.1177/0960327111421945

Acute effects of a single, oral dose of d9-tetrahydrocannabinol (THC) and cannabidiol (CBD) administration in healthy volunteers. (abst – 2012)

Harms and benefits associated with psychoactive drugs: findings of an international survey of active drug users. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4107777/


Distinct pharmacology and metabolism of K2 synthetic cannabinoids compared to Δ9-THC: Mechanism underlying greater toxicity? (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3945037/


Prescribing smoked cannabis for chronic noncancer pain: Preliminary recommendations. (full – 2014) http://www.cfp.ca/content/60/12/1083.long

Physicians as gatekeepers in the use of medical marijuana (full – 2014) http://www.jaapl.org/content/39/4/460.long


Inhaled medicinal cannabis and the immunocompromised patient (full – 2014) MASSC (yes, that’s all the link!)


Long-Term Effectiveness and Safety of Nabiximols (Tetrahydrocannabinol/Cannabidiol Oromucosal Spray) in Clinical Practice. (abst – 2014)


Re-branding cannabis: the next generation of chronic pain medicine? (abst – 2014)

THE EFFECT OF EPIDIOLEX (CANNABIDIOL) ON SERUM LEVELS OF CONCOMITANT ANTI-EPILEPTIC DRUGS IN CHILDREN AND YOUNG ADULTS WITH TREATMENT-RESISTANT EPILEPSY IN AN EXPANDED ACCESS PROGRAM (abst – 2014)
https://www.aesnet.org/meetings_events/annual_meeting_abstracts/view/1868391#sthash.uxbwgudh.dpuf

Comparative risk assessment of alcohol, tobacco, cannabis and other illicit drugs using the margin of exposure approach. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4311234/

The cannabis conundrum: Thinking outside the THC box. (full – 2015)

Notes from the Field: Death Following Ingestion of an Edible Marijuana Product — Colorado, March 2014 (full – 2015)
http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6428a6.htm

Cannabis and Cannabinoids–for health professionals (PDQ®) (full– 2015)
http://www.cancer.gov/about-cancer/treatment/cam/hp/cannabis-pdq#section/all

http://www.ncbi.nlm.nih.gov/books/NBK65875/

http://www.hindawi.com/journals/ecam/2015/238482/

Mull it over: cannabis vaporizers and harm reduction (full – 2015)

No smoke, no fire: What the initial literature suggests regarding vapourized cannabis and respiratory risk (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4456813/

Cannabinoids in the management of chronic pain: a front line clinical perspective. (full – 2015)
Perceived risk of regular cannabis use in the United States from 2002 to 2012: Differences by sex, age, and race/ethnicity. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4361312/

Cannabis Allergy: What do We Know Anno 2015. (full – 2015)


European rating of drug harms. (full – 2015)
http://journals.sagepub.com/doi/full/10.1177/0269881115581980

Marijuana: A Time-Honored but Untested Treatment for Epilepsy. (full – 2015)

Phytocannabinoids and epilepsy (full – 2015)

Cannabinoids and Epilepsy (full – 2015)

Safety of oral dronabinol during opioid withdrawal in humans. (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4663169/

Risk of emergency medical treatment following consumption of cannabis or synthetic cannabinoids in a large global sample. (full – 2015)
http://journals.sagepub.com/doi/full/10.1177/0269881115574493


Half-Baked — The Retail Promotion of Marijuana Edibles (article – 2015)

Cannabis conundrum: Evidence of harm?: Opposition to marijuana use is often rooted in arguments about the drug's harm to children and adults, but the scientific evidence is seldom clear-cut (article – 2015)


AKT1 genotype moderates the acute psychotomimetic effects of naturalistically smoked cannabis in young cannabis smokers. (full – 2016) http://www.nature.com/tp/journal/v6/n2/full/tp2015219a.html

Functional selectivity of CB2 cannabinoid receptor ligands at a canonical and non-canonical pathway. (full – 2016) http://jpet.aspetjournals.org/content/early/2016/05/18/jpet.116.232561.long

Is the medical use of cannabis a therapeutic option for children? (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4758425/


Drug vaping applied to cannabis: Is "Cannavaping" a therapeutic alternative to marijuana? (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4881394/


Efficacy, tolerability and safety of cannabinoids for chronic neuropathic pain: A systematic review of randomized controlled studies. (scroll down for English version) (abst – 2016)

Plant-Derived and Endogenous Cannabinoids in Epilepsy. (abst – 2016)


Cannabinoids: Medical implications. (abst – 2016)


The Effect of Medicinal Cannabis on Pain and Quality of Life Outcomes in Chronic Pain: A Prospective Open-label Study. (abst – 2016)

Qualitative research in Spanish cannabis social clubs: "The moment you enter the door, you are minimising the risks". (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27461986


Rocky Mountain High: Preventing Cannabis-Related Injuries (1st page – 2017)
http://www.jenonline.org/article/S0099-1767(16)30339-7/abstract

SAFETY- ADULTERANTS/ CONTAMINANTS +*
CUT, A Guide to the Adulterants, Bulking agents and other Contaminants found in illicit drugs   (full – 2010)

Too many mouldy joints - marijuana and chronic pulmonary aspergillosis.   (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3103256/?tool=pubmed

Fatal alveolar haemorrhage following a "bang" of cannabis   (abst – 2011)

Talcum induced pneumoconiosis following inhalation of adulterated marijuana, a case report.   (full – 2012)   http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3348083/

Determination of Pesticide Residues in Cannabis Smoke   (full – 2013)
https://www.hindawi.com/journals/jt/2013/378168/

Hemoptysis in a young man smoking cannabis.   (abst – 2013)

Potential exposures associated with indoor marijuana growing operations.  

Recurrent myopericarditis as a complication of Marijuana use.   (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3921097/

Inhaled medicinal cannabis and the immunocompromised patient  
MA SSC  (yes, that’s all the link!)

Determination of Herbicides Paraquat, Glyphosate, and Aminomethylphosphonic Acid in Marijuana Samples by Capillary Electrophoresis.   (full – 2014)

Cannabis, Pesticides and Conflicting Laws: the Dilemma for Legalized States and Implications for Public Health.  
(abst – 2014)

Levels of selected metals in leaves of Cannabis sativa L. cultivated in Ethiopia.  
(full – 2015)   http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4503701/

Understanding dabs: contamination concerns of cannabis concentrates and cannabinoid transfer during the act of dabbing.   (link to PDF – 2015)
https://www.jstage.jst.go.jp/article/jts/40/6/40_797/_article

Dabble With Danger: A Case Of Severe Respiratory Failure Following Inhalation Of Butane Hash Oil   (abst – 2015)
False hashish without cannabis resin  
http://www.ingentaconnect.com/search/article?option1=title&value1=false+hashish&pageSize=10&index=1  
(abst – 2015)

Phytoaccumulation of Heavy Metals in Natural Vegetation at the Municipal Wastewater Site in Abbottabad, Pakistan.  
(abst – 2015)

Evaluating the Effects of Gamma-Irradiation for Decontamination of Medicinal Cannabis.  
(full – 2016)

Drug vaping applied to cannabis: Is "Cannavaping" a therapeutic alternative to marijuana?  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4881394/  
(full – 2016)

Evaluation of Two Commercially Available Cannabidiol Formulations for Use in Electronic Cigarettes  
(full – 2016)

Current Therapeutic Cannabis Controversies and Clinical Trial Design Issues  
(full – 2016)

Metagenomic analysis of medicinal Cannabis samples; pathogenic bacteria, toxigenic fungi, and beneficial microbes grow in culture-based yeast and mold tests.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC5089129/  
(full – 2016)

Analysis of a commercial marijuana e-cigarette formulation.  
(abst – 2016)  
(This article has a delayed release and will be available in PMC on June 1, 2017)

Acute intoxication of four individuals following use of the synthetic cannabinoid MAB-CHMINACA.  
(abst – 2016)

Alveolar haemorrhage following a cannabis water pipe  
(abst – 2016)

Acute and residual effects in adolescent rats resulting from exposure to the novel synthetic cannabinoids AB-PINACA and AB-FUBINACA  
(full – 2017)

Thermolytic degradation of synthetic cannabinoids: chemical exposures and pharmacological consequences  
http://jpet.aspetjournals.org/content/early/2017/01/13/jpet.116.238717.long  
(link to download – 2017)
SCHINZEL-GIEDION SYNDROME – see News section

SCHISTOSOMA INFECTION +

Effects of anandamide on proliferation of and pErk expression in primary hepatic stellate cells of schistosome-induced liver fibrosis mice (abst – 2013)


SCHIZOPHRENIA/ MENTAL DISORDERS +*

Mixed mood disorder (case report – undated)
http://cannabisclinicians.org/view-all-case-reports/entry/228/?pagenum=2

Harm Reduction: Alcohol Use Disorder, Cannabis-induced Psychotic Disorder and a tale of two Hemp Oils, in a Patient diagnosed with a Cluster A & B Personality Disorders in Long Term Behavior Therapy. (case report – undated)
http://cannabisclinicians.org/view-all-case-reports/entry/601/?pagenum=2

Do patients think cannabis causes schizophrenia? - A qualitative study on the causal beliefs of cannabis using patients with schizophrenia (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2954921/?tool=pmcentrez


A common polymorphism in the cannabinoid receptor 1 (CNR1) gene is associated with antipsychotic-induced weight gain in Schizophrenia. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3055343/?tool=pubmed


A behavioural comparison of acute and chronic Delta9-tetrahydrocannabinol and cannabidiol in C57BL/6JArc mice. (full – 2010) http://ijnp.oxfordjournals.org/content/13/7/861.long


Endocannabinoids and Schizophrenia (link to PDF– 2010) http://www.mdpi.com/1424-8247/3/10/3101


Bad Mojo: use of the new marijuana substitute leads to more and more ED visits for acute psychosis (editorial – 2010) http://www.ajemjournal.com/article/S0735-6757%2810%2900394-3/abstract


Deletion of CB2 Cannabinoid Receptor Induces Schizophrenia-Related Behaviors in Mice (full – 2011) http://www.nature.com/npp/journal/v36/n7/full/npp201134a.html


Is lipid signaling through cannabinoid 2 receptors part of a protective system? (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3062638/  

Cannabis, COMT and psychotic experiences. (full – 2011) http://bjp.rcpsych.org/content/199/5/380.long  


The Dopamine and Cannabinoid Interaction in the Modulation of Emotions and Cognition: Assessing the Role of Cannabinoid CB1 Receptor in Neurons Expressing Dopamine D1 Receptors. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3156975/  

Effects of the cannabinoid-1 receptor antagonist rimonabant on psychiatric symptoms in overweight people with schizophrenia: a randomized, double-blind, pilot study. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3717343/  

Cannabinoid receptor 1 gene polymorphisms and marijuana misuse interactions on white matter and cognitive deficits in schizophrenia. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3085576/  

Cannabis with high cannabidiol content is associated with fewer psychotic experiences. (full – 2011) http://www.schres-journal.com/article/S0920-9964%2811%2900224-6/fulltext  


The schizophrenia susceptibility gene neuregulin 1 modulates tolerance to the effects of cannabinoids. (full – 2011) http://ijnp.oxfordjournals.org/content/14/5/631.long  

Deletion of CB2 Cannabinoid Receptor Induces Schizophrenia-Related Behaviors in Mice (full – 2011) http://www.nature.com/npp/journal/v36/n7/full/npp201134a.html  


Nutritional omega-3 deficiency abolishes endocannabinoid-mediated neuronal functions. Figure 1: n-3/n-6 PUFA dietary imbalance alters PUFAs level in mouse brain. (charts – 2011) http://www.nature.com/neuro/journal/v14/n3/fig_tab/nn.2736_F1.html


Association between a cannabinoid receptor gene (CNR1) polymorphism and cannabinoid-induced alterations of the auditory event-related P300 potential. (abst – 2011) http://www.unboundmedicine.com/medline/ebm/record/21513772/abstract/Association_between_a_cannabinoid_receptor_gene_CNR1_polymorphism_and_cannabinoid_induced_alterations_of_the_auditory_event_related_P300_potential

Prospective Study of Cannabis Use in Adolescents at Clinical High-Risk for Psychosis: Impact on Conversion to Psychosis and Functional Outcome (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3459073/

Cannabidiol enhances anandamide signaling and alleviates psychotic symptoms of schizophrenia. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3316151/?tool=pubmed

Distinct neurobehavioural effects of cannabidiol in transmembrane domain neuregulin 1 mutant mice. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3317922/

Plasma Endocannabinoid Alterations in Individuals with Substance Use Disorder are Dependent on the "Mirror Effect" of Schizophrenia. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3457074/

Cannabis use and depression: a longitudinal study of a national cohort of Swedish conscripts (full – 2012) http://www.biomedcentral.com/1471-244X/12/112

Alcohol and cannabis use and mortality in people with schizophrenia and related psychotic disorders. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3392453/


Cannabidiol for neurodegenerative disorders: important new clinical applications for this phytocannabinoid? (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3579248/

Multiple mechanisms involved in the large-spectrum therapeutic potential of cannabidiol in psychiatric disorders. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3481531/

Binding of a tritiated inverse agonist to cannabinoid CB1 receptors is increased in patients with schizophrenia (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3463751/


Cortical basket cell dysfunction in schizophrenia. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3381305/

Cannabidiol inhibits THC-elicited paranoid symptoms and hippocampal-dependent memory impairment. (full – 2012)  
http://journals.sagepub.com/doi/full/10.1177/0269881112460109

Genetic Variation Underlying Psychosis-inducing Effects of Cannabis: Critical Review and Future Directions (link to PDF – 2012)  
http://www.eurekaselect.com/102835/article

The Yin and Yang of Cannabis-induced Psychosis: the Actions of Δ 9-Tetrahydrocannabinol and Cannabidiol in Rodent Models of Schizophrenia (link to PDF – 2012)  
http://www.eurekaselect.com/102848/article

A critical review of the antipsychotic effects of Cannabidiol: 30 years of a translational investigation. (link to PDF – 2012)  
http://www.eurekaselect.com/102849/article

Medical use of cannabis. Cannabidiol: A new light for schizophrenia? (abst - 2012)  

Increased gray matter density in patients with schizophrenia and cannabis use: A voxel-based morphometric study using DARTEL. (abst – 2012)  


Neurocognitive functioning and cannabis use in schizophrenia. (abst – 2012)  

Anandamide dysfunction in prodromal and established psychosis. (abst – 2012)  

Subjective and Physiological Effects of Oromucosal Sprays Containing Cannabinoids (Nabiximols): Potentials and Limitations for Psychosis Research. (abst – 2012)  

Nutritional n-3 polyunsaturated fatty acids deficiency alters cannabinoid receptor signaling pathway in the brain and associated anxiety-like behavior in mice. (abst – 2012)  
http://www.springerlink.com/content/ur5784gm34782505/

Investigation of endocannabinoid system genes suggests association between peroxisome proliferator activator receptor-α gene (PPARA) and schizophrenia. (abst – 2012)  

Confirmation that the AKT1 (rs2494732) genotype influences the risk of psychosis in cannabis users. (abst – 2012)  
Stronger evidence is needed before accepting that cannabis plays an important role in the aetiology of schizophrenia in the population. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3544397/

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3544398/

Alterations to Melanocortinergic, GABAergic and Cannabinoid Neurotransmission Associated with Olanzapine-Induced Weight Gain (full – 2013)
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0033548


The Global Epidemiology and Contribution of Cannabis Use and Dependence to the Global Burden of Disease: Results from the GBD 2010 Study (full – 2013)
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0076635


Neuregulin-1 Impairs the Long-term Depression of Hippocampal Inhibitory Synapses by Facilitating the Degradation of Endocannabinoid 2-AG. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3776056/

Phencyclidine-induced social withdrawal results from deficient stimulation of cannabinoid CB1 receptors: implications for schizophrenia. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3717536/

What does a mouse tell us about neuregulin 1-cannabis interactions? (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3581817/

Peripheral endocannabinoid system dysregulation in first-episode psychosis. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3828529/

The role of cannabinoid 1 receptor expressing interneurons in behavior. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3946968/

Psychosis-inducing effects of cannabis are related to both childhood abuse and COMT genotypes. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/23445265


A current overview of cannabinoids and glucocorticoids in facilitating extinction of aversive memories: Potential extinction enhancers. (abst – 2013)  

Chronic cannabinoid exposure reduces phencyclidine-induced schizophrenia-like positive symptoms in adult rats (abst – 2013)  
http://link.springer.com/article/10.1007/s00213-012-2839-1

Neonatal lipopolysaccharide treatment has long term effects on monoaminergic and cannabinoid receptors in the rat. (abst – 2013)  

Cigarette smoking and cannabis use are equally strongly associated with psychotic-like experiences: a cross-sectional study in 1929 young adults. (abst – 2013)  

Psychosis and Severe Rhabdomyolysis Associated with Synthetic Cannabinoid Use. (abst – 2013)  

Neonatal lipopolysaccharide treatment has long-term effects on monoaminergic and cannabinoid receptors in the rat (abst – 2013)  

Electroconvulsive Therapy (ECT) for Catatonia in a Patient With Schizophrenia and Synthetic Cannabinoid Abuse: A Case Report. (abst – 2013)  

Quantification of endocannabinoids in postmortem brain of schizophrenic subjects. (abst – 2013)  


Effect of reclassification of cannabis on hospital admissions for cannabis psychosis: A time series analysis (abst – 2013)  

Cannabis abuse is associated with better emotional memory in schizophrenia: A functional magnetic resonance imaging study. (abst – 2013)  

Dominant negative DISC1 mutant mice display specific social behaviour deficits and aberration in BDNF and cannabinoid receptor expression. (abst – 2013)  

Fatty acid ethanolamide levels are altered in borderline personality and complex posttraumatic stress disorders. (abst – 2013)  


Cannabidiol: Pharmacology and potential therapeutic role in epilepsy and other neuropsychiatric disorders (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4707667/

CB1 cannabinoid receptors are involved in neuroleptic-induced enhancement of brain neurotensin. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4016688/


A controlled family study of cannabis users with and without psychosis. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4319545/

Impaired Fear Memory Specificity Associated with Deficient Endocannabinoid-Dependent Long-Term Plasticity. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4023141/

Cannabinoid Transmission in the Prefrontal Cortex Bi-Phasically Controls Emotional Memory Formation via Functional Interactions with the Ventral Tegmental Area. (full – 2014) http://www.jneurosci.org/content/34/39/13096.long

Acute administration of Δ9 tetrahydrocannabinol does not prevent enhancement of sensory gating by clozapine in DBA/2 mice. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3945413/

Effects of pubertal cannabinoid administration on attentional set-shifting and dopaminergic hyper-responsivity in a developmental disruption model of schizophrenia. (full – 2014) http://ijnp.oxfordjournals.org/content/ijnp/18/2/pyu018.full.pdf

Genetic predisposition to schizophrenia associated with increased use of cannabis. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4382963/
Paranoid Personality Disorder in the United States: The Role of Race, Illicit Drug Use, and Income                    (full – 2014)
http://www.tandfonline.com/doi/full/10.1080/15332640.2013.850463

Increasing Endocannabinoid Levels in the Ventral Pallidum Restore Aberrant Dopamine Neuron Activity in the Subchronic PCP Rodent Model of Schizophrenia.      (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4332795/

Smoking synthetic marijuana leads to self-mutilation requiring bilateral amputations. (full – 2014) (warning – graphic photos)
http://www.healio.com/orthopedics/journals/ortho/2014-4-37-4-%7Be1c1de76-8467-4810-8e5f-8f18bde50169%7D/smoking-synthetic-marijuana-leads-to-self-mutilation-requiring-bilateral-amputations

Risk-taking in schizophrenia and controls with and without cannabis dependence. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4308438/

http://www.nature.com/npp/journal/v40/n6/full/npp2014329a.html

Cannabis use and suicidal ideations in high-school students.  (full – 2014)


Cannabinoids and schizophrenia: therapeutic prospects.  (abst – 2014)


Cannabidiol Attenuates Sensorimotor Gating Disruption and Molecular Changes Induced by Chronic Antagonism of NMDA receptors in Mice. (full – 2015) http://ijnp.oxfordjournals.org/content/18/5/pyu041.long


Evaluating the impact of cannabis use on thalamic connectivity in youth at clinical high risk of psychosis. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4640353/

A clinical comparison of schizophrenia with and without pre-onset cannabis use disorder: a retrospective cohort study using categorical and dimensional approaches. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4676097/

Chronic Adolescent Marijuana Use as a Risk Factor for Physical and Mental Health Problems in Young Adult Men. (full – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26237286


Adolescent cannabis exposure interacts with mutant DISC1 to produce impaired adult emotional memory. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4640936/


Further human evidence for striatal dopamine release induced by administration of Δ9-tetrahydrocannabinol (THC): selectivity to limbic striatum (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4816196/


The phytocannabinoid, Δ(9) -tetrahydrocannabivarin, can act through 5-HT1A receptors to produce antipsychotic effects. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4337703/

The adverse health effects of synthetic cannabinoids with emphasis on psychosis-like effects. (full – 2015) http://journals.sagepub.com/doi/full/10.1177/0269881115609073


Cannabis conundrum: Evidence of harm?: Opposition to marijuana use is often rooted in arguments about the drug's harm to children and adults, but the scientific evidence is seldom clear-cut (article – 2015) http://onlinelibrary.wiley.com/doi/10.1002/cncy.21516/full


No additive effect of cannabis on cognition in schizophrenia. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26235754


Endocannabinoids and Mental Disorders. (abst – 2015) http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_8


The CCDC55 couples cannabinoid receptor CNR1 to a putative DISC1 schizophrenia pathway. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26475744

Evaluating the relationship between cannabis use and IQ in youth and young adults at clinical high risk of psychosis. (abst – 2015) http://www.psy-journal.com/article/S0165-1781%2815%2930166-9/abstract

Deletion of CB2 cannabinoid receptors reduces synaptic transmission and long-term potentiation in the mouse hippocampus. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26663094


CB2 Cannabinoid Receptor Knockout in Mice Impairs Contextual Long-Term Memory and Enhances Spatial Working Memory (full – 2016) http://www.hindawi.com/journals/np/2016/9817089/
AKT1 genotype moderates the acute psychotomimetic effects of naturalistically smoked cannabis in young cannabis smokers. (full – 2016)  http://www.nature.com/tp/journal/v6/n2/full/tp2015219a.html


Endocannabinoid control of glutamate NMDA receptors: the therapeutic potential and consequences of dysfunction. (full – 2016)  http://www.impactjournals.com/oncotarget/index.php?journal=oncotarget&page=article&op=view&path%5B%5D=10095&path%5B%5D=31745

First-Episode of Synthetic Cannabinoid-Induced Psychosis in a Young Adult, Successfully Managed with Hospitalization and Risperidone. (full – 2016)  http://www.hindawi.com/journals/crips/2016/7257489/


Traditional marijuana, high-potency cannabis and synthetic cannabinoids: increasing risk for psychosis. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5032490/

Cannabidiol Counteracts Amphetamine-Induced Neuronal and Behavioral Sensitization of the Mesolimbic Dopamine Pathway through a Novel mTOR/p70S6 Kinase Signaling Pathway. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4854973/

Psychiatric comorbidity associated with synthetic cannabinoid use compared to cannabis. (full – 2016) http://journals.sagepub.com/doi/full/10.1177/0269881116658990


Antipsychotic-like Effects of M4 Positive Allosteric Modulators Are Mediated by CB2 Receptor-Dependent Inhibition of Dopamine Release. (full – 2016) http://www.cell.com/neuron/fulltext/S0896-6273(16)30509-8


Cannabis and Psychosis: a Critical Overview of the Relationship  

The endocannabinoid system and NGF are involved in the mechanism of action of resveratrol: a multi-target nutraceutical with therapeutic potential in neuropsychiatric disorders  

Role of the Endocannabinoid System in the Pathophysiology of Schizophrenia  

A Case of Butane Hash Oil (Marijuana Wax)-Induced Psychosis.  

Cannabinoids for the Treatment of Schizophrenia: An Overview.  
http://www.eurekaselect.com/139245/article

Cannabis-induced psychosis associated with high potency "wax dabs".  

Cannabidiol, neuroprotection and neuropsychiatric disorders  

Synthetic Cannabinoids-Further Evidence Supporting the Relationship Between Cannabinoids and Psychosis.  

Metabolic syndrome in people with a psychotic illness: is cannabis protective?  

Effects of the antipsychotic paliperidone on stress-induced changes in the endocannabinoid system in rat prefrontal cortex.  

Gender Differences in Associations Between Attention-Deficit/Hyperactivity Disorder and Substance Use Disorder.  

Acute Psychosis after Consumption of Synthetic Cannabinoids  

Cognitive Function in Individuals With Psychosis: Moderation by Adolescent Cannabis Use.  

Distinct neuronal activation patterns are associated with PCP-induced social withdrawal and its reversal by the endocannabinoid-enhancing drug URB597.  

Association between schizotypal and borderline personality disorder traits, and cannabis use in young adults.  

Positron Emission Tomography Studies on Cannabinoid Receptor Type 1 in Schizophrenia (abst – 2016)  http://www.biologicalpsychiatryjournal.com/article/S0006-3223%2816%2932303-4/abstract

Could cannabidiol be used as an alternative to antipsychotics? (abst – 2016)  http://www.journalofpsychiatricresearch.com/article/S0022-3956(16)30104-2/abstract


Decreased CB receptor binding and cannabinoid signaling in three brain regions of a rat model of schizophrenia. (abst – 2016) 

Cannabinoids: Glutamatergic Transmission and Kynurenines. (abst – 2016) 

Drug Dependence and Toxicity of Law-Evading Drugs: Their Mechanisms Explored from Basic Research (abst – 2016) 

The Effects of Cannabis on Inpatient Agitation, Aggression, and Length of Stay. (abst – 2016) 

Association of Anandamide with altered Binocular Depth Inversion Illusion in Schizophrenia. (abst – 2016) 

Decreased CB receptor binding and cannabinoid signaling in three brain regions of a rat model of schizophrenia (abst – 2016) 

Characteristics associated with synthetic cannabinoid use among patients treated in a public psychiatric emergency setting. (abst – 2016) 

Pros and cons of medical cannabis use by people with chronic brain disorders. (abst – 2016) 

Targeting the Endocannabinoid System in Psychiatric Illness. (abst – 2016) 


The effects of cannabis use on salience attribution: a systematic review. (abst – 2016) 

A systematic review of the effect of cannabidiol on cognitive function: Relevance to schizophrenia. (abst – 2016) 

The consequences of chronic cannabis smoking in vulnerable adolescents. (abst – 2016) 

Cannabinoid receptors on peripheral leukocytes from patients with schizophrenia: Evidence for defective immunomodulatory mechanisms. (abst – 2016)
Motivational changes of cannabis use prior to and during the course of schizophrenia. (abst – 2016)  

Differential effects of cannabis dependence on cortical inhibition in patients with schizophrenia and non-psychiatric controls. (abst – 2016)  

The role of the CNR1 gene in schizophrenia: a systematic review including unpublished data  

The Impact of CB2 Receptor Ligands on the MK-801-Induced Hyperactivity in Mice (full – 2017)  
http://link.springer.com/article/10.1007%2Fs12640-017-9702-4

Short communication: Genetic association between schizophrenia and cannabis use. (abst – 2017)  


Cannabis use, COMT, BDNF and age at first-episode psychosis. (abst – 2017)  

SCLERODERMA +

Targeting the cannabinoid pathway limits the development of fibrosis and autoimmunity in a mouse model of systemic sclerosis. (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2893662/

Inactivation of the cannabinoid receptor CB1 prevents leukocyte infiltration and experimental fibrosis. (full – 2010)  

Is lipid signaling through cannabinoid 2 receptors part of a protective system? (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3062638/

The cannabinoid WIN55, 212-2 abrogates dermal fibrosis in scleroderma bleomycin model. (abst – 2011)  

Adenosine A2A receptor activation stimulates collagen production in sclerodermic dermal fibroblasts either directly and through a cross-talk with the cannabinoid system. (abst – 2012) http://www.ncbi.nlm.nih.gov/pubmed/22033526


The cannabinoid quinol VCE-004.8 alleviates bleomycin-induced scleroderma and exerts potent antifibrotic effects through peroxisome proliferator-activated receptor-γ and CB2 pathways. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4757881/


SEBACEOUS GLANDS + – glands that produce skin oils


TRP channel cannabinoid receptors in skin sensation, homeostasis, and inflammation. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4240254/

Cannabidiol exerts sebostatic and antiinflammatory effects on human sebocytes. (full – 2014) http://www.jci.org/articles/view/64628


Targeting Cutaneous Cannabinoid Signaling in Inflammation - A “High”-way to Heal?
SEBORRHEA

Targeting Cutaneous Cannabinoid Signaling in Inflammation - A “High”-way to Heal? (full – 2017)

http://www.ebiomedicine.com/article/S2352-3964(17)30003-8/fulltext

SEPTIC SHOCK/ SEPSIS +*.

Cannabinoid-induced apoptosis in immune cells as a pathway to immunosuppression. (full - 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3005548/?tool=pubmed

Treatment with cannabidiol reverses oxidative stress parameters, cognitive impairment and mortality in rats submitted to sepsis by cecal ligation and puncture. (abst - 2010)

Cannabidiol reduces lipopolysaccharide-induced vascular changes and inflammation in the mouse brain: an intravital microscopy study (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3034694/?tool=pmcentrez

The endocannabinoid system in sepsis – a potential target to improve microcirculation? (full – 2011)

Honokiol rescues sepsis-associated acute lung injury and lethality via the inhibition of oxidative stress and inflammation. (abst – 2011)

Cannabinoids and sepsis (abst – 2011)
http://www.trendsanaesthesiacriticalcare.com/article/S2210-8440%2811%2900049-9/fulltext

Cannabinoid receptor 2 activation reduces intestinal leukocyte recruitment and systemic inflammatory mediator release in acute experimental sepsis (full – 2012)
http://ccforum.com/content/16/2/R47

Cannabinoid receptor 1 inhibition causes seizures during anesthesia induction in experimental sepsis. (full – 2012)
http://journals.lww.com/anesthesia-analgesia/Fulltext/2012/06000/Cannabinoid_Receptor_1_Inhibition_Causes_Seizures.12.aspx
Targeting the endocannabinoid system with cannabinoid receptor agonists: pharmacological strategies and therapeutic possibilities  (full – 2012)  
http://rstb.royalsocietypublishing.org/content/367/1607/3353.full?sid=1569c370-89ff-5ed7015f8e069

Cannabinoid Receptor 2 Protects against Acute Experimental Sepsis in Mice.  (full – 2013)  
http://www.hindawi.com/journals/mi/2013/741303/

Cytokine release in sepsis  (full – 2013)  
http://file.scirp.org/Html/36257.html

Targeting the Endocannabinoid System to Treat Sepsis  (review – 2013)  
http://www.signavitae.com/2013/05/targeting-the-endocannabinoid-system-to-treat-sepsis/

Inhibition of endocannabinoid degradation in experimental endotoxemia reduces leukocyte adhesion and improves capillary perfusion in the gut.  (abst – 2013)  

Experimental cannabinoid 2 receptor-mediated immune modulation in sepsis.  (full – 2014)  
http://www.hindawi.com/journals/mi/2014/978678/

Palmitoylethanolamide stimulates phagocytosis of Escherichia coli K1 by macrophages and increases the resistance of mice against infections.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4080545/

The endocannabinoid/endovanilloid N-arachidonoyl dopamine (NADA) and synthetic cannabinoid WIN55,212-2 abate the inflammatory activation of human endothelial cells.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4036321/

Novel approaches to the development of anti-sepsis drugs.  (abst – 2014)  

New horizons for newborn brain protection: enhancing endogenous neuroprotection.  (full – 2015)  
http://fn.bmj.com/content/early/2015/06/10/archdischild-2014-306284.long

Δ9 Tetrahydrocannabinol attenuates Staphylococcal enterotoxin B-induced inflammatory lung injury and prevents mortality in mice by modulation of miR-17-92 cluster and induction of T-regulatory cells.  (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4376457/

Cannabinoid 2 receptor activation reduces leukocyte adhesion and improves capillary perfusion in the iridal microvasculature during systemic inflammation.  (abst – 2015)  

CB2 and GPR55 Receptors as Therapeutic Targets for Systemic Immune Dysregulation  (full – 2016)  
Involvement of Central Endothelin ETA and Cannabinoid CB1 Receptors and Arginine Vasopressin Release in Sepsis Induced by Cecal Ligation and Puncture in Rats.  

A systematic review of the effect of cannabidiol on cognitive function: Relevance to schizophrenia.  

>SHINGLES – see News section

SICKLE CELL DISEASE +

New Era Dawns on Sickle Cell Pain  
(full - 2010)  http://bloodjournal.hematologylibrary.org/cgi/reprint/116/3/311

Pain related behaviors and neurochemical alterations in mice expressing sickle hemoglobin: modulation by cannabinoids.  
(full - 2010)  http://bloodjournal.hematologylibrary.org/content/116/3/456.long

Mouse models for studying pain in sickle disease: effects of strain, age, and acuteness.  
(full – 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3779783/

Traditional Herbal Management of Sickle Cell Anemia: Lessons from Nigeria  
(full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3502758/

Priapism in a patient with sickle cell trait using marijuana.  
(full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4025395/

Cannabinoid receptor-specific mechanisms to ameliorate pain in sickle cell anemia via inhibition of mast cell activation and neurogenic inflammation.  
(link to PDF – 2015)  http://www.haematologica.org/content/early/2015/12/21/haematol.2015.136523.long

Quantification of pain in sickle mice using facial expressions and body measurements  

Sickle Cell Crisis Complicated by Synthetic Cannabinoid Abuse: A Case Report.  
SLEEP APNEA

Circulating endocannabinoids and N-acyl-ethanolamides in patients with sleep apnea--specific role of oleoylethanolamide. (abst – 2010)

A study on the endogenous cannabinoid system synthetic and catabolic enzyme levels in patients with obstructive sleep apnea. (abst – 2011)


Proof of concept trial of dronabinol in obstructive sleep apnea. (full – 2013)

Intranodose ganglion injections of dronabinol attenuate serotonin-induced apnea in Sprague-Dawley rat. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3880550/


Impact of dronabinol on quantitative electroencephalogram (qEEG) measures of sleep in obstructive sleep apnea syndrome. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3869068/

Cannabinoid Type 1 and Type 2 Receptor Antagonists Prevent Attenuation of Serotonin-Induced Reflex Apneas by Dronabinol in Sprague-Dawley Rats. (full – 2014)
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0111412

Cannabinoid Type 1 Receptor Antagonist, AM251, Prevents Attenuation Of Serotonin-induced Apneas By Dronabinol In Sprague-Dawley Rats (abst – 2014)

Emerging Drugs for Common Conditions of Sleepiness: Obstructive Sleep Apnea and Narcolepsy. (full – 2015)
http://www.tandfonline.com/doi/full/10.1517/14728214.2015.1115480

Circulating Endocannabinoids and Insulin Resistance in Patients with Obstructive Sleep Apnea (full – 2016) http://www.hindawi.com/journals/bmri/2016/9782031/
Intracerebroventricular injections of dronabinol, a cannabinoid receptor agonist, does not attenuate serotonin-induced apnea in Sprague-Dawley rats.  

**SLEEPING SICKNESS/ TRYPANOSOMIASIS**  *- also see CHAGAS DISEASE*

Trypanocidal Effect of Cannabis sativa on Experimental Camel Trypansomosis  

**SLEEP MODULATION**  ++*

Mixed mood disorder  (case report – undated)  
http://cannabisclinicians.org/view-all-case-reports/entry/228/?pagenum=2

Marijuana helps narcolepsy  (case report – undated)  
http://cannabisclinicians.org/view-all-case-reports/entry/598/?pagenum=2

Smoked cannabis for chronic neuropathic pain: a randomized controlled trial  
(full - 2010)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2950205/?tool=pmcentrez


The Effects of Nabilone on Sleep in Fibromyalgia: Results of a Randomized Controlled Trial.  

Endocannabinoid signalling: has it got rhythm?  
(full – 2010)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931554/

Sleep and Medicinal Cannabis  

Oleoylethanolamide affects food intake and sleep-waking cycle through a hypothalamic modulation.  

Administration of URB597, oleoylethanolamide or palmitoylethanolamide increases waking and dopamine in rats. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3136458/?tool=pubmed

A Pilot Study into the Effects of the CB1 Cannabinoid Receptor Agonist WIN55,212-2 or the Antagonist/Inverse Agonist AM251 on Sleep in Rats (full – 2011) http://www.hindawi.com/journals/sd/2011/178469/

Delta-9-tetrahydrocannabinol may palliate altered chemosensory perception in cancer patients: results of a randomized, double-blind, placebo-controlled pilot trial. (full – 2011) http://annonc.oxfordjournals.org/content/22/9/2086.long

Characterizing smoking topography of cannabis in heavy users. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3641906/

Role of Cannabinoids in Multiple Sclerosis (link to PDF - 2011) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.659.8269&rank=26

Effect of cannabidiol on sleep disruption induced by the repeated combination tests consisting of open field and elevated plus-maze in rats. (abst – 2011) http://www.sciencedirect.com/science/article/pii/S0028390811003467


Oleamide restores sleep in adult rats that were subjected to maternal separation. (abst – 2012) http://www.sciencedirect.com/science/article/pii/S0091305712002493

Using cannabis to help you sleep: Heightened frequency of medical cannabis use among those with PTSD. (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3929256/

Around-the-clock oral THC effects on sleep in male chronic daily cannabis smokers. (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4537525/


2-AG into the lateral hypothalamus increases REM sleep and cFos expression in melanin concentrating hormone neurons in rats. (abst – 2013)  http://www.sciencedirect.com/science/article/pii/S0091305713001007

Cardiorespiratory control as a function of wake-sleep behavior and diet in mice lacking CB1 cannabinoid receptors (abst – 2013)  http://www.fasebj.org/content/27/1_Supplement/926.1.short

The administration of endocannabinoid uptake inhibitors OMDM-2 or VDM-11 promotes sleep and decreases extracellular levels of dopamine in rats. (abst – 2013)  http://www.ncbi.nlm.nih.gov/pubmed/23238438


Poor sleep quality as a risk factor for lapse following a cannabis quit attempt. (abst – 2013)  http://www.ncbi.nlm.nih.gov/pubmed/23098380

Endocannabinoid Modulation of Cortical Up-States and NREM Sleep (full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3919802/

Multiple sleep alterations in mice lacking cannabinoid type 1 receptors. (full – 2014)  http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0089432

Impact of dronabinol on quantitative electroencephalogram (qEEG) measures of sleep in obstructive sleep apnea syndrome. (full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3869068/

Cardiorespiratory Anomalies in Mice Lacking CB1 Cannabinoid Receptors.
Therapeutic benefits of cannabis: a patient survey.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3998228/

Use of a Synthetic Cannabinoid in a Correctional Population for Posttraumatic Stress Disorder-Related Insomnia and Nightmares, Chronic Pain, Harm Reduction, and Other Indications: A Retrospective Evaluation.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4165471/

Potential effects of cannabidiol as a wake-promoting agent.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4023456/

A double-blind, randomized, placebo-controlled, parallel group study of THC/CBD spray in peripheral neuropathic pain treatment.  

Therapeutic Potential of Cannabinoids in Counteracting Chemotherapy-induced Adverse Effects: An Exploratory Review.  

Anandamide activation of CB1 receptors increases spontaneous bursting and oscillatory activity in the thalamus.  

Intrahypothalamic injection of cannabidiol increases the extracellular levels of adenosine in nucleus accumbens in rats.  

Cannabidiol can improve complex sleep-related behaviours associated with rapid eye movement sleep behaviour disorder in Parkinson's disease patients: a case series.  

Inhibition of diacylglycerol lipase (DAGL) in the lateral hypothalamus of rats prevents the increase in REMS and food ingestion induced by PAR1 stimulation.  

Endocannabinoid signaling modulates neurons of the pedunculopontine nucleus (PPN) via astrocytes.  

When time stands still: an integrative review on the role of chronodisruption in posttraumatic stress disorder.  

Discriminating the effects of Cannabis sativa and Cannabis indica: a web survey of medical cannabis users.  
2-Arachidonoylglycerol into the lateral hypothalamus improves reduced sleep in adult rats subjected to maternal separation. (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/25356522


Retrospective Analysis of Tetrahydrocannabinol Based on 31 Neurologically Critically Ill Children  (abst – 2015)  


Rhythmic control of endocannabinoids in the rat pineal gland (abst – 2015)  


Endocannabinoid Signaling Regulates Sleep Stability.  (full – 2016)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0152473

Sleep restriction alters plasma endocannabinoids concentrations before but not after exercise in humans.  (full – 2016)  
http://www.psyneuen-journal.com/article/S0306-4530(16)30715-6/fulltext

The impact of drugs for multiple sclerosis on sleep.  (full – 2016)  
http://journals.sagepub.com/doi/full/10.1177/1352458516664034

Cannabis and Cannabinoids (PDQ®)Health Professional Version  (full – 2016)  
https://www.ncbi.nlm.nih.gov/books/NBK65755/

Marijuana Compounds: A Nonconventional Approach to Parkinson’s Disease Therapy  (full – 2016)  
https://www.hindawi.com/journals/pd/2016/1279042/

Safety and Efficacy of Medical Cannabis Oil for Behavioral and Psychological Symptoms of Dementia: An-Open Label, Add-On, Pilot Study.  (abst – 2016)  

Dose-dependent cannabis use, depressive symptoms, and FAAH genotype predict sleep quality in emerging adults: a pilot study.  (abst – 2016)  

Direct presynaptic and indirect astrocyte-mediated mechanisms both contribute to endocannabinoid signaling in the pedunculopontine nucleus of mice.  (abst – 2016)  

Influence of Previous Failed Antispasticity Therapy on the Efficacy and Tolerability of THC:CBD Oromucosal Spray for Multiple Sclerosis Spasticity.  (abst – 2016)  
Factors associated with having a medical marijuana card among Veterans with recent substance use in VA outpatient treatment. (abst – 2016)  


Marijuana use in adults admitted to a Canadian epilepsy monitoring unit. (abst – 2016)  

Contribution of health motive to cannabis use among high-school students. (abst – 2016)  

Disturbances of sleep and circadian rhythms: novel risk factors for obesity. (abst – 2016)  

Importance of Urinary Drug Screening in the Multiple Sleep Latency Test and Maintenance of Wakefulness Test. (abst – 2016)  

The hazards of bad sleep-Sleep duration and quality as predictors of adolescent alcohol and cannabis use. (abst – 2016)  

Revealing the role of the endocannabinoid system modulators, SR141716A, URB597 and VDM-11, in sleep homeostasis. (abst – 2016)  

Endocannabinoids and sleep (abst – 2016)  

Regulation of fear extinction by long-term depression: the roles of endocannabinoids and brain derived neurotrophic factor. (abst – 2016)  

Attitudes to cannabis and patterns of use among Canadians with multiple sclerosis (abst – 2016)  

SMALLPOX + - also see COW POX  (not good news)

Cannabinoids lead to enhanced virulence of the smallpox vaccine (vaccinia) virus. (abst – 2011)  
http://www.unboundmedicine.com/medline/ebm/record/21131094/abstract/Cannabinoids_lead_to_enhanced_virulence_of_the_smallpox_vaccine_vaccinia_virus
Genome-wide association study of antibody response to smallpox vaccine. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3367131/

Possible Immunosuppressive Effects of Drug Exposure and Environmental and Nutritional Effects on Infection and Vaccination (full – 2015) http://www.hindawi.com/journals/mi/2015/349176/

SMELL / ODOR DETECTION +

The endocannabinoid 2-arachidonoyl-glycerol controls odor sensitivity in larvae of Xenopus laevis. (full – 2010) http://www.jneurosci.org/content/30/26/8965.long


Cannabinoid receptor-mediated regulation of neuronal activity in the main olfactory bulb (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3397690/

Handler beliefs affect scent detection dog outcomes (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3078300/

Cannabinoid receptor-mediated regulation of neuronal activity and signaling in glomeruli of the main olfactory bulb. (full – 2012) http://www.jneurosci.org/content/32/25/8475.long


Identification of odorant-receptor interactions by global mapping of the human odorome
Effects of 20 mg oral Δ9-tetrahydrocannabinol on the olfactory function of healthy volunteers. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4243870/

Detecting Cannabis Use on the Human Skin Surface via an Electronic Nose System. (link to PDF– 2014) http://www.mdpi.com/1424-8220/14/7/13256


An endocannabinoid system is present in the mouse olfactory epithelium but does not modulate olfaction. (full – 2015) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4485596/


**SMOKED CANNABIS AS A MEDICATION** 

Smoked cannabis for chronic neuropathic pain: a randomized controlled trial  
(full - 2010) [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2950205/?tool=pmcentrez](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2950205/?tool=pmcentrez)

Efficacy and tolerability of high-dose dronabinol maintenance in HIV-positive marijuana smokers: a controlled laboratory study.  

Canadian Ophthalmological Society policy statement on the medical use of marijuana for glaucoma.  
(article - 2010) [http://www.canadianjournalofophthalmology.ca/article/S0008-4182%2810%2980129-2/abstract](http://www.canadianjournalofophthalmology.ca/article/S0008-4182%2810%2980129-2/abstract)

The relationship between substance use and posttraumatic stress disorder in a methadone maintenance treatment program.  

Spontaneous regression of septum pellucidum/forniceal pilocytic astrocytomas-possible role of Cannabis inhalation.  

Cannabis Use in Patients with Fibromyalgia: Effect on Symptoms Relief and Health-Related Quality of Life  
(full – 2011) [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3080871/?tool=pubmed](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3080871/?tool=pubmed)

Posttraumatic Stress and Marijuana Use Coping Motives: The Mediating Role of Distress Tolerance  
(full – 2011) [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3101637/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3101637/)

Medical cannabis use in post-traumatic stress disorder: a naturalistic observational study.  

Smoked cannabis for spasticity in multiple sclerosis: a randomized, placebo-controlled trial.  
(full – 2012) [http://www.cmaj.ca/content/184/10/1143.long](http://www.cmaj.ca/content/184/10/1143.long)

Association of herbal cannabis use with negative psychosocial parameters in patients with fibromyalgia.  

Use of cannabis among 139 cluster headache sufferers.  

Role of Cannabinoids in Multiple Sclerosis  
(link to PDF - 2011) [http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.659.8269&rank=26](http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.659.8269&rank=26)

Seizure exacerbation in two patients with focal epilepsy following marijuana cessation.

The impact of marijuana use on glucose, insulin, and insulin resistance among US adults (full – 2013) http://www.amjmed.com/article/S0002-9343(13)00200-3/fulltext

Marijuana Smoking Does Not Accelerate Progression of Liver Disease in HIV-Hepatitis C Coinfection: A Longitudinal Cohort Analysis. (full – 2013) http://cid.oxfordjournals.org/content/early/2013/07/03/cid.cit378.long


Magnitude of stimulation dictates the cannabinoid-mediated differential T cell response to HIVgp120 (full – 2013) http://www.jleukbio.org/content/92/5/1093.full


Medicinal Cannabis and Painful Sensory Neuropathy (editorial – 2013) http://virtualmentor.ama-assn.org/2013/05/oped1-1305.html


Synthetic cannabis: a comparison of patterns of use and effect profile with natural cannabis in a large global sample. (abst – 2013)
Prescribing smoked cannabis for chronic noncancer pain: Preliminary recommendations. (full – 2014) http://www.cfp.ca/content/60/12/1083.long


Cannabis use by individuals with multiple sclerosis: effects on specific immune parameters. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4170074/


Inhaled medicinal cannabis and the immunocompromised patient (full – 2014) MASSC (yes, that’s all the link!)


Comparative risk assessment of alcohol, tobacco, cannabis and other illicit drugs using the margin of exposure approach  
(full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4311234/

Use of Prescription Pain Medications Among Medical Cannabis Patients: Comparisons of Pain Levels, Functioning, and Patterns of Alcohol and Other Drug Use.  
(full – 2015)  

Efficacy and adverse effects of medical marijuana for chronic noncancer pain: Systematic review of randomized controlled trials.  
(full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4541447/

Cannabis Use and Reduced Risk of Insulin Resistance in HIV-HCV Infected Patients: A Longitudinal Analysis (ANRS CO13 HEPAVIH)  
(full – 2015)  
http://cid.oxfordjournals.org/content/61/1/40.long

Life Threatening Idiopathic Recurrent Angioedema Responding to Cannabis.  
(full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4519555/

Narrative review of the safety and efficacy of marijuana for the treatment of commonly state-approved medical and psychiatric disorders  
(full – 2015)  

Self-medication of achalasia with cannabis, complicated by a cannabis use disorder.  
(full – 2015)  
http://www.wjgnet.com/1007-9327/full/v21/i20/6381.htm

Cannabis abuse effects on prepulse inhibition in patients with first episode psychosis in schizophrenia  
(full – 2015)  

Patterns of Use of Medical Cannabis Among Israeli Cancer Patients: A Single Institution Experience  
(full – 2015)  
http://www.jpsmjournal.com/article/S0885-3924(14)00312-1/fulltext

Cannabis Smoking and Diabetes Mellitus: Results from Meta-analysis with Eight Independent Replication Samples.  
(full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4801109/

Cannabinoids and Tremor Induced by Motor-related Disorders: Friend or Foe?  
(full – 2015)  

The effects of dronabinol during detoxification and the initiation of treatment with extended release naltrexone.  
(full – 2015)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4536087/

(full – 2015)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4666747/


Being the Victim of Violence during a Date predicts Next-Day Cannabis Use among Female College Students. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26449928


Integrating cannabis into clinical cancer care. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4791148/

Marijuana effects on changes in brain structure and cognitive function among HIV+ and HIV- adults. (link via ELSEVIER to Full Text – 2016)

The use of medical-grade cannabis in patients non-responders to Nabiximols (first page – 2016)

Prior Cannabis Use Is Associated with Outcome after Intracerebral Hemorrhage. (abst - 2016)

Efficacy, tolerability and safety of cannabinoids for chronic neuropathic pain: A systematic review of randomized controlled studies. (scroll down for English version) (abst – 2016)

Plant-Derived and Endogenous Cannabinoids in Epilepsy. (abst – 2016)

Cannabinoids: Medical implications. (abst – 2016)

Cannabis in Pain Treatment: Clinical & Research Considerations. (abst – 2016)

Metabolic syndrome in people with a psychotic illness: is cannabis protective? (abst – 2016)

The Effect of Medicinal Cannabis on Pain and Quality of Life Outcomes in Chronic Pain: A Prospective Open-label Study. (abst – 2016)

No significant effect of cannabis use on the count and percentage of circulating CD4 T-cells in HIV-HCV co-infected patients (ANRS CO13-HEPAVIH French cohort). (abst – 2016)

Associations of Posttraumatic Stress Disorder Symptoms With Marijuana and Synthetic Cannabis Use Among Young Adult U.S. Veterans: A Pilot Investigation. (abst – 2016)

Pharmacologic and non-pharmacologic treatments for chronic pain in individuals with HIV: a systematic review. (abst – 2016)

Marijuana use in adults admitted to a Canadian epilepsy monitoring unit.  

Cannabis and Pediatric Inflammatory Bowel Disease: Change Blossoms A Mile High.  

Contribution of health motive to cannabis use among high-school students.  

Efficacy, tolerability, and safety of cannabinoids in gastroenterology: A systematic review  

Effect of medical cannabis on thermal quantitative measurements of pain in patients with Parkinson's disease.  

Effects of Marijuana on ictal and interictal EEG activity in idiopathic generalized epilepsy.  

Survey of herbal cannabis (marijuana) use in rheumatology clinic attenders with a rheumatologist confirmed diagnosis.  

SOCIAL ADJUSTMENT/ BEHAVIOR +*

Sex difference in cell proliferation in developing rat amygdala mediated by endocannabinoids has implications for social behavior.  
(full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2996668/?tool=pubmed

Influence of cannabis use trajectories, grade repetition and family background on the school-dropout rate at the age of 17 years in France.  
(full - 2010) http://eurpub.oxfordjournals.org/content/20/2/157.long

Uni-Morbid and Co-Occurring Marijuana and Tobacco Use: Examination of Concurrent Associations with Negative Mood States  
(full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2861285/?tool=pubmed

Preservation of Striatal Cannabinoid CB1 Receptor Function Correlates with the Antianxiety Effects of Fatty Acid Amide Hydrolase Inhibition  
(full – 2010) http://molpharm.aspetjournals.org/content/78/2/260.long

A Life-course Perspective on the "Gateway Hypothesis".  

A Sociological Theory of Drug Sales, Gifts, and Frauds  
(full – 2010)
Patterns of Youth Participation in Cannabis Cultivation  
(http://journals.sagepub.com/doi/full/10.1177/0011128710386199)

Cannabis and crime: findings from a longitudinal study.  
(http://www.unboundmedicine.com/medline/ebm/record/19839964/full_citation/Cannabis_and_crime:_findings_from_a_longitudinal_study)

Gender moderates the impact of stereotype threat on cognitive function in cannabis users.  
(http://www.ncbi.nlm.nih.gov/pubmed/20483199)

Gender differences in adolescent marijuana use and associated psychosocial characteristics.  
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3359836/)

Drug-Intake Methods and Social Identity: The Use of Marijuana in Blunts Among Southeast Asian Adolescents and Emerging Adults.  
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3193281/?tool=pubmed)

Rural Adolescent Alcohol, Tobacco and Illicit Drug Use: A Comparison of Students in Victoria, Australia and Washington State, United States  
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3186916/)

Cannabidiol reduces the anxiety induced by simulated public speaking in treatment-naïve social phobia patients.  
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3186916/)

The social contagion effect of marijuana use among adolescents.  
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3018468/?tool=pubmed)

Racial differences in trajectories of heavy drinking and regular marijuana use from ages 13 to 24 among African-American and White males.  
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3258364/)

The association between early conduct problems and early marijuana use in college students.  
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3163297/)

Popular intoxicants: what lessons can be learned from the last 40 years of alcohol and cannabis regulation?  

Alterations in Corticolimbic Dendritic Morphology and Emotional Behavior in Cannabinoid CB1 Receptor–Deficient Mice Parallel the Effects of Chronic Stress  
(http://cercor.oxfordjournals.org/content/21/9/2056.full)

Profile of Psychoactive Substances Consumption in Workplace.  
(http://www.ncbi.nlm.nih.gov/pubmed/21635864)

High on Life? Medical Marijuana Laws and Suicide  (full – 2012)  

Differences in Spontaneously Avoiding or Approaching Mice Reflect Differences in CB1-Mediated Signaling of Dorsal Striatal Transmission.  (full – 2012)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0033260

Effects of delta-9-tetrahydrocannabinol on evaluation of emotional images  
(full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3664416/

Cannabidiol in humans-the quest for therapeutic targets.  (full – 2012)  

Acetaminophen differentially enhances social behavior and cortical cannabinoid levels in inbred mice.  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3389197/

Cannabidiol and clozapine reverse MK-801-induced deficits in social interaction and hyperactivity in Sprague-Dawley rats.  (full – 2012)  
http://journals.sagepub.com/doi/full/10.1177/0269881112441865


Identity Formation, Marijuana and “The Self”: A Study of Cannabis Normalization among University Students  (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3847659/

Fascination and Social Togetherness-Discussions about Spice Smoking on a Swedish Internet Forum.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3855086/

Perception of tobacco, cannabis, and alcohol use of others is associated with one's own use  (full – 2013)  http://www.ascpjournal.org/content/8/1/15

Do societal wealth, family affluence and gender account for trends in adolescent cannabis use? A 30 country cross-national study. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3947129/


THE IMPORTANCE OF FAMILY RELATIONS FOR CANNABIS USERS: THE CASE OF SERBIAN ADOLESCENTS (full – 2013)

Higher rates of adolescent substance use in child welfare versus community populations in the United States. (full - 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3817044/


Can Marijuana Reduce Social Pain? (full – 2013)
http://journals.sagepub.com/doi/full/10.1177/1948550613488949

From “Social Supply” to “Real Dealing”: Drift, Friendship, and Trust in Drug-Dealing Careers (link to PDF – 2013)
http://search.proquest.com/openview/7fca7d95539590726beef9e62d624c4e1?pq-origsite=gscholar&cbl=34918

Identity formation, marijuana and “the self”: a study of cannabis normalization among university students (article – 2013)


Cannabis use motives and personality risk factors. (abst – 2013)


Early onset of cannabis use: Does personality modify the relation with changes in perceived parental involvement? (full – 2014) http://www.drugandalcoholdependence.com/article/S0376-8716%2814%2901893-6/fulltext

Acute alcohol use temporally increases the odds of male perpetrated dating violence: A 90-day diary analysis (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3858531/

Acute effects of delta-9-tetrahydrocannabinol, cannabidiol and their combination on facial emotion recognition: A randomised, double-blind, placebo-controlled study in cannabis users. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4398332/


Couples' Marijuana Use Is Inversely Related to Their Intimate Partner Violence Over the First 9 Years of Marriage. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4282761/

Systemic Administration of Oleoylethanolamide Protects from Neuroinflammation and Anhedonia Induced by LPS in Rats (full – 2014) http://ijnp.oxfordjournals.org/content/18/6/pyu111
Cannabinoid Modulation of Amygdala Subregion Functional Connectivity to Social Signals of Threat. (full - 2014)  http://ijnp.oxfordjournals.org/content/18/3/pty104.long

Risk-taking in schizophrenia and controls with and without cannabis dependence. (full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4308438/


Interpersonal Guilt and Substance Use in College Students. (full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4782605/

Nutritional omega-3 modulates neuronal morphology in the prefrontal cortex along with depression-related behaviour through corticosterone secretion (full – 2014)  http://www.nature.com/tp/journal/v4/n9/full/tp201477a.html


Effects of mood inductions by meal ambiance and moderate alcohol consumption on endocannabinoids and N-acylETHANOLamines in humans: a randomized crossover trial. (full – 2015)  http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0126421

Cognitive Impairment Induced by Delta9-tetrahydrocannabinol Occurs through Heteromers between Cannabinoid CB1 and Serotonin 5-HT2A Receptors. (full – 2015)  http://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.1002194

Stigma among California’s Medical Marijuana Patients (full – 2015)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4341951/

To Act or Not to Act: Endocannabinoid/Dopamine Interactions in Decision-Making. (full – 2015)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4681836/


Cannabinoid type-1 receptor signaling in central serotonergic neurons regulates anxiety-like behavior and sociability. (full – 2015)  http://journal.frontiersin.org/article/10.3389/fnbeh.2015.00235/full

Neuropsychological sex differences associated with age of initiated use among young adult cannabis users. (full – 2015)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4441859/


Social anxiety and cannabis cravings: The influences of parent injunctive norms and tension reduction expectancies  
(full – 2015)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4646225/

Cannabidiol as a Potential Treatment for Anxiety Disorders  
(full – 2015)  

Effects of amphetamine, morphine, and CP 55, 940 on Go/No-Go task performance in rhesus monkeys.  
(full – 2015)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4497858/

Dissecting the cannabinergic control of behavior: The where matters.  
(abst – 2015)  

Role of CB2 receptors in social and aggressive behavior in male mice.  
(abst – 2015)  

From substance use to homelessness or vice versa?  
(abst – 2015)  

Use and effects of cannabinoids in military veterans with posttraumatic stress disorder.  
(abst – 2015)  

Antidepressant-like activity and cardioprotective effects of fatty acid amide hydrolase inhibitor URB694 in socially stressed Wistar Kyoto rats.  
(abst – 2015)  

Maternal separation and early stress cause long-lasting effects on dopaminergic and endocannabinergic systems and alters dendritic morphology in the nucleus accumbens and frontal cortex in rats.  
(abst – 2015)  

Disruption of social cognition in the sub-chronic PCP rat model of schizophrenia: Possible involvement of the endocannabinoid system.  
(abst – 2015)  

Who receives cannabis use offers: A general population study of adolescents.  
(abst – 2015)  

The fatty acid amide hydrolase inhibitor URB597 modulates serotonin-dependent emotional behaviour, and serotonin1A and serotonin2A/C activity in the hippocampus.  
(abst – 2015)  

Natural outcome of cannabis use disorder: a 3-year longitudinal follow-up.  
(abst – 2015)  

Being the Victim of Violence during a Date predicts Next-Day Cannabis Use among Female College Students.  
(abst – 2015)  
Investigating cannabis use normalization by distinguishing between experimental and regular use: a multilevel study in 31 countries. (abst – 2015)

Difficulties in emotion regulation are associated with panic symptom severity following a quit attempt among cannabis dependent veterans. (abst – 2015)

Dissociating the role of endocannabinoids in the pleasurable and motivational properties of social play behaviour in rats. (full – 2016)

Endocannabinoid control of glutamate NMDA receptors: the therapeutic potential and consequences of dysfunction. (full – 2016)
http://www.impactjournals.com/oncotarget/index.php?journal=oncotarget&page=article&op=view&path%5B%5D=10095&path%5B%5D=31745

Effects of various cannabinoid ligands on choice behaviour in a rat model of gambling. (full – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4803149/

Endocannabinoid signaling in social functioning: an RDoC perspective (full – 2016)
http://www.nature.com/tp/journal/v6/n9/full/tp2016169a.html

Targeting anandamide metabolism rescues core and associated autistic-like symptoms in rats prenatally exposed to valproic acid. (full – 2016)
http://www.nature.com/tp/journal/v6/n9/full/tp2016182a.html

Adverse Social Experiences in Adolescent Rats Result in Enduring Effects on Social Competence, Pain Sensitivity and Endocannabinoid Signaling (full – 2016)

Interacting Cannabinoid and Opioid Receptors in the Nucleus Accumbens Core Control Adolescent Social Play. (full – 2016)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5110529/

Solitary cannabis use frequency mediates the relationship between social anxiety and cannabis use and related problems. (full – 2016)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5147422/

Assessment of rates of recanting and hair testing as a biological measure of drug use in a general population sample of young people (full – 2016)

Lifelong imbalanced linoleic/alpha-linolenic acid intake impairs emotional and cognitive behavior in adult rats via changes in brain endocannabinoid system. (click “Full Text Links” to download – 2016)
The Effect of Medical Marijuana on Sickness Absence. (abst – 2016)  

Lipids in psychiatric disorders and preventive medicine. (abst – 2016)  

A Genetic Component to National Differences in Happiness (abst – 2016)  

Brain reactivity to alcohol and cannabis marketing during sobriety and intoxication. (abst – 2016)  

From “herbal highs” to the “heroin of cannabis”: Exploring the evolving discourse on synthetic cannabinoid use in a Norwegian Internet drug forum (abst – 2016)  

Social defeat leads to changes in the endocannabinoid system; an overexpression of calreticulin and motor impairment in mice. (abst – 2016)  

A role for the endocannabinoid 2-arachidonoyl-sn-glycerol for social and high-fat food reward in male mice. (abst – 2016)  

Distinct neuronal activation patterns are associated with PCP-induced social withdrawal and its reversal by the endocannabinoid-enhancing drug URB597. (abst – 2016)  

Adolescent social rejection alters pain processing in a CB1 receptor dependent manner. (abst – 2016)  


Neural endocannabinoid CB1 receptor expression, social status, and behavior in male European starlings. (abst – 2016)  

Neural mechanisms of sensitivity to peer information in young adult cannabis users. (abst – 2016)  

http://www.jaacap.com/article/S0890-8567%2816%2930101-0/abstract


Pharmacological inhibition of fatty acid amide hydrolase attenuates social behavioural deficits in male rats prenatally exposed to valproic acid. (abst – 2016) http://www.sciencedirect.com/science/article/pii/S1043661816308660


Acute and residual effects in adolescent rats resulting from exposure to the novel synthetic cannabinoids AB-PINACA and AB-FUBINACA
(full – 2017)

Modelling possible causality in the associations between unemployment, cannabis use, and alcohol misuse.
(abst – 2017)

Cannabis use and dating violence among college students: A call for research.

Social factors in marijuana use for medical and recreational purposes.

Alternate policing strategies: Cost-effectiveness of cautioning for cannabis offences.

SOCIAL MEDIA/ INTERNET

The identification of rimonabant polymorphs, sibutramine and analogues of both in counterfeit Acomplia bought on the internet.  (abst – 2011)

Internet Highs-Seizures After Consumption of Synthetic Cannabinoids Purchased Online.


Fascination and Social Togetherness-Discussions about Spice Smoking on a Swedish Internet Forum.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3855086/

UR-144 in products sold via the Internet: Identification of related compounds and characterization of pyrolysis products  (abst – 2013)

An Internet survey of marijuana and hot shower use in adults with cyclic vomiting syndrome (CVS).  (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4641512/


Using Web searches to track interest in synthetic cannabinoids (aka ‘herbal incense’) (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4412351/


"When 'Bad' is 'Good'": Identifying Personal Communication and Sentiment in Drug-Related Tweets. (full – 2016) http://publichealth.jmir.org/2016/2/e162/


"Those edibles hit hard": Exploration of Twitter data on cannabis edibles in the U.S. (abst – 2016)
Marijuana-Related Posts on Instagram. (abst – 2016)

A content analysis of tweets about high-potency marijuana. (abst – 2016)

Assessing the Validity of Online Drug Forums as a Source for Estimating Demographic and Temporal Trends in Drug Use. (abst – 2016)


Buying drugs on a Darknet market: A better deal? Studying the online illicit drug market through the analysis of digital, physical and chemical data. (abst – 2016)

Examination of YouTube videos related to synthetic cannabinoids. (abst – 2016)

The Synthetic Cannabinoids Phenomenon. (abst – 2016)

**SPACEFLIGHT/ OUTER SPACE**


Neurophysiology of space travel: energetic solar particles cause cell type-specific plasticity of neurotransmission. (full – 2016)

**SPASTICITY** *

Meta-analysis of the efficacy and safety of Sativex (nabiximols), on spasticity in people with multiple sclerosis (link to download - 2010)
http://journals.sagepub.com/doi/abs/10.1177/1352458510367462

Role of cannabinoids in the treatment of pain and (painful) spasticity. (abst – 2010)

Dronabinol for the treatment of unspeciﬁc pain, restlessness and spasticity in neuropaediatrics (abst – 2010)

Emerging treatment options for spasticity in multiple sclerosis; clinical utility of cannabinoids (link to PDF – 2011) http://www.dovepress.com/articles.php?article_id=7675

Role of Cannabinoids in Multiple Sclerosis (link to PDF - 2011)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.659.8269&rank=26

A randomized, double-blind, placebo-controlled, parallel-group, enriched-design study of nabiximols* (Sativex®), as add-on therapy, in subjects with refractory spasticity caused by multiple sclerosis. (abst – 2011)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=322

THC and CBD oromucosal spray (Sativex®) in the management of spasticity associated with multiple sclerosis. (abst - 2011)
http://www.unboundmedicine.com/medline/ebm/record/21456949/abstract/THC_and_CBD_oromucosal_spray_Sativex%C2%AE_in_the_management_of_spasticity_associated_with_multiple_sclerosis

Cannabinoids in children (abst – 2011)

FROM GHENNAB TO CANNABIS: HOPES TO FIND A CURE FOR MULTIPLE SCLEROSIS ARE FLOURISHING (abst – 2011)

The Therapeutic Potential of Cannabis and Cannabinoids (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3442177/

A placebo-controlled, parallel-group, randomized withdrawal study of subjects with symptoms of spasticity due to multiple sclerosis who are receiving long-term Sativex® (nabiximols). (full – 2012) http://msj.sagepub.com/content/18/2/219.long


Smoked cannabis for spasticity in multiple sclerosis: a randomized, placebo-controlled trial. (full – 2012) http://www.cmaj.ca/content/184/10/1143.long
Symptomatic therapy in multiple sclerosis: the role of cannabinoids in treating spasticity.  
(full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3437528/  

Clinical efficacy and effectiveness of Sativex, a combined cannabinoid medicine, in multiple sclerosis-related spasticity. (abst – 2012)  

The biology that underpins the therapeutic potential of cannabis-based medicines for the control of spasticity in multiple sclerosis. (abst – 2012)  

Nabiximols in the treatment of spasticity, pain and urinary symptoms due to multiple sclerosis. (abst – 2012)  

What place for cannabis extract in MS? (abst – 2012)  
http://dtb.bmj.com/content/50/12/141.abstract  

Treatment of spasticity in multiple sclerosis: new perspectives regarding the use of cannabinoids (abst – 2012)  

Cost Effectiveness of Oromucosal Cannabis-Based Medicine (Sativex®) for Spasticity in Multiple Sclerosis. (abst – 2012)  

Clinical experiences with cannabinoids in spasticity management in multiple sclerosis.  
(full – 2013)  

Control of spasticity in a multiple sclerosis model using central nervous system-excluded CB1 cannabinoid receptor agonists. (full – 2013)  
http://www.fasebj.org/content/28/1/117.long  

Endocannabinoid system modulator use in everyday clinical practice in the UK and Spain. (abst – 2013)  

Cannabis derivatives therapy for a seronegative stiff-person syndrome: a case report.  
(abst – 2013)  

A new multiple sclerosis spasticity treatment option: effect in everyday clinical practice and cost-effectiveness in Germany. (abst – 2013)  

Sativex long-term use: an open-label trial in patients with spasticity due to multiple sclerosis.  
(abst – 2013)  

Advances in the management of multiple sclerosis spasticity: experiences from recent studies and everyday clinical practice. (abst – 2013)  


Nabiximols (THC/CBD Oromucosal Spray, Sativex®) in Clinical Practice - Results of a Multicenter, Non-Interventional Study (MOVE 2) in Patients with Multiple Sclerosis Spasticity. (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/24525548


Modulatory effects by CB1 receptors on rat spinal locomotor networks after sustained application of agonists or antagonists. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26126926


Evidence for the efficacy and effectiveness of THC-CBD oromucosal spray in symptom management of patients with spasticity due to multiple sclerosis  (full – 2016)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4710104/


THC:CBD in Daily Practice: Available Data from UK, Germany and Spain.  (full – 2016)  http://www.karger.com/Article/FullText/444234

Efficacy and safety of cannabinoid oromucosal spray for multiple sclerosis spasticity.  (full – 2016)  http://jnnp.bmj.com/content/early/2016/05/08/jnnp-2015-312591.long


Nabilone for the Management of Pain. (abst – 2016) 

The effect of cannabinoids on the stretch reflex in multiple sclerosis spasticity. (abst – 2016)  

Influence of Previous Failed Antispasticity Therapy on the Efficacy and Tolerability of THC:CBD Oromucosal Spray for Multiple Sclerosis Spasticity. (abst – 2016)  

Refractory trigeminal neuralgia responsive to nabiximols in a patient with multiple sclerosis. (abst – 2016)  

Role of nurses in the management of symptoms associated with spasticity in patients with multiple sclerosis (abst – 2016)  

Cortical and spinal excitability in patients with multiple sclerosis and spasticity after oromucosal cannabinoid spray. (abst – 2016)  
https://www.ncbi.nlm.nih.gov/pubmed/27772772

Pros and cons of medical cannabis use by people with chronic brain disorders. (abst – 2016)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC27804883

Medical Marijuana: Just the Beginning of a Long, Strange Trip? (abst – 2016)  

Attitudes to cannabis and patterns of use among Canadians with multiple sclerosis (abst – 2016)  

Cannabis use in persons with traumatic spinal cord injury in Denmark. (link to PDF- 2017)  
https://www.medicaljournals.se/jrm/content/abstract/10.2340/16501977-2105

**SPINAL CORD INJURY +**

Cannabinoid receptor-mediated antinociception with acetaminophen drug combinations in rats with neuropathic spinal cord injury pain. (full – 2010)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2826109/

R-Flurbiprofen Reduces Neuropathic Pain in Rodents by Restoring Endogenous Cannabinoids (full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2869361/
A randomized, double-blinded, crossover pilot study assessing the effect of nabilone on spasticity in persons with spinal cord injury. (full - 2010) 
http://www.archives-pmr.org/article/S0003-9993%2810%2900072-9/fulltext

http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=313

Cannabinoid subtype-2 receptors modulate the antihyperalgesic effect of WIN 55,212-2 in rats with neuropathic spinal cord injury pain. (abst – 2010) 

The endocannabinoid 2-arachidonoylglycerol reduces lesion expansion and white matter damage after spinal cord injury. (abst - 2010) 

Cannabinoid Agonists Inhibit Neuropathic Pain Induced by Brachial Plexus Avulsion in Mice by Affecting Glial Cells and MAP Kinases. (full – 2011) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3172222/?tool=pubmed

Modulation of inflammatory responses by a cannabinoid-2-selective agonist after spinal cord injury. (full – 2011) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3235339/

Activation of spinal and supraspinal cannabinoid-1 receptors leads to antinociception in a rat model of neuropathic spinal cord injury pain. (full – 2011) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3159760/

Effects of palmitoylethanolamide on release of mast cell peptidases and neurotrophic factors after spinal cord injury. (abst – 2011) 

Targetting CB1 Cannabinoid Receptor for Neuroprotetion in Spinal Cord Injury (abst – 2011) 
http://www.fasebj.org/content/25/1_Supplement/lb422.abstract?sid=ebd6611b-9cd5-451c-8d4e-a78d4d17cca1

Spinal Cord Injuries Induce Changes of CB1 Cannabinoid Receptor and C-C Chemokine Expression in Brain Areas Underlying Circuitry of Chronic Pain Conditions. (abst – 2011) 
http://www.unboundmedicine.com/medline/ebm/record/21265596/abstract/Spinal_Cord_Injuries_Induce_C_hanges_of_CB1_Cannabinoid_Receptor_and_C_C_Chemokine_Expression_in_Brain_Areas_Underlying_Circuitry_of_Chronic_Pain_Conditions


Spinal cannabinoid CB2 receptors as a target for neuropathic pain: an investigation using chronic constriction injury. (abst – 2011) 

Early Endogenous Activation of CB1 and CB2 Receptors after Spinal Cord Injury Is a Protective Response Involved in Spontaneous Recovery (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3496738/

A Role for the Cannabinoid 1 Receptor in Neuronal Differentiation of Adult Spinal Cord Progenitors in vitro is Revealed through Pharmacological Inhibition and Genetic Deletion. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3265030/?tool=pubmed

A cell population that strongly expresses the CB1 cannabinoid receptor in the ependyma of the rat spinal cord (abst – 2012) http://www.ncbi.nlm.nih.gov/pubmed/22791629

The interaction between intrathecal administration of low doses of palmitoylethanolamide and AM251 in formalin-induced pain related behavior and spinal cord IL1-β expression in rats. (abst – 2012) http://www.ncbi.nlm.nih.gov/pubmed/22201038


Molecular evidence for the involvement of PPAR-δ and PPAR-γ in anti-inflammatory and neuroprotective activities of palmitoylethanolamide after spinal cord trauma (full – 2013) http://www.jneuroinflammation.com/content/10/1/20


A new co-ultramicronized composite including palmitoylethanolamide and luteolin to prevent neuroinflammation in spinal cord injury (full – 2013) http://www.jneuroinflammation.com/content/10/1/91


Palmitoylethanolamide in Homeostatic and Traumatic Central Nervous System Injuries (link to PDF - 2013) http://www.eurekaselect.com/107976/article

Medicinal Cannabis and Painful Sensory Neuropathy (editorial – 2013) http://journalofethics.ama-assn.org/2013/05/oped1-1305.html
Glia and Mast Cells as Targets for Palmitoylethanolamide, an Anti-inflammatory and Neuroprotective Lipid Mediator.  
(abst – 2013)  

Neuroprotection and reduction of glial reaction by cannabidiol treatment after sciatic nerve transection in neonatal rats.  
(abst – 2013)  

Heterogeneous presynaptic distribution of monoacylglycerol lipase, a multipotent regulator of nociceptive circuits in the mouse spinal cord.  
(full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3979158/

Involvement of cannabinoid receptors in peripheral and spinal morphine analgesia  
(full – 2014)  

Cannabinoid CB2 receptor (CB2R) stimulation delays rubrospinal mitochondrial-dependent degeneration and improves functional recovery after spinal cord hemisection by ERK1/2 inactivation.  
(full – 2014)  
http://www.nature.com/cddis/journal/v5/n9/full/cddis2014364a.html

Protective effects of cannabidiol on lesion-induced intervertebral disc degeneration.  
(full – 2014)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0113161

Effects of repeated dosing with mechanistically distinct antinociceptive ligands in a rat model of neuropathic spinal cord injury pain.  
(full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4184706/

Metabolomics uncovers dietary omega-3 fatty acid-derived metabolites implicated in anti-nociceptive responses after experimental spinal cord injury  
(full – 2014)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3844071/

Report on Medical Cannabis Research History- What the Science Says  
(article – 2014)  
http://www.safeaccessnow.org/medical_cannabis_research_what_does_the_evidence_say

Descending modulation of pain: the GABA disinhibition hypothesis of analgesia.  
(abst – 2014)  

The spinal anti-inflammatory mechanism of motor cortex stimulation: cause of success and refractoriness in neuropathic pain?  
(full – 2015)  
http://www.jneuroinflammation.com/content/pdf/s12974-014-0216-1.pdf

PROGRESS REPORT Compassionate Use of Medical Cannabis Pilot Program Act  
July 1, 2014 through June 30, 2015  
(full – 2015)  


Cannabis use in persons with traumatic spinal cord injury in Denmark.
Endocannabinoid activation of CB1 receptors contributes to long-lasting reversal of neuropathic pain by repetitive spinal cord stimulation.

SPINOCEREBELLAR ATAXIA/ SCA - an inherited neurodegenerative disorder- also see ATAXIA

Disruption of metabotropic glutamate receptor signalling is a major defect at cerebellar parallel fibre-Purkinje cell synapses in staggerer mutant mice.

Changes in CB1 and CB2 receptors in the post-mortem cerebellum of humans affected by spinocerebellar ataxias.

Endocannabinoid-Hydrolysing Enzymes in the Post-Mortem Cerebellum of Humans Affected by Hereditary Autosomal Dominant Ataxias.

Dysregulation of the endocannabinoid signaling system in the cerebellum and brainstem in a transgenic mouse model of spinocerebellar ataxia type-3.

SPLEEN +*

Regulatory effect of cannabinoid receptor agonist on chemokine-induced lymphocyte chemotaxis.

Cannabinoid receptor 2 positions and retains marginal zone B cells within the splenic marginal zone.

Differential Modulation by Delta(9)-Tetrahydrocannabinol (Δ (9)-THC) of CD40 Ligand (CD40L) Expression in Activated Mouse Splenic CD4(+) T cells.

Magnitude of stimulation dictates the cannabinoid-mediated differential T cell response to HIVgp120.
Cannabinoid Receptor 2 (CB2) Plays a Role in the Generation of Germinal Center and Memory B Cells, but Not in the Production of Antigen-Specific IgG and IgM, in Response to T-dependent Antigens.  (full – 2013)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0067587

Characterization of cannabinoid receptor ligands in tissues natively expressing cannabinoid CB2 receptors.  (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3687668/

Fatty acid amide hydrolase deficiency enhances intraplaque neutrophil recruitment in atherosclerotic mice.  (full – 2013)  
http://atvb.ahajournals.org/content/33/2/215.long

Whole-Body Biodistribution and Radiation Dosimetry of the Cannabinoid Type 2 Receptor Ligand [11C]-NE40 in Healthy Subjects.  (abst – 2013)  

Comparative biochemical characterization of the monoacylglycerol lipase inhibitor KML29 in brain, spinal cord, liver, spleen, fat and muscle tissue.  (full – 2014)  

4'-O-methylhonokiol increases levels of 2-arachidonoyl glycerol in mouse brain via selective inhibition of its COX-2-mediated oxygenation.  (full – 2015)  

Cannabidiol, a non-psychoactive cannabinoid, leads to EGR2-dependent anergy in activated encephalitogenic T cells.  (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4363052/

Expression Analysis of CB2-GFP BAC Transgenic Mice  (full – 2015)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0138986


Lipopolysaccharide Suppresses Carboxylesterase 2g Activity and 2-Arachidonylglycerol Hydrolysis: A Possible Mechanism to Regulate Inflammation.  (abst – 2015)  

Neuroprotective Effect Is Driven Through the Upregulation of CB1 Receptor in Experimental Autoimmune Encephalomyelitis.  (abst – 2015)  

Effects of Adolescent Intermittent Alcohol Exposure on the Expression of Endocannabinoid Signaling-Related Proteins in the Spleen of Young Adult Rats.  (full – 2016)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5035052/

**SPORTS** - also see EXERCISE


High-performance sport, marijuana, and cannabimimetics. (full – 2011) http://jat.oxfordjournals.org/content/35/9/624.long


Why should Cannabis be Considered Doping in Sports? (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3654312/

Hair-based rapid analyses for multiple drugs in forensics and doping: application of dynamic multiple reaction monitoring with LC-MS/MS. (full – 2014) http://journal.chemistrycentral.com/content/8/1/73


Prevalence and correlates of cannabis use among athletes-A systematic review.
STEM CELLS

Endocannabinoids Are Expressed in Bone Marrow Stromal Niches and Play a Role in Interactions of Hematopoietic Stem and Progenitor Cells with the Bone Marrow Microenvironment  (full – 2010)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2975171/?tool=pubmed


Pleiotropic effects of prostaglandin E(2) in hematopoiesis; prostaglandin E(2) and other eicosanoids regulate hematopoietic stem and progenitor cell function. (full – 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3206178/

Endocannabinoids via CB₁ receptors act as neurogenic niche cues during cortical development. (full – 2012)  http://rstb.royalsocietypublishing.org/content/367/1607/3229.long


Type-1 (CB(1)) Cannabinoid Receptor Promotes Neuronal Differentiation and Maturation of Neural Stem Cells. (full – 2013)  http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0054271

The Cannabinoid Receptor Type 2 as Mediator of Mesenchymal Stromal Cell Immunosuppressive Properties (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3842278/

The cannabinoid receptor type 1 is essential for mesenchymal stem cell survival and differentiation: implications for bone health. (full – 2013)  http://www.hindawi.com/journals/sci/2013/796715/.


Impact of omega-6 polyunsaturated fatty acid supplementation and γ-aminobutyric acid on astrogliogenesis through the endocannabinoid system. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/23633391


Effects of cannabinoid receptor type 2 on endogenous myocardial regeneration by activating cardiac progenitor cells in mouse infarcted heart. (link to PDF – 2014) http://life.scichina.com:8082/sciCe/EN/abstract/abstract513395.shtml#

Activation of Cannabinoid Receptor 2 Enhances Osteogenic Differentiation of Bone Marrow Derived Mesenchymal Stem Cells (full – 2015) http://www.hindawi.com/journals/bmri/2015/874982/

Activation of cannabinoid receptor 2 enhances osteogenic differentiation of bone marrow derived mesenchymal stem cells. (full – 2015) http://www.hindawi.com/journals/bmri/2015/874982/

A cannabinoid receptor agonist N-arachidonoyl dopamine inhibits adipocyte differentiation in human mesenchymal stem cells. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4428713/


Inhibition of FAAH confers increased stem cell migration via PPARα. (full - 2015) http://www.jlr.org/content/early/2015/08/11/jlr.M061473.long

CB1 cannabinoid receptor enrichment in the ependymal region of the adult human spinal cord. (full – 2015) http://www.nature.com/articles/srep17745


Cannabinoid receptor 2 modulates susceptibility to experimental cerebral malaria through a CCL17-dependent mechanism.  (full – 2016)
http://www.jbc.org/content/early/2016/07/29/jbc.M116.746594.long

Cannabidiol Modulates the Expression of Alzheimer’s Disease-Related Genes in Mesenchymal Stem Cells.  (full – 2016)

Functional effects of cannabinoids during dopaminergic specification of human neural precursors derived from induced pluripotent stem cells.  (abst – 2016)

Cannabinoid Receptor 1 Mediates Homing of Bone Marrow-Derived Mesenchymal Stem Cells Triggered by Chronic Liver Injury.  (abst – 2016)

Distinctive effects of eicosapentaenoic and docosahexaenoic acids in regulating neural stem cell fate are mediated via endocannabinoid signalling pathways.  (abst – 2016)

Regulated endosomal trafficking of Diacylglycerol lipase alpha (DAGLα) generates distinct cellular pools; implications for endocannabinoid signaling.  (abst – 2016)

Gingival Stromal Cells as an In Vitro Model: Cannabidiol Modulates Genes Linked with Amyotrophic Lateral Sclerosis.  (abst – 2016)

Cannabinoid derivatives exert a potent anti-myeloma activity both in vitro and in vivo.  (abst – 2016)

Cannabidiol Activates Neuronal Precursor Genes in Human Gingival Mesenchymal Stromal Cells.  (abst – 2016)

STIFF-PERSON SYNDROME / HYPEREKPLEXIA DISEASE +

Cannabis derivatives therapy for a seronegative stiff-person syndrome: a case report.  (abst – 2013)

Presynaptic glycine receptors as a potential therapeutic target for hyperekplexia disease.  (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4019963/
**STRAIN INFORMATION** - until researchers pay attention to what strains they are using, they will never get consistent results!

Investigations into the Hypothesis of Transgenic Cannabis (abst – 2011)  

Analysis of Genetic Diversity using SSR Markers and Cannabinoid Contents in Different Varieties of Cannabis sativa L. (abst – 2011)  

CYTOLOGICAL STUDIES OF CANNABIS SATIVA IN SHIMLA HILLS OF HIMACHAL PRADESH (full – 2012)  

Hemp Biology - Industrial Hemp vs. Marijuana (article – 2012)  

Cannabis - from cultivar to chemovar. (abst – 2012)  

Extraction of high quality DNA from seized moroccan cannabis resin (hashish). (full – 2013)  
[http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3790795/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3790795/)

From 32 ounces to zero: a medical geographic study of dispensing a cultivated batch of "plum" cannabis flowers to medical marijuana patients in Washington State. (abst – 2013)  

Cold acclimation induces distinctive changes in the chromatin state and transcript levels of COR genes in Cannabis sativa varieties with contrasting cold acclimation capacities. (abst – 2014)  

Characterisation of cannabinoid composition in a diverse Cannabis sativa L. germplasm collection (link to PDF – 2015)  

Effect of induced polyploidy on some biochemical parameters in Cannabis sativa L. (abst – 2015)  


Variability in Seed Traits in a Collection of Cannabis sativa L. Genotypes
A Belated Green Revolution for Cannabis: Virtual Genetic Resources to Fast-Track Cultivar Development. (full – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4965456/

Pain, Cannabis Species, and Cannabis Use Disorders. (abst – 2016)

In vitro Antimicrobial and Antioxidant Activity of Extracts from Six Chemotypes of Medicinal Cannabis (abst – 2016)

**STRESS + - also see ANXIETY, POST TRAUMATIC STRESS DISORDER**

Endogenous cannabinoid signaling is essential for stress adaptation (full - 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2889099/?tool=pmcentrez

Motion Sickness, Stress and the Endocannabinoid System (full - 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2873996/?tool=pmcentrez

Maternal Dietary Fat Determines Metabolic Profile and the Magnitude of Endocannabinoid Inhibition of the Stress Response in Neonatal Rat Offspring (full – 2010)
http://endo.endojournals.org/content/151/4/1685.full?sid=f9729c8f-d221-42d4-81d8-8545db5df878

Deficiency in Endocannabinoid Signaling in the Nucleus Accumbens Induced by Chronic Unpredictable Stress (full - 2010)
http://www.nature.com/npp/journal/v35/n11/full/npp201099a.html


Alterations in Corticolimbic Dendritic Morphology and Emotional Behavior in Cannabinoid CB1 Receptor–Deficient Mice Parallel the Effects of Chronic Stress (full – 2011) http://cercor.oxfordjournals.org/content/21/9/2056.full
Endocannabinoids and the cardiovascular response to stress. (abst - 2011)


Cannabinoid receptor expression and phosphorylation are differentially regulated between male and female cerebellum and brain stem after repeated stress: Implication for PTSD and drug abuse. (abst – 2011)

Activation of Type 5 Metabotropic Glutamate Receptors and Diacylglycerol Lipase-α Initiates 2-Arachidonoylglycerol Formation and Endocannabinoid-Mediated Analgesia. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3652685/

Deficiency of type 1 cannabinoid receptors worsens acute heart failure induced by pressure overload in mice (full – 2012)
http://eurheartj.oxfordjournals.org/content/33/24/3124.full

Convergent translational evidence of a role for anandamide in amygdala-mediated fear extinction, threat processing and stress-reactivity (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3549323/

Acute Stress Increases Circulating Anandamide and Other N-Acylethanolamines in Healthy Humans (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3442338/


Cannabinoids prevent the development of behavioral and endocrine alterations in a rat model of intense stress. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3242307/


The biochemical complexity of the endocannabinoid system with some remarks on stress and related disorders: a minireview (abst – 2012)


Anti-Inflammatory Effect of the Endocannabinoid Anandamide in Experimental Periodontitis and Stress in the Rat. (abst – 2012)
Cannabinoid CB(1) receptor in the modulation of stress coping behaviour in mice: the role of serotonin and different forebrain neuronal subpopulations.  (abst – 2012)  

Anti-Inflammatory Effect of the Endocannabinoid Anandamide in Experimental Periodontitis and Stress in the Rat  (abst – 2012)  
http://content.karger.com/produktedb/produkte.asp?doi=339113

Age of Stress Exposure Modulates the Immediate and Sustained Effects of Repeated Stress on.  (abst – 2012)  

Ventral Tegmental Area Cannabinoid Type-1 Receptors Control Voluntary Exercise Performance.  (abst – 2012)  

Cannabidiol blocks long-lasting behavioral consequences of predator threat stress: possible involvement of 5HT1A receptors.  (abst – 2012)  

Translational evidence for the involvement of the endocannabinoid system in stress-related psychiatric illnesses.  (full – 2013)  
http://www.biolmoodanxietydisord.com/content/3/1/19

Cannabinoids ameliorate impairments induced by chronic stress to synaptic plasticity and short-term memory.  (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3682147/

Cannabinoid modulation of chronic mild stress-induced selective enhancement of trace fear conditioning in adolescent rats.  (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3883309/

The anxiolytic effect of cannabidiol on chronically stressed mice depends on hippocampal neurogenesis: involvement of the endocannabinoid system.  (full – 2013)  
http://ijnp.oxfordjournals.org/content/16/6/1407.long

The effects of anandamide signaling enhanced by the FAAH inhibitor URB597 on coping styles in rats.  (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3830591/

Effects of Acute Stress on Cardiac Endocannabinoids, Lipogenesis, and Inflammation in Rats.  (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3988664/

Cannabinoid Receptor Activation Prevents the Effects of Chronic Mild Stress on Emotional Learning and LTP in a Rat Model of Depression.  (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3924526/

Endocannabinoid Signaling in Hypothalamic-Pituitary-Adrenocortical Axis Recovery Following Stress: Effects of Indirect Agonists and Comparison of Male and Female Mice.  (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3929302/
Reductions in circulating endocannabinoid levels in individuals with post-traumatic stress disorder following exposure to the world trade center attacks. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3870889/

Amygdala FAAH and anandamide: mediating protection and recovery from stress. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4169112/


Effects of the fatty acid amide hydrolase inhibitor URB597 on coping behavior under challenging conditions in mice. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/24037493

Cannabidiol administration into the bed nucleus of the stria terminalis alters cardiovascular responses induced by acute restraint stress through 5-HT1A receptor. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/23041353


Cannabis use and anxiety: is stress the missing piece of the puzzle?  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4241884/

Chronic stimulation of the tone of endogenous anandamide reduces cue- and stress-induced relapse in rats.  (full – 2014)  
http://ijnp.oxfordjournals.org/content/18/1/pyu025.long

http://www.nature.com/npp/journal/v40/n2/full/npp2014198a.html

Differential Expression of Brain Cannabinoid Receptors between Repeatedly Stressed Males and Females may Play a Role in Age and Gender-Related Difference in Traumatic Brain Injury: Implications from Animal Studies.  (full – 2014)  

Cannabinoid Modulation of Amygdala Subregion Functional Connectivity to Social Signals of Threat.  (full - 2014)  
http://ijnp.oxfordjournals.org/content/18/3/pyu104.long

Multiple Mechanistically Distinct Modes of Endocannabinoid Mobilization at Central Amygdala Glutamatergic Synapses  (full – 2014)  

Regulatory role of the Cannabinoid-2 receptor in stress-induced neuroinflammation in mice.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4243857/

Relationships between serotonergic and cannabinoid system in depressive-like behavior: a PET study with [11C]-DASB.  (full – 2014)  

Stress regulates endocannabinoid-CB1 receptor signaling.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4247817/

Drug discovery strategies that focus on the endocannabinoid signaling system in psychiatric disease.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4696509/

Epigenetic Regulation of Genes that Modulate Chronic Stress-induced Visceral Pain in the Peripheral Nervous System.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4274248/

Endocannabinoid Signaling within the Basolateral Amygdala Integrates Multiple Stress Hormone Effects on Memory Consolidation.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4397407/

Nutritional omega-3 modulates neuronal morphology in the prefrontal cortex along with depression-related behaviour through corticosterone secretion  (full – 2014)  
http://www.nature.com/tp/journal/v4/n9/full/tp201477a.html


Blockade of 2-arachidonoylglycerol hydrolysis produces antidepressant-like effects and enhances adult hippocampal neurogenesis and synaptic plasticity (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4517601/

Increased contextual fear conditioning in iNOS knockout mice: additional evidence for the involvement of nitric oxide in stress-related disorders and contribution of the endocannabinoid system. (full – 2015) http://ijnp.oxfordjournals.org/content/18/8/pyv005.long
http://ijnp.oxfordjournals.org/content/early/2015/09/04/ijnp.pyv095.long

Targeting the endocannabinoid system to treat anxiety-related disorders. (full – 2015)

Cannabis – the Israeli perspective (full – 2015)

Corticotropin-Releasing Hormone Drives Anandamide Hydrolysis in the Amygdala to Promote Anxiety. (full - 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4348185/

Developmental regulation of fear learning and anxiety behavior by endocannabinoids. (full – 2015)

Long-term consequences of perinatal and adolescent cannabinoid exposure on neural and psychological processes. (full – 2015)

Chronic Stress Induces Anxiety via an Amygdalar Intracellular Cascade that Impairs Endocannabinoid Signaling. (full – 2015)
http://www.cell.com/neuron/fulltext/S0896-6273(15)00130-0

The endocannabinoid system in guarding against fear, anxiety and stress. (full – 2015)
http://www.europeanneuropsychopharmacology.com/article/S0924-977X(15)00364-8/fulltext

AM841, a covalent cannabinoid ligand, powerfully slows gastrointestinal motility in normal and stressed mice in a peripherally-restricted manner. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4403103/

Training-Associated Emotional Arousal Shapes Endocannabinoid Modulation of Spatial Memory Retrieval in Rats. (full – 2015)
http://www.jneurosci.org/content/35/41/13962.long

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4933289/

Monoacylglycerol lipase (MGLL) polymorphism rs604300 interacts with childhood adversity to predict cannabis dependence symptoms and amygdala habituation: Evidence from an endocannabinoid system-level analysis. (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4700831/

Diet-induced changes in n-3 and n-6 derived endocannabinoids and reductions in headache pain and psychological distress. (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4522350/


Endocannabinoid signaling in the stress response of male and female songbirds. (link to PDF – 2015)

Inhibition of anandamide hydrolysis enhances noradrenergic and GABAergic transmission in the prefrontal cortex and basolateral amygdala of rats subjected to acute swim stress. (abst – 2015)  http://www.ncbi.nlm.nih.gov/pubmed/25581607


Stress-related synaptic plasticity in the hypothalamus. (abst – 2015)  

Use and effects of cannabinoids in military veterans with posttraumatic stress disorder. (abst – 2015)  


Endocannabinoid Modulation of Predator Stress-Induced Long-Term Anxiety in Rats. (abst – 2015)  


Antidepressant-like activity and cardioprotective effects of fatty acid amide hydrolase inhibitor URB694 in socially stressed Wistar Kyoto rats. (abst – 2015)  

Chronic stress and peripheral pain: Evidence for distinct, region-specific changes in visceral and somatosensory pain regulatory pathways. (abst – 2015)  

Inhibition of anandamide hydrolysis dampens the neuroendocrine response to stress in neonatal rats subjected to suboptimal rearing conditions. (abst – 2015)  

Maternal separation and early stress cause long-lasting effects on dopaminergic and endocannabinergic systems and alters dendritic morphology in the nucleus accumbens and frontal cortex in rats. (abst – 2015)  

Involvement of opioid system in antidepressant-like effect of the cannabinoid CB1 receptor inverse agonist AM-251 after physical stress in mice. (abst – 2015)  

Endocannabinoid Regulation of Neuroendocrine Systems. (abst – 2015)  


Stress and memory: A selective review on recent developments in the understanding of stress hormone effects on memory and their clinical relevance. (abst – 2015)  
Endocannabinoid signaling integrates multiple stress hormone effects on memory (abst – 2015) http://www.psyneuen-journal.com/article/S0306-4530%2815%2900634-4/abstract

Being the Victim of Violence during a Date predicts Next-Day Cannabis Use among Female College Students. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26449928


Correlations between the Memory-Related Behavior and the Level of Oxidative Stress Biomarkers in the Mice Brain, Provoked by an Acute Administration of CB Receptor Ligands (full – 2016) http://www.hindawi.com/journals/np/2016/9815092/


Monoacylglycerol lipase inhibitors produce pro- or antidepressant responses via hippocampal CA1 GABAergic synapses. (full – 2016) http://www.nature.com/mp/journal/vaop/ncurrent/full/mp201622a.html

Impaired Ethanol-Induced Sensitization and Decreased Cannabinoid Receptor-1 in a Model of Posttraumatic Stress Disorder. (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0155759

Cyclooxygenase-2 inhibition reduces stress-induced affective pathology. (full – 2016) https://elifesciences.org/content/5/e14137


Endocannabinoid-Mediated Plasticity in Nucleus Accumbens Controls Vulnerability to Anxiety after Social Defeat Stress. (full – 2016) http://www.cell.com/cell-reports/fulltext/S2211-1247(16)30851-8


Cannabinoids reverse the effects of early stress on neurocognitive performance in adulthood. (full – 2016) http://learnmem.cshlp.org/content/23/7/349.long


Social defeat leads to changes in the endocannabinoid system; an overexpression of calreticulin and motor impairment in mice. (abst – 2016) http://www.sciencedirect.com/science/article/pii/S0166432816300328


The effects anandamide signaling in the prelimbic cortex and basolateral amygdala on coping with environmental stimuli in rats (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/26809457


Stress induces analgesia via orexin 1 receptor-initiated endocannabinoid/CB1 signaling in the mouse periaqueductal gray. (abst – 2016) http://www.sciencedirect.com/science/article/pii/S0028390816300545


**STORAGE of CANNABIS** (Most are old, but questions on storage come up often, so no date restrictions!)

The stability of cannabis and its preparations on storage.  (abst – 1976)

The decomposition of acidic and neutral cannabinoids in organic solvents.   (full – 1977)


Preparation and Distribution of Cannabis and Cannabis-Derived Dosage Formulations for Investigational and Therapeutic Use in the United States   (full – 2016)
http://journal.frontiersin.org/article/10.3389/fphar.2016.00285/full#B14


STROKE  +* - also see PERINATAL HYPOXIC-ISCHEMIC INJURY

The cannabinoid WIN55212-2 promotes neural repair after neonatal hypoxia-ischemia.  
(full - 2010)  
http://stroke.ahajournals.org/content/41/12/2956.long

(full - 2010)  

Therapeutic Potential of Non-Psychotropic Cannabidiol in Ischemic Stroke  
(link to PDF – 2010)  
http://www.mdpi.com/1424-8247/3/7/2197

Activation of cannabinoid 2 receptors protects against cerebral ischemia by inhibiting neutrophil recruitment.  
(abst – 2010)  

The neuroprotective effect of cannabidiol in an in vitro model of newborn hypoxic-ischemic brain damage in mice is mediated by CB(2) and adenosine receptors.  
(abst – 2010)  
http://www.unboundmedicine.com/medline/ebm/record/19900555/abstract/The_neuroprotective_effect_of_cannabidiol_in_an_in_vitro_model_of_newborn_hypoxic_ischemic_brain_damage_in_mice_is_mediated_by_CB_2__and_adenosine_receptors

Cannabidiol reduces brain damage and improves functional recovery after acute hypoxia-ischemia in newborn pigs.  
(full – 2011)  
http://www.nature.com/pr/journal/v70/n3/pdf/pr2011171a.pdf

Targeting the Endocannabinoid System to Limit Myocardial and Cerebral Ischemic and Reperfusion Injury.  
(abst – 2011)  
http://www.unboundmedicine.com/medline/ebm/record/21470162/abstract/Targeting_the_Endocannabinoid_System_to_Limit_Myocardial_and_Cerebral_Ischemic_and_Reperfusion_Injury

Cannabinoid receptor type 2 activation yields delayed tolerance to focal cerebral ischemia.  
(abst – 2011)  

Residual effects of focal brain ischaemia upon cannabinoid CB(1) receptor density and functionality in female rats.  
(abst – 2011)  

Medical cannabis: the opportunity versus the temptation  
(abst – 2011)  

Contribution of Hypothermia and CB(1) Receptor Activation to Protective Effects of TAK-937, a Cannabinoid Receptor Agonist, in Rat Transient MCAO Model.  
(full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3397930/?tool=pubmed

Update on the role of cannabinoid receptors after ischemic stroke.  
(full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3337695/?tool=pubmed
Cannabinoid type 2 receptor activation downregulates stroke-induced classic and alternative brain macrophage/microglial activation concomitant to neuroprotection. (full – 2012)  http://stroke.ahajournals.org/content/43/1/211.long

Reduced infarct size and accumulation of microglia in rats treated with WIN 55,212-2 after neonatal stroke. (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3446851/


Neuroprotection by inhibiting the c-Jun N-terminal kinase pathway after cerebral ischemia occurs independently of interleukin-6 and keratinocyte-derived chemokine (KC/CXCL1) secretion. (full – 2012)  http://www.jneuroinflammation.com/content/9/1/76

WIN55,212-2 protects oligodendrocyte precursor cells in stroke penumbra following permanent focal cerebral ischemia in rats. (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4086494/

WIN55, 212-2 promotes differentiation of oligodendrocyte precursor cells and improve remyelination through regulation of the phosphorylation level of the ERK 1/2 via cannabinoid receptor 1 after stroke-induced demyelination. (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4086494/

Targeting the endocannabinoid system with cannabinoid receptor agonists: pharmacological strategies and therapeutic possibilities (full – 2012)  http://rstb.royalsocietypublishing.org/content/367/1607/3353.full?sid=1569c370-cd5c-4358-89ff-857201f5e069


Orally administered oleoylethanolamide protects mice from focal cerebral ischemic injury by activating peroxisome proliferator-activated receptor α. (abst – 2012)


Ischemic stroke after use of the synthetic marijuana "spice" (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3863350/


Nicotine-Induced Neuroprotection Against Ischemic Injury Involves Activation of Endocannabinoid System in Rats (abst – 2013) http://link.springer.com/article/10.1007/s11064-012-0927-6

Activation of STAT3 is involved in neuroprotection by electroacupuncture pretreatment via cannabinoid CB1 receptors in rats. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/23880371


Effect of cannabinoid CB2 receptor agonism on learning and memory in a mouse model of photothrombosis (abst – 2013) http://www.fasebj.org/content/27/1_Supplement/1097.4.abstract?sid=01da6a98-e459-4153-9d22-acca30408ac8
Cerebroprotective effects of TAK-937, a novel cannabinoid receptor agonist, in permanent and thrombotic focal cerebral ischemia in rats: Therapeutic time window, combination with t-PA and efficacy in aged rats. (abst – 2013)  


Interplay of cannabinoid 2 (CB2) receptors with nitric oxide synthases, oxidative and nitrative stress, and cell death during remote neurodegeneration (abst – 2013)  

Synthetic Cannabis and Acute Ischemic Stroke. (abst – 2013)  

Unique effects of compounds active at both cannabinoid and serotonin receptors during stroke. (abst – 2013)  

‘Legal high’ associated Wallenberg syndrome (abst – 2013)  
http://casereports.bmj.com/content/2013/bcr-2013-009693.abstract?sid=0550787d-e463-41b1-bac9-0d2bad5504d9

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4061885/

http://www.mdpi.com/1420-3049/19/11/18781/htm

Hypoximimetic activity of N-acyl-dopamines. N-arachidonoyl-dopamine stabilizes HIF-1α protein through a SIAH2-dependent pathway. (full – 2014)  

Cannabinoids in experimental stroke: a systematic review and meta-analysis. (full – 2014)  
http://jcb.sagepub.com/content/35/3/348.long

The cannabinoid CB2 receptor agonist GW405833 does not ameliorate brain damage induced by hypoxia-ischemia in rats (abst – 2014)  

Roles of fatty acid ethanolamides (FAE) in traumatic and ischemic brain injury. (abst – 2014)  

Severe rhabdomyolysis and intracranial hemorrhage associated with synthetic cannabinoid: a case report (abst – 2014)  

A case of acute cerebral ischemia following inhalation of a synthetic cannabinoid. (abst – 2014)  
Mn-SOD Upregulation by Electroacupuncture Attenuates Ischemic Oxidative Damage via CB1R-Mediated STAT3 Phosphorylation. (abst – 2014)  

Protective effects of cannabidiol against hippocampal cell death and cognitive impairment induced by bilateral common carotid artery occlusion in mice.  
(abst – 2014)  

Magnolol protects neurons against ischemia injury via the downregulation of p38/MAPK, CHOP and nitrotyrosine.  
(abst – 2014)  

Glycogen synthase kinase-3β is involved in electroacupuncture pretreatment via the cannabinoid CB1 receptor in ischemic stroke.  
(abst – 2014)  

Endocannabinoids modulate human blood-brain barrier permeability in vitro.  
(full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4459020/

Involvement of GluR2 up-regulation in neuroprotection by electroacupuncture pretreatment via cannabinoid CB1 receptor in mice.  
(full – 2015)  
http://www.nature.com/srep/2015/150330/srep09490/full/srep09490.html

Time-Dependent Protection of CB2 Receptor Agonist in Stroke.  
(full – 2015)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0132487

Non-Selective Cannabinoid Receptor Antagonists, Hinokiresinols Reduce Infiltration of Microglia/Macrophages into Ischemic Brain Lesions in Rat via Modulating 2-Arachidonoglylycerol-Induced Migration and Mitochondrial Activity.  
(full – 2015)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0141600

Synthetic cannabinoids: the multi-organ failure and metabolic derangements associated with getting high.  
(full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4558292/

Mitochondrial CB1 receptor is involved in ACEA-induced protective effects on neurons and mitochondrial functions.  
(full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4516969/

Cannabinoids in Neurodegenerative Disorders and Stroke/Brain Trauma: From Preclinical Models to Clinical Applications.  
(full – 2015)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4604192/

A selective cannabinoid CB2 agonist attenuates damage and improves memory retention following stroke in mice.  
(full – 2015)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4552583/
Cannabinoid receptor type 1 agonist ACEA improves motor recovery and protects neurons in ischemic stroke in mice. (full – 2015)

Cannabinoid receptor agonist WIN55,212-2 and fatty acid amide hydrolase inhibitor URB597 suppress chronic cerebral hypoperfusion-induced neuronal apoptosis by inhibiting c-Jun N-terminal kinase signaling. (abst – 2015)

Protective effect of paenoniflorin on the hippocampus in rats with cerebral ischemia-reperfusion through activating cannabinoid receptor 2 (abst – 2015)


Mn-SOD Upregulation by Electroacupuncture Attenuates Ischemic Oxidative Damage via CB1R-Mediated STAT3 Phosphorylation (abst – 2016)
http://link.springer.com/article/10.1007/s12035-014-8971-7

Prior Cannabis Use Is Associated with Outcome after Intracerebral Hemorrhage. (abst - 2016)

Endocannabinoids in Cerebrovascular Regulation. (abst – 2016)


Sevoflurane Prevents Stroke-induced Depressive and Anxiety Behaviors by Promoting Cannabinoid Receptor Subtype I-dependent Interaction Between β-Arrestin 2 and ERK1/2 in the Rat Hippocampus. (abst – 2016)

Fatty Acid Binding Protein-1 (FABP1) and the Human FABP1 T94A Variant: Roles in the Endocannabinoid System and Dyslipidemias. (abst – 2016)

Stimulated CB1 Cannabinoid Receptor Inducing Ischemic Tolerance and Protecting Neuron from Cerebral Ischemia. (abst – 2016)

Pharmacological hypothermia: a potential for future stroke therapy? (abst – 2016)

Ischemic Stroke, Excitatory Amino Acids Toxicity and the Adjustment of Acupuncture Intervention (abst – 2016)

Endocannabinoid System in Neurological Disorders. (abst – 2016)

The CB1 antagonist, SR141716A, is protective in permanent photothrombotic cerebral ischemia (abst – 2016)

Expression of the Endocannabinoid Receptor 1 in Human Stroke: An Autopic Study. (abst – 2016)

Repeated Thrombosis After Synthetic Cannabinoid Use. (abst – 2016)


>STUTTERING + see News section

SUICIDE +

Mixed mood disorder (case report – undated) http://cannabisclinicians.org/view-all-case-reports/entry/228/?pagenum=2

Selective alterations of the CB1 receptors and the fatty acid amide hydrolase in the ventral striatum of alcoholics and suicides. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2878847/

Personalized medicine can pave the way for the safe use of CB₁ receptor antagonists. (abst – 2011)
High on Life? Medical Marijuana Laws and Suicide  (full – 2012)  

Suicidal ideation and self-harm following K2 use.  (abst – 2013)  

Does the legalization of medical marijuana increase completed suicide?  
(full – 2014)  

Polymorphic expression of CYP2C19 and CYP2D6 in the developing and adult human brain causing variability in cognition, risk for depression and suicide: the search for the endogenous substrates.  (full – 2014)  

Cannabis use and suicidal ideations in high-school students.  (full – 2014)  

Medical Marijuana Laws and Suicides by Gender and Age  (abst – 2014)  

Altered CB1 receptor coupling to G-proteins in the post-mortem caudate nucleus and cerebellum of alcoholic subjects.  (full – 2015)  
http://journals.sagepub.com/doi/full/10.1177/0269881115599388

A cannabinoid receptor 1 polymorphism is protective against major depressive disorder in methadone-maintained outpatients.  (abst – 2015)  

Endocannabinoids and Mental Disorders.  (abst – 2015)  
http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_8

Cannabis for posttraumatic stress disorder: A neurobiological approach to treatment  
(full – 2016)  

Dose of Reality: The Effect of State Marijuana Legalizations  (report – 2016)  

Suicide attempt with a mix of synthetic cannabinoids and synthetic cathinones: Case report of non-fatal intoxication with AB-CHMINACA, AB-FUBINACA, alpha-PHP, alpha-PVP and 4-CMC.  (abst – 2016)  

A multicenter retrospective survey of poisoning after consumption of products containing novel psychoactive substances from 2013 to 2014 in Japan.  (abst – 2016)  
**SYSTEMIC MASTOCYTOSIS**

Systemic mastocytosis and medical marijuana (case report- undated)
http://cannabisclinicians.org/view-all-case-reports/entry/645/

**SYSTEMIC SCLEROSIS**

Targeting the cannabinoid pathway limits the development of fibrosis and autoimmunity in a mouse model of systemic sclerosis. (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2893662/

Inactivation of the cannabinoid receptor CB1 prevents leukocyte infiltration and experimental fibrosis. (full – 2010)

Adenosine A2A receptor activation stimulates collagen production in sclerodermic dermal fibroblasts either directly and through a cross-talk with the cannabinoid system. (abst – 2012) http://www.ncbi.nlm.nih.gov/pubmed/22033526


Pathogenesis of Systemic Sclerosis. (full – 2015)

Can Cannabinoids Modulate Fibrotic Progression in Systemic Sclerosis?
(link to PDF – 2016) http://www ima.org.il/imaj/ViewArticle.aspx?ald=3850

Medical Cannabis - another piece in the mosaic of autoimmunity?

**TASTE** **+* - also see APPETITE**

Endocannabinoids selectively enhance sweet taste. (full – 2010)
http://www.pnas.org/content/107/2/935.long

Reciprocal modulation of sweet taste by leptin and endocannabinoids. (abst – 2010)

AM 251 differentially effects food-maintained responding depending on food palatability.


Delta-9-tetrahydrocannabinol may palliate altered chemosensory perception in cancer patients: results of a randomized, double-blind, placebo-controlled pilot trial.
(full – 2011) http://annonc.oxfordjournals.org/content/22/9/2086.long

Sweet taste and (AAT)12 repeat in the cannabinoid receptor gene in obese females

The thrifty lipids: endocannabinoids and the neural control of energy conservation.
(full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3744874/

G-Protein-Coupled Receptors in Intestinal Chemosensation (full – 2012)

Cannabinoid facilitation of behavioral and biochemical hedonic taste responses.
(full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3705914/

Stimulation of acumbens shell cannabinoid CB(1) receptors by noladin ether, a putative endocannabinoid, modulates food intake and dietary selection in rats. (abst – 2012)

Modulation of sweet responses of taste receptor cells. (abst – 2012)

Taste sensitivity to 6-n-propylthiouracil is associated with endocannabinoid plasma levels in normal-weight individuals. (abst – 2013)

Effect of chronic exposure to rimonabant and phytocannabinoids on anxiety-like behavior and saccharin palatability. (abst – 2013)

Conditioned taste aversion elicited by synthetic cannabinoid JWH-018 in mice is attenuated by pretreatment with phytocannabinoid {Delta}9-THC (abst – 2013)
http://www.fasebj.org/content/26/1_Supplement/660.4.abstract?sid=e6079848-a965-4a39-9656-0d675b46986f

Is the taste of fat regulated? (abst – 2013)
Is fat taste ready for primetime? (full – 2014)

Neural Effects of Cannabinoid CB1 Neutral Antagonist Tetrahydrocannabivarin (THCv) on Food Reward and Aversion in Healthy Volunteers. (full – 2014)
http://ijnp.oxfordjournals.org/content/18/6/pyu094.long

Genetic Sensitivity to the Bitter Taste of 6-n-Propylthiouracil (PROP) and Its Association with Physiological Mechanisms Controlling Body Mass Index (BMI). (full – 2014)
http://www.mdpi.com/2072-6643/6/9/3363/htm

Endocannabinoid signaling and food addiction. (full – 2014)

Endocannabinoids and energy homeostasis: An update. (abst – 2014)


Intestinal lipid-derived signals that sense dietary fat. (full – 2015)
http://www.jci.org/articles/view/76302/pdf

Modulation of sweet taste sensitivities by endogenous leptin and endocannabinoids in mice. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4461413/

Food Liking Enhances the Plasma Response of 2-Arachidonoylglycerol and of Pancreatic Polypeptide upon Modified Sham Feeding in Humans. (full – 2015)
http://jn.nutrition.org/content/145/9/2169.long

A state-of-the-art review of the management and treatment of taste and smell alterations in adult oncology patients. (abst – 2015)

A role of CB1R in inducing θ-rhythm coordination between the gustatory and gastrointestinal insula. (full – 2016) http://www.nature.com/articles/srep32529

Alterations in taste perception due to recreational drug use are due to smoking a substance rather than ingesting it. (abst – 2016)

TAXONOMY/ GENETICS OF CANNABIS +*

Characteristics of Cannabis sativa L.: seed morphology, germination and growth characteristics, and distinction from Hibiscus cannabinus L (full - 2010)
https://www.jstage.jst.go.jp/article/yakushi/130/2/130_2_237/_pdf

In silicio expression analysis of PKS genes isolated from Cannabis sativa L. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3036156/?tool=pubmed

Assessment of the Genetic Stability of Micropropagated Plants of Cannabis sativa by ISSR Markers (abst – 2010)


The results of an experimental indoor hydroponic Cannabis growing study, using the 'Screen of Green' (ScrOG) method-Yield, tetrahydrocannabinol (THC) and DNA analysis. (abst – 2010) http://www.ncbi.nlm.nih.gov/pubmed/20462712


The draft genome and transcriptome of Cannabis sativa. (full - 2011) http://genomebiology.com/content/pdf/gb-2011-12-10-r102.pdf


How hemp got high (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3333771/


Analysis of Genetic Diversity using SSR Markers and Cannabinoid Contents in Different Varieties of Cannabis sativa L. (abst – 2011)


Identification of olivetolic acid cyclase from Cannabis sativa reveals a unique catalytic route to plant polyketides. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3411943/

The hexanoyl-CoA precursor for cannabinoid biosynthesis is formed by an acyl-activating enzyme in Cannabis sativa trichomes. (full – 2012)

CYTOLOGICAL STUDIES OF CANNABIS SATIVA IN SHIMLA HILLS OF HIMACHAL PRADESH (full – 2012)

Hemp Biology - Industrial Hemp vs. Marijuana (article – 2012)

Hemp Species (article – 2012)
http://www.innvista.com/health/foods/hemp/hemp-species/

Cannabis Genome Uncloaked: Commentary on the Scientific Implications (article – 2012)
http://www.icrs.co/content/Cannabis_Genome_Uncloaked.pdf

Cannabis - from cultivar to chemovar. (abst – 2012)

Structure and Function of Δ1-Tetrahydrocannabinolic Acid (THCA) Synthase, the Enzyme Controlling the Psychoactivity of Cannabis sativa. (abst - 2012)

The validation of a 15 STR multiplex PCR for Cannabis species. (abst – 2012)

Extraction of high quality DNA from seized moroccan cannabis resin (hashish). (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3790795/

Early Phenylpropanoid Biosynthetic Steps in Cannabis sativa: Link between Genes and Metabolites (full – 2013)
http://www.mdpi.com/1422-0067/14/7/13626/htm

Analysis of the NMI01 marker for a population database of cannabis seeds. (abst – 2013)


Molecular cytogenetic characterization of the dioecious Cannabis sativa with an XY chromosome sex determination system. (full – 2014) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0085118


Hashish revival in Morocco. (full – 2014) http://www.ijdp.org/article/S0955-3959%2814%2900003-6/fulltext


In Silico Exploration of Cannabis sativa L. Genome for Simple Sequence Repeats (SSRs) (full – 2015) http://file.scirp.org/Html/24-2602459_62020.htm

An Overview of Products and Bias in Research (full – 2015)
Characterisation of cannabinoid composition in a diverse Cannabis sativa L. germplasm collection (link to PDF – 2015)

Tyler Markwart: The Case For GMO Cannabis (interview – 2015)
http://www.ganjapreneur.com/tyler-markwart-gmo-marijuana/

Potency 101 (printable card set – 2015)
http://greenstyleconsulting.com/potency-101/


Effect of induced polyploidy on some biochemical parameters in Cannabis sativa L. (abst – 2015)

Two complete chloroplast genome sequences of Cannabis sativa varieties (abst – 2015)


Evolution and Classification of Cannabis sativa (Marijuana, Hemp) in Relation to Human Utilization (abst – 2015)

The complete chloroplast genomes of Cannabis sativa and Humulus lupulus. (abst – 2015)

Molecular cytogenetic analysis of monoecious hemp (Cannabis sativa L.) cultivars reveals its karyotype variations and sex chromosomes constitution. (abst – 2015)

A segment of rbcL gene as a potential tool for forensic discrimination of Cannabis sativa seized at Rio de Janeiro, Brazil. (abst – 2015)

Variability in Seed Traits in a Collection of Cannabis sativa L. Genotypes (full - 2016)

A Belated Green Revolution for Cannabis: Virtual Genetic Resources to Fast-Track Cultivar Development. (full – 2016)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4965456/

Identification of small auxin-up RNA (SAUR) genes in Urticales plants: mulberry (Morus notabilis), hemp (Cannabis sativa) and ramie (Boehmeria nivea). (click IAS for PDF – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27019439


Evolution of the Cannabinoid and Terpene Content during the Growth of Cannabis sativa Plants from Different Chemotypes. (abst – 2016) http://pubs.acs.org/doi/abs/10.1021/acs.jnatprod.5b00949


**TEETH /DENTISTRY**

Marijuana Is Helpful in Xerostomia (case report– undated) http://cannabisclinicians.org/view-all-case-reports/entry/799/


Activation of cannabinoid receptor CB2 regulates osteogenic and osteoclastogenic gene expression in human periodontal ligament cells. (abst – 2010)
Cannabinoid receptors in submandibular acinar cells: Functional coupling between saliva fluid and electrolytes secretion and Ca2+ signalling  (full – 2012)
http://jcs.biologists.org/content/125/8/1884.full

Behavioral effects of pulp exposure in mice lacking cannabinoid receptor 2.  

Long-term treatment with methanandamide attenuates LPS-induced periodontitis in rats.  

Anandamide Induces Matrix Metalloproteinase-2 Production through Cannabinoid-1 Receptor and Transient Receptor Potential Vanilloid-1 in Human Dental Pulp Cells in Culture.  

Anti-Inflammatory Effect of the Endocannabinoid Anandamide in Experimental Periodontitis and Stress in the Rat.  

The prevalence of substance use among patients at a dental school clinic in Michigan.  

Acetaminophen, pesticide, and diethylhexyl phthalate metabolites, anandamide, and fatty acids in deciduous molars: potential biomarkers of perinatal exposure.  

TRPV1-mediated calcium signal couples with cannabinoid receptors and sodium-calcium exchangers in rat odontoblasts.  

Anti-Inflammatory Effect of the Endocannabinoid Anandamide in Experimental Periodontitis and Stress in the Rat  
http://content.karger.com/produktedb/produkte.asp?doi=339113

Magnolol Ameliorates Ligature-Induced Periodontitis in Rats and Osteoclastogenesis: In Vivo and In Vitro Study  
(full – 2013)  http://www.hindawi.com/journals/ecam/2013/634095/

Endocannabinoids mediate hyposalivation induced by inflammogens in the submandibular glands and hypothalamus.  

Endocannabinoids and inflammatory response in periodontal ligament cells.  

Host Neuro- Immuno-Endocrine Responses In Periodontal Disease.  
Saliva of obese patients - is it different? (click “ICI” for download – 2015)

Osseous Characteristics of Mice Lacking Cannabinoid Receptor 2 after Pulp Exposure.

Cannabinoid Hyperemesis Syndrome: A Case Report and Literature Review.

Minimal Physical Health Risk Associated With Long-term Cannabis Use—But Buyer Beware

Associations Between Cannabis Use and Physical Health Problems in Early Midlife

Cannabis: A joint problem for patients and the dental profession. (full – 2016)

Dental treatment planning considerations for patients using cannabis: A case report.

Anti-Inflammatory and Osteoprotective Effects of Cannabinoid-2 Receptor Agonist Hu-308 in a Rat Model of Lipopolysaccharide-Induced Periodontitis. (abst – 2016)

Relationship Between Frequent Recreational Cannabis (Marijuana and Hashish) Use and Periodontitis in Adults in the United States: Nhanes 2011-12. (abst – 2016)

Management of cannabis-induced periodontitis via resective surgical therapy


Expression of Cannabinoid Type 1 Receptors in Human Odontoblast Cells.

**THALASSEMA MAJOR** - an inherited form of anemia, with hemoglobin production abnormalities

Iron overload causes osteoporosis in Thalassemia Major patients through interaction with TRPV1 channels. (full – 2014) http://haematologica.org/content/99/12/1876

Urinary early kidney injury molecules in children with beta-thalassemia major.
THROMBOCYTOPENIA – see IMMUNE THROMBOCYTOPENIA

THYROID FUNCTION + – also see GRAVES DISEASE

Fatty acid amide hydrolase ablation promotes ectopic lipid storage and insulin resistance due to centrally mediated hypothyroidism. (full - 2012) http://www.pnas.org/content/109/37/14966.long


Clinical Significance of Cannabinoid Receptors CB1 and CB2 Expression in Human Malignant and Benign Thyroid Lesions (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4619873/


The CB1 receptor is required for the establishment of the hyperlocomotor phenotype in developmentally-induced hypothyroidism in mice. (abst – 2016) http://www.sciencedirect.com/science/article/pii/S0028390816305822

TIC DOULOUREUX/ TRIGEMINAL NEUROPATHIC PAIN +
Neuropathic orofacial pain: Cannabinoids as a therapeutic avenue  (abst – 2014)  


Refractory trigeminal neuralgia responsive to nabiximols in a patient with multiple sclerosis.  (abst – 2016)  

>Tietze's Syndrome – an inflammation of the chest cartilage – see News section

**TIME PERCEPTION**

Regulation of the Hypothalamic-Pituitary-Adrenal Axis Circadian Rhythm by Endocannabinoids Is Sexually Dieregic  (full – 2010)  
http://endo.endojournals.org/content/151/8/3720.full?sid=f9729eef-42d4-81d8-8545db5df878


Acute effects of THC on time perception in frequent and infrequent cannabis users (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3581701/

The Effect of Cannabis on Perception of Time.  (abst – 2012)  

The effects of chronic marijuana use on circadian entrainment.  (abst – 2015)  

**Tinnitus**  + - also see HEARING  (not good news)

The effects of the synthetic cannabinoid receptor agonists, WIN55,212-2 and CP55,940, on salicylate-induced tinnitus in rats.  (abst – 2010)  
Cannabinoid CB1 Receptor Agonists Do Not Decrease, but may Increase Acoustic Trauma-Induced Tinnitus in Rats. (full – 2015) http://journal.frontiersin.org/article/10.3389/fneur.2015.00060/full


Expression of Dopamine Receptor 1A and Cannabinoid Receptor 1 Genes in the Cochlea and Brain after Salicylate-Induced Tinnitus. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27658122


TOBACCO and CANNABIS/ NICOTINE +*

Uni-Morbid and Co-Occurring Marijuana and Tobacco Use: Examination of Concurrent Associations with Negative Mood States (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2861285/?tool=pubmed

Effects of cannabis on lung function: a population-based cohort study. (full - 2010) http://erj.ersjournals.com/content/35/1/42.long


Rural Adolescent Alcohol, Tobacco and Illicit Drug Use: A Comparison of Students in Victoria, Australia and Washington State, United States (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3186916/

Patterns of use, sequence of onsets and correlates of tobacco and cannabis (full – 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3183489/


Effects of a Selective Cannabinoid CB2 Agonist and Antagonist on Intravenous Nicotine Self Administration and Reinstatement of Nicotine Seeking. (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3266883/?tool=pubmed


Prevalence and co-use of marijuana among young adult cigarette smokers: An anonymous online national survey (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3507655/

The Volitional Nature of Nicotine Exposure Alters Anandamide and Oleoylethanolamide Levels in the Ventral Tegmental Area. (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3572454/

Patterns of blunt use among rural young adult african-american men. (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3244685/

Nicotine-induced anxiety-like behavior in a rat model of the novelty-seeking phenotype is associated with long-lasting neuropeptidergic and neuroplastic adaptations in the amygdala: Effects of the cannabinoid receptor 1 antagonist AM251. (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3697052/

Efficacy of a dose range of surinabant, a cannabinoid receptor blocker, for smoking cessation: a randomized controlled clinical trial. (full – 2012)  http://journals.sagepub.com/doi/full/10.1177/0269881111431623


Concomitant consumption of marijuana, alcohol and tobacco in oral squamous cell carcinoma development and progression: Recent advances and challenges.  

Cannabidiol reduces cigarette consumption in tobacco smokers: Preliminary findings.  

Working memory- and anxiety-related behavioral effects of repeated nicotine as a stressor: the role of cannabinoid receptors  
(full – 2013)  http://www.biomedcentral.com/content/pdf/1471-2202-14-20.pdf

AM404 attenuates reinstatement of nicotine seeking induced by nicotine-associated cues and nicotine priming but does not affect nicotine- and food-taking.  
(full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4058760/

Perception of tobacco, cannabis, and alcohol use of others is associated with one's own use  
(full – 2013)  http://www.ascpjournal.org/content/8/1/15

The effects of caffeine, nicotine, ethanol, and tetrahydrocannabinol on exercise performance.  
(full – 2013)  http://www.nutritionandmetabolism.com/content/10/1/71

(full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3641687/

Prior Exposure to THC Increases the Addictive Effects of Nicotine in Rats.  
(full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3656362/

THC reduces the anticipatory nucleus accumbens response to reward in subjects with a nicotine addiction.  
(full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3590996/

Availability of tobacco products associated with use of marijuana cigars (blunts).  
(full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3883305/

Role of CB2 Cannabinoid Receptor in the Rewarding, Reinforcing and Physical Effects of Nicotine.  
(full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3799072/

Cannabis and Cigarettes  
(article – 2013)  http://jama.jamanetwork.com/article.aspx?articleid=1681388&resultClick=3

Nicotine-Induced Neuroprotection Against Ischemic Injury Involves Activation of Endocannabinoid System in Rats  

Cigarette smoking and cannabis use are equally strongly associated with psychotic-like experiences: a cross-sectional study in 1929 young adults.  
To What Extent Does Adding Tobacco to Cannabis Expose Young Users to Nicotine? (abst – 2013)  

Smoking mull: a grounded theory model on the dynamics of combined tobacco and cannabis use among adult men. (abst – 2013)  

Is serving in the armed forces associated with tobacco or cannabis initiation? A study of onset sequences before and after joining the French armed forces. (abst – 2013)  

Health outcomes associated with long-term regular cannabis and tobacco smoking. (abst – 2013)  

The Relationship Between Subjective Experiences During First Use of Tobacco and Cannabis and the Effect of the Substance Experienced First. (abst – 2013)  

Use of micronutrients attenuates cannabis and nicotine abuse as evidenced from a reversal design: a case study (abst – 2013)  

Effects of cannabidiol on the function of α7-nicotinic acetylcholine receptors. (abst – 2013)  

Cigarette smoking during an N-acetylcysteine-assisted cannabis cessation trial in adolescents. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4118750/

A survey of synthetic cannabinoid consumption by current cannabis users. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4048873/

What are young adults smoking in their hookahs? A latent class analysis of substances smoked. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4091668/

Frequent marijuana use is associated with greater nicotine addiction in adolescent smokers. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4097075/

Drug use, consequences and perceived accessibility in three Nigerian universities (full – 2014)  
http://file.scirp.org/Html/9-1420229_41669.htm

The co-use of tobacco and cannabis among adolescents over a 30-year period. (abst – 2014)  

Relationship between working-memory network function and substance use: a 3-year longitudinal fMRI study in heavy cannabis users and controls (abst – 2014)  


Inhibition of monoacylglycerol lipase reduces nicotine withdrawal   (full – 2015)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4301695/


Comparative risk assessment of alcohol, tobacco, cannabis and other illicit drugs using the margin of exposure approach.  (full – 2015)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4311234/


Cannabis, tobacco smoking, and lung function: a cross-sectional observational study in a general practice population.  (full – 2015)  http://bjgp.org/content/65/631/e89


Cannabis, Cigarettes, and Their Co-Occurring Use: Disentangling Differences in Gray Matter Volume.  (full – 2015)  http://ijnp.oxfordjournals.org/content/18/10/pyv061


Cigarette smoking may modify the association between cannabis use and adiposity in males. (full – 2015) http://www.sciencedirect.com/science/article/pii/S0091305715001690


Associations between cigarette smoking and cannabis dependence: A longitudinal study of young cannabis users in the United Kingdom. (link to PDF – 2015) http://www.drugandalcoholdependence.com/article/S0376-8716(15)00010-1/abstract


More people think cannabis should be legal than tobacco (poll results – 2015) http://www.studentmoneysaver.co.uk/article/more-people-think-cannabis-should-be-legal-than-tobacco/


Are IQ and educational outcomes in teenagers related to their cannabis use? A prospective cohort study (full – 2016) http://jop.sagepub.com/content/early/2016/01/06/0269881115622241.full


Cannabinoid CB2 Receptor Mediates Nicotine-Induced Anti-Inflammation in N9 Microglial Cells Exposed to β Amyloid via Protein Kinase C (full – 2016) http://www.hindawi.com/journals/mi/2016/4854378/


Maternal marijuana use has independent effects on risk for spontaneous preterm birth but not other common late pregnancy complications (full – 2016) http://www.sciencedirect.com/science/article/pii/S0890623816300715
Putative Epigenetic Involvement of the Endocannabinoid System in Anxiety- and Depression-Related Behaviors Caused by Nicotine as a Stressor. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4942073/

No Smoke without Tobacco: A Global Overview of Cannabis and Tobacco Routes of Administration and Their Association with Intention to Quit. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4933835/


The CB1 neutral antagonist AM4113 retains the therapeutic efficacy of the inverse agonist rimonabant for nicotine dependence and weight loss, with better psychiatric tolerability. (link to PDF – 2016) http://ijnp.oxfordjournals.org/content/early/2016/08/03/ijnp.pyw068.long


Association Between Use of Cannabis in Adolescence and Weight Change into Midlife (link to download – 2017) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0168897


**TOLERANCE +**

Efficacy and tolerability of high-dose dronabinol maintenance in HIV-positive marijuana smokers: a controlled laboratory study. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3325767/
Chronic \( \Delta^9 \)-tetrahydrocannabinol treatment in rhesus monkeys: differential tolerance and cross-tolerance among cannabinoids. (full – 2011)  

Neurophysiological functioning of occasional and heavy cannabis users during THC intoxication. (full – 2011)  

Tolerance to chronic delta-9-tetrahydrocannabinol (\(\Delta^9\)-THC) in rhesus macaques infected with simian immunodeficiency virus. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3140653/

The schizophrenia susceptibility gene neuregulin 1 modulates tolerance to the effects of cannabinoids. (full – 2011)  
http://ijnp.oxfordjournals.org/content/14/5/631.long

Role of GLT-1 transporter activation in prevention of cannabinoid tolerance by the \( \beta \)-lactam antibiotic, ceftriaxone, in mice. (abst – 2011)  

Brain regional differences in CB1 receptor adaptation and regulation of transcription. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3772765/

Tolerance to Effects of High-Dose Oral \{Delta\}9-Tetrahydrocannabinol and Plasma Cannabinoid Concentrations in Male Daily Cannabis Smokers. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3584989/

Sativex long-term use: an open-label trial in patients with spasticity due to multiple sclerosis. (abst – 2013)  

Prolonged monoacylglycerol lipase blockade causes equivalent CB1-receptor mediated adaptations in FAAH wild type and knockout mice. (full – 2014)  
http://jpet.aspetjournals.org/content/early/2014/05/21/jpet.114.212753.long

Mutation of Putative GRK Phosphorylation Sites in the Cannabinoid Receptor 1 (CB1R) Confers Resistance to Cannabinoid Tolerance and Hypersensitivity to Cannabinoids in Mice. (full – 2014)  
http://www.jneurosci.org/content/34/15/5152.long

Sex differences in antinociceptive tolerance to delta-9-tetrahydrocannabinol in the rat. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4161674/
Differences in Δ9-Tetrahydrocannabinol Metabolism and In Vivo Pharmacology Following Acute and Repeated Dosing in Adolescent Rats. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4106361/

Chronic Cannabinoid Receptor 2 Activation Reverses Paclitaxel Neuropathy Without Tolerance or Cannabinoid Receptor 1-Dependent Withdrawal. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4209205/


Analgesic tolerance and cross-tolerance to the cannabinoid receptors ligands hemopressin, VD-hemopressin(α) and WIN55,212-2 at the supraspinal level in mice. (abst – 2014) http://www.sciencedirect.com/science/article/pii/S0304394014005394

Full Fatty Acid Amide Hydrolase Inhibition Combined with Partial Monoacylglycerol Lipase Inhibition: Augmented and Sustained Antinociceptive Effects with Reduced Cannabimimetic Side Effects in Mice (full – 2015)
http://jpet.aspetjournals.org/content/354/2/111.full

Mull it over: cannabis vaporizers and harm reduction (full – 2015)

Gonadal hormones do not alter the development of antinociceptive tolerance to delta-9-tetrahydrocannabinol in adult rats. (full - 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4430373/

The impact of gonadal hormones on cannabinoid dependence. (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4696547/

The effects of endocannabinoid receptor agonist anandamide and antagonist rimonabant on opioid analgesia and tolerance in rats. (link to download – 2015)

Effects of acute and repeated dosing of the synthetic cannabinoid CP55,940 on intracranial self-stimulation in mice (abst – 2015)

The effects of beta-arrestin1 deletion on acute cannabinoid activity, brain cannabinoid receptors and tolerance to cannabinoids in mice. (abst – 2015)

Cross-tolerance to cannabinoids in morphine-tolerant rhesus monkeys. (abst – 2015)
Fatty acid amide hydrolase inhibitor URB597 prevented tolerance and cognitive deficits induced by chronic morphine administration in rats. (abst – 2015)

Repeated administration of phytocannabinoid Δ9-THC or synthetic cannabinoids JWH-018 and JWH-073 induces tolerance to hypothermia but not locomotor suppression in mice, and reduces CB1 receptor expression and function in a brain region-specific manner. (abst – 2015)

Low-Dose Cannabinoid Type 2 Receptor Agonist Attenuates Tolerance to Repeated Morphine Administration via Regulating μ-Opioid Receptor Expression in Walker 256 Tumor-Bearing Rats. (abst – 2015)

Combined Treatment with Morphine and Δ9-Tetrahydrocannabinol (THC) in Rhesus Monkeys: Antinociceptive Tolerance and Withdrawal. (abst – 2015)
http://www.fasebj.org/content/29/1_Supplement/616.9.abstract?sid=edf921ac-0690-4aa6-ac81-0546314dd384

Rapid Changes in Cannabinoid 1 Receptor Availability in Cannabis-Dependent Male Subjects After Abstinence From Cannabis (full – 2016)

Pharmacological characterization of repeated administration of the first generation abused synthetic cannabinoid CP47,497. (full – 2016)

Current Therapeutic Cannabis Controversies and Clinical Trial Design Issues (full – 2016)

Cannabinoids and Epilepsy (full – 2015)

The effect of cannabis on regular cannabis consumers' ability to ride a bicycle (abst – 2016)

Combined treatment with morphine and Δ9-tetrahydrocannabinol (THC) in rhesus monkeys: antinociceptive tolerance and withdrawal. (abst – 2016)

Lack of hippocampal CB1 receptor desensitization by Δ9-tetrahydrocannabinol in aged mice and by low doses of JZL 184. (abst – 2016)

Autophagy activation by novel inducers prevents BECN2-mediated drug tolerance to cannabinoids. (abst – 2016)
Changes in nociceptin/orphanin FQ levels in rat brain regions after acute and chronic cannabinoid treatment in conjunction with the development of antinociceptive tolerance. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27371029


**TOURETTE'S SYNDROME** +


The Therapeutic Potential of Cannabis and Cannabinoids (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3442177/

Treatment of Tourette syndrome with cannabinoids. (link to PDF – 2012) http://www.hindawi.com/journals/bn/2013/294264/abs/


**TRICHOTILLOMANIA** + - compulsive hair pulling – also see OBSESSIVE-COMPULSIVE DISORDER
Dronabinol, a cannabinoid agonist, reduces hair pulling in trichotillomania: a pilot study. (abst – 2011)  
http://www.unboundmedicine.com/medline/ebm/record/21590520/abstract/Dronabinol_a_cannabinoid_agonist_reduces_hair_pulling_in_trichotillomania_a_pilot_study

Pharmacotherapy of trichotillomania (hair pulling disorder): an updated systematic review. (abst – 2014)  

>**TRIGEMINAL NEUROPATHIC PAIN**  – see TIC DOULOUREUX

**TUBERCULOSIS**

Marijuana 'bong' smoking and tuberculosis. (abst – 2013)  

Discovery of Rimonabant and its potential analogues as anti-TB drug candidates (abst – 2015)  

**TUBEROUS SCLEROSIS** - a genetic disease causing non-malignant tumors in the brain and other organs, and retardation - also see AUTISM, EPILEPSY

CB1 and CB2 cannabinoid receptor expression during development and in epileptogenic developmental pathologies. (abst – 2010)  

TS ALLIANCE POSITION STATEMENT ON MEDICAL MARIJUANA (full – 2014)  

>**ULCERATIVE COLITIS**  - see COLITIS and BOWEL DISORDERS

>**ULCERS**  – see GASTRIC ULCERS

**ULTRAVIOLET RADIATION**
Inhibition of basal and ultraviolet B-induced melanogenesis by cannabinoid CB(1) receptors: a keratinocyte-dependent effect. (abst – 2011)

Effect of narrowband ultraviolet B treatment on endocannabinoid plasma levels in psoriasis patients. (abst – 2014)

The cross-talk between electrophiles, antioxidant defence and the endocannabinoid system in fibroblasts and keratinocytes after UVA and UVB irradiation (abst – 2016)

N-acyl ethanolamide and eicosanoid involvement in irritant dermatitis. (abst – 2016)

Serum endocannabinoids and N-acyl ethanolamines and the influence of simulated solar UVR exposure in humans in vivo (abst – 2017)
http://pubs.rsc.org/en/Content/ArticleLanding/2017/PP/C6PP00337K#!divAbstract

**UVEITIS** + - an infection of the middle layer of the eye

A cannabinoid ligand, anandamide, exacerbates endotoxin-induced uveitis in rabbits. (abst – 2011)

Targeting the endocannabinoid system with cannabinoid receptor agonists: pharmacological strategies and therapeutic possibilities (full – 2012)
http://rstb.royalsocietypublishing.org/content/367/1607/3353.full?sid=1569c370-cd5c-4358-89ff-857201f5e069

Anti-inflammatory effects of Cannabinoid 2 Receptor activation in endotoxin-induced uveitis. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3954484/

Endocannabinoids affect innate immunity of Muller glia during HIV-1 Tat cytotoxicity. (abst – 2014)

Synthetic Cannabinoid Induced acute Tubulointerstitial Nephritis and Uveitis Syndrome: A Case Report and Review of Literature. (full – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4948465/

Turning Down the Thermostat: Modulating the Endocannabinoid System in Ocular Inflammation and Pain. (full – 2016)
VAPORIZERS - see METHODS OF USE - VAPORIZERS

VERMIFUGE – see ANITPARASITIC PROPERTIES

VETERINARY USE/ ANIMALS **

**BIRDS**


Cannabinoid exposure during zebra finch sensorimotor vocal learning persistently alters expression of endocannabinoid signaling elements and acute agonist responsiveness (full – 2011)  http://www.biomedcentral.com/1471-2202/12/3

The role of central CB2 cannabinoid receptors on food intake in neonatal chicks (abst – 2011)  http://www.ncbi.nlm.nih.gov/pubmed/21927979

The Relationship between Plants Used to Sustain Finches (Fringillidae) and Uses for Human Medicine in Southeast Spain. (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3350861/?tool=pubmed

Effect of feeding hemp seed and hemp seed oil on laying hen performance and egg yolk fatty acid content: Evidence of their safety and efficacy for laying hen diets. (full – 2012)  http://ps.oxfordjournals.org/content/91/3/701.long


Performance, egg quality, and blood plasma chemistry of laying hens fed hempseed and hempseed oil. (full – 2014)  http://ps.oxfordjournals.org/content/93/11/2827.long


Endocannabinoid signaling in the stress response of male and female songbirds. (link to PDF – 2015)


Interaction Between Endocannabinoid and Opioidergic Systems Regulates Food Intake in Neonatal Chicken (abst – 2015)


Effects of Different Levels of Hemp Seed (Cannabis Sativa L.) and Dextran Oligosaccharide on Growth Performance and Antibody Titer Response of Broiler Chickens (full – 2016) http://www.tandfonline.com/doi/full/10.4081/ijas.2015.3473


CATS

Role of Cannabinoid Receptor Type 1 in Tibial and Pudendal Neuromodulation of Bladder Overactivity in Cats. (abst – 2016)

COWS

Effects of increasing amounts of hempseed cake in the diet of dairy cows on the production and composition of milk. (full – 2010)
http://journals.cambridge.org/action/displayFulltext?type=6&fid=7909529&jid=ANM&volumeld=4&issuedld=11&aid=7909528&bodyId=&membershipNumber=&societyETOCSession=&fulltextType=RA&fileId=S17517311110001254
A Randomized Placebo Controlled Trial of Ibuprofen for Respiratory Syncytial Virus Infection in a Bovine Model (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0152913


Dietary conjugated linoleic acid supplementation alters the expression of genes involved in the endocannabinoid system in the bovine endometrium and increases plasma progesterone concentrations. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27262886


**DOGS**

Handler beliefs affect scent detection dog outcomes (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3078300/


Wired to run: exercise-induced endocannabinoid signaling in humans and cursorial mammals with implications for the 'runner's high'. (full – 2012) http://jeb.biologists.org/content/215/8/1331.long

Toxicities from Illicit and Abused Drugs (dogs) (article – 2012) http://www.merckmanuals.com/vet/toxicology/toxicities_from_human_drugs/toxicities_from_illicit_and_abused_drugs.html

Alterations of endocannabinoids in cerebrospinal fluid of dogs with epileptic seizure disorder. (full – 2013)  http://www.biomedcentral.com/content/pdf/1746-6148-9-262.pdf


Increased levels of palmitoylethanolamide and other bioactive lipid mediators and enhanced local mast cell proliferation in canine atopic dermatitis. (full – 2014) http://www.biomedcentral.com/1746-6148/10/21


 Preferential epithelial expression of type-1 cannabinoid receptor (CB1R) in the developing canine embryo. (full – 2015) http://www.springerplus.com/content/4/1/804


The involvement of TRPV1 in emesis and anti- emesis. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4843889/


Immunohistochemical distribution of the cannabinoid receptor 1 and fatty acid amide hydrolase in the dog claustrum. (abst – 2016)  http://www.sciencedirect.com/science/article/pii/S0891061815300405

Up-regulation of CB2 receptors in reactive astrocytes in canine degenerative myelopathy, a disease model of amyotrophic lateral sclerosis (full – 2017)  http://dmm.biologists.org/content/early/2017/01/06/dmm.028373.long

FERRETS
Wired to run: exercise-induced endocannabinoid signaling in humans and cursorial mammals with implications for the 'runner's high'. (full – 2012) http://jeb.biologists.org/content/215/8/1331.long

The involvement of TRPV1 in emesis and anti-emaesis. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4843889/

FISH


Cannabinoid receptors are widely expressed in goldfish: molecular cloning of a CB2-like receptor and evaluation of CB1 and CB2 mRNA expression profiles in different organs. (full - 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3776019

Role of oleoylethanolamide as a feeding regulator in goldfish (full – 2014) http://jeb.biologists.org/content/217/15/2761


GUINEA PIGS

The cannabinoid receptor agonist WIN 55,212-2 inhibits antigen-induced plasma extravasation in guinea pig airways. (abst – 2010)

The Contractile Effect of Anandamide in the Guinea-Pig Small Intestine is Mediated by Prostanoids but not TRPV1 Receptors or Capsaicin-Sensitive Nerves. (full – 2012)

Inhibition Of Fatty Acid Amide Hydrolase Produces Anti-Tussive Effects In Guinea-Pigs: Evidence For Elevated Fatty Acid Amides Acting Via Cannabinoid Receptors On Airway Sensory Nerves (abst – 2012)


Early increase of cannabinoid receptor density after experimental traumatic brain injury in the newborn piglet. (link to PDF – 2014)

O-2050 facilitates noradrenaline release and increases the CB1 receptor inverse agonistic effect of rimonabant in the guinea pig hippocampus. (abst – 2014)

Attenuation of kainic acid-induced status epilepticus by inhibition of endocannabinoid transport and degradation in guinea pigs. (abst – 2015)

HAMSTERS

An endocannabinoid system is localized to the hypophysial pars tuberalis of Syrian hamsters and responds to photoperiodic changes. (abst – 2010)

Photoperiodic Changes in Endocannabinoid Levels and Energetic Responses to Altered Signalling at CB1 Receptors in Siberian Hamsters (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4060156/
2-Arachidonoyl glycerol sensitizes the pars distalis and enhances forskolin-stimulated prolactin secretion in Syrian hamsters. (abst – 2014)

HORSES

Medieval horse stable; the results of multi proxy interdisciplinary research. (full – 2014)
http://www.plosone.org/article/fetchObject.action?
uri=info:doi/10.1371/journal.pone.0089273&representation=PDF

Reducing exposure to pathogens in the horse; A preliminary study into the survival of bacteria on a range of equine bedding types. (abst – 2016)

INSECTS/ SPIDERS

The endocannabinoid 2-arachidonoyl-glycerol controls odor sensitivity in larvae of Xenopus laevis. (full – 2010)
http://www.jneurosci.org/content/30/26/8965.long

Dietary hempseed meal intake increases body growth and shortens the larval stage via the upregulation of cell growth and sterol levels in Drosophila melanogaster. (abst – 2010)

Cannabis sativa - An Important Subsistence Pollen Source for Apis mellifera (full – 2012)

Diacylglycerol lipase regulates lifespan and oxidative stress response by inversely modulating TOR signaling in Drosophila and C. elegans (full – 2014)

Detection of Illicit Drugs by Trained Honeybees (Apis mellifera). (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4471073/

Development and validation of a LC/MS method for the determination of Δ9-tetrahydrocannabinol and 11-carboxy-Δ9-tetrahydrocannabinol in the larvae of the blowfly Lucilia sericata: Forensic applications (abst – 2015)

δ-Ctenitoxin-Pn1a, a Peptide from Phoneutria nigriventer Spider Venom, Shows Antinociceptive Effect Involving Opioid and Cannabinoid Systems, in Rats (full – 2016)
Acetaminophen Attenuates House Dust Mite Induced Allergic Airway Disease in Mice. (full – 2016) http://jpet.aspetjournals.org/content/early/2016/07/08/jpet.116.233684.long

**LEECHES**

Multiple Changes in Peptide and Lipid Expression Associated with Regeneration in the Nervous System of the Medicinal Leech (link to PDF – 2011) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.713.3790&rank=102

Involvement of nitric oxide through endocannabinoids release in microglia activation during the course of CNS regeneration in the medicinal leech. (link to PDF – 2013) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.718.5567&rank=89&q=cannabinoid&osm=&ossid=


**NEMATODES** – tiny worms


Synthetic Ligands of Cannabinoid Receptors Affect Dauer Formation in the Nematode Caenorhabditis elegans. (full – 2016) http://www.g3journal.org/content/early/2016/04/11/g3.116.026997.long


**OTHER MAMMALS**
Patterns of Natural and Human-Caused Mortality Factors of a Rare Forest Carnivore, the Fisher (Pekania pennanti) in California. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4633177/

An endocannabinoid system is present in the mouse olfactory epithelium but does not modulate olfaction. (full – 2015) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4485596/


PIGS


Mechanisms Of Cannabidiol Neuroprotection In Hypoxic-Ischemic Newborn Pigs: Role Of 5HT1A And CB2 Receptors. (abst – 2013) http://www.sciencedirect.com/science/article/pii/S0028390813001238


Metabolic patterns of JWH-210, RCS-4, and THC in pig urine elucidated using LC-HR-MS/MS: Do they reflect patterns in humans? (abst – 2016)

Distribution of Synthetic cannabinoids JWH-210, RCS-4 and ∆ 9-Tetrahydrocannabinol After Intravenous Administration to Pigs. (abst – 2016)

**REPTILES**

Cannabis intoxication in three Green iguanas (Iguana iguana). (abst – 2011)

**SHREWS (SUNCUS)**

The effects of cannabidiolic acid and cannabidiol on contractility of the gastrointestinal tract of Suncus murinus. (abst – 2011)

Interaction between non-psychotropic cannabinoids in marihuana: effect of cannabigerol (CBG) on the anti-nausea or anti-emetic effects of cannabidiol (CBD) in rats and shrews. (abst – 2011)

Inhibition of monoacylglycerol lipase attenuates vomiting in Suncus murinus and 2-arachidonoylglycerol attenuates nausea in rats. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423233/

Anandamide transport inhibition by ARN272 attenuates nausea-induced behaviour in rats, and vomiting in shrews (Suncus murinus). (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3949659/

Tetrahydrocannabinolic acid reduces nausea-induced conditioned gaping in rats and vomiting in Suncus murinus. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3792001/

Cannabidiolic acid prevents vomiting in Suncus murinus and nausea-induced behaviour in rats by enhancing 5-HT(1A) receptor activation. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3596650/

2-arachidonoylglycerol interferes with lithium-induced vomiting in the house musk shrew, Suncus murinus. (abst – 2013)
Effect of selective inhibition of monoacylglycerol lipase (MAGL) on acute nausea, anticipatory nausea, and vomiting in rats and Suncus murinus. (abst – 2014)

Synergy between cannabidiol, cannabidiolic acid, and Δ⁹-tetrahydrocannabinol in the regulation of emesis in the Suncus murinus (house musk shrew). (abst – 2015)

The involvement of TRPV1 in emesis and anti-emesis. (full – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4843889/

Cannabinoid 2 (CB2) receptor agonism reduces lithium chloride-induced vomiting in Suncus murinus and nausea-induced conditioned gaping in rats. (abst – 2016)

VARIOUS ANIMALS

Scientific Opinion on the safety of hemp (Cannabis genus) for use as animal feed (full – 2011)

Wired to run: exercise-induced endocannabinoid signaling in humans and cursorial mammals with implications for the 'runner's high'. (full – 2012)
http://jeb.biologists.org/content/215/8/1331.long

Role of the Endocannabinoid System in the Central Regulation of Nonmammalian Vertebrate Reproduction (full – 2013)
http://www.hindawi.com/journals/ije/2013/941237/


The involvement of TRPV1 in emesis and anti-emesis. (full – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4843889/
**VIRUSES** also see - HEPATITIS, HIV, HERPES, HVP, and SMALL POX

Anandamide inhibits Theiler's virus induced VCAM-1 in brain endothelial cells and reduces leukocyte transmigration in a model of blood brain barrier by activation of CB1 receptors.  
(full – 2011)  
http://www.jneuroinflammation.com/content/pdf/1742-2094-8-102.pdf

"Recreational" drug abuse associated with failure to mount a proper antibody response after a generalised orthopoxvirus infection.  
(abst – 2011)  

Complete sequence of a cryptic virus from hemp (Cannabis sativa).  
(abst – 2012)  

CBD Protective Against Ebola Virus  
(article – 2014)  
http://cannabisdigest.ca/cbd-protective-ebola-virus/

Effects of cannabinoids and their receptors on viral infections  
(abst – 2015)  

A Randomized Placebo Controlled Trial of Ibuprofen for Respiratory Syncytial Virus Infection in a Bovine Model  
(full – 2016)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0152913

Chromenopyrazole, a Versatile Cannabinoid Scaffold with in Vivo Activity in a Model of Multiple Sclerosis.  
(abst – 2016)  
http://pubs.acs.org/doi/abs/10.1021/acs.jmedchem.6b00397

Upregulation of the cannabinoid CB2 receptor in environmental and viral inflammation-driven rat models of Parkinson's disease.  
(abst – 2016)  

**VIOLENCE / AGGRESSION**

Effect of drug law enforcement on drug market violence: a systematic review.  
(abst – 2011)  

CB1 cannabinoid receptor-mediated aggressive behavior.  
(abst – 2013)  

Acute alcohol use temporally increases the odds of male perpetrated dating violence: A 90-day diary analysis  
(full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3858531/
Couples' Marijuana Use Is Inversely Related to Their Intimate Partner Violence Over the First 9 Years of Marriage. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4282761/


Being the Victim of Violence during a Date predicts Next-Day Cannabis Use among Female College Students. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26449928


Subjective aggression during alcohol and cannabis intoxication before and after aggression exposure. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4988999/


VISION/ EYE +*- also see GLAUCOMA, RETINITIS PIGMENTOSA

Chronic recurring uveitis / iritis responds to cannabis (case report – undated)
http://cannabisclinicians.org/view-all-case-reports/entry/101/?pagenum=3

Congenital nystagmus improved by marijuana (case report – undated)
http://cannabisclinicians.org/view-all-case-reports/entry/599/?pagenum=2

Congenital cataracts (case report – undated)
http://cannabisclinicians.org/view-all-case-reports/entry/819/


Epidermal growth factor receptor transactivation by the cannabinoid receptor (CB1) and transient receptor potential vanilloid 1 (TRPV1) induces differential responses in corneal epithelial cells. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2926165/

Cannabinoid (JWH-133) therapy could be effective for treatment of corneal neovascularization (link to PDF – 2010)

Abnormal-Cannabidiol-Induced Increase in Aqueous Humor Outflow (abst – 2010) http://iovs.arvojournals.org/article.aspx?articleid=2368788&resultClick=1


Mutations in ABHD12 cause the neurodegenerative disease PHARC: An inborn error of endocannabinoid metabolism. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2933347/?tool=pubmed


Enhanced solubility, stability, and transcorneal permeability of delta-8-tetrahydrocannabinol in the presence of cyclodextrins. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3134676/

Ocular Hypotensive Effect of Oral Palmitoyl-ethanolamide: A Clinical Trial
Role of Cannabinoids in Multiple Sclerosis  
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.659.8269&rank=26

Localization of Cannabinoid-Related Proteins in the Murine Anterior Eye  
(abst – 2011) http://iovs.arvojournals.org/article.aspx?articleid=2356236&resultClick=1

2-Arachidonoylglycerol (2-AG) Induces Corneal Epithelial Cell Migration via Cannabinoid CB1 Receptors  
(abst – 2011) http://iovs.arvojournals.org/article.aspx?articleid=2352973&resultClick=1

Endocannabinoid CB1 receptors modulate visual output from the thalamus.  

Cannabidiol Dampens Streptozotocin-Induced Retinal Inflammation by Targeting of Microglial Activation  
(abst - 2011) http://www.abstractsonline.com/plan/ViewAbstract.aspx?sKey=94b35de1-74b2-4d46-b062-7c104b5df681&cKey=eca34a2d-da44-4938-b0fa-3a6e652a1756

Nonpsychotropic Cannabinoids, Abnormal Cannabidiol and Canabigerol-Dimethyl Heptyl, Act at Novel Cannabinoid Receptors to Reduce Intraocular Pressure.  

Fatty acid amide hydrolase expression during retinal postnatal development in rats  

Palmitoylethanolamide effects on intraocular pressure after Nd:YAG laser iridotomy: an experimental clinical study.  

2-Arachidonoylglycerol (2-AG) Induces Corneal Epithelial Cell Migration via Cannabinoid CB1 Receptors  
(abst – 2011) http://iovs.arvojournals.org/article.aspx?articleid=2352973&resultClick=1

Functional and Structural Protection by N-Acylethanolamines in Diabetic Retinopathy  
(abst - 2011) http://iovs.arvojournals.org/article.aspx?articleid=2356082&resultClick=1

Tak1 Interactions With TRPV1 and CB1 Control IL-6 and IL-8 Release in Human Corneal Epithelial Cells  
(abst – 2011) http://iovs.arvojournals.org/article.aspx?articleid=2349956&resultClick=1

Comparison Of Rat And Human Eyes For The Presence And Distribution Of Cb1 And Cb2 Receptors  
(abst - 2011) http://iovs.arvojournals.org/article.aspx?articleid=2357116&resultClick=1

Effects of Palmitoylethanolamide on Aqueous Humor Outflow.  
(full – 2012) http://www.iovs.org/content/53/8/4416.long
Cannabinoid receptor 1 suppresses transient receptor potential vanilloid 1-induced inflammatory responses to corneal injury.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3607947/

GPR158/179 regulate G protein signaling by controlling localization and activity of the RGS7 complexes.  
http://jcb.rupress.org/content/197/6/711.long

Effect of ion pairing on in vitro transcorneal permeability of a Δ(9) -tetrahydrocannabinol prodrug: potential in glaucoma therapy.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4194211/

Cannabinoid Receptor CB2 Modulates Axon Guidance  
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.727.7765&rank=63&q=cannabinoid&osm=&ossid=

Expression and localization of the cannabinoid receptor type 1 and the enzyme fatty acid amide hydrolase in the retina of vervet monkeys.  

Endocannabinoids alleviate proinflammatory conditions by modulating innate immune response in muller glia during inflammation.  

Involvement of a non-CB1/CB2 cannabinoid receptor in the aqueous humor outflow-enhancing effects of abnormal-cannabidiol.  

Evidence For Functional Role Of CB1 Cannabinoid Receptors In The Mammalian Cone Pathway  
http://iovs.arvojournals.org/article.aspx?articleid=2356936&resultClick=1

Structural and Functional Protection of the Retina by N-Acylethanolamines in Glaucoma (abst – 2012)  
http://iovs.arvojournals.org/article.aspx?articleid=2350521&resultClick=1

Evidence That A Functional Gpr18-based Signaling System In The Anterior Murine Eye Modulates Intraocular Pressure  
http://iovs.arvojournals.org/article.aspx?articleid=2358806&resultClick=1

Developmental and Visual Input-Dependent Regulation of the CB1 Cannabinoid Receptor in the Mouse Visual Cortex.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3540079/

A GPR18-based signaling system regulates IOP in murine eye.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3687663/

The Major Brain Endocannabinoid 2-AG Controls Neuropathic Pain and Mechanical Hyperalgesia in Patients with Neuromyelitis Optica.  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0071500
Effectiveness of palmitoylethanolamide on endothelial dysfunction in ocular hypertensive patients: a randomized, placebo-controlled cross-over study. (full – 2013)  
http://www.iovs.org/content/54/2/968.long

Roles of cannabinoid receptors type 1 and 2 on the retinal function of adult mice.  
(full – 2013)  http://www.iovs.org/content/54/13/8079.long


Anti-inflammatory effects of Cannabinoid 2 Receptor activation in endotoxin-induced uveitis.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3954484/

N-Palmitoylethanolamine depot injection increased its tissue levels and those of other acylethanolamide lipids  

Signaling cross-talk between cannabinoid and muscarinic systems actives Rho-kinase and increases the contractile responses of the bovine ciliary muscle  


Effects of a topically applied 2% delta-9-tetrahydrocannabinol ophthalmic solution on intraocular pressure and aqueous humor flow rate in clinically normal dogs.  

Müller cells express the cannabinoid CB2 receptor in the vervet monkey retina.  

The Cannabinoid Agonist HU210 Delays Retinal Degeneration and Vision Loss  
(abst – 2013)  http://iovs.arvojournals.org/article.aspx?articleid=2148029&resultClick=1

The role of Cannabinoid receptors on light-induced photoreceptor degeneration
Cannabinoid neuromodulation in the adult early visual cortex.  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0087362

Cannabinoid-dependent potentiation of inhibition at eye opening in mouse V1.  

Localization of diacylglycerol lipase alpha and monoacylglycerol lipase during postnatal development of the rat retina.  

Evaluation of anti-HIF and anti-angiogenic properties of honokiol for the treatment of ocular neovascular diseases  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4244131/

TRPV1 and Endocannabinoids: Emerging Molecular Signals that Modulate Mammalian Vision.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4197638/

Impairment of Corneal Epithelial Wound Healing in a TRPV1-Deficient Mouse  
http://iovs.arvojournals.org/article.aspx?articleid=2128931&resultClick=1

Molecular Mechanisms of Diabetic Retinopathy, General Preventive Strategies, and Novel Therapeutic Targets  
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.725.3257&rank=68&q=cannabinoid&osm=&ossid=

Endocannabinoids affect innate immunity of Muller glia during HIV-1 Tat cytotoxicity.  

Neuroprotective effects of the cannabinoid agonist HU210 on retinal degeneration.  

Cannabinoid and lipid-mediated vasorelaxation in retinal microvasculature.  

Cannabinoid CB1 receptor signaling dichotomously modulates inhibitory and excitatory synaptic transmission in rat inner retina.  

Anandamide rescues retinal barrier properties in Müller glia through nitric oxide regulation.   

NONRETROGRADE ENDOCANNABINOID SIGNALING MODULATES RETINAL GANGLION CELL CALCIUM HOMEOSTASIS THROUGH THE TRPV1 CATION CHANNEL  
http://iovs.arvojournals.org/article.aspx?articleid=2268407&resultClick=1
Visual deficits in mice after mild traumatic brain injury produced by primary overpressure blast are alleviated by the novel CB2 drug SMM189 (abst – 2014) http://iovs.arvojournals.org/article.aspx?articleid=2271359&resultClick=1


Identification of prostamides, fatty acyl ethanolamines and their biosynthetic precursors in rabbit cornea. (full – 2015) http://www.jlr.org/content/early/2015/05/31/jlr.M055772.long

Differential immune mechanism to HIV-1 Tat variants and its regulation by AEA (full – 2015) http://www.nature.com/srep/2015/150505/srep09887/full/srep09887.html

Cannabinoid-Induced Chemotaxis in Bovine Corneal Epithelial Cells. (full – 2015) http://iovs.arvojournals.org/article.aspx?articleid=2297919&resultClick=1

Role of Endothelium in Abnormal Cannabidiol-Induced Vasoactivity in Retinal Arterioles. (full – 2015) http://iovs.arvojournals.org/article.aspx?articleid=2343105&resultClick=1

Impact of CB1 Receptor Deletion on Visual Responses and Organization of Primary Visual Cortex in Adult Mice (full – 2015) http://iovs.arvojournals.org/article.aspx?articleid=2474494&resultClick=1


Marijuana’s role in optometry and beyond  (article – 2015)  

The endocannabinoid system within the dorsal lateral geniculate nucleus of the vervet monkey.  (abst – 2015)  

Synthetic and endogenous cannabinoids protect retinal neurons from AMPA excitotoxicity in vivo, via activation of CB1 receptors: Involvement of PI3K/Akt and MEK/ERK signaling pathways.  (abst – 2015)  

Layer-specific endocannabinoid-mediated LTD of GABAergic neurotransmission onto principal neurons in mouse visual cortex.  (abst – 2015)  

Cannabinoid Receptor Agonists Modulate Calcium Channels in Rat Retinal Müller Cells.  (abst – 2015)  

Dose-dependent teratogenicity of the synthetic cannabinoid CP-55,940 in mice.  (abst – 2015)  

Cannabinoid Receptors Modulate Rod-Cone Gap Junctional Coupling In The Day And Night  (abst – 2015)  
http://iovs.arvojournals.org/article.aspx?articleid=2336723&resultClick=1

The Endocannabinoid System as a Therapeutic Target in Glaucoma  (full – 2016)  
http://www.hindawi.com/journals/np/2016/9364091/

The Endocannabinoid System in the Retina: From Physiology to Practical and Therapeutic Applications  (full – 2016)  
http://www.hindawi.com/journals/np/2016/2916732/

Expression and Function of the Endocannabinoid System in the Retina and the Visual Brain  (full – 2016)  
http://www.hindawi.com/journals/np/2016/9247057/

Endogenous and Synthetic Cannabinoids as Therapeutics in Retinal Disease  (full – 2016)  
http://www.hindawi.com/journals/np/2016/8373020/

A Comparative Analysis of the Endocannabinoid System in the Retina of Mice, Tree Shrews, and Monkeys.  (full – 2016)  
http://www.hindawi.com/journals/np/2016/3127658/

Harnessing the Endocannabinoid 2-Arachidonoylglycerol to Lower Intraocular Pressure in a Murine Model.  (full – 2016)  
http://iovs.arvojournals.org/article.aspx?articleid=2530714

Cannabinoid Receptors CB1 and CB2 Modulate the Electoretinographic Waves in Vervet Monkeys.  (full – 2016)  
http://www.hindawi.com/journals/np/2016/1253245/
The intraocular pressure-lowering properties of intravenous paracetamol. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4948718/

Endocannabinoid signaling enhances visual responses through modulation of intracellular chloride levels in retinal ganglion cells. (full – 2016) https://elifesciences.org/content/5/e15932


Modulation of Type-1 and Type-2 Cannabinoid Receptors by Saffron in a Rat Model of Retinal Neurodegeneration. (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0166827


Association Between Regular Cannabis Use and Ganglion Cell Dysfunction (full – 2016) http://jamanetwork.com/journals/jamaophthalmology/fullarticle/2589167


Endocannabinoids and sleep (abst – 2016)  

Cannabinoid receptors and TRPA1 on neuroprotection in a model of retinal ischemia (abst – 2016)  

The arguments for and against cannabinoids application in glaucomatous retinopathy. (abst – 2016)  

Evaluation of divided attention psychophysical task performance and effects on pupil sizes following smoked, vaporized and oral cannabis administration. (abst – 2017)  

**WALLENBERG SYNDROME** – a type of stroke

‘Legal high’ associated Wallenberg syndrome (abst – 2013)  
http://casereports.bmj.com/content/2013/bcr-2013-009693.abstract?sid=0550787d-e463-41b1-bac9-0d2bad5504d9

**WAR ON DRUGS / LEGALIZATION- STUDIES** - No date restrictions

VICTOR LICATA: A RUSH TO JUDGEMENT (ebook – undated)  
http://reefermadnessmuseum.org/VictorLlicata/Chap00_Index.htm

Indian hemp and the dope fiends of Old England (article - undated)  
http://www.idmu.co.uk/indian.htm

Drug War Clock: Money Spent on the War On Drugs this Year (links to studies - undated)  
http://www.drugsense.org/cms/wodclock

Medical Marijuana - Medical Organizations Endorsing Marijuana (news – undated)  
http://www.perkel.com/politics/issues/endorse.htm

THE LEGEND OF THE HOT TAMALE PEDDLER: What the Newspapers were saying: (news – undated)  

Effects of Chronic Smoking of Cannabis in Jamaica (download – 1972)  
Effects of Chronic Smoking of Cannabis in Jamaica

Women and Cannabis (download – 1977)  
Women and Cannabis: The Jamaican Example
Ingestion of Hashish Oil-filled Condoms.  (abst – 1980)  


Opprobrium and Presecution: Hashish Users in Urban Greece  (download – 1982) 
Opprobrium and Persecution: Hashish Users in Urban Greece.

The Intangible Rewards from Crime: The Case of Domestic Marijuana Cultivation  
(link to download - 1991) 
http://cad.sagepub.com/content/37/4/506.abstract?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=marihuana&searchid=1&FIRSTINDEX=1840&resourcetype=HWCIT

Economics of Cannabis Legalization  (article – 1993)  
http://cifas.us/analyses/gieringer.html


DRUG USE AND HUMAN RIGHTS: PRIVACY, VULNERABILITY, DISABILITY, AND HUMAN RIGHTS INFRINGEMENTS  (article – 1996)  
http://cifas.us/analyses/Gilmore1.html

Feasibility of Industrial Hemp Production in the United States Pacific Northwest  
(link to PDF – 1998) 
https://catalog.extension.oregonstate.edu/sb681

Schedules of controlled substances: rescheduling of the Food and Drug Administration approved product containing synthetic dronabinol [(-) - [DELTA] less than 9 greater than - (trans)-tetrahydrocannabinol] in sesame oil and encapsulated in soft gelatin capsules from schedule II to schedule III. Department of Justice (DOJ), Drug Enforcement Administration (DEA). Final rule.  (full – 1999)  

The Relationship between Research and Drug Policy in the United States  
(article – 1999)  
http://cifas.us/analyses/laniel.html

A Critical Look at the D.A.R.E. Program and Effective Youth Programs  
(3 articles - 1999)  
https://web.stanford.edu/class/e297c/poverty_prejudice/ganginterv/criticallook.htm

Cannabinoid mimics in chocolate utilized as an argument in court  (abst – 2000)  

HISTORICAL AND CULTURAL USES OF CANNABIS AND THE CANADIAN "MARIJUANA CLASH"  (full – 2002)  
http://www.parl.gc.ca/content/sen/committee/371/ille/library/spicer-e.htm

Chronic Cannabis Use in the Compassionate Investigational New Drug Program:

Chronic Cannabis Use in the Compassionate Investigational New Drug Program: An Examination of Benefits and Adverse Effects of Legal Clinical Cannabis (summary - 2002) http://www.letfreedomgrow.com/cmu/chronic_cannabis_use.htm


The Variation in Arrestees' Disclosure of Recent Drug Use Across Locations, Drugs, and Demographic Characteristics. (full – 2005) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2565490/?tool=pubmed


THE RACE/ETHNICITY DISPARITY IN MISDEMEANOR MARIJUANA ARRESTS IN NEW YORK CITY (full - 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2561263/?tool=pubmed

Retail marijuana purchases in designer and commercial markets in New York City: sales units, weights, and prices per gram. (full – 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2077843/?tool=pubmed

In the Matter of Lyle E Craker, Ph.D. Docket No. 05-16 (full – 2007) http://www.maps.org/research-archive/mmj/ALJfindings.PDF


Scheduling process at DEA - the example of cannabidiol (abst – 2008) http://www.fasebj.org/cgi/content/meeting_abstract/22/1_MeetingAbstracts/711.1

Medical Marijuana: are we ready? (article – 2009) https://sciencebasedmedicine.org/medical-marijuana-are-we-ready/


Medical Marijuana and the Law (full - 2010)
http://journals.sagepub.com/doi/full/10.1177/0011128710386199

Estimated Cost of Production for Legalized Cannabis (link to PDF – 2010)
http://www.rand.org/pubs/working_papers/WR764.html

Necessity or nastiness? The hidden law denying cannabis for medical use.
(full/news – 2010)

Colonic perforation: a lethal consequence of cannabis body packing. (abst – 2010)

Stable isotope models to predict geographic origin and cultivation conditions of marijuana. (abst – 2010)

Potency trends of Δ9-THC and other cannabinoids in confiscated cannabis preparations from 1993 to 2008 (abst – 2010)

The current status of community drug testing via the analysis of drugs and drug metabolites in sewage (link to PDF – 2011)

Handler beliefs affect scent detection dog outcomes (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3078300/

The intersection between cannabis and cancer in the United States. (full – 2011)
http://www.croh-online.com/article/S1040-8428(11)00231-9/fulltext

How well do international drug conventions protect public health? (abst - register free for full – 2011)
http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(11)61423-2/fulltext

Reported value of cannabis seizures in Australian newspapers: are they accurate? (abst – 2011)

What can we learn from the Dutch cannabis coffeeshop system? (abst – 2011)

Effect of drug law enforcement on drug market violence: a systematic review. (abst – 2011)

Societal images of Cannabis use: comparing three countries. (full – 2012)
Exploring the ecological association between crime and medical marijuana dispensaries (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3364319/


Former Supreme Court justice blasts minimum sentences for marijuana offenders. (article - 2012)  http://www.cmaj.ca/content/184/8/E391


Legalizing a market for cannabis for pleasure: Colorado, Washington, Uruguay and beyond  
(abst – 2013)  

Use of Silk Road, the online drug marketplace, in the UK, Australia and the USA.  
(abst – 2013)  

Risks, prices, and positions: A social network analysis of illegal drug trafficking in the world-economy.  
(abst – 2013)  

The DEA: Four Decades of Impeding And Rejecting Science  
(full – 2014)  

Recommendations for Regulators – Cannabis Operations  
(full – 2014)  
www.a2la.org/appsweb/ASA_PFC_2016.pdf

(full – 2014)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0092816

Physicians, Medical Marijuana, and the Law  
(full – 2014)  

The Legalization of Marijuana in Colorado: The Impact. Rocky Mountain HIDTA. The Impact.  
(full – 2014)  

Marijuana Policy in Colorado  
(full – 2014)  

Health Poll - Legalizing Marijuana  
(full – 2014)  

The Impact of State Medical Marijuana Legislation on Adolescent Marijuana Use.  
(full – 2014)  
http://www.jahonline.org/article/S1054-139X%2814%2900107-4/pdf

Correlates of intentions to use cannabis among US high school seniors in the case of cannabis legalization.  
(full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4071130/

Words Can Be Deceiving: A Review of Variation Among Legally Effective Medical Marijuana Laws in the United States.  
(full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4314612/

Cannabinoid modulation of drug reward and the implications of marijuana legalization.  
(full – 2014)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4442758/
Medical marijuana: 4 experts on benefits vs. risks (article – 2014)  
https://www.elsevier.com/connect/medical-marijuana-4-experts-on-benefits-vs-risks

Marijuana Resource Center: State Laws Related to Marijuana (article – 2014)  
http://www.whitehouse.gov/ondcp/state-laws-related-to-marijuana

A Review and Critique of Dr. Sanjay Gupta's Weed 2: Cannabis Madness on CNN (article – 2014)  
http://cms.herbalgram.org/heg/volume11/04April/CNNGupataWEED2critique.html

Preferences for policy options for cannabis in an Australian general population: A discrete choice experiment. (abst – 2014)  

A dawning demand for a new cannabis policy: A study of Swedish online drug discussions. (abst – 2014)  

Policy designs for cannabis legalization: starting with the eight Ps. (abst – 2014)  

Cannabis depenalisation, drug consumption and crime - Evidence from the 2004 cannabis decriminalisation in the UK. (abst – 2014)  


Cocaine's fall and marijuana's rise: questions and insights based on new estimates of consumption and expenditures in US drug markets. (abst – 2014)  

Cannabis social clubs in Belgium: Organizational strengths and weaknesses, and threats to the model. (abst – 2014)  

Attitudes of cannabis growers to regulation of cannabis cultivation under a non-prohibition cannabis model. (abst – 2014)  

Big Marijuana — Lessons from Big Tobacco (abst – 2014)  

Status Report: Marijuana Legalization in Colorado After One Year of Retail Sales and Two Years of Decriminalization (full – 2015)  

Colorado Department of Revenue Enforcement Division – Marijuana Annual Update (full – 2015)  
Illegal drugs laws: clearing a 50-year-old obstacle to research. (full – 2015)
http://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.1002047

The Impact of Marijuana Policies on Youth: Clinical, Research, and Legal Update.
(full – 2015)  http://pediatrics.aappublications.org/content/early/2015/01/20/peds.2014-4147.long

Drugs and Crime Facts  (full – 2015)  http://www.bjs.gov/content/dcf/ptrpa.cfm


Human rights, public health and medicinal cannabis use.  (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4662098/


Public opinion and medical cannabis policies: examining the role of underlying beliefs and national medical cannabis policies.  (full – 2015)

Detection of Illicit Drugs by Trained Honeybees (Apis mellifera).  (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4471073/

Are cannabis laws used for political repression in the Arab Spring countries?  (full – 2015)

Medical marijuana's public health lessons--implications for retail marijuana in Colorado.  (full – 2015)

The globalisation of cannabis cultivation: A growing challenge  (full – 2015)
http://www.ijdp.org/article/S0955-3959%2815%2900003-1/fulltext

Are Moroccan cannabis growers able to adapt to recent European market trend?  (full – 2015)
http://www.ijdp.org/article/S0955-3959%2814%2900336-3/fulltext

U.S. Policy Responses to Calls for the Medical Use of Cannabis.  (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4553645/

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4900958/

THE EFFECT OF MEDICAL MARIJUANA LAWS ON BODY WEIGHT  (full – 2015)
The Effect of Medical Marijuana Laws on Body Weight


CONTROLLED SUBSTANCES CHAOS: THE DEPARTMENT OF JUSTICE’S NEW POLICY POSITION ON MARIJUANA AND WHAT IT MEANS FOR INDUSTRIAL HEMP FARMING IN NORTH DAKOTA (link to download - 2015) controlled substances chaos: the department of justice's new policy ...

Do Medical Marijuana Laws Reduce Addictions and Deaths Related to Pain Killers? (link to download - 2015) Do Medical Marijuana Laws Reduce Addiction and Deaths Related ...


Veterans Health Administration Policy on Cannabis as an Adjunct to Pain Treatment with Opiates (article – 2015) http://journalofethics.ama-assn.org/2015/06/pfor2-1506.html

Marijuana gears up for production high in US labs (article – 2015) http://www.nature.com/news/marijuana-gears-up-for-production-high-in-us-labs-1.17129


Marijuana Research with Human Subjects (article – 2015) http://www.fda.gov/newsevents/publichealthfocus/ucm421173.htm


Prevalence of Marijuana and Other Substance Use Before and After Washington State's Change from Legal Medical Marijuana to Legal Medical and Non-Medical Marijuana: Cohort Comparisons in a Sample of Adolescents. (abst – 2015)

Legal issues for German-speaking cannabis growers. Results from an online survey. (abst – 2015)
http://www.ijdp.org/article/S0955-3959%2815%2900315-1/abstract

In the weeds: a baseline view of cannabis use among legalizing states and their neighbours. (abst – 2015)

The Impact of Legalizing and Regulating Weed: Issues with Study Design and Emerging Findings in the USA. (abst – 2015)

Issues in the implementation and evolution of the commercial recreational cannabis market in Colorado. (abst – 2015)
http://www.ijdp.org/article/S0955-3959(15)00354-0/abstract

An economic analysis of different cannabis decriminalization scenarios. (abst – 2015)


Proving personal use: the admissibility of evidence negating intent to distribute marijuana. (abst – 2015)

The impact of marijuana decriminalization on California drivers (abst – 2015)


Marijuana experiences, voting behaviors, and early perspectives regarding marijuana legalization among college students from 2 states. (abst – 2015)

Impacts of Changing Marijuana Policies on Alcohol Use in the United States. (full – 2016)

Medical marijuana programs - Why might they matter for public health and why should we better understand their impacts? (full – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4721313/
Legal regulated markets have the potential to reduce population levels of harm associated with cannabis use (full – 2016)  http://onlinelibrary.wiley.com/doi/10.1111/add.13390/full

The commercial focus of US cannabis regulation models should not close our eyes to other options (full – 2016)  http://onlinelibrary.wiley.com/doi/10.1111/add.13383/full


Federal barriers to Cannabis research. (full – 2016)  http://science.sciencemag.org/content/352/6290/1182.1.long


Medical Marijuana Laws Reduce Prescription Medication Use In Medicare Part D. (full – 2016)  http://content.healthaffairs.org/content/35/7/1230.long

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5038957/

Establishment of a New Drug Code for Marihuana Extract (full – 2016) 

American Attitudes toward Substance Use in the United States (link to PDF – 2016) 

Medical experts warn Australia's understanding of medicinal cannabis lacking (link to PDF – 2016) 

Tackling the Pharmaceutical Frontier: Regulation of Cannabinoid-Based Medicines in Postwar Japan (link to PDF – 2016) 
http://online.liebertpub.com/doi/full/10.1089/can.2015.0011

The legalization of cannabis derivatives in Spain: Hypothesis on a potential emerging market. (link to PDF – 2016) 
PDF (English)

Hemp as fibre and food? Regulatory developments and current issues (news/ link to PDF – 2016) 

Applications To Become Registered Under the Controlled Substances Act To Manufacture Marijuana To Supply Researchers in the United States. Policy statement. (click “Link out” for download – 2016) 

Cannabis in the United States (report – 2016) 
http://self.gutenberg.org/article/WHEBN0020566488/Cannabis%20in%20the%20United%20States

http://cfamm.ca/patient-recommendations/

Marijuana Legalization and Taxes: Lessons for Other States from Colorado and Washington (report – 2016) 

Dose of Reality: The Effect of State Marijuana Legalizations (report – 2016) 
Farming medical ganja in Jamaica. (click ELSEVIER for 1st page – 2016)

Dental treatment planning considerations for patients using cannabis: A case report. (abst – 2016)

Chapter 6 – The Roles of Research and Regulation (abst – 2016)

The Changing Drug Culture: Medical and Recreational Marijuana. (abst – 2016)

Systematic review of the toxicological and radiological features of body packing. (abst – 2016)

Cannabis - Position Paper of the German Respiratory Society (DGP) (abst – 2016)

Do police arrestees substitute legal highs for other drugs? (abst – 2016)

Tightening the Dutch coffee shop policy: Evaluation of the private club and the residence criterion. (abst – 2016)

Cannabis in Pain Treatment: Clinical & Research Considerations. (abst – 2016)

Smoking, vaping, eating: Is legalization impacting the way people use cannabis? (abst – 2016)

A common public health-oriented policy framework for cannabis, alcohol and tobacco in Canada? (abst – 2016)

Weeding Out the Truth: Adolescents and Cannabis. (abst – 2016)

Mitigation of Marijuana-Related Legal Harms to Youth in California. (abst – 2016)

Underbanked: Cooperative Banking as a Potential Solution to the Marijuana-Banking Problem. (abst – 2016)

Techniques and technologies for the bioanalysis of Sativex®, metabolites and related compounds. (abst – 2016)

Cannabis policy and the uptake of treatment for cannabis-related problems. (abst – 2016)
Attitudes to legalizing cannabis use. (abst – 2016)  

Estimating the production, consumption and export of cannabis: The Dutch case. (abst – 2016)  

Considering marijuana legalization carefully: insights for other jurisdictions from analysis for Vermont (abst – 2016)  

Influence of legal status on the uptake of cannabis in young people. (abst – 2016)  

Evaluating the public health impacts of legalizing recreational cannabis use in the USA. (abst – 2016)  

http://www.jaacap.com/article/S0890-8567%2816%2930101-0/abstract

Current Status and Prospects for Cannabidiol Preparations as New Therapeutic Agents. (abst – 2016)  

Substitution and Complementarity of Alcohol and Cannabis: A Review of the Literature. (abst – 2016)  

Field observations of the developing legal recreational cannabis economy in Washington State. (abst – 2016)  

Secondary Effects of an Alcohol Prevention Program Targeting Students and/or Parents (abst – 2016)  
http://www.journalofsubstanceabusetreatment.com/article/S0740-5472(16)30152-0/abstract

MEDICINAL CANNABIS LAW REFORM IN AUSTRALIA. (abst – 2016)  

Influence of law changes affecting synthetic cannabinoid availability and frequency of hospital presentations: 4-year national survey. (abst – 2016)  

Why it is probably too soon to assess the public health effects of legalisation of recreational cannabis use in the USA. (abst – 2016)  
http://www.thelancet.com/journals/lanpsy/article/PIIS2215-0366(16)30071-2/abstract

Cannabis consumption patterns among frequent consumers in Uruguay. (abst – 2016)  
Qualitative research in Spanish cannabis social clubs: "The moment you enter the door, you are minimising the risks". (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27461986

Limitations to the Dutch cannabis toleration policy: Assumptions underlying the reclassification of cannabis above 15% THC. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27471078


**WITHDRAWAL SYNDROME** +*

Information for Health Care Professionals- Marihuana (marijuana, cannabis) dried plant for administration by ingestion or other means (Health Canada) (full – 2010)

Rimonabant-induced Delta9-tetrahydrocannabinol withdrawal in rhesus monkeys: discriminative stimulus effects and other withdrawal signs. (full – 2010)

Anxiety-like effects of SR141716-precipitated delta9-tetrahydrocannabinol withdrawal in mice in the elevated plus-maze. (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3923489/

The fatty acid amide hydrolase inhibitor URB 597: interactions with anandamide in rhesus monkeys. (full – 2011)

Antagonist-elicited cannabis withdrawal in humans. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3717344/

Characterizing smoking topography of cannabis in heavy users. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3641906/

Increased Blood Pressure Following Abrupt Cessation of Daily Cannabis Use. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3045206/

A genetic perspective on the proposed inclusion of cannabis withdrawal in DSM-5. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3733446/

A proof-of-concept randomized controlled study of gabapentin: effects on cannabis use, withdrawal and executive function deficits in cannabis-dependent adults. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3358737/

Residual effects of cannabis use on neurocognitive performance after prolonged abstinence: a meta-analysis (abst – 2012)

Cannabidiol for the treatment of cannabis withdrawal syndrome: a case report (abst – 2012)

Electroacupuncture inhibits CB1 upregulation induced by ethanol withdrawal in mice.

Nabilone decreases marijuana withdrawal and a laboratory measure of marijuana relapse. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3682150/


Plasma Cannabinoid Concentrations During Dronabinol Pharmacotherapy for Cannabis Dependence. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3955404/


Baclofen in the management of cannabis dependence syndrome. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3896138/


Cannabis withdrawal in chronic, frequent cannabis smokers during sustained abstinence within a closed residential environment. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3986824/

Cannabis Withdrawal in Patients With and Without Opioid Dependence. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4127106/

The endocannabinoid system regulates synaptic transmission in nucleus accumbens by increasing DAGL-α expression following short-term morphine withdrawal. (full – 2014)  

Changes in cigarette and alcohol use during cannabis abstinence. (abst – 2014)  


Effects of opioids and cannabinoids during chronic morphine treatment in rhesus monkeys (abst – 2014)  
http://www.fasebj.org/content/28/1_Supplement/658.3.abstract?sid=467bb529-0ecc-4ddb-af27-3f56f520a102

The FAAH inhibitor PF-04457845 has THC-like rewarding and reinstatement effects in squirrel monkeys and increases dopamine levels in the nucleus accumbens shell in rats (abst – 2014)  
http://www.fasebj.org/content/28/1_Supplement/838.6.abstract?sid=db987fd0-3ef0-4796-aff6-4103f0c84d9f

Comparative effects of pulmonary and parenteral Δ9-tetrahydrocannabinol exposure on extinction of opiate-induced conditioned aversion in rats. (abst - 2014)  

Potential use of Magnolia officinalis bark polyphenols in the treatment of cannabis dependence. (abst – 2014)  

Early Withdrawal Effects in a Heavy Cannabis Smoker During Hemodialysis (abst – 2014)  
http://www.biologicalpsychiatryjournal.com/article/S0006-3223%2814%2900610-6/abstract

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4331066/
Cannabis and psychopathology: The meandering journey of the last decade
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4462782/)

Craving is associated with amygdala volumes in adolescent marijuana users during abstinence.
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4568004/)

Acute and Chronic Ethanol Exposure Differentially Regulate CB1 Receptor Function at Glutamatergic Synapses in the Rat Basolateral Amygdala.
(http://www.sciencedirect.com/science/article/pii/S002839081530201X)

The impact of gonadal hormones on cannabinoid dependence.
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4696547/)

Safety of oral dronabinol during opioid withdrawal in humans.
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4663169/)

The effects of dronabinol during detoxification and the initiation of treatment with extended release naltrexone.
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4536087/)

Sex differences in cannabis withdrawal symptoms among treatment-seeking cannabis users.
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4747417/)

Cannabinoid withdrawal in mice: inverse agonist vs neutral antagonist.
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4504748/)

Cannabinoids and Epilepsy
(http://link.springer.com/article/10.1007%2Fs13311-015-0375-5)

Addressing the stimulant treatment gap: A call to investigate the therapeutic benefits potential of cannabinoids for crack-cocaine use.
(link through Elsevier to get link to PDF – 2015)
(http://www.ncbi.nlm.nih.gov/pubmed/26500166)

Synthetic cannabinoid withdrawal: A new demand on detoxification services.
(abst – 2015)
(http://www.ncbi.nlm.nih.gov/pubmed/25588420)

Cannabinoid Replacement Therapy (CRT): Nabiximols (Sativex) as a novel treatment for cannabis withdrawal.
(abst – 2015)

Withdrawal Seizures Seen In the Setting of Synthetic Cannabinoid Abuse
(abst – 2015)
(http://www.ajemjournal.com/article/S0735-6757%2815%2900169-2/abstract)

Cannabis withdrawal and sleep: A systematic review of human studies.
(abst – 2015)

Catatonia and Cannabis Withdrawal: a case report.
(abst – 2015)
(http://www.ncbi.nlm.nih.gov/pubmed/26247767)
Combined Treatment with Morphine and Δ9-Tetrahydrocannabinol (THC) in Rhesus Monkeys: Antinociceptive Tolerance and Withdrawal (abst – 2015)
http://www.fasebj.org/content/29/1_Supplement/616.9.abstract?sid=edf921ac-0690-4aa6-ac81-0546314dd384

Rapid Changes in Cannabinoid 1 Receptor Availability in Cannabis-Dependent Male Subjects After Abstinence From Cannabis (full – 2016)

Attempts to Stop or Reduce Daily Cannabis Use: An Intensive Natural History Study. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4877269/


fMRI study of neural sensitization to hedonic stimuli in long-term, daily cannabis users. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5012952/

Cannabis Withdrawal, Posttreatment Abstinence, and Days to First Cannabis Use Among Emerging Adults in Substance Use Treatment: A Prospective Study. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4748964/


WOUNDS/ INJURIES +

Evidence for a Role of Endocannabinoids, Astrocytes and p38 Phosphorylation in the Resolution of Postoperative Pain (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2878341/?tool=pmcentrez

Epidermal growth factor receptor transactivation by the cannabinoid receptor (CB1) and transient receptor potential vanilloid 1 (TRPV1) induces differential responses in corneal epithelial cells. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2926165/

Endocannabinoid-like N-arachidonoyl serine is a novel pro-angiogenic mediator. (full– 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2936832/
Anandamide suppresses pain initiation through a peripheral endocannabinoid mechanism (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3260554/


Multiple Changes in Peptide and Lipid Expression Associated with Regeneration in the Nervous System of the Medicinal Leech (link to PDF – 2011) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.713.3790&rank=102

2-Arachidonoylglycerol (2-AG) Induces Corneal Epithelial Cell Migration via Cannabinoid CB1 Receptors (abst – 2011) http://iovs.arvojournals.org/article.aspx?articleid=2352973&resultClick=1

2-Arachidonoylglycerol (2-AG) Induces Corneal Epithelial Cell Migration via Cannabinoid CB1 Receptors (abst – 2011) http://iovs.arvojournals.org/article.aspx?articleid=2352973&resultClick=1

Tak1 Interactions With TRPV1 and CB1 Control IL-6 and IL-8 Release in Human Corneal Epithelial Cells (abst – 2011) http://iovs.arvojournals.org/article.aspx?articleid=2349956&resultClick=1

CB1 Activation Reduces TRPV1-induced Responses in Human Corneal Epithelial Cells (abst – 2011) http://iovs.arvojournals.org/article.aspx?articleid=2353114&resultClick=1

Cannabinoid receptor 1 suppresses transient receptor potential vanilloid 1-induced inflammatory responses to corneal injury. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3607947/

Early Endogenous Activation of CB1 and CB2 Receptors after Spinal Cord Injury Is a Protective Response Involved in Spontaneous Recovery (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3496738/


Monoacylglycerol Lipase (MAGL) Inhibition Attenuates Acute Lung Injury in Mice. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3808422/

A selective antagonist reveals a potential role of G protein-coupled receptor 55 in platelet and endothelial cell function. (full – 2013) http://jpet.aspetjournals.org/content/346/1/54.long

Palmitoylethanolamide in Homeostatic and Traumatic Central Nervous System Injuries (link to PDF - 2013) http://www.eurekaselect.com/107976/article

Involvement of nitric oxide through endocannabinoids release in microglia activation during the course of CNS regeneration in the medicinal leech. (link to PDF – 2013) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.718.5567&rank=89&q=cannabinoid&osm=&ossid=

Impairment of Corneal Epithelial Wound Healing in a TRPV1-Deficient Mouse (full – 2014) http://iovs.arvojournals.org/article.aspx?articleid=2128931&resultClick=1

Cannabinoid Receptor Type 1 Antagonist, AM251, Attenuates Mechanical Allodynia and Thermal Hyperalgesia after Burn Injury (link to PDF – 2014) http://anesthesiology.pubs.asahq.org/article.aspx?articleid=1936541&resultClick=3


CB2R orchestrates fibrogenesis through regulation of inflammatory response during the repair of skeletal muscle contusion. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4466920/


Cannabinoid CB2 receptors are involved in the regulation of fibrogenesis during skin wound repair in mice. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4805070/


Granny Storm Crow's List - January 2017

THE ENDOCANNABINOID SYSTEM

Studies 2010 - 2017
+ = older studies in the 2000-2009 List.
* = older studies in Pre-2000 List.

**ABHD2/ α/β-hydrolase domain 2** - breaks down 2-AG

- Progesterone and Endocannabinoid Interaction Alters Sperm Activation  
  (full – 2016)  
  http://www.biolreprod.org/content/95/1/9.long

- Unconventional endocannabinoid signaling governs sperm activation via sex hormone progesterone.  
  (abst – 2016)  

**ABHD6/ α/β-hydrolase domain 6** + - breaks down 2-AG

- The serine hydrolase ABHD6 controls the accumulation and efficacy of 2-AG at cannabinoid receptors.  
  (full – 2010)  
  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2970523/

- Localization of Cannabinoid-Related Proteins in the Murine Anterior Eye  
  (abst – 2011)  
  http://iovs.arvojournals.org/article.aspx?articleid=2356236&resultClick=1

Biochemical and pharmacological characterization of human α/β-hydrolase domain containing 6 (ABHD6) and 12 (ABHD12). (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3466009/

Implication of the anti-inflammatory bioactive lipid prostaglandin D2-glycerol ester in the control of macrophage activation and inflammation by ABHD6. (full – 2013) http://www.pnas.org/content/110/43/17558.long

The serine hydrolase ABHD6 Is a critical regulator of the metabolic syndrome. (full – 2013) http://www.cell.com/cell-reports/fulltext/S2211-1247%2813%2900507-X


Discovery of triterpenoids as reversible inhibitors of α/β-hydrolase domain containing 12 (ABHD12). (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4045134/


Programming and reprogramming neural cells by (endo-) cannabinoids: from physiological rules to emerging therapies (full – 2014) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4765324/


CB1 cannabinoid receptor enrichment in the ependymal region of the adult human spinal cord. (full – 2015) http://www.nature.com/articles/rep17745
α/β Hydrolase Domain-Containing 6 (ABHD6) Degrades the Late Endosomal/Lysosomal Lipid Bis(monoacylglycerol)phosphate. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4705992/


Rescue of Impaired mGluR5-Driven Endocannabinoid Signaling Restores Prefrontal Cortical Output to Inhibit Pain in Arthritic Rats. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4719019/


**ABHD12/ α/β-hydrolase domain 12**
Mutations in ABHD12 cause the neurodegenerative disease PHARC: An inborn error of endocannabinoid metabolism. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2933347/?tool=pubmed


Targeted next-generation sequencing identifies a homozygous nonsense mutation in ABHD12, the gene underlying PHARC, in a family clinically diagnosed with Usher syndrome type 3 (full – 2012) http://www.ojrd.com/content/7/1/59

Biochemical and pharmacological characterization of human α/β-hydrolase domain containing 6 (ABHD6) and 12 (ABHD12). (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3466009/

ABHD12 controls brain lysophosphatidylserine pathways that are deregulated in a murine model of the neurodegenerative disease PHARC. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3557017/


Discovery of triterpenoids as reversible inhibitors of α/β-hydrolase domain containing 12 (ABHD12). (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4045134/

Programming and reprogramming neural cells by (endo-) cannabinoids: from physiological rules to emerging therapies (full – 2014) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4765324/


2-AG / 2-ARACHIDONOYLGLYCEROL + - CB 1 agonist

International Union of Basic and Clinical Pharmacology. LXXIX. Cannabinoid Receptors and Their Ligands: Beyond CB1 and CB2 (full – 2010)
http://pharmrev.aspetjournals.org/content/62/4/588.full.pdf+html

The serine hydrolase ABHD6 controls the accumulation and efficacy of 2-AG at cannabinoid receptors. (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2970523/

Enhancement of endocannabinoid signaling by fatty acid amide hydrolase inhibition: a neuroprotective therapeutic modality. (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2848893/?tool=pubmed

Dietary docosahexaenoic acid supplementation alters select physiological endocannabinoid-system metabolites in brain and plasma (full – 2010)
http://www.jlr.org/content/51/6/1416.full.pdf+html

Abnormal mGlu 5 receptor/endocannabinoid coupling in mice lacking FMRP and BC1 RNA. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3055456/


Antitumorigenic Effects of Cannabinoids beyond Apoptosis (full - 2010)
http://jpet.aspetjournals.org/content/332/2/336.full?sid=af53ea87-ab4b-426e-9c7e-8f750e9c4a17

Endocannabinoid Overload (full – 2010)
http://molpharm.aspetjournals.org/content/78/6/993.full

Maternal Dietary Fat Determines Metabolic Profile and the Magnitude of Endocannabinoid Inhibition of the Stress Response in Neonatal Rat Offspring (full – 2010)
http://endo.endojournals.org/content/151/4/1685.full?sid=f9729c6f-d221-42d4-81d8-8545db5df878

Cyclooxygenase-2 Mediates Anandamide Metabolism in the Mouse Brain (full – 2010)
http://jpet.aspetjournals.org/content/335/2/380.full?sid=af53ea87-ab4b-426e-9c7e-8f750e9c4a17

Architecture of cannabinoid signaling in mouse retina. (full – 2010)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2982216/
Cannabinoid Receptors as Target for Treatment of Osteoporosis: A Tale of Two Therapies (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3001217/?tool=pubmed

Differential alterations of the concentrations of endocannabinoids and related lipids in the subcutaneous adipose tissue of obese diabetic patients (full - 2010)  
http://www.lipidworld.com/content/9/1/43

Cannabinoid-mediated inhibition of recurrent excitatory circuitry in the dentate gyrus in a mouse model of temporal lobe epilepsy. (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2871782/?tool=pubmed

Quantification of brain endocannabinoid levels: methods, interpretations and pitfalls (full – 2010)  

The levels of the endocannabinoid receptor CB2 and its ligand 2-arachidonoylglycerol are elevated in endometrial carcinoma. (full – 2010)  

Energetic Metabolism and Human Sperm Motility: Impact of CB1 Receptor Activation (full – 2010)  
http://endo.endojournals.org/content/151/12/5882.full

Endogenous cannabinoid signaling is essential for stress adaptation (full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2889099/?tool=pmcentrez

Endocannabinoid signalling: has it got rhythm? (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931554/

The endocannabinoid 2-arachidonoyl-glycerol controls odor sensitivity in larvae of Xenopus laevis. (full – 2010)  
http://www.jneurosci.org/content/30/26/8965.long

Differential alterations of the concentrations of endocannabinoids and related lipids in the subcutaneous adipose tissue of obese diabetic patients. (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2868848/?tool=pubmed

The endocannabinoid system as a target for the treatment of neurodegenerative disease (full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931550/?tool=pubmed

The serine hydrolase ABHD6 controls the accumulation and efficacy of 2-AG at cannabinoid receptors. (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2970523/?tool=pubmed

Loss of retrograde endocannabinoid signaling and reduced adult neurogenesis in diacylglycerol lipase knock-out mice. (full – 2010)  
http://www.jneurosci.org/content/30/6/2017.long


Pitfalls in the sample preparation and analysis of N-acylethanolamines (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2936757/

Endocannabinoids selectively enhance sweet taste. (full – 2010) http://www.pnas.org/content/107/2/935.long


Endocannabinoids and Schizophrenia (link to PDF – 2010) http://www.mdpi.com/1424-8247/3/10/3101

The Role of Cannabinoid Receptors in the Descending Modulation of Pain (link to PDF - 2010) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.634.4866&rank=72


Altered expression of cannabinoid receptors 1 and 2 and activated endocannabinoid system in patients with severe chronic heart failure  (abst – 2010)

Circulating endocannabinoids and N-acyl-ethanolamides in patients with sleep apnea--specific role of oleoylethanolamide.  (abst – 2010)

Endocannabinoids and pregnancy.  (abst – 2010)

An endocannabinoid system is localized to the hypophysial pars tuberalis of Syrian hamsters and responds to photoperiodic changes.  (abst – 2010)

Supply and demand for endocannabinoids.  (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3106144/

The endocannabinoid system and cancer: therapeutic implication  (full – 2011)

Endocannabinoids and traumatic brain injury  (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165950/?tool=pubmed

Mutations in ABHD12 cause the neurodegenerative disease PHARC: An inborn error of endocannabinoid metabolism.  (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2933347/?tool=pubmed

Molecular reorganization of endocannabinoid signalling in Alzheimer's disease.  (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3069704/pdf/awr046.pdf

Effect of dietary krill oil supplementation on the endocannabinoidome of metabolically relevant tissues from high-fat-fed mice  (full – 2011)
http://www.nutritionandmetabolism.com/content/8/1/51

Anti-proliferative effect of a putative endocannabinoid, 2-arachidonoylglyceryl ether in prostate carcinoma cells.  (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3039283/

Palmitoylethanolamidine counteracts reactive astrogliosis induced by beta-amyloid peptide.  (full – 2011)

The activity of the endocannabinoid metabolising enzyme fatty acid amide hydrolase in subcutaneous adipocytes correlates with BMI in metabolically healthy humans  (full – 2011)
http://www.lipidworld.com/content/10/1/129

Endocannabinoid hydrolysis generates brain prostaglandins that promote neuroinflammation  (full – 2011)
Genetic deletion of monoacylglycerol lipase alters endocannabinoid-mediated retrograde synaptic depression in the cerebellum. (full – 2011)

Propofol Enhances Memory Formation via an Interaction with the Endocannabinoid System (full – 2011)

Krill oil significantly decreases 2-arachidonoylglycerol plasma levels in obese subjects. (full – 2011)

Activity-based protein profiling of organophosphorus and thiocarbamate pesticides reveals multiple serine hydrolase targets in mouse brain. (full – 2011)

The serine hydrolases MAGL, ABHD6 and ABHD12 as guardians of 2-arachidonoylglycerol signalling through cannabinoid receptors (full – 2011)

Endocannabinoid tone versus constitutive activity of cannabinoid receptors (full – 2011)

Dual inhibition of alpha/beta hydrolase domain 6 and fatty acid amide hydrolase increases endocannabinoid levels in neurons. (full – 2011)

Increasing 2-arachidonoyl glycerol signaling in the periphery attenuates mechanical hyperalgesia in a model of bone cancer pain. (full – 2011)

Inhibition of COX-2 expression by endocannabinoid 2-arachidonoylglycerol is mediated via PPAR-γ (full – 2011)

Protective Role of Cannabinoid Receptor Type 2 in a Mouse Model of Diabetic Nephropathy. (full – 2011)

Cannabinoid exposure during zebra finch sensorimotor vocal learning persistently alters expression of endocannabinoid signaling elements and acute agonist responsiveness (full – 2011)

Cannabinoid Receptor 2 Is Critical for the Homing and Retention of Marginal Zone B Lineage Cells and for Efficient T-Independent Immune Responses (full – 2011)
Cannabinoids and bone: endocannabinoids modulate human osteoclast function in vitro
(full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423262/

The role of sex steroid hormones, cytokines and the endocannabinoid system in female

Inhibition of endocannabinoid catabolic enzymes elicits anxiolytic-like effects in the
marble burying assay. (full – 2011)

The Endogenous Cannabinoid 2-Arachidonoylglycerol Is Intravenously Self-
Administered by Squirrel Monkeys (full – 2011)
http://www.jneurosci.org/content/31/19/7043.long#abstract-1

Complementary synaptic distribution of enzymes responsible for synthesis and
inactivation of the endocannabinoid 2-arachidonoylglycerol in the human hippocampus.
(full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3678284/

Effect of an Acute Consumption of a Moderate Amount of Ethanol on Plasma
Endocannabinoid Levels in Humans (full – 2011)
http://alcalc.oxfordjournals.org/content/alcalc/47/3/226.full.pdf

Inhibition of monoacylglycerol lipase (MAGL) attenuates NSAID-induced gastric
hemorrhages in mice. (full – 2011)
http://jpet.aspetjournals.org/content/early/2011/06/09/jpet.110.175778.long

Endocannabinoid 2-arachidonoylglycerol protects neurons against β-amyloid insults.

Cannabinoid receptor 2 positions and retains marginal zone B cells within the splenic
marginal zone. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3182059/

Fish oil promotes survival and protects against cognitive decline in severely
undernourished mice by normalizing satiety signals. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3117120/

The major central endocannabinoid directly acts at GABA(A) receptors. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3207709/

Regulation of nausea and vomiting by cannabinoids (full - 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165951/

Investigations of the human endocannabinoid system in two subcutaneous adipose tissue
depots in lean subjects and in obese subjects before and after weight loss (full – 2011)
http://www.nature.com/ijo/journal/v35/n11/full/ijo20118a.html
Endogenous Cannabinoid Production in the Rat Female Reproductive Tract Is Regulated by Changes in the Hormonal Milieu  (link to PDF – 2011)
http://www.mdpi.com/1424-8247/4/6/933

Multiple Changes in Peptide and Lipid Expression Associated with Regeneration in the Nervous System of the Medicinal Leech  (link to PDF – 2011)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.713.3790&rank=102


Chemoenzymatic synthesis of 2-arachidonoylglycerol, an endogenous ligand for cannabinoid receptors  (abst – 2011)

Administration of 2-arachidonoylglycerol ameliorates both acute and chronic Experimental Autoimmune Encephalomyelitis  (abst – 2011)
http://www.unboundmedicine.com/medline/ebm/record/21406188/abstract/Administration_of_2_arachidonoylglycerol_ameliorates_both_acute_and_chronic_Experimental_Autoimmune_Encephalomyelitis

The Effect of Hypoxia on G Protein Coupled (CB1) Receptor Gene Expression in Cortical B50 Neurons in Culture  (abst – 2011)
http://www.maxwellsici.com/jp/abstract.php?id=BJPT&no=92&abs=05

Alteration of the Endocannabinoid System In Mouse Brain During Prion Disease.  (abst – 2011)
http://www.unboundmedicine.com/medline/ebm/record/21195746/abstract/Alteration_of_the_Endocannabinoid_System_In_Mouse_Brain_During_Prion_Disease


2-Arachidonoylglycerol (2-AG) Induces Corneal Epithelial Cell Migration via Cannabinoid CB1 Receptors  (abst – 2011)  http://iovs.arvojournals.org/article.aspx?articleid=2352973&resultClick=1

Increment of hypothalamic 2-arachidonoylglycerol induces the preference for a high-fat diet via activation of cannabinoid 1 receptors  (abst – 2011)
http://www.unboundmedicine.com/medline/ebm/record/20817042/abstract/Increment_of_hypothalamic_2-arachidonoylglycerol_induces_the_preference_for_a_high_fat_diet_via_activation_of_cannabinoid_1_receptors


Endocannabinoid CB1 receptors modulate visual output from the thalamus. (abst – 2011) http://www.ncbi.nlm.nih.gov/pubmed/21773721

Omega-3 N-acylethanolamines are endogenously synthesised from omega-3 fatty acids in different human prostate and breast cancer cell lines. (abst – 2011) http://www.ncbi.nlm.nih.gov/pubmed/21995886


Intense exercise increases circulating endocannabinoid and BDNF levels in humans—Possible implications for reward and depression (abst – 2011) http://www.psyneuen-journal.com/article/PIIS0306453011002873/abstract?rss=yes

Localization of Cannabinoid-Related Proteins in the Murine Anterior Eye (abst – 2011) http://iovs.arvojournals.org/article.aspx?articleid=2356236&resultClick=1

2-Arachidonoylglycerol (2-AG) Induces Corneal Epithelial Cell Migration via Cannabinoid CB1 Receptors (abst – 2011) http://iovs.arvojournals.org/article.aspx?articleid=2352973&resultClick=1


The CB2 receptor regulates osteoclast formation, breast cancer cell migration and osteoclast/tumour cell interaction via the PI3 Kinase/AKT pathway (abst – 2011) http://www.thebonejournal.com/article/S8756-3282%2811%2900177-3/abstract


Dietary linoleic acid elevates endogenous 2-AG and anandamide and induces obesity. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3458187/

Endocannabinoids in nervous system health and disease: the big picture in a nutshell (full – 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3193.long


The role of CB2 receptor ligands in human eosinophil function (full – 2012) http://www.biomedcentral.com/content/pdf/2050-6511-13-S1-A13.pdf

Inhibition of recombinant human carboxylesterase 1 and 2 and monoacylglycerol lipase by chlorpyrifos oxon, paraoxon and methyl paraoxon. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3345137/

Endocannabinoids Stimulate Human Melanogenesis via Type-1 Cannabinoid Receptor (full – 2012) http://www.jbc.org/content/early/2012/03/19/jbc.M111.314880.full.pdf+html

Inhibition of monoacylglycerol lipase attenuates vomiting in Suncus murinus and 2-arachidonoyl glycerol attenuates nausea in rats. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423233/


Cannabinoid Receptor Type 1 (CB1) Activation Inhibits Small GTPase RhoA Activity and Regulates Motility of Prostate Carcinoma Cells (full – 2012) http://endo.endojournals.org/content/153/1/29.full


Acetaminophen differentially enhances social behavior and cortical cannabinoid levels in inbred mice. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3389197/

Role of cannabinoids in the regulation of bone remodeling (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3499879/

Angiotensin II induces vascular endocannabinoid release, which attenuates its vasoconstrictor effect via CB1 cannabinoid receptors. (full – 2012) http://www.jbc.org/content/early/2012/07/11/jbc.M112.346296.full.pdf+html

Endocannabinoids measurement in human saliva as potential biomarker of obesity. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3409167/?tool=pubmed
Plasma Endocannabinoid Alterations in Individuals with Substance Use Disorder are Dependent on the "Mirror Effect" of Schizophrenia. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3457074/

Type 2 Diabetes Associated Changes in the Plasma Non-Esterified Fatty Acids, Oxylipins and Endocannabinoids (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3493609/

Fish oil and inflammatory status alter the n-3 to n-6 balance of the endocannabinoid and oxylipin metabolomes in mouse plasma and tissues (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3483099/

Review article: Endocannabinoids in neuroendopsychology: multiphasic control of mitochondrial function (full – 2012)  
http://rstb.royalsocietypublishing.org/content/367/1607/3342.full?sid=dd42995f-c629-4f8c-86a0-5e962e352fda

The major brain endocannabinoid 2-AG controls neuropathic pain and mechanical hyperalgesia in patients with neuromyelitis optica. (full – 2012)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0071500

The antinociceptive triterpene β-amyrin inhibits 2-arachidonoylglycerol (2-AG) hydrolysis without directly targeting CB receptors. (full – 2012)  

Early Endogenous Activation of CB1 and CB2 Receptors after Spinal Cord Injury Is a Protective Response Involved in Spontaneous Recovery (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3496738/

So what do we call GPR18 now? (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423231/

GPR18 in microglia: implications for the CNS and endocannabinoid system signaling (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3525861/

Differences in the endocannabinoid system of sperm from fertile and infertile men. (full – 2012)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0047704

A Dysregulated Endocannabinoid-Eicosanoid Network Supports Pathogenesis in a Mouse Model of Alzheimer's Disease (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3715876/

Monoacylglycerol lipase is a new therapeutic target for Alzheimer’s disease (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3513645/

The dynamic nature of type 1 cannabinoid receptor (CB1) gene transcription (full - 2012)  
Dual fatty acid amide hydrolase and monoacylglycerol lipase blockade produces THC-like Morris water maze deficits in mice. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3382457/


Targeted next-generation sequencing identifies a homozygous nonsense mutation in ABHD12, the gene underlying PHARC, in a family clinically diagnosed with Usher syndrome type 3 (full – 2012) http://www.ojrd.com/content/7/1/59

Spinal administration of the monoacylglycerol lipase inhibitor JZL184 produces robust inhibitory effects on nociceptive processing and the development of central sensitization in the rat (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3525864/

Differences in peripheral endocannabinoid modulation of scratching behavior in facial vs. spinally-innervated skin. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3394407/

Autocrine Endocannabinoid Signaling Through CB1 Receptors Potentiates OX1 Orexin Receptor Signaling. (full – 2012) http://molpharm.aspetjournals.org/content/early/2012/12/11/mol.112.080523.long

Activation of Type 5 Metabotropic Glutamate Receptors and Diacylglycerol Lipase-α Initiates 2-Arachidonoylglycerol Formation and Endocannabinoid-Mediated Analgesia. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3652685/


The Volitional Nature of Nicotine Exposure Alters Anandamide and Oleoylethanolamide Levels in the Ventral Tegmental Area. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3572454/


Biochemical and pharmacological characterization of human α/β-hydrolase domain containing 6 (ABHD6) and 12 (ABHD12). (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3466009/
Cellular and intracellular mechanisms involved in the cognitive impairment of cannabinoids  (full - 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3254.full?sid=1569c370-cd5c-4358-89ff-857201f5e069


Review article: Why do cannabinoid receptors have more than one endogenous ligand? (full - 2012)  http://rstb.royalsocietypublishing.org/content/367/1607/3216.full?sid=1569c370-cd5c-4358-89ff-857201f5e069

Dynamic changes to the endocannabinoid system in models of chronic pain (full – 2012)  http://rstb.royalsocietypublishing.org/content/367/1607/3300.full?sid=1569c370-cd5c-4358-89ff-857201f5e069

Review article: The endocannabinoid system in normal and pathological brain ageing (full – 2012)  http://rstb.royalsocietypublishing.org/content/367/1607/3326.full?sid=161e7b36-5055-448b-962e-697c782e901d

The endocannabinoid system in the rat dorsolateral periaqueductal grey mediates fear-conditioned analgesia and controls fear expression in the presence of nociceptive tone (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423235/

The Novel Reversible Fatty Acid Amide Hydrolase Inhibitor ST4070 Increases Endocannabinoid Brain Levels and Counteracts Neuropathic Pain in Different Animal Models  (full – 2012)  http://jpet.aspetjournals.org/content/342/1/188.full.pdf+html

Dietary linoleic acid elevates endogenous 2-arachidonoylglycerol and anandamide in Atlantic salmon (Salmo salar L.) and mice, and induces weight gain and inflammation in mice.  (full - 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3548985/

Acute Stress Increases Circulating Anandamide and Other N-Acylethanolamines in Healthy Humans  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3442338/

Cannabinoid receptor 1 suppresses transient receptor potential vanilloid 1-induced inflammatory responses to corneal injury.  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3607947/

Alterations in endocannabinoid tone following chemotherapy-induced peripheral neuropathy: effects of endocannabinoid deactivation inhibitors targeting fatty-acid amide hydrolase and monoacylglycerol lipase in comparison to reference analgesics following cisplatin treatment.  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3525790/

Intrinsic Up-Regulation of 2-AG Favors an Area Specific Neuronal Survival in Different In Vitro Models of Neuronal Damage.  (full – 2012)
Endocannabinoid signaling in female reproduction.  (full – 2012)

Long-lasting potentiation of hippocampal synaptic transmission by direct cortical input is mediated via endocannabinoids  (full – 2012)  

Hedonic eating is associated with increased peripheral levels of ghrelin and the endocannabinoid 2-arachidonoyl-glycerol in healthy humans: a pilot study.  (full – 2012)  

G-Protein-Coupled Receptors in Intestinal Chemosensation  (full – 2012)  

Monoacylglycerol lipase – a target for drug development?  (full – 2012)  

2-Arachidonoylglycerol Signaling in Forebrain Regulates Systemic Energy Metabolism  (full – 2012)  

Evidence for Bidirectional Endocannabinoid Transport across Cell Membranes  (full – 2012)  

Cannabinoid-related Agents in the Treatment of Anxiety Disorders: Current Knowledge and Future Perspectives.  (full – 2012)  

The role of endocannabinoids in gonadal function and fertility along the evolutionary axis.  (full – 2012)  

Cortisol-mediated adhesion of synovial fibroblasts is dependent on the degradation of anandamide and activation of the endocannabinoid system  (full - 2012)  

Modulation of neuropathic-pain-related behaviour by the spinal endocannabinoid/endovanilloid system  (full – 2012)  

The endocannabinoid, anandamide, augments Notch-1 signaling in cultured cortical neurons exposed to amyloid-β and in the cortex of aged rats.  (full – 2012)  

Equipotent Inhibition of Fatty Acid Amide Hydrolase and Monoacylglycerol Lipase - Dual Targets of the Endocannabinoid System to Protect against Seizure Pathology.  (full – 2012)  

The endocannabinoid system: a key modulator of emotions and cognition  (full – 2012)
Endocannabinoids at the synapse a decade after the Dies Mirabilis (29 March 2001): what we still do not know. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3490098/

Autocrine Endocannabinoid Signaling through CB1 Receptors Potentiates OX1 Orexin Receptor Signaling (full – 2012)
http://molpharm.aspetjournals.org/content/83/3/621.full.pdf+html

Alteration of endocannabinoid system in human gliomas. (full – 2012)

The evolution and comparative neurobiology of endocannabinoid signaling (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3481536/

Multiple functions of endocannabinoid signaling in the brain. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4273654/

Expression and function of monoacylglycerol lipase in mouse β-cells and human islets of Langerhans. (full – 2012)
http://www.karger.com/Article/Pdf/339069

Regulation of endocannabinoid release by G proteins: A paracrine mechanism of G protein-coupled receptor action. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4169275/

Psychopharmacology of the endocannabinoids: far beyond anandamide. (full – 2012)

CHRONIC, NONINVASIVE GLUCOCORTICOID ADMINISTRATION SUPPRESSES LIMBIC ENDOCANNABINOID SIGNALING IN MICE (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3697830/

Photoperiodic Changes in Endocannabinoid Levels and Energetic Responses to Altered Signalling at CB1 Receptors in Siberian Hamsters (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4060156/

Pharmacological manipulation of cannabinoid neurotransmission reduces neuroinflammation associated with normal aging (full – 2012)
http://file.scirp.org/Html/1-8201656_23229.htm

The biochemical complexity of the endocannabinoid system with some remarks on stress and related disorders: a minireview (abst – 2012)

Glucocorticoid-endocannabinoid interaction in cardiac surgical patients: relationship to early cognitive dysfunction and late depression (abst – 2012)

Anandamide and 2-arachidonoylglycerol: Pharmacological Properties, Functional Features, and Emerging Specificities of the Two Major Endocannabinoids (abst - 2012)

Inhibitors of the Endocannabinoid-Degrading Enzymes, or how to Increase Endocannabinoid's Activity by Preventing their Hydrolysis. (abst – 2012)

Dual inhibition of MAGL and type II topoisomerase by N-phenylmaleimides as a potential strategy to reduce neuroblastoma cell growth. (abst – 2012)

Effect of omega-3 polyunsaturated fatty acids on the endocannabinoid system in osteoblast-like cells and muscle (abst – 2012)
http://docs.lib.purdue.edu/dissertations/AAI3444794/

Stimulation of acumbens shell cannabinoid CB(1) receptors by noladin ether, a putative endocannabinoid, modulates food intake and dietary selection in rats. (abst – 2012)

http://www.bjjprocs.boneandjoint.org.uk/content/94-B/SUPP_XVIII/7.abstract?maxtoshow=&hits=25&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=130&sorspec=date&resourceType=HWCIT

The endocannabinoid 2-arachidonoylglicerol decreases calcium induced cytochrome c release from liver mitochondria. (abst – 2012)
http://www.springerlink.com/content/54jm4008729t0pn/

GPR55 and GPR35 and their relationship to cannabinoid and lysophospholipid receptors. (abst – 2012)

Endocannabinoids alleviate proinflammatory conditions by modulating innate immune response in muller glia during inflammation. (abst – 2012)

The Endocannabinoid System and the Brain. (abst – 2012)


Opposing local effects of endocannabinoids on the activity of noradrenergic neurons and release of noradrenaline: relevance for their role in depression and in the actions of CB(1) receptor antagonists. (abst – 2012) http://www.ncbi.nlm.nih.gov/pubmed/22990678


Evidence For Functional Role Of CB1 Cannabinoid Receptors In The Mammalian Cone Pathway (abst – 2012) http://iovs.arvojournals.org/article.aspx?articleid=2356936&resultClick=1

Modulating the endocannabinoid system in human health and disease: successes and failures (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3684164/


Modulation of the Endocannabinoids N-Arachidonoylthanolamine (AEA) and 2-Arachidonoylglycerol (2-AG) on Executive Functions in Humans  (full – 2013)  http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0066387

Insulin induces long-term depression of VTA dopamine neurons via endocannabinoids  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4072656/

Dietary Linoleic Acid Elevates the Endocannabinoids 2-AG and Anandamide and Promotes Weight Gain in Mice Fed a Low Fat Diet  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3889814/


Do N-arachidonyl-glycine (NA-glycine) and 2-arachidonoyl glycerol (2-AG) share mode of action and the binding site on the β2 subunit of GABAA receptors?  (full – 2013)  https://peerj.com/articles/149/


Fatty Acid Modulation of the Endocannabinoid System and the Effect on Food Intake and Metabolism  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3677644/

Monoacylglycerol Lipase (MAGL) Inhibition Attenuates Acute Lung Injury in Mice.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3808422/

Cannabinoid signaling and liver therapeutics.  (full – 2013)
Therapeutic potential of monoacylglycerol lipase inhibitors. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3594462/

Endocannabinoids as markers of sperm quality: hot spots (full – 2013)

Translational evidence for the involvement of the endocannabinoid system in stress-related psychiatric illnesses. (full – 2013)
http://www.biolmoodanxietydisord.com/content/3/1/19

The monoacylglycerol lipase inhibitor JZL184 suppresses inflammatory pain in the mouse carrageenan model. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3717616/

Full Inhibition of Spinal FAAH Leads to TRPV1-Mediated Analgesic Effects in Neuropathic Rats and Possible Lipoygenase-Mediated Remodeling of Anandamide Metabolism (full – 2013)
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0060040

Neuregulin-1 Impairs the Long-term Depression of Hippocampal Inhibitory Synapses by Facilitating the Degradation of Endocannabinoid 2-AG. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3776056/

Dual Inhibition of Endocannabinoid Catabolic Enzymes Produces Enhanced Anti-Withdrawal Effects in Morphine-Dependent Mice. (full – 2013)

The Endocannabinoid System and Sex Steroid Hormone-Dependent Cancers (full – 2013)
http://www.hindawi.com/journals/ije/2013/259676/

Circulating endocannabinoids in insulin sensitive vs. Insulin resistant obese postmenopausal women. A MONET group study. (full – 2013)

Brain Levels of Prostaglandins, Endocannabinoids, and Related Lipids Are Affected by Mating Strategies (full – 2013)
http://www.hindawi.com/journals/ije/2013/436252/

Chemical probes of endocannabinoid metabolism. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3639726/

DGLα and DGLβ Cooperatively Regulate the Production of 2-arachidonoyl Glycerol in Autaptic Hippocampal Neurons. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3716324/

Mutation of Cys242 of Human Monoacylglycerol Lipase Disrupts Balanced Hydrolysis of 1- and 2-monoacylglycerols and Selectively Impairs Inhibitor Potency (full – 2013)
Alterations of endocannabinoids in cerebrospinal fluid of dogs with epileptic seizure disorder. (full – 2013) http://www.biomedcentral.com/content/pdf/1746-6148-9-262.pdf

2-Arachidonoyl-glycerol- and arachidonic acid-stimulated neutrophils release antimicrobial effectors against E. coli, S. aureus, HSV-1, and RSV. (full – 2013) http://www.jleukbio.org/content/93/2/267.long

Obesity-driven synaptic remodeling affects endocannabinoid control of orexinergic neurons (full – 2013) http://www.pnas.org/content/110/24/E2229.full

Stimulatory and Inhibitory Roles of Brain 2-Arachidonoylglycerol in Bombesin-Induced Central Activation of Adrenomedullary Outflow in Rats. (full – 2013) https://www.jstage.jst.go.jp/article/jphs/121/2/121_12208FP/_pdf

Endocannabinoid and Cannabinoid-Like Fatty Acid Amide Levels Correlate with Pain-Related Symptoms in Patients with IBS-D and IBS-C: A Pilot Study. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3874007/

Implication of the anti-inflammatory bioactive lipid prostaglandin D2-glycerol ester in the control of macrophage activation and inflammation by ABHD6. (full – 2013) http://www.pnas.org/content/110/43/17558.long

Of mice and (wo)men: factors influencing successful implantation including endocannabinoids. (full – 2013) http://humupd.oxfordjournals.org/content/20/3/415.long

Diacylglycerol Lipaseα (DAGLα) and DAGLβ Cooperatively Regulate the Production of 2-Arachidonoyl Glycerol in Autaptic Hippocampal Neurons (full – 2013) http://molpharm.aspetjournals.org/content/84/2/296.full.pdf+html

Using the endocannabinoid system as a neuroprotective strategy in perinatal hypoxic-ischemic brain injury. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4146074/


Sex-specific tonic 2-arachidonoylglycerol signaling at inhibitory inputs onto dopamine neurons of Lister Hooded rats. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3867690/

The cannabinoid TRPA1 agonist cannabichromene inhibits nitric oxide production in macrophages and ameliorates murine colitis. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3632250/

The FAAH inhibitor URB597 efficiently reduces tyrosine hydroxylase expression through CB₁- and FAAH-independent mechanisms. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3687660/


Therapeutic Opportunities through the Modulation of Endocannabinoid Transport (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4255948/

The Cannabinoid Receptor Type 2 as Mediator of Mesenchymal Stromal Cell Immunosuppressive Properties (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3842278/

Low frequency stimulation evokes serotonin release in the nucleus accumbens and induces long-term depression via production of endocannabinoid. (full – 2013) http://jn.physiology.org/content/111/5/1046.long

Rimonabant precipitates anxiety in rats withdrawn from palatable food: role of the central amygdale. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3799070/

Effects of Acute Stress on Cardiac Endocannabinoids, Lipogenesis, and Inflammation in Rats. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3988664/

Endocannabinoid Signaling in Hypothalamic-Pituitary-Adrenocortical Axis Recovery Following Stress: Effects of Indirect Agonists and Comparison of Male and Female Mice. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3929302/


Endocannabinoid crosstalk between placenta and maternal fat in a baboon model (Papio spp.) of obesity. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3827983/
Targeting the cannabinoid system for pain relief? (full – 2013)
http://www.e-aat.com/article/S1875-4597%2813%2900119-7/fulltext

Induction of Endocannabinoid Levels in Juvenile Rat Brain Following Developmental Chlorpyrifos Exposure. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3954109/

Comparative effects of parathion and chlorpyrifos on extracellular endocannabinoid levels in rat hippocampus: Influence on cholinergic toxicity. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3831619/

Reductions in circulating endocannabinoid levels in individuals with post-traumatic stress disorder following exposure to the world trade center attacks. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3870889/

Substrate-selective COX-2 inhibition decreases anxiety via endocannabinoid activation. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3788575/

Brain Region-Specific Changes in N-Acylethanolamine Contents with Time of Day. (full – 2013)

Elevating endocannabinoid levels: pharmacological strategies and potential therapeutic applications. (full – 2013)
http://journals.cambridge.org/download.php?file=%2FPNS%2FPNS73_01%2FS0029665113003649a.pdf&code=d82b0cf1bec110199f1f376d4cb1ef35

Low Level Chlorpyrifos Exposure Increases Anandamide Accumulation in Juvenile Rat Brain in the Absence of Brain Cholinesterase Inhibition. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4071163/

Stirring the Pot With Estrogens (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3697880/

Endocannabinoid crosstalk between placenta and maternal fat in a baboon model (Papio spp.) of obesity (full – 2013)
http://www.placentajournal.org/article/S0143-4004%2813%2900692-9/fulltext

Endocannabinoid and cannabinoid-like fatty acid amide levels correlate with pain-related symptoms in patients with IBS-D and IBS-C: a pilot study. (full – 2013)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0085073

Involvement of nitric oxide through endocannabinoids release in microglia activation during the course of CNS regeneration in the medicinal leech. (link to PDF – 2013)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.718.5567&rank=89&q=cannabinoid&osm=&ossid=

The endocannabinoid system provides an avenue for evidence-based treatment development for PTSD. (1st page – 2013)


Nicotine-Induced Neuroprotection Against Ischemic Injury Involves Activation of Endocannabinoid System in Rats (abst – 2013) http://link.springer.com/article/10.1007/s11064-012-0927-6

(4-Phenoxyphenyl)tetrazolecarboxamides and related compounds as dual inhibitors of fatty acid amide hydrolase (FAAH) and monoacylglycerol lipase (MAGL). (abst – 2013) http://www.sciencedirect.com/science/article/pii/S0223523413000780


2-AG into the lateral hypothalamus increases REM sleep and cFos expression in melanin concentrating hormone neurons in rats. (abst – 2013) http://www.sciencedirect.com/science/article/pii/S0091305713001007


Impact of omega-6 polyunsaturated fatty acid supplementation and γ-aminobutyric acid on astrogliogenesis through the endocannabinoid system. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/23633391


Fatty acid amide hydrolase but not monoacyl glycerol lipase controls cell death induced by the endocannabinoid 2-arachidonoyl glycerol in hepatic cell populations. (abst – 2013) http://www.sciencedirect.com/science/article/pii/S0006291X13010206


Endocannabinoids decrease neuropathic pain-related behavior in mice through the activation of one or both peripheral CB1 and CB2 receptors. (abst – 2013) http://www.sciencedirect.com/science/article/pii/S0028390813004802


Getting high on the endocannabinoid system. (full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3997295/


Endocannabinoid Modulation of Cortical Up-States and NREM Sleep (full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3919802/

Inhibition of Endocannabinoid Metabolism by the Metabolites of Ibuprofen and Flurbiprofen. (full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4111603/

Antidepressants and Changes in Concentration of Endocannabinoids and N-Acylethanolamines in Rat Brain Structures. (full – 2014)  http://download.springer.com/static/pdf/559/art%253A10.1007%252Fs12640-014-9465-0.pdf?auth66=1395868546_998a8d5d87cb02529572689f9213e4a&ext=.pdf


Critical issues in the analysis of endocannabinoids and related compounds in plasma: artifactual isomerization and ex-vivo enzymatic generation of 2-monoacylglycerols. (full – 2014)  http://www.jlr.org/content/early/2014/03/07/jlr.D043794.long


R-flurbiprofen attenuates experimental autoimmune encephalomyelitis in mice. (full – 2014)  http://embomolmed.embopress.org/content/6/11/1398.long

Prolonged monoacylglycerol lipase blockade causes equivalent CB1-receptor mediated adaptations in FAAH wild type and knockout mice. (full – 2014)  http://jpet.aspetjournals.org/content/early/2014/05/21/jpet.114.212753.long


A diet containing a nonfat dry milk matrix significantly alters systemic oxylipins and the endocannabinoid 2-arachidonoylglycerol (2-AG) in diet-induced obese mice.
The influence of monoacylglycerol lipase inhibition upon the expression of epidermal growth factor receptor in human PC-3 prostate cancer cells

Quantification of anandamide and 2-arachidonoylglycerol plasma levels to examine potential influences of tetrahydrocannabinol application on the endocannabinoid system in humans

Involvement of cannabinoid receptors in peripheral and spinal morphine analgesia

A Novel Activity of Microsomal Epoxide Hydrolase: Metabolism of the Endocannabinoid 2-Arachidonoylglycerol.

Cyclooxygenase metabolism mediates vasorelaxation to 2-Arachidonoylglycerol (2-AG) in human mesenteric arteries.

Localization of the cannabinoid CB1 receptor and the 2-AG synthesizing (DAGLα) and degrading (MAGL, FAAH) enzymes in cells expressing the Ca(2+)-binding proteins calbindin, calretinin, and parvalbumin in the adult rat hippocampus.

Effects of chaiyuwendan decoction on endocannabinoids levels in adipose tissue of rats with chronic stress-induced depression.

Moderate-Vigorous Physical Activity across Body Mass Index in Females: Moderating Effect of Endocannabinoids and Temperament.

Endocannabinoids and inflammatory response in periodontal ligament cells.

Endocannabinoid 2-Arachidonoylglycerol Self-Administration by Sprague-Dawley Rats and Stimulation of in vivo Dopamine Transmission in the Nucleus Accumbens Shell.

Delta-9 tetrahydrocannabinol (THC) and endocannabinoid degradative enzyme inhibitors attenuate intracranial self-stimulation (ICSS) in mice.

Discovery of triterpenoids as reversible inhibitors of α/β-hydrolase domain containing 12 (ABHD12).
Monoacylglycerol Lipase Inhibitor JZL184 Improves Behavior and Neural Properties in Ts65Dn Mice, a Model of Down Syndrome. (full – 2014)
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0114521

Genetic Disruption of 2-Arachidonoylglycerol Synthesis Reveals a Key Role for Endocannabinoid Signaling in Anxiety Modulation. (full – 2014)
http://www.cell.com/cell-reports/fulltext/S2211-1247(14)00955-3

Enhanced Endocannabinoid-Mediated Modulation of Rostromedial Tegmental Nucleus Drive onto Dopamine Neurons in Sardinian Alcohol-Preferring Rats. (full – 2014)
http://www.jneurosci.org/content/34/38/12716.long

Synaptic and Cognitive Improvements by Inhibition of 2-AG Metabolism Are through Upregulation of MicroRNA-188-3p in a Mouse Model of Alzheimer's Disease. (full - 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4220026/

http://www.nature.com/npp/journal/v40/n2/full/npp2014198a.html

Monoacylglycerol Lipase Inhibition Blocks Chronic Stress-Induced Depressive-Like Behaviors via Activation of mTOR Signaling. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4023150/

Regulation of cannabinoid receptor gene expression and endocannabinoid levels in lymphocyte subsets by IFN-β: a longitudinal study in multiple sclerosis patients. (full – 2014)

The endocannabinoid 2-AG controls skeletal muscle cell differentiation via CB1 receptor-dependent inhibition of Kv7 channels. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4066524/

Control of synaptic function by endocannabinoid-mediated retrograde signaling. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4237895/

Endocannabinoid system and pain: an introduction. (full – 2014)
http://journals.cambridge.org/download.php?file=%2FPN%2FS0029665113003650a.pdf&code=d63f269fd26979b3968140be4db80943

Endogenous cannabinoid release within prefrontal-limbic pathways affects memory consolidation of emotional training. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4280626/


Modulation of plasma N-acylethanolamine levels and physiological parameters by dietary fatty acid composition in humans. (full – 2014) http://www.jlr.org/content/55/12/2655.long


Stress regulates endocannabinoid-CB1 receptor signaling. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4247817/


Role of Endocannabinoid Activation of Peripheral CB1 Receptors in the Regulation of Autoimmune Disease. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4261058/

Increased angiotensin II contraction of the uterine artery at early gestation in a transgenic model of hypertensive pregnancy is reduced by inhibition of endocannabinoid hydrolysis. (full – 2014) http://hyper.ahajournals.org/content/64/3/619.long

Endocannabinoid modulation by FAAH and MAGL within the analgesic circuitry of the periaqueductal grey. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4294036/

Chemical approaches to therapeutically target the metabolism and signaling of the endocannabinoid 2-AG and eicosanoids (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4159426/


Prior stimulation of the endocannabinoid system prevents methamphetamine-induced dopaminergic neurotoxicity in the striatum through activation of CB2 receptors. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4939842/


The dual FAAH/MAGL inhibitor JZL195 has enhanced effects on endocannabinoid transmission and motor behavior in rats as compared to those of the MAGL inhibitor JZL184. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4150743/


Circadian rhythm of circulating levels of the endocannabinoid 2-arachidonoylglycerol. (full – 2014)

JZL184 is anti-hyperalgesic in a murine model of cisplatin-induced peripheral neuropathy. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4268146/


Type 1 Cannabinoid Receptor Ligands Display Functional Selectivity in a Cell Culture Model of Striatal Medium Spiny Projection Neurons (full – 2014)
http://www.jbc.org/content/289/36/24845.long

The cannabinoid receptor antagonist AM251 increases paraoxon and chlorpyrifos oxon toxicity in rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4448943/

Cannabinoid receptor-dependent metabolism of 2-arachidonoylglycerol during aging.
Endocannabinoids Anandamide and 2-Arachidonoylglycerol Are Substrates for Human CYP2J2 Epooxygenase  (full – 2014)  
http://jpet.aspetjournals.org/content/351/3/616.full

The initiation of synaptic 2-AG mobilization requires both an increased supply of diacylglycerol precursor and increased postsynaptic calcium.  (full – 2014) 
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4312705/

Substrate-selective COX-2 inhibition as a novel strategy for therapeutic endocannabinoid augmentation  (full – 2014)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4074568/

Programming and reprogramming neural cells by (endo-) cannabinoids: from physiological rules to emerging therapies  (full – 2014)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4765324/

Nutritional omega-3 modulates neuronal morphology in the prefrontal cortex along with depression-related behaviour through corticosterone secretion  (full – 2014)  
http://www.nature.com/tp/journal/v4/n9/full/tp201477a.html

Cannabinoids as therapeutic agents in cancer: current status and future implications. (link to PDF- 2014) 

Endocannabinoids, Related Compounds and Their Metabolic Routes (link to PDF – 2014)  
http://www.mdpi.com/1420-3049/19/11/17078

Effect of 2-arachidonoylglycerol on myosin light chain phosphorylation and platelet activation: The role of phosphatidylinositol 3 kinase/AKT pathway.  (abst – 2014)  

Brain regional cannabinoid CB1 receptor signalling and alternative enzymatic pathways for 2-arachidonoylglycerol generation in brain sections of diacylglycerol lipase deficient mice  (abst – 2014)  

Endocannabinoids affect innate immunity of Muller glia during HIV-1 Tat cytotoxicity.  (abst – 2014)  

Guineensine is a novel inhibitor of endocannabinoid uptake showing cannabimimetic behavioral effects in BALB/c mice.  (abst – 2014)  

Microinjection of 2-arachidonoyl glycerol into the rat ventral hippocampus differentially modulates contextually induced fear, depending on a persistent pain state.  (abst – 2014)  
Endocannabinoid 2-Arachidonylglycerol Protects Primary Cultured Neurons Against LPS-Induced Impairments in Rat Caudate Nucleus. (abst – 2014)  

Pentylenetetrazol-induced seizure-like behavior and neural hyperactivity in the medicinal leech. (abst – 2014)  

Effect of narrowband ultraviolet B treatment on endocannabinoid plasma levels in psoriasis patients. (abst – 2014)  

Endocannabinoid-mediated retrograde modulation of synaptic transmission. (abst – 2014)  

Endocannabinoid signaling and its regulation by nutrients. (abst – 2014)  

Cannabinoid receptor antagonists and fatty acids alter endocannabinoid system gene expression and COX activity. (abst – 2014)  

O-2050 facilitates noradrenaline release and increases the CB1 receptor inverse agonistic effect of rimonabant in the guinea pig hippocampus. (abst – 2014)  

The dual blocker of FAAH/TRPV1 N-arachidonoylserotonin reverses the behavioral despair induced by stress in rats and modulates the HPA-axis. (abst – 2014)  

Augmented tonic pain-related behavior in knockout mice lacking monoacylglycerol lipase, a major degrading enzyme for the endocannabinoid 2-arachidonoylglycerol. (abst – 2014)  

Role of endocannabinoid 2-arachidonoylglycerol in the physiology and pathophysiology of the cardiovascular system. (abst – 2014)  

The monoacylglycerol lipase inhibitor JZL184 is neuroprotective and alters glial cell phenotype in the chronic MPTP mouse model. (abst – 2014)  
http://www.neurobiologyofaging.org/article/S0197-4580(14)00038-4/abstract

Inhibition of diacylglycerol lipase (DAGL) in the lateral hypothalamus of rats prevents the increase in REMS and food ingestion induced by PAR1 stimulation. (abst – 2014)  

Endocannabinoid 2-Arachidonylglycerol Protects Primary Cultured Neurons Against Homocysteine-Induced Impairments in Rat Caudate Nucleus Through CB1 Receptor. (abst – 2014)  

The therapeutic efficacy of cannabinoid receptor type 1 ligands in Huntington's disease may depend on their functional selectivity (abst – 2014) http://www.fasebj.org/content/28/1_Supplement/846.6.abstract?sid=467bb529-0ecc-4ddc-af27-3f6f520a102

Increased oxidative stress enhances endocannabinoid tone (abst – 2014) http://www.fasebj.org/content/27/1_Supplement/1097.3.abstract?sid=d2f0f68f-30c5-4027-9334-011e9f8fdd2e


2-Arachidonoylglycerol into the lateral hypothalamus improves reduced sleep in adult rats subjected to maternal separation. (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/25356522


Protective role of the cannabinoid receptor system in A2E-mediated photo-toxicity to retinal pigment epithelium (RPE) cells in an in-vitro model of age-related macular degeneration (AMD) (abst – 2014) http://iovs.arvojournals.org/article.aspx?articleid=2271845&resultClick=1

NONRETROGRADE ENDOCANNABINOID SIGNALING MODULATES RETINAL GANGLION CELL CALCIUM HOMEOSTASIS THROUGH THE TRPV1 CATION CHANNEL (abst - 2014) http://iovs.arvojournals.org/article.aspx?articleid=2268407&resultClick=1


Mechanisms of human eosinophil migration induced by the combination of IL-5 and the endocannabinoid 2-arachidonoyl-glycerol. (abst – 2014) http://www.jacionline.org/article/S0091-6749%2814%2900061-X/abstract

Local uterine Ang-(1-7) infusion augments the expression of cannabinoid receptors and differentially alters endocannabinoid metabolizing enzymes in the decidualized uterus of pseudopregnant rats. (full – 2015) http://www.rbej.com/content/13/1/5

Inhibition of monoacylglycerol lipase reduces nicotine withdrawal  (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4301695/

Blockade of monoacylglycerol lipase inhibits oligodendrocyte excitotoxicity and prevents demyelination in vivo  (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4407719/

Blockade of 2-arachidonoylglycerol hydrolysis produces antidepressant-like effects and enhances adult hippocampal neurogenesis and synaptic plasticity  (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4517601/

Selective Monoacylglycerol Lipase Inhibitors: Antinociceptive versus Cannabimimetic Effects in Mice  (full – 2015)
http://jpet.aspetjournals.org/content/353/2/424.full.pdf+html

Global deletion of monoacylglycerol lipase in mice delays lipid absorption and alters energy homeostasis and diet-induced obesity.  (full – 2015)
http://www.jlr.org/content/early/2015/04/04/jlr.M058586.long

Changes in Plasma Levels of N-Arachidonoyl Ethanolamine and N-Palmitoylethanolamine following Bariatric Surgery in Morbidly Obese Females with Impaired Glucose Homeostasis.  (full – 2015)

Exposure to Allergen Causes Changes in NTS Neural Activities after Intratracheal Capsaicin Application, in Endocannabinoid Levels and in the Glia Morphology of NTS.  (full – 2015)
http://www.hindawi.com/journals/bmri/2015/980983/

Role for Endogenous BDNF in Endocannabinoid-Mediated Long-Term Depression at Neocortical Inhibitory Synapses  (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4415885/

Effects of mood inductions by meal ambiance and moderate alcohol consumption on endocannabinoids and N-acyltyethanolamines in humans: a randomized crossover trial.  (full – 2015)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0126421

4'-O-methylhonokiol increases levels of 2-arachidonoyl glycerol in mouse brain via selective inhibition of its COX-2-mediated oxygenation.  (full – 2015)

Full Fatty Acid Amide Hydrolase Inhibition Combined with Partial Monoacylglycerol Lipase Inhibition: Augmented and Sustained Antinociceptive Effects with Reduced Cannabimimetic Side Effects in Mice  (full – 2015)
http://jpet.aspetjournals.org/content/354/2/111.full

Biased Agonism and Biased Allosteric Modulation at the CB1 Cannabinoid Receptor.  (full – 2015)
http://molpharm.aspetjournals.org/content/early/2015/06/04/mol.115.099192.long

Deranged endocannabinoid responses to hedonic eating in underweight and recently weight-restored patients with anorexia nervosa. (full – 2015) http://ajcn.nutrition.org/content/101/2/262.long

Leptin Levels Are Negatively Correlated with 2-Arachidonoylglycerol in the Cerebrospinal Fluid of Patients with Osteoarthritis. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4383333/


A cannabinoid receptor agonist N-arachidonoyl dopamine inhibits adipocyte differentiation in human mesenchymal stem cells. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4428713/

Task-specific enhancement of hippocampus-dependent learning in mice deficient in monoacylglycerol lipase, the major hydrolyzing enzyme of the endocannabinoid 2-arachidonoylglycerol. (full – 2015) http://journal.frontiersin.org/article/10.3389/fnbeh.2015.00134/full

Fat Diet-Induced Insulin Resistance Does Not Increase Plasma Anandamide Levels or Potentiate Anandamide Insulinotropic Effect in Isolated Canine Islets. (full – 2015) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0123558

Role of the endocannabinoid system in obesity induced by neuropeptide Y overexpression in noradrenergic neurons. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4423197/


Diacylglycerol lipase α knockout mice demonstrate metabolic and behavioral phenotypes similar to those of cannabinoid receptor 1 knockout mice (full – 2015) http://journal.frontiersin.org/article/10.3389/fendo.2015.00086/full

Homeostatic regulation of brain functions by endocannabinoid signaling (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4468750/
Pathogenesis of Systemic Sclerosis. (full – 2015)

Metabolic Interplay between Astrocytes and Neurons Regulates Endocannabinoid Action. (full – 2015)
http://www.cell.com(cell-reports/fulltext/S2211-1247%2815%2900725-1

Impaired 2-AG signaling in hippocampal glutamatergic neurons: aggravation of anxiety-like behavior and unaltered seizure susceptibility. (full – 2015)
http://ijnp.oxfordjournals.org/content/ijnp/early/2015/07/29/ijnpv091.full.pdf

Multiple Forms of Endocannabinoid and Endovanilloid Signaling Regulate the Tonic Control of GABA Release (full – 2015)
http://www.jneurosci.org/content/35/27/10039.full?sid=7e769d1b-9b77-42fe-92d0-8b337b34b9b6

Monoacylglycerol Lipase Regulates Fever Response. (full – 2015)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0134437

Cannabinoid-based drugs targeting CB1 and TRPV1, the sympathetic nervous system, and arthritis. (full – 2015) http://www.arthritis-research.com/content/17/1/226

The Effects of the Endocannabinoids Anandamide and 2-Arachidonoylglycerol on Human Osteoblast Proliferation and Differentiation (full – 2015)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0136546

The skeletal endocannabinoid system: clinical and experimental insights (full – 2015)

Non-Selective Cannabinoid Receptor Antagonists, Hinokiresinols Reduce Infiltration of Microglia/Macrophages into Ischemic Brain Lesions in Rat via Modulating 2-Arachidonoylglycerol-Induced Migration and Mitochondrial Activity. (full – 2015)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0141600

Anticipatory and consummatory effects of (hedonic) chocolate intake are associated with increased circulating levels of the orexigenic peptide ghrelin and endocannabinoids in obese adults. (full – 2015)
http://www.foodandnutritionresearch.net/index.php/fnr/article/view/29678

Fine-tuning of synaptic upscaling at excitatory synapses by endocannabinoid signaling is mediated via the CB1 receptor. (full – 2015)
http://www.nature.com/articles/srep16257

Lipid mediator profile in vernix caseosa reflects skin barrier development (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4629127/

Specific Inter-residue Interactions as Determinants of Human Monoacylglycerol Lipase Catalytic Competency: A Role for Global Conformational Changes. (full – 2015) http://www.jbc.org/content/early/2015/11/10/jbc.M115.670257.long


CB1 cannabinoid receptor enrichment in the ependymal region of the adult human spinal cord. (full – 2015) http://www.nature.com/articles/srep17745


Biased Type 1 Cannabinoid Receptor Signalling Influences Neuronal Viability in a Cell Culture Model of Huntington Disease. (full – 2015) http://molpharm.aspetjournals.org/content/early/2015/12/23/mol.115.101980.long

Oxyradical Stress, Endocannabinoids, and Atherosclerosis. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4686160/

Cannabinoid-Induced Chemotaxis in Bovine Corneal Epithelial Cells. (full – 2015) http://iovs.arvojournals.org/article.aspx?articleid=2297919&resultClick=1

Monoglyceride lipase deficiency causes desensitization of intestinal cannabinoid receptor type 1 and increased colonic μ-opioid receptor sensitivity. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4556478/

Increasing levels of the endocannabinoid 2-AG is neuroprotective in the 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine mouse model of Parkinson's disease. (full – 2015) http://www.sciencedirect.com/science/article/pii/S0014488615300583


Cannabinoid-based drugs targeting CB1 and TRPV1, the sympathetic nervous system, and arthritis (full – 2015) http://link.springer.com/article/10.1186/s13075-015-0743-x

Proapoptotic effect of endocannabinoids in prostate cancer cells. (full – 2015) http://www.spandidos-publications.com/or/33/4/1599

Deletion of Monoglyceride Lipase in Astrocytes Attenuates Lipopolysaccharide-Induced Neuroinflammation. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4705409/


Inhibition of monoacylglycerol lipase prevents chronic traumatic encephalopathy-like neuropathology in a mouse model of repetitive mild closed head injury. (full – 2015) http://jcb.sagepub.com/content/35/3/443.long

Correction to - Inhibition of Monoacylglycerol Lipase Prevents Chronic Traumatic Encephalopathy-Like Neuropathology in a Mouse Model of Repetitive Mild Closed Head Injury (full – 2015) http://jcb.sagepub.com/content/35/4/706


VGluT3-Expressing CCK-Positive Basket Cells Construct Invaginating Synapses Enriched with Endocannabinoid Signaling Proteins in Particular Cortical and Cortex-Like Amygdaloid Regions of Mouse Brains (full – 2015) http://www.jneurosci.org/content/35/10/4215.long


Postnatal ethanol exposure alters levels of 2-arachidonylglycerol-metabolizing enzymes and pharmacological inhibition of monoacylglycerol (MAGL) does not cause neurodegeneration in neonatal mice. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4490952/

Role of the endocannabinoid system in the emotional manifestations of osteoarthritis pain. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4770330/


Training-Associated Emotional Arousal Shapes Endocannabinoid Modulation of Spatial Memory Retrieval in Rats. (full – 2015) http://www.jneurosci.org/content/35/41/13962.long


Fetal endocannabinoids orchestrate the organization of pancreatic islet microarchitecture. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4653226/

Endocannabinoid Catabolic Enzymes Play Differential Roles in Thermal Homeostasis in Response to Environmental or Immune Challenge. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4477849/

Regulation of inflammation by cannabinoids, the endocannabinoids 2-arachidonoylglycerol and arachidonoyl-ethanolamide, and their metabolites. (full – 2015) http://www.jleukbio.org/content/97/6/1049.long


Simultaneous inhibition of fatty acid amide hydrolase (FAAH) and monoacylglycerol lipase (MAGL) shares discriminative stimulus effects with ∆9-THC in mice. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4407717/


Modulation of sweet taste sensitivities by endogenous leptin and endocannabinoids in mice. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4461413/

Phenotypic assessment of THC discriminative stimulus properties in fatty acid amide hydrolase knockout and wildtype mice. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4387086/

Anandamide Depresses Glycinergic and GABAergic Inhibitory Transmissions in Adult Rat Substantia Gelatinosa Neurons (full – 2015) http://file.scirp.org/Html/1-2500613_54452.htm
Intake of farmed Atlantic salmon fed soybean oil increases hepatic levels of arachidonic acid-derived oxylipins and ceramides in mice (full – 2015)


Monoacylglycerol lipase (MGLL) polymorphism rs604300 interacts with childhood adversity to predict cannabis dependence symptoms and amygdala habituation: Evidence from an endocannabinoid system-level analysis. (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4700831/


Effects of co-administration of 2-arachidonylglycerol (2-AG) and a selective µ-opioid receptor agonist into the nucleus accumbens on high-fat feeding behaviors in the rat. (full – 2015) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4522234/

Food Liking Enhances the Plasma Response of 2-Arachidonoylglycerol and of Pancreatic Polypeptide upon Modified Sham Feeding in Humans. (full – 2015)
http://jn.nutrition.org/content/145/9/2169.long


Sleep Restriction Enhances the Daily Rhythm of Circulating Levels of Endocannabinoid 2-arachidonoylglycerol. (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4763355/

Endocannabinoid system activation may be associated with insulin resistance in women with polycystic ovary syndrome. (full – 2015)
http://www.fertstert.org/article/S0015-0282(15)00232-0/fulltext

Role of endothelial TRPV4 channels in vascular actions of the endocannabinoid, 2-arachidonoylglycerol. (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4950792/

Endogenous 2-Arachidonoylglycerol Alleviates Cyclooxygenases-2 Elevation-Mediated Neuronal Injury from SO2 Inhalation via PPARγ Pathway. (full – 2015)
http://toxsci.oxfordjournals.org/content/147/2/535.long

An endocannabinoid system is present in the mouse olfactory epithelium but does not modulate olfaction. (full – 2015) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4485596/

Ultrastructural evidence for synaptic contacts between cortical noradrenergic afferents and endocannabinoid-synthesizing post-synaptic neurons. (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4542008/
β-Neurexins Control Neural Circuits by Regulating Synaptic Endocannabinoid Signaling  
(full – 2015)  
http://www.cell.com/cell/fulltext/S0092-8674(15)00826-0

Diet-induced changes in n-3 and n-6 derived endocannabinoids and reductions in headache pain and psychological distress.  
(full – 2015)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4522350/

Neurobiological Interactions Between Stress and the Endocannabinoid System.  
(full – 2015)  
http://www.nature.com/npp/journal/v41/n1/full/npp2015166a.html

Endocannabinoid signaling at the periphery: 50 years after THC.  
(full – 2015)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4420685/

Endocannabinoid signaling in female reproductive events: a potential therapeutic target?  
(full – 2015)  
http://www.tandfonline.com/doi/full/10.1517/14728222.2015.1062878

Cannabidiol is a negative allosteric modulator of the type 1 cannabinoid receptor.  
(full – 2015)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4621983/

CB1 receptor antagonism blocks stress-potentiated reinstatement of cocaine seeking in rats.  
(full – 2015)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4703460/

Anxiety, Stress, and Fear Response in Mice with Reduced Endocannabinoid Levels.  
(link through Elsevier to get full - 2015)  

Role of the endocannabinoid 2-arachidonoylglycerol in aversive responses mediated by the dorsolateral periaqueductal grey.  
(link to PDF – 2015)  
http://www.europeanneuropsychopharmacology.com/article/S0924-977X(15)00364-8/abstract

Elevated Levels of Endocannabinoids in Chronic Hepatitis C May Modulate Cellular Immune Response and Hepatic Stellate Cell Activation.  
(link to PDF - 2015)  
http://www.mdpi.com/1422-0067/16/4/7057

The emerging role of the endocannabinoid system in the pathogenesis and treatment of kidney diseases.  
(link to PDF – 2015)  

Endocannabinoids  
(article – 2015)  
http://emedicine.medscape.com/article/1361971-overview#showall

CB1 cannabinoid receptors mediate endochondral skeletal growth attenuation by Δ9-tetrahydrocannabinol  
(abst – 2015)  

N-acyl dopamine derivates as lead compound for implementation in transplantation medicine.  
(abst – 2015)  

The anti-inflammatory mediator palmitoylethanolamide enhances the levels of 2-arachidonoyl-glycerol and potentiates its actions at transient receptor potential vanilloid type-1 channels. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/25598150


2-AG promotes the expression of conditioned fear via cannabinoid receptor type 1 on GABAergic neurons (abst – 2015) http://link.springer.com/article/10.1007%2Fs00213-015-3917-y


Activation of CB2 receptor is required for the therapeutic effect of ABHD6 inhibition in experimental autoimmune encephalomyelitis.  

Comparative effects of parathion and chlorpyrifos on endocannabinoid and endocannabinoid-like lipid metabolites in rat striatum.  

Genetic deletion of monoacylglycerol lipase (MAGL) leads to impaired cannabinoid receptor CB1 R signaling and anxiety-like behavior.  

Genetic inactivation and prolonged pharmacologic inhibition of monoacylglycerol lipase have opposite effects on anesthetic sensitivity to propofol  

Endocannabinoid Modulation of Predator Stress-Induced Long-Term Anxiety in Rats.  

Lipopolysaccharide Suppresses Carboxylesterase 2g Activity and 2-Arachidonylglycerol Hydrolysis: A Possible Mechanism to Regulate Inflammation.  

Biosynthesis and Fate of Endocannabinoids.  
http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_2

Endocannabinoids and the Immune System in Health and Disease.  
http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_2

Cannabis and Endocannabinoid Signaling in Epilepsy.  
http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_10

Cannabinoids, cannabinoid receptors and tinnitus.  

A robust capillary liquid chromatography/tandem mass spectrometry method for quantitation of neuromodulatory endocannabinoids.  

The Potential of Inhibitors of Endocannabinoid Metabolism for Drug Development: A Critical Review.  
http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_4

Intracellular postsynaptic cannabinoid receptors link thyrotropin-releasing hormone receptors to TRPC-like channels in thalamic paraventricular nucleus neurons.  


Dopamine-dependent CB1 receptor dysfunction at corticostriatal synapses in homozygous PINK1 knockout mice. (abst – 2015) http://www.sciencedirect.com/science/article/pii/S0028390815301441


Blockade of Cannabinoid 1 Receptor Improves GLP-1R Mediated Insulin Secretion in Mice (abst – 2015) http://www.sciencedirect.com/science/article/pii/S0303720715301714


Endocannabinoid regulation in white and brown adipose tissue following thermogenic activation (full – 2016) http://www.jlr.org/content/early/2016/01/14/jlr.M065227.full.pdf+html?sid=da020ee7-4e2e-40b6-a400-27301739341e


Myeloid-Specific Deletion of Diacylglycerol Lipase α Inhibits Atherogenesis in ApoE-Deficient Mice. (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0146267


Exposure to a Highly Caloric Palatable Diet During Pregestational and Gestational Periods Affects Hypothalamic and Hippocampal Endocannabinoid Levels at Birth and Induces Adiposity and Anxiety-Like Behaviors in Male Rat Offspring. (full – 2016) http://journal.frontiersin.org/article/10.3389/fnbeh.2015.00339/full


GABA and Endocannabinoids Mediate Depotentiation of Schaffer Collateral Synapses Induced by Stimulation of Temperoammonic Inputs. (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0149034

Endogenous and Synthetic Cannabinoids as Therapeutics in Retinal Disease (full – 2016) http://www.hindawi.com/journals/np/2016/8373020/

Vaccenic acid suppresses intestinal inflammation by increasing the endocannabinoid anandamide and non-cannabinoid signaling molecules in a rat model of the metabolic syndrome. (full – 2016) http://www.jlr.org/content/early/2016/02/17/jlr.M066308.long

Systematic Review of Pharmacological Properties of the Oligodendrocyte Lineage. (full – 2016)  

Fatty acid amide hydrolase inhibitors confer anti-invasive and antimetastatic effects on lung cancer cells. (full – 2016)  

http://www.nature.com/articles/srep22429

2-arachidonoylglycerol signaling impairs short-term fear extinction. (full – 2016)  

Circulating Endocannabinoids and Insulin Resistance in Patients with Obstructive Sleep Apnea (full – 2016)  
http://www.hindawi.com/journals/bmri/2016/9782031/

New insights into the yin and yang of the endocannabinoid system in health and disease (full – 2016)  

Cannabinoid-glutamate interactions in the regulation of food intake in neonatal layer-type chicks: role of glutamate NMDA and AMPA receptors. (full – 2016)  

Monoacylglycerol lipase inhibitors produce pro- or antidepressant responses via hippocampal CA1 GABAergic synapses. (full – 2016)  
http://www.nature.com/mp/journal/vaop/ncurrent/full/mp201622a.html

http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0148734

Estrogen Receptor Beta and 2-arachidonoylglycerol Mediate the Suppressive Effects of Estradiol on Frequency of Postsynaptic Currents in Gonadotropin-Releasing Hormone Neurons of Metestrous Mice: An Acute Slice Electrophysiological Study. (full – 2016)  

Neuronal and Astrocytic Monoacylglycerol Lipase Limit the Spread of Endocannabinoid Signaling in the Cerebellum. (full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4865651/

Prostaglandin E2 that triggers fever is synthesized through an endocannabinoid-dependent pathway (full – 2016)  
http://www.tandfonline.com/doi/full/10.1080/23328940.2015.1130520

p21-activated kinase 1 restricts tonic endocannabinoid signaling in the hippocampus (full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4907698/
Discriminative Stimulus Properties of the Endocannabinoid Catabolic Enzyme Inhibitor SA-57 in Mice. (full – 2016) http://jpet.aspetjournals.org/content/early/2016/06/15/jpet.115.229492.long

Cyclooxygenase-2 inhibition reduces stress-induced affective pathology. (full – 2016) https://elifesciences.org/content/5/e14137

The potential relevance of the endocannabinoid, 2-arachidonoylglycerol, in diffuse large B-cell lymphoma. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4751914/


Cannabinoid receptor 2 modulates susceptibility to experimental cerebral malaria through a CCL17-dependent mechanism. (full – 2016) http://www.jbc.org/content/early/2016/07/29/jbc.M116.746594.long


Progesterone and Endocannabinoid Interaction Alters Sperm Activation (full – 2016) http://www.biolreprod.org/content/95/1/9.long


Endocannabinoid-Mediated Plasticity in Nucleus Accumbens Controls Vulnerability to Anxiety after Social Defeat Stress. (full – 2016) http://www.cell.com/cell-reports/fulltext/S2211-1247(16)30851-8

Indirect Modulation of the Endocannabinoid System by Specific Fractions of Nutmeg Total Extract (full – 2016) Indirect modulation of the endocannabinoid system by specific fractions of nutmeg total extract.

Mice Expressing a "Hyper-Sensitive" Form of the Cannabinoid Receptor 1 (CB1) Are Neither Obese Nor Diabetic. (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0160462
Lipid mediators involved in the oxidative stress and antioxidant defence of human lung cancer cells. (full – 2016)  

Interaction between Cannabinoid System and Toll-Like Receptors Controls Inflammation. (full – 2016)  
https://www.hindawi.com/journals/mi/2016/5831315/

Endocannabinoid signaling in social functioning: an RDoC perspective (full – 2016)  
http://www.nature.com/tp/journal/v6/n9/full/tp2016169a.html

The CB2 receptor and its role as a regulator of inflammation. (full – 2016)  

Maternal Caloric Restriction Implemented during the Preconceptional and Pregnancy Period Alters Hypothalamic and Hippocampal Endocannabinoid Levels at Birth and Induces Overweight and Increased Adiposity at Adulthood in Male Rat Offspring (full – 2016)  

Presynaptic G Protein-Coupled Receptors: Gatekeepers of Addiction? (full – 2016)  

Endocannabinoid System: the Direct and Indirect Involvement in the Memory and Learning Processes—a Short Review (full – 2016)  

Regional Influence of Cannabinoid CB1 Receptors in the Regulation of Ethanol Self-Administration by Wistar Rats (full – 2016)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5152943/

Interacting Cannabinoid and Opioid Receptors in the Nucleus Accumbens Core Control Adolescent Social Play. (full – 2016)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5110529/

Modulation of Long-Term Potentiation of Cortico-Amygdala Synaptic Responses and Auditory Fear Memory by Dietary Polyunsaturated Fatty Acid. (full – 2016)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4993868/

Sleep restriction alters plasma endocannabinoids concentrations before but not after exercise in humans. (full – 2016)  
http://www.psyneuen-journal.com/article/S0306-4530(16)30715-6/fulltext

Targeting the endocannabinoid/CB1 receptor system for treating obesity in Prader-Willi syndrome. (full – 2016)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5123200/
Rescue of Impaired mGluR5-Driven Endocannabinoid Signaling Restores Prefrontal Cortical Output to Inhibit Pain in Arthritic Rats. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4719019/

Components of the cannabinoid system in the dorsal periaqueductal gray are related to resting heart rate (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4982395/


Early Low Fat Diet Enriched with Linolenic Acid Reduces Liver Endocannabinoid Tone and Improves Late Glycemic Control After a High Fat Diet Challenge in Mice. (full – 2016) http://diabetes.diabetesjournals.org/content/65/7/1824.long


Coordinated regulation of endocannabinoid-mediated retrograde synaptic suppression in the cerebellum by neuronal and astrocytic monoacylglycerol lipase. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5075776/


Marijuana Compounds: A Nonconventional Approach to Parkinson’s Disease Therapy (full – 2016) https://www.hindawi.com/journals/pd/2016/1279042/

Getting into the weed: the role of the endocannabinoid system in the brain-gut axis.
Lifelong imbalanced linoleic/alpha-linolenic acid intake impairs emotional and cognitive behavior in adult rats via changes in brain endocannabinoid system.

Endocannabinoid system: Role in depression, reward and pain control (Review).

Responses of peripheral endocannabinoids and endocannabinoid-related compounds to hedonic eating in obesity

The emerging role of the cannabinoid receptor family in peripheral and neuro-immune interactions.
http://www.eurekaselect.com/138448/article

G protein-coupled receptor 18: A potential role for endocannabinoid signalling in metabolic dysfunction.

Reductions in circulating endocannabinoid 2-arachidonoylglycerol levels in healthy human subjects exposed to chronic stressors.

The cross-talk between electrophiles, antioxidant defence and the endocannabinoid system in fibroblasts and keratinocytes after UVA and UVB irradiation

Role of the Endocannabinoid System in the Pathophysiology of Schizophrenia

Cyclooxygenase-2 contributes to the selective induction of cell death by the endocannabinoid 2-arachidonoyl glycerol in hepatic stellate cells

Social defeat leads to changes in the endocannabinoid system; an overexpression of calreticulin and motor impairment in mice.

Sustained glucocorticoid exposure recruits cortico-limbic CRH signaling to modulate endocannabinoid function.
http://www.psyneuen-journal.com/article/S0306-4530(16)30003-8/abstract

Cannabinoid receptor 2 augments eosinophil responsiveness and aggravates allergen-induced pulmonary inflammation in mice.


Endocannabinoids and Endocannabinoid-Related Mediators: Targets, Metabolism and Role In Neurological Disorders. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/26965148


Broad impact of deleting endogenous cannabinoid hydrolyzing enzymes and the CB1 cannabinoid receptor on the endogenous cannabinoid-related lipidome in eight regions of the mouse brain. (abst – 2016) http://www.sciencedirect.com/science/article/pii/S1043661816303449


Endocannabinoid 2-Arachidonoylglycerol Suppresses LPS-Induced Inhibition of A-Type Potassium Channel Currents in Caudate Nucleus Neurons Through CB1 Receptor. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27129498


Assay of Monoacylglycerol Lipase Activity. (abst – 2016)
http://link.springer.com/protocol/10.1007%2F978-1-4939-3539-0_17

Assay of Endocannabinoid Oxidation by Cyclooxygenase-2. (abst – 2016)

Optimized extraction of 2-arachidonyl glycerol and anandamide from aortic tissue and plasma for quantification by LC-MS/MS (abst – 2016)


Simultaneous HPLC-APCI-MS/MS quantification of endogenous cannabinoids and glucocorticoids in hair (abst – 2016)

FABP1 in wonderland. (abst – 2016)


Female Mice are Resistant to Fabp1 Gene Ablation-Induced Alterations in Brain Endocannabinoid Levels (abst – 2016)

Oxylipins, endocannabinoids, and related compounds in human milk: Levels and effects of storage conditions (abst – 2016)
Acute Stress Suppresses Synaptic Inhibition and Increases Anxiety via Endocannabinoid Release in the Basolateral Amygdala. (abst – 2016) 

Robust anti-nociceptive effects of MAG lipase inhibition in a model of osteoarthritis pain. (abst – 2016) 

Metabolism of endocannabinoids. (abst – 2016) 

Endocannabinoid dysregulation in cognitive and stress-related brain regions in the Nrg1 mouse model of schizophrenia. (abst – 2016) 

FABP1: A Novel Hepatic Endocannabinoid and Cannabinoid Binding Protein (abst – 2016) 
http://pubs.acs.org/doi/abs/10.1021/acs.biochem.6b00446

Emotional arousal state influences the ability of amygdalar endocannabinoid signaling to modulate anxiety. (abst – 2016) 

mGluR1/5 activation in the lateral hypothalamus increases food intake via the endocannabinoid system. (abst – 2016) 

Evolution of the diacylglycerol lipases. (abst – 2016) 

Sex differences in alcohol consumption and alterations in nucleus accumbens endocannabinoid mRNA in alcohol-dependent rats. (abst – 2016) 

Regulated endosomal trafficking of Diacylglycerol lipase alpha (DAGLα) generates distinct cellular pools; implications for endocannabinoid signaling. (abst – 2016) 

Important role of endocannabinoid signaling in the development of functional vision and locomotion in zebrafish. (abst – 2016) 

Beyond the Direct Activation of Cannabinoid Receptors: New Strategies to Modulate the Endocannabinoid System in CNS-Related Diseases. (abst – 2016) 


2-arachidonoylglycerol levels are increased in leukocytospermia and correlate with seminal macrophages. (abst – 2016) https://www.ncbi.nlm.nih.gov/pubmed/27863106

Serum levels of endocannabinoids are independently associated with nonalcoholic fatty liver disease. (abst – 2016) https://www.ncbi.nlm.nih.gov/pubmed/27863097


Triazole Ureas Act as Diacylglycerol Lipase Inhibitors and Prevent Fasting-Induced Refeeding. (abst – 2016) http://pubs.acs.org/doi/abs/10.1021/acs.jmedchem.6b01482

Circulating levels of endocannabinoids respond acutely to voluntary exercise, are altered in mice selectively bred for high voluntary wheel running, and differ between the sexes. (abst – 2016) https://www.ncbi.nlm.nih.gov/pubmed/28017680
Endocannabinoids concentrations in plasma associated with feed efficiency and carcass composition of beef steers. (abst – 2016)

Treating Depression in Alcoholics (news & abst – 2016)
http://neurosciencenews.com/alcoholism-depression-psychology-3541/

Cannabinoid CB2 receptor ligand profiling reveals biased signalling and off-target activity (full – 2017)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5216056/

WWL70 attenuates PGE2 production derived from 2-arachidonoylglycerol in microglia by ABHD6-independent mechanism (full – 2017)


Endocannabinoid 2-arachidonoylglycerol protects inflammatory insults from sulfur dioxide inhalation via cannabinoid receptors in the brain (abst – 2017)


Serum endocannabinoids and N-acyl ethanolamines and the influence of simulated solar UVR exposure in humans in vivo (abst – 2017)
http://pubs.rsc.org/en/Content/ArticleLanding/2017/PP/C6PP00337K#!divAbstract

2-AGE/ 2-ARACHIDONYL GLYCERYL ETHER/ NOLADIN ETHER + - CB 1 antagonist & 2 agonist
Alterations in the hippocampal endocannabinoid system in diet-induced obese mice. (full – 2010) http://www.jneurosci.org/content/30/18/6273.long


Anti-proliferative Effect of a Putative Endocannabinoid, 2-Arachidonylglyceryl Ether in Prostate Carcinoma Cells (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3039283/?tool=pmcentrez


Noladin ether, a putative endocannabinoid, enhances motivation to eat after acute systemic administration in rats. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3402806/


Stimulatory and Inhibitory Roles of Brain 2-Arachidonoylglycerol in Bombesin-Induced Central Activation of Adrenomedullary Outflow in Rats. (full – 2013) https://www.jstage.jst.go.jp/article/jphs/121/2/121_12208FP/_pdf


Endocannabinoids modulate human blood-brain barrier permeability in vitro.


Orexin-A represses satiety-inducing POMC neurons and contributes to obesity via stimulation of endocannabinoid signaling. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4855580/


ANANDAMIDE / AEA / N –ARACHIDONOLETHANOLAMINE/ NAE 22:4 ++ – CB 1 & 2 agonist


Dietary docosahexaenoic acid supplementation alters select physiological endocannabinoid-system metabolites in brain and plasma (full – 2010) http://www.jlr.org/content/51/6/1416.full.pdf+html

Recent advances in the regulation of cholangiocarcinoma growth (full - 2010) http://ajpgi.physiology.org/content/299/1/G1.full

Cannabinoid Receptors as Target for Treatment of Osteoporosis: A Tale of Two Therapies (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3001217/?tool=pubmed
Anandamide suppresses pain initiation through a peripheral endocannabinoid mechanism (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3260554/?tool=pubmed

Cannabinoid-mediated inhibition of recurrent excitatory circuitry in the dentate gyrus in a mouse model of temporal lobe epilepsy. (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2871782/?tool=pubmed

Endocannabinoids Prevent β-Amyloid-mediated Lysosomal Destabilization in Cultured Neurons (full – 2010)  
http://www.jbc.org/content/285/49/38543.full

Quantification of brain endocannabinoid levels: methods, interpretations and pitfalls (full – 2010)  

Opposing actions of endocannabinoids on cholangiocarcinoma growth is via the differential activation of Notch signaling. (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2872061/?tool=pubmed

A synthetic cannabinoid agonist promotes oligodendrogliogenesis during viral encephalitis in rats (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2981070/?tool=pubmed

Enhancement of endocannabinoid signaling by fatty acid amide hydrolase inhibition: a neuroprotective therapeutic modality. (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2848893/?tool=pubmed

Oxidation of the Endogenous Cannabinoid Arachidonoyl Ethanolamide by the Cytochrome P450 Monoxygenases: Physiological and Pharmacological Implications (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2835397/?tool=pubmed

Antitumorigenic Effects of Cannabinoids beyond Apoptosis (full - 2010)  
http://jpet.aspetjournals.org/content/332/2/336.full?sid=af53ea87-ab4b-426e-9c7e-8f750e9e4a17

Inhibition of 3-hydroxy-3-methylglutaryl-coenzyme A reductase activity and of Ras farnesylation mediate antitumor effects of anandamide in human breast cancer cells. (full – 2010)  
http://erc.endocrinology-journals.org/content/17/2/495.long

Endogenous cannabinoid signaling is essential for stress adaptation (full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2889099/?tool=pmcentrez

Human sperm anatomy: ultrastructural localization of the cannabinoid1 receptor and a potential role of anandamide in sperm survival and acrosome reaction. (full – 2010)  

Preservation of Striatal Cannabinoid CB1 Receptor Function Correlates with the Antianxiety Effects of Fatty Acid Amide Hydrolase Inhibition (full – 2010)  
http://mol pharm.aspetjournals.org/content/78/2/260.long
Differential alterations of the concentrations of endocannabinoids and related lipids in the subcutaneous adipose tissue of obese diabetic patients (full - 2010)  
http://www.lipidworld.com/content/9/1/43

The endocannabinoid system as a target for the treatment of neurodegenerative disease (full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931550/?tool=pubmed

Alterations in the hippocampal endocannabinoid system in diet-induced obese mice. (full – 2010)  
http://www.jneurosci.org/content/30/18/6273.long

Effects of a Commonly Occurring Genetic Polymorphism of Human CYP3A4 (I118V) on the Metabolism of Anandamide (full – 2010)  
http://dmd.aspetjournals.org/content/38/11/2075.full

Cyclooxygenase-2 Mediates Anandamide Metabolism in the Mouse Brain (full – 2010)  
http://jpet.aspetjournals.org/content/335/2/380.full?sid=af53ea87-ab4b-426e-9c7e-8f750e9c4a17

Differential alterations of the concentrations of endocannabinoids and related lipids in the subcutaneous adipose tissue of obese diabetic patients. (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2868848/?tool=pubmed

Plasma anandamide and other N-acyl ethanolamines are correlated with their corresponding free fatty acid levels under both fasting and non-fasting conditions in women (full – 2010)  
http://www.nutritionandmetabolism.com/content/7/1/49

Energetic Metabolism and Human Sperm Motility: Impact of CB1 Receptor Activation (full – 2010)  
http://endo.endojournals.org/content/151/12/5882.full

Characterization of the Endocannabinoid System in Human Spermatozoa and Involvement of Transient Receptor Potential Vanilloid 1 Receptor in Their Fertilizing Ability (full – 2010)  
http://endo.endojournals.org/content/150/10/4692.full?sid=f5b14012-9fbe-4f10-890c-386313060cf8

Maternal Dietary Fat Determines Metabolic Profile and the Magnitude of Endocannabinoid Inhibition of the Stress Response in Neonatal Rat Offspring (full – 2010)  
http://endo.endojournals.org/content/151/4/1685.full?sid=f9729eff-d221-42d4-81d8-8545db5df878

N-Acylethanolamine Levels and Expression of Their Metabolizing Enzymes during Pregnancy (full – 2010)  
http://endo.endojournals.org/content/151/8/3965.full


Selective alterations of the CB1 receptors and the fatty acid amide hydrolase in the ventral striatum of alcoholics and suicides. (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2878847/
Anandamide suppresses pain initiation through a peripheral endocannabinoid mechanism (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3260554/


R-Flurbiprofen Reduces Neuropathic Pain in Rodents by Restoring Endogenous Cannabinoids (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2869361/

Effects of anandamide on polyamine levels and cell growth in human colon cancer cells (full – 2010) http://ar.iiarjournals.org/content/30/7/2583.long

Interaction between anandamide and sphingosine-1-phosphate in mediating vasorelaxation in rat coronary artery (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2962826/?tool=pubmed


The relationship between plasma levels of the endocannabinoid, anandamide, sex steroids, and gonadotrophins during the menstrual cycle. (full - 2010) http://www.fertstert.org/article/S0015-0282%2808%2904739-0/fulltext

Pitfalls in the sample preparation and analysis of N-acylethanolamines (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2936757/


The endocannabinoid system modulates the valence of the emotion associated to food ingestion (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3116974/

Endocannabinoids selectively enhance sweet taste. (full – 2010) http://www.pnas.org/content/107/2/935.long


The endogenous cannabinoid, anandamide, induces COX-2-dependent cell death in apoptosis-resistant colon cancer cells. (link to PDF - 2010)
http://www.spandidos-publications.com/ijo/37/1/187

Endocannabinoids and Human Sperm Cells (link to PDF - 2010)
http://www.mdpi.com/1424-8247/3/10/3200

Endocannabinoids and Schizophrenia (link to PDF – 2010)
http://www.mdpi.com/1424-8247/3/10/3101

The Role of Cannabinoid Receptors in the Descending Modulation of Pain (link to PDF - 2010)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.634.4866&rank=72

Circulating and hepatic endocannabinoids and endocannabinoid-related molecules in patients with cirrhosis. (abst – 2010)

Circulating endocannabinoids and N-acyl-ethanolamides in patients with sleep apnea--specific role of oleoylethanolamide. (abst – 2010)

Endogenous cannabinoids in liver disease: Many darts for a single target (abst – 2010)

Non-CB1, non-CB2 receptors for endocannabinoids, plant cannabinoids, and synthetic cannabimimetics: focus on G-protein-coupled receptors and transient receptor potential channels. (abst – 2010)
http://www.unboundmedicine.com/medline/ebm/record/19847654/abstract/Non_CB1_non_CB2_receptors_for_endocannabinoids_plant_cannabinoids_and_synthetic_cannabimimetics:_focus_on_G_protein_couple_d_receptors_and_transient_receptor_potential_channels

Altered expression of cannabinoid receptors 1 and 2 and activated endocannabinoid system in patients with severe chronic heart failure (abst – 2010)

Anandamide extends platelets survival through CB(1)-dependent Akt signaling. (abst – 2010)


Anandamide and AM251, via water, modulate food intake at central and peripheral level in fish. (abst – 2010)

Acute and subchronic administration of anandamide or oleamide increases REM sleep in rats. (abst – 2010)


A synaptogenic amide N-docosahexaenoylethanolamide promotes hippocampal development  (full – 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3215906/

Dual inhibition of alpha/beta hydrolase domain 6 and fatty acid amide hydrolase increases endocannabinoid levels in neurons.  (full – 2011)  http://www.jbc.org/content/286/33/28723.full

A catalytically silent FAAH-1 variant drives anandamide transport in neurons.  (full – 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3245783/

Anandamide inhibits Theiler's virus induced VCAM-1 in brain endothelial cells and reduces leukocyte transmigration in a model of blood brain barrier by activation of CB1 receptors.  (full – 2011)  http://www.jneuroinflammation.com/content/pdf/1742-2094-8-102.pdf

Anandamide capacitates bull spermatozoa through CB1 and TRPV1 activation.  (full – 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3037938/?tool=pubmed


Anandamide exerts its antiproliferative actions on cholangiocarcinoma by activation of the GPR55 receptor. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3126905/

The endogenous cannabinoid system in the gut of patients with inflammatory bowel disease. (full – 2011) http://www.nature.com/mi/journal/v4/n5/full/mi201118a.html


High levels of N-palmitoylethanolamide and N-stearoylethanolamide in microdialysate samples from myalgic trapezius muscle in women. (full – 2011) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0027257

Endocannabinoid system in cardiovascular disorders - new pharmacotherapeutic opportunities (full – 2011) http://www.jpbsonline.org/article.asp?issn=0975-7406;year=2011;volume=3;issue=3;spage=350;epage=360;aulast=Cunha


Cannabidiol inhibits the hyperphagia induced by cannabinoid-1 or serotonin-1A receptor agonists. (full – 2011) http://www.sciencedirect.com/science/article/pii/S0091305711000128

Cannabinoid and GABA modulation of sympathetic nerve activity and blood pressure in the dorsal periaqueductal gray of the rat (full – 2011) http://ajpregu.physiology.org/content/301/6/R1765.full


The role of sex steroid hormones, cytokines and the endocannabinoid system in female fertility. (full – 2011) http://humupd.oxfordjournals.org/content/17/3/347.long


Increasing Antiproliferative Properties of Endocannabinoids in N1E-115 Neuroblastoma Cells through Inhibition of Their Metabolism. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3203169/?tool=pubmed
Effect of dietary krill oil supplementation on the endocannabinoidome of metabolically relevant tissues from high-fat-fed mice (full – 2011)
http://www.nutritionandmetabolism.com/content/8/1/51

An amyloid β(42)-dependent deficit in anandamide mobilization is associated with cognitive dysfunction in Alzheimer's disease (full – 2011)

The activity of the endocannabinoid metabolising enzyme fatty acid amide hydrolase in subcutaneous adipocytes correlates with BMI in metabolically healthy humans (full – 2011)
http://www.lipidworld.com/content/10/1/129

Effect of an Acute Consumption of a Moderate Amount of Ethanol on Plasma Endocannabinoid Levels in Humans (full – 2011)
http://alcalc.oxfordjournals.org/content/alcalc/47/3/226.full.pdf

The fatty acid amide hydrolase inhibitor URB 597: interactions with anandamide in rhesus monkeys. (full – 2011)

Intracellular Cannabinoid Type 1 (CB1) Receptors Are Activated by Anandamide (full – 2011)
http://www.jbc.org/content/286/33/29166.full

Hyperactivation of anandamide synthesis and regulation of cell-cycle progression via cannabinoid type 1 (CB1) receptors in the regenerating liver (full – 2011)
http://www.pnas.org/content/108/15/6323.full

Arachidonoyl ethanolamide (AEA)-induced apoptosis is mediated by J-series prostaglandins and is enhanced by fatty acid amide hydrolase (FAAH) blockade. (full – 2011)

The anandamide transport inhibitor AM404 reduces the rewarding effects of nicotine and nicotine-induced dopamine elevations in the nucleus accumbens shell in rats (full – 2011)

Inhibition of endocannabinoid catabolic enzymes elicits anxiolytic-like effects in the marble burying assay. (full – 2011)

Triphasic blood pressure responses to cannabinoids: do we understand the mechanism? (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3413845/

Pharmacological elevation of anandamide impairs short-term memory by altering the neurophysiology in the hippocampus. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3156972/
Fatty acid amide hydrolase blockade attenuates the development of collagen-induced arthritis and related thermal hyperalgesia in mice. (full - 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3164582/

Regulation of nausea and vomiting by cannabinoids (full - 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165951/

Investigations of the human endocannabinoid system in two subcutaneous adipose tissue depots in lean subjects and in obese subjects before and after weight loss (full – 2011)  
http://www.nature.com/ijo/journal/v35/n11/full/ijo20118a.html

Multiple Changes in Peptide and Lipid Expression Associated with Regeneration in the Nervous System of the Medicinal Leech (link to PDF – 2011)  
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.713.3790&rank=102

Synaptic plasticity: A new partnership (article – 2011)  

Migraines, Marijuana, and Chocolate (article – 2011)  

Anandamide-loaded nanoparticles: preparation and characterization. (abst – 2011)  

Cannabinoid-2 Receptor Activation Protects against Infarct and Ischemia/Reperfusion Heart Injury. (abst – 2011)  

Cannabinoid applications in glaucoma. (abst – 2011)  
http://www.unboundmedicine.com/medline/ebm/record/21414525/abstract/Cannabinoid_applications_in_glaucoma

A cannabinoid ligand, anandamide, exacerbates endotoxin-induced uveitis in rabbits. (abst – 2011)  

Abnormal anandamide metabolism in celiac disease. (abst – 2011)  

Inhibition of cannabinoid metabolic enzymes reduces NSAID-induced gastric pathology (abst – 2011)  
http://www.fasebj.org/content/25/1_Supplement/807.1.abstract?sid=b55d39c1-7d7f-4192-8d41-990db25296a3

Endocannabinoid pathways and their role in multiple sclerosis-related muscular dysfunction. (abst – 2011)  

Plasticity in vagal afferent neurones during feeding and fasting: mechanisms and significance. (abst – 2011)  
Endocannabinoid CB1 receptors modulate visual output from the thalamus. (abst – 2011)  http://www.ncbi.nlm.nih.gov/pubmed/21773721


Omega-3 N-acylethanolamines are endogenously synthesised from omega-3 fatty acids in different human prostate and breast cancer cell lines. (abst – 2011)  http://www.ncbi.nlm.nih.gov/pubmed/21995886

Anandamide inhibits the growth of colorectal cancer cells through CB1 and lipid rafts (abst – 2011)  http://www.ncbi.nlm.nih.gov/pubmed/21575494

The endocannabinoid anandamide downregulates IL-23 and IL-12 subunits in a viral model of multiple sclerosis: evidence for a cross-talk between IL-12p70/IL-23 axis and IL-10 in microglial cells. (abst – 2011)  http://www.ncbi.nlm.nih.gov/pubmed/21310228


Intense exercise increases circulating endocannabinoid and BDNF levels in humans—Possible implications for reward and depression (abst – 2011)  http://www.psyneuen-journal.com/article/PIIS0306453011002873/abstract?rss=yes


Localization of Cannabinoid-Related Proteins in the Murine Anterior Eye (abst – 2011)  http://iovs.arvojournals.org/article.aspx?articleid=2356236&resultClick=1

2-Arachidonoylglycerol (2-AG) Induces Corneal Epithelial Cell Migration via Cannabinoid CB1 Receptors (abst – 2011)  http://iovs.arvojournals.org/article.aspx?articleid=2352973&resultClick=1


CB1 Activation Reduces TRPV1-induced Responses in Human Corneal Epithelial Cells (abst – 2011)  http://iovs.arvojournals.org/article.aspx?articleid=2353114&resultClick=1


Endocannabinoids Stimulate Human Melanogenesis via Type-1 Cannabinoid Receptor (full – 2012) http://www.jbc.org/content/early/2012/03/19/jbc.M111.314880.full.pdf+html

Role of cannabinoids in the regulation of bone remodeling (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3499879/


Mechanistic and Pharmacological Characterization of PF-04457845: A Highly Potent and Selective Fatty Acid Amide Hydrolase Inhibitor That Reduces Inflammatory and Noninflammatory Pain (full – 2012) http://jpet.aspetjournals.org/content/338/1/114.full

Endocannabinoids measurement in human saliva as potential biomarker of obesity. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3409167/?tool=pubmed


Cannabidiol enhances anandamide signaling and alleviates psychotic symptoms of schizophrenia. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3316151/?tool=pubmed

Plasma Endocannabinoid Alterations in Individuals with Substance Use Disorder are Dependent on the "Mirror Effect" of Schizophrenia. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3457074/


The fatty acid amide hydrolase inhibitor URB597 exerts anti-inflammatory effects in hippocampus of aged rats and restores an age-related deficit in long-term potentiation (full – 2012) http://www.jneuroinflammation.com/content/9/1/79

Fatty acid amide hydrolase ablation promotes ectopic lipid storage and insulin resistance due to centrally mediated hypothyroidism. (full - 2012) http://www.pnas.org/content/109/37/14966.long

Review article: Endocannabinoids in neuroendopsychology: multiphasic control of mitochondrial function (full – 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3342.full?sid=dd42995f-c629-4f8c-86a0-5e962e352fda


The endocannabinoid, anandamide, augments Notch-1 signaling in cultured cortical neurons exposed to amyloid-beta and in the cortex of aged rats. (full – 2012) http://www.jbc.org/content/early/2012/08/13/jbc.M112.350678.long

Early Endogenous Activation of CB1 and CB2 Receptors after Spinal Cord Injury Is a Protective Response Involved in Spontaneous Recovery (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3496738/

The fatty acid amide hydrolase (FAAH) inhibitor PF-3845 acts in the nervous system to reverse LPS-induced tactile allodynia in mice (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423256/

Cannabinoid type-1 receptor reduces pain and neurotoxicity produced by chemotherapy. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3366638/

Differences in peripheral endocannabinoid modulation of scratching behavior in facial vs. spinally-innervated skin. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3394407/

Dietary linoleic acid elevates endogenous 2-AG and anandamide and induces obesity. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3458187/


Excess of the endocannabinoid anandamide during lactation induces overweight, fat accumulation and insulin resistance in adult mice (full – 2012) http://www.dmsjournal.com/content/4/1/35

Type 2 Diabetes Associated Changes in the Plasma Non-Esterified Fatty Acids, Oxylipins and Endocannabinoids (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3493609/
GPR18 in microglia: implications for the CNS and endocannabinoid system signaling (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3525861/

So what do we call GPR18 now? (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423231/


Phytoestrogens Enhance the Vascular Actions of the Endocannabinoid Anandamide in Mesenteric Beds of Female Rats (full – 2012)  http://www.hindawi.com/journals/ijht/2012/647856/


Anti-inflammatory lipoxin A4 is an endogenous allosteric enhancer of CB1 cannabinoid receptor. (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3529012/

Cannabinoid Receptor Type 1 (CB1) Activation Inhibits Small GTPase RhoA Activity and Regulates Motility of Prostate Carcinoma Cells (full – 2012)  http://endo.endojournals.org/content/153/1/29.full


β–Amyloid exacerbates inflammation in astrocytes lacking fatty acid amide hydrolase through a mechanism involving PPAR-α, PPAR-γ and TRPV1, but not CB1 or CB2 receptors (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3417461/


The endocannabinoid, anandamide, augments Notch-1 signaling in cultured cortical neurons exposed to amyloid-β and in the cortex of aged rats. (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3464574/

Cannabinoid-related Agents in the Treatment of Anxiety Disorders: Current Knowledge and Future Perspectives. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3691841/

Acetaminophen differentially enhances social behavior and cortical cannabinoid levels in inbred mice. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3389197/

Endocannabinoids in nervous system health and disease: the big picture in a nutshell (full – 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3193.full

Lipoxin A4 is an allosteric endocannabinoid that strengthens anandamide-induced CB1 receptor activation (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3529042/

Cellular and intracellular mechanisms involved in the cognitive impairment of cannabinoids (full - 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3254.full?sid=1569c370-cd5c-4358-89ff-857201f5e069

The role of endocannabinoids in gonadal function and fertility along the evolutionary axis. (full – 2012) http://www.sciencedirect.com/science/article/pii/S0303720712000445

Review article: Why do cannabinoid receptors have more than one endogenous ligand? (full – 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3216.full?sid=1569c370-cd5c-4358-89ff-857201f5e069


Dynamic changes to the endocannabinoid system in models of chronic pain (full – 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3300.full?sid=1569c370-cd5c-4358-89ff-857201f5e069

Dual fatty acid amide hydrolase and monoacylglycerol lipase blockade produces THC-like Morris water maze deficits in mice. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3382457/


Acute Stress Increases Circulating Anandamide and Other N-Acylethanolamines in Healthy Humans (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3442338/

Wired to run: exercise-induced endocannabinoid signaling in humans and cursorial mammals with implications for the 'runner's high'. (full – 2012) http://jeb.biologists.org/content/215/8/1331.long

Review article: The endocannabinoid system in normal and pathological brain ageing (full – 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3326.full?sid=161e7b36-5055-448b-962e-697c782e901d

Alterations in endocannabinoid tone following chemotherapy-induced peripheral neuropathy: effects of endocannabinoid deactivation inhibitors targeting fatty-acid amide hydrolase and monoacylglycerol lipase in comparison to reference analgesics following cisplatin treatment. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3525790/


Equipotent Inhibition of Fatty Acid Amide Hydrolase and Monoacylglycerol Lipase - Dual Targets of the Endocannabinoid System to Protect against Seizure Pathology. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3480564/

The evolution and comparative neurobiology of endocannabinoid signaling (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3481536/

The Novel Reversible Fatty Acid Amide Hydrolase Inhibitor ST4070 Increases Endocannabinoid Brain Levels and Counteracts Neuropathic Pain in Different Animal Models (full – 2012) http://jpet.aspetjournals.org/content/342/1/188.full.pdf+html

Evidence for Bidirectional Endocannabinoid Transport across Cell Membranes (full – 2012) http://www.jbc.org/content/287/41/34660.full


Temporal changes in N-acylethanolamine content and metabolism throughout the peri-adolescent period (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3510355/

Cortisol-mediated adhesion of synovial fibroblasts is dependent on the degradation of anandamide and activation of the endocannabinoid system (full - 2012) http://onlinelibrary.wiley.com/doi/10.1002/art.37684/pdf

The Endocannabinoids Anandamide and Virodhamine Modulate the Activity of the Candidate Cannabinoid Receptor GPR55. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3669693/
Anandamide regulates the expression of GnRH1, GnRH2, and GnRH-Rs in frog testis (full – 2012)  http://ajpendo.physiology.org/content/303/4/E475.long

Medial prefrontal cortex endocannabinoid system modulates baroreflex activity through CB1 receptors (full – 2012) http://ajpregu.physiology.org/content/302/7/R876

The endocannabinoid system in the rat dorsolateral periaqueductal grey mediates fear-conditioned analgesia and controls fear expression in the presence of nociceptive tone (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423235/

Convergent translational evidence of a role for anandamide in amygdala-mediated fear extinction, threat processing and stress-reactivity (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3549323/


Cannabinoid receptor 1 in the vagus nerve is dispensable for body weight homeostasis but required for normal gastrointestinal motility. (full – 2012) http://www.jneurosci.org/content/32/30/10331.long


The Volitional Nature of Nicotine Exposure Alters Anandamide and Oleoylethanolamide Levels in the Ventral Tegmental Area. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3572454/

Modulation of neuropathic-pain-related behaviour by the spinal endocannabinoid/endovanilloid system (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3481534/


The endocannabinoid system: a key modulator of emotions and cognition (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3490098/

Evaluation of the endogenous cannabinoid system in mediating the behavioral effects of dipyrone (metamizol) in mice. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3696505/

Ectopic pregnancy is associated with high anandamide levels and aberrant expression of FAAH and CB1 in fallopian tubes. (full – 2012)

Uncovering a role for endocannabinoid signaling in autophagy in preimplantation mouse embryos (full – 2012)
http://molehr.oxfordjournals.org/content/19/2/93.full

Multiple functions of endocannabinoid signaling in the brain. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4273654/

Psychopharmacology of the endocannabinoids: far beyond anandamide. (full – 2012)

CHRONIC, NONINVASIVE GLUCOCORTICOID ADMINISTRATION SUPPRESSES LIMBIC ENDOCANNABINOID SIGNALING IN MICE (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3697830/

Endocannabinoid-Goα signalling inhibits axon regeneration in Caenorhabditis elegans by antagonizing Gqα-PKC-JNK signalling (full – 2012)
http://www.nature.com/ncomms/journal/v3/n10/full/ncomms2136.html

Pharmacological manipulation of cannabinoid neurotransmission reduces neuroinflammation associated with normal aging (full – 2012)
http://file.scirp.org/Html/1-8201656_23229.htm

Simultaneous postprandial deregulation of the orexigenic endocannabinoid anandamide and the anorexigenic peptide YY in obesity (full – 2012)
http://www.nature.com/ijo/journal/v36/n6/full/ijo2011165a.html

The biochemical complexity of the endocannabinoid system with some remarks on stress and related disorders: a minireview (abst – 2012)

Revisiting CB1 Receptor as Drug Target in Human Melanoma. (abst – 2012)

Effect of omega-3 polyunsaturated fatty acids on the endocannabinoid system in osteoblast-like cells and muscle (abst – 2012)
http://docs.lib.purdue.edu/dissertations/AAI3444794/

Contrasting protective effects of cannabinoids against oxidative stress and amyloid-β evoked neurotoxicity in vitro. (abst – 2012)
Vascular metabolism of anandamide to arachidonic acid affects myogenic constriction in response to intraluminal pressure elevation. (abst – 2012)  

Inhibitors of the Endocannabinoid-Degrading Enzymes, or how to Increase Endocannabinoid's Activity by Preventing their Hydrolysis. (abst – 2012)  

Effects of the anandamide uptake blocker AM404 on food intake depend on feeding status and route of administration. (abst – 2012)  

Endocannabinoid analogues exacerbate marble-burying behavior in mice via TRPV1 receptor. (abst – 2012)  

Essential fatty acids and lipid mediators. Endocannabinoids (abst – 2012)  

Anandamide Induces Matrix Metalloproteinase-2 Production through Cannabinoid-1 Receptor and Transient Receptor Potential Vanilloid-1 in Human Dental Pulp Cells in Culture. (abst – 2012)  

Vascular metabolism of anandamide to arachidonic acid affects myogenic constriction in response to intraluminal pressure elevation. (abst – 2012)  

Cannabinoid type 1 receptors and transient receptor potential vanilloid type 1 channels in fear and anxiety-two sides of one coin? (abst – 2012)  

Inhibition Of Fatty Acid Amide Hydrolase Produces Anti-Tussive Effects In Guinea-Pigs: Evidence For Elevated Fatty Acid Amides Acting Via Cannabinoid Receptors On Airway Sensory Nerves (abst – 2012)  

Age-related changes of anandamide metabolism in CB1 cannabinoid receptor knockout mice: correlation with behaviour. (abst – 2012)  

http://www.bijprocs.boneandjoint.org.uk/content/94-B/SUPP_XVIII/7.abstract?maxtoshow=&hits=25&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=130&sor tspec=date&resourceType=HWCIT


Opposing local effects of endocannabinoids on the activity of noradrenergic neurons and release of noradrenaline: relevance for their role in depression and in the actions of CB(1) receptor antagonists. (abst – 2012) http://www.ncbi.nlm.nih.gov/pubmed/22990678


Antiepileptic action of N-palmitoylethanolamine through CB1 and PPAR-α receptor activation in a genetic model of absence epilepsy. (abst – 2012)


Type-1 (CB(1)) Cannabinoid Receptor Promotes Neuronal Differentiation and Maturation of Neural Stem Cells. (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0054271

Endogenous cannabinoid receptor CB1 activation promotes vascular smooth muscle cell proliferation and neointima formation. (full – 2013) http://www.jlr.org/content/early/2013/03/11/jlr.M035147.long


Cannabinoids and the endocannabinoid system in lower urinary tract function and

Of mice and (wo)men: factors influencing successful implantation including
endocannabinoids. (full – 2013) http://humupd.oxfordjournals.org/content/20/3/415.long

Modulating the endocannabinoid system in human health and disease: successes and
failures (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3684164/

Reduced endothelium-dependent relaxation to anandamide in mesenteric arteries from
young obese zucker rats. (full – 2013) http://www.plosone.org/article/info%3Adoi
%2F10.1371%2Fjournal.pone.0063449

Fatty Acid Modulation of the Endocannabinoid System and the Effect on Food Intake and
Metabolism (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3677644/

Plasma concentrations of endocannabinoids and related primary Fatty Acid amides in
patients with post-traumatic stress disorder. (full – 2013)
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0062741

Dietary Linoleic Acid Elevates the Endocannabinoids 2-AG and Anandamide and
Promotes Weight Gain in Mice Fed a Low Fat Diet (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3889814/

Chronic treatment with krill powder reduces plasma triglyceride and anandamide levels
in mildly obese men (full – 2013) http://www.lipidworld.com/content/12/1/78

Altered expression of type-1 and type-2 cannabinoid receptors in celiac disease.

The monoacylglycerol lipase inhibitor JZL184 suppresses inflammatory pain in the
mouse carrageenan model. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3717616/

Modulation of the Endocannabinoids N-Arachidonylethanolamine (AEA) and 2-
Arachidonoylglycerol (2-AG) on Executive Functions in Humans (full – 2013)
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0066387

Circulating endocannabinoids in insulin sensitive vs. Insulin resistant obese
postmenopausal women. A MONET group study. (full – 2013)

Role of endogenous cannabinoid system in the gut. (full - 2013)

Anandamide Levels Fluctuate in the Bovine Oviduct during the Oestrous Cycle.
Drug Design for Neuropathic Pain Regulation from Traditional Chinese Medicine.
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3558695/

Role of FAAH-Like Anandamide Transporter in Anandamide Inactivation.
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0079355

Endocannabinoids as markers of sperm quality: hot spots

Embryonic diapause in humans: time to consider? http://www.rbej.com/content/11/1/92

Translational evidence for the involvement of the endocannabinoid system in stress-related psychiatric illnesses. http://www.biolmoodanxietydisord.com/content/3/1/19


Voluntary Running in Young Adult Mice Reduces Anxiety-Like Behavior and Increases the Accumulation of Bioactive Lipids in the Cerebral Cortex http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0081459


Anandamide Reduces Intracellular Ca2+ Concentration through Suppression of Na+/Ca2+ Exchanger Current in Rat Cardiac Myocytes http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0063386

Full Inhibition of Spinal FAAH Leads to TRPV1-Mediated Analgesic Effects in Neuropathic Rats and Possible Lipoxygenase-Mediated Remodeling of Anandamide Metabolism (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0060040

The Endocannabinoid System and Sex Steroid Hormone-Dependent Cancers (full – 2013) http://www.hindawi.com/journals/ije/2013/259676/


Inhibitory properties of ibuprofen and its amide analogues towards the hydrolysis and cyclooxygenation of the endocannabinoid anandamide. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3606911/

Alterations of endocannabinoids in cerebrospinal fluid of dogs with epileptic seizure disorder. (full – 2013) http://www.biomedcentral.com/content/pdf/1746-6148-9-262.pdf

Phencyclidine-induced social withdrawal results from deficient stimulation of cannabinoid CB1 receptors: implications for schizophrenia. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3717536/

Endocannabinoid and Cannabinoid-Like Fatty Acid Amide Levels Correlate with Pain-Related Symptoms in Patients with IBS-D and IBS-C: A Pilot Study. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3874007/


Rapid Glucocorticoid-Induced Activation of TRP and CB1 Receptors Causes Biphasic Modulation of Glutamate Release in Gastric-Related Hypothalamic Preautonomic Neurons. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3560102/


Chemical probes of endocannabinoid metabolism. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3639726/

Improvement in coronary circulatory function in morbidly obese individuals after gastric bypass-induced weight loss: relation to alterations in endocannabinoids and adipocytokines (full – 2013) http://eurheartj.oxfordjournals.org/content/34/27/2063.long

Monounsaturated fatty acids generated via stearoyl CoA desaturase-1 are endogenous inhibitors of fatty acid amide hydrolase. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3839776/

CB1 and CB2 Cannabinoid Receptor Agonists Induce Peripheral Antinociception by Activation of the Endogenous Noradrenergic System. (full – 2013) http://journals.lww.com/anesthesia-analgesia/Fulltext/2013/02000/CB1_and_CB2_Cannabinoid_Receptor_Agonists_Induce.31.aspx
Endocannabinoid anandamide mediates hypoxic pulmonary vasoconstriction. (full – 2013)
http://www.pnas.org/content/110/46/18710.full?sid=b685d344-5523-4371-a682-b03610d573e6

The cannabinoid TRPA1 agonist cannabichromene inhibits nitric oxide production in macrophages and ameliorates murine colitis. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3632250/


Elevated brain cannabinoid CB1 receptor availability in post-traumatic stress disorder: a positron emission tomography study. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3752332/

Fatty acid amide hydrolase deficiency enhances intraplaque neutrophil recruitment in atherosclerotic mice. (full – 2013) http://atvb.ahajournals.org/content/33/2/215.long

Therapeutic Opportunities through the Modulation of Endocannabinoid Transport (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4255948/

The Cannabinoid Receptor Type 2 as Mediator of Mesenchymal Stromal Cell Immunosuppressive Properties (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3842278/

Does the neuroprotective role of anandamide display diurnal variations? (full – 2013) http://www.mdpi.com/1422-0067/14/12/23341/htm

The FAAH inhibitor URB597 efficiently reduces tyrosine hydroxylase expression through CB₁- and FAAH-independent mechanisms. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3687660/

Using the endocannabinoid system as a neuroprotective strategy in perinatal hypoxic-ischemic brain injury. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4146074/

Cannabinoid receptor 1 controls human mucosal-type mast cell degranulation and maturation in situ. (full – 2013)
http://www.jacionline.org/article/S0091-6749%2813%2900057-2/fulltext
The anxiolytic effect of cannabidiol on chronically stressed mice depends on hippocampal neurogenesis: involvement of the endocannabinoid system. (full – 2013) http://ijnp.oxfordjournals.org/content/16/6/1407.long

The effects of anandamide signaling enhanced by the FAAH inhibitor URB597 on coping styles in rats. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3830591/

Rimonabant precipitates anxiety in rats withdrawn from palatable food: role of the central amygdale. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3799070/


Inhibition Of Fatty Acid Amide Hydrolase Activates Nrf2 Signaling And Induces Heme Oxygenase 1 Transcription In Breast Cancer Cells. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3791989/

Anandamide transport inhibition by ARN272 attenuates nausea-induced behaviour in rats, and vomiting in shrews (Suncus murinus). (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3949659/

Endocannabinoid crosstalk between placenta and maternal fat in a baboon model (Papio spp.) of obesity. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3827983/

Targeting the cannabinoid system for pain relief? (full – 2013) http://www.e-aat.com/article/S1875-4597%2813%2900119-7/fulltext

Induction of Endocannabinoid Levels in Juvenile Rat Brain Following Developmental Chlorpyrifos Exposure. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3954109/

Comparative effects of parathion and chlorpyrifos on extracellular endocannabinoid levels in rat hippocampus: Influence on cholinergic toxicity. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3831619/

Reductions in circulating endocannabinoid levels in individuals with post-traumatic stress disorder following exposure to the world trade center attacks. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3870889/

Amygdala FAAH and anandamide: mediating protection and recovery from stress. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4169112/

Long-term consequences of perinatal fatty acid amino hydrolase inhibition (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3954482/

Brain Region-Specific Changes in N-Acylethanolamine Contents with Time of Day.
Elevating endocannabinoid levels: pharmacological strategies and potential therapeutic applications. (full – 2013) http://journals.cambridge.org/download.php?file=%2FPNS%2FPNS73_01%2FS0029665113003649a.pdf&code=d82b0cf1bec110199f1f376d4cb1ef35

Low Level Chlorpyrifos Exposure Increases Anandamide Accumulation in Juvenile Rat Brain in the Absence of Brain Cholinesterase Inhibition. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4071163/

Differential expression of endocannabinoid system in normal and preeclamptic placentas: effects on nitric oxide synthesis. (full - 2013) http://www.placentajournal.org/article/S0143-4004%2812%2900393-1/fulltext

Stirring the Pot With Estrogens (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3697880/

Endocannabinoid crosstalk between placenta and maternal fat in a baboon model (Papio spp.) of obesity (full – 2013) http://www.placentajournal.org/article/S0143-4004%2813%2900692-9/fulltext


Biosynthetic Pathways of Bioactive N-Acylethanolamines in Brain (link to PDF – 2013) http://www.eurekaselect.com/107971/article

Involvement of nitric oxide through endocannabinoids release in microglia activation during the course of CNS regeneration in the medicinal leech. (link to PDF – 2013) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.718.5567&rank=89&q=cannabinoid&osm=&ossid=


Nicotine-Induced Neuroprotection Against Ischemic Injury Involves Activation of Endocannabinoid System in Rats (abst – 2013) http://link.springer.com/article/10.1007/s11064-012-0927-6


(4-Phenoxyphenyl)tetrazolecarboxamides and related compounds as dual inhibitors of fatty acid amide hydrolase (FAAH) and monoacylglycerol lipase (MAGL). (abst – 2013) http://www.sciencedirect.com/science/article/pii/S0223523413000780


Cannabinoids increase type 1 cannabinoid receptor expression in a cell culture model of striatal neurons: implications for Huntington's disease. (abst – 2013)  

Cannabinoid receptors and cholecystokinin in feeding inhibition. (abst – 2013)  

The fatty acid amide hydrolase inhibitor, URB597, promotes retinal ganglion cell neuroprotection in a rat model of optic nerve axotomy. (abst – 2013)  

Alterations in the endocannabinoid system in the rat valproic acid model of autism. (abst – 2013)  

Emotional, endocrine and brain anandamide response to social challenge in infant male rats. (abst – 2013)  

Effects of anandamide on proliferation of and pErk expression in primary hepatic stellate cells of schistosome-induced liver fibrosis mice (abst – 2013)  

Detection of the endocannabinoid metabolome in human plasma and breast milk (abst – 2013)  
http://www.fasebj.org/content/27/1_Supplement/45.8.short

Effects of anandamide and other CB1 ligands on cognitive function (abst – 2013)  
http://www.fasebj.org/content/27/1_Supplement/1097.10.abstract?sid=9823a79f-d5d0-46e6-b4b6-85d1443e01da

The administration of endocannabinoid uptake inhibitors OMDM-2 or VDM-11 promotes sleep and decreases extracellular levels of dopamine in rats. (abst – 2013)  

Cannabinoid CB2 receptor activation attenuates cytokine-evoked mucosal damage in a human colonic explant model without changing epithelial permeability. (abst – 2013)  

Transient changes in the endocannabinoid system after acute and chronic ethanol exposure and abstinence in the rat: a combined PET and microdialysis study. (abst – 2013)  

Endogenous cannabinoids in amygdala and hippocampus in post-mortem brains of Cloninger type 1 and 2 alcoholics. (abst – 2013)  

Mechanism of platelet activation induced by endocannabinoids in blood and plasma. (abst – 2013)  

Activation of endocannabinoid system in human myocardial hypertrophy
Fatty acid amide hydrolase but not monoacyl glycerol lipase controls cell death induced by the endocannabinoid 2-arachidonoyl glycerol in hepatic cell populations. (abst – 2013) http://www.sciencedirect.com/science/article/pii/S0006291X13010206


Cyclooxygenase-2 regulates anandamide-induced endoplasmic reticulum stress in tumorigenic keratinocytes (abst - 2013) http://www.abstractsonline.com/Plan/ViewAbstract.aspx?sKey=47d150a2-0c18-41e2-aeeb-ccb249909524&cKey=7e13a39d-b13e-4de7-a0c8-179c2d78ec62&mKey=9b2d28e7-24a0-466f-a3e9-07c21f6e9be9


Endocannabinoids decrease neuropathic pain-related behavior in mice through the activation of one or both peripheral CB1 and CB2 receptors.  (abst – 2013)  [http://www.sciencedirect.com/science/article/pii/S0028390813004802](http://www.sciencedirect.com/science/article/pii/S0028390813004802)


Impact of omega-6 polyunsaturated fatty acid supplementation and γ-aminobutyric acid on astrogliogenesis through the endocannabinoid system. (abst – 2013) 

Decreased Enteric Fatty Acid Amide Hydrolase Activity is Associated with Colonic Inertia in Slow Transit Constipation (abst – 2013) 

Impaired hypotensive responses induced by intrathecally injected drugs in fructose-fed rats. (abst – 2013) 
https://www.ncbi.nlm.nih.gov/pubmed/23499700

Getting high on the endocannabinoid system. (full – 2014) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3997295/

Care and Feeding of the Endocannabinoid System: A Systematic Review of Potential Clinical Interventions that Upregulate the Endocannabinoid System. (full – 2014) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3951193/

A Systems Pharmacology Perspective on the Clinical Development of Fatty Acid Amide Hydrolase Inhibitors for Pain (full – 2014) 
http://www.nature.com/psp/journal/v3/n1/full/psp201372a.html

Central anandamide deficiency predicts stress-induced anxiety: behavioral reversal through endocannabinoid augmentation (full – 2014) 
http://www.nature.com/tp/journal/v4/n7/full/tp201453a.html

Endocannabinoid Modulation of Cortical Up-States and NREM Sleep (full – 2014) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3919802/

Mechanisms of endothelium-dependent relaxation evoked by anandamide in isolated human pulmonary arteries. (full – 2014) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3984660/

Polyunsaturated Fatty Acid-Derived Lipid Mediators and T Cell Function (full – 2014) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3954478/

Vascular targets for cannabinoids: animal and human studies. (full – 2014) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3954478/

Simulation of Swanson's Literature-Based Discovery: Anandamide Treatment Inhibits Growth of Gastric Cancer Cells In Vitro and In Silico (full – 2014) 
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0100436

Antidepressants and Changes in Concentration of Endocannabinoids and N-Acylethanolamines in Rat Brain Structures. (full – 2014) 
http://download.springer.com/static/pdf/559/art%253A10.1007%252Fs12640-014-9465-0.pdf?auth66=139586546_998a8d5d87cb02529572689f9213e4a&ext=.pdf

R-flurbiprofen attenuates experimental autoimmune encephalomyelitis in mice. (full – 2014) http://embomolmed.embopress.org/content/6/11/1398.long


Inhibition of Fatty Acid binding proteins elevates brain anandamide levels and produces analgesia. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3976407/


Involvement of PAR-4 in Cannabinoid-Dependent Sensitization of Osteosarcoma Cells to TRAIL-Induced Apoptosis. (full – 2014) http://www.ijbs.com/v10p0466.htm

Hepatic cannabinoid-1 receptors mediate diet-induced insulin resistance by increasing de novo synthesis of long-chain ceramides. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3839256/


Prolonged monoacylglycerol lipase blockade causes equivalent CB1-receptor mediated adaptations in FAAH wild type and knockout mice. (full – 2014) http://jpet.aspetjournals.org/content/early/2014/05/21/jpet.114.212753.long


Ketoconazole Inhibits the Cellular Uptake of Anandamide via Inhibition of FAAH at Pharmacologically Relevant Concentrations. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3900727/
Quantification of anandamide and 2-arachidonoylglycerol plasma levels to examine potential influences of tetrahydrocannabinol application on the endocannabinoid system in humans (full – 2014)  

Moderate-Vigorous Physical Activity across Body Mass Index in Females: Modering Effect of Endocannabinoids and Temperament. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4125187/

Involvement of Fatty Acid Amide Hydrolase and Fatty Acid Binding Protein 5 in the Uptake of Anandamide by Cell Lines with Different Levels of Fatty Acid Amide Hydrolase Expression: A Pharmacological Study. (full – 2014)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0103479

Inhibition of Endocannabinoid Metabolism by the Metabolites of Ibuprofen and Flurbiprofen. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4111603/

Cannabinoid-induced autophagy regulates suppressor of cytokine signaling (SOCS)-3 in intestinal epithelium. (full – 2014)  
http://ajpgi.physiology.org/content/307/2/G140

Anandamide inhibits breast tumor-induced angiogenesis. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4140423/

Anandamide Protects HT22 Cells Exposed to Hydrogen Peroxide by Inhibiting CB1 Receptor-Mediated Type 2 NADPH Oxidase. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4127243/

Effects of chaiyuwendan decoction on endocannabinoids levels in adipose tissue of rats with chronic stress-induced depression. (full – 2014)  

Regulatory effects of anandamide on intracellular Ca(2+) concentration increase in trigeminal ganglion neurons. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4146256/

Endocannabinoids and inflammatory response in periodontal ligament cells. (full – 2014)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0107407

Endocannabinoids Control Platelet Activation and Limit Aggregate Formation under Flow. (full – 2014)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0108282

Alterations in the anandamide metabolism in the development of neuropathic pain. (full – 2014)  
http://www.hindawi.com/journals/bmri/2014/686908/

Association of polymorphisms in the endocannabinoid system genes with myocardial infarction and plasma cholesterol levels. (full – 2014)  
Behavioral effects of the cannabinoid CB1 receptor allosteric modulator ORG27569 in rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4186448/

Delta-9 tetrahydrocannabinol (THC) and endocannabinoid degradative enzyme inhibitors attenuate intracranial self-stimulation (ICSS) in mice. (full – 2014) http://jpet.aspetjournals.org/content/early/2014/11/14/jpet.114.218677.long


Characterization of endocannabinoid-mediated induction of myeloid-derived suppressor cells involving mast cells and MCP-1. (full – 2014) http://www.jleukbio.org/content/95/4/609.long

Cannabinoid modulation of predator fear: involvement of the dorsolateral periaqueductal gray. (full – 2014) http://ijnp.oxfordjournals.org/content/17/8/1193.long

Chronic stimulation of the tone of endogenous anandamide reduces cue- and stress-induced relapse in rats. (full – 2014) http://ijnp.oxfordjournals.org/content/18/1/pyu025.long


Effects of the fatty acid amide hydrolase inhibitor URB597 on pain-stimulated and pain-depressed behavior in rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3963812/

The endocannabinoid anandamide induces apoptosis in cytotrophoblast cells: Involvement of both mitochondrial and death receptor pathways. (full – 2014) http://www.placentajournal.org/article/S0143-4004%2814%2900823-6/fulltext

Fatty Acid-binding Protein 5 (FABP5) Regulates Cognitive Function Both by Decreasing Anandamide Levels and by Activating the Nuclear Receptor Peroxisome Proliferator-activated Receptor β/δ (PPARβ/δ) in the Brain (full – 2014) http://www.jbc.org/content/289/18/12748.full.pdf+html


Control of synaptic function by endocannabinoid-mediated retrograde signaling. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4237895/
Hemopressin, an inverse agonist of cannabinoid receptors, inhibits neuropathic pain in rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4112957/

The cannabinoid acids, analogs and endogenous counterparts. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4351512/

Endocannabinoid system and pain: an introduction. (full – 2014)
http://journals.cambridge.org/download.php?file=%2FPNS%2FPNS73_01%2FS0029665113003650a.pdf&code=d63f269fd26979b3968140be4db80943

Elevation of Endogenous Anandamide Impairs LTP, Learning and Memory through CB1 Receptor Signaling in Mice. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4077345/

Endogenous cannabinoid release within prefrontal-limbic pathways affects memory consolidation of emotional training. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4280626/

Endocannabinoids as biomarkers of human reproduction. (full – 2014)
http://humupd.oxfordjournals.org/content/20/4/501.long

Endocannabinoid signalling and the deteriorating brain. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4471876/

TRPV1 mediates cellular uptake of anandamide and thus promotes endothelial cell proliferation and network-formation. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4265754/

Modulation of plasma N-acylethanolamine levels and physiological parameters by dietary fatty acid composition in humans. (full – 2014)
http://www.jlr.org/content/55/12/2655.long


Baseline Anandamide Levels and Body Weight Impact the Weight Loss Effect of CB1 Receptor Antagonism in Male Rats (full – 2014)

Stress regulates endocannabinoid-CB1 receptor signaling. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4247817/

Selective inhibition of FAAH produces antidiarrheal and antinociceptive effect mediated by endocannabinoids and cannabinoid-like fatty acid amides. (full – 2014)

Toward modulation of the endocannabinoid system for treatment of gastrointestinal disease: FAAHster but not "higher". (full – 2014)
Acute Activation of Cannabinoid Receptors by Anandamide Reduces Gastro-Intestinal Motility and Improves Postprandial Glycemia in Mice. (full – 2014)
http://diabetes.diabetesjournals.org/content/64/3/808.long

The fatty acid amide hydrolase inhibitor PF-3845 promotes neuronal survival, attenuates inflammation and improves functional recovery in mice with traumatic brain injury. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4437642/

JZL184 is anti-hyperalgesic in a murine model of cisplatin-induced peripheral neuropathy. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4268146/


Role of Endocannabinoid Activation of Peripheral CB1 Receptors in the Regulation of Autoimmune Disease. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4261058/

Cannabis use by individuals with multiple sclerosis: effects on specific immune parameters. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4170074/


Increased angiotensin II contraction of the uterine artery at early gestation in a transgenic model of hypertensive pregnancy is reduced by inhibition of endocannabinoid hydrolysis. (full – 2014) http://hyper.ahajournals.org/content/64/3/619.long

Endocannabinoid modulation by FAAH and MAGL within the analgesic circuitry of the periaqueductal grey. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4294036/

Type 1 Cannabinoid Receptor Ligands Display Functional Selectivity in a Cell Culture Model of Striatal Medium Spiny Projection Neurons (full – 2014) http://www.jbc.org/content/289/36/24845.long

Activation of PPAR gamma receptors reduces levodopa-induced dyskinesias in 6-OHDA-lesioned rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4323744/
The cannabinoid receptor antagonist AM251 increases paraoxon and chlorpyrifos oxon toxicity in rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4448943/


Chemical approaches to therapeutically target the metabolism and signaling of the endocannabinoid 2-AG and eicosanoids (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4159426/


Inhibition of anandamide hydrolysis attenuates nociceptor sensitization in a murine model of chemotherapy-induced peripheral neuropathy. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4346731/

Endocannabinoids Anandamide and 2-Arachidonoylglycerol Are Substrates for Human CYP2J2 Epoxidegenase (full – 2014) http://jpet.aspetjournals.org/content/351/3/616.full

Prior stimulation of the endocannabinoid system prevents methamphetamine-induced dopaminergic neurotoxicity in the striatum through activation of CB2 receptors. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4939842/

The dual FAAH/MAGL inhibitor JZL195 has enhanced effects on endocannabinoid transmission and motor behavior in rats as compared to those of the MAGL inhibitor JZL184. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4150743/


N-Acylethanolamines: lipid metabolites with functions in plant growth and development.

Programming and reprogramming neural cells by (endo-) cannabinoids: from physiological rules to emerging therapies
(full – 2014)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4765324/

Nutritional omega-3 modulates neuronal morphology in the prefrontal cortex along with depression-related behaviour through corticosterone secretion
(full – 2014)
http://www.nature.com/tp/journal/v4/n9/full/tp201477a.html

Cannabinoids as therapeutic agents in cancer: current status and future implications.
(link to PDF - 2014)

Endocannabinoids, Related Compounds and Their Metabolic Routes
(link to PDF – 2014) http://www.mdpi.com/1420-3049/19/11/17078

Endocannabinoids affect innate immunity of Muller glia during HIV-1 Tat cytotoxicity.

Microinjection of 2-arachidonoyl glycerol into the rat ventral hippocampus differentially modulates contextually induced fear, depending on a persistent pain state.

Anandamide in primary sensory neurons: too much of a good thing? (abst – 2014)

Guineensine is a novel inhibitor of endocannabinoid uptake showing cannabimimetic behavioral effects in BALB/c mice. (abst – 2014)


Dexamethasone alleviates motion sickness in rats in part by enhancing the endocannabinoid system. (abst – 2014)

Effect of narrowband ultraviolet B treatment on endocannabinoid plasma levels in psoriasis patients. (abst – 2014)

Low anandamide doses facilitate male rat sexual behaviour through the activation of CB1 receptors. (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/24671517


O-2050 facilitates noradrenaline release and increases the CB1 receptor inverse agonistic effect of rimonabant in the guinea pig hippocampus. (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/24853577


The endocannabinoid-CB2 receptor axis protects the ischemic heart at the early stage of cardiomyopathy. (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/24980781


The therapeutic efficacy of cannabinoid receptor type 1 ligands in Huntington's disease may depend on their functional selectivity (abst – 2014) http://www.fasebj.org/content/28/1_Supplement/846.6.abstract?sid=467bb529-0ecc-4ddc-af27-3f56f520a102

The FAAH inhibitor PF-04457845 has THC-like rewarding and reinstatement effects in squirrel monkeys and increases dopamine levels in the nucleus accumbens shell in rats (abst – 2014) http://www.fasebj.org/content/28/1_Supplement/838.6.abstract?sid=db987fd0-3ef0-4796-aff6-4103f0c84daf


Membrane lipids are key modulators of the endocannabinoid-hydrolase FAAH (abst – 2014)  http://www.biochemj.org/content/457/3/463

Protective role of the cannabinoid receptor system in A2E-mediated photo-toxicity to retinal pigment epithelium (RPE) cells in an in-vitro model of age-related macular degeneration (AMD) (abst – 2014)  http://iovs.arvojournals.org/article.aspx?articleid=2271845&resultClick=1

NONRETROGRADE ENDOCannabinoid SIGNALING MODULATES RETINAL GANGLION CELL CALCIUM HOMEOSTASIS THROUGH THE TRPV1 CATION CHANNEL (abst - 2014)  http://iovs.arvojournals.org/article.aspx?articleid=2268407&resultClick=1


Local uterine Ang-(1-7) infusion augments the expression of cannabinoid receptors and differentially alters endocannabinoid metabolizing enzymes in the decidualized uterus of pseudopregnant rats. (full – 2015)  http://www.rbej.com/content/13/1/5


Blockade of monoacylglycerol lipase inhibits oligodendrocyte excitotoxicity and prevents demyelination in vivo (full – 2015)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4407719/

Fatty Acid Binding Proteins (FABPs) are Intracellular Carriers for Δ9-Tetrahydrocannabinol (THC) and Cannabidiol (CBD). (full – 2015)  http://www.jbc.org/content/early/2015/02/09/jbc.M114.618447.long


Exposure to Allergen Causes Changes in NTS Neural Activities after Intratracheal Capsaicin Application, in Endocannabinoid Levels and in the Glia Morphology of NTS. (full – 2015)  http://www.hindawi.com/journals/bmri/2015/980983/

Effects of mood inductions by meal ambiance and moderate alcohol consumption on endocannabinoids and N-acylethanolamines in humans: a randomized crossover trial. (full – 2015)  http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0126421
Full Fatty Acid Amide Hydrolase Inhibition Combined with Partial Monoacylglycerol Lipase Inhibition: Augmented and Sustained Antinociceptive Effects with Reduced Cannabimimetic Side Effects in Mice. (full – 2015)  
http://jpet.aspetjournals.org/content/354/2/111.full

Biased Agonism and Biased Allosteric Modulation at the CB1 Cannabinoid Receptor. (full – 2015)  
http://molpharm.aspetjournals.org/content/early/2015/06/04/mol.115.099192.long

Turning Over a New Leaf: Cannabinoid and Endocannabinoid Modulation of Immune Function. (full – 2015)  

Deranged endocannabinoid responses to hedonic eating in underweight and recently weight-restored patients with anorexia nervosa. (full – 2015)  
http://ajcn.nutrition.org/content/101/2/262.long

Increased contextual fear conditioning in iNOS knockout mice: additional evidence for the involvement of nitric oxide in stress-related disorders and contribution of the endocannabinoid system. (full – 2015)  
http://ijnp.oxfordjournals.org/content/18/8/pyv005.long

Endocannabinoids modulate human blood-brain barrier permeability in vitro. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4459020/

Role of the endocannabinoid system in obesity induced by neuropeptide Y overexpression in noradrenergic neurons. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4423197/

Anandamide, Acting via CB2 Receptors, Alleviates LPS-Induced Neuroinflammation in Rat Primary Microglial Cultures. (full – 2015)  
http://www.hindawi.com/journals/np/2015/130639/

Decreased circulating anandamide levels in preeclampsia. (full – 2015)  
http://www.nature.com/hr/journal/v38/n6/full/hr201520a.html

Fat Diet-Induced Insulin Resistance Does Not Increase Plasma Anandamide Levels or Potentiate Anandamide Insulinotropic Effect in Isolated Canine Islets. (full – 2015)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0123558

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4278325/

Dietary Triacylglycerols with Palmitic Acid in the sn-2 Position Modulate Levels of N-Acylethanolamides in Rat Tissues. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4361611/
A cannabinoid receptor agonist N-arachidonoyl dopamine inhibits adipocyte differentiation in human mesenchymal stem cells. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4428713/

Diacylglycerol lipase α knockout mice demonstrate metabolic and behavioral phenotypes similar to those of cannabinoid receptor 1 knockout mice (full – 2015)
http://journal.frontiersin.org/article/10.3389/fendo.2015.00086/full

Identification of prostamides, fatty acyl ethanolamines and their biosynthetic precursors in rabbit cornea. (full – 2015) http://www.jlr.org/content/early/2015/05/31/jlr.M055772.long

The endocannabinoid anandamide during lactation increases body fat content and CB1 receptor levels in mice adipose tissue. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4491858/

Interaction between Cannabinoid Compounds and Capsazepine in Protection against Acute Pentylenetetrazole-induced Seizure in Mice. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4499434/


Homeostatic regulation of brain functions by endocannabinoid signaling (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4468750/

Pathogenesis of Systemic Sclerosis. (full – 2015)

FAAH genetic variation enhances fronto-amygdala function in mouse and human. (full – 2015) http://www.nature.com/articles/ncomms7395.epdf?
referrer_access_token=PXVrQmHQcIK8Z6Pdh7zA4DrqN0iAjWe9jrR3ZOtv0MfY2u7ZdbRZ8yhzdTQjfa5H9KMjv
5rGSvPOZGYRltyzvxd3D6Fj0u0xbHtG8Y8old77US6lRqEzfzB5Tv1Bb-kK5Iw6I5d3-
65PqoQ4wtoKFpflbGtma8fGe9DPI52xj63m2TF70oWmQChmZBEe79Cwv-
D9I CraVhXE9mTvCGGdvxFQFz8rPig3fonyQYDECUQWrPFJNuaWEPyY1xb&tracking_referrer=blogs.s
cientificamerican.com

Differential immune mechanism to HIV-1 Tat variants and its regulation by AEA (full – 2015) http://www.nature.com/srep/2015/150505/srep09887/full/srep09887.html

Multiple Forms of Endocannabinoid and Endovanilloid Signaling Regulate the Tonic Control of GABA Release (full – 2015)
http://www.jneurosci.org/content/35/27/10039.full?sid=7e769d1b-9b77-42fe-92d0-8b337b34b9b6


Cannabinoid-based drugs targeting CB1 and TRPV1, the sympathetic nervous system, and arthritis. (full – 2015) http://www.arthritis-research.com/content/17/1/226
The Effects of the Endocannabinoids Anandamide and 2-Arachidonoylglycerol on Human Osteoblast Proliferation and Differentiation (full – 2015) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0136546


Anticipatory and consummatory effects of (hedonic) chocolate intake are associated with increased circulating levels of the orexigenic peptide ghrelin and endocannabinoids in obese adults. (full – 2015) http://www.foodandnutritionresearch.net/index.php/fnr/article/view/29678

Lipid mediator profile in vernix caseosa reflects skin barrier development (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4629127/


Cardioprotective effects of fatty acid amide hydrolase inhibitor URB694, in a rodent model of trait anxiety. (full – 2015) http://www.nature.com/articles/srep18218

Biased Type 1 Cannabinoid Receptor Signalling Influences Neuronal Viability in a Cell Culture Model of Huntington Disease. (full – 2015) http://molpharm.aspetjournals.org/content/early/2015/12/23/mol.115.101980.long

Oxyradical Stress, Endocannabinoids, and Atherosclerosis. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4686160/

TRPV1 Channel: A Potential Drug Target for Treating Epilepsy. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4598436/

Anti-inflammatory effects of N-acylethanolamines in rheumatoid arthritis synovial cells are mediated by TRPV1 and TRPA1 in a COX-2 dependent manner. (full – 2015) http://www.arthritis-research.com/content/17/1/321


Cannabinoid-based drugs targeting CB1 and TRPV1, the sympathetic nervous system, and arthritis (full – 2015) http://link.springer.com/article/10.1186/s13075-015-0743-x

Proapoptotic effect of endocannabinoids in prostate cancer cells. (full – 2015) http://www.spandidos-publications.com/or/33/4/1599

Interactions between ethanol and the endocannabinoid system at GABAergic synapses on basolateral amygdala principal neurons. (full – 2015) http://www.alcoholjournal.org/article/S0741-8329%2815%2930019-7/fulltext

Corticotropin-Releasing Hormone Drives Anandamide Hydrolysis in the Amygdala to Promote Anxiety. (full - 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4348185/

Multitarget fatty acid amide hydrolase/cyclooxygenase blockade suppresses intestinal inflammation and protects against nonsteroidal anti-inflammatory drug-dependent gastrointestinal damage. (full – 2015) http://www.fasebj.org/content/29/6/2616.long


Postnatal ethanol exposure alters levels of 2-arachidonylglycerol-metabolizing enzymes and pharmacological inhibition of monoacylglycerol (MAGL) does not cause neurodegeneration in neonatal mice. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4490952/

A runner's high depends on cannabinoid receptors in mice. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4620874/

Role of the endocannabinoid system in the emotional manifestations of osteoarthritis pain. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4770330/


Endocannabinoid and ceramide levels are altered in patients with colorectal cancer. (full – 2015) [108x548]https://www.spandidos-publications.com/or/34/1/447


Regulation of inflammation by cannabinoids, the endocannabinoids 2-arachidonoyl-glycerol and arachidonoyl-ethanolamide, and their metabolites. (full – 2015) [108x400]http://www.jleukbio.org/content/97/6/1049.long


Simultaneous inhibition of fatty acid amide hydrolase (FAAH) and monoacylglycerol lipase (MAGL) shares discriminative stimulus effects with ∆9-THC in mice. (full – 2015) [108x292]http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4407717/


Intake of farmed Atlantic salmon fed soybean oil increases hepatic levels of arachidonic acid-derived oxylipins and ceramides in mice (full – 2015) [108x78]http://www.jnutbio.com/article/S0955-2863(15)00021-2/fulltext

Food Liking Enhances the Plasma Response of 2-Arachidonoylglycerol and of Pancreatic Polypeptide upon Modified Sham Feeding in Humans. (full – 2015) http://jn.nutrition.org/content/145/9/2169.long


Endocannabinoid system activation may be associated with insulin resistance in women with polycystic ovary syndrome. (full – 2015) http://www.fertstert.org/article/S0015-0282(15)00232-0/fulltext

Role of the endocannabinoid system in the mechanisms involved in the LPS-induced preterm labor. (full – 2015) http://www.reproduction-online.org/content/150/6/463.long

Progesterone and anandamide in pregnancy loss (full – 2015) http://www.placentajournal.org/article/S0143-4004%2815%2900515-9/fulltext

The modulatory effect of anandamide on nitroglycerin-induced sensitization in the trigeminal system of the rat (full – 2015) http://journals.sagepub.com/doi/full/10.1177/0333102415613766


Endocannabinoid signaling at the periphery: 50 years after THC. (full – 2015) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4420685/


Anxiety, Stress, and Fear Response in Mice with Reduced Endocannabinoid Levels. (link through Elsevier to get full - 2015) http://www.ncbi.nlm.nih.gov/pubmed/25981172
Elevated Levels of Endocannabinoids in Chronic Hepatitis C May Modulate Cellular Immune Response and Hepatic Stellate Cell Activation.  (link to PDF - 2015)  
http://www.mdpi.com/1422-0067/16/4/7057


The emerging role of the endocannabinoid system in the pathogenesis and treatment of kidney diseases.  (link to PDF – 2015)  

The effects of endocannabinoid receptor agonist anandamide and antagonist rimonabant on opioid analgesia and tolerance in rats.  (link to download – 2015)  

Endocannabinoids  (article – 2015)  
http://emedicine.medscape.com/article/1361971-overview#showall

Active endocannabinoids are secreted on extracellular membrane vesicles.  (abst – 2015)  http://embor.embopress.org/content/early/2015/01/07/embr.201439668


Inhibition of anandamide hydrolysis enhances noradrenergic and GABAergic transmission in the prefrontal cortex and basolateral amygdala of rats subjected to acute swim stress  (abst – 2015)  http://www.ncbi.nlm.nih.gov/pubmed/25581607


High-throughput salting-out assisted liquid-liquid extraction with acetonitrile for the determination of anandamide in plasma of hemodialysis patients with liquid
chromatography tandem mass spectrometry. (abst – 2015)

N-stearoyltyrosine protects primary cortical neurons against Aβ(1-40)-induced injury through inhibiting endocannabinoid degradation. (abst – 2015)

Interaction between the protective effects of cannabidiol and palmitoylethanolamide in experimental model of multiple sclerosis in C57BL/6 mice. (abst – 2015)

[16-OR]: Vasoactive lipid mediators control uterine vascular reactivity at early pregnancy in the transgenic hAGNhxhREN rat. (abst – 2015)
http://www.pregnancyhypertension.org/article/S2210-7789%2814%2900121-4/abstract

N-stearoyltyrosine protects primary cortical neurons against Aβ(1-40)-induced injury through inhibiting endocannabinoid degradation. (abst – 2015)

Anandamide Drives Cell Cycle Progression through CB1 Receptors in a Rat Model of Synchronized Liver Regeneration. (abst – 2015)

The potential of inhibitors of endocannabinoid metabolism as anxiolytic and antidepressive drugs-A practical view. (abst – 2015)

A multi-target approach for pain treatment - dual inhibition of fatty acid amide hydrolase and TRPV1 in a rat model of osteoarthritis. (abst – 2015)

Anandamide Reduces the Ejaculatory Threshold of Sexually Sluggish Male Rats: Possible Relevance for Human Lifelong Delayed Ejaculation Disorder. (abst – 2015)

2-AG promotes the expression of conditioned fear via cannabinoid receptor type 1 on GABAergic neurons. (abst – 2015)

Cannabinoid-Induced Changes in the Activity of Electron Transport Chain Complexes of Brain Mitochondria. (abst – 2015)

Elevation of Plasma 2-Arachidonoylglycerol Levels in Alzheimer's Disease Patients as a Potential Protective Mechanism against Neurodegenerative Decline. (abst – 2015)

Endocannabinoid transport revisited. (abst – 2015)


Synthetic and endogenous cannabinoids protect retinal neurons from AMPA excitotoxicity in vivo, via activation of CB1 receptors: Involvement of PI3K/Akt and MEK/ERK signaling pathways. (abst – 2015) http://www.sciencedirect.com/science/article/pii/S0014483515001554

Repeated forced swim stress differentially affects formalin-evoked nociceptive behaviour and the endocannabinoid system in stress normo-responsive and stress hyper-responsive


Modulatory effects by CB1 receptors on rat spinal locomotor networks after sustained application of agonists or antagonists. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26126926


Interference with acute nausea and anticipatory nausea in rats by fatty acid amide hydrolase (FAAH) inhibition through a PPARα and CB1 receptor mechanism, respectively: a double dissociation. (abst – 2015)  

Effect of anandamide on endometrial adenocarcinoma (Ishikawa) cell numbers: implications for endometrial cancer therapy. (abst – 2015)  

Anandamide and Decidual Remodeling: COX-2 oxidative metabolism as a key regulator. (abst – 2015)  

Cannabidiol and sodium nitroprusside: two novel neuromodulatory pharmacological interventions to treat and prevent psychosis. (abst – 2015)  

Endocannabinoid regulation of amyloid-induced neuroinflammation. (abst – 2015)  

Anandamide mediates cognitive judgement bias in rats. (abst – 2015)  

Antidepressant-like activity and cardioprotective effects of fatty acid amide hydrolase inhibitor URB694 in socially stressed Wistar Kyoto rats. (abst – 2015)  

Lipopolysaccharide Suppresses Carboxylesterase 2g Activity and 2-Arachidonylglycerol Hydrolysis: A Possible Mechanism to Regulate Inflammation. (abst – 2015)  

Biosynthesis and Fate of Endocannabinoids. (abst – 2015)  
http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_2

http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_2

Endocannabinoids and the Digestive Tract and Bladder in Health and Disease. (abst – 2015)  
http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_14


http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_4
A Double Whammy: Targeting Both Fatty Acid Amide Hydrolase (FAAH) and Cyclooxygenase (COX) To Treat Pain and Inflammation. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26486424


Dopamine-dependent CB1 receptor dysfunction at corticostriatal synapses in homozygous PINK1 knockout mice. (abst – 2015) http://www.sciencedirect.com/science/article/pii/S0028390815301441


Blockade of Cannabinoid 1 Receptor Improves GLP-1R Mediated Insulin Secretion in Mice (abst – 2015) http://www.sciencedirect.com/science/article/pii/S0303720715301714


Endocannabinoid regulation in white and brown adipose tissue following thermogenic activation (full – 2016) http://www.jlr.org/content/early/2016/01/14/jlr.M065227.full.pdf+html?sid=da020ee7-4e2e-40b6-a400-27301739341e


Comparisons of Δ9-tetrahydrocannabinol and Anandamide on a Battery of Cognition-related Behavior in Nonhuman Primates. (full – 2016) http://jpet.aspetjournals.org/content/early/2016/01/29/jpet.115.228189.long

Exposure to a Highly Caloric Palatable Diet During Pregestational and Gestational Periods Affects Hypothalamic and Hippocampal Endocannabinoid Levels at Birth and Induces Adiposity and Anxiety-Like Behaviors in Male Rat Offspring. (full – 2016) http://journal.frontiersin.org/article/10.3389/fnbeh.2015.00339/full


GABA and Endocannabinoids Mediate Depotentiation of Schaffer Collateral Synapses Induced by Stimulation of Temporoprammonic Inputs. (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0149034

Endogenous and Synthetic Cannabinoids as Therapeutics in Retinal Disease (full – 2016) http://www.hindawi.com/journals/np/2016/8373020/

Vaccenic acid suppresses intestinal inflammation by increasing the endocannabinoid anandamide and non-cannabinoid signaling molecules in a rat model of the metabolic syndrome. (full – 2016) http://www.jlr.org/content/early/2016/02/17/jlr.M066308.long


Sustained Endocannabinoid Signaling Compromises Decidual Function and Promotes Inflammation-induced Preterm Birth. (full – 2016) http://www.jbc.org/content/early/2016/02/21/jbc.M115.707836.long


Study the Effect of Endocannabinoid System on Rat Behavior in Elevated Plus-Maze. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4656987/

Differential Regulation of Eicosanoid and Endocannabinoid Production by Inflammatory Mediators in Human Choriodecidua. (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0148306


Circulating Endocannabinoids and Insulin Resistance in Patients with Obstructive Sleep Apnea (full – 2016) http://www.hindawi.com/journals/bmri/2016/9782031/


New insights into the yin and yang of the endocannabinoid system in health and disease
Metabolism of Anandamide by Human Cytochrome P450 2J2 in the Reconstituted System and Human Intestinal Microsomes. (full – 2016)  
http://jpet.aspetjournals.org/content/early/2016/03/21/jpet.116.232553.long

Oral Palmitoylethanolamide Treatment Is Associated with Reduced Cutaneous Adverse Effects of Interferon-β1a and Circulating Proinflammatory Cytokines in Relapsing-Remitting Multiple Sclerosis. (full – 2016)  

http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0148734

Behavioral Characterization of the Effects of Cannabis Smoke and Anandamide in Rats. (full – 2016)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0153327

Examination of the Addictive and Behavioral Properties of Fatty Acid-Binding Protein Inhibitor SBF126. (full – 2016)  

A pro-nociceptive phenotype unmasked in mice lacking fatty-acid amide hydrolase (full – 2016)  
http://mpx.sagepub.com/content/12/1744806916649192.long

Impaired Ethanol-Induced Sensitization and Decreased Cannabinoid Receptor-1 in a Model of Posttraumatic Stress Disorder. (full – 2016)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0155759

Endovanilloids are potential activators of the trigeminovascular nocisensor complex (full – 2016)  

http://jpet.aspetjournals.org/content/early/2016/05/10/jpet.116.233239.long

Mechanisms underlying glucose-dependent insulinotropic polypeptide and glucagon-like peptide-1 secretion (full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4854499/
p21-activated kinase 1 restricts tonic endocannabinoid signaling in the hippocampus (full – 2016)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4907698/

Discriminative Stimulus Properties of the Endocannabinoid Catabolic Enzyme Inhibitor SA-57 in Mice. (full – 2016)  http://jpet.aspetjournals.org/content/early/2016/06/15/jpet.115.229492.long

Cyclooxygenase-2 inhibition reduces stress-induced affective pathology. (full – 2016)  https://elifesciences.org/content/5/e14137


Age-specific influences of chronic administration of the fatty acid amide hydrolase inhibitor URB597 on cardiovascular parameters and organ hypertrophy in DOCA-salt hypertensive rats (full – 2016)  http://www.sciencedirect.com/science/article/pii/S1734114015003412

Fatty Acid Binding Proteins are Intracellular Carriers for THC and CBD (full – 2016)  http://www.jbc.org/content/290/14/8711.full


The intraocular pressure-lowering properties of intravenous paracetamol. (full – 2016)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4948718/

Indirect Modulation of the Endocannabinoid System by Specific Fractions of Nutmeg Total Extract (full – 2016)  Indirect modulation of the endocannabinoid system by specific fractions of nutmeg total extract.

Mice Expressing a "Hyper-Sensitive" Form of the Cannabinoid Receptor 1 (CB1) Are Neither Obese Nor Diabetic. (full – 2016)  http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0160462
Lipid mediators involved in the oxidative stress and antioxidant defence of human lung cancer cells (full – 2016)  

Dual-Acting Compounds Targeting Endocannabinoid and Endovanilloid Systems-A Novel Treatment Option for Chronic Pain Management. (full – 2016)  

A role of CB1R in inducing θ-rhythm coordination between the gustatory and gastrointestinal insula. (full – 2016)  
http://www.nature.com/articles/srep32529

Endocannabinoid signaling in social functioning: an RDoC perspective (full – 2016)  
http://www.nature.com/tp/journal/v6/n9/full/tp2016169a.html

Targeting anandamide metabolism rescues core and associated autistic-like symptoms in rats prenatally exposed to valproic acid. (full – 2016)  
http://www.nature.com/tp/journal/v6/n9/full/tp2016182a.html

Blood metabolite markers of neocortical amyloid-β burden: discovery and enrichment using candidate proteins (full – 2016)  
http://www.nature.com/tp/journal/v6/n1/full/tp2015205a.html

The CB2 receptor and its role as a regulator of inflammation. (full – 2016)  

The endocannabinoid anandamide causes endothelium-dependent vasorelaxation in human mesenteric arteries. (full – 2016)  

Adverse Social Experiences in Adolescent Rats Result in Enduring Effects on Social Competence, Pain Sensitivity and Endocannabinoid Signaling (full – 2016)  

PTSD: from neurobiology to pharmacological treatments. (full – 2016)  
http://www.ejpt.net/index.php/ejpt/article/view/31858

Maternal Caloric Restriction Implemented during the Preconceptional and Pregnancy Period Alters Hypothalamic and Hippocampal Endocannabinoid Levels at Birth and Induces Overweight and Increased Adiposity at Adulthood in Male Rat Offspring (full – 2016)  

Role of cannabinoid receptor 1 in human adipose tissue for lipolysis regulation and insulin resistance. (full – 2016)  

Evidence for a GPR18 Role in Diurnal Regulation of Intraocular Pressure. (full – 2016)  
http://iovs.arvojournals.org/article.aspx?articleid=2588572


Regional Influence of Cannabinoid CB1 Receptors in the Regulation of Ethanol Self-Administration by Wistar Rats (full – 2016)  https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5152943/


Components of the cannabinoid system in the dorsal periaqueductal gray are related to resting heart rate (full – 2016)  https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4982395/

Opposite roles of cannabinoid receptors 1 and 2 in hepatocarcinogenesis. (full – 2016)  http://gut.bmj.com/content/65/10/1721.long

Early Low Fat Diet Enriched with Linolenic Acid Reduces Liver Endocannabinoid Tone and Improves Late Glycemic Control After a High Fat Diet Challenge in Mice. (full – 2016)  http://diabetes.diabetesjournals.org/content/65/7/1824.long

Spatial Distribution of the Cannabinoid Type 1 and Capsaicin Receptors May Contribute to the Complexity of Their Crosstalk. (full – 2016)  https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5032030/


GPR18 undergoes a high degree of constitutive trafficking but is unresponsive to N-Arachidonoyl Glycine. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4806671/

A Personal Retrospective: Elevating Anandamide (AEA) by Targeting Fatty Acid Amide Hydrolase (FAAH) and the Fatty Acid Binding Proteins (FABPs). (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5062061/

Marijuana Compounds: A Nonconventional Approach to Parkinson’s Disease Therapy (full – 2016) https://www.hindawi.com/journals/pd/2016/1279042/


Dendritic Cell Regulation by Cannabinoid-Based Drugs (link to PDF - 2010) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.429.7704&rank=67&q=cannabinoid&osm=&ossid=


The emerging role of the cannabinoid receptor family in peripheral and neuro-immune interactions. (abst – 2016) http://www.eurekaselect.com/138448/article


Endocannabinoids, through opioids and prostaglandins, contribute to fever induced by key pyrogenic mediators. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/26291402

The cross-talk between electrophiles, antioxidant defence and the endocannabinoid system in fibroblasts and keratinocytes after UVA and UVB irradiation (abst – 2016) http://www.sciencedirect.com/science/article/pii/S0923181115300761


The effects anandamide signaling in the prelimbic cortex and basolateral amygdala on coping with environmental stimuli in rats (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/26809457


Endocannabinoids and Endocannabinoid-Related Mediators: Targets, Metabolism and Role In Neurological Disorders. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/26965148


Cannabinoids Occlude the HIV-1 Tat-Induced Decrease in GABAergic Neurotransmission in Prefrontal Cortex Slices. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/26993829

Genetically reduced FAAH activity may be a risk for the development of anxiety and depression in persons with repetitive childhood trauma. (abst – 2016) http://www.europeanneuropsychopharmacology.com/article/S0924-977X(16)00077-8/abstract


CB1 cannabinoid receptor-mediated anandamide signalling reduces the defensive behaviour evoked through GABAA receptor blockade in the dorsomedial division of the ventromedial hypothalamus. (abst – 2016) http://www.sciencedirect.com/science/article/pii/S0028390816301393


Broad impact of deleting endogenous cannabinoid hydrolyzing enzymes and the CB1 cannabinoid receptor on the endogenous cannabinoid-related lipidome in eight regions of the mouse brain. (abst – 2016) http://www.sciencedirect.com/science/article/pii/S1043661816303449


Fabp-1 gene ablation impacts brain endocannabinoid system in male mice.
Assay of Endocannabinoid Oxidation by Cyclooxygenase-2. (abst – 2016)

Anandamide transporter-mediated regulation of the micturition reflex in urethane-anesthetized rats. (abst – 2016)


Extraction and Simultaneous Quantification of Endocannabinoids and Endocannabinoid-Like Lipids in Biological Tissues. (abst – 2016)
http://link.springer.com/protocol/10.1007%2F978-1-4939-3539-0_2

Assay of FAAH Activity. (abst – 2016)

Oxygenation of Anandamide by Lipooxygenases. (abst – 2016)

Assay of Endocannabinoid Oxidation by Cytochrome P450. (abst – 2016)

Optimized extraction of 2-arachidonyl glycerol and anandamide from aortic tissue and plasma for quantification by LC-MS/MS (abst – 2016)

Ethanol downregulates N-acyl phosphatidylethanolamine-phospholipase D expression in BV2 microglial cells via epigenetic mechanisms. (abst – 2016)

Fatty acid amide hydrolase (FAAH), acethylcholinesterase (AChE) and butyrylcholinesterase (BuChE): networked targets for the development of carbamates as potential anti Alzheimer's Disease agents. (abst – 2016)
http://pubs.acs.org/doi/abs/10.1021/acs.jmedchem.6b00609

Simultaneous HPLC-APCI-MS/MS quantification of endogenous cannabinoids and glucocorticoids in hair (abst – 2016)

The multiplicity of spinal AA-5-HT anti-nociceptive action in a rat model of neuropathic pain. (abst – 2016)

Docosahexaenoic acid attenuates in endocannabinoid synthesis in RAW 264.7 macrophages activated with benzo(a)pyrene and lipopolysaccharide. (abst – 2016)


Female Mice are Resistant to Fabp1 Gene Ablation-Induced Alterations in Brain Endocannabinoid Levels  (abst – 2016)  http://www.ncbi.nlm.nih.gov/pubmed/27450559

Treatment with the GPR55 antagonist CID16020046 increases neutrophil activation in mouse atherogenesis.  (abst – 2016)  http://www.ncbi.nlm.nih.gov/pubmed/27465665


FABP1: A Novel Hepatic Endocannabinoid and Cannabinoid Binding Protein  (abst – 2016)  http://pubs.acs.org/doi/abs/10.1021/acs.biochem.6b00446


CB1 cannabinoid receptor-mediated anandamide signalling mechanisms of the inferior colliculus modulate the haloperidol-induced catalepsy.  (abst – 2016)  

Spontaneous involution of pediatric low-grade gliomas: high expression of cannabinoid receptor 1 (CNR1) at the time of diagnosis may indicate involvement of the endocannabinoid system.  (abst – 2016)  

Modulation of monocytes by bioactive lipid anandamide in multiple sclerosis involves distinct Toll-like receptors.  (abst – 2016)  

Beyond the Direct Activation of Cannabinoid Receptors: New Strategies to Modulate the Endocannabinoid System in CNS-Related Diseases.  (abst – 2016)  

Comparing the effects of endogenous and synthetic cannabinoid receptor agonists on survival of gastric cancer cells  (abst – 2016)  

PAK1 regulates inhibitory synaptic function via a novel mechanism mediated by endocannabinoids.  (abst – 2016)  

N-palmitoylethanolamide in the anterior cingulate cortex attenuates inflammatory pain behaviour indirectly via a CB1 receptor-mediated mechanism.  (abst – 2016)  

Parabens inhibit fatty acid amide hydrolase: A potential role in paraben-enhanced 3T3-L1 adipocyte differentiation.  (abst – 2016)  

Restricted vs. unrestricted wheel running in mice: Effects on brain, behavior and endocannabinoids.  (abst – 2016)  
http://www.sciencedirect.com/science/article/pii/S0018506X16301799

Anandamide Suppresses Proinflammatory T Cell Responses In Vitro through Type-1 Cannabinoid Receptor-Mediated mTOR Inhibition in Human Keratinocytes.  (abst – 2016)  

Dysregulation of the endocannabinoid signaling system in the cerebellum and brainstem in a transgenic mouse model of spinocerebellar ataxia type-3.  (abst – 2016)  

Association of Anandamide with altered Binocular Depth Inversion Illusion in Schizophrenia.  (abst – 2016)  

Peripheral Blood Mononuclear Cells Infiltration Downregulates Decidual FAAH Activity in an LPS-Induced Embryo Resorption Model.  (abst – 2016)  
Chronic FAAH inhibition during nicotine abstinence alters habenular CB1 receptor activity and precipitates depressive-like behaviors (abst – 2016)  

Revealing the role of the endocannabinoid system modulators, SR141716A, URB597 and VDM-11, in sleep homeostasis. (abst – 2016)  

CB1 cannabinoid receptor-mediated anandamide signalling reduces the defensive behaviour evoked through GABAA receptor blockade in the dorsomedial division of the ventromedial hypothalamus. (abst – 2016)  


Targeting brain and peripheral plasticity of the lipidome in acute kainic acid-induced epileptic seizures in mice via quantitative mass spectrometry. (abst – 2016)  

2-arachidonoylglycerol levels are increased in leukocytospermia and correlate with seminal macrophages. (abst – 2016)  

Serum levels of endocannabinoids are independently associated with nonalcoholic fatty liver disease. (abst – 2016)  

Intra-VTA anandamide infusion produces dose-based biphasic effects on male rat sexual behavior expression (abst – 2016)  

Endocannabinoid system in sexual motivational processes: is it a novel therapeutic horizon? (abst – 2016)  

Brain uptake and metabolism of the endocannabinoid anandamide labeled in either the arachidonoyl or ethanolamine moiety. (abst – 2016)  

The endocannabinoid hydrolysis inhibitor SA-57: Intrinsic antinociceptive effects, augmented morphine-induced antinociception, and attenuated heroin seeking behavior in mice. (abst – 2016)  

A dual inhibitor of FAAH and TRPV1 channels shows dose-dependent effect on depression-like behaviour in rats. (abst – 2016)  

Hydrophobic Ligand Entry and Exit Pathways of the CB1 Cannabinoid Receptor (abst – 2016)  
http://pubs.acs.org/doi/abs/10.1021/acs.jcim.6b00499

Circulating levels of endocannabinoids respond acutely to voluntary exercise, are altered in mice selectively bred for high voluntary wheel running, and differ between the sexes. (abst – 2016) https://www.ncbi.nlm.nih.gov/pubmed/28017680


Membrane-mediated action of the endocannabinoid anandamide on membrane proteins: implications for understanding the receptor-independent mechanism. (full – 2017) http://www.nature.com/articles/srep41362


Antihyperalgesic effect of CB1 receptor activation involves the modulation of P2X3 receptor in the primary afferent neuron. (abst – 2017) https://www.ncbi.nlm.nih.gov/pubmed/28131783

CBR - ALLOSTERIC ACTIVATION – these compounds work through a “back door” mechanism, not the usual binding site, which can modify their effects


Anti-inflammatory lipoxin A4 is an endogenous allosteric enhancer of CB1 cannabinoid receptor. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3529012/

Lipoxin A4 is an allosteric endocannabinoid that strengthens anandamide-induced CB1 receptor activation (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3529042/

A key agonist-induced conformational change in the cannabinoid receptor CB1 is blocked by the allosteric ligand Org 27569. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3460482/


Identification and quantification of a new family of peptide endocannabinoids (Pepcans) showing negative allosteric modulation at CB1 receptors. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3481297/


On the g-protein-coupled receptor heteromers and their allosteric receptor-receptor interactions in the central nervous system: focus on their role in pain modulation. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3730365/


In-vivo pharmacological evaluation of the CB1-receptor allosteric modulator Org-27569. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4042670/

Optimization of Chemical Functionalities of Indole-2-Carboxamides to Improve Allosteric Parameters for the Cannabinoid Receptor 1 (CB1). (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4203403/

Effects of the cannabinoid CB1 receptor allosteric modulator ORG 27569 on reinstatement of cocaine- and methamphetamine-seeking behavior in rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4161648/

Behavioral effects of the cannabinoid CB1 receptor allosteric modulator ORG27569 in rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4186448/

Allosteric Modulation of a Cannabinoid G Protein-coupled Receptor BINDING SITE ELUCIDATION AND RELATIONSHIP TO G PROTEIN SIGNALING (full – 2014) http://www.jbc.org/content/289/9/5828.full.pdf+html

High-resolution structure of the human GPR40 receptor bound to allosteric agonist TAK-875. (abst – 2014) http://www.nature.com/nature/journal/v513/n7516/full/nature13494.html

Endogenous vs Exogenous Allosteric Modulators in GPCRs: A dispute for shuttling CB1 among different membrane microenvironments. (full – 2015) http://www.nature.com/articles/srep15453

Biased Agonism and Biased Allosteric Modulation at the CB1 Cannabinoid Receptor. (full – 2015) http://molpharm.aspetjournals.org/content/early/2015/06/04/mol.115.099192.long


Cannabidiol is a negative allosteric modulator of the type 1 cannabinoid receptor. (full – 2015) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4621983/


Allosteric Modulation of CB1 by Pregnenolone (abst – 2015) http://www.fasebj.org/content/29/1_Supplement/LB60.abstract?sid=edf921ac-0690-4aa6-ac81-0546314dd384

Antipsychotic-like Effects of M4 Positive Allosteric Modulators Are Mediated by CB2 Receptor-Dependent Inhibition of Dopamine Release. (full– 2016) http://www.cell.com/neuron/fulltext/S0896-6273(16)30509-8


CBR - CB1 CANNABINOID RECEPTOR +* - activated by THC, Anandamide, synthetics, activating CB1 receptors in the brain causes the “high” and much more

Endocannabinoid Overload (full – 2010)
http://molpharm.aspetjournals.org/content/78/6/993.full

International Union of Basic and Clinical Pharmacology. LXXIX. Cannabinoid Receptors and Their Ligands: Beyond CB1 and CB2 (full – 2010)
http://pharmrev.aspetjournals.org/content/62/4/588.full.pdf+html


Central and peripheral consequences of the chronic blockade of CB1 cannabinoid receptor with rimonabant or taranabant. (full – 2010)

Anandamide suppresses pain initiation through a peripheral endocannabinoid mechanism (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3260554/?tool=pubmed

Epidermal growth factor receptor transactivation by the cannabinoid receptor (CB1) and transient receptor potential vanilloid 1 (TRPV1) induces differential responses in corneal epithelial cells. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2926165/

The Cannabinoid 1 Receptor (CNR1) 1359 G/A Polymorphism Modulates Susceptibility to Ulcerative Colitis and the Phenotype in Crohn's Disease (full - 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2829088/?tool=pmcentrez

A common CNR1 (cannabinoid receptor 1) haplotype attenuates the decrease in HDL cholesterol that typically accompanies weight gain. (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3013130/?tool=pubmed

Small intestinal cannabinoid receptor changes following a single colonic insult with oil of mustard in mice. (full – 2010)

Expression of cannabinoid CB1 receptors by vagal afferent neurons: kinetics and role in influencing neurochemical phenotype (full – 2010)
http://ajpgi.physiology.org/content/299/1/G63.full?sid=fc6948f0-78cf-405e-981b-afaa05ee417c

Potential role of the cannabinoid receptor CB in the pathogenesis of erosive and non-erosive gastro-oesophageal reflux disease. (full - 2010)

Voluntary Exercise and Sucrose Consumption Enhance Cannabinoid CB1 Receptor Sensitivity in the Striatum (full - 2010) http://www.nature.com/npp/journal/v35/n2/full/npp2009141a.html

Selective alterations of the CB1 receptors and the fatty acid amide hydrolase in the ventral striatum of alcoholics and suicides. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2878847/

Cannabinoid receptor CB1 mediates baseline and activity-induced survival of new neurons in adult hippocampal neurogenesis (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2898685/?tool=pubmed


Preservation of Striatal Cannabinoid CB1 Receptor Function Correlates with the Anti-anxiety Effects of Fatty Acid Amide Hydrolase Inhibition (full – 2010) http://molpharm.aspetjournals.org/content/78/2/260.long

AAV vector-mediated overexpression of CB1 cannabinoid receptor in pyramidal neurons of the hippocampus protects against seizure-induced excitotoxicity. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3006205/?tool=pubmed

Cannabinoid Receptors are Coupled to Stimulation of Insulin Secretion from Mouse MIN6 β-cells (full – 2010) http://www.karger.com/Article/Pdf/320527


Widespread Decrease of Type 1 Cannabinoid Receptor Availability in Huntington Disease In Vivo (full – 2010) http://jnm.snmjournals.org/cgi/content/full/51/9/1413

JWH018, a common constituent of 'Spice' herbal blends, is a potent and efficacious cannabinoid CB(1) receptor agonist. (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931559/?tool=pubmed

Attenuation of morphine antinociceptive tolerance by a CB(1) receptor agonist and an NMDA receptor antagonist: Interactive effects. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2813317/?tool=pubmed

Cannabinoid receptor-dependent and -independent anti-proliferative effects of omega-3 ethanolamides in androgen receptor-positive and -negative prostate cancer cell lines. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2930808/?tool=pubmed
The serine hydrolase ABHD6 controls the accumulation and efficacy of 2-AG at cannabinoid receptors. (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2970523/?tool=pubmed

Endocannabinoid involvement in endometriosis. (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2972363/

Regulatory Role of Cannabinoid Receptor 1 in Stress-Induced Excitotoxicity and Neuroinflammation (full - 2010)
http://www.nature.com/npp/journal/vaop/ncurrent/full/npp2010214a.html

Loss of cannabinoid CB1 receptor expression in the 6-hydroxydopamine-induced nigrostriatal terminal lesion model of Parkinson's disease in the rat. (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3659808/


Inhibitor of fatty acid amide hydrolase normalizes cardiovascular function in hypertension without adverse metabolic effects. (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3003779/

The Neuroprotective Effect of Cannabinoid Receptor Agonist (WIN55,212-2) in Paraoxon Induced Neurotoxicity in PC12 Cells and N-methyl-D-aspartate Receptor Interaction (full – 2010)

Architecture of cannabinoid signaling in mouse retina. (full – 2010)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2982216/

Energetic Metabolism and Human Sperm Motility: Impact of CB1 Receptor Activation (full – 2010) http://endo.endojournals.org/content/151/12/5882.full


The Peptide Hemopressin Acts through CB1 Cannabinoid Receptors to Reduce Food Intake in Rats and Mice (full – 2010) http://www.jneurosci.org/content/30/21/7369.full

Characterization of the Endocannabinoid System in Human Spermatozoa and Involvement of Transient Receptor Potential Vanilloid 1 Receptor in Their Fertilizing Ability (full – 2010)
http://endo.endojournals.org/content/150/10/4692.full?sid=f5b14012-9fbd-4f10-890c-386313060cfc8

Naphthalen-1-yl-(4-pentyloxy)naphthalen-1-yl)methanone (SAB378), a peripherally restricted cannabinoid CB1/CB2 receptor agonist, inhibits gastrointestinal motility but has no effect on experimental colitis in mice. (full – 2010)
http://jpet.aspetjournals.org/content/334/3/973.long
Endocannabinoid control of gastric sensorimotor function in man.  (full - 2010)

Inhibition of 3-hydroxy-3-methylglutaryl-coenzyme A reductase activity and of Ras farnesylation mediate antitumor effects of anandamide in human breast cancer cells.  (full – 2010) http://erc.endocrinology-journals.org/content/17/2/495.long

The expression level of CB1 and CB2 receptors determines their efficacy at inducing apoptosis in astrocytomas.  (full - 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2806825/?tool=pubmed

Delta9-tetrahydrocannabinol is a full agonist at CB1 receptors on GABA neuron axon terminals in the hippocampus.  (full – 2010)

The serine hydrolase ABHD6 controls the accumulation and efficacy of 2-AG at cannabinoid receptors.  (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2970523/

Polymorphisms in the endocannabinoid receptor 1 in relation to fat mass distribution (full – 2010) http://www.eje-online.org/content/163/3/407.full


Oleamide administered into the nucleus accumbens shell regulates feeding behaviour via CB1 and 5-HT2C receptors.  (full – 2010)
http://ijnp.oxfordjournals.org/content/13/9/1247.long

A clinical trial assessing the safety and efficacy of the CB1R inverse agonist tarianabant in obese and overweight patients: low-dose study  (full – 2010)
http://www.nature.com/jio/journal/v34/n5/full/jio201021a.html

Inactivation of the cannabinoid receptor CB1 prevents leukocyte infiltration and experimental fibrosis.  (full – 2010)

Upregulation of cannabinoid type 1 receptors in dopamine D2 receptor knockout mice is reversed by chronic forced ethanol consumption  (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3004984/

Endocannabinoids selectively enhance sweet taste. (full – 2010)
http://www.pnas.org/content/107/2/935.long

NSAIDs, Opioids, Cannabinoids and the Control of Pain by the Central Nervous System. (full – 2010) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4033984/

Cannabinoid Receptors, CB1 and CB2, as Novel Targets for Inhibition of Non-Small Cell Lung Cancer Growth and Metastasis (full – 2010)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3025486/

Mechanisms of Broad-Spectrum Antiemetic Efficacy of Cannabinoids against Chemotherapy-Induced Acute and Delayed Vomiting (link to PDF – 2010)
http://www.mdpi.com/1424-8247/3/9/2930

G1359A polymorphism of the cannabinoid receptor gene (CNR1) and clinical results of biliopancreatic diversion (link to PDF – 2010)
http://www.europeanreview.org/article/724

Endocannabinoids and Human Sperm Cells (link to PDF - 2010)
http://www.mdpi.com/1424-8247/3/10/3200

Endocannabinoids and Schizophrenia (link to PDF – 2010)
http://www.mdpi.com/1424-8247/3/10/3101

The Role of Cannabinoid Receptors in the Descending Modulation of Pain (link to PDF - 2010) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.634.4866&rank=72

Tocolytic Effect of Δ9-Tetrahydrocannabinol in Mice Model of Lipopolysaccharide—Induced Preterm Delivery: Role of Nitric Oxide (link to download - 2010)
http://journals.sagepub.com/doi/abs/10.1177/1933719109358456

A model of endocannabinoid 2-AG-mediated depolarization-induced suppression of inhibition (article – 2010)
http://www.biomedcentral.com/content/pdf/1471-2202-11-S1-P189.pdf


Altered expression of cannabinoid receptors 1 and 2 and activated endocannabinoid system in patients with severe chronic heart failure (abst – 2010)


Involvement of ERK 1/2 activation in electroacupuncture pretreatment via cannabinoid CB1 receptor in rats. (abst – 2010) http://www.ncbi.nlm.nih.gov/pubmed/20654595


Dronabinol for the treatment of unspecific pain, restlessness and spasticity in neuropaediatrics (abst – 2010)


Abnormal sensitivity of cannabinoid CB1 receptors in the striatum of mice with experimental amyotrophic lateral sclerosis. (abst – 2010)

A common variation in the cannabinoid 1 receptor (CNR1) gene is associated with pre-eclampsia in the Central European population. (abst - 2010)

Binding of the hemopressin peptide to the cannabinoid CB1 receptor: structural insights. (abst – 2010) http://pubs.acs.org/doi/abs/10.1021/bi1011833


An endocannabinoid system is localized to the hypophysial pars tuberalis of Syrian hamsters and responds to photoperiodic changes. (abst – 2010) http://www.ncbi.nlm.nih.gov/pubmed/20165884


Cannabinoid receptors, CB1 and CB2, as novel targets for inhibition of non-small cell lung cancer growth and metastasis (full - 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3025486/?tool=pubmed


Increased Expression of Cannabinoid CB(1) Receptors in Achilles Tendinosis. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3169627/?tool=pubmed

Cannabidiol inhibits the hyperphagia induced by cannabinoid-1 or serotonin-1A receptor agonists. (full – 2011) http://www.sciencedirect.com/science/article/pii/S0091305711000128

Local activation of cannabinoid CB1 receptors in the urinary bladder reduces the inflammation-induced sensitization of bladder afferents. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3115893/

Cannabinoid CB1 receptor antagonists modulate transport activity of multidrug resistance-associated proteins MRP1, MRP2, MRP3, and MRP4 (full – 2011) http://dmd.aspetjournals.org/content/early/2011/04/21/dmd.110.037812.full.pdf+html?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=80&sortpec=date&resourcetype=HWCIT


CP47,497-C8 and JWH073, commonly found in 'Spice' herbal blends, are potent and efficacious CB(1) cannabinoid receptor agonists. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3094488/

Anandamide inhibits Theiler's virus induced VCAM-1 in brain endothelial cells and reduces leukocyte transmigration in a model of blood brain barrier by activation of CB1 receptors. (full – 2011) http://www.jneuroinflammation.com/content/pdf/1742-2094-8-102.pdf


Complementary synaptic distribution of enzymes responsible for synthesis and inactivation of the endocannabinoid 2-arachidonoylglycerol in the human hippocampus. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3678284/

Regulation of hippocampal cannabinoid CB1 receptor actions by adenosine A1 receptors and chronic caffeine administration: implications for the effects of Δ9-tetrahydrocannabinol on spatial memory. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3055664/

Inhibition of COX-2 expression by endocannabinoid 2-arachidonoylglycerol is mediated via PPAR-γ (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165961/

Role of CB1 cannabinoid receptors on GABAergic neurons in brain aging (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3131310/?tool=pubmed

Central mediation and differential blockade by cannabinoids of the discriminative stimulus effects of the cannabinoid CB1 receptor antagonist rimonabant in rats.
Effect of rimonabant on oesophageal motor function in man

Endocannabinoid system in cardiovascular disorders - new pharmacotherapeutic opportunities

Disruption of metabotropic glutamate receptor signalling is a major defect at cerebellar parallel fibre-Purkinje cell synapses in staggerer mutant mice.

Variation in the human Cannabinoid Receptor (CNR1) gene modulates gaze duration for happy faces.

Gadolinium-HU-308-incorporated micelles.

Differential signaling in human cannabinoid CB(1) receptors and their splice variants in autaptic hippocampal neurons

A Pilot Study into the Effects of the CB1 Cannabinoid Receptor Agonist WIN55,212-2 or the Antagonist/Inverse Agonist AM251 on Sleep in Rats

Hyperactivation of anandamide synthesis and regulation of cell-cycle progression via cannabinoid type 1 (CB1) receptors in the regenerating liver

Cannabinoid and GABA modulation of sympathetic nerve activity and blood pressure in the dorsal periaqueductal gray of the rat

Molecular reorganization of endocannabinoid signalling in Alzheimer's disease.

Intracellular Cannabinoid Type 1 (CB1) Receptors Are Activated by Anandamide

Loss of striatal type 1 cannabinoid receptors is a key pathogenic factor in Huntington's disease.

Redistribution of CB1 Cannabinoid Receptors in the Acute and Chronic Phases of Pilocarpine-Induced Epilepsy
Functional characterization of putative cholesterol binding sequence (CRAC) in human type-1 cannabinoid receptor (full – 2011)  

Cannabinoid exposure during zebra finch sensorimotor vocal learning persistently alters expression of endocannabinoid signaling elements and acute agonist responsiveness (full – 2011)  
http://www.biomedcentral.com/1471-2202/12/3

Genetic deletion of monoacylglycerol lipase alters endocannabinoid-mediated retrograde synaptic depression in the cerebellum. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3224879/

Adipose tissue endocannabinoid system gene expression: depot differences and effects of diet and exercise (full – 2011)  
http://www.lipidworld.com/content/10/1/194

Endocannabinoid tone versus constitutive activity of cannabinoid receptors (full – 2011)  

Comparison of Cannabinoid CB1 Receptor Binding in Adolescent and Adult Rats: A Positron Emission Tomography Study Using [18F]MK-9470 (full – 2011)  
http://www.hindawi.com/journals/ijmi/2011/548123/

Cannabinoid Receptor Type 1 Protects Nigrostriatal Dopaminergic Neurons against MPTP Neurotoxicity by Inhibiting Microglial Activation. (full – 2011)  
http://www.jimmunol.org/content/187/12/6508.full?sid=c3422dd2-7ad0-42e4-a862-845dc670f7cf

Cannabinoids and bone: endocannabinoids modulate human osteoclast function in vitro (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423262/

Genetic and pharmacological inactivation of cannabinoid CB1 receptor inhibits angiogenesis. (full – 2011)  
http://bloodjournal.hematologylibrary.org/content/117/20/5541.long

The central cannabinoid CB1 receptor is required for diet-induced obesity and rimonabant's antiobesity effects in mice (full – 2011)  

Chronic Δ⁹-tetrahydrocannabinol treatment in rhesus monkeys: differential tolerance and cross-tolerance among cannabinoids. (full – 2011)  

ENDOGENOUS CANNABINOID SYSTEM REGulates INTESTINAL BARRIER FUNCTION IN VIVO THROUGH CANNABINOID TYPE 1 RECEPTOR

Cannabinoid receptor-mediated regulation of neuronal activity in the main olfactory bulb (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3397690/

Cannabinomimetic lipid from a marine cyanobacterium. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3325759/


Sex Differences in Cannabinoid 1 vs. Cannabinoid 2 Receptor-Selective Antagonism of Antinociception Produced by Δ9-Tetrahydrocannabinol and CP55,940 in the Rat (full – 2011) http://jpet.aspetjournals.org/content/340/3/787.full


Altered endocannabinoid signalling after a high-fat diet in Apoe(-/-) mice: relevance to adipose tissue inflammation, hepatic steatosis and insulin resistance. (full – 2011) http://link.springer.com/article/10.1007/s00125-011-2274-6/fulltext.html

Activation of spinal and supraspinal cannabinoid-1 receptors leads to antinociception in a rat model of neuropathic spinal cord injury pain. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3159760/

Cannabinoid type 1 receptor mediates depot-specific effects on differentiation, inflammation and oxidative metabolism in inguinal and epididymal white adipocytes. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3303536/

The cannabinoid type-1 receptor carboxyl-terminus, more than just a tail. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3055937/pdf/nihms267227.pdf

Cannabinoid receptor 1 gene polymorphisms and marijuana misuse interactions on white matter and cognitive deficits in schizophrenia. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3085576/


The Dopamine and Cannabinoid Interaction in the Modulation of Emotions and Cognition: Assessing the Role of Cannabinoid CB1 Receptor in Neurons Expressing Dopamine D1 Receptors. (full - 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3156975/

Indirect Sympatholytic Actions at β-Adrenoceptors Account for the Ocular Hypotensive Actions of Cannabinoid Receptor Agonists (full – 2011)  
http://jpet.aspetjournals.org/content/339/3/757.full.pdf+html

Bioactivation Pathways of the Cannabinoid Receptor 1 Antagonist Rimonabant (full – 2011)  
http://dmd.aspetjournals.org/content/39/10/1823.long

PAX3-FOXO1 induces cannabinoid receptor 1 to enhance cell invasion and metastasis. (full – 2011)  
http://cancerres.aacrjournals.org/content/71/24/7471.long

Deletion of cannabinoid receptors 1 and 2 exacerbates APC function to increase inflammation and cellular immunity during influenza infection. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3206470/

Type I cannabinoid receptor trafficking: all roads lead to lysosome. (full – 2011)  

The highs and lows of cannabinoid receptor expression in disease: mechanisms and their therapeutic implications. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3141881/

Expression of the cannabinoid system in muscle: effects of a high fat diet and CB1 receptor blockade (full – 2011)  
http://www.biochemj.org/content/433/1/175

Regulation of nausea and vomiting by cannabinoids (full - 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165951/

Anxiolytic-like effect induced by the cannabinoid CB1 receptor agonist, arachydonilcyclopropylamide (ACPA), in the rat amygdala is mediated through the D1 and D2 dopaminergic systems. (full – 2011)  
http://journals.sagepub.com/doi/full/10.1177/0269881110376688

Investigations of the human endocannabinoid system in two subcutaneous adipose tissue depots in lean subjects and in obese subjects before and after weight loss (full – 2011)  
http://www.nature.com/ijo/journal/v35/n11/full/ijo20118a.html

Alterations in Corticolimbic Dendritic Morphology and Emotional Behavior in Cannabinoid CB1 Receptor–Deficient Mice Parallel the Effects of Chronic Stress (full – 2011)  
http://cercor.oxfordjournals.org/content/21/9/2056.full

The Endocannabinoid System as Pharmacological Target Derived from Its CNS Role in Energy Homeostasis and Reward. Applications in Eating Disorders and Addiction
Association between lipid accumulation and the cannabinoid system in Huh7 cells expressing HCV genes  

The role of the cannabinoid system in the pathogenesis and treatment of alcohol dependence  
(click “ICI” link for download – 2011)  

Deficiency of Dietary Omega-3 May Explain Depressive Behaviors  
(summary - 2011)  
http://www.thefreelibrary.com/Deficiency+of+Dietary+Omega-3+May+Explain+Depressive+Behaviors.-a0248155576

Biosynthesis and degradation of the endocannabinoid 2-arachidonoylglycerol.  
(abst – 2011)  

Possible involvement of the endocannabinoid system in memory modulation effect of general anesthetics  
(abst - 2011)  

Role of endocannabinoid and glutamatergic systems in DOI-induced head-twitch response in mice.  
(abst – 2011)  

Cannabidiol as an anti-arrhythmic, the role of the CB1 receptors.  
(abst – 2011)  
http://heart.bmj.com/content/97/24/e8.9.abstract

The role of cannabinoid receptors and the endocannabinoid system in mantle cell lymphoma and other non-Hodgkin lymphomas.  
(abst – 2011)  

Regional changes in type 1 cannabinoid receptor availability in Parkinson's disease in vivo  
(abst – 2011)  
http://www.unboundmedicine.com/medline/ebm/record/21459482/abstract/Regional_changes_in_type_1_cannabinoid_receptor_availability_in_Parkinson%27s_disease_in_vivo_

Effects of cannabinoid CB(1) receptor agonism and antagonism on SKF81297-induced dyskinesia and haloperidol-induced dystonia in Cebus apella monkeys.  
(abst – 2011)  

Neuropathology of sporadic Parkinson disease before the appearance of parkinsonism: preclinical Parkinson disease.  
(abst – 2011)  

Early onset of aging-like changes is restricted to cognitive abilities and skin structure in Cnr1(-/-) mice.  
(abst – 2011)  


The antinociceptive potency of N-arachidonoyl-dopamine (NADA) and its interaction with endomorphin-1 at the spinal level.  (abst – 2011)  http://www.sciencedirect.com/science/article/pii/S0091305711001626


Brain Type 1 Cannabinoid Receptor Availability in Patients with Anorexia and Bulimia Nervosa.  (abst – 2011)  http://www.ncbi.nlm.nih.gov/pubmed/21718968

Personalized medicine can pave the way for the safe use of CB₁ receptor antagonists.  (abst – 2011)  http://www.cell.com/trends/pharmacological-sciences/abstract/S0165-6147(11)00035-6


Increment of hypothalamic 2-arachidonoylglycerol induces the preference for a high-fat diet via activation of cannabinoid 1 receptors  (abst – 2011)  http://www.unboundmedicine.com/medline/ebm/record/20817042/abstract/Increment_of_hypothalamic_2_arachidonoylglycerol_induces_the_preference_for_a_high_fat_diet_via_activation_of_cannabinoid_1_receptors

2-Arachidonoylglycerol (2-AG) Induces Corneal Epithelial Cell Migration via Cannabinoid CB1 Receptors  (abst – 2011)  http://iovs.arvojournals.org/article.aspx?articleid=2352973&resultClick=1
Targetting CB1 Cannabinoid Receptor for Neuroprotection in Spinal Cord Injury (abst – 2011)
http://www.fasebj.org/content/25/1_Supplement/lb422.abstract?sid=ebd6611b-9ed5-451c-8d4e-a78d4d17cca1

Intact cannabinoid CB1 receptors in the Alzheimer's disease cortex. (abst – 2011)

Endocannabinoid CB1 receptors modulate visual output from the thalamus. (abst – 2011)

Cannabinoids and emotionality: a neuroanatomical perspective. (abst – 2011)

Loss of striatal cannabinoid CB1 receptor function in attention-deficit/hyperactivity disorder mice with point-mutation of the dopamine transporter. (abst – 2011)

α-Tocopherol and α-tocopheryl phosphate interact with the cannabinoid system in the rodent hippocampus. (abst - 2011)

The effect of CBD (BDS) botanical cannabinoid extraction on MCF-7 human breast carcinoma cells (abst – 2011)
http://eprints.hud.ac.uk/16197/

Fatty acid amide hydrolase expression during retinal postnatal development in rats (abst – 2011)

Interictal Type 1 Cannabinoid Receptor Binding is Increased in Female Migraine Patients. (abst – 2011)

The endocannabinoid system in the cancer therapy: an overview. (abst – 2011)

Inhibition of basal and ultraviolet B-induced melanogenesis by cannabinoid CB(1) receptors: a keratinocyte-dependent effect. (abst – 2011)

Anandamide inhibits the growth of colorectal cancer cells through CB1 and lipid rafts (abst – 2011)

Impaired hippocampal glucoregulation in the cannabinoid CB(1) receptor knockout mice as revealed by an optimized in vitro experimental approach. (abst – 2012)
The Effect of Hypoxia on G Protein Coupled (CB1) Receptor Gene Expression in Cortical B50 Neurons in Culture  (abst – 2011)
http://www.maxwellsci.com/jp/abstract.php?jid=BJPT&no=92&abs=05

CB1 cannabinoid receptor mediates glucocorticoid effects on hormone secretion induced by volume and osmotic changes.  (abst – 2011)  http://www.ncbi.nlm.nih.gov/pubmed/2221674

Endogenously generated 2-arachidonoylglycerol plays an inhibitory role in bombesin-induced activation of central adrenomedullary outflow in rats.  (abst – 2011)

Association between a cannabinoid receptor gene (CNR1) polymorphism and cannabinoid-induced alterations of the auditory event-related P300 potential.  (abst – 2011)
http://www.unboundmedicine.com/medline/ebm/record/21513772/abstract/Association_between_a_cannabinoid_receptor_gene__CNR1__polymorphism_and_cannabinoid_induced_alterations_of_the_auditory_event_related_P300_potential

Unbalance of CB1 receptors expressed in GABAergic and glutamatergic neurons in a transgenic mouse model of Huntington's disease.  (abst – 2011)

Resorcinol-sn-Glycerol Derivatives: Novel 2-Arachidonoylglycerol Mimetics Endowed with High Affinity and Selectivity for Cannabinoid Type 1 Receptor.  (abst – 2011)
http://pubs.acs.org/doi/abs/10.1021/jm200529h

G1359A polymorphism in the cannabinoid receptor-1 gene is associated with coronary artery disease in the Chinese Han population.  (abst – 2011)

Nonopioid placebo analgesia is mediated by CB1 cannabinoid receptors.  (abst – 2011)

A role for the ventral hippocampal endocannabinoid system in fear-conditioned analgesia and fear responding in the presence of nociceptive tone in rats.  (abst – 2011)

Comparison Of Rat And Human Eyes For The Presence And Distribution Of Cb1 And Cb2 Receptors  (abst - 2011)
http://iovs.arvojournals.org/article.aspx?articleid=2357116&resultClick=1

Localization of Cannabinoid-Related Proteins in the Murine Anterior Eye  (abst – 2011)
http://iovs.arvojournals.org/article.aspx?articleid=2356236&resultClick=1

2-Arachidonoylglycerol (2-AG) Induces Corneal Epithelial Cell Migration via Cannabinoid CB1 Receptors  (abst – 2011)
http://iovs.arvojournals.org/article.aspx?articleid=2352973&resultClick=1
Tak1 Interactions With TRPV1 and CB1 Control IL-6 and IL-8 Release in Human Corneal Epithelial Cells  (abst – 2011)  http://iovs.arvojournals.org/article.aspx?articleid=2349956&resultClick=1

CB1 Activation Reduces TRPV1-induced Responses in Human Corneal Epithelial Cells (abst – 2011)  http://iovs.arvojournals.org/article.aspx?articleid=2353114&resultClick=1

Increased vulnerability to 6-hydroxydopamine lesion and reduced development of dyskinesias in mice lacking CB1 cannabinoid receptors  (abst – 2011)  http://europepmc.org/abstract/med/19419794


Cannabinoid receptors: nomenclature and pharmacological principles.  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3378782/


Synaptic Targets of Δ9-Tetrahydrocannabinol in the Central Nervous System.  (full – 2012)  http://perspectivesinmedicine.cshlp.org/content/early/2012/12/03/cshperspect.a012237.long

Epileptiform activity in the CA1 region of the hippocampus becomes refractory to attenuation by cannabinoids in part because of endogenous γ-aminobutyric acid type B receptor activity.  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3350599/


Inhibition of monoacylglycerol lipase attenuates vomiting in Suncus murinus and 2-arachidonoyl glycerol attenuates nausea in rats.  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423233/
Upregulation of cannabinoid type 1 receptors in dopamine D2 receptor knockout mice is reversed by chronic forced ethanol consumption. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3004984/?tool=pubmed

Mechanistic and Pharmacological Characterization of PF-04457845: A Highly Potent and Selective Fatty Acid Amide Hydrolase Inhibitor That Reduces Inflammatory and Noninflammatory Pain (full – 2012) http://jpet.aspetjournals.org/content/338/1/114.full


Cannabinoid Receptor Type 1 (CB1) Activation Inhibits Small GTPase RhoA Activity and Regulates Motility of Prostate Carcinoma Cells (full – 2012) http://endo.endojournals.org/content/153/1/29.full

Excess of the endocannabinoid anandamide during lactation induces overweight, fat accumulation and insulin resistance in adult mice (full – 2012) http://www.dmsjournal.com/content/4/1/35

Angiotensin II induces vascular endocannabinoid release, which attenuates its vasoconstrictor effect via CB1 cannabinoid receptors. (full – 2012) http://www.jbc.org/content/early/2012/07/11/jbc.M112.346296.full.pdf+html

Allosteric modulator ORG27569 induces a CB1 Cannabinoid receptor high affinity agonist binding state, receptor internalization and Gi-independent ERK1/2 activation. (full – 2012) http://www.jbc.org/content/early/2012/02/16/jbc.M111.316463.long

Acetaminophen differentially enhances social behavior and cortical cannabinoid levels in inbred mice. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3389197/

Reduced alcohol intake and reward associated with impaired endocannabinoid signaling in mice with a deletion of the glutamate transporter GLAST. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3372600/

Resistance to diet-induced adiposity in cannabinoid receptor-1 deficient mice is not due to impaired adipocyte function. (full – 2012) http://www.nutritionandmetabolism.com/content/pdf/1743-7075-8-93.pdf

Cannabinoids Facilitate the Swallowing Reflex Elicited by the Superior Laryngeal Nerve Stimulation in Rats (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3507745/

Anti-inflammatory lipoxin A4 is an endogenous allosteric enhancer of CB1 cannabinoid receptor. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3529012/

Cannabinoid Receptor 1 (CNR1) 4895 C/T Genetic Polymorphism was Associated with Obesity in Japanese Men. (full – 2012) https://www.jstage.jst.go.jp/article/jat/19/8/19_12732/_pdf


Deficiency of type 1 cannabinoid receptors worsens acute heart failure induced by pressure overload in mice (full – 2012) http://eurheartj.oxfordjournals.org/content/33/24/3124.full


Autocrine Endocannabinoid Signaling Through CB1 Receptors Potentiates OX1 Orexin Receptor Signaling. (full – 2012) http://molpharm.aspetjournals.org/content/early/2012/12/11/mol.112.080523.long

To Be or Not To Be—Obese (full – 2012) http://endo.endojournals.org/content/152/10/3592.long

Relationships between glucose, energy intake and dietary composition in obese adults with type 2 diabetes receiving the cannabinoid 1 (CB1) receptor antagonist, rimonabant (full – 2012) http://www.nutritionj.com/content/11/1/50

Role of CB1 cannabinoid receptors on GABAergic neurons in brain aging (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3131310/?tool=pubmed


Loss of CB1 receptors leads to differential age-related changes in reward-driven learning and memory. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3514639/

A Role for the Cannabinoid 1 Receptor in Neuronal Differentiation of Adult Spinal Cord Progenitors in vitro is Revealed through Pharmacological Inhibition and Genetic Deletion. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3265030/?tool=pubmed

Endocannabinoids Stimulate Human Melanogenesis via Type-1 Cannabinoid Receptor
Contribution of Hypothermia and CB(1) Receptor Activation to Protective Effects of TAK-937, a Cannabinoid Receptor Agonist, in Rat Transient MCAO Model.

Cannabinoid type-1 receptor reduces pain and neurotoxicity produced by chemotherapy.

Dimerization with Cannabinoid Receptors Allosterically Modulates Delta Opioid Receptor Activity during Neuropathic Pain.

Type-1 Cannabinoid Receptor Signaling in Neuronal Development.

Endocannabinoids via CB₁ receptors act as neurogenic niche cues during cortical development.

Differences in Spontaneously Avoiding or Approaching Mice Reflect Differences in CB1-Mediated Signaling of Dorsal Striatal Transmission.

Neonatal DSP-4 Treatment Modifies Antinociceptive Effects of the CB(1) Receptor Agonist Methanandamide in Adult Rats.

Early Endogenous Activation of CB1 and CB2 Receptors after Spinal Cord Injury Is a Protective Response Involved in Spontaneous Recovery.

Role of cannabinoids in the regulation of bone remodeling.

The cannabinoid receptor CB1 modulates the signaling properties of the lysophosphatidylinositol receptor GPR55.

Cannabinoid modulation of neuroinflammatory disorders.

Therapeutic Potentials and uses of Cannabinoid Agonists in Health and Disease Conditions.
The fatty acid amide hydrolase inhibitor URB597 exerts anti-inflammatory effects in hippocampus of aged rats and restores an age-related deficit in long-term potentiation (full – 2012) http://www.jneuroinflammation.com/content/9/1/79

Cannabinoid receptor-mediated regulation of neuronal activity and signaling in glomeruli of the main olfactory bulb. (full– 2012) http://www.jneurosci.org/content/32/25/8475.long

Spinal administration of the monoacylglycerol lipase inhibitor JZL184 produces robust inhibitory effects on nociceptive processing and the development of central sensitization in the rat (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3525864/

Probing the Interaction of SR141716A with the CB1 Receptor (full – 2012) http://www.jbc.org/content/287/46/38741.full.pdf+html


Endocannabinoids in nervous system health and disease: the big picture in a nutshell (full – 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3193.full

Interleukin-1β causes anxiety by interacting with the endocannabinoid system. (full – 2012) http://www.jneurosci.org/content/32/40/13896.long


CNR1 genotype influences HDL-cholesterol response to change in dietary fat intake. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3342253/

The CB(2)-preferring agonist JWH015 also potently and efficaciously activates CB(1) in autaptic hippocampal neurons. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3601544/

Lipoxin A4 is an allosteric endocannabinoid that strengthens anandamide-induced CB1 receptor activation (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3529042/

Cellular and intracellular mechanisms involved in the cognitive impairment of cannabinoids (full - 2012)  http://rstb.royalsocietypublishing.org/content/367/1607/3254.full?sid=1569c370-cd5c-4358-89ff-857201f5e069

Review article: Why do cannabinoid receptors have more than one endogenous ligand? (full - 2012)  http://rstb.royalsocietypublishing.org/content/367/1607/3216.full?sid=1569c370-cd5c-4358-89ff-857201f5e069

Identification and quantification of a new family of peptide endocannabinoids (Pepcans) showing negative allosteric modulation at CB1 receptors. (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3481297/

Cannabinoid Receptor Antagonist-Induced Striated Muscle Toxicity and Ethylmalonic-Adipic Aciduria in Beagle Dogs (full – 2012)  http://toxsci.oxfordjournals.org/content/129/2/268.full

Dynamic changes to the endocannabinoid system in models of chronic pain (full – 2012)  http://rstb.royalsocietypublishing.org/content/367/1607/3300.full?sid=1569c370-cd5c-4358-89ff-857201f5e069

Inhibiting fatty acid amide hydrolase normalizes endotoxin-induced enhanced gastrointestinal motility in mice. (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3372737/

Review article: The endocannabinoid system in normal and pathological brain ageing (full – 2012)  http://rstb.royalsocietypublishing.org/content/367/1607/3326.full?sid=161e7b36-5055-448b-962e-697c782e901d

Cannabinoid receptor expression at the MNTB-LSO synapse in developing rats. (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3406926/


Spice drugs are more than harmless herbal blends: A review of the pharmacology and toxicology of synthetic cannabinoids. (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3936256/

Sativex-like Combination of Phytocannabinoids is Neuroprotective in Malonate-Lesioned Rats, an Inflammatory Model of Huntington's Disease: Role of CB(1) and CB(2) Receptors. (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3382456/


Irritable Bowel Syndrome: Methods, Mechanisms, and Pathophysiology. Genetic epidemiology and pharmacogenetics in irritable bowel syndrome (full – 2012) http://ajpgi.physiology.org/content/302/10/G1075


Brain regional differences in CB1 receptor adaptation and regulation of transcription. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3772765/

Downregulation of cannabinoid receptor 1 from neuropeptide Y interneurons in the basal ganglia of patients with Huntington's disease and mouse models. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3699342/

The CB1 Cannabinoid Receptor Drives Corticospinal Motor Neuron Differentiation through the Ctip2/Satb2 Transcriptional Regulation Axis. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3545190/


Cannabinoid receptor 1 suppresses transient receptor potential vanilloid 1-induced inflammatory responses to corneal injury. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3607947/

Bimodal Control of Fear-Coping Strategies by CB1 Cannabinoid Receptors. (full – 2012) http://www.jneurosci.org/content/32/21/7109.long

Cannabinoid Type 1 Receptor Gene Polymorphism and Macronutrient Intake. (full – 2012) http://www.karger.com/Article/FullText/343563

Marine Cyanobacterial Fatty Acid Amides Acting on Cannabinoid Receptors. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3748600/

Failure to extinguish fear and genetic variability in the human cannabinoid receptor 1. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3565211/
Endocannabinoid signaling in female reproduction.  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3382454/

On Disruption of Fear Memory by Reconsolidation Blockade: Evidence from Cannabidiol Treatment.  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3398715/

Medial prefrontal cortex endocannabinoid system modulates baroreflex activity through CB1 receptors  (full – 2012)  
http://ajpregu.physiology.org/content/302/7/R876

The Volitional Nature of Nicotine Exposure Alters Anandamide and Oleoylethanolamide Levels in the Ventral Tegmental Area.  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3572454/

Cannabinoid receptors in submandibular acinar cells: Functional coupling between saliva fluid and electrolytes secretion and Ca2+ signalling  (full – 2012)  
http://jcs.biologists.org/content/125/8/1884.full

Tumor necrosis factor activation of vagal afferent terminal calcium is blocked by cannabinoids.  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3342927/

Statistical parametric mapping reveals regional alterations in cannabinoid CB1 receptor distribution and G-protein activation in the 3D reconstructed epileptic rat brain.  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3799958/

Alteration of endocannabinoid system in human gliomas.  (full – 2012)  

G-Protein-Coupled Receptors in Intestinal Chemosensation  (full – 2012)  

Cannabinoid receptor 1 inhibition causes seizures during anesthesia induction in experimental sepsis.  (full – 2012)  
http://journals.lww.com/anesthesia-analgesia/Fulltext/2012/06000/Cannabinoid_Receptor_1_Inhibition_Causes_Seizures.12.aspx

The cannabinoid CB1 receptor antagonists rimonabant (SR141716) and AM251 directly potentiate GABAA receptors  (full – 2012)  

Δ9-Tetrahydrocannabinol acts as a partial agonist/antagonist in mice.  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3697741/

Cannabinoid Receptor Genotype Moderation of the Effects of Childhood Physical Abuse on Anhedonia and Depression.  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3706194/
Cannabinoid receptor 1 in the vagus nerve is dispensable for body weight homeostasis but required for normal gastrointestinal motility. (full – 2012) http://www.jneurosci.org/content/32/30/10331.long

Effects of gonadal hormones on the peripheral cannabinoid receptor 1 (CB1R) system under a myositis condition in rats. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3578305/

Functional diversity on synaptic plasticity mediated by endocannabinoids (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3481528/

Anandamide regulates the expression of GnRH1, GnRH2, and GnRH-Rs in frog testis (full – 2012) http://ajpendo.physiology.org/content/303/4/E475.long

Cannabinoid Receptor Antagonist-Induced Striated Muscle Toxicity and Ethylmalonic-Adipic Aciduria in Beagle Dogs (full – 2012) http://toxsci.oxfordjournals.org/content/129/2/268.long

Cortical basket cell dysfunction in schizophrenia. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3381305/


Cannabinoid Receptors CB1 and CB2 Form Functional Heteromers in Brain. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3375509/

The Therapeutic Potential of Cannabis and Cannabinoids (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3442177/

Uncovering a role for endocannabinoid signaling in autophagy in preimplantation mouse embryos (full – 2012) http://molehr.oxfordjournals.org/content/19/2/93.full

Modulation of neuropathic-pain-related behaviour by the spinal endocannabinoid/endovanilloid system (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3481534/

Acute cannabinoids impair working memory through astroglial CB1 receptor modulation of hippocampal LTD. (full – 2012) http://www.sciencedirect.com/science/article/pii/S0092867412001420

A key agonist-induced conformational change in the cannabinoid receptor CB1 is blocked by the allosteric ligand Org 27569. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3460482/

Dietary conditions and highly palatable food access alter rat cannabinoid receptor expression and binding density. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3621143/

Autocrine Endocannabinoid Signaling through CB1 Receptors Potentiates OX1 Orexin Receptor Signaling (full – 2012) http://molpharm.aspetjournals.org/content/83/3/621.full.pdf+html

Progesterone-dependent regulation of endometrial cannabinoid receptor type 1 (CB1-R) expression is disrupted in women with endometriosis and in isolated stromal cells exposed to 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3462249/

Binding of a tritiated inverse agonist to cannabinoid CB1 receptors is increased in patients with schizophrenia (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3463751/

Extinction learning of rewards in the rat: is there a role for CB1 receptors? (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3161161/

Positron Emission Tomography Shows Elevated Cannabinoid CB 1 Receptor Binding in Men with Alcohol Dependence (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3418442/

Monohydroxylated metabolites of the K2 synthetic cannabinoid JWH-073 retain intermediate to high cannabinoid 1 receptor (CB1R) affinity and exhibit neutral antagonist to partial agonist activity. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3288656/


Opposing Roles for Cannabinoid Receptor Type-1 (CB(1)) and Transient Receptor Potential Vanilloid Type-1 Channel (TRPV1) on the Modulation of Panic-Like Responses in Rats. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3242309/

Sensation-seeking genes and physical activity in youth (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3581711/

A major glucuronidated metabolite of JWH-018 is a neutral antagonist at CB1 receptors. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3921679/
Tolerance to cannabinoid-induced behaviors in mice treated chronically with ethanol. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3249519/

Biphasic Effects of Cannabinoids in Anxiety Responses: CB1 and GABA(B) Receptors in the Balance of GABAergic and Glutamatergic Neurotransmission. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3473327/

Endocannabinoids limit excessive mast cell maturation and activation in human skin. (full – 2012) http://www.jacionline.org/article/S0091-6749%2811%2901796-9/fulltext


WIN55, 212-2 promotes differentiation of oligodendrocyte precursor cells and improve remyelination through regulation of the phosphorylation level of the ERK 1/2 via cannabinoid receptor 1 after stroke-induced demyelination. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4086494/

CB1 cannabinoid receptor activation rescues amyloid β-induced alterations in behaviour and intrinsic electrophysiological properties of rat hippocampal CA1 pyramidal neurones. (full – 2012) http://www.karger.com/Article/Pdf/338494

The cannabinoid CB1 receptor biphasically modulates motor activity and regulates dopamine and glutamate release region dependently. (full – 2012) http://ijnp.oxfordjournals.org/content/16/2/393.long

Receptor-dependent and Receptor-independent Endocannabinoid Signaling: A Therapeutic Target for Regulation of Cancer Growth. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4226396/

WIN55,212-2 protects oligodendrocyte precursor cells in stroke penumbra following permanent focal cerebral ischemia in rats. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4086494/

WIN55, 212-2 promotes differentiation of oligodendrocyte precursor cells and improve remyelination through regulation of the phosphorylation level of the ERK 1/2 via cannabinoid receptor 1 after stroke-induced demyelination. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4086494/

The decrease of dopamine D(2)/D(3) receptor densities in the putamen and nucleus caudatus goes parallel with maintained levels of CB(1) cannabinoid receptors in Parkinson's disease: A preliminary autoradiographic study with the selective dopamine D(2)/D(3) antagonist [(3)H]raclopride and the novel CB(1) inverse agonist [(125)I]SD7015. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4180092/


Targeting the endocannabinoid system with cannabinoid receptor agonists: pharmacological strategies and therapeutic possibilities (full – 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3353.full?sid=1569c370-cd5c-4358-89ff-857201f5e069

CHRONIC, NONINVASIVE GLUCOCORTICOID ADMINISTRATION SUPPRESSES LIMBIC ENDOCANNABINOID SIGNALING IN MICE (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3697830/


Photoperiodic Changes in Endocannabinoid Levels and Energetic Responses to Altered Signalling at CB1 Receptors in Siberian Hamsters (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4060156/

Determination of naphthalen-1-yl-(1-pentylindol-3-yl)methanone (JWH-018) in mouse blood and tissue after inhalation exposure to ‘buzz’ smoke by HPLC/MS/MS (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3697740/


Genetic variability in the endocannabinoid system and 12-week clinical response to citalopram treatment: the role of the CNR1, CNR2 and FAAH genes (full – 2012) http://journals.sagepub.com/doi/full/10.1177/0269881112454229

Effects of CP 55,940--agonist of CB1 cannabinoid receptors on ghrelin and somatostatin producing cells in the rat pancreas. (link to PDF – 2012) https://journals.viamedica.pl/folia_histochemica_cytobiologica/article/view/18705


Low brain penetrant CB1 receptor agonists for the treatment of neuropathic pain.
Small-animal PET imaging of the type 1 and type 2 cannabinoid receptors in a photothrombotic stroke model (abst – 2012)  


Protective effect of cannabinoid CB1 receptor activation against altered intrinsic repetitive firing properties induced by Aβ neurotoxicity. (abst – 2012)  

A cell population that strongly expresses the CB1 cannabinoid receptor in the ependyma of the rat spinal cord (abst – 2012)  

The inverse agonist effect of rimonabant on G protein activation is not mediated by the cannabinoid CB1 receptor: Evidence from postmortem human brain. (abst – 2012)  

Contrasting effects of different cannabinoid receptor ligands on mouse ingestive behavior (abst – 2012)  

t_cannabinoid_receptor_ligands_on_mouse_ingestive_behaviour

Metamizol, a non-opioid analgesic, acts via endocannabinoids in the PAG-RVM axis during inflammation in rats (abst – 2012)  

The cannabinoid receptor CB₁ inverse agonist AM251 potentiates the anxiogenic activity of urocortin I in the basolateral amygdala. (abst – 2012)  

Cannabinoids and muscular pain. Effectiveness of the local administration in rat. (abst – 2012)  

Cannabinoids ameliorate disease progression in a model of multiple sclerosis in mice, acting preferentially through CB(1) receptor-mediated anti-inflammatory effects. (abst - 2012)  

The CB(1) Receptor-Mediated Endocannabinoid Signaling and NGF: The Novel Targets of Curcumin. (turmeric) (abst – 2012)  
WIN55212-2 attenuates amyloid-beta-induced neuroinflammation in rats through activation of cannabinoid receptors and PPAR-γ pathway.  (abst – 2012)  

Cannabinoid 1 (CB1) receptor mediates WIN55, 212-2 induced hypothermia and improved survival in a rat post-cardiac arrest model.  (abst – 2012)  

Endocannabinoid analogues exacerbate marble-burying behavior in mice via TRPV1 receptor.  (abst – 2012)  

Cannabinoid CB(1) receptor mediates glucocorticoid effects on hormone secretion induced by volume and osmotic changes.  (abst – 2012)  

CB1 Agonist ACEA Protects Neurons and Reduces the Cognitive Impairment of AβPP/PS1 Mice.  (abst – 2012)  

Anandamide dysfunction in prodromal and established psychosis.  (abst – 2012)  

Cannabinergic Pain Medicine: A Concise Clinical Primer and Survey of Randomized-controlled Trial Results.  (abst – 2012)  

Platelet-rich plasma loaded hydrogel scaffold enhances chondrogenic differentiation and maturation with up-regulation of CB1 and CB2.  (abst – 2012)  

Effect of delta-9-tetrahydrocannabinol on behavioral despair and on presynaptic and postsynaptic serotonergic transmission.  (abst – 2012)  

Cannabinoid type 1 receptors and transient receptor potential vanilloid type 1 channels in fear and anxiety-two sides of one coin?  (abst – 2012)  

Expression and localization of the cannabinoid receptor type 1 and the enzyme fatty acid amide hydrolase in the retina of vervet monkeys.  (abst – 2012)  

Mitochondrial CB(1) receptors regulate neuronal energy metabolism.  (abst – 2012)  

The Role of Cannabinoids In Inflammatory Modulation of Allergic Respiratory Disorders, Inflammatory Pain and Ischemic Stroke.  (abst – 2012)  


Cannabinoid CB1 receptor deficiency increases contextual fear memory under highly aversive conditions and long-term potentiation in vivo. (abst – 2012) http://www.sciencedirect.com/science/article/pii/S1074742712000585
Expression pattern of the cannabinoid receptor genes in the frontal cortex of mood disorder patients and mice selectively bred for high and low fear. (abst – 2012)

G1359A polymorphism in the cannabinoid receptor-1 gene is associated with the presence of coronary artery disease in patients with type 2 diabetes. (abst – 2012)

Associations of variants of CNR1 with obesity and obesity-related traits in Chinese women. (abst – 2012)

Regulation of opioid and cannabinoid receptor genes in human neuroblastoma and T cells by the epigenetic modifiers trichostatin A and 5-aza-2'-deoxycytidine. (abst – 2012)

Role of G1359A polymorphism of the cannabinoid receptor gene on weight loss and adipocytokines levels after two different hypocaloric diets. (abst – 2012)

The interaction between intrathecal administration of low doses of palmitoylethanolamide and AM251 in formalin-induced pain related behavior and spinal cord IL1-β expression in rats. (abst – 2012)

CB(2) receptor and amyloid pathology in frontal cortex of Alzheimer's disease patients. (abst – 2012)

Age-related changes of anandamide metabolism in CB1 cannabinoid receptor knockout mice: correlation with behaviour. (abst – 2012)

http://www.bjjprocs.boneandjoint.org.uk/content/94-B/SUPP_XVIII/7.abstract?
maxtoshow=&hits=25&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=130&sortspec=date&resourcetype=HWCT

Non-Δ⁹-tetrahydrocannabinol phytocannabinoids stimulate feeding in rats. (abst – 2012)

Modulation of sweet responses of taste receptor cells. (abst – 2012)
The role of the endocannabinoid system in skeletal muscle and metabolic adaptations to exercise: potential implications for the treatment of obesity. (abst – 2012) 


Cannabinoid CB(1) receptor in the modulation of stress coping behaviour in mice: the role of serotonin and different forebrain neuronal subpopulations. (abst – 2012) 

Opposing local effects of endocannabinoids on the activity of noradrenergic neurons and release of noradrenaline: relevance for their role in depression and in the actions of CB(1) receptor antagonists. (abst – 2012) http://www.ncbi.nlm.nih.gov/pubmed/22990678


Role of CB1 and CB2 cannabinoid receptors in the development of joint pain induced by monosodium iodoacetate. (abst – 2012) http://www.ncbi.nlm.nih.gov/pubmed/23199705


Oleamide restores sleep in adult rats that were subjected to maternal separation. (abst – 2012) http://www.sciencedirect.com/science/article/pii/S0091305712002493


Inverse relationship of cannabimimetic (R+)WIN 55, 212 on behavior and seizure threshold during the juvenile period. (abst – 2012) http://www.sciencedirect.com/science/article/pii/S0091305711003273


Combined deficiency of the CB1 and CB2 receptors enhances peak bone mass by inhibiting osteoclast differentiation but increases age-related bone loss by promoting adipocyte differentiation and reducing osteoblast differentiation (abst – 2012) http://www.thebonejournal.com/article/S8756-3282%2812%2900153-6/abstract
Evidence For Functional Role Of CB1 Cannabinoid Receptors In The Mammalian Cone Pathway  (abst – 2012)  http://iovs.arvojournals.org/article.aspx?articleid=2356936&resultClick=1


Temporal changes of CB1 cannabinoid receptor in the basal ganglia as a possible structure-specific plasticity process in 6-OHDA lesioned rats.  (full – 2013)  http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0076874

Ghrelin-Induced Orexigenic Effect in Rats Depends on the Metabolic Status and Is Counteracted by Peripheral CB1 Receptor Antagonism.  (full – 2013)  http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0060918


Role of endocannabinoids and cannabinoid-1 receptors in cerebrocortical blood flow regulation.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3537620/

Molecular basis for dramatic changes in cannabinoid CB1 G protein-coupled receptor activation upon single and double point mutations.  (full - 2013)  http://onlinelibrary.wiley.com/doi/10.1002/pro.2192/full

Δ9-tetrahydrocannabinol impairs the inflammatory response to influenza infection: role of antigen-presenting cells and the cannabinoid receptors 1 and 2.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3551428/

Novel Insights Into CB1 Cannabinoid Receptor Signaling: A Key Interaction Identified Between EC3-Loop and TMH2. (full – 2013)
http://jpet.aspetjournals.org/content/early/2013/02/21/jpet.112.201046.long

Type-1 (CB(1)) Cannabinoid Receptor Promotes Neuronal Differentiation and Maturation of Neural Stem Cells. (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0054271

Of mice and (wo)men: factors influencing successful implantation including endocannabinoids. (full – 2013)
http://humupd.oxfordjournals.org/content/20/3/415.long

Endogenous cannabinoid receptor CB1 activation promotes vascular smooth muscle cell proliferation and neointima formation. (full – 2013)
http://www.jlr.org/content/early/2013/03/11/jlr.M035147.long


Modulating the endocannabinoid system in human health and disease: successes and failures (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3684164/

Differential drug-drug interactions of the synthetic Cannabinoids JWH-018 and JWH-073: implications for drug abuse liability and pain therapy. (full - 2013)
http://jpet.aspetjournals.org/content/early/2013/06/25/jpet.113.206003.long

Cannabinoids inhibit energetic metabolism and induce AMPK-dependent autophagy in pancreatic cancer cells. (full – 2013)

Acetaldehyde as a drug of abuse: insight into AM281 administration on operant-conflict paradigm in rats (full – 2013)

Chronic treatment with krill powder reduces plasma triglyceride and anandamide levels in mildly obese men (full – 2013) http://www.lipidworld.com/content/12/1/78


Insulin induces long-term depression of VTA dopamine neurons via endocannabinoids (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4072656/

Alterations to Melanocortinergic, GABAergic and Cannabinoid Neurotransmission Associated with Olanzapine-Induced Weight Gain (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0033548

Activation of Type 1 Cannabinoid Receptor (CB1R) Promotes Neurogenesis in Murine Subventricular Zone Cell Cultures (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0063529

Using the endocannabinoid system as a neuroprotective strategy in perinatal hypoxic-ischemic brain injury. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4146074/

Reduced Food Intake is the Major Contributor to the Protective Effect of Rimonabant on Islet in Established Obesity-Associated Type 2 Diabetes. (full – 2013) http://www.eymj.org/DOIx.php?id=10.3349/ymj.2013.54.5.1127

Reduced expression of brain cannabinoid receptor 1 (Cnr1) is coupled with an increased complementary micro-RNA (miR-26b) in a mouse model of fetal alcohol spectrum disorders. (full – 2013) http://www.clinicalepigeneticsjournal.com/content/5/1/14

Obesity-driven synaptic remodeling affects endocannabinoid control of orexinergic neurons (full – 2013) http://www.pnas.org/content/110/24/E2229.full


A common functional promoter variant links CNR1 gene expression to HDL cholesterol level. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3873874/


Monoacylglycerol Lipase (MAGL) Inhibition Attenuates Acute Lung Injury in Mice. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3808422/


Endocannabinoids as markers of sperm quality: hot spots (full – 2013)
The Gastric CB1 Receptor Modulates Ghrelin Production through the mTOR Pathway to Regulate Food Intake. (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0080339

Further evidence for association of polymorphisms in the CNR1 gene with cocaine addiction: confirmation in an independent sample and meta-analysis (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3223560/


On the g-protein-coupled receptor heteromers and their allosteric receptor-receptor interactions in the central nervous system: focus on their role in pain modulation. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3730365/


Irritable Bowel Syndrome and Migraine: Bystanders or Partners? (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3714407/


Genetic Background Can Result in a Marked or Minimal Effect of Gene Knockout (GPR55 and CB2 Receptor) in Experimental Autoimmune Encephalomyelitis Models of Multiple Sclerosis. (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0076907

Hepatic Cannabinoid Receptor Type 1 Mediates Alcohol-Induced Regulation of Bile Acid Enzyme Genes Expression Via CREBH (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0068845


Low 17beta-Estradiol Levels in Cnr1 Knock-Out Mice Affect Spermatid Chromatin Remodeling by Interfering with Chromatin Reorganization. (full – 2013) http://www.bioreprod.org/content/88/6/152.long

Association between Cannabinoid CB1 Receptor Expression and Akt Signalling in Prostate Cancer (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0065798

Full Inhibition of Spinal FAAH Leads to TRPV1-Mediated Analgesic Effects in Neuropathic Rats and Possible Lipoxygenase-Mediated Remodeling of Anandamide
Rimonabant effects on anxiety induced by simulated public speaking in healthy humans: a preliminary report.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4539121/  
The cannabinoid TRPA1 agonist cannabichromene inhibits nitric oxide production in macrophages and ameliorates murine colitis.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3632250/  
Monounsaturated fatty acids generated via stearoyl CoA desaturase-1 are endogenous inhibitors of fatty acid amide hydrolase.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3839776/  
Cannabinoids and the endocannabinoid system in lower urinary tract function and dysfunction.  
Molecular targets underlying SUMO-mediated neuroprotection in brain ischemia  

The Endocannabinoid System and Sex Steroid Hormone-Dependent Cancers  
http://www.hindawi.com/journals/ije/2013/259676/  

Association between a Genetic Variant of Type-1 Cannabinoid Receptor and Inflammatory Neurodegeneration in Multiple Sclerosis  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3877004/  

Cannabinoids, Neurogenesis and Antidepressant Drugs: Is there a Link?  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3648779/  

HINT1 protein cooperates with cannabinoid 1 receptor to negatively regulate glutamate NMDA receptor activity  
http://www.molecularbrain.com/content/6/1/42  

Stimulatory and Inhibitory Roles of Brain 2-Arachidonoylglycerol in Bombesin-Induced Central Activation of Adrenomedullary Outflow in Rats.  
https://www.jstage.jst.go.jp/article/jphs/121/2/121_12208FP/_pdf  

Activation-dependent plasticity of polarized GPCR distribution on the neuronal surface.  
http://jmcb.oxfordjournals.org/content/5/4/250.long  

Neuregulin-1 Impairs the Long-term Depression of Hippocampal Inhibitory Synapses by Facilitating the Degradation of Endocannabinoid 2-AG.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3776056/  

Cannabinoids ameliorate impairments induced by chronic stress to synaptic plasticity and short-term memory.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3682147/
Diacylglycerol Lipaseα (DAGLα) and DAGLβ Cooperatively Regulate the Production of 2-Arachidonoyl Glycerol in Autaptic Hippocampal Neurons (full – 2013) http://molpharmacology.aspetjournals.org/content/84/2/296.full.pdf+html

Cannabinoid (CB)1 receptors are critical for the innate immune response to TLR4 stimulation. (full – 2013) http://ajpregu.physiology.org/content/305/3/R224

Cannabinoid 1 Receptors in Keratinocytes Modulate Proinflammatory Chemokine Secretion and Attenuate Contact Allergic Inflammation. (full – 2013) http://www.jimmunol.org/content/190/10/4929.long


Rapid Glucocorticoid-Induced Activation of TRP and CB1 Receptors Causes Biphasic Modulation of Glutamate Release in Gastric-Related Hypothalamic Preautonomic Neurons. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3560102/

Effects of glucagon-like peptide-1 receptor stimulation and blockade on food consumption and body weight in rats treated with a cannabinoid CB1 receptor agonist WIN 55,212-2. (full - 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3638658/


CB1 and CB2 Cannabinoid Receptor Agonists Induce Peripheral Antinociception by Activation of the Endogenous Noradrenergic System. (full – 2013) http://journals.lww.com/anesthesia-analgesia/Fulltext/2013/02000/CB1_and_CB2_Cannabinoid_Receptor_Agonists_Induce.31.aspx

Developmental Role for Endocannabinoid Signaling in Regulating Glucose Metabolism and Growth. (full – 2013) http://diabetes.diabetesjournals.org/content/62/7/2359.full?sid=2f5bda2b-a9c7-432a-9588-80c99189164d

Activation of the sympathetic nervous system mediates hypophagic and anxiety-like effects of CB1 receptor blockade. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3607008/

The role of endocannabinoids system in fatty liver disease and therapeutic potentials. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3745655/

Epithelial expression of vanilloid and cannabinoid receptors: a potential role in burning mouth syndrome pathogenesis (full – 2013)

Roles of cannabinoid receptors type 1 and 2 on the retinal function of adult mice.
(full – 2013) http://www.iovs.org/content/54/13/8079.long

Endocannabinoid signaling in the gut mediates preference for dietary unsaturated fats.
(full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3659363/

Inhibitory effects of endocannabinoid on the action potential of pacemaker cells in sinoatrial nodes of rabbits. (full – 2013)

Chemical probes of endocannabinoid metabolism. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3639726/

Behavioral effects of the novel potent cannabinoid CB1 agonist AM 4054. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4015344/

Phencyclidine-induced social withdrawal results from deficient stimulation of cannabinoid CB1 receptors: implications for schizophrenia. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3717536/

Antibodies to cannabinoid type 1 receptor co-react with stomatin-like protein 2 in mouse brain mitochondria. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3902808/

The endocannabinoid system, cannabinoids, and pain (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3820295/

Expression of the cannabinoid type I receptor and prognosis following surgery in colorectal cancer. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3576207/

Long-term CB1 receptor blockade enhances vulnerability to anxiogenic-like effects of cannabinoids. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3691020/

Recent Progress in Understanding the Pathophysiology of Post-Traumatic Stress Disorder: Implications for Targeted Pharmacological Treatment. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3629370/

Δ9-tetrahydrocannabinol impairs the inflammatory response to influenza infection: role of antigen-presenting cells and the cannabinoid receptors 1 and 2. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3551428/

Evaluation of the role of striatal cannabinoid CB1 receptors on movement activity of parkinsonian rats induced by reserpine. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3730975/

Cannabinoid CB1 Receptors Mediate the Gastroprotective Effect of Neurotensin. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3586888/

Cannabinoid Receptor 1 Gene and Irritable Bowel Syndrome: Phenotype and Quantitative Traits. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3602676/

Surinabant, a selective CB(1) antagonist, inhibits THC-induced central nervous system and heart rate effects in humans. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3703229/

Effect of Cannabinoid Receptor Activation on Spreading Depression. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3586901/


Astroglial CB1 cannabinoid receptors regulate leptin signaling in mouse brain astrocytes. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3854987/


Striatal Molecular Signature of Subchronic Subthalamic Nucleus High Frequency Stimulation in Parkinsonian Rat. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3617149/

Cannabinoid receptors are widely expressed in goldfish: molecular cloning of a CB2-like receptor and evaluation of CB1 and CB2 mRNA expression profiles in different organs. (full - 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3776019

Modulation of the cannabinoid receptors by hemopressin peptides. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3594051/
Distinct roles of β-arrestin 1 and β-arrestin 2 in ORG27569-induced biased signaling and internalization of the cannabinoid receptor one (CB1) (full – 2013) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3617280/


Endogenous Lipid Activated G Protein-Coupled Receptors: Emerging Structural Features From Crystallography and Molecular Dynamics Simulations. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4034697/

Functional activity of the cannabinoid 1 receptor is not affected by opioid antagonists in the rat brain. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3611077/

Striatal CB1 and D2 receptors regulate expression of each other, crip1a and delta opioid systems. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3697910/

Repeated Low Dose Administration of the Monoacylglycerol Lipase Inhibitor JZL184 Retains CB1 Receptor Mediated Antinociceptive and Gastroprotective Effects. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3657109/

CB1 receptor mediates the effects of glucocorticoids on AMPK activity in the hypothalamus. (full – 2013) http://joe.endocrinology-journals.org/content/219/1/79.long


Therapeutic Opportunities through the Modulation of Endocannabinoid Transport (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4255948/

The CB1 receptor mediates the peripheral effects of ghrelin on AMPK activity but not on growth hormone release (full – 2013) http://www.fasebj.org/content/27/12/5112.long

Does the neuroprotective role of anandamide display diurnal variations? (full – 2013) http://www.mdpi.com/1422-0067/14/12/23341/htm

Cannabinoid receptor 1 controls human mucosal-type mast cell degranulation and maturation in situ. (full – 2013) http://www.jacionline.org/article/S0091-6749%2813%2900057-2/fulltext


Impulsivity, Variation in the Cannabinoid Receptor (CNR1) and Fatty Acid Amide Hydrolase (FAAH) Genes, and Marijuana-Related Problems. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3817049/
The anxiolytic effect of cannabidiol on chronically stressed mice depends on hippocampal neurogenesis: involvement of the endocannabinoid system.  
(full – 2013)  http://ijnp.oxfordjournals.org/content/16/6/1407.long

Involvement of prelimbic medial prefrontal cortex in panic-like elaborated defensive behaviour and innate fear-induced antinociception elicited by GABAA receptor blockade in the dorsomedial and ventromedial hypothalamic nuclei: role of the endocannabinoid CB1 receptor.  
(full – 2013)  http://ijnp.oxfordjournals.org/content/16/8/1781.long

The Effect of Mifepristone (RU486) on the Endocannabinoid System in Human Plasma and First Trimester Trophoblast of Women undergoing Termination of Pregnancy.  

Neuroimmunne interactions of cannabinoids in neurogenesis: focus on interleukin-1β (IL-1β) signalling.  
(full – 2013)  http://www.biochemsoctrans.org/content/41/6/1577

The non-selective cannabinoid receptor agonist WIN 55,212-2 attenuates responses of C-fiber nociceptors in a murine model of cancer pain.  
(full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3753184/

CB1 and CB2 Receptors are Novel Molecular Targets for Tamoxifen and 4OH-Tamoxifen.  
(full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3860589/

Cannabinoid Receptor Activation Prevents the Effects of Chronic Mild Stress on Emotional Learning and LTP in a Rat Model of Depression.  
(full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3924526/

Endocannabinoid Signaling in the Etiology and Treatment of Major Depressive Illness.  
(full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4002665/

Common polymorphism in the cannabinoid type 1 receptor gene (CNR1) is associated with microvascular complications in type 2 diabetes.  
(full – 2013)  http://www.jdcjournal.com/article/S1056-8727%2813%2900199-2/fulltext

The Role of CB1-Receptors in the Proconvulsant Effect of Leptin on Penicillin-Induced Epileptiform Activity in Rats.  

The du2J mouse model of ataxia and absence epilepsy has deficient cannabinoid CB1 receptor-mediated signalling.  
(full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3764637/

The role of androgen receptor in transcriptional modulation of cannabinoid receptor type 1 gene in rat trigeminal ganglia.  
(full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3870904/
Endocannabinoid Signaling in Hypothalamic-Pituitary-Adrenocortical Axis Recovery Following Stress: Effects of Indirect Agonists and Comparison of Male and Female Mice. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3929302/

Differential expression of endocannabinoid system in normal and preeclamptic placentas: effects on nitric oxide synthesis. (full - 2013) http://www.placentajournal.org/article/S0143-4004%2812%2900393-1/fulltext


CB1 Cannabinoid Receptor Agonist Prevents NGF-Induced Sensitization of TRPV1 in Sensory Neurons. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3752375/

Effects of a novel CB1 agonist on visual attention in male rats: Role of strategy and expectancy in task accuracy. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4006576/

CB1 Receptor-Mediated Signaling Underlies the Hippocampal Synaptic, Learning and Memory Deficits Following Treatment with JWH-081, a New Component of Spice/K2 Preparations. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3959795/

Differential effects of the cannabinoid agonist WIN55,212-2 on delay and trace eyeblink conditioning (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3963426/

Control of spasticity in a multiple sclerosis model using central nervous system-excluded CB1 cannabinoid receptor agonists. (full – 2013) http://www.fasebj.org/content/28/1/117.long

Anandamide transport inhibition by ARN272 attenuates nausea-induced behaviour in rats, and vomiting in shrews (Suncus murinus). (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3949659/

CB1 Cannabinoid Receptors Promote Maximal FAK Catalytic Activity By Stimulating Cooperative Signaling Between Receptor Tyrosine Kinases and Integrins in Neuronal Cells. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4165595/

Optogenetic identification of an intrinsic cholinergically driven inhibitory oscillator sensitive to cannabinoids and opioids in hippocampal CA1 (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3903354/

Targeting the cannabinoid system for pain relief? (full – 2013) http://www.e-aat.com/article/S1875-4597%2813%2900011-7/fulltext
Cannabidiol attenuates catalepsy induced by distinct pharmacological mechanisms via 5-HT1A receptors activation in mice. (full – 2013) http://www.sciencedirect.com/science/article/pii/S0278584613001164

Amygdala FAAH and anandamide: mediating protection and recovery from stress. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4169112/

Distinct pharmacology and metabolism of K2 synthetic cannabinoids compared to Δ9-THC: Mechanism underlying greater toxicity? (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3945037/

The role of cannabinoid 1 receptor expressing interneurons in behavior. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3946968/

Moving around the molecule: Relationship between chemical structure and in vivo activity of synthetic cannabinoids. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3944940/


High fat diet and body weight have different effects on cannabinoid CB1 receptor expression in rat nodose ganglia. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3866822/

The cannabinoid receptor type 1 is essential for mesenchymal stem cell survival and differentiation: implications for bone health. (full – 2013) http://www.hindawi.com/journals/sci/2013/796715/


Stirring the Pot With Estrogens (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3697880/

Biphasic effects of Δ9-tetrahydrocannabinol on brain stimulation reward and motor activity (full – 2013) http://ijnp.oxfordjournals.org/content/16/10/2273

Reduced Cannabinoid CB1 Receptor Binding in Alcohol Dependence Measured with Positron Emission Tomography. (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3594469/

Loss of CB1 receptors leads to decreased cathepsin D levels and accelerated lipofuscin accumulation in the hippocampus. (full – 2013)  http://www.sciencedirect.com/science/article/pii/S0047637413000869

The inverse agonist of CB1 receptor SR141716 blocks compulsive eating of palatable food.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3720761/

Cannabinoid receptor modulation of the endothelial cell inflammatory response  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2791499/

A spontaneous deletion of α-Synuclein is associated with an increase in CB1 mRNA transcript and receptor expression in the hippocampus and amygdala: Effects on alcohol consumption  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3931467/

Distribution and Possible Function of Cannabinoid Receptor Subtype 1 in the Human Prostate*—An Inhibitory Role for Growth in the Human Prostate Cancer  (full – 2013)  http://file.scirp.org/Html/12-5000121_31406.htm

Diuretic effects of cannabinoid agonists in mice.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3872476/

Pathophysiology of Human Visceral Obesity: An Update  (full – 2013)  http://physrev.physiology.org/content/93/1/359.long

Computationally-predicted CB1 cannabinoid receptor mutants show distinct patterns of salt-bridges that correlate with their level of constitutive activity reflected in G protein coupling levels, thermal stability, and ligand binding.  (full – 2013)  https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4872635/

Performance in working memory and attentional control is associated with the rs2180619 SNP in the CNR1 gene.  (full – 2013)  http://onlinelibrary.wiley.com/doi/10.1111/gbb.12097/full


Natural Cannabinoids Improve Dopamine Neurotransmission and Tau and Amyloid Pathology in a Mouse Model of Tauopathy.  (link to PDF – 2013)  http://content.iospress.com/articles/journal-of-alzheimers-disease/jad130050

GPR55 and its interaction with membrane lipids: comparison with other endocannabinoid-binding receptors.  (link to PDF - 2013)  http://www.eurekaselect.com/105678/article
Endocannabinoid signaling in cancer: a rather complex puzzle  
(letter - 2013)  

The endocannabinoid system provides an avenue for evidence-based treatment development for PTSD.  
(1st page – 2013)  

Predator threat stress promotes long lasting anxiety-like behaviors and modulates synaptophysin and CB1 receptors expression in brain areas associated with PTSD symptoms.  
(abst – 2013)  

The neuroprotective role of endocannabinoids against chemical-induced injury and other adverse effects.  
(abst – 2013)  

Activation of STAT3 is involved in neuroprotection by electroacupuncture pretreatment via cannabinoid CB1 receptors in rats.  
(abst – 2013)  

Cannabinoid Receptors as Therapeutic Targets for Dialysis-Induced Peritoneal Fibrosis.  
(abst – 2013)  

Endocannabinoid/GABA interactions in the entopeduncular nucleus modulates alcohol intake in rats.  
(abst – 2013)  

Evidence for the involvement of cannabinoid receptors' polymorphisms in the pathophysiology of human diseases.  
(abst – 2013)  

Behavioral Responses to Acute and Sub-chronic Administration of the Synthetic Cannabinoid JWH-018 in Adult Mice Prenatally Exposed to Corticosterone.  
(abst – 2013)  

Cannabinoid CB(1) receptor is expressed in chromophobe renal cell carcinoma and renal oncocytoma.  
(abst – 2013)  

Functional Residues Essential for the Activation of the CB1 Cannabinoid Receptor.  
(abst - 2013)  

Curcumin modulates cannabinoid receptors in liver fibrosis in vivo and inhibits extracellular matrix expression in hepatic stellate cells by suppressing cannabinoid receptor type-1 in vitro.  
(abst – 2013)  

DHA prevents altered 5-HT1(A), 5-HT2(A), CB1 and GABA(A) receptor binding densities in the brain of male rats fed a high-saturated-fat diet.  
(abst – 2013)  
Genetic variation in the cannabinoid receptor gene (CNR1) (G1359A polymorphism) and their influence on anthropometric parameters and metabolic parameters under a high monounsaturated vs. high polyunsaturated fat hypocaloric diets.  (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/23337343


The CB1 cannabinoid receptor mediates glucocorticoid-induced effects on behavioural and neuronal responses during lactation.  (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/23417606


Nicotine-Induced Neuroprotection Against Ischemic Injury Involves Activation of Endocannabinoid System in Rats  (abst – 2013) http://link.springer.com/article/10.1007/s11064-012-0927-6


Screening genetic variability at the CNR1 gene in both major depression etiology and clinical response to citalopram treatment.  (abst – 2013) http://link.springer.com/article/10.1007%2Fs00213-013-2995-y


L-DOPA-treatment in primates disrupts the expression of A(2A) adenosine-CB(1) cannabinoid-D(2) dopamine receptor heteromers in the caudate nucleus. (abst – 2013) http://www.sciencedirect.com/science/article/pii/S0028390813005121

Comparative proteomic and phosphoproteomic profiling of pancreatic adenocarcinoma cells treated with CB1 or CB2 agonists. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/23463621


Toxicological profiles of selected synthetic cannabinoids showing high binding affinities to the cannabinoid receptor subtype CB₁. (abst – 2013) http://link.springer.com/article/10.1007%2Fs00204-013-1029-1


Role of intra-accumbal cannabinoid CB1 receptors in the potentiation, acquisition and expression of morphine-induced conditioned place preference. (abst – 2013) http://www.sciencedirect.com/science/article/pii/S0166432813001551


Targeting the endocannabinoid system in the treatment of fragile X syndrome.

Central functional response to the novel peptide cannabinoid, hemopressin.

Entopeduncular nucleus endocannabinoid system modulates sleep-waking cycle and mood in rats. (abst – 2013)

2-AG into the lateral hypothalamus increases REM sleep and cFos expression in melanin concentrating hormone neurons in rats. (abst – 2013)

Cannabinoids increase type 1 cannabinoid receptor expression in a cell culture model of striatal neurons: implications for Huntington's disease. (abst – 2013)


Effects of CB1 receptor blockade on monosodium glutamate induced hypometabolic and hypothalamic obesity in rats. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/23620336

Infusion of cannabidiol into infralimbic cortex facilitates fear extinction via CB1 receptors. (abst – 2013)

Neonatal lipopolysaccharide treatment has long-term effects on monoaminergic and cannabinoid receptors in the rat (abst – 2013)


Impact of omega-6 polyunsaturated fatty acid supplementation and γ-aminobutyric acid on astrogliogenesis through the endocannabinoid system. (abst – 2013)

Cardiorespiratory control as a function of wake-sleep behavior and diet in mice lacking CB1 cannabinoid receptors (abst – 2013)
http://www.fasebj.org/content/27/1_Supplement/926.1.short

Effects of anandamide and other CB1 ligands on cognitive function (abst – 2013)
The 2-arachidonoylglycerol effect on myosin light chain phosphorylation in human platelets. (abst – 2013)

Modulation of anxiety-like behaviour by the endocannabinoid 2-arachidonoylglycerol (2-AG) in the dorsolateral periaqueductal gray. (abst – 2013)


Dysregulation of Cannabinoid CB1 Receptor and Associated Signaling Networks in Brains of Cocaine Addicts and Cocaine-Treated Rodents. (abst – 2013)


CNR1 variation is associated with the age at onset in Huntington disease. (abst – 2013)

The role of α2-adrenoceptors in the anti-convulsant effects of cannabinoids on pentylentetrazole-induced seizure threshold in mice. (abst – 2013)

Nephrogenic adenoma of the urinary tract: clinical, histological, and immunohistochemical characteristics. (abst – 2013)


The Role of the Endocannabinoid System in Eating Disorders: Neurochemical and Behavioural Preclinical Evidence. (abst – 2013)


Endocannabinoid receptor (CB1R) deficiency affects maternal care and alters the dam's hippocampal oxytocin receptor and BDNF expression. (abst – 2013)  [http://www.ncbi.nlm.nih.gov/pubmed/23895426]

Complex interaction between anandamide and the nitrergic system in the dorsolateral periaqueductal gray to modulate anxiety-like behavior in rats. (abst – 2013)  [http://www.sciencedirect.com/science/article/pii/S0028390813003250]


Small animal PET imaging of the type 1 cannabinoid receptor in a rodent model for anorexia nervosa. (abst – 2013)  [http://www.ncbi.nlm.nih.gov/pubmed/24006151]


Endocannabinoids decrease neuropathic pain-related behavior in mice through the activation of one or both peripheral CB1 and CB2 receptors. (abst – 2013) http://www.sciencedirect.com/science/article/pii/S0028390813004802


Dominant negative DISC1 mutant mice display specific social behaviour deficits and aberration in BDNF and cannabinoid receptor expression. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/24219803

Erratum to: Endocannabinoids underlie reconsolidation of hedonic memories in Wistar rats (correction to chart – 2013)

Delineation of Domains Within the Cannabinoid CB1 and Dopamine D2 Receptors That Mediate the Formation of the Heterodimer Complex. (abst – 2013)

Secondary Metabolites from Eupenicillium parvum and Their in Vitro Binding Affinity for Human Opioid and Cannabinoid Receptors. (abst – 2013)

Role of Genetic Variation in the Cannabinoid Receptor Gene (CNR1) (G1359A Polymorphism) on Weight Loss and Cardiovascular Risk Factors After Liraglutide Treatment in Obese Patients With Diabetes Mellitus Type 2. (abst – 2013)

Glutamate spillover drives endocannabinoid production and inhibits GABAergic transmission in the Substantia Nigra pars compacta. (abst – 2013)

Decreased Enteric Fatty Acid Amide Hydrolase Activity is Associated with Colonic Inertia in Slow Transit Constipation (abst – 2013)

The cytokine and endocannabinoid systems are co-regulated by NF-κB p65/RelA in cell culture and transgenic mouse models of Huntington's disease and in striatal tissue from Huntington's disease patients. (abst – 2013)

Regulation of GPR55 in rat white adipose tissue and serum LPI by nutritional status, gestation, gender and pituitary factors. (abst – 2013)

Concurrent pharmacological modification of cannabinoid-1 and glucagon-like peptide-1 receptor activity affects feeding behavior and body weight in rats fed a free-choice, high-carbohydrate diet. (abst – 2013)

The role of Cannabinoid receptors on light-induced photoreceptor degeneration (abst – 2013)
http://iovs.arvojournals.org/article.aspx?articleid=2149928&resultClick=1

Motor effects of the non-psychotropic phytocannabinoid cannabidiol that are mediated by 5-HT1A receptors (abst – 2013)

Getting high on the endocannabinoid system. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3997295/


2012 Division of Medicinal Chemistry Award Address: Trekking the Cannabinoid Road: A Personal Perspective. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4064474/

Endocannabinoid Modulation of Cortical Up-States and NREM Sleep (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3919802/

Multiple sleep alterations in mice lacking cannabinoid type 1 receptors. (full – 2014) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0089432


Prophylactic cannabinoid administration blocks the development of paclitaxel-induced neuropathic nociception during analgesic treatment and following cessation of drug delivery. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3998744/


Reduced expression of brain cannabinoid receptor 1 (Cnr1) is coupled with an increased complementary micro-RNA (miR-26b) in a mouse model of fetal alcohol spectrum disorders. (full – 2014) http://www.clinicalepigeneticsjournal.com/content/5/1/14


The endocannabinoid/endorvanilloid N-arachidonoyl dopamine (NADA) and synthetic cannabinoid WIN55,212-2 abate the inflammatory activation of human endothelial cells.
Involvement of cannabinoid receptors in peripheral and spinal morphine analgesia. (full – 2014) http://www.sciencedirect.com/science/article/pii/S0306452213010531

The influence of monoacylglycerol lipase inhibition upon the expression of epidermal growth factor receptor in human PC-3 prostate cancer cells. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4109781/

CB1 cannabinoid receptors are involved in neuroleptic-induced enhancement of brain neurotensin. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4016688/


Prolonged monoacylglycerol lipase blockade causes equivalent CB1-receptor mediated adaptations in FAAH wild type and knockout mice. (full – 2014) http://jpet.aspetjournals.org/content/early/2014/05/21/jpet.114.212753.long

CB1 cannabinoid receptors are involved in neuroleptic-induced enhancement of brain neurotensin. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4016688/


Cannabinoid, melanocortin and opioid receptor expression on DRD1 and DRD2 subpopulations in rat striatum. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3972466/

The expression of cannabinoid receptor 1 is significantly increased in atopic patients (full – 2014)  
http://www.jacionline.org/article/S0091-6749%2813%2902936-9/fulltext

Endocannabinoid Receptors Gene Expression in Morbidly Obese Women with Nonalcoholic Fatty Liver Disease (full – 2014)  
http://www.hindawi.com/journals/bmri/2014/502542/

Anandamide Protects HT22 Cells Exposed to Hydrogen Peroxide by Inhibiting CB1 Receptor-Mediated Type 2 NADPH Oxidase. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4127243/

Cannabinoid receptor 1 gene polymorphisms and nonalcoholic fatty liver disease in women with polycystic ovary syndrome and in healthy controls. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4127238/

Dependence Potential of the Synthetic Cannabinoids JWH-073, JWH-081, and JWH-210: In Vivo and In Vitro Approaches. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4131522/

Chronic ethanol alters network activity and endocannabinoid signaling in the prefrontal cortex (full – 2014)  

Astrocytic expression of cannabinoid type 1 receptor in rat and human sclerotic hippocampi. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4097232/

Pregnenolone can protect the brain from cannabis intoxication. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4057431/

Hepatic cannabinoid-1 receptors mediate diet-induced insulin resistance by increasing de novo synthesis of long-chain ceramides. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3839256/

A restricted population of CB1 cannabinoid receptors with neuroprotective activity. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4050577/

Localization of the cannabinoid CB1 receptor and the 2-AG synthesizing (DAGLα) and degrading (MAGL, FAAH) enzymes in cells expressing the Ca(2+)–binding proteins calbindin, calretinin, and parvalbumin in the adult rat hippocampus. (full – 2014)  

Regulatory effects of anandamide on intracellular Ca(2+) concentration increase in trigeminal ganglion neurons. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4146256/
The CB1 cannabinoid receptor agonist reduces L-DOPA-induced motor fluctuation and ERK1/2 phosphorylation in 6-OHDA-lesioned rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4226453/

Cannabinoid receptors contribute to astroglial Ca2+-signalling and control of synaptic plasticity in the neocortex. (full – 2014) http://rstb.royalsocietypublishing.org/content/369/1654/20140077.long


Cannabinoid Type 1 and Type 2 Receptor Antagonists Prevent Attenuation of Serotonin-Induced Reflex Apneas by Dronabinol in Sprague-Dawley Rats. (full – 2014) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0111412


Behavioral effects of the cannabinoid CB1 receptor allosteric modulator ORG27569 in rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4186448/

Input- and Cell-Type-Specific Endocannabinoid-Dependent LTD in the Striatum. (full – 2014) http://www.cell.com/cell-reports/fulltext/S2211-1247%2814%2901016-X


Involvement of the cannabinoid CB1 receptor in modulation of dopamine output in the prefrontal cortex associated with food restriction in rats. (full – 2014) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0092224


Glucose concentration in culture medium affects mRNA expression of TRPV1 and CB1 receptors and changes capsaicin toxicity in PC12 cells. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4322151/

Characterization of endocannabinoid-mediated induction of myeloid-derived suppressor cells involving mast cells and MCP-1. (full – 2014) http://www.jleukbio.org/content/95/4/609.long


Cannabinoid modulation of predator fear: involvement of the dorsolateral periaqueductal gray. (full – 2014) http://ijnp.oxfordjournals.org/content/17/8/1193.long

Mutation of Putative GRK Phosphorylation Sites in the Cannabinoid Receptor 1 (CB1R) Confers Resistance to Cannabinoid Tolerance and Hypersensitivity to Cannabinoids in Mice. (full – 2014) http://www.jneurosci.org/content/34/15/5152.long

Enhanced Endocannabinoid-Mediated Modulation of Rostromedial Tegmental Nucleus Drive onto Dopamine Neurons in Sardinian Alcohol-Preferring Rats. (full – 2014) http://www.jneurosci.org/content/34/38/12716.long

Modulation of Fear Memory by Dietary Polyunsaturated Fatty Acids via Cannabinoid Receptors (full – 2014) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4059893/


Interaction between Antagonist of Cannabinoid Receptor and Antagonist of Adrenergic Receptor on Anxiety in Male Rat. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4202541/


CB1 cannabinoid receptor in SF1-expressing neurons of the ventromedial hypothalamus determines metabolic responses to diet and leptin. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4209357/

Neural Effects of Cannabinoid CB1 Neutral Antagonist Tetrahydrocannabivarin (THCv) on Food Reward and Aversion in Healthy Volunteers. (full – 2014) http://ijnp.oxfordjournals.org/content/18/6/pyu094.long

Tapping into the endocannabinoid system to ameliorate acute inflammatory flares and associated pain in mouse knee joints. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4201700/

CB1 augments mGluR5 function in medial prefrontal cortical neurons to inhibit amygdala hyperactivity in an arthritis pain model. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4288820/


Cocaine-Induced Behavioral Sensitization Is Associated With Changes in the Expression of Endocannabinoid and Glutamatergic Signaling Systems in the Mouse Prefrontal Cortex. (full – 2014) http://ijnp.oxfordjournals.org/content/18/1/pyu024.long

Cannabinoid Transmission in the Prefrontal Cortex Bi-Phasically Controls Emotional Memory Formation via Functional Interactions with the Ventral Tegmental Area. (full – 2014) http://www.jneurosci.org/content/34/39/13096.long

The endocannabinoid anandamide induces apoptosis in cytotrophoblast cells: Involvement of both mitochondrial and death receptor pathways. (full – 2014) http://www.placentajournal.org/article/S0143-4004(14)00823-6/fulltext


Fatty Acid-binding Protein 5 (FABP5) Regulates Cognitive Function Both by Decreasing Anandamide Levels and by Activating the Nuclear Receptor Peroxisome Proliferator-activated Receptor β/δ (PPARβ/δ) in the Brain (full – 2014) http://www.jbc.org/content/289/18/12748.full.pdf+html


The endocannabinoid 2-AG controls skeletal muscle cell differentiation via CB1 receptor-dependent inhibition of Kv7 channels. (full – 2014) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4066524/

Aberrant Location of Inhibitory Synaptic Marker Proteins in the Hippocampus of Dystrophin-Deficient Mice: Implications for Cognitive Impairment in Duchenne Muscular Dystrophy. (full – 2014) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4178163/

Control of synaptic function by endocannabinoid-mediated retrograde signaling. (full – 2014) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4237895/

Hemopressin, an inverse agonist of cannabinoid receptors, inhibits neuropathic pain in rats. (full – 2014) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4112957/

Effects of repeated dosing with mechanistically distinct antinociceptive ligands in a rat model of neuropathic spinal cord injury pain. (full – 2014) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4184706/

Changes in Cerebral CB1 Receptor Availability after Acute and Chronic Alcohol Abuse and Monitored Abstinence. (full – 2014) 
http://www.jneurosci.org/content/34/8/2822.long

Changes in CB1 and CB2 receptors in the post-mortem cerebellum of humans affected by spinocerebellar ataxias. (full – 2014) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3954486/

The cannabinoid acids, analogs and endogenous counterparts. (full – 2014) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4351512/

Allosteric Modulation of a Cannabinoid G Protein-coupled Receptor BINDING SITE ELUCIDATION AND RELATIONSHIP TO G PROTEIN SIGNALING (full – 2014) 
http://www.jbc.org/content/289/9/5828.full.pdf+html

Optimization of Chemical Functionalities of Indole-2-Carboxamides to Improve Allosteric Parameters for the Cannabinoid Receptor 1 (CB1). (full – 2014) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4203403/

Involvement of cannabinoid receptor-1 activation in mitochondrial depolarizing effect of lipopolysaccharide in human spermatozoa. (full – 2014) 

Elevation of Endogenous Anandamide Impairs LTP, Learning and Memory through CB1 Receptor Signaling in Mice. (full – 2014) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4077345/

Relationships between serotonergic and cannabinoid system in depressive-like behavior: a PET study with [11C]-DASB. (full – 2014) 
The antitumor action of cannabinoids on glioma tumorigenesis. (full – 2014)  

Endocannabinoid signalling and the deteriorating brain. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4471876/

http://www.mdpi.com/1420-3049/19/11/18781/htm

Overactive cannabinoid 1 receptor in podocytes drives type 2 diabetic nephropathy (full – 2014)  
http://www.pnas.org/content/111/50/E5420.full?sid=66cd362f-ac53-47ba-920e-b7dae50940a2

Baseline Anandamide Levels and Body Weight Impact the Weight Loss Effect of CB1 Receptor Antagonism in Male Rats (full – 2014)  

Astrocytes in endocannabinoid signalling. (full – 2014)  
http://rstb.royalsocietypublishing.org/content/369/1654/20130599

Acute Resistance Exercise Induces Antinociception by Activation of the Endocannabinoid System in Rats. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4139418/

The CB1 Receptor as an Important Mediator of Hedonic Reward Processing (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4138748/

Stress regulates endocannabinoid-CB1 receptor signaling. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4247817/

Endocannabinoid-Hydrolysing Enzymes in the Post-Mortem Cerebellum of Humans Affected by Hereditary Autosomal Dominant Ataxias. (full – 2014)  
http://www.karger.com/Article/FullText/358127

Ultramicronized palmitoylethanolamidine normalizes intestinal motility in a murine model of post-inflammatory accelerated transit: involvement of CB1 receptors and TRPV1. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC423976/

Epigenetic Regulation of Genes that Modulate Chronic Stress-induced Visceral Pain in the Peripheral Nervous System. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4274248/

Acute Activation of Cannabinoid Receptors by Anandamide Reduces Gastro-Intestinal Motility and Improves Postprandial Glycemia in Mice. (full – 2014)  
http://diabetes.diabetesjournals.org/content/64/3/808.long
Antibiotic-induced dysbiosis alters host-bacterial interactions and leads to colonic sensory and motor changes in mice. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4615720/

JZL184 is anti-hyperalgesic in a murine model of cisplatin-induced peripheral neuropathy. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4268146/

Cannabinoid Type 1 Receptor Availability in the Amygdala Mediates Threat Processing in Trauma Survivors. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4207337/


Molecular Basis for the Improvement in Muscle Metaboreflex and Mechanoreflex Control in Exercise-Trained Humans with Chronic Heart Failure. (full – 2014) http://ajpheart.physiology.org/content/307/11/H1655

Role of corticosterone in the murine enteric nervous system during fasting. (full – 2014) http://ajpgi.physiology.org/content/307/9/G905

Genetic rescue of CB1 receptors on medium spiny neurons prevents loss of excitatory striatal synapses but not motor impairment in HD mice. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4180675/

Role of Endocannabinoid Activation of Peripheral CB1 Receptors in the Regulation of Autoimmune Disease. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4261058/


Increased angiotensin II contraction of the uterine artery at early gestation in a transgenic model of hypertensive pregnancy is reduced by inhibition of endocannabinoid hydrolysis. (full – 2014) http://hyper.ahajournals.org/content/64/3/619.long

Morphological and Behavioural Evidence for Impaired Prefrontal Cortical Function in Female CB1 Receptor Deficient Mice. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4128323/
Endocannabinoid modulation by FAAH and MAGL within the analgesic circuitry of the periaqueductal grey. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4294036/

Activation of CB1 inhibits NGF-induced sensitization of TRPV1 in adult mouse afferent neurons. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4626020/

Type 1 Cannabinoid Receptor Ligands Display Functional Selectivity in a Cell Culture Model of Striatal Medium Spiny Projection Neurons (full – 2014) http://www.jbc.org/content/289/36/24845.long

The analgesic effect of dipyrone in peripheral tissue involves two different mechanisms: Neuronal KATP channel opening and CB1 receptor activation. (full – 2014) http://www.sciencedirect.com/science/article/pii/S0014299914005561

Activation of PPAR gamma receptors reduces levodopa-induced dyskinesias in 6-OHDA-lesioned rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4323744/


Effects of the cannabinoid CB1 receptor allosteric modulator ORG 27569 on reinstatement of cocaine- and methamphetamine-seeking behavior in rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4161648/


Haloperidol and rimonabant increase delay discounting in rats fed high-fat and standard-chow diets. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4772744/

Inhibition of anandamide hydrolysis attenuates nociceptor sensitization in a murine model of chemotherapy-induced peripheral neuropathy. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4346731/

Dual inhibition of monoacylglycerol lipase and cyclooxygenases synergistically reduces neuropathic pain in mice. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4376450/

The dual FAAH/MAGL inhibitor JZL195 has enhanced effects on endocannabinoid transmission and motor behavior in rats as compared to those of the MAGL inhibitor JZL184. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4150743/


In Vitro Anticancer Activity of Plant-Derived Cannabidiol on Prostate Cancer Cell Lines (full – 2014) http://file.scirp.org/Html/5-2500510_47691.htm

The peripheral cannabinoid receptor 1 antagonist VD60 efficiently inhibits carbon tetrachloride-intoxicated hepatic fibrosis progression. (full – 2014) http://journals.sagepub.com/doi/full/10.1177/1535370213514922

The initiation of synaptic 2-AG mobilization requires both an increased supply of diacylglycerol precursor and increased postsynaptic calcium. (full – 2014) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4312705/


Programming and reprogramming neural cells by (endo-) cannabinoids: from physiological rules to emerging therapies (full – 2014) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4765324/

Nutritional omega-3 modulates neuronal morphology in the prefrontal cortex along with depression-related behaviour through corticosterone secretion (full – 2014) http://www.nature.com/tp/journal/v4/n9/full/tp201477a.html


Cannabinoid Receptor Type 1 Antagonist, AM251, Attenuates Mechanical Allodynia and Thermal Hyperalgesia after Burn Injury  (link to PDF – 2014)
http://anesthesiology.pubs.asahq.org/article.aspx?articleid=1936541&resultClick=3

Cannabinoid receptor activation inhibits cell cycle progression by modulating 14-3-3β (link to PDF – 2014)

Cannabinoids Prevent the Effects of a Footshock Followed by Situational Reminders on Emotional Processing.  (link to PDF – 2014)
http://www.nature.com/npp/journal/v39/n12/full/npp2014132a.html


Pre- and postsynaptic type-1 cannabinoid receptors control the alterations of glutamate transmission in experimental autoimmune encephalomyelitis.  (abst – 2014) http://www.sciencedirect.com/science/article/pii/S0028390814000148


Microinjection of 2-arachidonoyl glycerol into the rat ventral hippocampus differentially modulates contextually induced fear, depending on a persistent pain state.  

Anandamide in primary sensory neurons: too much of a good thing?  

The endocannabinoid system controls food intake via olfactory processes  

Altered Expression of the CB1 Cannabinoid Receptor in the Triple Transgenic Mouse Model of Alzheimer's Disease.  

Anandamide activation of CB1 receptors increases spontaneous bursting and oscillatory activity in the thalamus.  

Dexamethasone alleviates motion sickness in rats in part by enhancing the endocannabinoid system.  

Endocannabinoid 2-Arachidonylglycerol Protects Primary Cultured Neurons Against LPS-Induced Impairments in Rat Caudate Nucleus.  

Evaluation of selective cannabinoid CB1 and CB2 receptor agonists in a mouse model of lipopolysaccharide-induced interstitial cystitis.  

Cannabinoid receptor type 1 activation by arachidonylcyclopropylamide in rat aortic rings causes vasorelaxation involving calcium-activated potassium channel subunit alpha-1 and calcium channel, voltage-dependent, L type, alpha 1C subunit.  

Upregulation of Cannabinoid Receptor-1 and Fibrotic Activation of Mouse Hepatic Stellate Cells during Schistosoma J. Infection: Role of NADPH Oxidase.  

Low anandamide doses facilitate male rat sexual behaviour through the activation of CB1 receptors.  

Cannabinoid receptor type 1 receptors on GABAergic vs. glutamatergic neurons differentially gate sex-dependent social interest in mice.  

Cannabinoid receptor type 1 immunoreactivity and disease severity in human epithelial ovarian tumors.  
Modulation of the extinction of fear learning. (abst – 2014)  

Anandamide attenuates haloperidol-induced vacuous chewing movements in rats  
(abst – 2014)  

Endocannabinoid-mediated retrograde modulation of synaptic transmission.  
(abst – 2014)  

Inhibition of Peripheral Fatty Acid Amide Hydrolase Depresses Activities of Bladder  
Mechanosensitive Nerve Fibers of the Rat. (abst – 2014)  

Cannabinoid 1 receptors in keratinocytes attenuate FITC-induced mouse atopic-like dermatitis  
(abst – 2014)  

Effect of N-Arachidonoyl Dopamine on Activity of Neuronal Network in Primary  
Hippocampus Culture upon Hypoxia Modelling. (abst – 2014)  

Vagal anandamide signaling via cannabinoid receptor 1 contributes to luminal 5-HT modulation of visceral nociception in rats. (abst – 2014)  

Harnessing neuroendocrine controls of keratin expression: A new therapeutic strategy for skin diseases? (abst – 2014)  

Cannabinoids in pain management: CB1, CB2 and non-classic receptor ligands.  
(abst – 2014)  

Inhibition of colon carcinogenesis by a standardized Cannabis sativa extract with high content of cannabidiol. (abst – 2014)  

O-2050 facilitates noradrenaline release and increases the CB1 receptor inverse agonistic effect of rimonabant in the guinea pig hippocampus. (abst – 2014)  

Cannabinoids negatively modulate striatal glutamate and dopamine release and behavioural output of acute d-amphetamine. (abst – 2014)  

WIN55212-2 impairs non-associative, recognition and spatial memory in rats via CB1 receptor stimulation.  
(abst – 2014)  

Augmented tonic pain-related behavior in knockout mice lacking monoacylglycerol lipase, a major degrading enzyme for the endocannabinoid 2-arachidonoylglycerol.
Functions of the CB1 and CB2 Receptors in Neuroprotection at the Level of the Blood-Brain Barrier.  

The endocannabinoid system and appetite: relevance for food reward.  

Cyclic ovarian hormone modulation of supraspinal Δ9-tetrahydrocannabinol-induced antinociception and cannabinoid receptor binding in the female rat.  

Type-1 Cannabinoid Receptor Activity During Alzheimer's Disease Progression.  

CB1 and GPR55 receptors are co-expressed and form heteromers in rat and monkey striatum.  

Role of CNR1 polymorphisms in moderating the effects of psychosocial adversity on impulsivity in adolescents.  

Ligand Activation of Cannabinoid Receptors Attenuates Hypertrophy of Neonatal Rat Cardiomyocytes.  

Inhibition of diacylglycerol lipase (DAGL) in the lateral hypothalamus of rats prevents the increase in REMS and food ingestion induced by PAR1 stimulation.  

Endocannabinoid signaling modulates neurons of the pedunculopontine nucleus (PPN) via astrocytes.  

Endocannabinoid 2-Arachidonylglycerol Protects Primary Cultured Neurons Against Homocysteine-Induced Impairments in Rat Caudate Nucleus Through CB1 Receptor.  

CB1 receptor antagonism in the granular insular cortex or somatosensory area facilitates consolidation of object recognition memory.  

Genetic association analysis of CNR1 and CNR2 polymorphisms with schizophrenia in a Korean population.  

Reductions in Endocannabinoid Levels and Enhanced Coupling of Cannabinoid Receptors in the Striatum are Accompanied by Cognitive Impairments in the
AβPPswe/PS1ΔE9 Mouse Model of Alzheimer's Disease. (abst – 2014)

The Potential Therapeutic Effects of THC on Alzheimer's Disease (abst – 2014)

The endocannabinoid system is altered in the post-mortem prefrontal cortex of alcoholic subjects (abst – 2014)

Cannabinoid receptor intracellular signalling: The long journey from binding sites to biological effects (abst – 2014)

Ultralow doses of cannabinoid drugs protect the mouse brain from inflammation-induced cognitive damage (abst – 2014)

The therapeutic efficacy of cannabinoid receptor type 1 ligands in Huntington's disease may depend on their functional selectivity (abst – 2014)
http://www.fasebj.org/content/28/1_Supplement/846.6.abstract?sid=467bb529-0ecc-4ddc-af27-3f56f520a102

Dual agonism of peripheral cannabinoid CB1/CB2 receptors suppresses cardiac myocyte hypertrophy (abst – 2014)
http://www.fasebj.org/content/28/1_Supplement/652.9.abstract?sid=db987fd0-3ef0-4796-aff6-4103f0c84daf

The interaction between serotonergic and cannabinoidergic modulations involved in the fear extinction (abst – 2014)

Effects of cannabinoids on tension induced by acetylcholine and choline in slow skeletal muscle fibers of the frog. (abst – 2014)

Presence and Colocalization of Type-1 Cannabinoid Receptors with Acetylcholine Receptors in the Motor End-Plate of Twitch Skeletal Muscle Fibers in the Frog. (abst – 2014)

The Role of Endocannabinoid Signaling in the Molecular Mechanisms of Neurodegeneration in Alzheimer's Disease. (abst – 2014)

Mechanism of endocannabinoids system in glucose metabolism of rats with chronic intermittent hypoxia (abst – 2014)

Stimulation of cannabinoid receptors by using Rubus coreanus extracts to control osteoporosis in aged male rats. (abst – 2014)
Analysis in conditional cannabinoid 1 receptor-knockout mice reveals neuronal subpopulation-specific effects on epileptogenesis in the kindling paradigm.  
(abst – 2014)  

Genetic variability in the human cannabinoid receptor 1 is associated with resting state EEG theta power in humans.  
(abst – 2014)  

MicroRNA-665 is involved in the regulation of the expression of the cardioprotective cannabinoid receptor CB2 in patients with severe heart failure.  
(abst – 2014)  

Differential regulation of NMDAR and NMDAR-mediated metaplasticity by anandamide and 2-AG in the hippocampus.  
(abst – 2014)  

Consequences of early life stress on the expression of endocannabinoid-related genes in the rat brain.  
(abst – 2014)  

Oxidative stress and cannabinoid receptor expression in type-2 diabetic rat pancreas following treatment with Δ9 -THC.  
(abst – 2014)  

Role of cannabinoid receptors in hepatic fibrosis and apoptosis associated with bile duct ligation in rats.  
(abst – 2014)  

Mooreamide A: A Cannabinomimetic Lipid from the Marine Cyanobacterium Moorea bouillonii.  
(abst – 2014)  
http://link.springer.com/article/10.1007%2Fs11745-014-3949-9

Cannabinoid-induced changes in respiration of brain mitochondria.  
(abst – 2014)  

Harmful effects of law-evading herbs as a new trend in Japan: behavioral and cytotoxicological properties of synthetic cannabinoids.  
(abst – 2014)  

Inhibition of endocannabinoid neuronal uptake and hydrolysis as strategies for developing anxiolytic drugs.  
(abst – 2014)  

Gene-Specific Disruption of Endocannabinoid Receptor 1 (cnr1a) by Ethanol Probably Leads to the Development of Fetal Alcohol Spectrum Disorder (FASD) Phenotypes in Japanese Rice Fish (Oryzias latipes) Embryogenesis.  
(abst – 2014)  


Differences in receptor binding affinity of several phytocannabinoids does not explain their effects on neural cell cultures. (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/25311884


Glycogen synthase kinase-3β is involved in electroacupuncture pretreatment via the cannabinoid CB1 receptor in ischemic stroke. (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/23943518


NONRETROGRADE ENDOCANNABINOID SIGNALING MODULATES RETINAL GANGLION CELL CALCIUM HOMEOSTASIS THROUGH THE TRPV1 CATION CHANNEL (abst - 2014) http://iovs.arvojournals.org/article.aspx?articleid=2268407&resultClick=1

Local uterine Ang-(1-7) infusion augments the expression of cannabinoid receptors and differentially alters endocannabinoid metabolizing enzymes in the decidualized uterus of pseudopregnant rats.  (full – 2015)  http://www.rbej.com/content/13/1/5

Muscarinic M1 receptor and cannabinoid CB1 receptor do not modulate paraoxon-induced seizures  (full – 2015)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4317231/

Understanding Cannabinoid Psychoactivity with Mouse Genetic Models  (full – 2015)  http://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.0050280


Lack of hypophagia in CB1 null mice is associated to decreased hypothalamic POMC and CART expression.  (full – 2015)  http://ijnp.oxfordjournals.org/content/early/2015/03/09/ijnp.pyv011.long

Negative Regulation of Leptin-induced ROS Formation by CB1 Receptor Activation in Hypothalamic Neurons.  (full – 2015)  http://www.jbc.org/content/early/2015/04/13/jbc.M115.646885.full.pdf+html

Role for Endogenous BDNF in Endocannabinoid-Mediated Long-Term Depression at Neocortical Inhibitory Synapses  (full – 2015)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4415885/


Possible Immunosuppressive Effects of Drug Exposure and Environmental and Nutritional Effects on Infection and Vaccination  (full – 2015)  http://www.hindawi.com/journals/mi/2015/349176/

Full Fatty Acid Amide Hydrolase Inhibition Combined with Partial Monoacylglycerol Lipase Inhibition: Augmented and Sustained Antinociceptive Effects with Reduced Cannabimimetic Side Effects in Mice  (full – 2015)  http://jpet.aspetjournals.org/content/354/2/111.full


Biased Agonism and Biased Allosteric Modulation at the CB1 Cannabinoid Receptor. (full – 2015) http://molpharm.aspetjournals.org/content/early/2015/06/04/mol.115.099192.long


Involvement of GluR2 up-regulation in neuroprotection by electroacupuncture pretreatment via cannabinoid CB1 receptor in mice. (full – 2015) http://www.nature.com/srep/2015/150330/srep09490/full/srep09490.html

Intrathecal cannabinoid-1 receptor agonist prevents referred hyperalgesia in acute acrolein-induced cystitis in rats. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4446380/


Cannabis in cancer care. (full – 2015) http://escholarship.org/uc/item/6367m6vj#page-1

Role of the endocannabinoid system in obesity induced by neuropeptide Y overexpression in noradrenergic neurons. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4423197/


The CB1 cannabinoid receptor signals striatal neuroprotection via a PI3K/Akt/mTORC1/BDNF pathway. (full – 2015)
Gastric mucosal protection: from the periphery to the central nervous system. (full – 2015) 

Bi-directional CB1 receptor-mediated cardiovascular effects of cannabinoids in anaesthetized rats: role of the paraventricular nucleus. (full – 2015) 

Tonic endocannabinoid-mediated modulation of GABA release is independent of the CB1 content of axon terminals. (full – 2015) 

Coadministration of indomethacin and minocycline attenuates established paclitaxel-induced neuropathic thermal hyperalgesia: Involvement of cannabinoid CB1 receptors. (full – 2015) 

A cannabinoid receptor agonist N-arachidonoyl dopamine inhibits adipocyte differentiation in human mesenchymal stem cells. (full – 2015) 

A Basal Tone of 2-Arachidonoylglycerol Contributes to Early Oligodendrocyte Progenitor Proliferation by Activating Phosphatidylinositol 3-Kinase (PI3K)/AKT and the Mammalian Target of Rapamycin (MTOR) Pathways. (full – 2015) 

Role of the endogenous cannabinoid system in nicotine addiction: novel insights. (full – 2015) 

Diacylglycerol lipase α knockout mice demonstrate metabolic and behavioral phenotypes similar to those of cannabinoid receptor 1 knockout mice. (full – 2015) 

The endocannabinoid anandamide during lactation increases body fat content and CB1 receptor levels in mice adipose tissue. (full – 2015) 

Hypothalamic POMC neurons promote cannabinoid-induced feeding. (full – 2015) 

Cannabidiol causes endothelium-dependent vasorelaxation of human mesenteric arteries via CB1 activation. (full – 2015) 

Cognitive Impairment Induced by Delta9-tetrahydrocannabinol Occurs through Heteromers between Cannabinoid CB1 and Serotonin 5-HT2A Receptors. (full – 2015)
Interaction between Cannabinoid Compounds and Capsazepine in Protection against Acute Pentylenetetrazole-induced Seizure in Mice. (full – 2015) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4499434/

Hormonal status and age differentially affect tolerance to the disruptive effects of delta-9-tetrahydrocannabinol (Δ(9)-THC) on learning in female rats. (full – 2015) 

Cannabinoid-induced autophagy regulates suppressor of cytokine signaling-3 in intestinal epithelium. (full – 2015) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4101681/

Homeostatic regulation of brain functions by endocannabinoid signaling (full – 2015) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4468750/

Pathogenesis of Systemic Sclerosis. (full – 2015) 

Metabolic Interplay between Astrocytes and Neurons Regulates Endocannabinoid Action. (full – 2015) 
http://www.cell.com/cell-reports/fulltext/S2211-1247%2815%2900725-1

Impaired 2-AG signaling in hippocampal glutamatergic neurons: aggravation of anxiety-like behavior and unaltered seizure susceptibility. (full – 2015) 

Pharmacological profiling of the hemodynamic effects of cannabinoid ligands: a combined in vitro and in vivo approach. (full – 2015) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4492759/

Current Status and Future of Cannabis Research (full – 2015) 

Multiple Forms of Endocannabinoid and Endovanilloid Signaling Regulate the Tonic Control of GABA Release (full – 2015) 
http://www.jneurosci.org/content/35/27/10039.full?sid=7e769d1b-9b77-42fe-92d0-8b337b34b9b6

Cannabinoid-based drugs targeting CB1 and TRPV1, the sympathetic nervous system, and arthritis. (full – 2015) 
http://www.arthritis-research.com/content/17/1/226

N-Oleoyl glycine, a lipoamino acid, stimulates adipogenesis associated with activation of CB1 receptor and Akt signaling pathway in 3T3-L1 adipocyte. (full – 2015) 

Enhancing Brain Pregnenolone May Protect Cannabis Intoxication but Should Not Be Considered as an Anti-addiction Therapeutic: Hypothesizing Dopaminergic Blockade and Promoting Anti-Reward. (full – 2015) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4545660/
The Effects of the Endocannabinoids Anandamide and 2-Arachidonoylglycerol on Human Osteoblast Proliferation and Differentiation (full – 2015)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0136546

The skeletal endocannabinoid system: clinical and experimental insights (full – 2015)

Endogenous vs Exogenous Allosteric Modulators in GPCRs: A dispute for shuttling CB1 among different membrane microenvironments. (full – 2015)
http://www.nature.com/articles/srep15453

Pharmacological activation of CB2 receptors counteracts the deleterious effect of ethanol on cell proliferation in the main neurogenic zones of the adult rat brain. (full – 2015)

The Cannabinoid Receptor CB1 Interacts with the WAVE1 Complex and Plays a Role in Actin Dynamics and Structural Plasticity in Neurons. (full – 2015)
http://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.1002286

Increased Cortical Inhibition in Autism-Linked Neuroligin-3R451C Mice Is Due in Part to Loss of Endocannabinoid Signaling. (full – 2015)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0140638

Clinical Significance of Cannabinoid Receptors CB1 and CB2 Expression in Human Malignant and Benign Thyroid Lesions (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4619873/

https://www.dovepress.com/emerging-drugs-of-abuse-current-perspectives-on-synthetic-cannabinoids-peer-reviewed-fulltext-article-SAR

Fine-tuning of synaptic upscaling at excitatory synapses by endocannabinoid signaling is mediated via the CB1 receptor. (full – 2015)
http://www.nature.com/articles/srep16257

Fetal Alcohol Spectrum Disorder: Potential Role of Endocannabinoids Signaling. (full – 2015)

Endocannabinoid signaling mediates oxytocin-driven social reward. (full – 2015)
http://www.pnas.org/content/112/45/14084.full

Loss of Either Rac1 or Rac3 GTPase Differentially Affects the Behavior of Mutant Mice and the Development of Functional GABAergic Networks. (full – 2015)
http://cercor.oxfordjournals.org/content/early/2015/11/17/cercor.bhv274.long

The effect of BLA GABA(A) receptors in anxiolytic-like effect and aversive memory deficit induced by ACPA. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4669909/


Cardioprotective effects of fatty acid amide hydrolase inhibitor URB694, in a rodent model of trait anxiety. (full – 2015) http://www.nature.com/articles/srep18218

Pharmacological Blockade of Cannabinoid CB1 Receptors in Diet-Induced Obesity Regulates Mitochondrial Dihydrolipoamide Dehydrogenase in Muscle. (full – 2015) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0145244

Biased Type 1 Cannabinoid Receptor Signalling Influences Neuronal Viability in a Cell Culture Model of Huntington Disease. (full – 2015) http://molpharm.aspetjournals.org/content/early/2015/12/23/mol.115.101980.long

Preferential epithelial expression of type-1 cannabinoid receptor (CB1R) in the developing canine embryo. (full – 2015) http://www.springerplus.com/content/4/1/804

Cannabinoid-Induced Chemotaxis in Bovine Corneal Epithelial Cells. (full – 2015) http://iovs.arvojournals.org/article.aspx?articleid=2297919&resultClick=1

Impact of CB1 Receptor Deletion on Visual Responses and Organization of Primary Visual Cortex in Adult Mice (full – 2015) http://iovs.arvojournals.org/article.aspx?articleid=2474494&resultClick=1

Monoglyceride lipase deficiency causes desensitization of intestinal cannabinoid receptor type 1 and increased colonic μ-opioid receptor sensitivity. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4556478/


TRPV1 Channel: A Potential Drug Target for Treating Epilepsy. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4598436/

To Act or Not to Act: Endocannabinoid/Dopamine Interactions in Decision-Making. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4681836/

Anti-inflammatory effects of N-acylethanolamines in rheumatoid arthritis synovial cells are mediated by TRPV1 and TRPA1 in a COX-2 dependent manner. (full – 2015) http://www.arthritis-research.com/content/17/1/321

Tetrahydrocannabivarin (THCv) reduces Default Mode Network and increases Executive Control Network Resting State Functional Connectivity in Healthy Volunteers. (full – 2015) http://ijnp.oxfordjournals.org/content/early/2015/09/10/ijnp.pyv092.long


Cannabinoid-based drugs targeting CB1 and TRPV1, the sympathetic nervous system, and arthritis (full – 2015) http://link.springer.com/article/10.1186/s13075-015-0743-x

Proapoptotic effect of endocannabinoids in prostate cancer cells. (full – 2015) http://www.spandidos-publications.com/or/33/4/1599


Interactions between ethanol and the endocannabinoid system at GABAergic synapses on basolateral amygdala principal neurons. (full – 2015) http://www.alcoholjournal.org/article/S0741-8329%2815%2930013-7/fulltext

Corticotropin-Releasing Hormone Drives Anandamide Hydrolysis in the Amygdala to Promote Anxiety. (full - 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4348185/

Cannabinoid type-1 receptor signaling in central serotonergic neurons regulates anxiety-like behavior and sociability. (full – 2015) http://journal.frontiersin.org/article/10.3389/fnbeh.2015.00235/full

Dietary DHA reduced downstream endocannabinoid and inflammatory gene expression, epididymal fat mass, and improved aspects of glucose use in muscle in C57BL/6J mice. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4722239/

Cannabinoid CB1 receptors and mTORC1 signalling pathway interact to modulate glucose homeostasis. (full – 2015) http://dmm.biologists.org/content/9/1/51.long
Mitochondrial CB1 receptor is involved in ACEA-induced protective effects on neurons and mitochondrial functions. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4516969/

Cannabinoid CB1 Receptor Calibrates Excitatory Synaptic Balance in the Mouse Hippocampus. (full – 2015) http://www.jneurosci.org/content/35/9/3842.long


Protective effect of Xingnaojia formulation on rats with brain and liver damage caused by chronic alcoholism (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4665616/

A runner's high depends on cannabinoid receptors in mice. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4620874/

Role of the endocannabinoid system in the emotional manifestations of osteoarthritis pain. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4770330/

The effect of phytocannabinoids on airway hyper-responsiveness, airway inflammation, and cough (full – 2015) http://jpet.aspetjournals.org/content/353/1/169.long

Orphan nuclear receptor oestrogen-related receptor γ (ERRγ) plays a key role in hepatic cannabinoid receptor type 1-mediated induction of CYP7A1 gene expression (full – 2015) http://ajpendo.physiology.org/content/308/7/E583.long

Activation of cannabinoid receptor 1 inhibits increased bladder activity induced by nerve growth factor. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4339033/

AM841, a covalent cannabinoid ligand, powerfully slows gastrointestinal motility in normal and stressed mice in a peripherally-restricted manner. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4403103/


Endocannabinoid and ceramide levels are altered in patients with colorectal cancer. (full – 2015) https://www.spandidos-publications.com/or/34/1/447

CB1 Knockout Mice Unveil Sustained CB2-Mediated Anti-Alloodynic Effects of the Mixed CB1/CB2 Agonist CP55,940 in a Mouse Model of Paclitaxel-Induced Neuropathic Pain. (full – 2015) http://molpharm.aspetjournals.org/content/88/1/64.long

Fetal endocannabinoids orchestrate the organization of pancreatic islet microarchitecture. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4653226/


Selective Monoacylglycerol Lipase Inhibitors: Antinociceptive versus Cannabimimetic Effects in Mice (full – 2015) http://jpet.aspetjournals.org/content/353/2/424.full.pdf+html

Chronic administration with AM251 improves albuminuria and renal tubular structure in obese rats. (full – 2015) http://joe.endocrinology-journals.org/content/225/2/113.long

Sequelae of Cannabis as Medicine (full – 2015) http://painmedicine.oxfordjournals.org/content/16/7/1447


The Cannabinoid Receptor-1 is an imaging biomarker of Brown Adipose Tissue. (full – 2015) http://jnm.snmjournals.org/content/56/12/1937.full.pdf+html


Cannabinoid Receptor–Interacting Protein 1a Modulates CB1 Receptor Signaling and Regulation. (full – 2015) http://www.ncbi.nlm.nih.gov/pubmed/25657338


Anandamide Depresses Glycinergic and GABAergic Inhibitory Transmissions in Adult Rat Substantia Gelatinosa Neurons (full – 2015) http://file.scirp.org/Html/1-2500613_54452.htm

Intake of farmed Atlantic salmon fed soybean oil increases hepatic levels of arachidonic acid-derived oxylipins and ceramides in mice (full – 2015) http://www.jnutbio.com/article/S0955-2863(15)00021-2/fulltext

Cannabinoid receptor interacting protein (CRIP1a) attenuates CB1R signaling in neuronal cells. (full – 2015) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4332989/

Cannabinoid Receptor–Interacting Protein 1a Modulates CB1 Receptor Signaling and Regulation. (full – 2015) http://molpharm.aspetjournals.org/content/87/4/747.long


The adverse health effects of synthetic cannabinoids with emphasis on psychosis-like effects. (full – 2015) http://journals.sagepub.com/doi/full/10.1177/0269881114565142


A pivotal role for enhanced brainstem orexin receptor 1 signaling in the central cannabinoid receptor 1-mediated pressor response in conscious rats. 

Fasting stimulates 2-AG biosynthesis in the small intestine: role of cholinergic pathways. 

In vitro and non-invasive in vivo effects of the cannabinoid-1 receptor agonist AM841 on gastrointestinal motor function in the rat. 

Endocannabinoid system activation may be associated with insulin resistance in women with polycystic ovary syndrome.  
(full – 2015)  http://www.fertstert.org/article/S0015-0282(15)00232-0/fulltext

Dynamics of expression and localization of the cannabinoid system in granulosa cells during oocyte nuclear maturation.  

Role of the endocannabinoid system in the mechanisms involved in the LPS-induced preterm labor.  
(full – 2015)  http://www.reproduction-online.org/content/150/6/463.long

Type 1 cannabinoid receptor modulates water deprivation-induced homeostatic responses.  
(full – 2015)  http://ajpregu.physiology.org/content/309/11/R1358.long


Safety of oral dronabinol during opioid withdrawal in humans.  

Progesterone and anandamide in pregnancy loss  
(full – 2015)  http://www.placentajournal.org/article/S0143-4004%2815%2900515-9/fulltext

Δ9-Tetrahydrocannabinol attenuates allogeneic host-versus-graft response and delays skin graft rejection through activation of cannabinoid receptor 1 and induction of myeloid-derived suppressor cells.  

Endogenous 2-Arachidonoylglycerol Alleviates Cyclooxygenases-2 Elevation-Mediated Neuronal Injury from SO2 Inhalation via PPARγ Pathway.  
(full – 2015)  http://toxsci.oxfordjournals.org/content/147/2/535.long

The cannabinoid system in the retrosplenial cortex modulates fear memory consolidation, reconsolidation, and extinction.  
The endocannabinoid system in renal cells: Regulation of Na+ transport by CB1 receptors through distinct cell signaling pathways. (full – 2015) http://www.ncbi.nlm.nih.gov/pubmed/25537261

The role of cannabinoids in adult neurogenesis. (full – 2015) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4543605/


An endocannabinoid system is present in the mouse olfactory epithelium but does not modulate olfaction. (full – 2015) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4485596/


Habenular CB1 Receptors Control the Expression of Aversive Memories (full – 2015) http://www.cell.com/neuron/fulltext/S0896-6273(15)00729-1


Cannabidiol is a negative allosteric modulator of the type 1 cannabinoid receptor. (full – 2015) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4621983/


Anxiety, Stress, and Fear Response in Mice with Reduced Endocannabinoid Levels. (link through Elsevier to get full - 2015) http://www.ncbi.nlm.nih.gov/pubmed/25981172


Detection of cannabinoid receptors CB1 and CB2 within basal ganglia output neurons in macaques: changes following experimental parkinsonism (link to PDF – 2015) http://link.springer.com/article/10.1007/s00429-014-0823-8

Cannabinoid receptor-specific mechanisms to ameliorate pain in sickle cell anemia via inhibition of mast cell activation and neurogenic inflammation. (link to PDF – 2015) http://www.haematologica.org/content/early/2015/12/21/haematol.2015.136523.long


Role of the endocannabinoid 2-arachidonoylglycerol in aversive responses mediated by the dorsolateral periaqueductal grey. (link to PDF – 2015) http://www.europeanneuropsychopharmacology.com/article/S0924-977X(15)00364-8/abstract

The therapeutic aspects of the endocannabinoid system (ECS) for cancer and their development: from nature to laboratory. (link to PDF – 2015) http://www.eurekaselect.com/137770/article


Active endocannabinoids are secreted on extracellular membrane vesicles. (abst – 2015) http://embor.embopress.org/content/early/2015/01/07/embr.201439668


The anti-inflammatory mediator palmitoylethanolamide enhances the levels of 2-arachidonoylglycerol and potentiates its actions at transient receptor potential vanilloid type-1 channels. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/25598150

Modulation of the effects of the cannabinoid agonist, ACPA, on spatial and non-spatial novelty detection in mice by dopamine D1 receptor drugs infused into the basolateral amygdala. (abst – 2015) http://www.sciencedirect.com/science/article/pii/S0166432814007323


Involvement of the serotonergic system of the ventral hippocampus (CA3) on amnesia induced by ACPA in mice. (abst – 2015)

Cannabinoid receptor 1 but not 2 mediates macrophage phagocytosis by G(α)i/o /RhoA/ROCK signaling pathway. (abst – 2015)


The effects of beta-arrestin1 deletion on acute cannabinoid activity, brain cannabinoid receptors and tolerance to cannabinoids in mice. (abst – 2015)

Spinal neuronal cannabinoid receptors mediate urodynamic effects of systemic fatty acid amide hydrolase (FAAH) inhibition in rats. (abst – 2015)


Effects of cannabinoid and glutamate receptor antagonists and their interactions on learning and memory in male rats. (abst – 2015)

Anandamide Drives Cell Cycle Progression through CB1 Receptors in a Rat Model of Synchronized Liver Regeneration. (abst – 2015)


Inhibition of monoacylglycerol lipase mediates a cannabinoid 1-receptor dependent delay of kindling progression in mice. (abst – 2015)

A multi-target approach for pain treatment - dual inhibition of fatty acid amide hydrolase and TRPV1 in a rat model of osteoarthritis. (abst – 2015) 

Cannabinoids to treat spinal cord injury. (abst – 2015) 

Analysis of calretinin early expression in the rat hippocampus after beta amyloid (1-42) peptide injection. (abst – 2015) 
http://www.ncbi.nlm.nih.gov/pubmed/25813826

2-AG promotes the expression of conditioned fear via cannabinoid receptor type 1 on GABAergic neurons (abst – 2015) 

Monoacylglycerol Lipase Inhibitor Protects Primary Cultured Neurons Against Homocysteine-induced Impairments in Rat Caudate Nucleus through COX-2 signaling. (abst – 2015) 

Localization and production of peptide endocannabinoids in the rodent CNS and adrenal medulla. (abst – 2015) 

Major urinary protein 1 interacts with cannabinoid receptor type 1 in fatty acid-induced hepatic insulin resistance in a mouse hepatocyte model. (abst – 2015) 

Cannabinoid CB1 receptors mediate the effects of dipyrone. (abst – 2015) 

The interactive role of cannabinoid and vanilloid systems in hippocampal synaptic plasticity in rats. (abst – 2015) 

Dissociation between the panicolytic effect of cannabidiol microinjected into the substantia nigra, pars reticulata, and fear-induced antinociception elicited by bicuculline administration in deep layers of the superior colliculus: The role of CB1-endocannabinoid receptor in the ventral mesencephalon. (abst – 2015) 

The role of the endocannabinoid system in pain. (abst – 2015) 

CB1 receptors modulate affective behaviour induced by neuropathic pain. (abst – 2015) 

CB 1Cannabinoid Receptor Agonist Inhibits Matrix Metalloproteinase Activity in Spinal Cord Injury: A Possible Mechanism of Improved Recovery. (abst – 2015) 

Weeding out bad waves: towards selective cannabinoid circuit control in epilepsy.


Synthetic and endogenous cannabinoids protect retinal neurons from AMPA excitotoxicity in vivo, via activation of CB1 receptors: Involvement of PI3K/Akt and MEK/ERK signaling pathways. (abst – 2015) http://www.sciencedirect.com/science/article/pii/S0014483515001554


Modulatory effects by CB1 receptors on rat spinal locomotor networks after sustained application of agonists or antagonists. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26126926


Changes over time of cannabinoid receptor 1 in hippocampus of status epilepticus rats (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26168676


Functional interaction between the orexin-1 and CB1 receptors within the nucleus accumbens in the conditioned place preference induced by the lateral hypothalamus stimulation. (abst – 2015) http://www.sciencedirect.com/science/article/pii/S0091305715000647


The role of the peripheral cannabinoid system in the pathogenesis of detrusor overactivity evoked by increased intravesical osmolarity in rats. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26243021


Interference with acute nausea and anticipatory nausea in rats by fatty acid amide hydrolase (FAAH) inhibition through a PPARα and CB1 receptor mechanism, respectively: a double dissociation. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26297326


Repeated administration of phytocannabinoid Δ9-THC or synthetic cannabinoids JWH-018 and JWH-073 induces tolerance to hypothermia but not locomotor suppression in mice, and reduces CB1 receptor expression and function in a brain region-specific manner. (abst – 2015) http://www.sciencedirect.com/science/article/pii/S1043661815002108


Biosynthesis and Fate of Endocannabinoids. (abst – 2015) http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_2


Endocannabinoids and Metabolic Disorders. (abst – 2015) http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_10


Audiograms, gap detection thresholds, and frequency difference limens in cannabinoid receptor 1 knockout mice. (abst – 2015)  

The effect of WIN 55,212-2 suggests a cannabinoid-sensitive component in the early toxicity induced by organic acids accumulating in glutaric acidemia type I and in related disorders of propionate metabolism in rat brain synaptosomes. (abst – 2015)  

Reduced Brain Cannabinoid Receptor Availability In Schizophrenia. (abst – 2015)  

Cannabinoids, cannabinoid receptors and tinnitus. (abst – 2015)  

Neuroprotective Effect Is Driven Through the Upregulation of CB1 Receptor in Experimental Autoimmune Encephalomyelitis. (abst – 2015)  

Chronic stress and peripheral pain: Evidence for distinct, region-specific changes in visceral and somatosensory pain regulatory pathways. (abst – 2015)  

Evaluation of the abuse potential of AM281, a new synthetic cannabinoid CB1 receptor antagonist. (abst – 2015)  

Evaluation of cannabinoid CB1 and CB2 receptors expression in mobile tongue squamous cell carcinoma: associations with clinicopathological parameters and patients' survival. (abst – 2015)  

The Efficacy of Eslicarbazepine Acetate in Models of Trigeminal, Neuropathic, and Visceral Pain: The Involvement of 5-HT1B/1D Serotonergic and CB1/CB2 Cannabinoid Receptors. (abst – 2015)  


Intracellular postsynaptic cannabinoid receptors link thyrotropin-releasing hormone receptors to TRPC-like channels in thalamic paraventricular nucleus neurons. (abst – 2015)  

Excitatory drive from the subthalamic nucleus attenuates GABAergic transmission in the Substantia Nigra pars compacta via endocannabinoids. (abst – 2015)  
The CCDC55 couples cannabinoid receptor CNR1 to a putative DISC1 schizophrenia pathway. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26475744

The type-1 cannabinoid receptor modulates the hydroelectrolytic balance independently of the energy homeostasis during salt load (abst – 2015) http://www.sciencedirect.com/science/article/pii/S0018506X15301252


Dopamine-dependent CB1 receptor dysfunction at corticostriatal synapses in homozygous PINK1 knockout mice. (abst – 2015) http://www.sciencedirect.com/science/article/pii/S0028390815301441

Dopamine-dependent CB1 receptor dysfunction at corticostriatal synapses in homozygous PINK1 knockout mice. (abst – 2015) http://www.sciencedirect.com/science/article/pii/S0028390815301441


Involvement of opioid system in antidepressant-like effect of the cannabinoid CB1 receptor inverse agonist AM-251 after physical stress in mice. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26609670


Allosteric Modulators: A Side Door. (abst – 2015)  


Involvement of the infralimbic cortex and CA1 hippocampal area in reconsolidation of a contextual fear memory through CB1 receptors: effects of CP55,940. (abst – 2015)  

An Introduction to the Endogenous Cannabinoid System. (abst – 2015)  

Modulation of cannabinoid signaling by amygdala α2-adrenergic system in fear conditioning. (abst – 2015)  

Disruption of social cognition in the sub-chronic PCP rat model of schizophrenia: Possible involvement of the endocannabinoid system. (abst – 2015)  

CB1 receptors in the formation of the different phases of memory-related processes in the inhibitory avoidance test in mice. (abst – 2015)  

Blockade of Cannabinoid 1 Receptor Improves GLP-1R Mediated Insulin Secretion in (abst – 2015)  

Dorsolateral periaqueductal gray matter CB1 and TRPV1 receptors exert opposite modulation on expression of contextual fear conditioning (abst – 2015)  

Cannabinoid Receptors Modulate Rod-Cone Gap Junctional Coupling In The Day And Night (abst – 2015)  
http://iovs.arvojournals.org/article.aspx?articleid=2336723&resultClick=1

THC exerts neuroprotective effect in glutamate affected murine primary mesencephalic cultures and neuroblastoma N18TG2 cells (abst – 2015)  

Dietary Carbohydrates that Modulate the Immune System (abst – 2015)  
http://www.ingentaconnect.com/content/ben/ciemd/2015/00000002/00000001/art00009?crawler=true
Effects of metabolites of the analgesic agent dipyrone (metamizol) on rostral ventromedial medulla cell activity in mice. (abst – 2015)

The disease-modifying effects of a Sativex-like combination of phytocannabinoids in mice with experimental autoimmune encephalomyelitis are preferentially due to Δ(9)-tetrahydrocannabinol acting through CB1 receptors. (abst – 2015)

Cannabinoids-Induced Vasodilation in Rat Mesenteric Artery: Possible Mechanisms of Action (abst – 2015)
http://www.fasebj.org/content/29/1_Supplement/948.6.abstract?sid=edf921ac-0690-4aa6-ac81-0546314dd384

CB1 receptor transgenic mice in the cannabinoid triad: a novel approach to assess in vivo efficacy of CB1 ligands. (abst – 2015)
http://www.fasebj.org/content/29/1_Supplement/LB490.abstract?sid=edf921ac-0690-4aa6-ac81-0546314dd384

http://www.fasebj.org/content/29/1_Supplement/1019.16.abstract?sid=edf921ac-0690-4aa6-ac81-0546314dd384

CB1 receptors into the Prelimbic Cortex modulate food intake in rats. (abst – 2015)
http://www.fasebj.org/content/29/1_Supplement/655.1.abstract?sid=edf921ac-0690-4aa6-ac81-0546314dd384

Allosteric Modulation of CB1 by Pregnenolone (abst – 2015)
http://www.fasebj.org/content/29/1_Supplement/LB60.abstract?sid=edf921ac-0690-4aa6-ac81-0546314dd384

Δ9-Tetrahydrocannabinol alone and combined with cannabidiol mitigate fear memory through reconsolidation disruption. (abst – 2015)

Cannabinoid Receptors May Control Aversive Memories (news & abstract - 2015)
http://neurosciencenews.com/habenula-cb1-receptors-memory-2742/

Runner's high linked to cannabinoid receptors in mice (news & abstract – 2015)

Oxytocin Enhances Pleasure of Social Interactions by Stimulating Production of “Bliss Molecule” (news & abstract – 2015)
http://neurosciencenews.com/oxytocin-anandamide-2926/

Expression and Function of the Endocannabinoid System in the Retina and the Visual Brain (full – 2016)
http://www.hindawi.com/journals/np/2016/9247057/
Correlations between the Memory-Related Behavior and the Level of Oxidative Stress Biomarkers in the Mice Brain, Provoked by an Acute Administration of CB Receptor Ligands  (full – 2016)  http://www.hindawi.com/journals/np/2016/9815092/

Endocannabinoid regulation in white and brown adipose tissue following thermogenic activation  (full – 2016)  
http://www.jlr.org/content/early/2016/01/14/jlr.M065227.full.pdf+html?sid=da020ee7-4e2e-40b6-a400-27301739341e

Neuromodulation of Aerobic Exercise—A Review  (full – 2016)  

Monoglyceride lipase deficiency modulates endocannabinoid signaling and improves plaque stability in ApoE-knockout mice  (full – 2016)  

CB1 receptor blockade counters age-induced insulin resistance and metabolic dysfunction.  (full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4783351/

Up-regulation of immunomodulatory effects of mouse bone-marrow derived mesenchymal stem cells by tetrahydrocannabinol pre-treatment involving cannabinoid receptor CB2.  (full – 2016)  

Selective Cannabinoid Receptor-1 Agonists Regulate Mast Cell Activation in an Oxazolone-Induced Atopic Dermatitis Model.  (full – 2016)  

GABABR-Dependent Long-Term Depression at Hippocampal Synapses between CB1-Positive Interneurons and CA1 Pyramidal Cells  (full – 2016)  

GABA and Endocannabinoids Mediate Depotentiation of Schaffer Collateral Synapses Induced by Stimulation of Temporoammonic Inputs.  (full – 2016)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0149034

Endogenous and Synthetic Cannabinoids as Therapeutics in Retinal Disease  (full – 2016)  
http://www.hindawi.com/journals/np/2016/8373020/

A collaboration investigating endocannabinoid signalling in brain and bone  (full – 2016)  

Endocannabinoids as Guardians of Metastasis  (full – 2016)  
http://www.mdpi.com/1422-0067/17/2/230/htm
Sustained Endocannabinoid Signaling Compromises Decidual Function and Promotes Inflammation-induced Preterm Birth. (full – 2016) http://www.jbc.org/content/early/2016/02/21/jbc.M115.707836.long

Transient increase of interleukin-1β after prolonged febrile seizures promotes adult epileptogenesis through long-lasting upregulating endocannabinoid signaling. (full – 2016) http://www.nature.com/articles/srep21931

Study the Effect of Endocannabinoid System on Rat Behavior in Elevated Plus-Maze. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4656987/


Cannabinoids Regulate Bcl-2 and Cyclin D2 Expression in Pancreatic β Cells. (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0150981


Monoacylglycerol lipase inhibitors produce pro- or antidepressant responses via hippocampal CA1 GABAergic synapses. (full – 2016) http://www.nature.com/mp/journal/vaop/ncurrent/full/mp201622a.html


Behavioral Characterization of the Effects of Cannabis Smoke and Anandamide in Rats. (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0153327

Estrogen Receptor Beta and 2-arachidonoylglycerol Mediate the Suppressive Effects of Estradiol on Frequency of Postsynaptic Currents in Gonadotropin-Releasing Hormone Neurons of Metestrous Mice: An Acute Slice Electrophysiological Study.  
(full – 2016)  

δ-Ctenitoxin-Pn1a, a Peptide from Phoneutria nigriventer Spider Venom, Shows Antinociceptive Effect Involving Opioid and Cannabinoid Systems, in Rats  
(full – 2016)  

A pro-nociceptive phenotype unmasked in mice lacking fatty-acid amide hydrolase  
(full – 2016)  
http://mpx.sagepub.com/content/12/1744806916649192.long

Modulation of breast cancer cell viability by a cannabinoid receptor 2 agonist, JWH-015, is calcium dependent  
(full – 2016)  
https://www.dovepress.com/modulation-of-breast-cancer-cell-viability-by-a-cannabinoid-receptor-2-peer-reviewed-fulltext-article-BCTT

Impaired Ethanol-Induced Sensitization and Decreased Cannabinoid Receptor-1 in a Model of Posttraumatic Stress Disorder.  
(full – 2016)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0155759#pone.0155759.ref024

Endovanilloids are potential activators of the trigeminovascular nocisensor complex  
(full – 2016)  

Mechanisms underlying glucose-dependent insulinotropic polypeptide and glucagon-like peptid-1 secretion  
(full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4854499/

Neuronal and Astrocytic Monoacylglycerol Lipase Limit the Spread of Endocannabinoid Signaling in the Cerebellum.  
(full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4865651/

Cannabinoid 1 receptor knockout mice display cold allodynia, but enhanced recovery from spared-nerve injury-induced mechanical hypersensitivity.  
(full – 2016)  
http://mpx.sagepub.com/content/12/1744806916649191.long

Tolerance to the diuretic effects of cannabinoids and cross-tolerance to a kappa-opioid agonist in THC-treated mice.  
(full – 2016)  
http://jpet.aspetjournals.org/content/early/2016/05/26/jpet.116.232132.long
Cannabinoid receptor type-1: breaking the dogmas. (full – 2016)  
http://f1000research.com/articles/5-990/v1

Docosahexaenoic acid-supplementation prior to fasting prevents muscle atrophy in mice. (full – 2016)  

Cannabinoid Receptors Are Overexpressed in CLL but of Limited Potential for Therapeutic Exploitation. (full – 2016)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0156693

Modulation of cellular redox homeostasis by the endocannabinoid system. (full – 2016)  
http://rsob.royalsocietypublishing.org/content/6/4/150276

Sulfation of the FLAG epitope is affected by co-expression of G protein-coupled receptors in a mammalian cell model. (full – 2016)  
http://www.nature.com/articles/srep27316

p21-activated kinase 1 restricts tonic endocannabinoid signaling in the hippocampus (full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4907698/

Endocannabinoid Modulation of Orbitostriatal Circuits Gates Habit Formation (full – 2016)  
http://www.cell.com/neuron/fulltext/S0896-6273(16)30157-X

Unmasking roles of the peripheral endocannabinoid system associated with bladder overactivity (full – 2016)  

Beyond Cannabis: Plants and the Endocannabinoid System (full – 2016)  
http://ge.tt/3Rgtrsa2

Cyclooxygenase-2 inhibition reduces stress-induced affective pathology. (full – 2016)  
https://elifesciences.org/content/5/e14137

Endocannabinoid Signaling Regulates Sleep Stability. (full – 2016)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0152473

Cannabinoid receptor-dependent and -independent anti-proliferative effects of omega-3 ethanolamides in androgen receptor-positive and -negative prostate cancer cell lines. (full – 2016)  
http://carcin.oxfordjournals.org/content/31/9/1584.long

Rapid Changes in Cannabinoid 1 Receptor Availability in Cannabis-Dependent Male Subjects After Abstinence From Cannabis (full – 2016)  

Opposite regulation of cannabinoid CB1 and CB2 receptors in the prefrontal cortex of rats treated with cocaine during adolescence (full – 2016)  
Enkephalin levels and the number of neuropeptide Y-containing interneurons in the hippocampus are decreased in female cannabinoid-receptor 1 knock-out mice. (full – 2016) http://www.sciencedirect.com/science/article/pii/S0304394016301689


Cannabinoid CB1 receptor inhibition blunts adolescent-typical increased binge alcohol and sucrose consumption in male C57BL/6J mice. (full – 2016) http://www.sciencedirect.com/science/article/pii/S0091305716300089


The synthetic cannabinoid WIN55,212-2 mesylate decreases the production of inflammatory mediators in rheumatoid arthritis synovial fibroblasts by activating CB2, TRPV1, TRPA1 and yet unidentified receptor targets. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4858820/

Impaired Excitatory Neurotransmission in the Urinary Bladder from the Obese Zucker Rat: Role of Cannabinoid Receptors. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4902197/


Controlled downregulation of the cannabinoid CB1 receptor provides a promising approach for the treatment of obesity and obesity-derived type 2 diabetes. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4679742/


Endocannabinoid control of glutamate NMDA receptors: the therapeutic potential and consequences of dysfunction. (full – 2016) http://www.impactjournals.com/oncotarget/index.php?journal=oncotarget&page=article&op=view&path%5B%5D=10095&path%5B%5D=31745


Effects of various cannabinoid ligands on choice behaviour in a rat model of gambling. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4803149/
Immunohistochemical analysis of cannabinoid receptor 1 expression in steatotic rat livers. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4812478/

Effects of Neuroendocrine CB1 Activity on Adult Leydig Cells. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4891325/


The Orphan Nuclear Receptor ERRγ Regulates Hepatic CB1 Receptor-Mediated Fibroblast Growth Factor 21 Gene Expression (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0159425


Pharmacological evaluation of synthetic cannabinoids identified as constituents of spice. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4929166/

Endocannabinoids and Heterogeneity of Glial Cells in Brain Function (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4932105/

Mice Expressing a "Hyper-Sensitive" Form of the Cannabinoid Receptor 1 (CB1) Are Neither Obese Nor Diabetic. (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0160462

Hybrid inhibitor of peripheral cannabinoid-1 receptors and inducible nitric oxide synthase mitigates liver fibrosis (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4979564/

Orchestrated activation of mGluR5 and CB1 promotes neuroprotection (full – 2016) http://molecularbrain.biomedcentral.com/articles/10.1186/s13041-016-0259-6


A role of CB1R in inducing θ-rhythm coordination between the gustatory and gastrointestinal insula. (full – 2016) http://www.nature.com/articles/srep32529


Human CB1 Receptor Isoforms, present in Hepatocytes and β-cells, are Involved in Regulating Metabolism. (full – 2016) http://www.nature.com/articles/srep33302


Involvement of Endocannabinoids in Alcohol "Binge" Drinking: Studies of Mice with Human Fatty Acid Amide Hydrolase Genetic Variation and After CB1 Receptor Antagonists. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4962692/

The endocannabinoid anandamide causes endothelium-dependent vasorelaxation in human mesenteric arteries.  

Exposure to a Highly Caloric Palatable Diet during the Perinatal Period Affects the Expression of the Endogenous Cannabinoid System in the Brain, Liver and Adipose Tissue of Adult Rat Offspring.  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0165432

Adverse Social Experiences in Adolescent Rats Result in Enduring Effects on Social Competence, Pain Sensitivity and Endocannabinoid Signaling  

PTSD: from neurobiology to pharmacological treatments.  
http://www.ejpt.net/index.php/ejpt/article/view/31858

Role of cannabinoid receptor 1 in human adipose tissue for lipolysis regulation and insulin resistance.  

Turning Up the Heat on Endocannabinoid Signaling  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5106110/

Presynaptic G Protein-Coupled Receptors: Gatekeepers of Addiction?  

Anti-inflammatory effect of cannabinoid agonist WIN55, 212 on mouse experimental colitis is related to inhibition of p38MAPK  

Endocannabinoid System: the Direct and Indirect Involvement in the Memory and Learning Processes—a Short Review  

Regional Influence of Cannabinoid CB1 Receptors in the Regulation of Ethanol Self-Administration by Wistar Rats  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5152943/

Attenuation of Cocaine-Induced Conditioned Place Preference and Motor Activity via Cannabinoid CB2 Receptor Agonism and CB1 Receptor Antagonism in Rats  
http://ijnp.oxfordjournals.org/content/early/2016/12/19/ijnp.pyw102.long

Cannabinoids reverse the effects of early stress on neurocognitive performance in adulthood.  
http://learnmem.cshlp.org/content/23/7/349.long

Orexin-A represses satiety-inducing POMC neurons and contributes to obesity via stimulation of endocannabinoid signaling.  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4855580/
Rescue of Impaired mGluR5-Driven Endocannabinoid Signaling Restores Prefrontal Cortical Output to Inhibit Pain in Arthritic Rats.  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4719019/

Opposite roles of cannabinoid receptors 1 and 2 in hepatocarcinogenesis.  
(full – 2016)  http://gut.bmj.com/content/65/10/1721.long

Endocannabinoid regulation of β-cell functions: Implications for glycemic control and diabetes.  
(full – 2016)  https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5045244/

Elevated Systemic Levels of Endocannabinoids and Related Mediators Across the Menstrual Cycle in Women With Endometriosis.  

Modulation of cannabinoid signaling by hippocampal 5-HT4 serotonergic system in fear conditioning.  

Bisphenol A Induces Fatty Liver by an Endocannabinoid-Mediated Positive Feedback Loop.  

Identification of N-arachidonoyl dopamine as a highly biased ligand at cannabinoid CB1 receptors.  

Alteration of SLP2-like immunolabeling in mitochondria signifies early cellular damage in developing and adult mouse brain  
(full – 2016)  https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4784115/

Does modulation of the endocannabinoid system have potential therapeutic utility in cerebellar ataxia?  
(full – 2016)  https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4983615/

Mechanisms of biased beta-arrestin mediated signaling downstream from the cannabinoid 1 receptor.  
(full – 2016)  https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4885504/

The multiple waves of cannabinoid 1 receptor signaling.  
(full – 2016)  http://molpharm.aspetjournals.org/content/90/5/620.long

Possible Therapeutic Doses of Cannabinoid Type 1 Receptor Antagonist Reverses Key Alterations in Fragile X Syndrome Mouse Model  
(full – 2016)  http://www.mdpi.com/2073-4425/7/9/56/htm
Tamoxifen Isomers and Metabolites Exhibit Distinct Affinity and Activity at Cannabinoid Receptors: Potential Scaffold for Drug Development
(full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0167240

Modulation of Long-Term Potentiation of Cortico-Amygdala Synaptic Responses and Auditory Fear Memory by Dietary Polynsaturated Fatty Acid. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4993868/

Spatial Distribution of the Cannabinoid Type 1 and Capsaicin Receptors May Contribute to the Complexity of Their Crosstalk. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5032030/


Δ9-Tetrahydrocannabinol decreases willingness to exert cognitive effort in male rats. (link to PDF – 2016) http://jpn.ca/articles-in-press/41-6-150363/

Dissecting the signaling pathways involved in the crosstalk between mGlu5 and CB1 receptors. (link to PDF – 2016) http://molpharm.aspetjournals.org/content/early/2016/06/23/mol.116.104372.long

Dendritic Cell Regulation by Cannabinoid-Based Drugs (link to PDF - 2010) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.429.7704&rank=67&q=cannabinoid&osm=&ossid=

Cannabinoid Receptor Interacting Protein (CRIP) 1a competition with β-arrestin for CB1 receptor binding sites. (link to PDF – 2016) http://molpharm.aspetjournals.org/content/early/2016/11/28/mol.116.104638.long

Two Janus cannabinoids that are both CB2 agonists and CB1 antagonists. (link to PDF – 2016) http://jpet.aspetjournals.org/content/early/2016/12/07/jpet.116.236539.long
Effects of activation of endocannabinoid system on myocardial metabolism.  
(click “ICI” for download – 2016)  

Getting into the weed: the role of the endocannabinoid system in the brain-gut axis.  
(link to full via ELSEVIER – 2016)  

Harvesting Benefits from Cannabinoids.  
(article – 2016)  
http://www.cell.com/cell/fulltext/S0092-8674(16)31675-0

Letter to the editor re Sredni et al.: spontaneous involution of pediatric low-grade gliomas: high expression of cannabinoid receptor 1 (CNR1) at the time of diagnosis may indicate involvement of the endocannabinoid system (2016)  
(letter – 2016)  

Disruption of hippocampal synaptic transmission and long-term potentiation by psychoactive synthetic cannabinoid 'Spice' compounds: comparison with Δ9-tetrahydrocannabinol.  
(abst – 2016)  

Physiological impact of CB1 receptor expression by hippocampal GABAergic interneurons.  
(abst – 2016)  

The emerging role of the cannabinoid receptor family in peripheral and neuro-immune interactions.  
(abst – 2016)  
http://www.eurekaselect.com/138448/article

Ligands for cannabinoid receptors, promising anticancer agents.  
(abst – 2016)  

Major dorsoventral differences in the modulation of the local CA1 hippocampal network by NMDA, mGlu5, adenosine A2A and cannabinoid CB1 receptors.  
(abst – 2016)  

Adverse effects after the use of JWH-210 - a case series from the EU Spice II plus project.  
(abst – 2016)  

The endocannabinoid system in the human granulosa cell line KGN.  
(abst – 2016)  

Effects of fatty acid amide hydrolase (FAAH) inhibitors on working memory in rats.  
(abst – 2016)  

Role of hypothalamic cannabinoid receptors in post-stroke depression in rats.  
(abst – 2016)  

Impaired cued and spatial learning performance and altered cannabinoid CB1 receptor functionality in the substantia nigra in a rat model of diabetic neuropathy.  
(abst – 2016)  
Endocannabinoids, through opioids and prostaglandins, contribute to fever induced by key pyrogenic mediators. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/26291402


Involvement of the orexin/hypocretin system in the pharmacological effects induced by Δ9-tetrahydrocannabinol. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/26799708

CB1 Cannabinoid Agonist (WIN55,212-2) Within the Basolateral Amygdala Induced Sensitization to Morphine and Increased the Level of μ-Opioid Receptor and c-fos in the Nucleus Accumbens (abst – 2016) http://link.springer.com/article/10.1007/s12031-016-0716-9


Social defeat leads to changes in the endocannabinoid system; an overexpression of calreticulin and motor impairment in mice. (abst – 2016)  

Endocannabinoids in Cerebrovascular Regulation. (abst – 2016)  


A systematic review of plant-derived natural compounds for anxiety disorders. (abst – 2016)  
http://www.eurekaselect.com/139238/article

Cannabinoid receptor type 1 mediates high-fat diet-induced insulin resistance by increasing forkhead box O1 activity in a mouse model of obesity. (abst – 2016)  
http://www.spandidos-publications.com/10.3892/ijmm.2016.2475

Cannabinoids for the Treatment of Schizophrenia: An Overview. (abst – 2016)  
http://www.eurekaselect.com/139245/article

Attenuation of cue-induced reinstatement of nicotine seeking by URB597 through cannabinoid CB1 receptor in rats. (abst – 2016)  

Cannabinoids and autoimmune diseases: A systematic review. (abst – 2016)  

Involvement of M1 and CB1 receptors in the anxiogenic-like effects induced by neostigmine injected into the rat prelimbic medial prefrontal cortex. (abst – 2016)  

Blockade of Nicotine and Cannabinoid Reinforcement and Relapse by a Cannabinoid CB1-Receptor Neutral Antagonist AM4113 and Inverse Agonist Rimonabant in Squirrel Monkeys. (abst – 2016)  

http://pubs.acs.org/doi/abs/10.1021/acs.jmedchem.5b01812

Investigation of receptor binding and functional characteristics of hemopressin(1-7). (abst – 2016)  

Stimulation of cannabinoid CB1 receptors prevents nerve-mediated airway hyperreactivity in NGF-induced inflammation in mouse airways. (abst – 2016)  


Immunohistochemical distribution of the cannabinoid receptor 1 and fatty acid amide hydrolase in the dog claustrum. (abst – 2016) http://www.sciencedirect.com/science/article/pii/S0891061815300405

Role of cannabinoids in gastrointestinal mucosal defense and inflammation. (abst – 2016) http://www.eurekaselect.com/140045/article


Cannabinoid receptors are involved in the protective effect of a novel curcumin derivative C66 against CCl4-induced liver fibrosis. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/26945822


Endocannabinoids and Endocannabinoid-Related Mediators: Targets, Metabolism and Role In Neurological Disorders. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/26965148


SGIP1 Alters Internalization and Modulates Signaling of Activated Cannabinoid Receptor 1 in Biased Manner. (abst – 2016)

Lack of hippocampal CB1 receptor desensitization by Δ9-tetrahydrocannabinol in aged mice and by low doses of JZL 184. (abst – 2016)

Sevoflurane Prevents Stroke-induced Depressive and Anxiety Behaviors by Promoting Cannabinoid Receptor Subtype I-dependent Interaction Between β-Arrestin 2 and ERK1/2 in the Rat Hippocampus. (abst – 2016)


Cannabinoids Occlude the HIV-1 Tat-Induced Decrease in GABAergic Neurotransmission in Prefrontal Cortex Slices. (abst – 2016)


Genetically reduced FAAH activity may be a risk for the development of anxiety and depression in persons with repetitive childhood trauma. (abst – 2016)

Functional effects of cannabinoids during dopaminergic specification of human neural precursors derived from induced pluripotent stem cells. (abst – 2016)

Cannabinoid Receptor 1 Mediates Homing of Bone Marrow-Derived Mesenchymal Stem Cells Triggered by Chronic Liver Injury. (abst – 2016)

Antagonism of dopamine receptor 2 long (D2L) affects cannabinoid receptor 1 (CB1) signaling in a cell culture model of striatal medium spiny projection neurons. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27053685


CB1 cannabinoid receptor-mediated anandamide signalling reduces the defensive behaviour evoked through GABAA receptor blockade in the dorsomedial division of the


Because difficulty is not the same for everyone: the impact of complexity in working memory is associated with cannabinoid 1 receptor genetic variation in young adults. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27108777

Broad impact of deleting endogenous cannabinoid hydrolyzing enzymes and the CB1 cannabinoid receptor on the endogenous cannabinoid-related lipidome in eight regions of the mouse brain. (abst – 2016) http://www.sciencedirect.com/science/article/pii/S1043661816303449


Endocannabinoid 2-Arachidonoylglycerol Suppresses LPS-Induced Inhibition of A-Type Potassium Channel Currents in Caudate Nucleus Neurons Through CB1 Receptor. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27129498


Adolescent social rejection alters pain processing in a CB1 receptor dependent manner. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27157075


Expression analysis of cannabinoid receptors 1 and 2 in B cells during pregnancy and their role on cytokine production. (abst – 2016) http://www.jrijournal.org/article/S0165-0378%2816%2930026-2/abstract

Direct presynaptic and indirect astrocyte-mediated mechanisms both contribute to endocannabinoid signaling in the pedunculopontine nucleus of mice.  (abst – 2016)  

MicroRNA let-7d is a target of cannabinoid CB1 receptor and controls cannabinoid signaling  (abst – 2016)  

Phytocannabinoids and cannabimimetic drugs: recent patents in central nervous system disorders.  (abst – 2016)  

Synthetic cannabinoid receptor agonists and antagonists: implication in CNS disorders.  (abst – 2016)  

Neural endocannabinoid CB1 receptor expression, social status, and behavior in male European starlings.  (abst – 2016)  

The effect of cannabinoids on dinitrofluorobenzene-induced experimental asthma in mice.  (abst – 2016)  

Hierarchical glucocorticoid-endocannabinoid interplay regulates the activation of the nucleus accumbens by insulin.  (abst – 2016)  

Activity of muscarinic, galanin and cannabinoid receptors in the prodromal and advanced stages in the triple transgenic mice model of Alzheimer's disease.  (abst – 2016)  

TRPV1-FAAH-COX: The Couples Game in Pain Treatment.  (abst – 2016)  

Positron Emission Tomography Studies on Cannabinoid Receptor Type 1 in Schizophrenia  (abst – 2016)  
http://www.biologicalpsychiatryjournal.com/article/S0006-3223%2816%2932303-4/abstract

Assay of CB1 Receptor Binding.  (abst – 2016)  

Protocol to Study β-Arrestin Recruitment by CB1 and CB2 Cannabinoid Receptors.  (abst – 2016)  

Assay of DAGLα/β Activity.  (abst – 2016)  

Assay of Endocannabinoid Oxidation by Cyclooxygenase-2.  (abst – 2016)  
Western Blotting of the Endocannabinoid System. (abst – 2016)  

Prefrontal activity during working memory is modulated by the interaction of variation in CB1 and COX2 coding genes and correlates with frequency of cannabis use. (abst – 2016)  

Effect of synthetic cannabinoids on spontaneous neuronal activity: Evaluation using Ca2+ spiking and multi-electrode arrays. (abst – 2016)  

CB1 Receptor Antagonism Prevents Long-Term Hyperexcitability after Head Injury by of Dynorphin-KOR System and mGluR5 in Rat Hippocampus. (abst – 2016)  


Activation of cannabinoid CB1 receptors in the ventral hippocampus improved stress-induced amnesia in rat. (abst – 2016)  

Reduced Noradrenergic Signaling in the Spleen Capsule in the Absence of CB1 and CB2 Cannabinoid Receptors. (abst – 2016)  

A High Efficacy Cannabinergic Ligand (AM4054) used as a Discriminative Stimulus: Generalization to other Adamantyl Analogs and Δ9-THC in Rats. (abst – 2016)  

Enhanced discriminative stimulus effects of Δ9-THC in the presence of cannabidiol and 8-OH-DPAT in rhesus monkeys (abst – 2016)  
http://www.drugandalcoholdependence.com/article/S0376-8716(16)30133-8/abstract

Autophagy activation by novel inducers prevents BECN2-mediated drug tolerance to cannabinoids. (abst – 2016)  

Cannabinoid receptor agonism suppresses tremor, cognition disturbances and anxiety-like behaviors in a rat model of essential tremor. (abst – 2016)  

Ischemic Stroke, Excitatory Amino Acids Toxicity and the Adjustment of Acupuncture Intervention (abst – 2016)  

Basolateral amygdala CB1 cannabinoid receptors are involved in cross state-dependent memory retrieval between morphine and ethanol. (abst – 2016)  
Activation of cannabinoid CB1 receptors suppresses the ROS-induced hypersensitivity of rat vagal lung C-fiber afferents.  

An update on PPAR activation by cannabinoids  
http://www.ingentaconnect.com/search/article?option1=tka&value1=cannabinoid&sortDescending=true&sortField=prism_publicationDate&pageSize=10&index=6

PnPP-19, a spider toxin peptide, induces peripheral antinociception through opioid and cannabinoid receptors and inhibition of neutral endopeptidase.  

Anatomical characterization of the cannabinoid cb1 receptor in cell type-specific mutant mouse rescue models.  

Cannabinoid receptors in the kidney.  

Endocannabionoid System in Neurological Disorders.  

Co-administration of cannabidiol and capsazepine reduces L-DOPA-induced dyskinesia in mice: Possible mechanism of action  

Inhibitors of diacylglycerol lipases in neurodegenerative and metabolic disorders.  
(abort – 2016)  

Mechanical and material properties of cortical and trabecular bone from cannabinoid receptor-1-null (Cnr1-/-) mice.  
(abort – 2016)  

Effects of the cannabinoid 1 receptor peptide ligands hemopressin, (m)RVD-hemopressin(α) and (m)VD-hemopressin(α) on memory in novel object and object location recognition tasks in normal young and Aβ1-42-treated mice.  
(abort – 2016)  

Blockade of Cannabinoid CB1 receptor attenuates the acquisition of morphine-induced conditioned place preference along with a downregulation of ERK, CREB phosphorylation, and BDNF expression in the nucleus accumbens and hippocampus.  
(abort – 2016)  

Deficient adolescent social behavior following early-life inflammation is ameliorated by augmentation of anandamide signaling.  
(abort – 2016)  

The CB1 antagonist, SR141716A, is protective in permanent photothrombotic cerebral ischemia  
(abort – 2016)  
Cannabinoid Receptor 1 (CNR1) Gene Variant Moderates Neural Index of Cognitive Disruption during Nicotine Withdrawal. (abst – 2016)  

A study of cannabinoid-1 receptors during the early phase of excitotoxic damage to rat spinal locomotor networks in vitro. (abst – 2016)  

Expression of the Endocannabinoid Receptor 1 in Human Stroke: An Autoptic Study. (abst – 2016)  

Cannabinoid receptor agonist WIN55,212-2 and fatty acid amide hydrolase inhibitor URB597 may protect against cognitive impairment in rats of chronic cerebral hypoperfusion via PI3K/AKT signaling. (abst – 2016)  


Evaluation of first generation synthetic cannabinoids on binding at non-cannabinoid receptors and in a battery of in vivo assays in mice. (abst – 2016)  

Involvement of endocannabinoid neurotransmission in the bed nucleus of stria terminalis in cardiovascular responses to acute restraint stress in rats. (abst – 2016)  

Endocannabinoids participate in placental apoptosis induced by hypoxia inducible factor-1. (abst – 2016)  

Projection-Specific Dynamic Regulation of Inhibition in Amygdala Micro-Circuits (abst – 2016)  

Pure Δ9-tetrahydrocannabivarin and a Cannabis sativa extract with high content in Δ9-tetrahydrocannabivarin inhibit nitrite production in murine peritoneal macrophages. (abst – 2016)  

Acute Stress Suppresses Synaptic Inhibition and Increases Anxiety via Endocannabinoid Release in the Basolateral Amygdala. (abst – 2016)  

Cannabinoid Receptor Interacting Protein (CRIP1a) suppresses agonist-driven CB1 receptor internalization, and regulates receptor replenishment in an agonist-biased manner. (abst – 2016)  

Metabolism of endocannabinoids. (abst – 2016)  


mGluR1/5 activation in the lateral hypothalamus increases food intake via the endocannabinoid system. (abst – 2016) http://www.sciencedirect.com/science/article/pii/S0304394016305997


Dorsal hippocampus cannabinoid type 1 receptors modulate the expression of contextual fear conditioning in rats: Involvement of local glutamatergic/nitriergic and GABAergic neurotransmissions. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27591981


Spontaneous involution of pediatric low-grade gliomas: high expression of cannabinoid receptor 1 (CNR1) at the time of diagnosis may indicate involvement of the endocannabinoid system. (abst – 2016) http://link.springer.com/article/10.1007%2Fs00381-016-3243-7


Inflammation of peripheral tissues and injury to peripheral nerves induce differing effects in the expression of the calcium-sensitive anandamide-synthesising enzyme and related molecules in rat primary sensory neurons. (abst – 2016)

Phytocannabinoids: a growing family of plant natural products with increasing pharmacological and clinical importance (abst – 2016)

Cannabinoid receptors on peripheral leukocytes from patients with schizophrenia: Evidence for defective immunomodulatory mechanisms. (abst – 2016)

Pharmacological and Toxicological Effects of Synthetic Cannabinoids and Their Metabolites (abst – 2016)
http://link.springer.com/chapter/10.1007%2F7854_2016_60

Circulating levels of endocannabinoids respond acutely to voluntary exercise, are altered in mice selectively bred for high voluntary wheel running, and differ between the sexes. (abst – 2016)

The CB1 receptor is required for the establishment of the hyperlocomotor phenotype in developmentally-induced hypothyroidism in mice. (abst – 2016)

Phytochemical and biological evaluation of Salvia apiana. (abst – 2016)

Targeting Cutaneous Cannabinoid Signaling in Inflammation - A “High”-way to Heal? (full – 2017)
http://www.ebiomedicine.com/article/S2352-3964(17)30003-8/fulltext

Cannabinoid Receptors in the Central Nervous System: Their Signaling and Roles in Disease. (full – 2017)

Synaptic Reorganization of the Perisomatic Inhibitory Network in Hippocampi of Temporal Lobe Epileptic Patients (full – 2017)
https://www.hindawi.com/journals/bmri/2017/7154295/

Cannabinoid CB2 receptor ligand profiling reveals biased signalling and off-target activity (full – 2017)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5216056/

Singular Location and Signaling Profile of Adenosine A2A-Cannabinoid CB1 Receptor Heteromers in the Dorsal Striatum. (link to download – 2017)
http://www.nature.com/npp/journal/vaop/naam/abs/npp201712a.html

Developmental Role of Macrophage Cannabinoid-1 Receptor Signaling in Type-2 Diabetes (abst – 2017) http://diabetes.diabetesjournals.org/content/early/2017/01/11/db16-1199.long

Design, Synthesis and Biological Evaluation of Novel, Non-Brain Penetrant, Hybrid Cannabinoid CB1R Inverse Agonist/Inducible Nitric Oxide Synthase (iNOS) Inhibitors for the Treatment of Liver Fibrosis (abst – 2017) http://pubs.acs.org/doi/abs/10.1021/acs.jmedchem.6b01504


N-Oleoylglycine-induced hyperphagia was associated with the activation of AgRP neuron by CB1R. (abst – 2017) https://www.ncbi.nlm.nih.gov/pubmed/28102080


Role of cannabis in digestive disorders (abst – 2017) http://www.ingentaconnect.com/search/article?option1=txa&value1=cannabinoid&sortDescending=true&sortField=prism_publicationDate&pageSize=10&index=3


Molecular Targets of the Phytocannabinoids: A Complex Picture (abst – 2017) http://link.springer.com/chapter/10.1007%2F978-3-319-45541-9_4
Antihyperalgesic effect of CB1 receptor activation involves the modulation of P2X3 receptor in the primary afferent neuron. (abst – 2017)  https://www.ncbi.nlm.nih.gov/pubmed/28131783

Decreased expression of fatty acid amide hydrolase in women with polycystic ovary syndrome. (abst – 2017)  https://www.ncbi.nlm.nih.gov/pubmed/28132572


CBR - CB1b CANNABINOID RECEPTOR – a slightly different isoform of a CB 1 receptor


Human CB1 Receptor Isoforms, present in Hepatocytes and β-cells, are Involved in Regulating Metabolism. (full – 2016)  http://www.nature.com/articles/srep33302


CBR - CB2 CANNABINOID RECEPTOR +* - no "high", activated by THC, Anandamide, 2-AG, THC
Paradoxical effects of the cannabinoid CB2 receptor agonist GW405833 on rat osteoarthritic knee joint pain.  (full – 2010)
http://www.oarsijournal.com/article/S1063-4584%2810%2900315-8/fulltext

CB2: a cannabinoid receptor with an identity crisis.  (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931549/?tool=pubmed

International Union of Basic and Clinical Pharmacology. LXXIX. Cannabinoid Receptors and Their Ligands: Beyond CB1 and CB2  (full – 2010)
http://pharmrev.aspetjournals.org/content/62/4/588.full.pdf+html

Targeting the cannabinoid pathway limits the development of fibrosis and autoimmunity in a mouse model of systemic sclerosis.  (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2893662/

Cannabinoid-mediated modulation of neuropathic pain and microglial accumulation in a model of murine type I diabetic peripheral neuropathic pain  (full - 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2845559/?tool=pmcentrez

Cannabinoid-2 receptor limits inflammation, oxidative/nitrosative stress, and cell death in nephropathy.  (full – 2010)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2869084/?tool=pubmed

The serine hydrolase ABHD6 controls the accumulation and efficacy of 2-AG at cannabinoid receptors.  (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2970523/

N-arachidonoyl glycine, an abundant endogenous lipid, potently drives directed cellular migration through GPR18, the putative abnormal cannabidiol receptor  (full – 2010)
http://www.biomedcentral.com/1471-2202/11/44

Tonic modulation of spinal hyperexcitability by the endocannabinoid receptor system in a rat model of osteoarthritis pain.  (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3132591/?tool=pubmed

Small intestinal cannabinoid receptor changes following a single colonic insult with oil of mustard in mice.  (full – 2010)

Cannabinoid inhibition of macrophage migration to the trans-activating (Tat) protein of HIV-1 is linked to the CB(2) cannabinoid receptor.  (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2846023/?tool=pubmed

The serine hydrolase ABHD6 controls the accumulation and efficacy of 2-AG at cannabinoid receptors.  (full – 2010)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2970523/?tool=pubmed

Cannabinoid receptor-dependent and -independent anti-proliferative effects of omega-3 ethanolamides in androgen receptor-positive and -negative prostate cancer cell lines.
Immunoregulation of a CB2 receptor agonist in a murine model of neuroAIDS. (full – 2010)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3109320/

Naphthalen-1-yl-(4-pentyloxynaphthalen-1-yl)methanone (SAB378), a peripherally restricted cannabinoid CB1/CB2 receptor agonist, inhibits gastrointestinal motility but has no effect on experimental colitis in mice. (full – 2010) http://jpet.aspetjournals.org/content/334/3/973.long


The expression level of CB1 and CB2 receptors determines their efficacy at inducing apoptosis in astrocytomas. (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2806825/?tool=pubmed


Interaction between anandamide and sphingosine-1-phosphate in mediating vasorelaxation in rat coronary artery (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2962826/?tool=pubmed

Cannabinoid Receptors are Coupled to Stimulation of Insulin Secretion from Mouse MIN6 β-cells (full – 2010) http://www.karger.com/Article/Pdf/320527

Depression-resistant endophenotype in mice overexpressing cannabinoid CB2 receptors (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2936848/?report=classic

CB2 Cannabinoid Receptor Targets Mitogenic Gi Protein–Cyclin D1 Axis in Osteoblasts (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3179350/

Cannabinoid Receptors, CB1 and CB2, as Novel Targets for Inhibition of Non-Small Cell Lung Cancer Growth and Metastasis (full – 2010) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3025486/


Cannabinoid (JWH-133) therapy could be effective for treatment of corneal neovascularization (link to PDF – 2010) http://ijmhi.tums.ac.ir/index.php/ijmhi/article/view/72/72

Endocannabinoids and Schizophrenia  (link to PDF – 2010)
http://www.mdpi.com/1424-8247/3/10/3101

Endocannabinoids and Human Sperm Cells  (link to PDF - 2010)
http://www.mdpi.com/1424-8247/3/10/3200

The development of cannabinoid CBII receptor agonists for the treatment of central neuropathies.  (link to PDF – 2010)
http://www.eurekaselect.com/85808/article

The Role of Cannabinoid Receptors in the Descending Modulation of Pain
(link to PDF - 2010)  http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.634.4866&rank=72

Activation of cannabinoid 2 receptors protects against cerebral ischemia by inhibiting neutrophil recruitment.  (abst – 2010)

Altered expression of cannabinoid receptors 1 and 2 and activated endocannabinoid system in patients with severe chronic heart failure  (abst – 2010)

A nonsynonymous polymorphism in cannabinoid CB2 receptor gene is associated with eating disorders in humans and food intake is modified in mice by its ligands.

Expression of cannabinoid receptor 2 in squamous cell carcinoma  (abst – 2010)

Brain cannabinoid CB2 receptor in schizophrenia.  (abst – 2010)

Dronabinol for the treatment of unspecific pain, restlessness and spasticity in neuropaediatrics  (abst – 2010)


Cannabinoid subtype-2 receptors modulate the antihyperalgesic effect of WIN 55,212-2 in rats with neuropathic spinal cord injury pain.  (abst – 2010)

Substantially altered expression pattern of cannabinoid receptor 2 and activated endocannabinoid system in patients with severe heart failure.  (abst – 2010)

Functionally selective cannabinoid receptor signalling: Therapeutic implications and opportunities  (abst – 2010)  

Role of the endocannabinoid system in alcoholic liver disease.  (abst – 2010)  

Histomorphometric evaluation of cannabinoid receptor and anandamide modulating enzyme expression in the human endometrium through the menstrual cycle. (abst – 2010)  

Activation of cannabinoid receptor CB2 regulates osteogenic and osteoclastogenic gene expression in human periodontal ligament cells.  (abst – 2010)  

CB1 and CB2 cannabinoid receptor expression during development and in epileptogenic developmental pathologies.  (abst – 2010)  

Transient receptor potential A1 and cannabinoid receptor activity in human normal and hyperplastic prostate: relation to nerves and interstitial cells  (abst – 2010)  

Electroacupuncture increases CB2 receptor expression on keratinocytes and infiltrating inflammatory cells in inflamed skin tissues of rats.  (abst – 2010)  

Peripheral cannabinoid type 2 receptor regulates osteoclast formation, MDA-MB-231 breast cancer cell migration and bone marrow/tumour cell interaction via PI3 kinase/AKT and P38 pathways  (abst – 2010)  
http://www.thebonejournal.com/article/S8756-3282%2810%2901828-4/abstract

Loss of the cannabinoid receptor CB2 alters the mechanical but not the material properties of bone  (abst – 2010)  
http://www.thebonejournal.com/article/S8756-3282%2810%2900716-7/abstract

The type 2 cannabinoid receptor protects against age-related bone loss and ovariectomy induced bone loss by stimulating bone formation (abst – 2010)  
http://www.thebonejournal.com/article/S8756-3282%2810%2900619-8/abstract

Novel natural and synthetic ligands of the endocannabinoid system.  (abst – 2010)  

Deletion of CB2 Cannabinoid Receptor Induces Schizophrenia-Related Behaviors in Mice  (full – 2011)  
http://www.nature.com/npp/journal/v36/n7/full/npp201134a.html
Cannabinoid Receptor 2 Deficiency in Haematopoietic cells Aggravates Early Atherosclerosis in LDL Receptor Deficient Mice.  (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3109635/?tool=pubmed

Regulatory effect of cannabinoid receptor agonist on chemokine-induced lymphocyte chemotaxis.  (full – 2011)  https://www.jstage.jst.go.jp/article/bpb/34/7/34_7_1090/_pdf

Protective Role of Cannabinoid Receptor Type 2 in a Mouse Model of Diabetic Nephropathy.  (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3161308/


Is lipid signaling through cannabinoid 2 receptors part of a protective system? (full – 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3062638/


Activation of cannabinoid type 2 receptors inhibits HIV-1 envelope glycoprotein gp120-induced synapse loss.  (full – 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3164336/

The activation of the cannabinoid receptor type 2 reduces neutrophilic protease-mediated vulnerability in atherosclerotic plaques  (full – 2011)  http://eurheartj.oxfordjournals.org/content/33/7/846.full

CNR2 functional variant (Q63R) influences childhood immune thrombocytopenic purpura.  (full – 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3232275/


Sex Differences in Cannabinoid 1 vs. Cannabinoid 2 Receptor-Selective Antagonism of Antinociception Produced by Δ9-Tetrahydrocannabinol and CP55,940 in the Rat (full – 2011)  http://jpet.aspetjournals.org/content/340/3/787.full
Cannabinoid Receptor 2 Is Critical for the Homing and Retention of Marginal Zone B Lineage Cells and for Efficient T-Independent Immune Responses  
http://www.jimmunol.org/content/187/11/5720.full.pdf+html

N-arachidonoyl-serine is neuroprotective after traumatic brain injury by reducing apoptosis  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3170948/

Cannabinoids and bone: endocannabinoids modulate human osteoclast function in vitro  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423262/

The Type 2 Cannabinoid Receptor Regulates Bone Mass and Ovariectomy-Induced Bone Loss by Affecting Osteoblast Differentiation and Bone Formation  

GPR55 regulates cannabinoid 2 receptor-mediated responses in human neutrophils.  

Endocannabinoid system and psychiatry: in search of a neurobiological basis for detrimental and potential therapeutic effects.  

CB2 Cannabinoid Receptors Promote Neural Progenitor Cell Proliferation via mTORC1 Signaling  
http://www.jbc.org/content/287/2/1198.full

CNS effects of CB2 cannabinoid receptors: beyond neuro-immuno-cannabinoid activity  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3388033/

Self-medication of a cannabinoid CB(2) agonist in an animal model of neuropathic pain.  

Brain cannabinoid CB2 receptors modulate cocaine's actions in mice  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3164946/

Increasing 2-arachidonoyl glycerol signaling in the periphery attenuates mechanical hyperalgesia in a model of bone cancer pain.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3104059/

Cannabinoid receptor 2 positions and retains marginal zone B cells within the splenic marginal zone.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3182059/

Cannabinoid receptor-2 (CB2) agonist ameliorates colitis in IL-10(-/-) mice by attenuating the activation of T cells and promoting their apoptosis.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4117838/

Deletion of cannabinoid receptors 1 and 2 exacerbates APC function to increase inflammation and cellular immunity during influenza infection.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3206470/
Design and evaluation of a novel fluorescent CB2 ligand as probe for receptor visualization in immune cells. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3171627/

The highs and lows of cannabinoid receptor expression in disease: mechanisms and their therapeutic implications. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3141881/

Expression of the cannabinoid system in muscle: effects of a high fat diet and CB1 receptor blockade (full – 2011)  
http://www.biochemj.org/content/433/1/175

Unraveling the complexities of cannabinoid receptor 2 (CB2) immune regulation in health and disease. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4624216/

Cannabidiol decreases body weight gain in rats: Involvement of CB2 receptors. (abst - 2011)  

The role of central CB2 cannabinoid receptors on food intake in neonatal chicks. (abst – 2011)  

Win 55,212-2 reduces cardiac ischaemia-reperfusion injury in zucker diabetic fatty rats: role of cb2 receptors and cardiac inos/enos expression. (abst – 2011)  
http://www.unboundmedicine.com/medline/ebm/record/21309057/abstract/Win_55212_2_reduces_cardiac_ischaemia_reperfusion_injury_in_zucker_diabetic_fatty_rats_role_of_cb2_receptors_and_cardiac_inos/enos_expression

Overexpression of CB2 cannabinoid receptors results in neuroprotection against behavioral and neurochemical alterations induced by intracaudate administration of 6-hydroxydopamine. (abst – 2011)  

The endocannabinoid anandamide downregulates IL-23 and IL-12 subunits in a viral model of multiple sclerosis: evidence for a cross-talk between IL-12p70/IL-23 axis and IL-10 in microglial cells. (abst – 2011)  

Genetic association between bipolar disorder and 524A>C (Leu133Ile) polymorphism of CNR2 gene, encoding for CB2 cannabinoid receptor. (abst - 2011)  

Cloning and pharmacological characterization of the dog cannabinoid CB2 receptor (abst – 2011)  

G-protein coupled receptors regulating cough. (abst – 2011)  

Atheroprotection via cannabinoid receptor-2 is mediated by circulating and vascular cells in vivo. (abst – 2011)  
The effect of CBD (BDS) botanical cannabinoid extraction on MCF-7 human breast carcinoma cells  
(abst – 2011)  
http://eprints.hud.ac.uk/16197/

Endocannabinoid pathways and their role in multiple sclerosis-related muscular dysfunction.  
(abst – 2011)  

Regulation of hematopoietic stem cell trafficking and mobilization by the endocannabinoid system.  
(abst – 2011)  

Antinociceptive effects induced through the stimulation of spinal cannabinoid type 2 receptors in chronically inflamed mice  
(abst - 2011)  
http://www.unboundmedicine.com/medline/ebm/record/21771590/abstract/Antinociceptive_effects_induced_through_the_stimulation_of_spinal_cannabinoid_type_2_receptors_in_chronically_inflamed_mice

New targets, new drugs for metastatic bone pain: a new philosophy.  
(abst – 2011)  

Spinal cannabinoid CB2 receptors as a target for neuropathic pain: an investigation using chronic constriction injury.  
(abst – 2011)  

Cannabinoid-2 Receptor Activation Protects against Infarct and Ischemia/Reperfusion Heart Injury.  
(abst – 2011)  

Cannabinoid receptor type 2 activation yields delayed tolerance to focal cerebral ischemia.  
(abst – 2011)  

The endocannabinoid system in the cancer therapy: an overview.  
(abst – 2011)  

Electroacupuncture reduces the expression of proinflammatory cytokines in inflamed skin tissues through activation of cannabinoid CB2 receptors.  
(abst – 2011)  

The role of central CB2 cannabinoid receptors on food intake in neonatal chicks  
(abst – 2011)  

Comparison Of Rat And Human Eyes For The Presence And Distribution Of Cb1 And Cb2 Receptors  
(abst - 2011)  
http://iovs.arvojournals.org/article.aspx?articleid=2357116&resultClick=1

Expression of cannabinoid receptors by human articular chondrocytes  
(abst – 2011)  
http://www.thebonejournal.com/article/S8756-3282%2811%2900386-3/abstract

The CB2 receptor regulates osteoclast formation, breast cancer cell migration and osteoclast/tumour cell interaction via the PI3 Kinase/AKT pathway  
(abst – 2011)  
http://www.thebonejournal.com/article/S8756-3282%2811%2900177-3/abstract
Cannabinoids and sepsis  (abst – 2011)  
http://www.trendsanaesthesiacriticalcare.com/article/S2210-8440%2811%2900049-9/fulltext

Cannabinoid receptors: nomenclature and pharmacological principles.  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3378782/

Effects of a Selective Cannabinoid CB2 Agonist and Antagonist on Intravenous Nicotine Self Administration and Reinstatement of Nicotine Seeking.  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3266883/?tool=pubmed

Methylhonokiol attenuates neuroinflammation: a role for cannabinoid receptors?  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3419612/

Endocannabinoids Stimulate Human Melanogenesis via Type-1 Cannabinoid Receptor  (full – 2012)  
http://www.jbc.org/content/early/2012/03/19/jbc.M111.314880.full.pdf+html

The role of CB2 receptor ligands in human eosinophil function  (full – 2012)  

Cannabinoid Receptor 2-Mediated Attenuation of CXCR4-Tropic HIV Infection in Primary CD4+ T Cells  (full – 2012)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0033961

Cannabinoids and atherosclerotic coronary heart disease.  (full – 2012)  

Targeting cannabinoid receptor CB2 in cardiovascular disorders: promises and controversies  (full – 2012)  

Cannabinoid receptor 2 activation reduces intestinal leukocyte recruitment and systemic inflammatory mediator release in acute experimental sepsis  (full – 2012)  
http://ccforum.com/content/16/2/R47

Cannabinoid Receptor 2 Signaling in Peripheral Immune Cells Modulates Disease Onset and Severity in Mouse Models of Huntington's Disease.  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3753072/

Magnolia Extract, Magnolol, and Metabolites: Activation of Cannabinoid CB2 Receptors and Blockade of the Related GPR55.  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4027495/

Disease modification of breast cancer-induced bone remodeling by cannabinoid 2 receptor agonists.  (full – 2012)  

The fatty acid amide hydrolase inhibitor URB597 exerts anti-inflammatory effects in hippocampus of aged rats and restores an age-related deficit in long-term potentiation  (full – 2012)  
http://www.jneuroinflammation.com/content/9/1/79


Role of cannabinoids in the regulation of bone remodeling (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3499879/

Early Endogenous Activation of CB1 and CB2 Receptors after Spinal Cord Injury Is a Protective Response Involved in Spontaneous Recovery (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3496738/

The maintenance of cisplatin- and paclitaxel-induced mechanical and cold alldynia is suppressed by cannabinoid CB2 receptor activation and independent of CXCR4 signaling in models of chemotherapy-induced peripheral neuropathy (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3502129/


GPR18 in microglia: implications for the CNS and endocannabinoid system signaling (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3525861/


The Therapeutic Potential of Cannabis and Cannabinoids (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3442177/

Inhibition of monoacylglycerol lipase attenuates vomiting in Suncus murinus and 2-arachidonoyl glycerol attenuates nausea in rats. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423233/

Cannabinoids Facilitate the Swallowing Reflex Elicited by the Superior Laryngeal Nerve Stimulation in Rats (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3507745/


Cannabinoid receptors in submandibular acinar cells: Functional coupling between saliva fluid and electrolytes secretion and Ca2+ signalling (full – 2012) http://jcs.biologists.org/content/125/8/1884.full


The CB(2)-preferring agonist JWH015 also potently and efficaciously activates CB(1) in autaptic hippocampal neurons. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3601544/

Sativex-like Combination of Phytocannabinoids is Neuroprotective in Malonate-Lesioned Rats, an Inflammatory Model of Huntington's Disease: Role of CB(1) and CB(2) Receptors. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3382456/

Endocannabinoids in nervous system health and disease: the big picture in a nutshell (full – 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3193.full


Review article: Why do cannabinoid receptors have more than one endogenous ligand? (full - 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3216.full?sid=1569c370-cd5c-4358-89ff-857201e5e069

Methylhonokiol attenuates neuroinflammation: a role for cannabinoid receptors? (full – 2012) http://www.jneuroinflammation.com/content/9/1/135


Δ(8) -Tetrahydrocannabivarin prevents hepatic ischaemia/reperfusion injury by decreasing oxidative stress and inflammatory responses through cannabinoid CB(2) receptors. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423240/

β-Caryophyllene ameliorates cisplatin-induced nephrotoxicity in a cannabinoid 2 receptor-dependent manner. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3312970/
Dynamic changes to the endocannabinoid system in models of chronic pain (full – 2012)
http://rstb.royalsocietypublishing.org/content/367/1607/3300.full?sid=1569c370-cd5c-4358-89ff-857201f5e069

Intrathecal cannabiliactone CB(2)R agonist, AM1710, controls pathological pain and restores basal cytokine levels. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3603341/

Endocannabinoid signaling in female reproduction. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3382454/

Excitability of prefrontal cortical pyramidal neurons is modulated by activation of 98 intracellular type-2 cannabinoid receptors. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3295302/

Activation of Cannabinoid Receptor 2 reduces inflammation in acute experimental pancreatitis via intra-acinar activation of p38 and MK2-dependent mechanisms. (full – 2012) http://ajpgi.physiology.org/content/304/2/G181


Cannabidiol for neurodegenerative disorders: important new clinical applications for this phytocannabinoid? (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3579248/

Review article: The endocannabinoid system in normal and pathological brain ageing (full – 2012)
http://rstb.royalsocietypublishing.org/content/367/1607/3326.full?sid=161e7b36-5055-448b-962e-697e782e901d

Inhibiting fatty acid amide hydrolase normalizes endotoxin-induced enhanced gastrointestinal motility in mice. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3372737/

Prevention of Paclitaxel-Induced Neuropathy Through Activation of the Central Cannabinoid Type 2 Receptor System (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3334436/

Alteration of endocannabinoid system in human gliomas. (full – 2012)

Cannabinoid 2 (CB2) Receptor Involvement in the Down-regulation but not Up-regulation of Serum IgE Levels in Immunized Mice. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3419805/
Cannabinoid type 2 receptor activation downregulates stroke-induced classic and alternative brain macrophage/microglial activation concomitant to neuroprotection. (full – 2012) http://stroke.ahajournals.org/content/43/1/211.long

Cannabinoid Receptors CB1 and CB2 Form Functional Heteromers in Brain. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3375509/

Cannabinoid CB(2) receptor-mediated regulation of impulsive-like behaviour in DBA/2 mice. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3252982/

Activation of cannabinoid receptor 2 attenuates leukocyte-endothelial cell interactions and blood-brain barrier dysfunction under inflammatory conditions. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3325902/

Signaling through cannabinoid receptor 2 suppresses murine dendritic cell migration by inhibiting matrix metalloproteinase 9 expression. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3488886/

Spice drugs are more than harmless herbal blends: A review of the pharmacology and toxicology of synthetic cannabinoids. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3936256/


Targeting the endocannabinoid system with cannabinoid receptor agonists: pharmacological strategies and therapeutic possibilities (full – 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3353.full?sid=1569c370-cd5c-4358-89ff-857201f5e069

Local Peripheral Effects of β-Caryophyllene through CB2 Receptors in Neuropathic Pain in Mice (full – 2012) http://file.scirp.org/Html/23613.html

Genetic variability in the endocannabinoid system and 12-week clinical response to citalopram treatment: the role of the CNR1, CNR2 and FAAH genes (full – 2012) http://journals.sagepub.com/doi/full/10.1177/0269881112454229

Cannabinoid Receptor CB2 Modulates Axon Guidance (link to PDF - 2012) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.727.7765&rank=63&q=cannabinoid&osm=&ossid=
The biochemical complexity of the endocannabinoid system with some remarks on stress and related disorders: a minireview (abst – 2012)  

Cannabinoid receptor type 2 is time-dependently expressed during skin wound healing in mice. (abst – 2012)  

G protein-coupled receptor crosstalk and signaling in hematopoietic stem and progenitor cells. (abst – 2012)  

Small-animal PET imaging of the type 1 and type 2 cannabinoid receptors in a photothrombotic stroke model (abst – 2012)  

4-O-methylhonokiol prevents memory impairment in the Tg2576 transgenic mice model of Alzheimer's disease via regulation of β-secretase activity. (abst – 2012)  

Activation of the CB(2) receptor system reverses amyloid-induced memory deficiency. (abst – 2012)  

Effect of omega-3 polyunsaturated fatty acids on the endocannabinoid system in osteoblast-like cells and muscle (abst – 2012)  
http://docs.lib.purdue.edu/dissertations/AAI3444794/

Behavioral effects of pulp exposure in mice lacking cannabinoid receptor 2. (abst – 2012)  

Role of cannabinoid 2 receptor in the development of bone cancer pain (abst – 2012)  

Overexpression of CB2 cannabinoid receptors results in neuroprotection against behavioral and neurochemical alterations induced by intracaudate administration of 6-hydroxydopamine. (abst – 2012)  

Overexpression of cannabinoid CB2 receptor in the brain induces hyperglycaemia and a lean phenotype in adult mice. (abst – 2012)  

Cannabinoids and muscular pain. Effectiveness of the local administration in rat. (abst – 2012)  

Platelet-rich plasma loaded hydrogel scaffold enhances chondrogenic differentiation and maturation with up-regulation of CB1 and CB2. (abst – 2012)  

The Role of Cannabinoids In Inflammatory Modulation of Allergic Respiratory Disorders, Inflammatory Pain and Ischemic Stroke. (abst – 2012)  


Cannabinoid receptor-2-selective agonists improve recovery in experimental autoimmune encephalomyelitis (abst – 2012)  http://www.jimmunol.org/content/188/1_Supplement/116.7.abstract?sid=b1a0d6c8-40b1-4641-82a4-b6b539cebe6e


Cannabinoid receptor 2 agonists inhibit migration of activated dendritic cells via modulation of MMP-9 (abst – 2012)  http://www.jimmunol.org/content/188/1_Supplement/173.23.abstract?sid=919f9469-cb24-4dbd-9884-1985caa8604a


Neuroprotective agents: cannabinoids. (abst – 2012)  

Electroacupuncture reduces the expression of proinflammatory cytokines in inflamed skin tissues through activation of cannabinoid CB2 receptors. (abst – 2012)  

Anandamide enhances expression of heat shock protein 72 to protect against ischemia-reperfusion injury in rat heart. (abst – 2012)  

Cannabinoid Receptor Subtypes 1 and 2 Mediate Long-Lasting Neuroprotection and Improve Motor Behaviour Deficits After Transient Focal Cerebral Ischemia. (abst – 2012)  

4-Oxo-1,4-dihydropyridines as Selective CB2 Cannabinoid Receptor Ligands Part 2: Discovery of New Agonists Endowed with Protective Effect Against Experimental Colitis. (abst – 2012)  
http://pubs.acs.org/doi/abs/10.1021/jm3008568

Distribution and function of the endocannabinoid system in the rat and human bladder. (abst – 2012)  

The cannabinoid receptor-2 is involved in allergic inflammation (abst – 2012)  

Involvement of peripheral cannabinoid and opioid receptors in β-caryophyllene-induced antinociception. (abst – 2012)  


Anandamide Induces Matrix Metalloproteinase-2 Production through Cannabinoid-1 Receptor and Transient Receptor Potential Vanilloid-1 in Human Dental Pulp Cells in Culture (abst – 2012)  

CD200-CD200R1 interaction contributes to neuroprotective effects of anandamide on experimentally induced inflammation (abst – 2012)  

Role of CB1 and CB2 cannabinoid receptors in the development of joint pain induced by monosodium iodoacetate. (abst – 2012)  

Update on the endocannabinoid-mediated regulation of gelatinase release in arterial wall physiology and atherosclerotic pathophysiology. (abst – 2012)  


Role of type 2 cannabinoid receptors in osteoarthritis (abst – 2012) http://www.thebonejournal.com/article/S8756-3282%2812%2900234-7/abstract

Combined deficiency of the CB1 and CB2 receptors enhances peak bone mass by inhibiting osteoclast differentiation but increases age-related bone loss by promoting adipocyte differentiation and reducing osteoblast differentiation (abst – 2012) http://www.thebonejournal.com/article/S8756-3282%2812%2900153-6/abstract


Modulating the endocannabinoid system in human health and disease: successes and failures (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3684164/

CB2 Receptor Agonists Protect Human Dopaminergic Neurons against Damage from HIV-1 gp120. (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0077577


Δ9-tetrahydrocannabinol impairs the inflammatory response to influenza infection: role of antigen-presenting cells and the cannabinoid receptors 1 and 2. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3551428/

Cannabinoid Receptor 2 Protects against Acute Experimental Sepsis in Mice. (full – 2013) http://www.hindawi.com/journals/mi/2013/741303/


Treatment with CB 2 Agonist JWH-133 Reduces Histological Features Associated with Erectile Dysfunction in Hypercholesterolemic Mice. (full – 2013)
The cannabinoid CB2 receptor-selective phytocannabinoid beta-caryophyllene exerts analgesic effects in mouse models of inflammatory and neuropathic pain. (full – 2013)

The cannabinoid receptor type 2 as mediator of mesenchymal stromal cell immunosuppressive properties. (full – 2013)

Cannabinoid CB2 Receptors Regulate Central Sensitization and Pain Responses Associated with Osteoarthritis of the Knee Joint. (full – 2013)

Rod Photoreceptors Express GPR55 in the Adult Vervet Monkey Retina. (full – 2013)

Genetic Background Can Result in a Marked or Minimal Effect of Gene Knockout (GPR55 and CB2 Receptor) in Experimental Autoimmune Encephalomyelitis Models of Multiple Sclerosis. (full – 2013)

Selective Activation of Cannabinoid Receptor 2 in Leukocytes Suppresses Their Engagement of the Brain Endothelium and Protects the Blood-Brain Barrier. (full – 2013)

Cannabinoid Receptor 2 (CB2) Plays a Role in the Generation of Germinal Center and Memory B Cells, but Not in the Production of Antigen-Specific IgG and IgM, in Response to T-dependent Antigens. (full – 2013)

Anandamide Reduces Intracellular Ca2+ Concentration through Suppression of Na+/Ca2+ Exchanger Current in Rat Cardiac Myocytes. (full – 2013)

Of mice and (wo)men: factors influencing successful implantation including endocannabinoids. (full – 2013)


Effects on Immune Cells of a New 1,8-Naphthyridin-2-One Derivative and Its Analogues as Selective CB2 Agonists: Implications in Multiple Sclerosis. (full – 2013)

Monoacylglycerol Lipase (MAGL) Inhibition Attenuates Acute Lung Injury in Mice.
The Endocannabinoid System and Sex Steroid Hormone-Dependent Cancers
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3808422/)

Cannabinoid Receptor 2: Potential Role in Immunomodulation and Neuroinflammation.
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3663904/)

Roles of cannabinoid receptors type 1 and 2 on the retinal function of adult mice.
(http://www.iovs.org/content/54/13/8079.long)

Analgesic effect of a mixed T-type channel inhibitor/CB2 receptor agonist
(http://www.molecularpain.com/content/9/1/32)

Attenuation of HIV-1 replication in macrophages by cannabinoid receptor 2 agonists.
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3629438/)

Cannabinoid receptors and pain

Cannabinoid receptor 2 counteracts interleukin-17-induced immune and fibrogenic responses in mouse liver

The pharmacologic and clinical effects of medical cannabis.

Irritable Bowel Syndrome and Migraine: Bystanders or Partners?
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3714407/)

Towards a better Cannabis drug.

Cannabinoids and the endocannabinoid system in lower urinary tract function and dysfunction.

Cannabinoid receptors are widely expressed in goldfish: molecular cloning of a CB2-like receptor and evaluation of CB1 and CB2 mRNA expression profiles in different organs.
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3776019)

CB1 and CB2 Cannabinoid Receptor Agonists Induce Peripheral Antinociception by Activation of the Endogenous Noradrenergic System.
(http://journals.lww.com/anesthesia-analgesia/Fulltext/2013/02000/CB1_and_CB2_Cannabinoid_Receptor_Agonists_Induce.31.aspx)

Epithelial expression of vanilloid and cannabinoid receptors: a potential role in burning mouth syndrome pathogenesis
Chemical probes of endocannabinoid metabolism. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3639726/

The endocannabinoid system, cannabinoids, and pain (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3820295/

The Influence of Cannabinoids on Generic Traits of Neurodegeneration. (full – 2013)

Activation of Cannabinoid Type 2 Receptor by JWH133 Protects Heart Against Ischemia/Reperfusion-Induced Apoptosis. (full – 2013)


Bilateral changes of cannabinoid receptor type 2 protein and mRNA in the dorsal root ganglia of a rat neuropathic pain model. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3707359/

The cannabinoid TRPA1 agonist cannabichromene inhibits nitric oxide production in macrophages and ameliorates murine colitis. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3632250/

The role of endocannabinoids system in fatty liver disease and therapeutic potentials. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3745655/

Cannabinoid Receptor 2 Expression in Human Proximal Tubule Cells is Regulated by Albumin Independent of ERK1/2 Signaling. (full – 2013)
http://www.karger.com/Article/Pdf/354529

Cannabinoid receptor 2 suppresses leukocyte inflammatory migration by modulating the JNK/c-Jun/Alox5 pathway. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3650391/

Application of HaloTag Technology to Expression and Purification of Cannabinoid Receptor CB2. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3627748/

Cannabinoid signaling and liver therapeutics. (full – 2013)
http://www.journal-of-hepatology.eu/article/S0168-8278%2813%2900212-2/fulltext

Activation of Cannabinoid Receptor 2 Inhibits Experimental Cystitis. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3652164/

Endogenous Lipid Activated G Protein-Coupled Receptors: Emerging Structural Features From Crystallography and Molecular Dynamics Simulations. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4034697/
Childhood immune thrombocytopenia-who will spontaneously recover? (full – 2013)
http://www.seminhematol.org/article/S0037-1963%2813%2900032-2/fulltext

G-Protein Receptor Kinase 5 Regulates the Cannabinoid Receptor 2-Induced Upregulation of Serotonin 2A Receptors. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3668730/

Differential Expression of Intracellular and Extracellular CB(2) Cannabinoid Receptor Protein by Human Peripheral Blood Leukocytes. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3587044/

Human metabolites of synthetic cannabinoids JWH-018 and JWH-073 bind with high affinity and act as potent agonists at cannabinoid type-2 receptors. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3685885/

Characterization of cannabinoid receptor ligands in tissues natively expressing cannabinoid CB2 receptors. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3687668/

Magnolia extract, magnolol and metabolites: activation of cannabinoid CB2 receptors and blockade of the related GPR55 (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4027495/

Does the neuroprotective role of anandamide display diurnal variations? (full – 2013)
http://www.mdpi.com/1422-0067/14/12/23341/htm

Role of cannabinoid CB2 receptor in the reinforcing actions of ethanol. (full – 2013)

Differential expression and functional role of cannabinoid genes in alcohol users. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3818789/

Neuroimmuimmune interactions of cannabinoids in neurogenesis: focus on interleukin-1β (IL-1β) signalling. (full – 2013)
http://www.biochemsoctrans.org/content/41/6/1577

CB1 and CB2 Receptors are Novel Molecular Targets for Tamoxifen and 4OH-Tamoxifen. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3860589/

Treatment with a Cannabinoid Receptor 2 Agonist Decreases Severity of Established Cystitis. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4163202/

Polymorphism rs3123554 in CNR2 reveals gender-specific effects on body weight and affects loss of body weight and cerebral insulin action. (full – 2013)

Activation of Cannabinoid CB2 Receptor-Mediated AMPK/CREB Pathway Reduces Cerebral Ischemic Injury. (full – 2013)
The non-selective cannabinoid receptor agonist WIN 55,212-2 attenuates responses of C-fiber nociceptors in a murine model of cancer pain.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3753184/

Selective CB2 receptor activation ameliorates EAE by reducing Th17 differentiation and immune cell accumulation in the CNS.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3906668/

Association Between a Polymorphism in Cannabinoid Receptor 2 and Severe Necroinflammation in Patients With Chronic Hepatitis C.  
http://www.cghjournal.org/article/S1542-3565%2813%2900687-3/fulltext

Cannabinoids Inhibit T-cells via Cannabinoid Receptor 2 in an In Vitro Assay for Graft Rejection, the Mixed Lymphocyte Reaction.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3864984/

CB2 cannabinoid agonist enhanced neurogenesis in GFAP/Gp120 transgenic mice displaying deficits in neurogenesis.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3904265/

Anti-inflammatory effects of Cannabinoid 2 Receptor activation in endotoxin-induced uveitis.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3954484/

Targeting the cannabinoid system for pain relief?  
http://www.e-aat.com/article/S1875-4597%2813%2900119-7/fulltext

Distinct pharmacology and metabolism of K2 synthetic cannabinoids compared to Δ9-THC: Mechanism underlying greater toxicity?  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3945037/

Peripheral endocannabinoid system dysregulation in first-episode psychosis.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3828529/

Role of CB2 Cannabinoid Receptor in the Rewarding, Reinforcing and Physical Effects of Nicotine.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3799072/

Cannabinoids: Do they have the potential to treat the symptoms of multiple sclerosis?  

Cannabinoid receptor modulation of the endothelial cell inflammatory response  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2791499/

CB2 cannabinoid receptor is a novel target for third-generation selective estrogen receptor modulators bazedoxifene and lasofoxifene.  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5099082/
Natural Cannabinoids Improve Dopamine Neurotransmission and Tau and Amyloid Pathology in a Mouse Model of Tauopathy.  (link to PDF – 2013) http://content.iospress.com/articles/journal-of-alzheimers-disease/jad130050

GPR55 and its interaction with membrane lipids: comparison with other endocannabinoid-binding receptors.  (link to PDF - 2013) http://www.eurekaselect.com/105678/article

Different Classes of CB2 Ligands Potentially Useful in the Treatment of Pain (link to PDF – 2013) http://www.eurekaselect.com/108399/article

Targeting the Endocannabinoid System to Treat Sepsis  (review – 2013) http://www.signavitae.com/2013/05/targeting-the-endocannabinoid-system-to-treat-sepsis/


Comparative proteomic and phosphoproteomic profiling of pancreatic adenocarcinoma cells treated with CB1 or CB2 agonists. (abst – 2013)  

Endocannabinoid system and drug addiction: new insights from mutant mice approaches. (abst – 2013)  

The complex effects of cannabinoids on insulin secretion from rat isolated islets of Langerhans. (abst – 2013)  

Whole-Body Biodistribution and Radiation Dosimetry of the Cannabinoid Type 2 Receptor Ligand [11C]-NE40 in Healthy Subjects. (abst – 2013)  

Antinociceptive effects of the selective CB2 agonist MT178 in inflammatory and chronic rodent pain models. (abst – 2013)  

An ultra-low dose of tetrahydrocannabinol provides cardioprotection. (abst – 2013)  

Cannabinoid Receptor Type 2, but not Type 1, is Up-Regulated in Peripheral Blood Mononuclear Cells of Children Affected by Autistic Disorders. (abst – 2013)  

Mechanisms Of Cannabidiol Neuroprotection In Hypoxic-Ischemic Newborn Pigs: Role Of 5HT1A And CB2 Receptors. (abst – 2013)  

Cannabinoid receptor-2 immunoreactivity is associated with survival in squamous cell carcinoma of the head and neck. (abst – 2013)  

Identification of Raloxifene as a Novel CB2 Inverse Agonist. (abst – 2013)  

Effect of cannabinoid CB2 receptor agonism on learning and memory in a mouse model of photothrombosis (abst – 2013)  
http://www.fasebj.org/content/27/1_Supplement/1097.4.abstract?sid=01da6a98-e459-4153-9d22-acca30408ae8

Effects of the cannabinoid 2 receptor-selective agonist GW405833 in assays of acute pain-stimulated and paindepressed behavior in rats (abst – 2013)  
http://www.fasebj.org/content/27/1_Supplement/886.9.abstract?sid=6740cebc-1f93-4779-b975-a966a2a4ae87
Inflammatory signaling as a therapeutic target for the treatment of breast cancer-induced bone pain. (abst – 2013)  
http://www.fasebj.org/cgi/content/meeting_abstract/27/1_MeetingAbstracts/887.10?sid=eea722c0-971c-4d4aa-8b8c-38c0c63c19ad

The omega and omega-1 monohydroxyl metabolites of the abused K2/Spice synthetic cannabinoids JWH-018 and JWH-073 bind with high affinity and act as agonists at human cannabinoid 2 receptors (hCB2s) (abst – 2013)  
http://www.fasebj.org/content/26/1_Supplement/660.8.abstract?sid=ad340c8c-cc99-4eda-84a0-c19d65e3edd3

Cannabinoid CB2 receptor activation attenuates cytokine-evoked mucosal damage in a human colonic explant model without changing epithelial permeability. (abst – 2013)  

Modulation of anxiety-like behaviour by the endocannabinoid 2-arachidonoylglycerol (2-AG) in the dorsolateral periaqueductal gray. (abst – 2013)  

Blockade of cannabinoid receptors reduces inflammation, leukocyte accumulation and neovascularization in a model of sponge-induced inflammatory angiogenesis. (abst – 2013)  

Müller cells express the cannabinoid CB2 receptor in the vervet monkey retina. (abst – 2013)  

Activation of type 2 cannabinoid receptors (CB2R) promotes fatty acid oxidation through the SIRT1/PGC-1α pathway. (abst – 2013)  

Synaptic plasticity alterations associated with memory impairment induced by deletion of CB2 cannabinoid receptors. (abst – 2013)  

http://pubs.acs.org/doi/abs/10.1021/jm400305d

Glia and Mast Cells as Targets for Palmitoylethanolamide, an Anti-inflammatory and Neuroprotective Lipid Mediator. (abst – 2013)  

Cannabinoid CB2 receptors as novel target for inhibiting house dust mite induced allergic airway inflammation (abst – 2013)  
http://www.jimmunol.org/content/190/1_Supplement/120.12

CB1 and CB2 contribute to antinociceptive and anti-inflammatory effects of electroacupuncture on experimental arthritis of the rat temporomandibular joint. 

3-Carboxamido-5-aryl-isoxazoles as new CB2 agonists for the treatment of colitis. 

Interplay of cannabinoid 2 (CB2) receptors with nitric oxide synthases, oxidative and nitrative stress, and cell death during remote neurodegeneration 

Therapeutic Utility of Cannabinoid Receptor Type 2 (CB2) Selective Agonists. 
(abstract – 2013) http://pubs.acs.org/doi/abs/10.1021/jm4005626

Activation of spinal cannabinoid cb2 receptors inhibits neuropathic pain in streptozotocin-induced diabetic mice. 

Characterization of bladder function in a cannabinoid receptor type 2 knockout mouse in vivo and in vitro. 

Pharmacology of Cannabinoid Receptor Agonists and a Cyclooxygenase-2 Inhibitor in Rat Bone Tumor Pain. 

Functional relevance of the cannabinoid receptor 2 - heme oxygenase pathway: A novel target for the attenuation of portal hypertension. 

Cannabinoid receptor signaling in progenitor/stem cell proliferation and differentiation. 

The endocannabinoid system mediates aerobic exercise-induced antinociception in rats. 

Endocannabinoids decrease neuropathic pain-related behavior in mice through the activation of one or both peripheral CB1 and CB2 receptors. 

Recent Development of CB2 Selective and Peripheral CB1/CB2 Cannabinoid Receptor Ligands. 

Identification of CB1/CB2 Ligands from Zanthoxylum bungeanum. 
(abstract – 2013) http://pubs.acs.org/doi/abs/10.1021/np400478c

 Increase of mesenchymal stem cell migration by Cannabidiol via activation of p42/44 MAPK. 


Activation of type-2 cannabinoid receptor inhibits neuroprotective and antiinflammatory actions of glucocorticoid receptor α: when one is better than two. (abst – 2013)  http://www.ncbi.nlm.nih.gov/pubmed/23296125


Modulation of Strain-Specific Differences in Gene Expression by Cannabinoid Type 2 Receptor Deficiency. (abst – 2013)  http://www.ncbi.nlm.nih.gov/pubmed/24370613

Inhibition of the cannabinoid 2 receptor in CNS-injury induced immunodeficiency syndrome (abst – 2013)  http://www.medical-hypotheses.com/article/S0306-9877%2814%2900117-0/abstract

The role of Cannabinoid receptors on light-induced photoreceptor degeneration (abst – 2013)  http://iovs.arvojournals.org/article.aspx?articleid=2149928&resultClick=1

Motor effects of the non-psychotropic phytocannabinoid cannabidiol that are mediated by 5-HT1A receptors (abst – 2013)  http://www.sciencedirect.com/science/article/pii/S0028390813003419


Effect of melilotus extract on lung injury by upregulating the expression of cannabinoid CB2 receptors in septic rats. (full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3995869/
Activation of CB2 receptors as a potential therapeutic target for migraine: evaluation in an animal model (full – 2014)

CB2 cannabinoid receptors as a therapeutic target - What does the future hold? (full – 2014)
http://molpharm.aspetjournals.org/content/early/2014/08/08/mol.114.094649.long

The endocannabinoid/endovanilloid N-arachidonoyl dopamine (NADA) and synthetic cannabinoid WIN55,212-2 abate the inflammatory activation of human endothelial cells. (full – 2014)
http://www.jbc.org/content/early/2014/03/18/jbc.M113.536953.long

Polyunsaturated Fatty Acid-Derived Lipid Mediators and T Cell Function (full – 2014)

Vascular targets for cannabinoids: animal and human studies. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3954478/

Experimental cannabinoid 2 receptor-mediated immune modulation in sepsis. (full – 2014)
http://www.hindawi.com/journals/mi/2014/978678/

CB2 Receptor Deficiency Increases Amyloid Pathology and Alters Tau Processing in a Transgenic Mouse Model of Alzheimer's Disease. (full - 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3883962/

Δ9-tetrahydrocannabinol prevents methamphetamine-induced neurotoxicity. (full – 2014)

CB2 Receptor Activation Inhibits Melanoma Cell Transmigration through the Blood-Brain Barrier. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4057719/

The in vitro GcMAF effects on endocannabinoid system transcriptionomics, receptor formation, and cell activity of autism-derived macrophages. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3996516/

Care and Feeding of the Endocannabinoid System: A Systematic Review of Potential Clinical Interventions that Upregulate the Endocannabinoid System. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3951193/

2012 Division of Medicinal Chemistry Award Address: Trekking the Cannabinoid Road: A Personal Perspective. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4064474/

The endocannabinoid system: a putative role in neurodegenerative diseases. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4070159/

CB2 Receptor Activation Ameliorates the Proinflammatory Activity in Acute Lung Injury Induced by Paraquat. (full – 2014)
Endocannabinoid Receptors Gene Expression in Morbidly Obese Women with Nonalcoholic Fatty Liver Disease. (full – 2014)
http://www.hindawi.com/journals/bmri/2014/971750/

Cannabinoid Receptor 2-63 QQ Variant Is Associated with Persistently Normal Aminotransferase Serum Levels in Chronic Hepatitis C. (full - 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4062424/

Validating Antibodies to the Cannabinoid CB2 Receptor: Antibody Sensitivity Is Not Evidence of Antibody Specificity. (full - 2014)
http://jhc.sagepub.com/content/62/6/395.full

Prophylactic cannabinoid administration blocks the development of paclitaxel-induced neuropathic nociception during analgesic treatment and following cessation of drug delivery. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3998744/

Repositioning therapy for thyroid cancer: new insights on established medications. (full – 2014) http://erc.endocrinology-journals.org/content/21/3/R183.long

Cannabinoid receptor 2 as a potential therapeutic target in rheumatoid arthritis. (full – 2014) http://www.biomedcentral.com/1471-2474/15/275


Cannabinoid Type 1 and Type 2 Receptor Antagonists Prevent Attenuation of Serotonin-Induced Reflex Apneas by Dronabinol in Sprague-Dawley Rats. (full – 2014) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0111412

Cannabinoid CB2 receptors modulate midbrain dopamine neuronal activity and dopamine-related behavior in mice. (full – 2014) http://www.pnas.org/content/early/2014/10/30/1413210111.long

Cannabinoid receptor 2 agonist attenuates pain related behavior in rats with chronic alcohol / high fat diet induced pancreatitis. (full – 2014) http://www.molecularpain.com/content/10/1/66


NMP-7 inhibits chronic inflammatory and neuropathic pain via block of Cav3.2 T-type calcium channels and activation of CB2 receptors. (full – 2014) http://www.molecularpain.com/content/pdf/1744-8069-10-77.pdf

Antagonism of cannabinoid receptor 2 pathway suppresses IL-6-induced immunoglobulin IgM secretion (full – 2014) http://www.biomedcentral.com/2050-6511/15/30


Celastrol Attenuates Inflammatory and Neuropathic Pain Mediated by Cannabinoid Receptor Type 2. (full – 2014) http://www.mdpi.com/1422-0067/15/8/13637/htm


Expression of cannabinoid receptor 2 and its inhibitory effects on synovial fibroblasts in rheumatoid arthritis. (full – 2014) http://rheumatology.oxfordjournals.org/content/53/5/802.long

Cannabinoid receptor type-2 stimulation, blockade, and deletion alters the vascular inflammatory responses to traumatic brain injury. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4248435/


Targeting CB2-GPR55 Receptor Heteromers Modulates Cancer Cell Signaling (full – 2014) http://www.jbc.org/content/early/2014/07/02/jbc.M114.561761.full.pdf+html
Target-Selective Phototherapy Using a Ligand-Based Photosensitizer for Type 2 Cannabinoid Receptor. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3989837/


The endocannabinoid anandamide induces apoptosis in cytotrophoblast cells: Involvement of both mitochondrial and death receptor pathways. (full – 2014) http://www.placentajournal.org/article/S0143-4004%2814%2900823-6/fulltext


Changes in CB1 and CB2 receptors in the post-mortem cerebellum of humans affected by spinocerebellar ataxias. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3954486/


Examining the critical roles of human CB2 receptor residues Valine 3.32 (113) and Leucine 5.41 (192) in ligand recognition and downstream signaling activities. (full – 2014) http://www.sciencedirect.com/science/article/pii/S0006291X14014636


The cannabinoid CB₂ receptor-selective phytocannabinoid beta-caryophyllene exerts analgesic effects in mouse models of inflammatory and neuropathic pain. (full – 2014) http://www.europeanneuropsychopharmacology.com/article/S0924-977X%2813%2900302-7/fulltext


Cannabinoid type 2 receptor stimulation attenuates brain edema by reducing cerebral leukocyte infiltration following subarachnoid hemorrhage in rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4067767/

Acute Activation of Cannabinoid Receptors by Anandamide Reduces Gastro-Intestinal Motility and Improves Postprandial Glycemia in Mice. (full – 2014) http://diabetes.diabetesjournals.org/content/64/3/808.long

Antibiotic-induced dysbiosis alters host-bacterial interactions and leads to colonic sensory and motor changes in mice. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4615720/

Cannabinoid Receptor Type 2 Agonist Attenuates Apoptosis by Activation of Phosphorylated CREB-Bcl-2 Pathway After Subarachnoid Hemorrhage in Rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4194247/

JZL184 is anti-hyperalgesic in a murine model of cisplatin-induced peripheral neuropathy. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4268146/


What we know and do not know about the cannabinoid receptor 2 (CB2). (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4567276/


Treatment with a Heme Oxygenase 1 Inducer Enhances the Antinociceptive Effects of µ-Opioid, δ-Opioid, and Cannabinoid 2 Receptors during Inflammatory Pain (full – 2014) http://jpet.aspetjournals.org/content/351/1/224.long

Cannabinoid receptor-dependent metabolism of 2-arachidonoylglycerol during aging.
Species Differences in Cannabinoid Receptor 2 and Receptor Responses to Cocaine Self-Administration in Mice and Rats.  

Cannabis smoking and serum C-reactive protein: A quantile regressions approach based on NHANES 2005–2010  

Prior stimulation of the endocannabinoid system prevents methamphetamine-induced dopaminergic neurotoxicity in the striatum through activation of CB2 receptors.  

Chronic activation of CB2 cannabinoid receptors in the hippocampus increases excitatory synaptic transmission.  

Heteromerization of GPR55 and cannabinoid CB2 receptors modulates signaling.  

Programming and reprogramming neural cells by (endo-) cannabinoids: from physiological rules to emerging therapies  

Effects of cannabinoid receptor type 2 on endogenous myocardial regeneration by activating cardiac progenitor cells in mouse infarcted heart.  

Cannabinoids as therapeutic agents in cancer: current status and future implications  

Early increase of cannabinoid receptor density after experimental traumatic brain injury in the newborn piglet.  

Cannabinoids as therapeutic agents in cancer: current status and future implications.  

Blockade of cannabinoid CB1 and CB2 receptors does not prevent the antipruritic effect of systemic paracetamol.  

Trans-Caryophyllene Suppresses Hypoxia-Induced Neuroinflammatory Responses by Inhibiting NF-κB Activation in Microglia.


The cannabinoid CB2 receptor agonist GW405833 does not ameliorate brain damage induced by hypoxia-ischemia in rats     (abst – 2014)  http://www.sciencedirect.com/science/article/pii/S0304394014002766


Cannabinoid CB2 Receptor as a New Phototherapy Target for Inhibition of Tumor Growth.       (abst – 2014)  http://pubs.acs.org/doi/abs/10.1021/mp5001923


Cannabinoids in pain management: CB1, CB2 and non-classic receptor ligands.
Inhibition of colon carcinogenesis by a standardized Cannabis sativa extract with high content of cannabidiol. (abst – 2014)  

Functions of the CB1 and CB 2 Receptors in Neuroprotection at the Level of the Blood-Brain Barrier. (abst – 2014)  

β-Caryophyllene, a CB2 Receptor agonist produces multiple behavioral changes relevant to anxiety and depression in mice. (abst – 2014)  

Cyclic ovarian hormone modulation of supraspinal Δ9-tetrahydrocannabinol-induced antinociception and cannabinoid receptor binding in the female rat. (abst – 2014)  

Anti-atherosclerosis role of N-oleoylethanolamine in CB2 (abst – 2014)  

The endocannabinoid-CB2 receptor axis protects the ischemic heart at the early stage of cardiomyopathy. (abst – 2014)  

Cannabinoid receptor CB2 is expressed on vascular cells, but not astroglial cells in the post-mortem human Huntington's disease brain. (abst – 2014)  

Ligand Activation of Cannabinoid Receptors Attenuates Hypertrophy of Neonatal Rat Cardiomyocytes. (abst – 2014)  

The cannabinoid receptor 2 agonist, β-Caryophyllene, reduced voluntary alcohol intake and attenuated ethanol-induced place preference and sensitivity in mice. (abst – 2014)  

Genetic association analysis of CNR1 and CNR2 polymorphisms with schizophrenia in a Korean population. (abst – 2014)  

Cannabinoid Receptor-2 and HIV-Associated Neurocognitive Disorders. (abst – 2014)  

Reductions in Endocannabinoid Levels and Enhanced Coupling of Cannabinoid Receptors in the Striatum are Accompanied by Cognitive Impairments in the AβPPswe/PS1ΔE9 Mouse Model of Alzheimer's Disease. (abst – 2014)  

Involvement of β-arrestin-2 and Clathrin in Agonist-Mediated Internalization of the Human Cannabinoid CB2 Receptor. (abst – 2014)  

Dual agonism of peripheral cannabinoid CB1/CB2 receptors suppresses cardiac myocyte hypertrophy (abst – 2014) http://www.fasebj.org/content/28/1_Supplement/652.9.abstract?sid=db987fd0-3ef0-4796-aff6-4103f0e84daf


Stimulation of cannabinoid receptors by using Rubus coreanus extracts to control osteoporosis in aged male rats. (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/25136745


Ultrapure ajulemic acid has improved CB2 selectivity with reduced CB1 activity. (abst – 2014) http://www.sciencedirect.com/science/article/pii/S0968089614003368

Type-2 cannabinoid receptor regulates proliferation, apoptosis, differentiation, and OPG/RANKL ratio of MC3T3-E1 cells exposed to Titanium particles. (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/25292314

Differences in receptor binding affinity of several phytocannabinoids does not explain their effects on neural cell cultures. (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/25311884


Genetic background modifies the effects of type 2 cannabinoid receptor deficiency on bone mass and bone turnover. (abst – 2014)
In vitro binding affinity to human CB1 and CB2 receptors and antimicrobial activity of volatile oil from high potency Cannabis sativa (abst – 2014)

Visual deficits in mice after mild traumatic brain injury produced by primary overpressure blast are alleviated by the novel CB2 drug SMM189 (abst – 2014)
http://iovs.arvojournals.org/article.aspx?articleid=2271359&resultClick=1


Cannabinoid receptor CB2 is expressed on vascular cells, but not astroglial cells in the post-mortem human Huntington's disease brain. (abst – 2014)

Local uterine Ang-(1-7) infusion augments the expression of cannabinoid receptors and differentially alters endocannabinoid metabolizing enzymes in the decidualized uterus of pseudopregnant rats. (full – 2015) http://www.rbej.com/content/13/1/5


Activation of Cannabinoid Receptor 2 Enhances Osteogenic Differentiation of Bone Marrow Derived Mesenchymal Stem Cells (full – 2015) http://www.hindawi.com/journals/bmri/2015/874982/

Cannabinoid Receptor CB2 Is Involved in Tetrahydrocannabinol-Induced Anti-Inflammation against Lipopolysaccharide in MG-63 Cells (full – 2015) http://www.hindawi.com/journals/mi/2015/362126/


Protective Role of CB2 Receptor Activation in Galactosamine/LPS-induced Acute Liver Failure Through Regulation of Macrophage Polarization and miRNAs. (full – 2015) http://jpet.aspetjournals.org/content/early/2015/03/06/jpet.114.220368.long


Activation of cannabinoid receptor 2 enhances osteogenic differentiation of bone marrow derived mesenchymal stem cells. (full – 2015) http://www.hindawi.com/journals/bmri/2015/874982/
Possible Immunosuppressive Effects of Drug Exposure and Environmental and Nutritional Effects on Infection and Vaccination (full – 2015)  
http://www.hindawi.com/journals/mi/2015/349176/

4'-O-methylhonokiol increases levels of 2-arachidonoyl glycerol in mouse brain via selective inhibition of its COX-2-mediated oxygenation. (full – 2015)  

Changes in cannabinoid receptors, aquaporin 4 and vimentin expression after traumatic brain injury in adolescent male mice. Association with edema and neurological deficit. (full – 2015)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0128782

Turning Over a New Leaf: Cannabinoid and Endocannabinoid Modulation of Immune Function. (full – 2015)  

Endocannabinoids modulate human blood-brain barrier permeability in vitro. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4459020/

Effects of pro-inflammatory cytokines on cannabinoid CB1 and CB2 receptors in immune cells. (full – 2015)  

Cannabinoids receptor type 2, CB2, expression correlates with human colon cancer progression and predicts patient survival. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4381706/

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4278325/

Cannabis in cancer care. (full – 2015)  
http://escholarship.org/uc/item/6367m6vj#page-1

Primary Macrophage Chemotaxis Induced by Cannabinoid Receptor 2 Agonists Occurs Independently of the CB2 Receptor. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4451551/

Gastric mucosal protection: from the periphery to the central nervous system. (full – 2015)  
http://www.jpp.krakow.pl/journal/archive/06_15/pdf/319_06_15_article.pdf

Cannabinoid CB2 Receptors in a Mouse Model of Aβ Amyloidosis: Immunohistochemical Analysis and Suitability as a PET Biomarker of Neuroinflammation. (full - 2015)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0129618

Anandamide, Acting via CB2 Receptors, Alleviates LPS-Induced Neuroinflammation in Rat Primary Microglial Cultures. (full – 2015)  
http://www.hindawi.com/journals/wp/2015/130639/
CB2R orchestrates fibrogenesis through regulation of inflammatory response during the repair of skeletal muscle contusion. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4466920/  

Time-Dependent Protection of CB2 Receptor Agonist in Stroke. (full – 2015)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0132487  

Bone cell-autonomous contribution of type 2 cannabinoid receptor to breast cancer induced osteolysis. (full – 2015)  
http://www.jbc.org/content/early/2015/07/20/jbc.M115.649608.long  

Homeostatic regulation of brain functions by endocannabinoid signaling (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4468750/  

Pathogenesis of Systemic Sclerosis. (full – 2015)  

Differential immune mechanism to HIV-1 Tat variants and its regulation by AEA (full – 2015)  
http://www.nature.com/srep/2015/150505/srep09887/full/srep09887.html  

Current Status and Future of Cannabis Research (full – 2015)  

Cannabinoid-based drugs targeting CB1 and TRPV1, the sympathetic nervous system, and arthritis. (full – 2015)  
http://www.arthritis-research.com/content/17/1/226  

Expression Analysis of CB2-GFP BAC Transgenic Mice (full – 2015)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0138986  

The Effects of the Endocannabinoids Anandamide and 2-Arachidonoylglycerol on Human Osteoblast Proliferation and Differentiation (full – 2015)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0136546  

The Cannabinoid Receptor 2 Q63R Variant Modulates the Relationship between Childhood Obesity and Age at Menarche. (full – 2015)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0140142  

The skeletal endocannabinoid system: clinical and experimental insights (full – 2015)  

Bisdemethoxycurcumin Induces Apoptosis in Activated Hepatic Stellate Cells via Cannabinoid Receptor 2. (full – 2015)  
http://www.mdpi.com/1420-3049/20/1/1277/htm  

Restoring homeostasis of CD4(+) T cells in hepatitis-B-virus-related liver fibrosis. (full – 2015)  
http://www.wignet.com/1007-9327/full/v21/i38/10721.htm
Pharmacological activation of CB2 receptors counteracts the deleterious effect of ethanol on cell proliferation in the main neurogenic zones of the adult rat brain. (full – 2015) http://journal.frontiersin.org/article/10.3389/fncel.2015.00379/full

Clinical Significance of Cannabinoid Receptors CB1 and CB2 Expression in Human Malignant and Benign Thyroid Lesions (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4619873/


Oxyradical Stress, Endocannabinoids, and Atherosclerosis. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4686160/


Cannabinoid-Induced Chemotaxis in Bovine Corneal Epithelial Cells. (full – 2015) http://iovs.arvojournals.org/article.aspx?articleid=2297919&resultClick=1


Effects of deleting cannabinoid receptor-2 on mechanical and material properties of cortical and trabecular bone (full – 2015) http://www.tandfonline.com/doi/full/10.1080/23311916.2014.1001015

Anti-Obesity Effect of the CB2 Receptor Agonist JWH-015 in Diet-Induced Obese Mice. (full – 2015) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0140592


Proapoptotic effect of endocannabinoids in prostate cancer cells. (full – 2015)  
http://www.spandidos-publications.com/or/33/4/1599

Activation of Cannabinoid CB2 receptors Reduces Hyperalgesia in an Experimental 
Autoimmune Encephalomyelitis Mouse Model of Multiple Sclerosis. (full – 2015)  

Role of the Endocannabinoid System in Diabetes and Diabetic Complications. 
(full – 2015)  

Renal effects of chronic pharmacological manipulation of CB2 receptors in rats with diet- 
induced obesity (full – 2015)  

A runner's high depends on cannabinoid receptors in mice. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4620874/

Role of the endocannabinoid system in the emotional manifestations of osteoarthritis 
pain. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4770330/

The effect of phytocannabinoids on airway hyper-responsiveness, airway inflammation, 
and cough (full – 2015)  
http://jpet.aspetjournals.org/content/353/1/169.long

Cannabinoid Receptor Type 2 (CB2) Dependent and Independent Effects of WIN55,212- 
2 on Atherosclerosis in Ldlr-null Mice. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4581537/

Activation of Cannabinoid Type Two Receptors (CB2) Diminish Inflammatory 
Responses in Macrophages and Brain Endothelium. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4795159/

The Antitumor Activity of Plant-Derived Non-Psychoactive Cannabinoids. 
(full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4470774/

Cannabinoid Receptor-2 Regulates Embryonic Hematopoietic Stem Cell Development 
via PGE2 and P-selectin Activity. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4781665/

CB1 Knockout Mice Unveil Sustained CB2-Mediated Anti-Alldynic Effects of the 
Mixed CB1/CB2 Agonist CP55,940 in a Mouse Model of Paclitaxel-Induced Neuropathic 
Pain. (full – 2015)  
http://molpharm.aspetjournals.org/content/88/1/64.long

Cannabinoid-dopamine interactions in the physiology and physiopathology of the basal 
ganglia. (full – 2015)  

Effects of Cannabinoids on T-cell Function and Resistance to Infection. 
(full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4470840/
Sequelae of Cannabis as Medicine  (full – 2015)
http://painmedicine.oxfordjournals.org/content/16/7/1447

A CB2-Selective Cannabinoid Suppresses T-Cell Activities and Increases Tregs and IL-10  (full – 2015)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4528965/

Cannabinoid Receptor-2 Regulates Embryonic Hematopoietic Stem Cell Development
via Prostaglandin E2 and P-Selectin Activity.  (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4781665/


The type 2 cannabinoid receptor regulates susceptibility to osteoarthritis in mice.  (full – 2015)  http://www.oarsijournal.com/article/S1063-4584(15)01140-1/fulltext


Targeting cannabinoid receptor-2 pathway by phenylacetylamide suppresses the proliferation of human myeloma cells through mitotic dysregulation and cytoskeleton disruption  (full – 2015)  https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4504841/

Dynamics of expression and localization of the cannabinoid system in granulosa cells during oocyte nuclear maturation.  (full – 2015)  http://www.fertstert.org/article/S0015-0282(15)00440-9/fulltext

Role of the endocannabinoid system in the mechanisms involved in the LPS-induced preterm labor.  (full – 2015)  http://www.reproduction-online.org/content/150/6/463.long

A selective cannabinoid CB2 agonist attenuates damage and improves memory retention following stroke in mice.  (full – 2015)  https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4552583/
The endocannabinoid system in renal cells: Regulation of Na+ transport by CB1 receptors through distinct cell signaling pathways. (full – 2015) http://www.ncbi.nlm.nih.gov/pubmed/25537261

The role of cannabinoids in adult neurogenesis. (full – 2015) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4543605/

An endocannabinoid system is present in the mouse olfactory epithelium but does not modulate olfaction. (full – 2015) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4485596/


Detection of cannabinoid receptors CB1 and CB2 within basal ganglia output neurons in macaques: changes following experimental parkinsonism (link to PDF – 2015) http://link.springer.com/article/10.1007/s00429-014-0823-8

Cannabinoid receptor-specific mechanisms to ameliorate pain in sickle cell anemia via inhibition of mast cell activation and neurogenic inflammation. (link to PDF – 2015) http://www.haematologica.org/content/early/2015/12/21/haematol.2015.136523.long


The therapeutic aspects of the endocannabinoid system (ECS) for cancer and their development: from nature to laboratory. (link to PDF – 2015) http://www.eurekaselect.com/137770/article


The anti-inflammatory mediator palmitoylethanolamide enhances the levels of 2-
arachidonoyl-glycerol and potentiates its actions at transient receptor potential vanilloid

Activation of cannabinoid receptor 2 attenuates synovitis and joint distraction in

The cannabinoid receptor 2 is involved in acute rejection of cardiac allografts.

Osseous Characteristics of Mice Lacking Cannabinoid Receptor 2 after Pulp Exposure.

S-777469, a Novel Cannabinoid Type 2 Receptor Agonist, Suppresses Itch-Associated
Scratching Behavior in Rodents through Inhibition of Itch Signal Transmission.

Changes in the endocannabinoid signaling system in CNS structures of TDP-43
transgenic mice: relevance for a neuroprotective therapy in TDP-43-related disorders.

[268-POS]: Placental expression of the endocannabinoid system in preeclampsia.

Spinal neuronal cannabinoid receptors mediate urodynamic effects of systemic fatty acid

Activation of murine microglial N9 cells is attenuated through cannabinoid receptor CB2

The role of cannabinoids in regulation of nausea and vomiting, and visceral pain.

Conformational Restriction Leading to a Selective CB2 Cannabinoid Receptor Agonist
Orally Active Against Colitis. (abst – 2015) http://pubs.acs.org/doi/abs/10.1021/ml500439x

The endocannabinoid system and its therapeutic implications in rheumatoid arthritis.

Design, syntheses, structure-activity relationships and docking studies of coumarin
Selective, Nontoxic CB2 Cannabinoid o-Quinone with in Vivo Activity against Triple-
Negative Breast Cancer. (abst – 2015)  
http://pubs.acs.org/doi/abs/10.1021/acs.jmedchem.5b00078

Cannabinoids to treat spinal cord injury. (abst – 2015)  

Interaction of cannabinoid receptor 2 and social environment modulates chronic alcohol consumption. (abst – 2015)  

http://link.springer.com/article/10.1007%2Fs12035-015-9154-x

The role of the endocannabinoid system in pain. (abst – 2015)  

Protective effect of paeoniflorin on the hippocampus in rats with cerebral ischemia-
reperfusion through activating cannabinoid receptor 2 (abst – 2015)  

Potential of the cannabinoid CB2 receptor as a pharmacological target against inflammation in Parkinson's disease. (abst – 2015)  

Differential upregulation of the cannabinoid CB2 receptor in neurotoxic and inflammation-driven rat models of Parkinson's disease. (abst – 2015)  

Role of cannabinoidergic system on food intake in neonatal layer-type chicken. (abst – 2015)  

The complex modulation of lysosomal degradation pathways by cannabinoid receptor 1 and 2. (abst – 2015)  

Inhibition of FAAH reduces nitroglycerin-induced migraine-like pain and trigeminal neuronal hyperactivity in mice. (abst – 2015)  

The monoacylglycerol lipase inhibitor JZL184 decreases inflammatory response in skeletal muscle contusion in rats. (abst – 2015)  

Role of CB2 receptors in social and aggressive behavior in male mice. (abst – 2015)  

Differential role of cannabinoids in the pathogenesis of skin cancer.


The role of the peripheral cannabinoid system in the pathogenesis of detrusor overactivity evoked by increased intravesical osmolarity in rats.  (abst – 2015)  http://www.ncbi.nlm.nih.gov/pubmed/26243021


Biosynthesis and Fate of Endocannabinoids.  (abst – 2015)  http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_2


Cannabinoid Receptor Agonists Modulate Calcium Channels in Rat Retinal Müller Cells.

Therapy with a Selective Cannabinoid Receptor Type 2 Agonist Limits Albuminuria and Renal Injury in Mice with Type 2 Diabetic Nephropathy. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26646377


Low-Dose Cannabinoid Type 2 Receptor Agonist Attenuates Tolerance to Repeated Morphine Administration via Regulating μ-Opioid Receptor Expression in Walker 256 Tumor-Bearing Rats. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26720619

Dietary Carbohydrates that Modulate the Immune System (abst – 2015) http://www.ingentaconnect.com/content/ben/ciemd/2015/00000002/00000001/art00009?crawler=true


Correlations between the Memory-Related Behavior and the Level of Oxidative Stress Biomarkers in the Mice Brain, Provoked by an Acute Administration of CB Receptor Ligands  (full – 2016)  http://www.hindawi.com/journals/np/2016/9815092/

CB2 Cannabinoid Receptor Knockout in Mice Impairs Contextual Long-Term Memory and Enhances Spatial Working Memory  (full – 2016)  http://www.hindawi.com/journals/np/2016/9817089/

Cannabinoid CB2 Receptor Mediates Nicotine-Induced Anti-Inflammation in N9 Microglial Cells Exposed to β Amyloid via Protein Kinase C  (full – 2016)  http://www.hindawi.com/journals/mi/2016/4854378/


Myeloid-Specific Deletion of Diacylglycerol Lipase α Inhibits Atherogenesis in ApoE-Deficient Mice.  (full – 2016)  http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0146267


Simultaneous Activation of Induced Heterodimerization between CXCR4 Chemokine Receptor and Cannabinoid Receptor 2 (CB2) Reveal a Mechanism for Regulation of Tumor Progression.  (full – 2016)  http://www.jbc.org/content/early/2016/02/03/jbc.M115.712661.long


Functional selectivity of CB2 cannabinoid receptor ligands at a canonical and non-canonical pathway. (full – 2016)  http://jpet.aspetjournals.org/content/early/2016/05/18/jpet.116.232561.long

Cannabinoid receptor type-1: breaking the dogmas. (full – 2016)  http://f1000research.com/articles/5-990/v1


Modulation of cellular redox homeostasis by the endocannabinoid system. (full – 2016)  http://rsob.royalsocietypublishing.org/content/6/4/150276


Cyclooxygenase-2 inhibition reduces stress-induced affective pathology. (full – 2016)  https://elifesciences.org/content/5/e14137

The cannabinoid quinol VCE-004.8 alleviates bleomycin-induced scleroderma and exerts potent antifibrotic effects through peroxisome proliferator-activated receptor-γ and CB2 pathways. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4757881/

Cannabinoid receptor-dependent and -independent anti-proliferative effects of omega-3 ethanolamides in androgen receptor-positive and -negative prostate cancer cell lines. (full – 2016) http://carcin.oxfordjournals.org/content/31/9/1584.long

Genetic Versus Pharmacological Assessment of the Role of Cannabinoid Type 2 Receptors in Alcohol Reward-Related Behaviors. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4886733/


The Cannabinoid Receptor 2 Protects Against Alcoholic Liver Disease Via a Macrophage Autophagy-Dependent Pathway. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4921859/

The synthetic cannabinoid WIN55,212-2 mesylate decreases the production of inflammatory mediators in rheumatoid arthritis synovial fibroblasts by activating CB2, TRPV1, TRPA1 and yet unidentified receptor targets. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4858820/

Impaired Excitatory Neurotransmission in the Urinary Bladder from the Obese Zucker Rat: Role of Cannabinoid Receptors. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4902197/


Controlled downregulation of the cannabinoid CB1 receptor provides a promising approach for the treatment of obesity and obesity-derived type 2 diabetes. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4679742/

Controlled downregulation of the cannabinoid CB1 receptor provides a promising approach for the treatment of obesity and obesity-derived type 2 diabetes. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4679742/

Expression of the endocannabinoid receptors in human fascial tissue.

Effects of various cannabinoid ligands on choice behaviour in a rat model of gambling.
(full – 2016)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4803149/

Cannabinoid CB2 receptors are involved in the regulation of fibrogenesis during skin wound repair in mice.  (full – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4805070/

Endocannabinoids in Feeding Behavior and Energy Homeostasis
(full – 2016)  http://themedicalbiochemistrypage.org/endocannabinoids.php

(full – 2016)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4927043/

Endocannabinoid system as a regulator of tumor cell malignancy - biological pathways and clinical significance.  (full – 2016)

Cannabinoid receptor subtype 2 (CB2R) agonist, GW405833 reduces agonist-induced Ca(2+) oscillations in mouse pancreatic acinar cells.  (full – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4949433/

Pharmacological evaluation of synthetic cannabinoids identified as constituents of spice.  (full – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4929166/

Endocannabinoids and Heterogeneity of Glial Cells in Brain Function  (full – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4932105/

Sulfation of the FLAG epitope is affected by co-expression of G protein-coupled receptors in a mammalian cell model.  (full – 2016)
http://www.nature.com/articles/srep27316

Spontaneous Cannabinoid Receptor 2 (CB2) Expression in the Cochlea of Adult Albino Rat and Its Up-Regulation after Cisplatin Treatment.  (full – 2016)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0161954

Lipid mediators involved in the oxidative stress and antioxidant defence of human lung cancer cells  (full – 2016)

CB2 and GPR55 Receptors as Therapeutic Targets for Systemic Immune Dysregulation  (full – 2016)
Activation of Cannabinoid Receptor Type II by AM1241 Ameliorates Myocardial Fibrosis via Nrf2-Mediated Inhibition of TGF-β1/Smad3 Pathway in Myocardial Infarction Mice  (full – 2016)  http://www.karger.com/Article/FullText/447855

CB2 cannabinoid receptor activation promotes colon cancer progression via AKT/GSK3β signaling pathway  (full – 2016)  http://www.impactjournals.com/oncotarget/index.php?journal=oncotarget&page=article&op=view&path%5B%5D=11968&path%5B%5D=37882


Exposure to a Highly Caloric Palatable Diet during the Perinatal Period Affects the Expression of the Endogenous Cannabinoid System in the Brain, Liver and Adipose Tissue of Adult Rat Offspring.  (full – 2016)  http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0165432


Attenuation of Cocaine-Induced Conditioned Place Preference and Motor Activity via Cannabinoid CB2 Receptor Agonism and CB1 Receptor Antagonism in Rats  (full – 2016)  http://ijnp.oxfordjournals.org/content/early/2016/12/19/ijnp.pyw102.long

Effects of Adolescent Intermittent Alcohol Exposure on the Expression of Endocannabinoid Signaling-Related Proteins in the Spleen of Young Adult Rats.  (full – 2016)  https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5035052/


CB2 receptor activation prevents glial-derived neurotoxic mediator production, BBB leakage and peripheral immune cell infiltration and rescues dopamine neurons in the MPTP model of Parkinson's disease. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4892852/

CB2 receptor activation prevents glial-derived neurotoxic mediator production, BBB leakage and peripheral immune cell infiltration and rescues dopamine neurons in the MPTP model of Parkinson's disease. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4892852/


Opposite roles of cannabinoid receptors 1 and 2 in hepatocarcinogenesis. (full – 2016) http://gut.bmj.com/content/65/10/1721.long

Activation of Cannabinoid Receptor 2 Ameliorates DSS-Induced Colitis through Inhibiting NLRP3 Inflammasome in Macrophages. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5017608/


Antipsychotic-like Effects of M4 Positive Allosteric Modulators Are Mediated by CB2 Receptor-Dependent Inhibition of Dopamine Release. (full – 2016) http://www.cell.com/neuron/fulltext/S0896-6273(16)30509-8


Dietary olive oil induces cannabinoid CB2 receptor expression in adipose tissue of ApcMin/+ transgenic mice (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5166557/


Two affinity sites of cannabinoid CB2 receptor identified by a novel homogeneous binding assay. (link to PDF- 2016) http://jpet.aspetjournals.org/content/early/2016/06/28/jpet.116.234948.long

Dendritic Cell Regulation by Cannabinoid-Based Drugs (link to PDF - 2010) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.429.7704&rank=67&q=cannabinoid&osm=&ossid=

Two Janus cannabinoids that are both CB2 agonists and CB1 antagonists. (link to PDF – 2016) http://jpet.aspetjournals.org/content/early/2016/12/07/jpet.116.236539.long


Cannabinoid Receptor Type 2 Agonist Attenuates Acute Neurogenic Pulmonary Edema by Preventing Neutrophil Migration after Subarachnoid Hemorrhage in Rats (abst - 2016) http://link.springer.com/chapter/10.1007/978-3-319-18497-5_24


Effect of cannabinoids on CGRP release in the isolated rat lumbar spinal cord.  
(abst – 2016)  

The endocannabinoid system in the human granulosa cell line KGN.  
(abst – 2016)  

Role of hypothalamic cannabinoid receptors in post-stroke depression in rats.  
(abst – 2016)  

Role of the Endocannabinoid System in the Pathophysiology of Schizophrenia  
(abst – 2016)  

Curcumin and hemopressin treatment attenuates cholestasis-induced liver fibrosis in rats: role of CB1 receptors  
(abst – 2016)  

Endocannabinoids in Cerebrovascular Regulation.  
(abst – 2016)  

Expression of functional cannabinoid CB2 receptor in VTA dopamine neurons in rats.  
(abst – 2016)  

The molecular mechanism and effect of cannabinoid-2 receptor agonist on the blood-spinal cord barrier permeability induced by ischemia-reperfusion injury.  
(abst – 2016)  

A systematic review of plant-derived natural compounds for anxiety disorders.  
(abst – 2016)  
http://www.eurekaselect.com/139238/article

Anti-Inflammatory and Osteoprotective Effects of Cannabinoid-2 Receptor Agonist Hu-308 in a Rat Model of Lipopolysaccharide-Induced Periodontitis.  
(abst – 2016)  

Cannabinoid receptor 2 augments eosinophil responsiveness and aggravates allergen-induced pulmonary inflammation in mice.  
(abst – 2016)  

Cannabinoids and autoimmune diseases: A systematic review.  
(abst – 2016)  

(abst – 2016)  
http://pubs.acs.org/doi/abs/10.1021/acs.jmedchem.5b01812


Role of cannabinoids in gastrointestinal mucosal defense and inflammation.  (abst – 2016)  http://www.eurekaselect.com/140045/article

Cannabinoid receptors are involved in the protective effect of a novel curcumin derivative C66 against CCl4-induced liver fibrosis.  (abst – 2016)  http://www.ncbi.nlm.nih.gov/pubmed/26945822

Endocannabinoids and Endocannabinoid-Related Mediators: Targets, Metabolism and Role In Neurological Disorders.  (abst – 2016)  http://www.ncbi.nlm.nih.gov/pubmed/26965148


Targeting the cannabinoid CB2 receptor to attenuate the progression of motor deficits in LRRK2-transgenic mice.  (abst – 2016)  http://www.sciencedirect.com/science/article/pii/S1043661816302663


Cannabinoid Type 2 Receptors Mediate a Cell Type-Specific Plasticity in the Hippocampus  (abst – 2016)  http://www.cell.com/neuron/abstract/S0896-6273%2816%2930025-3

Expression analysis of cannabinoid receptors 1 and 2 in B cells during pregnancy and their role on cytokine production.  (abst – 2016)  http://www.jrijournal.org/article/S0165-0378%2816%2930026-2/abstract


Chromenopyrazole, a Versatile Cannabinoid Scaffold with in Vivo Activity in a Model of Multiple Sclerosis. (abst – 2016) 
http://pubs.acs.org/doi/abs/10.1021/acs.jmedchem.6b00397

Upregulation of the cannabinoid CB2 receptor in environmental and viral inflammation-driven rat models of Parkinson's disease. (abst – 2016) 

Cannabinoid receptor agonism suppresses tremor, cognition disturbances and anxiety-like behaviors in a rat model of essential tremor. (abst – 2016) 


The multiplicity of spinal AA-5-HT anti-nociceptive action in a rat model of neuropathic pain. (abst – 2016) 

Docosahexaenoic acid attenuates in endocannabinoid synthesis in RAW 264.7 macrophages activated with benzo(a)pyrene and lipopolysaccharide. (abst – 2016) 

An update on PPAR activation by cannabinoids (abst – 2016) 
http://www.ingentaconnect.com/search/article?option1=tka&value1=cannabinoid&sortDescending=true&sortField=prism_publicationDate&pageSize=10&index=6

Polypharmacological Properties and Therapeutic Potential of β-Caryophyllene: A Dietary Phytocannabinoid of Pharmaceutical Promise (abst – 2016) 
http://www.ingentaconnect.com/search/article?option1=tka&value1=cannabinoid&sortDescending=true&sortField=prism_publicationDate&pageSize=10&index=8

New ursane triterpenoids from Ficus pandurata and their binding affinity for human cannabinoid and opioid receptors. (abst – 2016) 

Cannabinoid receptors in the kidney. (abst – 2016) 

Endocannabinoid System in Neurological Disorders. (abst – 2016) 

Microglia activation states and cannabinoid system: Therapeutic implications. (abst – 2016) 

The cannabinoid 2 receptor agonist β-caryophyllene modulates the inflammatory reaction induced by Mycobacterium bovis BCG by inhibiting neutrophil migration. (abst – 2016) 
Inhibitors of diacylglycerol lipases in neurodegenerative and metabolic disorders.  

Decreased in vivo availability of the cannabinoid type 2 receptor in Alzheimer's disease. 

Selective activation of CB2 receptor improves efferocytosis in cultured macrophages. 

Type-2 cannabinoid receptors in neurodegeneration.  


Pure Δ9-tetrahydrocannabivarin and a Cannabis sativa extract with high content in Δ9- 
tetrahydrocannabivarin inhibit nitrite production in murine peritoneal macrophages.  

The Effect of Muscarinic Receptor Modulators on the Antinociception Induced by CB2 
Receptor Agonist, JWH133 in Mice.  

Cannabinoid 2 receptor is a novel anti-inflammatory target in experimental proliferative 
vitreoretinopathy.  

Selective modulator of cannabinoid receptor type 2 reduces memory impairment and 
infarct size during cerebral hypoperfusion and vascular dementia.  
http://www.ncbi.nlm.nih.gov/pubmed/27586843

Characterization of peripheral cannabinoid receptor expression and clinical correlates in 
schizophrenia.  

Experimental Cannabinoid 2 Receptor Inhibition in CNS Injury-Induced 
Immunodeficiency Syndrome.  

Selective modulator of cannabinoid receptor type 2 (CB2) against biochemical alterations 
and brain damage in chronic cerebral hypoperfusion induced vascular dementia.  

Selective modulator of cannabinoid receptor type 2 reduces memory impairment and 
infarct size during cerebral hypoperfusion and vascular dementia.  
http://www.ncbi.nlm.nih.gov/pubmed/27586843

Progress in study on endocannabinoids and cannabinoid receptors in the treatment for 
neuropathic pain  


Hemopressin peptides as modulators of the endocannabinoid system and their potential applications as therapeutic tools. (abst – 2016) http://www.eurekaselect.com/146167/article


Therapeutic potential of fatty acid amide hydrolase, monoacylglycerol lipase, and N-acylethanolamine acid amidase inhibitors. (abst – 2016) http://pubs.acs.org/doi/abs/10.1021/acs.jmedchem.6b00538


Cannabinoid receptors and TRPA1 on neuroprotection in a model of retinal ischemia (abst – 2016) http://www.sciencedirect.com/science/article/pii/S0014483516304791


Up-regulation of CB2 receptors in reactive astrocytes in canine degenerative myelopathy, a disease model of amyotrophic lateral sclerosis (full – 2017) http://dmm.biologists.org/content/early/2017/01/06/dmm.028373.long


The Impact of CB2 Receptor Ligands on the MK-801-Induced Hyperactivity in Mice (full – 2017) http://link.springer.com/article/10.1007%2Fs12640-017-9702-4


Role of cannabis in digestive disorders (abst – 2017) http://www.ingentaconnect.com/search/article?option1=tka&value1=cannabinoid&sortDescending=true&sortField=prism_publicationDate&pageSize=10&index=3


Molecular Targets of the Phytocannabinoids: A Complex Picture (abst – 2017) http://link.springer.com/chapter/10.1007%2F978-3-319-45541-9_4


CB2A - a slightly different type of CB 2 receptor found in the testes and the reward center of the brain

Cannabinoid receptors are widely expressed in goldfish: molecular cloning of a CB2-like receptor and evaluation of CB1 and CB2 mRNA expression profiles in different organs. (full - 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3776019

Species Differences in Cannabinoid Receptor 2 and Receptor Responses to Cocaine Self-Administration in Mice and Rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4330519/

CBR- CBe ++ – endothelial cannabinoid receptor


Role of Endothelium in Abnormal Cannabidiol-Induced Vasoactivity in Retinal Arterioles. (full – 2015) http://iovs.arvojournals.org/article.aspx?articleid=2343105&resultClick=1


CBR – GPR-18 CANNABINOID RECEPTOR + - activated by Abnormal CBD, NAGly, O-1602, THC, Anandamide

N-arachidonoyl glycine, an abundant endogenous lipid, potently drives directed cellular migration through GPR18, the putative abnormal cannabidiol receptor. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2865488/

2-Arachidonoylglycerol (2-AG) Induces Corneal Epithelial Cell Migration via Cannabinoid CB1 Receptors (abst – 2011) http://iovs.arvojournals.org/article.aspx?articleid=2352973&resultClick=1

GPR18 in microglia: implications for the CNS and endocannabinoid system signaling (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3525861/
siRNA knockdown of GPR18 receptors in BV-2 microglia attenuates N-arachidonoyl glycine-induced cell migration  
http://www.jmolecularsignaling.com/content/7/1/10

So what do we call GPR18 now?  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423231/

Δ9-Tetrahydrocannabinol and N-arachidonyl glycine are full agonists at GPR18 receptors and induce migration in human endometrial HEC-1B cells  

N-arachidonoyl glycine induces macrophage apoptosis via GPR18.  

Evidence That A Functional Gpr18-based Signaling System In The Anterior Murine Eye Modulates Intraocular Pressure  
http://iovs.arvojournals.org/article.aspx?articleid=2358806&resultClick=1

The Concise Guide to PHARMACOLOGY 2013/14: G Protein-Coupled Receptors  

Do N-arachidonyl-glycine (NA-glycine) and 2-arachidonoyl glycerol (2-AG) share mode of action and the binding site on the β2 subunit of GABAA receptors?  
https://peerj.com/articles/149/

N-Arachidonyl glycine does not activate G protein-coupled receptor 18 signaling via canonical pathways.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3533477/

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3734775/

The Natural Product Magnolol as a Lead Structure for the Development of Potent Cannabinoid Receptor Agonists  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3813752/

A GPR18-based signaling system regulates IOP in murine eye.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3687663/

Cannabinoid receptor modulation of the endothelial cell inflammatory response  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2791499/

Mechanism of Central Atypical Cannabinoid Receptor GPR18-Mediated Hypotension in Conscious Rats  
http://www.fasebj.org/content/27/1_Supplement/654.15.short

The Novel Endocannabinoid Receptor GPR18 is Expressed in the Rostral Ventrolateral Medulla and Exerts Tonic Restraining Influence on Blood Pressure. (full – 2014) http://jpet.aspetjournals.org/content/early/2014/01/15/jpet.113.209213.long

The endocannabinoid/endovanilloid N-arachidonoyl dopamine (NADA) and synthetic cannabinoid WIN55,212-2 abate the inflammatory activation of human endothelial cells. (full – 2014) http://www.jbc.org/content/early/2014/03/18/jbc.M113.536953.long


Neuronal Nitric Oxide Synthase Dependent Elevation in Adiponectin in the Rostral Ventrolateral Medulla Underlies GPR18-mediated Hypotension in Conscious Rats. (full – 2014) http://jpet.aspetjournals.org/content/early/2014/08/06/jpet.114.216036.long


GPR18 is required for a normal CD8αα intestinal intraepithelial lymphocyte compartment. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4235638/


Primary Macrophage Chemotaxis Induced by Cannabinoid Receptor 2 Agonists Occurs Independently of the CB2 Receptor. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4451551/

Anandamide, Acting via CB2 Receptors, Alleviates LPS-Induced Neuroinflammation in Rat Primary Microglial Cultures. (full – 2015) http://www.hindawi.com/journals/np/2015/130639/


Pharmacological evaluation of synthetic cannabinoids identified as constituents of spice.
(full – 2016)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4929166/

Characterization of non-olfactory GPCRs in human sperm with a focus on GPR18.
(full – 2016)  http://www.nature.com/articles/srep32255

Evidence for a GPR18 Role in Diurnal Regulation of Intraocular Pressure.

GPR18 undergoes a high degree of constitutive trafficking but is unresponsive to N-Arachidonoyl Glycine.  (full – 2016)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4806671/

Can cannabinoids be a potential therapeutic tool in amyotrophic lateral sclerosis?
(full – 2016)  https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5270417/


The emerging role of the cannabinoid receptor family in peripheral and neuro-immune interactions.  (abst – 2016)  http://www.eurekaselect.com/138448/article

The multiplicity of spinal AA-5-HT anti-nociceptive action in a rat model of neuropathic pain.  (abst – 2016)

The Effect of Chronic Activation of the Novel Endocannabinoid Receptor GPR18 on Myocardial Function and Blood Pressure in Conscious Rats.  (abst – 2016)


The endogenous lipid N-arachidonoyl glycine is hypotensive and nitric oxide-cGMP-dependent vasorelaxant.  (abst – 2016)

**CBR-GPR 35/ CXCR8**

Expression of functional GPR35 in human iNKT cells.  (abst – 2010)
CBR – GPR-40 CANNABINOID RECEPTOR/ FFAR1 + - activated by GW1100, TAK-875


TAK-875, an orally available G protein-coupled receptor 40/free fatty acid receptor 1 agonist, enhances glucose-dependent insulin secretion and improves both postprandial and fasting hyperglycemia in type 2 diabetic rats. (full – 2011) http://ipet.aspetjournals.org/content/339/1/228.long


Optimization of (2,3-dihydro-1-benzofuran-3-yl)acetic acids: discovery of a non-free fatty acid-like, highly bioavailable G protein-coupled receptor 40/free fatty acid receptor 1 agonist as a glucose-dependent insulinotropic agent. (abst – 2012) http://pubs.acs.org/doi/abs/10.1021/jm300170m


Pharmacometric Approaches to Guide Dose Selection of the Novel GPR40 Agonist TAK-875 in Subjects With Type 2 Diabetes Mellitus. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3600727/

TAK-875, a GPR40/FFAR1 agonist, in combination with metformin prevents progression of diabetes and β-cell dysfunction in Zucker diabetic fatty rats. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3791995/


Dietary Non-Esterified Oleic Acid Decreases the Jejunal Levels of Anorectic N-Acylethanolamines (full – 2014) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0100365

The G-Protein-Coupled Long-Chain Fatty Acid Receptor GPR40 and Glucose Metabolism. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4176464/

Activation of GPR40 attenuates chronic inflammation induced impact on pancreatic β-cells health and function. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4083038/


Optimization of GPR40 Agonists for Type 2 Diabetes. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4027784/


Evaluation of the pharmacokinetics and safety of a single oral dose of fasiglifam in subjects with normal or varying degrees of impaired renal function. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4269813/


High-resolution structure of the human GPR40 receptor bound to allosteric agonist TAK-875. (abst – 2014) http://www.nature.com/nature/journal/v513/n7516/full/nature13494.html

Overexpression of g-protein-coupled receptor 40 enhances the mitogenic response to epoxyeicosatrienoic acids. (full – 2015) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0113130

A Gut Microbial Metabolite of Linoleic Acid, 10-Hydroxy-cis-12-octadecenoic Acid, Ameliorates Intestinal Epithelial Barrier Impairment Partially via GPR40-MEK-ERK Pathway. (full – 2015) http://www.jbc.org/content/290/5/2902.long

Vascular, but not luminal, activation of FFAR1 (GPR40) stimulates GLP-1 secretion from isolated perfused rat small intestine (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4600392/


GPR40 Agonists for the Treatment of Type 2 Diabetes Mellitus: Benefits and Challenges (abst – 2015) http://www.eurekaselect.com/137697/article

Fasiglifam/TAK-875, a Selective GPR40 Agonist, Improves Hyperglycemia in Rats Unresponsive to Sulfonylureas and Acts Additively with Sulfonylureas.   (abst – 2016)  


**CBR - GPR55/ CB3 CANNABINOID RECEPTOR +**

Activated by l-α-lysophosphatidylinositol (LPI), and to a lesser extent possibly by THC, CBD, O-1602, PEA, 2-AG, Anandamide, Virodhamine

International Union of Basic and Clinical Pharmacology. LXXIX. Cannabinoid Receptors and Their Ligands: Beyond CB1 and CB2   (full – 2010)  
http://pharmrev.aspetjournals.org/content/62/4/588.full.pdf+html

GPR55 ligands promote receptor coupling to multiple signalling pathways.   (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931561/?tool=pubmed

A role for L-alpha-lysophosphatidylinositol and GPR55 in the modulation of migration, orientation and polarization of human breast cancer cells.   (full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931574/

Pharmacological characterization of GPR55, a putative cannabinoid receptor.   (full – 2010)  

Endocannabinoid-like N-arachidonoyl serine is a novel pro-angiogenic mediator.   (full– 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2936832/

GPR55: Current Knowledge and Future Perspectives of a Purported "Type-3" Cannabinoid Receptor.   (abst - 2010)  

Cannabinoids and the gut: new developments and emerging concepts   (abst - 2010)  

Cannabinoids and Bone: Friend or Foe?   (abst - 2010)  

Pharmacology of GPR55 in yeast and identification of GSK494581A as a mixed-activity glycine transporter subtype 1 inhibitor and GPR55 agonist.   (full – 2011)  
http://jpet.aspetjournals.org/content/337/1/236.long
The Type 2 Cannabinoid Receptor Regulates Bone Mass and Ovariectomy-Induced Bone Loss by Affecting Osteoblast Differentiation and Bone Formation (full – 2011)  

The atypical cannabinoid O-1602 protects against experimental colitis and inhibits neutrophil recruitment. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3116968/

Lipid bilayer molecular dynamics study of lipid-derived agonists of the putative cannabinoid receptor, GPR55. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3086297/?tool=pubmed

Screening for Selective Ligands for GPR55. (full – 2011)  
http://www.ncbi.nlm.nih.gov/books/NBK66153/

GPR55 regulates cannabinoid 2 receptor-mediated responses in human neutrophils. (full – 2011)  

New blood brothers: the GPR55 and CB2 partnership (full – 2011)  
http://www.nature.com/cr/journal/vaop/ncurrent/full/cr201177a.html

A role for the putative cannabinoid receptor GPR55 in the islets of Langerhans. (full – 2011)  
http://joe.endocrinology-journals.org/content/211/2/177.long

The atypical cannabinoid O-1602 protects against experimental colitis and inhibits neutrophil recruitment. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3116968/

What is the natural ligand of GPR55? (full – 2011)  
http://jb.oxfordjournals.org/content/149/5/495.full

A novel CB receptor GPR55 and its ligands are involved in regulation of gut movement in rodents. (full – 2011)  

Anandamide exerts its antiproliferative actions on cholangiocarcinoma by activation of the GPR55 receptor. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3126905/

Modulation of the novel cannabinoid receptor - GPR55 - during rat fetoplacental development (full – 2011)  
http://www.placentajournal.org/article/S0143-4004%2811%2900110-X/fulltext

The GPCR - associated sorting protein 1 regulates ligand-induced downregulation of GPR55. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3366063/

Modulation of the novel cannabinoid receptor - GPR55 - during rat fetoplacental development (full – 2011)  
http://www.placentajournal.org/article/S0143-4004%2811%2900110-X/fulltext
The putative cannabinoid receptor GPR55 defines a novel autocrine loop in cancer cell proliferation. (full – 2011) http://www.nature.com/onc/journal/v30/n2/full/onc2010417a.html


The novel cannabinoid receptor GPR55, inhibits cholangiocarcinoma growth (abst – 2011) http://www.fasebj.org/content/25/1_Supplement/1117.3.abstract?sid=c25fb29d-4fe2-4875-8a21-80afcada4527


Role of cannabinoids in the regulation of bone remodeling (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3499879/

The L-α-lysophosphatidylinositol/GPR55 system and its potential role in human obesity. (full – 2012) http://diabetes.diabetesjournals.org/content/61/2/281.long

Effects of Palmitoylethanolamide on Aqueous Humor Outflow. (full – 2012) http://www.iovs.org/content/53/8/4416.long

The Endocannabinoids Anandamide and Virodhamine Modulate the Activity of the Candidate Cannabinoid Receptor GPR55. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3669693/

The cannabinoid receptor CB1 modulates the signaling properties of the lysophosphatidylinositol receptor GPR55. (full – 2012) http://www.jbc.org/content/early/2012/11/16/jbc.M112.364109.long


Cannabinoid Receptors CB1 and CB2 Form Functional Heteromers in Brain. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3375509/


Magnolia Extract, Magnolol, and Metabolites: Activation of Cannabinoid CB2 Receptors and Blockade of the Related GPR55. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4027495/

A homology modeling study toward the understanding of three-dimensional structure and putative pharmacological profile of the G-protein coupled receptor GPR55. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4384340/


The interaction between intrathecal administration of low doses of palmitoylethanolamide and AM251 in formalin-induced pain related behavior and spinal cord IL1-β expression in rats. (abst – 2012) http://www.ncbi.nlm.nih.gov/pubmed/22201038


GPR55, a G-Protein Coupled Receptor for Lysophosphatidylinositol, Plays a Role in Motor Coordination. (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0060314

Cannabinoid- and lysophosphatidylinositol-sensitive receptor GPR55 boosts neurotransmitter release at central synapses. (full – 2013) http://www.pnas.org/content/early/2013/03/06/1211204110.full.pdf+html


A potential role for GPR55 in gastrointestinal functions. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3660623/


A role for O-1602 and G protein-coupled receptor GPR55 in the control of colonic motility in mice. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3677091/


Genetic Background Can Result in a Marked or Minimal Effect of Gene Knockout (GPR55 and CB2 Receptor) in Experimental Autoimmune Eencephalomyelitis Models of Multiple Sclerosis. (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0076907

Magnolia extract, magnolol and metabolites: activation of cannabinoid CB2 receptors and blockade of the related GPR55 (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4027495/

A selective antagonist reveals a potential role of G protein-coupled receptor 55 in platelet and endothelial cell function. (full – 2013) http://jpet.aspetjournals.org/content/346/1/54.long

Of mice and (wo)men: factors influencing successful implantation including endocannabinoids. (full – 2013) http://humupd.oxfordjournals.org/content/20/3/415.long

The Endocannabinoid System and Sex Steroid Hormone-Dependent Cancers (full – 2013) http://www.hindawi.com/journals/ije/2013/259676/

A potential role for GPR55 in gastrointestinal functions. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3660623/
Orphan G protein receptor GPR55 as an emerging target in cancer therapy and management. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3706254/


Evaluation of the insulin releasing and antihyperglycaemic activities of GPR55 lipid agonists using clonal beta-cells, isolated pancreatic islets and mice. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3949647/


A selective antagonist reveals a potential role of G protein-coupled receptor 55 in platelet and endothelial cell function. (full – 2013) http://jpet.aspetjournals.org/content/346/1/54.long

Cannabinoid receptor modulation of the endothelial cell inflammatory response (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2791499/

GPR55 and its Interaction with Membrane Lipids: Comparison with Other Endocannabinoid-Binding Receptors (link to PDF – 2013) http://www.eurekaselect.com/105678/article


Regulation of cell proliferation by GPR55/cannabinoid receptors using (R,R’)-4’-methoxy-1-naphthylfenoterol in rat C6 glioma cell line (abst – 2013) http://www.abstractsonline.com/Plan/ViewAbstract.aspx?sKey=695437a2-7613-4bef-8697-2294d2da859&cKey=18ba6eb0-2c5f-4004-a56f-2d1f450e2ed1&mKey=9b2d28e7-24a0-466f-a3e9-07c21f6e9be9


(R,R’)-4’-methoxy-1-naphthylfenoterol Inhibits GPR55 signaling and the modulation of motility in human cancer cells (abst – 2013)
Anticancer activity of anandamide in human cutaneous melanoma cells. (abst – 2013) 

Increase of mesenchymal stem cell migration by Cannabidiol via activation of p42/44 MAPK. (abst – 2013) 

Regulation of GPR55 in rat white adipose tissue and serum LPI by nutritional status, gestation, gender and pituitary factors. (abst – 2013) 

The endocannabinoid/endovanilloid N-arachidonoyl dopamine (NADA) and synthetic cannabinoid WIN55,212-2 abate the inflammatory activation of human endothelial cells. (full – 2014) 
http://www.jbc.org/content/early/2014/03/18/jbc.M113.536953.long

Vascular targets for cannabinoids: animal and human studies. (full – 2014) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3954478/

Cannabidiol: Pharmacology and potential therapeutic role in epilepsy and other neuropsychiatric disorders (full – 2014) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4707667/

CB2 Receptor Activation Inhibits Melanoma Cell Transmigration through the Blood-Brain Barrier. (full – 2014) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4057719/

GPR55 Deletion in Mice Leads to Age-Related Ventricular Dysfunction and Impaired Adrenoceptor-Mediated Inotropic Responses. (full – 2014) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4183508/

Palmitoylethanolamide, a naturally-occurring lipid, is an orally effective intestinal anti-inflammatory agent. (full – 2014) 

Targeting CB2-GPR55 Receptor Heteromers Modulates Cancer Cell Signaling (full – 2014) 
http://www.jbc.org/content/early/2014/07/02/jbc.M114.561761.full.pdf+html

http://www.mdpi.com/1420-3049/19/11/18781/htm

Role of Endocannabinoid Activation of Peripheral CB1 Receptors in the Regulation of Autoimmune Disease. (full – 2014) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4261058/

Heteromerization of GPR55 and cannabinoid CB2 receptors modulates signaling.
Programming and reprogramming neural cells by (endo-) cannabinoids: from physiological rules to emerging therapies
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4765324/

CB1 and GPR55 receptors are co-expressed and form heteromers in rat and monkey striatum.

Role of orphan G protein-coupled receptor 55 in diabetic gastroparesis in mice

GPR55: From orphan to metabolic regulator?

Consequences of early life stress on the expression of endocannabinoid-related genes in the rat brain.

The differential characterization of GPR55 receptor in human peripheral blood reveals a distinctive expression in monocytes and NK cells and a proinflammatory role in these innate cells.

Elevated CB1 and GPR55 receptor expression in proximal tubule cells and whole kidney exposed to diabetic conditions.

The therapeutic potential of orphan GPCRs, GPR35 and GPR55.

Activation of GPR55 Receptors Exacerbates oxLDL-Induced Lipid Accumulation and Inflammatory Responses, while Reducing Cholesterol Efflux from Human Macrophages.
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0126839

The Lysophosphatidylinositol Receptor GPR55 Modulates Pain Perception in the Periaqueductal Grey.
http://molpharm.aspetjournals.org/content/early/2015/05/12/mol.115.099333.long

Primary Macrophage Chemotaxis Induced by Cannabinoid Receptor 2 Agonists Occurs Independently of the CB2 Receptor.
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4451551/

Anandamide, Acting via CB2 Receptors, Alleviates LPS-Induced Neuroinflammation in Rat Primary Microglial Cultures.
http://www.hindawi.com/journals/np/2015/130639/

The G-protein coupled receptor 55-agonist L-α-lysophosphatidylinositol mediates ovarian carcinoma cell induced angiogenesis.
Homeostatic regulation of brain functions by endocannabinoid signaling. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4468750/

Pathogenesis of Systemic Sclerosis. (full – 2015)

Pharmacological profiling of the hemodynamic effects of cannabinoid ligands: a combined in vitro and in vivo approach. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4492759/

The skeletal endocannabinoid system: clinical and experimental insights. (full – 2015)

GPR55 - a putative "type 3" cannabinoid receptor in inflammation. (full – 2015)

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4607066/

A role for GPR55 in human placental venous endothelial cells. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4487816/

The GPR55 agonist lysophosphatidylinositol mediates vasorelaxation of the rat mesenteric resistance artery and induces calcium release in rat mesenteric artery endothelial cells. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4459022/

http://file.scirp.org/Html/2-2500616_55349.htm

The GPR55 antagonist CID16020046 protects against intestinal inflammation. (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4587547/

Molecular Targets of Cannabidiol in Neurological Disorders. (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4604182/

Cannabinoids and Epilepsy. (full – 2015)

The role of cannabinoids in regulation of nausea and vomiting, and visceral pain. (abst – 2015)


Endogenous and Synthetic Cannabinoids as Therapeutics in Retinal Disease (full – 2016) http://www.hindawi.com/journals/np/2016/8373020/


Modulation of cellular redox homeostasis by the endocannabinoid system. (full – 2016) http://rsob.royalsocietypublishing.org/content/6/4/150276


Activation of the orphan receptor GPR55 by lysophosphatidylinositol promotes metastasis in triple-negative breast cancer. (full – 2016) http://www.impactjournals.com/oncotarget/index.php?journal=oncotarget&page=article&op=view&path%5B%5D=10206&path%5B%5D=32116


Pharmacological evaluation of synthetic cannabinoids identified as constituents of spice. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4929166/


The emerging role of the cannabinoid receptor family in peripheral and neuro-immune interactions. (abst – 2016) http://www.eurekaselect.com/138448/article


Treatment with the GPR55 antagonist CID16020046 increases neutrophil activation in mouse atherogenesis. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27465665


CBR - GPR109 CANNABINOID RECEPTOR


Acipimox reduces circulating levels of insulin and associated neutrophilic inflammation in metabolic syndrome. (full – 2011) http://ajpendo.physiology.org/content/300/4/E681.long

The Concise Guide to PHARMACOLOGY 2013/14: G Protein-Coupled Receptors
Central GPR109A Activation Mediates Glutamate-Dependent Pressor Response in Conscious Rats  

CBR - GPR119 CANNABINOID RECEPTOR + - activated by PEA, OEA 

N-oleoyldopamine enhances glucose homeostasis through the activation of GPR119. 

GPR119 agonists for the potential treatment of type 2 diabetes and related metabolic disorders. 

American Diabetes Association--70th scientific sessions--research on novel therapeutics: part 2. 

Novel GPR119 agonist AS1535907 contributes to first-phase insulin secretion in rat perfused pancreas and diabetic db/db mice. 

American Diabetes Association--70th scientific sessions--research on novel therapeutics: part 2. 

GPR119 Regulates Murine Glucose Homeostasis Through Incretin Receptor-Dependent and Independent Mechanisms 

The cytoprotective effects of oleoylethanolamide in insulin-secreting cells do not require activation of GPR119. 

G-Protein-Coupled Receptors in Intestinal Chemosensation 

Stimulating beta cell replication and improving islet graft function by GPR119 agonists.

The Endocannabinoid System and Sex Steroid Hormone-Dependent Cancers (full – 2013) http://www.hindawi.com/journals/ije/2013/259676/

Cannabinoid receptor modulation of the endothelial cell inflammatory response (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2791499/


Dietary Non-Esterified Oleic Acid Decreases the Jejunal Levels of Anorectic N-Acylethanolamines (full – 2014) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0100365


http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0148734

Mechanisms underlying glucose-dependent insulinotropic polypeptide and glucagon-like peptide-1 secretion. (full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4854499/

Endocannabinoids in Feeding Behavior and Energy Homeostasis. (full – 2016)  
http://themedicalbiochemistrypage.org/endocannabinoids.php

A role of CB1R in inducing θ-rhythm coordination between the gustatory and gastrointestinal insula. (full – 2016)  
http://www.nature.com/articles/srep32529

Endocannabinoid System: the Direct and Indirect Involvement in the Memory and Learning Processes—a Short Review. (full – 2016)  

Can cannabinoids be a potential therapeutic tool in amyotrophic lateral sclerosis? (full – 2016)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5270417/


CBR - GPR135 CANNABINOID RECEPTOR

Characterization of non-olfactory GPCRs in human sperm with a focus on GPR18. (full – 2016)  
http://www.nature.com/articles/srep32255
**CBR - GPR137 CANNABINOID RECEPTOR**

Characterization of non-olfactory GPCRs in human sperm with a focus on GPR18.  
(full – 2016)   [http://www.nature.com/articles/srep32255](http://www.nature.com/articles/srep32255)

**CBR - GPR158 CANNABINOID RECEPTOR** +

GPR158/179 regulate G protein signaling by controlling localization and activity of the RGS7 complexes.  (full – 2012)   [http://jcb.rupress.org/content/197/6/711.long](http://jcb.rupress.org/content/197/6/711.long)

Genome-wide association study of antibody response to smallpox vaccine.  (full – 2012)  
[http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3367131/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3367131/)

GPR158, an Orphan Member of G Protein-Coupled Receptor Family C: Glucocorticoid-Stimulated Expression and Novel Nuclear Role  (full – 2013)  

The Concise Guide to PHARMACOLOGY 2013/14: G Protein-Coupled Receptors  

**CBR - 5-HT1A – activated by cannabidiol**

Cannabidiol ameliorates cognitive and motor impairments in bile-duct ligated mice via 5-HT1A receptor activation.  (full – 2010)   [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2829220/?tool=pubmed](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2829220/?tool=pubmed)

Antidepressant-like effects of cannabidiol in mice: possible involvement of 5-HT1A receptors  (full – 2010)  
[http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2823358/?tool=pubmed](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2823358/?tool=pubmed)

Intra-dorsal periaqueductal gray administration of cannabidiol blocks panic-like response by activating 5-HT1A receptors.  (abst – 2010)  

Cannabidiol injected into the bed nucleus of the stria terminalis modulates baroreflex activity through 5-HT1A receptors.  (abst – 2010)  

Cannabidiol inhibits the hyperphagia induced by cannabinoid-1 or serotonin-1A receptor agonists. (full – 2011) http://www.sciencedirect.com/science/article/pii/S0091305711000128

The anxiolytic-like effects of cannabidiol injected into the bed nucleus of the stria terminalis are mediated by 5-HT1A receptors. (abst - 2011) http://www.ncbi.nlm.nih.gov/pubmed/20945065

Multiple mechanisms involved in the large-spectrum therapeutic potential of cannabidiol in psychiatric disorders. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3481531/


Cannabidiol injected into the bed nucleus of the stria terminalis reduces the expression of contextual fear conditioning via 5-HT1A receptors. (abst – 2012) http://www.ncbi.nlm.nih.gov/pubmed/21148020

Cannabidiol attenuates catalepsy induced by distinct pharmacological mechanisms via 5-HT1A receptors activation in mice. (full – 2013) http://www.sciencedirect.com/science/article/pii/S0278584613001164

Similar anxiolytic effects of agonists targeting serotonin 5-HT1A or cannabinoid CB receptors on zebrafish behavior in novel environments. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3989442/

Cannabidiolic acid prevents vomiting in Suncus murinus and nausea-induced behaviour in rats by enhancing 5-HT(1A) receptor activation. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3596650/

The role of 5-HT1A receptors in the anti-aversive effects of cannabidiol on panic attack-like behaviors evoked in the presence of the wild snake Epicrates cenchria crassus (Reptilia, Boidae). (full – 2013) http://journals.sagepub.com/doi/full/10.1177/0269881113493363

Mechanisms Of Cannabidiol Neuroprotection In Hypoxic-Ischemic newborn Pigs: Role Of 5HT1A And CB2 Receptors. (abst – 2013) http://www.sciencedirect.com/science/article/pii/S0028390813001238

Motor effects of the non-psychotropic phytocannabinoid cannabidiol that are mediated by 5-HT1A receptors (abst – 2013) http://www.sciencedirect.com/science/article/pii/S0028390813003419

Cannabidiol administration into the bed nucleus of the stria terminalis alters cardiovascular responses induced by acute restraint stress through 5-HT₁A receptor. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/23041353


Cannabidiol inhibits paclitaxel-induced neuropathic pain through 5-HT1A receptors without diminishing nervous system function or chemotherapy efficacy. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3969077/

Cannabidiol: Pharmacology and potential therapeutic role in epilepsy and other neuropsychiatric disorders (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4707667/


**CBR- NPR19** – a G coupled receptor activated by anandamide


**CBR- NPR32** – a G coupled receptor activated by anandamide


**CBR – PPARs** - mediate some of the effects of cannabinoids, works with CB1, CB2 and TRPV1 receptors
β-Caryophyllene inhibits dextran sulfate sodium-induced colitis in mice through CB2 receptor activation and PPARγ pathway. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3070571/

Cannabidiol Reduces Aβ-Induced Neuroinflammation and Promotes Hippocampal Neurogenesis through PPARγ Involvement  (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3230631/?tool=pubmed

Inhibition of COX-2 expression by endocannabinoid 2-arachidonoylglycerol is mediated via PPAR-γ (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165961/

β−Amyloid exacerbates inflammation in astrocytes lacking fatty acid amide hydrolase through a mechanism involving PPAR-α, PPAR-γ and TRPV1, but not CB1 or CB2 receptors (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3417461/

http://aim.bmj.com/content/30/1/53.long

Orally administered oleoylethanolamide protects mice from focal cerebral ischemic injury by activating peroxisome proliferator-activated receptor α. (abst – 2012)  

Effects of the anandamide uptake blocker AM404 on food intake depend on feeding status and route of administration. (abst – 2012)  

Investigation of endocannabinoid system genes suggests association between peroxisome proliferator activator receptor-α gene (PPARA) and schizophrenia. (abst – 2012)  

Antiepileptic action of N-palmitoylethanolamine through CB1 and PPAR-α receptor activation in a genetic model of absence epilepsy. (abst – 2012)  

WIN55212-2 attenuates amyloid-beta-induced neuroinflammation in rats through activation of cannabinoid receptors and PPAR-γ pathway. (abst – 2012)  

Inhibition of FAAH and activation of PPAR: New approaches to the treatment of cognitive dysfunction and drug addiction. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3662489/

Molecular evidence for the involvement of PPAR-δ and PPAR-γ in anti-inflammatory and neuroprotective activities of palmitoylethanolamide after spinal cord trauma (full – 2013)  
http://www.jneuroinflammation.com/content/10/1/20
COX-2 and PPAR-γ Confer Cannabidiol-Induced Apoptosis of Human Lung Cancer Cells. (full – 2013) http://mct.aacrjournals.org/content/12/1/69.long

Involvement of PPARγ in the antitumoral action of cannabinoids on hepatocellular carcinoma. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3674350/

Evolution in pharmacologic thinking around the natural analgesic palmitoylethanolamide: from nonspecific resistance to PPAR-α agonist and effective nutraceutical (link to PDF – 2013) http://www.dovepress.com/articles.php?article_id=13950


Δ9-Tetrahydrocannabinol is protective through PPARγ dependent mitochondrial biogenesis in a cell culture model of Parkinson’s Disease (abst – 2013) http://jnnp.bmj.com/content/84/11/e2.58.abstract

PPARγ mediates the effects of WIN55,212-2, a synthetic cannabinoid, on the proliferation and apoptosis of the BEL-7402 hepatocarcinoma cells. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/24062073

Fatty Acid-binding Protein 5 (FABP5) Regulates Cognitive Function Both by Decreasing Anandamide Levels and by Activating the Nuclear Receptor Peroxisome Proliferator-activated Receptor β/δ (PPARβ/δ) in the Brain (full – 2014) http://www.jbc.org/content/289/18/12748.full.pdf+html

Activation of PPAR gamma receptors reduces levodopa-induced dyskinesias in 6-OHDA-lesioned rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4323744/

Palmitoylethanolamide improves colon inflammation through an enteric glia/toll like receptor 4-dependent PPAR-α activation (abst – 2014) http://gut.bmj.com/content/63/8/1300.abstract?sid=a8fbb2a13-4493-4045-8855-9a0bae1e5d51


Inhibition of FAAH confers increased stem cell migration via PPARα. (full - 2015) http://www.jlr.org/content/early/2015/08/11/jlr.M061473.long
Oleoylethanolamide, an endogenous PPAR-α ligand, attenuates liver fibrosis targeting hepatic stellate cells.  (full – 2015)

Interference with acute nausea and anticipatory nausea in rats by fatty acid amide hydrolase (FAAH) inhibition through a PPARα and CB1 receptor mechanism, respectively: a double dissociation.  (abst – 2015)

Cannabidiol protects an in vitro model of the blood brain barrier (BBB) from oxygen-glucose deprivation via PPARγ and 5-HT1A.  (abst – 2015)

Interference with acute nausea and anticipatory nausea in rats by fatty acid amide hydrolase (FAAH) inhibition through a PPARα and CB1 receptor mechanism, respectively: a double dissociation.  (abst – 2015)

Effects of dietary CLA on n-3 HUFA score and N-acylethanolamides biosynthesis in the liver of obese Zucker rats.  (abst – 2015)

Analysis of endocannabinoid signaling elements and related proteins in lymphocytes of patients with Dravet syndrome.  (full – 2016)

Delta-9-tetrahydrocannabinol protects against MPP+ toxicity in SH-SY5Y cells by restoring proteins involved in mitochondrial biogenesis.  (full – 2016)
http://www.impactjournals.com/oncotarget/index.php?journal=oncotarget&page=article&op=view&path%5B%5D=10314&path%5B%5D=32486

Endocannabinoids in Feeding Behavior and Energy Homeostasis  
(full – 2016)  http://themedicalbiochemistrypage.org/endocannabinoids.php

A role of CB1R in inducing θ-rhythm coordination between the gustatory and gastrointestinal insula.  (full – 2016)  http://www.nature.com/articles/srep32529

Targeting Cannabinoid CB2 Receptors in the Central Nervous System. Medicinal Chemistry Approaches with Focus on Neurodegenerative Disorders.  

Exposure to a Highly Caloric Palatable Diet during the Perinatal Period Affects the Expression of the Endogenous Cannabinoid System in the Brain, Liver and Adipose Tissue of Adult Rat Offspring.  (full – 2016)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0165432
Effects of Adolescent Intermittent Alcohol Exposure on the Expression of Endocannabinoid Signaling-Related Proteins in the Spleen of Young Adult Rats. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5035052/


Endocannabinoids and Endocannabinoid-Related Mediators: Targets, Metabolism and Role In Neurological Disorders. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/26965148


An update on PPAR activation by cannabinoids (abst – 2016) http://www.ingentaconnect.com/search/article?option1=tka&value1=cannabinoid&sortDescending=true&sortField=prism_publicationDate&pageSize=10&index=6


Pharmacokinetic-pharmacodynamic influence of N-palmitoylethanolamine, arachidonyl-2′-chloroethylamide and WIN 55,212-2 on the anticonvulsant activity of antiepileptic drugs against audiogenic seizures in DBA/2 mice. (abst – 2016)

Palmitoylethanolamide reduces inflammation and itch in a mouse model of contact allergic dermatitis. (abst – 2016)

Endocannabinoids and sleep (abst – 2016)

Therapeutic potential of fatty acid amide hydrolase, monoacylglycerol lipase, and N-acylethanolamine acid amidase inhibitors. (abst – 2016)
http://pubs.acs.org/doi/abs/10.1021/acs.jmedchem.6b00538

Pharmacokinetic-pharmacodynamic influence of N-palmitoylethanolamine, arachidonyl-2′-chloroethylamide and WIN 55,212-2 on the anticonvulsant activity of antiepileptic drugs against audiogenic seizures in DBA/2 mice. (abst – 2016)


Phytocannabinoids: a growing family of plant natural products with increasing pharmacological and clinical importance (abst – 2016)


CBR - TRPV1 / TRANSIENT RECEPTOR POTENTIAL VANILLOID TYPE 1 CHANNEL

Epidermal growth factor receptor transactivation by the cannabinoid receptor (CB1) and transient receptor potential vanilloid 1 (TRPV1) induces differential responses in corneal epithelial cells. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2926165/

The Role of Cannabinoid Receptors in the Descending Modulation of Pain (link to PDF - 2010) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.634.4866&rank=72

Multiple Changes in Peptide and Lipid Expression Associated with Regeneration in the Nervous System of the Medicinal Leech (link to PDF – 2011)
The effect of CBD (BDS) botanical cannabinoid extraction on MCF-7 human breast carcinoma cells (abst – 2011) http://eprints.hud.ac.uk/16197/

Anandamide capacitates bull spermatozoa through CB1 and TRPV1 activation. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3037938/?tool=pubmed

Role of Myeloid-Derived Suppressor Cells in Amelioration of Experimental Autoimmune Hepatitis Following Activation of TRPV1 Receptors by Cannabidiol (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3069975/?tool=pmcentrez

Tak1 Interactions With TRPV1 and CB1 Control IL-6 and IL-8 Release in Human Corneal Epithelial Cells (abst – 2011) http://iovs.arvojournals.org/article.aspx?articleid=2349956&resultClick=1

CB1 Activation Reduces TRPV1-induced Responses in Human Corneal Epithelial Cells (abst – 2011) http://iovs.arvojournals.org/article.aspx?articleid=2353114&resultClick=1

β−Amyloid exacerbates inflammation in astrocytes lacking fatty acid amide hydrolase through a mechanism involving PPAR-α, PPAR-γ and TRPV1, but not CB1 or CB2 receptors (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3417461/

Opposing Roles for Cannabinoid Receptor Type-1 (CB(1)) and Transient Receptor Potential Vanilloid Type-1 Channel (TRPV1) on the Modulation of Panic-Like Responses in Rats. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3242309/


CB1 Cannabinoid Receptor Agonist Prevents NGF-Induced Sensitization of TRPV1 in Sensory Neurons. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3752375/

Full Inhibition of Spinal FAAH Leads to TRPV1-Mediated Analgesic Effects in Neuropathic Rats and Possible Lipoxygenase-Mediated Remodeling of Anandamide


Motor effects of the non-psychotropic phytocannabinoid cannabidiol that are mediated by 5-HT1A receptors (abst – 2013) http://www.sciencedirect.com/science/article/pii/S0028390813003419

Glucose concentration in culture medium affects mRNA expression of TRPV1 and CB1 receptors and changes capsaicin toxicity in PC12 cells. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4322151/

Iron overload causes osteoporosis in Thalassemia Major patients through interaction with TRPV1 channels. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4258755/


TRPV1 mediates cellular uptake of anandamide and thus promotes endothelial cell proliferation and network-formation. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4265754/


Colon carcinogenesis is inhibited by the TRPM8 antagonist cannabigerol, a Cannabis-derived non-psychotropic cannabinoid. (full – 2014) http://carcin.oxfordjournals.org/content/35/12/2787.long
Anticonvulsant Effects of N-Arachidonoyl-Serotonin, a Dual FAAH Enzyme and TRPV1 Channel Blocker, on Experimental Seizures: The Roles of Cannabinoid CB1 Receptors and TRPV1 Channels. (full – 2014)  

Activation of CB1 inhibits NGF-induced sensitization of TRPV1 in adult mouse afferent neurons. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4626020/

Programming and reprogramming neural cells by (endo-) cannabinoids: from physiological rules to emerging therapies. (full – 2014)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4765324/

Nonpsychotropic Plant Cannabinoids, Cannabidivarin (CBDV) and Cannabidiol (CBD), Activate and Desensitize Transient Receptor Potential Vanilloid 1 (TRPV1) Channels in Vitro: Potential for the Treatment of Neuronal Hyperexcitability (abst – 2014)  
http://pubs.acs.org/doi/abs/10.1021/cn5000524

The dual blocker of FAAH/TRPV1 N-arachidonoylserotonin reverses the behavioral despair induced by stress in rats and modulates the HPA-axis. (abst – 2014)  

NONRETROGRADE ENDOCANNABINOID SIGNALING MODULATES RETINAL GANGLION CELL CALCIUM HOMEOSTASIS THROUGH THE TRPV1 CATION CHANNEL (abst - 2014)  
http://iovs.arvojournals.org/article.aspx?articleid=2268407&resultClick=1

Impairment of Corneal Epithelial Wound Healing in a TRPV1-Deficient Mouse (abst – 2014)  
http://iovs.arvojournals.org/article.aspx?articleid=2128931&resultClick=1

Cannabinoid-based drugs targeting CB1 and TRPV1, the sympathetic nervous system, and arthritis. (full – 2015)  
http://www.arthritis-research.com/content/17/1/226

The Effects of the Endocannabinoids Anandamide and 2-Arachidonoylglycerol on Human Osteoblast Proliferation and Differentiation (full – 2015)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0136546

The skeletal endocannabinoid system: clinical and experimental insights (full – 2015)  

TRPV1 Channel: A Potential Drug Target for Treating Epilepsy. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4598436/

Anti-inflammatory effects of N-acylethanolamines in rheumatoid arthritis synovial cells are mediated by TRPV1 and TRPA1 in a COX-2 dependent manner. (full – 2015)  
http://www.arthritis-research.com/content/17/1/321
TRPV1 channel inhibition contributes to the antinociceptive effects of Croton macrostachyus extract in mice (full – 2015)

Cannabinoid-based drugs targeting CB1 and TRPV1, the sympathetic nervous system, and arthritis (full – 2015)

Fetal endocannabinoids orchestrate the organization of pancreatic islet microarchitecture. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4653226/

The modulatory effect of anandamide on nitroglycerin-induced sensitization in the trigeminal system of the rat (full – 2015)
http://journals.sagepub.com/doi/full/10.1177/0333102415613766

Sperm Release from the Oviductal Epithelium Depends on Ca2+ Influx Upon Activation of CB1 and TRPV1 by Anandamide. (abst – 2015)

CB2 and TRPV1 receptors oppositely modulate in vitro human osteoblast activity. (abst – 2015)

A multi-target approach for pain treatment - dual inhibition of fatty acid amide hydrolase and TRPV1 in a rat model of osteoarthritis. (abst – 2015)

Chronic stress and peripheral pain: Evidence for distinct, region-specific changes in visceral and somatosensory pain regulatory pathways. (abst – 2015)

Anandamide-induced endoplasmic reticulum stress and apoptosis are mediated by oxidative stress in non-melanoma skin cancer: Receptor-independent endocannabinoid signaling. (abst – 2015)

Receptome: Interactions between three pain-related receptors or the "Triumvirate" of cannabinoid, opioid and TRPV1 receptors. (abst – 2015)

Dorsolateral periaqueductal gray matter CB1 and TRPV1 receptors exert opposite modulation on expression of contextual fear conditioning (abst – 2015)

A pathophysiological role of TRPV1 in ischemic injury after transient focal cerebral ischemia in mice. (abst – 2015)

Endogenous and Synthetic Cannabinoids as Therapeutics in Retinal Disease (full – 2016)
http://www.hindawi.com/journals/np/2016/8373020/
Natural product modulators of transient receptor potential (TRP) channels as potential anti-cancer agents. (full – 2016)  
http://pubs.rsc.org/en/content/articlehtml/2016/cs/c5cs00916b

Endocannabinoids as Guardians of Metastasis (full – 2016)  
http://www.mdpi.com/1422-0067/17/2/230/htm

Fatty acid amide hydrolase inhibitors confer anti-invasive and antimetastatic effects on lung cancer cells. (full – 2016)  

New insights into the yin and yang of the endocannabinoid system in health and disease (full – 2016)  

A pro-nociceptive phenotype unmasked in mice lacking fatty-acid amide hydrolase (full – 2016)  
http://mpx.sagepub.com/content/12/1744806916649192.long

Modulation of breast cancer cell viability by a cannabinoid receptor 2 agonist, JWH-015, is calcium dependent (full – 2016)  
https://www.dovepress.com/modulation-of-breast-cancer-cell-viability-by-a-cannabinoid-receptor-2-peer-reviewed-fulltext-article-BCTT

Endovanilloids are potential activators of the trigeminovascular nocisensor complex (full – 2016)  

Modulation of cellular redox homeostasis by the endocannabinoid system. (full – 2016)  
http://rsob.royalsocietypublishing.org/content/6/4/150276

Beyond Cannabis: Plants and the Endocannabinoid System (full – 2016)  
http://ge.tt/3Rgrtsa2

Cyclooxygenase-2 inhibition reduces stress-induced affective pathology. (full – 2016)  
https://elifesciences.org/content/5/e14137

The synthetic cannabinoid WIN55,212-2 mesylate decreases the production of inflammatory mediators in rheumatoid arthritis synovial fibroblasts by activating CB2, TRPV1, TRPA1 and yet unidentified receptor targets. (full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4858820/

The involvement of TRPV1 in emesis and anti-emesis. (full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4843889/

Lipid mediators involved in the oxidative stress and antioxidant defence of human lung cancer cells (full – 2016)  
Dual-Acting Compounds Targeting Endocannabinoid and Endovanilloid Systems-A Novel Treatment Option for Chronic Pain Management. (full – 2016)


Opposite roles of cannabinoid receptors 1 and 2 in hepatocarcinogenesis. (full – 2016) http://gut.bmj.com/content/65/10/1721.long


Spatial Distribution of the Cannabinoid Type 1 and Capsaicin Receptors May Contribute to the Complexity of Their Crosstalk. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5032030/

Cannabidiol Modulates the Expression of Alzheimer’s Disease-Related Genes in Mesenchymal Stem Cells. (full – 2016)


Endovanilloid control of pain modulation by the rostroventromedial medulla in an animal model of diabetic neuropathy. (abst – 2016)  


CB1 cannabinoid receptor-mediated anandamide signalling reduces the defensive behaviour evoked through GABAA receptor blockade in the dorsomedial division of the ventromedial hypothalamus. (abst – 2016)  

Fabp-1 gene ablation impacts brain endocannabinoid system in male mice. (abst – 2016)  

Anti-inflammatory and antioxidant effects of a combination of cannabidiol and moringin in LPS-stimulated macrophages. (abst – 2016)  

TRPV1-FAAH-COX: The Couples Game in Pain Treatment. (abst – 2016)  

Pharmacological hypothermia: a potential for future stroke therapy? (abst – 2016)  

The multiplicity of spinal AA-5-HT anti-nociceptive action in a rat model of neuropathic pain. (abst – 2016)  

An update on PPAR activation by cannabinoids (abst – 2016)  
http://www.ingentaconnect.com/search/article?option1=tka&value1=cannabinoid&sortDescending=true&sortField=prism_publicationDate&pageSize=10&index=6


Female Mice are Resistant to Fabp1 Gene Ablation-Induced Alterations in Brain Endocannabinoid Levels (abst – 2016)  

Pure Δ9-tetrahydrocannabivarin and a Cannabis sativa extract with high content in Δ9-tetrahydrocannabivarin inhibit nitrite production in murine peritoneal macrophages. (abst – 2016)  

Metabolism of endocannabinoids. (abst – 2016)  


CB1 cannabinoid receptor-mediated anandamide signalling reduces the defensive behaviour evoked through GABAA receptor blockade in the dorsomedial division of the ventromedial hypothalamus. (abst – 2016)  http://www.sciencedirect.com/science/article/pii/S0028390816301393


Effects of cannabinoid and vanilloid receptor agonists and their interaction on learning and memory in rats. (abst – 2017)  

**CBR – TRPV2 / TRANSIENT RECEPTOR POTENTIAL VANILLOID TYPE 2 CHANNEL**

Multiple Changes in Peptide and Lipid Expression Associated with Regeneration in the Nervous System of the Medicinal Leech  (link to PDF – 2011)  
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.713.3790&rank=102

Colon carcinogenesis is inhibited by the TRPM8 antagonist cannabigerol, a Cannabis-derived non-psychotropic cannabinoid. (full – 2014)  
http://carcin.oxfordjournals.org/content/35/12/2787.long

Advances in Transient Receptor Potential Vanilloid-2 Channel Expression and Function in Tumor Growth and Progression  (abst – 2014)  

Nonpsychotropic Plant Cannabinoids, Cannabidivarin (CBDV) and Cannabidiol (CBD), Activate and Desensitize Transient Receptor Potential Vanilloid 1 (TRPV1) Channels in Vitro: Potential for the Treatment of Neuronal Hyperexcitability  (abst – 2014)  
http://pubs.acs.org/doi/abs/10.1021/cn5000524

The involvement of medial septum 5-HT1 and 5-HT2 receptors on ACPA-induced memory consolidation deficit: Possible role of TRPC3, TRPC6 and TRPV2.  (full – 2015)  
http://journals.sagepub.com/doi/full/10.1177/0269881115609021

Natural product modulators of transient receptor potential (TRP) channels as potential anti-cancer agents.  (full – 2016)  
http://pubs.rsc.org/en/content/articlehtml/2016/cs/c5cs00916b

TRPV2 is a novel biomarker and therapeutic target in triple negative breast cancer  (full – 2016)  
http://www.impactjournals.com/oncotarget/index.php?journal=oncotarget&page=article&op=view&path%5B%5D=9663&path%5B%5D=30267

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4927043/

Cryo-electron microscopy structure of the TRPV2 ion channel.  (full – 2016)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4876856/
3D Structure of Protein That Guides the Immune System Uncovered  
(news & abst – 2016)  
http://neurosciencenews.com/trpv2-ion-channel-immune-system-3448/  

Marine Metabolites Modulating CB Receptors and TRP Channels  
(abst – 2016)  

(abst – 2016)  

Pure Δ9-tetrahydrocannabivarin and a Cannabis sativa extract with high content in Δ9-tetrahydrocannabivarin inhibit nitrite production in murine peritoneal macrophages.  
(abst – 2016)  

Potential Future Pharmacological Treatment of Bladder Dysfunction.  
(abst – 2016)  

**CRIP1a /CANNABINOID RECEPTOR INTERACTING PROTEIN 1a** - alters CB1R interactions with their G-proteins  

Architecture of cannabinoid signaling in mouse retina.  
(full – 2010)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2982216/  

Striatal CB1 and D2 receptors regulate expression of each other, crip1a and delta opioid systems.  
(full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3697910/  

Cannabinoid receptor interacting protein (CRIP1a) attenuates CB1R signaling in neuronal cells.  
(full – 2015)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4332989/  

Cannabinoid Receptor–Interacting Protein 1a Modulates CB1 Receptor Signaling and Regulation.  
(full – 2015)  
http://molpharm.aspetjournals.org/content/87/4/747.long  

Cannabinoid Receptor Interacting Protein (CRIP) 1a competition with β-arrestin for CB1 receptor binding sites.  
(link to PDF – 2016)  
http://molpharm.aspetjournals.org/content/early/2016/11/28/mol.116.104638.long  

Cannabinoid Receptor Interacting Protein (CRIP1a) suppresses agonist-driven CB1 receptor internalization, and regulates receptor replenishment in an agonist-biased manner.  
(abst – 2016)  
DAGL/DIACYLGLYCEROL LIPASE – an enzyme involved in making endocannabinoids

Loss of retrograde endocannabinoid signaling and reduced adult neurogenesis in diacylglycerol lipase knock-out mice. (full – 2010) http://www.jneurosci.org/content/30/6/2017.long


An endocannabinoid system is localized to the hypophysial pars tuberalis of Syrian hamsters and responds to photoperiodic changes. (abst – 2010) http://www.ncbi.nlm.nih.gov/pubmed/20165884


Expression of the cannabinoid system in muscle: effects of a high fat diet and CB1 receptor blockade (full – 2011) http://www.biochemj.org/content/433/1/175

Localization of Cannabinoid-Related Proteins in the Murine Anterior Eye (abst – 2011) http://iovs.arvojournals.org/article.aspx?articleid=2356236&resultClick=1

Autocrine Endocannabinoid Signaling through CB1 Receptors Potentiates OX1 Orexin Receptor Signaling (full – 2012) http://molpharm.aspetjournals.org/content/83/3/621.full.pdf+html

Dynamic changes to the endocannabinoid system in models of chronic pain (full – 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3300.full?sid=1569c370-ed5c-4358-89ff-857201f5e069


Diacylglycerol Lipaseα (DAGLα) and DAGLβ Cooperatively Regulate the Production of 2-Arachidonoyl Glycerol in Autaptic Hippocampal Neurons (full – 2013) 
http://molpharm.aspetjournals.org/content/84/2/296.full.pdf+html

Using the endocannabinoid system as a neuroprotective strategy in perinatal hypoxic-ischemic brain injury. (full – 2013) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4146074/

Acute inhibition of diacylglycerol lipase blocks endocannabinoid-mediated retrograde synaptic suppression: evidence for on-demand biosynthesis of 2-arachidonoylglycerol. (full - 2013) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3800453/

A novel fluorophosphonate inhibitor of the biosynthesis of the endocannabinoid 2-arachidonoylglycerol with potential anti-obesity effects. (full – 2013) 
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3687659/

Localization of the cannabinoid CB1 receptor and the 2-AG synthesizing (DAGLα) and degrading (MAGL, FAAH) enzymes in cells expressing the Ca(2+)-binding proteins calbindin, calretinin, and parvalbumin in the adult rat hippocampus. (full – 2014) 

Genetic Disruption of 2-Arachidonoylglycerol Synthesis Reveals a Key Role for Endocannabinoid Signaling in Anxiety Modulation. (full – 2014) 
http://www.cell.com/cell-reports/fulltext/S2211-1247(14)00955-3

Localization of diacylglycerol lipase alpha and monoacylglycerol lipase during postnatal development of the rat retina. (full – 2014) 

Diacylglycerol lipase regulates lifespan and oxidative stress response by inversely modulating TOR signaling in Drosophila and C. elegans. (full – 2014) 

Identification of Small Molecules That Selectively Inhibit Diacylglycerol Lipase–α Activity (full – 2014) 
http://jbx.sagepub.com/content/19/4/595.full.pdf+html

Diacylglycerol lipase regulates lifespan and oxidative stress response by inversely modulating TOR signaling in Drosophila and C. elegans (full – 2014) 

Endocannabinoid Regulation in Human Endometrium Across the Menstrual Cycle. (full – 2014) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4527420/

Chemical approaches to therapeutically target the metabolism and signaling of the endocannabinoid 2-AG and eicosanoids (full – 2014) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4159426/


The initiation of synaptic 2-AG mobilization requires both an increased supply of diacylglycerol precursor and increased postsynaptic calcium. (full – 2014) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4312705/

Programming and reprogramming neural cells by (endo-) cannabinoids: from physiological rules to emerging therapies (full – 2014) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4765324/

Inhibition of diacylglycerol lipase (DAGL) in the lateral hypothalamus of rats prevents the increase in REMS and food ingestion induced by PAR1 stimulation. (abst – 2014) http://www.sciencedirect.com/science/article/pii/S0304394014005229


Piperazine and piperidine carboxamides and carbamates as inhibitors of fatty acid amide hydrolase (FAAH) and monoacylglycerol lipase ( MAGL). (abst – 2014) http://www.sciencedirect.com/science/article/pii/S0968089614006488


Diacylglycerol lipase α knockout mice demonstrate metabolic and behavioral phenotypes similar to those of cannabinoid receptor 1 knockout mice (full – 2015) http://journal.frontiersin.org/article/10.3389/fendo.2015.00086/full

Homeostatic regulation of brain functions by endocannabinoid signaling (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4468750/


CB1 cannabinoid receptor enrichment in the ependymal region of the adult human spinal cord. (full – 2015) http://www.nature.com/articles/srep17745

Cannabinoid-Induced Chemotaxis in Bovine Corneal Epithelial Cells. (full – 2015) http://iovs.arvojournals.org/article.aspx?articleid=2297919&resultClick=1


Postnatal ethanol exposure alters levels of 2-arachidonylglycerol-metabolizing enzymes and pharmacological inhibition of monoacylglycerol (MAGL) does not cause neurodegeneration in neonatal mice. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4490952/


Modulation of sweet taste sensitivities by endogenous leptin and endocannabinoids in mice. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4461413/


Anxiety, Stress, and Fear Response in Mice with Reduced Endocannabinoid Levels. (link through Elsevier to get full - 2015) http://www.ncbi.nlm.nih.gov/pubmed/25981172


Blockade of Cannabinoid 1 Receptor Improves GLP-1R Mediated Insulin Secretion in Mice  (abst – 2015)  http://www.sciencedirect.com/science/article/pii/S0303720715301714

Myeloid-Specific Deletion of Diacylglycerol Lipase α Inhibits Atherogenesis in ApoE-Deficient Mice.  (full – 2016)  http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0146267

GABA and Endocannabinoids Mediate Depotentiation of Schaffer Collateral Synapses Induced by Stimulation of Temperoammonic Inputs.  (full – 2016)  http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0149034


Rescue of Impaired mGluR5-Driven Endocannabinoid Signaling Restores Prefrontal Cortical Output to Inhibit Pain in Arthritic Rats.  (full – 2016)  https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4719019/

A novel live cell assay to measure diacylglycerol lipase α activity.  (full – 2016)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4859088/

Long-Term Effects of Prenatal Exposure to Undernutrition on Cannabinoid Receptor-Related Behaviors: Sex and Tissue-Specific Alterations in the mRNA Expression of Cannabinoid Receptors and Lipid Metabolic Regulators.  (full – 2016)

The endocannabinoid system in the human granulosa cell line KGN.  (abst – 2016)

Dysregulated peripheral endocannabinoid system signaling is associated with cognitive deficits in first-episode psychosis.  (abst – 2016)

Protein purification and cloning of diacylglycerol lipase from rat brain.  (abst – 2016)

Cocaine-induced behavioral sensitization decreases the expression of endocannabinoid signaling-related proteins in the mouse hippocampus.  (abst – 2016)

Effects of the antipsychotic paliperidone on stress-induced changes in the endocannabinoid system in rat prefrontal cortex.  (abst – 2016)

Fabp-1 gene ablation impacts brain endocannabinoid system in male mice.  (abst – 2016)

Assay of DAGLα/β Activity.  (abst – 2016)

Evolution of the diacylglycerol lipases.  (abst – 2016)

Sex differences in alcohol consumption and alterations in nucleus accumbens endocannabinoid mRNA in alcohol-dependent rats.  (abst – 2016)

Regulated endosomal trafficking of Diacylglycerol lipase alpha (DAGLα) generates distinct cellular pools; implications for endocannabinoid signaling.  (abst – 2016)

Important role of endocannabinoid signaling in the development of functional vision and locomotion in zebrafish.  (abst – 2016)

Evolution of the diacylglycerol lipases.  (abst – 2016)
Therapeutic potential of fatty acid amide hydrolase, monoacylglycerol lipase, and N-acylethanolamine acid amidase inhibitors. (abst – 2016)  
http://pubs.acs.org/doi/abs/10.1021/acs.jmedchem.6b00538

Oxyradical Stress Increases the Biosynthesis of 2-Arachidonoylglycerol: Involvement of NADPH Oxidase. (abst – 2016)  

Triazole Ureas Act as Diacylglycerol Lipase Inhibitors and Prevent Fasting-Induced Refeeding. (abst – 2016)  
http://pubs.acs.org/doi/abs/10.1021/acs.jmedchem.6b01482

Identification of an endocannabinoid system in the rat pars tuberalis-a possible interface in the hypothalamic-pituitary-adrenal system? (abst – 2016)  

Chemical Proteomics Maps Brain Region Specific Activity of Endocannabinoid Hydrolases. (abst – 2017)  

ENDOCANNABINOIDs +*– also see ANANDAMIDE, 2-AG, NADA, NAGly, OEA, PEA, VIRODHAMINE

Quantification of brain endocannabinoid levels: methods, interpretations and pitfalls (full – 2010)  

R-Flurbiprofen Reduces Neuropathic Pain in Rodents by Restoring Endogenous Cannabinoids (full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2869361/

Endocannabinoids Are Expressed in Bone Marrow Stromal Niches and Play a Role in Interactions of Hematopoietic Stem and Progenitor Cells with the Bone Marrow Microenvironment (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2975171/?tool=pubmed

Regulation of the Hypothalamic-Pituitary-Adrenal Axis Circadian Rhythm by Endocannabinoids Is Sexually Diergic (full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2964781/?tool=pmcentrez

Loss of retrograde endocannabinoid signaling and reduced adult neurogenesis in diacylglycerol lipase knock-out mice. (full – 2010)  
http://www.jneurosci.org/content/30/6/2017.long

Enhancement of endocannabinoid signaling by fatty acid amide hydrolase inhibition: a neuroprotective therapeutic modality. (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2848893/?tool=pubmed

Endocannabinoids Prevent β-Amyloid-mediated Lysosomal Destabilization in Cultured Neurons (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2992287/
Endocannabinoid control of gastric sensorimotor function in man.  (full - 2010)

Endocannabinoids selectively enhance sweet taste.  (full – 2010)
http://www.pnas.org/content/107/2/935.long

Endocannabinoids: Going retro with DAGLα  (article – 2010)

Effect of dietary fat on endocannabinoids and related mediators: consequences on energy homeostasis, inflammation and mood.  (abst - 2010)

The endocannabinoid system and migraine.  (abst – 2010)

Non-CB1, non-CB2 receptors for endocannabinoids, plant cannabinoids, and synthetic cannabimimetics: focus on G-protein-coupled receptors and transient receptor potential channels.  (abst – 2010)
http://www.unboundmedicine.com/medline/ebm/record/19847654/abstract/Non_CB1_non_CB2_receptors_for_endocannabinoids_plant_cannabinoids_and_synthetic_cannabimimetics_focus_on_G_protein_coupled_receptors_and_transient_receptor_potential_channels

Role of cannabinoids in the treatment of pain and (painful) spasticity.  (abst – 2010)

Cannabinoids and the immune system: an overview.  (abst – 2010)


Role of the endocannabinoid system in alcoholic liver disease.  (abst – 2010)

Dopamine modulation of excitatory currents in the striatum is dictated by the expression of D1 or D2 receptors and modified by endocannabinoids.  (abst – 2010)

Supply and demand for endocannabinoids.  (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3106144/

Gut feelings about the endocannabinoid system  (full – 2011)

Dual inhibition of alpha/beta hydrolase domain 6 and fatty acid amide hydrolase increases endocannabinoid levels in neurons.  (full – 2011)
http://www.jbc.org/content/286/33/28723.full


Altered endocannabinoid signalling after a high-fat diet in Apoe(-/-) mice: relevance to adipose tissue inflammation, hepatic steatosis and insulin resistance. (full – 2011) http://link.springer.com/article/10.1007/s00125-011-2274-6/fulltext.html


Is lipid signaling through cannabinoid 2 receptors part of a protective system? (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3062638/


Modulation of the novel cannabinoid receptor - GPR55 - during rat fetoplacental development (full – 2011) http://www.placentajournal.org/article/S0143-4004%2811%2900110-X/fulltext


Endocannabinoids in nervous system health and disease: the big picture in a nutshell  
(full – 2012)  http://rstb.royalsocietypublishing.org/content/367/1607/3193.long

Over-Expression of Monoacylglycerol Lipase (MGL) in Small Intestine Alters Endocannabinoid Levels and Whole Body Energy Balance, Resulting in Obesity.  
(full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3429419/

Type 2 Diabetes Associated Changes in the Plasma Non-Esterified Fatty Acids, Oxylipins and Endocannabinoids  

Endocannabinoids and the processing of value-related signals.  
(full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3270484/?tool=pubmed

Functional diversity on synaptic plasticity mediated by endocannabinoids  
(full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3481528/

Endocannabinoids Stimulate Human Melanogenesis via Type-1 Cannabinoid Receptor  
(full – 2012)  http://www.jbc.org/content/early/2012/03/19/jbc.M111.314880.full.pdf+html

Pathological plasticity in fragile X syndrome.  

Serum contents of endocannabinoids are correlated with blood pressure in depressed women.  

Fish oil and inflammatory status alter the n-3 to n-6 balance of the endocannabinoid and oxylipin metabolomes in mouse plasma and tissues  
(full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3483099/

Targeting the endocannabinoid system with cannabinoid receptor agonists: pharmacological strategies and therapeutic possibilities  

Evidence for Bidirectional Endocannabinoid Transport across Cell Membranes  
(full – 2012)  http://www.jbc.org/content/287/41/34660.full

The Novel Reversible Fatty Acid Amide Hydrolase Inhibitor ST4070 Increases Endocannabinoid Brain Levels and Counteracts Neuropathic Pain in Different Animal Models  
(full – 2012)  http://jpet.aspetjournals.org/content/342/1/188.full.pdf+html

Review article: Why do cannabinoid receptors have more than one endogenous ligand?  
(full - 2012)  http://rstb.royalsocietypublishing.org/content/367/1607/3216.full?sid=1569c370-cd5c-4358-89ff-857201f5e069

The evolution and comparative neurobiology of endocannabinoid signaling (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3481536/

Endocannabinoids via CB₁ receptors act as neurogenic niche cues during cortical development. (full – 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3229.long

Temporal changes in N-acylethanolamine content and metabolism throughout the peri-adolescent period (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3510355/

Alterations in endocannabinoid tone following chemotherapy-induced peripheral neuropathy: effects of endocannabinoid deactivation inhibitors targeting fatty-acid amide hydrolase and monoacylglycerol lipase in comparison to reference analgesics following cisplatin treatment. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3525790/


The role of endocannabinoids in gonadal function and fertility along the evolutionary axis. (full – 2012) http://www.sciencedirect.com/science/article/pii/S0303720712000445

Endocannabinoids limit excessive mast cell maturation and activation in human skin. (full – 2012) http://www.jacionline.org/article/S0091-6749%2811%2901796-9/fulltext

Receptor-dependent and Receptor-independent Endocannabinoid Signaling: A Therapeutic Target for Regulation of Cancer Growth. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4226396/


Photoperiodic Changes in Endocannabinoid Levels and Energetic Responses to Altered Signalling at CB1 Receptors in Siberian Hamsters (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4060156/


Inhibitors of the Endocannabinoid-Degrading Enzymes, or how to Increase Endocannabinoid's Activity by Preventing their Hydrolysis. (abst – 2012) http://www.ncbi.nlm.nih.gov/pubmed/22280341


Electroacupuncture reduces the expression of proinflammatory cytokines in inflamed skin tissues through activation of cannabinoid CB2 receptors. (abst – 2012) http://www.ncbi.nlm.nih.gov/pubmed/22337285


Opposing local effects of endocannabinoids on the activity of noradrenergic neurons and release of noradrenaline: relevance for their role in depression and in the actions of CB(1) receptor antagonists. (abst – 2012) http://www.ncbi.nlm.nih.gov/pubmed/22990678


Optimized synthesis and characterization of N-acylethanolamines and O-acylithanolamines, important family of lipid-signalling molecules. (abst – 2012)

Dietary Linoleic Acid Elevates the Endocannabinoids 2-AG and Anandamide and Promotes Weight Gain in Mice Fed a Low Fat Diet (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3889814/

Relationships between dietary macronutrients and adult neurogenesis in the regulation of energy metabolism. (full - 2013)
http://journals.cambridge.org/action/displayFulltext?type=6&fid=8904779&jid=BJN&volumeld=109&issueld=09&aid=8904778&bodyId=&membershipNumber=&soocietyETOCSession=&fulltextType=RV&fileld=S000711451200579X

Role of endocannabinoids and cannabinoid-1 receptors in cerebrocortical blood flow regulation. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3537620/

A biophysical model of endocannabinoid-mediated short term depression in hippocampal inhibition. (full – 2013)
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0058926

Epigenetic mechanisms and endocannabinoid signaling (full – 2013)

Signaling Pathways Involved in Striatal Synaptic Plasticity are Sensitive to Temporal Pattern and Exhibit Spatial Specificity. (full – 2013)
http://www.ploscompbiol.org/article/info%3Adoi%2F10.1371%2Fjournal.pcbi.1002953

Metabolisms of endocannabinoids and related N-acylenolammines: Canonical and alternate pathways (full – 2013)

Surfing the (endo)cannabinoids wave. (full – 2013)

Plasma concentrations of endocannabinoids and related primary Fatty Acid amides in patients with post-traumatic stress disorder. (full – 2013)
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0062741

Differential modulation of nociceptive versus non-nociceptive synapses by endocannabinoids. (full – 2013)

Role of endogenous cannabinoid system in the gut. (full - 2013)

Nutritional properties of dietary omega-3-enriched phospholipids. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3747496/
The Endocannabinoid System and Sex Steroid Hormone-Dependent Cancers (full – 2013)  [http://www.hindawi.com/journals/ije/2013/259676/]

Brain Levels of Prostaglandins, Endocannabinoids, and Related Lipids Are Affected by Mating Strategies (full – 2013)  [http://www.hindawi.com/journals/ije/2013/436252/]

Of mice and (wo)men: factors influencing successful implantation including endocannabinoids. (full – 2013)  [http://humupd.oxfordjournals.org/content/20/3/415.long]


The cannabinoid receptor type 2 as mediator of mesenchymal stromal cell immunosuppressive properties. (full – 2013)  [http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0080022]

Fatty acid amide hydrolase deficiency enhances intraplaque neutrophil recruitment in atherosclerotic mice. (full – 2013)  [http://atvb.ahajournals.org/content/33/2/215.long]

Substrate-selective COX-2 inhibition decreases anxiety via endocannabinoid activation. (full – 2013)  [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3788575/]

Cannabinoids, Neurogenesis and Antidepressant Drugs: Is there a Link? (full – 2013)  [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3648779/]

Synaptic Zn2+ Inhibits Neurotransmitter Release by Promoting Endocannabinoid Synthesis. (full – 2013)  [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3733213/]

Inhibition of FAAH and activation of PPAR: New approaches to the treatment of cognitive dysfunction and drug addiction. (full – 2013)  [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3662489/]

Endocannabinoid signaling in the gut mediates preference for dietary unsaturated fats. (full – 2013)  [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3659363/]

Chemical probes of endocannabinoid metabolism. (full – 2013)  [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3639726/]

Marijuana, endocannabinoids, and epilepsy: Potential and challenges for improved therapeutic intervention. (full - 2013)  [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3332149/]

Improvement in coronary circulatory function in morbidly obese individuals after gastric bypass-induced weight loss: relation to alterations in endocannabinoids and adipocytokines (full – 2013)  [http://eurheartj.oxfordjournals.org/content/34/27/2063.long]
Insulin induces long-term depression of VTA dopamine neurons via endocannabinoids (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4072656/


N-Palmitoylethanolamine depot injection increased its tissue levels and those of other acylethanolamide lipids (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3746786/

Low frequency stimulation evokes serotonin release in the nucleus accumbens and induces long-term depression via production of endocannabinoid. (full – 2013) http://jn.physiology.org/content/111/5/1046.long

Osteoarthritis pain mechanisms: basic studies in animal models. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3771690/

Effects of Acute Stress on Cardiac Endocannabinoids, Lipogenesis, and Inflammation in Rats. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3988664/

PUFA-derived endocannabinoids: an overview. (full – 2013) http://journals.cambridge.org/download.php?file=%2FPNS%2FPNS72_04%2FS002966511303418a.pdf&code=405a8238eae28021a52396b9f4b0cce

Targeting the cannabinoid system for pain relief? (full – 2013) http://www.e-aat.com/article/S1875-4597%2813%2900119-7/fulltext

Reductions in circulating endocannabinoid levels in individuals with post-traumatic stress disorder following exposure to the world trade center attacks. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3870889/


Elevating endocannabinoid levels: pharmacological strategies and potential therapeutic applications. (full – 2013) http://journals.cambridge.org/download.php?file=%2FPNS%2FPNS73_01%2FS002966511303649a.pdf&code=d82b0cf1bec110199f1f376d4b1ef35


Cannabinoid receptor modulation of the endothelial cell inflammatory response (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2791499/

Endocannabinoid and cannabinoid-like fatty acid amide levels correlate with pain-related symptoms in patients with IBS-D and IBS-C: a pilot study. (full – 2013)
Control of experimental spasticity by targeting the degradation of endocannabinoids using selective fatty acid amide hydrolase inhibitors.  (full – 2013)
http://journals.sagepub.com/doi/full/10.1177/1352458513485982

GPR55 and its interaction with membrane lipids: comparison with other endocannabinoid-binding receptors.  (link to PDF - 2013)
http://www.eurekaselect.com/105678/article

N-Palmitoylethanolamine depot injection increased its tissue levels and those of other acylethanolamide lipids  (link to PDF- 2013)
http://www.dovepress.com/articles.php?article_id=14008

Biosynthetic Pathways of Bioactive N-Acylethanolamines in Brain (link to PDF – 2013) http://www.eurekaselect.com/107971/article

Critical appraisal of the potential use of cannabinoids in cancer management.  (link to PDF – 2013)

Endocannabinoid signaling in cancer: a rather complex puzzle  (letter- 2013)


Inhibition of endocannabinoid degradation in experimental endotoxemia reduces leukocyte adhesion and improves capillary perfusion in the gut.  (abst – 2013)


Measurement of Palmitoylethanolamide and Other N-acylethanolamines During Physiological and Pathological Conditions.  (abst – 2013)
http://www.ncbi.nlm.nih.gov/pubmed/23394528

Biaryl tetrazolyl ureas as inhibitors of endocannabinoid metabolism: Modulation at the N-portion and distal phenyl ring.  (abst – 2013)


Detection of the endocannabinoid metabolome in human plasma and breast milk (abst – 2013) http://www.fasebj.org/content/27/1_Supplement/45.8.short

In search of endocannabinoid degradation enzymes inhibitors in nutmeg (abst – 2013) http://www.fasebj.org/cgi/content/meeting_abstract/27/1_MeetingAbstracts/1097.5?sid=eea722c0-971c-4dab-88b8-38c063c19ad


Endocannabinoid Modulation of Cortical Up-States and NREM Sleep (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3919802/

Antidepressants and Changes in Concentration of Endocannabinoids and N-Acylethanolamines in Rat Brain Structures. (full – 2014) http://download.springer.com/static/pdf/559/art%253A10.1007%252Fs12640-014-9465-0.pdf?auth66=1395868546_998a8d5d87cb02529572689f9213e4a&ext=.pdf
Hepatic cannabinoid-1 receptors mediate diet-induced insulin resistance by increasing de novo synthesis of long-chain ceramides. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3839256/

Quantification of anandamide and 2-arachidonoylglycerol plasma levels to examine potential influences of tetrahydrocannabinol application on the endocannabinoid system in humans (full – 2014) http://onlinelibrary.wiley.com/doi/10.1002/dta.1561/full


Critical issues in the analysis of endocannabinoids and related compounds in plasma: artifactual isomerization and ex-vivo enzymatic generation of 2-monoacylglycerols. (full – 2014) http://www.jlr.org/content/early/2014/03/07/jlr.D043794.long


Prolonged monoacylglycerol lipase blockade causes equivalent CB1-receptor mediated adaptations in FAAH wild type and knockout mice. (full – 2014) http://jpet.aspetjournals.org/content/early/2014/05/21/jpet.114.212753.long

A diet containing a nonfat dry milk matrix significantly alters systemic oxylipins and the endocannabinoid 2-arachidonoylglycerol (2-AG) in diet-induced obese mice. (full – 2014) http://www.nutritionandmetabolism.com/content/11/1/24


A restricted population of CB1 cannabinoid receptors with neuroprotective activity.
Moderate-Vigorous Physical Activity across Body Mass Index in Females: Moderating Effect of Endocannabinoids and Temperament. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4125187/

Endocannabinoid-dependent modulation of phasic dopamine signaling encodes external and internal reward-predictive cues. (full – 2014)

Endocannabinoids Control Platelet Activation and Limit Aggregate Formation under Flow. (full – 2014)
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0108282

Input- and Cell-Type-Specific Endocannabinoid-Dependent LTD in the Striatum. (full – 2014)
http://www.cell.com/cell-reports/fulltext/S2211-1247%2814%2901016-X

Characterization of endocannabinoid-mediated induction of myeloid-derived suppressor cells involving mast cells and MCP-1. (full – 2014)
http://www.jleukbio.org/content/95/4/609.long

Impaired Fear Memory Specificity Associated with Deficient Endocannabinoid-Dependent Long-Term Plasticity. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4023141/

http://www.nature.com/npp/journal/v40/n2/full/npp2014198a.html

Translational evidence for a role of endocannabinoids in the etiology and treatment of posttraumatic stress disorder. (full – 2014)
http://www.psyneuen-journal.com/article/S0306-4530%2814%2900396-5/fulltext

Palmitoylethanolamide, a naturally-occurring lipid, is an orally effective intestinal anti-inflammatory agent. (full – 2014)

Seizing an opportunity for the endocannabinoid system. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4189640/

The endocannabinoid anandamide induces apoptosis in cytotrophoblast cells: Involvement of both mitochondrial and death receptor pathways. (full – 2014)
http://www.placentajournal.org/article/S0143-4004%2814%2900823-6/fulltext

Control of Inhibition by the Direct Action of Cannabinoids on GABAA Receptors. (full – 2014)
http://cercor.oxfordjournals.org/content/early/2014/03/18/cercor.bhu045.long

A lipid gate for the peripheral control of pain. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4228127/


Changes in CB1 and CB2 receptors in the post-mortem cerebellum of humans affected by spinocerebellar ataxias. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3954486/


Modulation of plasma N-acylethanolamine levels and physiological parameters by dietary fatty acid composition in humans. (full – 2014) http://www.jlr.org/content/55/12/2655.long

Astrocytes in endocannabinoid signalling. (full – 2014) http://rstb.royalsocietypublishing.org/content/369/1654/20130599


Homer Protein-Metabotropic Glutamate Receptor Binding Regulates Endocannabinoid Signaling and Affects Hyperexcitability in a Mouse Model of Fragile X Syndrome. (full – 2015) http://www.jneurosci.org/content/35/9/3938.long


Endocannabinoid modulation by FAAH and MAGL within the analgesic circuitry of the periaqueductal grey. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4294036/

Developmental Increase in Hippocampal Endocannabinoid Mobilization: Role of Metabotropic Glutamate Receptor Subtype 5 and Phospholipase C (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4233278/

Interaction between the Cholecystokinin and Endogenous Cannabinoid Systems in Cued Fear Expression and Extinction Retention. (full – 2014)  
http://www.nature.com/npp/journal/v40/n3/full/npp2014225a.html

Cannabinoids in experimental stroke: a systematic review and meta-analysis. (full – 2014) http://jcb.sagepub.com/content/35/3/348.long

Sterol Carrier Protein-2: Binding Protein for Endocannabinoids. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4450258/

Chemical approaches to therapeutically target the metabolism and signaling of the endocannabinoid 2-AG and eicosanoids (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4159426/

Programming of neural cells by (endo)cannabinoids: from physiological rules to emerging therapies. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4765324/

Endocannabinoids in Synaptic Plasticity and Neuroprotection. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4143501/

Metabolomics uncovers dietary omega-3 fatty acid-derived metabolites implicated in anti-nociceptive responses after experimental spinal cord injury (full – 2014)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3844071/

Substrate-selective COX-2 inhibition as a novel strategy for therapeutic endocannabinoid augmentation (full – 2014)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4074568/

Endocannabinoids, Related Compounds and Their Metabolic Routes (link to PDF – 2014)  
http://www.mdpi.com/1420-3049/19/11/17078

Cannabinoid Receptor Type 1 Antagonist, AM251, Attenuates Mechanical Allodynia and Thermal Hyperalgesia after Burn Injury (link to PDF – 2014)  
http://anesthesiology.pubs.asahq.org/article.aspx?articleid=1936541&resultClick=3

Endocannabinoids and neuropathic pain: focus on neuron-glia and endocannabinoid-neurotrophin interactions. (abst – 2014)  

Neurotrophins, endocannabinoids and thermo-transient receptor potential: a threesome in pain signalling. (abst – 2014)  


Low anandamide doses facilitate male rat sexual behaviour through the activation of CB1 receptors. (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/24671517


Potential therapeutic applications of cannabinoids in gastrointestinal and liver diseases: Focus on Δ9-tetrahydrocannabinol pharmacology. (abst – 2014)

Cannabinoids, endocannabinoids and stress. (abst – 2014)

Cannabinoid-mediated short-term plasticity in hippocampus. (abst – 2014)

Differential regulation of NMDAR and NMDAR-mediated metaplasticity by anandamide and 2-AG in the hippocampus. (abst – 2014)

Gastric bypass in morbid obese patients is associated with reduction in adipose tissue inflammation via N-oleoylethanolamide (OEA)-mediated pathways. (abst – 2014)

Truffles contain endocannabinoid metabolic enzymes and anandamide. (abst – 2014)

"Disease Modifying Nutricals" for multiple sclerosis. (abst – 2014)

Endocannabinoid Metabolism by Cytochrome P450 Monooxygenases. (abst – 2014)

Neuroinflammation as a possible link between cannabinoids and addiction. (abst – 2014)

The learning of fear extinction. (abst – 2014)

Endocannabinoid Modulation of Synaptic Inputs to Magnocellular Neurons (abst - 2014)

Clinical endocannabinoid deficiency (CECD) revisited: can this concept explain the therapeutic benefits of cannabis in migraine, fibromyalgia, irritable bowel syndrome and other treatment-resistant conditions? (abst – 2014)

Endocannabinoids and their oxygenation by cyclo-oxygenases, lipoxygenases and other oxygenases. (abst - 2014)

The role of gut hormones in appetite regulation (review). (abst – 2014)


Negative Regulation of Leptin-induced ROS Formation by CB1 Receptor Activation in Hypothalamic Neurons. (full – 2015) http://www.jbc.org/content/early/2015/04/13/jbc.M115.646885.full.pdf+html

Role for Endogenous BDNF in Endocannabinoid-Mediated Long-Term Depression at Neocortical Inhibitory Synapses (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4415885/

Effects of mood inductions by meal ambiance and moderate alcohol consumption on endocannabinoids and N-acylthanolamines in humans: a randomized crossover trial. (full – 2015) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0126421


Deranged endocannabinoid responses to hedonic eating in underweight and recently weight-restored patients with anorexia nervosa. (full – 2015) http://ajcn.nutrition.org/content/101/2/262.long

Defects in fatty acid amide hydrolase 2 in a male with neurologic and psychiatric symptoms. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4423390/


Role of the endocannabinoid system in obesity induced by neuropeptide Y overexpression in noradrenergic neurons. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4423197/


New horizons for newborn brain protection: enhancing endogenous neuroprotection. (full – 2015) http://fn.bmj.com/content/early/2015/06/10/archdischild-2014-306284.long


Multiple Forms of Endocannabinoid and Endovanilloid Signaling Regulate the Tonic Control of GABA Release (full – 2015) http://www.jneurosci.org/content/35/27/10039.full?sid=7e769d1b-9b77-42fe-92d0-8b337b34b9b6

Inhibition of FAAH confers increased stem cell migration via PPARα. (full - 2015) http://www.jlr.org/content/early/2015/08/11/jlr.M061473.long


Endogenous vs Exogenous Allosteric Modulators in GPCRs: A dispute for shuttling CB1 among different membrane microenvironments. (full – 2015) http://www.nature.com/articles/srep15453

Coordinated Regulation of Synaptic Plasticity at Striatopallidal and Striatonigral Neurons Orchestrates Motor Control (full – 2015) http://www.cell.com/cell-reports/fulltext/S2211-1247%2815%2901163-8

Lipid mediator profile in vernix caseosa reflects skin barrier development (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4629127/

Ventral tegmental area dopamine and GABA neurons: Physiological properties and expression of mRNA for endocannabinoid biosynthetic elements. (full – 2015) http://www.nature.com/articles/srep16176

What do we understand from clinical and mechanistic studies on acupuncture treatment for hypertension? (full – 2015) http://www.cmjournal.org/content/10/1/36

Endocannabinoids are conserved inhibitors of the Hedgehog pathway. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4371992/


Anti-inflammatory effects of N-acylethanolamines in rheumatoid arthritis synovial cells are mediated by TRPV1 and TRPA1 in a COX-2 dependent manner. (full – 2015) http://www.arthritis-research.com/content/17/1/321

Proapoptotic effect of endocannabinoids in prostate cancer cells. (full – 2015)
http://www.spandidos-publications.com/or/33/4/1599

http://www.mdpi.com/1660-4601/13/1/5/htm

Interactions between ethanol and the endocannabinoid system at GABAergic synapses on basolateral amygdala principal neurons. (full – 2015)
http://www.alcoholjournal.org/article/S0741-8329%2815%2930019-7/fulltext

Intestinal lipid-derived signals that sense dietary fat. (full – 2015)
http://www.jci.org/articles/view/76302/pdf

http://www.nature.com/npp/journal/v41/n2/full/npp2015173a.html

Chronic Stress Induces Anxiety via an Amygdalar Intracellular Cascade that Impairs Endocannabinoid Signaling. (full – 2015)
http://www.cell.com/neuron/fulltext/S0896-6273(15)00130-0

Cannabinoid-dopamine interactions in the physiology and physiopathology of the basal ganglia. (full – 2015)

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4933289/

Endocannabinoid and nitric oxide interaction mediates food intake in neonatal chicken. (full – 2015)
http://www.tandfonline.com/doi/full/10.1080/00071668.2015.1059407

Endocannabinoid Signaling in Autism. (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4604173/

The role of cannabinoids in adult neurogenesis. (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4543605/

Ultrastructural evidence for synaptic contacts between cortical noradrenergic afferents and endocannabinoid-synthesizing post-synaptic neurons. (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4542008/

Habenular CB1 Receptors Control the Expression of Aversive Memories (full – 2015)
http://www.cell.com/neuron/fulltext/S0896-6273(15)00729-1

β-Neurexins Control Neural Circuits by Regulating Synaptic Endocannabinoid Signaling (full – 2015)
http://www.cell.com/cell/fulltext/S0092-8674(15)00826-0
Diet-induced changes in n-3 and n-6 derived endocannabinoids and reductions in headache pain and psychological distress. (full – 2015) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4522350/


Active endocannabinoids are secreted on extracellular membrane vesicles. (abst – 2015) http://embor.embopress.org/content/early/2015/01/07/embr.201439668


Simultaneous determination of endocannabinoids in murine plasma and brain substructures by surrogate-based LC-MS/MS: Application in tumor-bearing mice.  

The role of cannabinoids and leptin in neurological diseases.  

Weeding out bad waves: towards selective cannabinoid circuit control in epilepsy.  

Differential upregulation of the cannabinoid CB2 receptor in neurotoxic and inflammation-driven rat models of Parkinson's disease.  

Endocannabinoid Levels in Newborns in Relation to the Mode of Delivery.  

Chronic ethanol exposure decreases CB1 receptor function at GABAergic synapses in the rat central amygdala.  

Cannabidiol effects in the prepulse inhibition disruption induced by amphetamine.  

Lipopolysaccharide-induced murine embryonic resorption involves changes in endocannabinoid profiling and alters progesterone secretion and inflammatory response by a CB1-mediated fashion.  

Anxiety, Stress, and Fear Response in Mice with Reduced Endocannabinoid Levels.  

Layer-specific endocannabinoid-mediated LTD of GABAergic neurotransmission onto principal neurons in mouse visual cortex.  

Endocannabinoids drive the acquisition of an alternative phenotype in microglia.  

Stress-related synaptic plasticity in the hypothalamus  

Comparative effects of parathion and chlorpyrifos on endocannabinoid and endocannabinoid-like lipid metabolites in rat striatum.  

Physiological roles for the subfornical organ - A dynamic transcriptome shaped by autonomic state.  
Rhythmic control of endocannabinoids in the rat pineal gland. (abst – 2015)

Fatty acids, endocannabinoids and inflammation. (abst – 2015)

Endocannabinoid regulation of amyloid-induced neuroinflammation. (abst – 2015)

Biosynthesis and Fate of Endocannabinoids. (abst – 2015)
http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_2

http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_2

Endocannabinoids in Multiple Sclerosis and Amyotrophic Lateral Sclerosis. (abst – 2015)
http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_7

Endocannabinoids and Neurodegenerative Disorders: Parkinson's Disease, Huntington's Chorea, Alzheimer's Disease, and Others. (abst – 2015)
http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_8

Endocannabinoids and Mental Disorders. (abst – 2015)
http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_8

Cannabis and Endocannabinoid Signaling in Epilepsy. (abst – 2015)
http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_10

Endocannabinoids and Metabolic Disorders. (abst – 2015)
http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_10

Endocannabinoids and the Cardiovascular System in Health and Disease. (abst – 2015)

Endocannabinoids and the Digestive Tract and Bladder in Health and Disease. (abst – 2015)
http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_14


Excitatory drive from the subthalamic nucleus attenuates GABAergic transmission in the Substantia Nigra pars compacta via endocannabinoids. (abst – 2015)


Endocannabinoid signaling integrates multiple stress hormone effects on memory (abst – 2015) http://www.psyneuen-journal.com/article/S0306-4530%2815%2900634-4/abstract


Endocannabinoid regulation in white and brown adipose tissue following thermogenic activation (full – 2016) http://www.jlr.org/content/early/2016/01/14/jlr.M065227.full.pdf+html?sid=da020ee7-4e2e-40b6-a400-27301739341e


Myeloid-Specific Deletion of Diacylglycerol Lipase α Inhibits Atherogenesis in ApoE-Deficient Mice. (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0146267


Circulating Endocannabinoids and Insulin Resistance in Patients with Obstructive Sleep Apnea (full – 2016) http://www.hindawi.com/journals/bmri/2016/9782031/


Functional selectivity of CB2 cannabinoid receptor ligands at a canonical and non-canonical pathway. (full – 2016) http://jpet.aspetjournals.org/content/early/2016/05/18/jpet.116.232561.long

Neuronal and Astrocytic Monoacylglycerol Lipase Limit the Spread of Endocannabinoid Signaling in the Cerebellum. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4865651/
Prostaglandin E2 that triggers fever is synthesized through an endocannabinoid-dependent pathway (full – 2016) http://www.tandfonline.com/doi/full/10.1080/23328940.2015.1130520


Lipid Discovery by Combinatorial Screening and Untargeted LC-MS/MS. (full – 2016) http://www.nature.com/articles/srep27920


Endocannabinoid control of glutamate NMDA receptors: the therapeutic potential and consequences of dysfunction. (full – 2016) http://www.impactjournals.com/oncotarget/index.php?journal=oncotarget&page=article&op=view&path%5B%5D=10095&path%5B%5D=31745

The involvement of TRPV1 in emesis and anti-emesis. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4843889/


Endocannabinoids and Heterogeneity of Glial Cells in Brain Function (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4932105/


Target-specific modulation of the descending prefrontal cortex inputs to the dorsal raphe nucleus by cannabinoids. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4868450/


Early Low Fat Diet Enriched with Linolenic Acid Reduces Liver Endocannabinoid Tone and Improves Late Glycemic Control After a High Fat Diet Challenge in Mice.


Involvement of M1 and CB1 receptors in the anxiogenic-like effects induced by neostigmine injected into the rat prelimbic medial prefrontal cortex. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/26873081


Stress induces analgesia via orexin 1 receptor-initiated endocannabinoid/CB1 signaling in the mouse periaqueductal gray. (abst – 2016) http://www.sciencedirect.com/science/article/pii/S0028390816300545


CB1 cannabinoid receptor-mediated anandamide signalling reduces the defensive behaviour evoked through GABAA receptor blockade in the dorsomedial division of the ventromedial hypothalamus. (abst – 2016) http://www.sciencedirect.com/science/article/pii/S0028390816301393


Dietary conjugated linoleic acid supplementation alters the expression of genes involved in the endocannabinoid system in the bovine endometrium and increases plasma progesterone concentrations. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27262886


Fatty acid amide hydrolase (FAAH), acetylcholinesterase (AChE) and butyrylcholinesterase (BuChE): networked targets for the development of carbamates as potential anti Alzheimer's Disease agents. (abst – 2016) http://pubs.acs.org/doi/abs/10.1021/acs.jmedchem.6b00609


Circulating levels of endocannabinoids and oxylipins altered by dietary lipids in older women are likely associated with previously identified gene targets (abst – 2016) http://www.sciencedirect.com/science/article/pii/S1388198116302013


Docosahexaenoyl Serotonin, an endogenously formed n-3 fatty acid-serotonin conjugate has anti-inflammatory properties by attenuating IL-23–IL-17 signalling in macrophages (abst – 2016) http://www.sciencedirect.com/science/article/pii/S1388198116302499


Therapeutic potential of fatty acid amide hydrolase, monoacylglycerol lipase, and N-acyethanolamine acid amidase inhibitors. (abst – 2016)  http://pubs.acs.org/doi/abs/10.1021/acs.jmedchem.6b00538


Cannabinoid receptors and TRPA1 on neuroprotection in a model of retinal ischemia (abst – 2016)  http://www.sciencedirect.com/science/article/pii/S0014483516304791


Circulating levels of endocannabinoids respond acutely to voluntary exercise, are altered in mice selectively bred for high voluntary wheel running, and differ between the sexes. (abst – 2016)  https://www.ncbi.nlm.nih.gov/pubmed/28017680

Plasma endocannabinoid behaviour in total knee and hip arthroplasty.  

The Endocannabinoid System and Its Role in Eczematous Dermatoses.  

Compensatory Activation of Cannabinoid CB2 Receptor Inhibition of GABA Release in the Rostral Ventromedial Medulla in Inflammatory Pain.  

Endocannabinoid activation of CB1 receptors contributes to long-lasting reversal of neuropathic pain by repetitive spinal cord stimulation.  

**ENDOCANNABINOID SYSTEM**

Endocannabinoid Overload  
(full – 2010)  
http://molpharm.aspetjournals.org/content/78/6/993.full

Motion Sickness, Stress and the Endocannabinoid System  
(full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2873996/?tool=pmcentrez

The endocannabinoid system as a target for the treatment of neurodegenerative disease  
(full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931550/?tool=pubmed

Central and peripheral consequences of the chronic blockade of CB1 cannabinoid receptor with rimonabant or taranabant.  
(full – 2010)  

Enhancement of endocannabinoid signaling by fatty acid amide hydrolase inhibition: a neuroprotective therapeutic modality.  
(full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2848893/?tool=pubmed

Enhanced endocannabinoid signaling elevates neuronal excitability in fragile X syndrome.  
(full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2906112/

Architecture of cannabinoid signaling in mouse retina.  
(full – 2010)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2982216/

Endocannabinoids selectively enhance sweet taste  
(full - 2010)
The endocannabinoid system links gut microbiota to adipogenesis (full - 2010)

Polymorphisms in the endocannabinoid receptor 1 in relation to fat mass distribution (full – 2010)

Evidence for a Role of Endocannabinoids, Astrocytes and p38 Phosphorylation in the Resolution of Postoperative Pain (full - 2010)

The multiple functions of the endocannabinoid system: a focus on the regulation of food intake. (full - 2010)

Cannabinoid-induced apoptosis in immune cells as a pathway to immunosuppression. (full - 2010)

Dietary docosahexaenoic acid supplementation alters select physiological endocannabinoid-system metabolites in brain and plasma (full – 2010)

Functional role of cannabinoid receptors in urinary bladder (full - 2010)

International Union of Basic and Clinical Pharmacology. LXXIX. Cannabinoid receptors and their ligands: beyond CB1 and CB2 (full - 2010)

The serine hydrolase ABHD6 controls the accumulation and efficacy of 2-AG at cannabinoid receptors. (full – 2010)

Mice lacking cannabinoid CB1-, CB2-receptors or both receptors show increased susceptibility to trinitrobenzene sulfonic acid (TNBS)-induced colitis. (full – 2010)

The levels of the endocannabinoid receptor CB2 and its ligand 2-arachidonoylglycerol are elevated in endometrial carcinoma. (full – 2010)

Rehashing endocannabinoid antagonists: can we selectively target the periphery to safely treat obesity and type 2 diabetes? (full – 2010)
Recent advances in the understanding of the role of the endocannabinoid system in liver diseases. (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3033442/


Deficiency in Endocannabinoid Signaling in the Nucleus Accumbens Induced by Chronic Unpredictable Stress (full - 2010) http://www.nature.com/npp/journal/v35/n11/full/npp201099a.html

Characterization of tunable piperidine and piperazine carbamates as inhibitors of endocannabinoid hydrolases (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2828288/?report=classic


Upregulation of cannabinoid type 1 receptors in dopamine D2 receptor knockout mice is reversed by chronic forced ethanol consumption (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3004984/

The endocannabinoid system modulates the valence of the emotion associated to food ingestion (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3116974/


Can autism be triggered by acetaminophen activation of the endocannabinoid system?
Pharmacology and toxicology of Cannabis derivatives and endocannabinoid agonists.  
Endocannabinoids and psychiatric disorders: the road ahead  
Bimodal control of stimulated food intake by the endocannabinoid system.  
Altered expression of cannabinoid receptors 1 and 2 and activated endocannabinoid system in patients with severe chronic heart failure  
Rapid elevations in limbic endocannabinoid content by glucocorticoid hormones in vivo  
Substantially altered expression pattern of cannabinoid receptor 2 and activated endocannabinoid system in patients with severe heart failure.  
Opposite changes in cannabinoid CB1 and CB2 receptor expression in human gliomas.  
Targeting the Endocannabinoid System for the Treatment of Cancer - A Practical View.  
The endocannabinoid system and migraine.  
The endocannabinoid system in the inflammatory and neurodegenerative processes of multiple sclerosis and of amyotrophic lateral sclerosis.  
Functionally selective cannabinoid receptor signalling: Therapeutic implications and opportunities  
The endocannabinoid signaling system: a marriage of PUFA and musculoskeletal health.  
Non-CB1, non-CB2 receptors for endocannabinoids, plant cannabinoids, and synthetic cannabimimetics: focus on G-protein-coupled receptors and transient receptor potential channels.
Endocannabinoids and pregnancy.  (abst – 2010)  

Histomorphometric evaluation of cannabinoid receptor and anandamide modulating enzyme expression in the human endometrium through the menstrual cycle.  (abst – 2010)  

CB1 and CB2 cannabinoid receptor expression during development and in epileptogenic developmental pathologies.  (abst – 2010)  

From surface to nuclear receptors: the endocannabinoid family extends its assets.  (abst – 2010)  

An endocannabinoid system is localized to the hypophysial pars tuberalis of Syrian hamsters and responds to photoperiodic changes.  (abst – 2010)  

Fructose affects enzymes involved in the synthesis and degradation of hypothalamic endocannabinoids.  (abst – 2010)  

Novel natural and synthetic ligands of the endocannabinoid system.  (abst – 2010)  

Nonalcoholic fatty liver disease: pathology and pathogenesis.  (abst – 2010)  

Supply and demand for endocannabinoids.  (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3106144/ 

Gadolinium-HU-308-incorporated micelles.  (full – 2011)  

Gut feelings about the endocannabinoid system  (full – 2011)  

Cannabinoid system and cyclooxygenases inhibitors  (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3056416/?tool=pubmed

The endocannabinoid system and cancer: therapeutic implication  (full – 2011)  

Cannabinoid receptors, CB1 and CB2, as novel targets for inhibition of non-small cell lung cancer growth and metastasis  (full - 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3025486/?tool=pubmed

Disruption of metabotropic glutamate receptor signalling is a major defect at cerebellar parallel fibre-Purkinje cell synapses in staggerer mutant mice.  (full – 2011)

The role of sex steroid hormones, cytokines and the endocannabinoid system in female fertility. (full – 2011)  http://humupd.oxfordjournals.org/content/17/3/347.long


Central Endocannabinoid Signaling Regulates Hepatic Glucose Production and Systemic Lipolysis  (full – 2011)  http://diabetes.diabetesjournals.org/content/60/4/1055.full

Endocannabinoid system in cardiovascular disorders - new pharmacotherapeutic opportunities (full – 2011)  http://www.jpbsonline.org/article.asp?issn=0975-7406;year=2011;volume=3;issue=3;spage=350;epage=360;aulast=Cunha


Is lipid signaling through cannabinoid 2 receptors part of a protective system? (full – 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3062638/


Adipose tissue endocannabinoid system gene expression: depot differences and effects of diet and exercise  (full – 2011)  http://www.lipidworld.com/content/10/1/194

The endogenous cannabinoid system in the gut of patients with inflammatory bowel disease. (full – 2011) http://www.nature.com/mi/journal/v4/n5/full/mi201118a.html


Alternative targets within the endocannabinoid system for future treatment of gastrointestinal diseases. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3174079/


Expression of the cannabinoid system in muscle: effects of a high fat diet and CB1 receptor blockade (full – 2011) http://www.biochemj.org/content/433/1/175

Modulation of the novel cannabinoid receptor - GPR55 - during rat fetoplacental development (full – 2011) http://www.placentajournal.org/article/S0143-4004%2811%2900110-X/fulltext

Consequences of cannabinoid and monoaminergic system disruption in a mouse model of autism spectrum disorders (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3137184/

Investigations of the human endocannabinoid system in two subcutaneous adipose tissue depots in lean subjects and in obese subjects before and after weight loss (full – 2011) http://www.nature.com/jio/journal/v35/n11/full/jio20118a.html


Association between lipid accumulation and the cannabinoid system in Huh7 cells expressing HCV genes  (link to PDF – 2011)

Role for cannabinoid receptors in human proximal tubular hypertrophy.  
(link to PDF – 2011)  http://www.karger.com/Article/Abstract/323997

Multiple Changes in Peptide and Lipid Expression Associated with Regeneration in the Nervous System of the Medicinal Leech  (link to PDF – 2011) 
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.713.3790&rank=102

The G protein-coupled cannabinoid-1 (CB(1)) receptor of mammalian brain: Inhibition by phthalate esters in vitro.  (abst - 2011)

The endocannabinoid system in the regulation of emotions throughout lifespan: a discussion on therapeutic perspectives.  (abst – 2011)

Update on the endocannabinoid system as an anticancer target.  (abst – 2011)

Nutritional omega-3 deficiency abolishes endocannabinoid-mediated neuronal functions.  

Nutritional omega-3 deficiency abolishes endocannabinoid-mediated neuronal functions.  
Figure 1: n-3/n-6 PUFA dietary imbalance alters PUFAs level in mouse brain.  
(charts – 2011)  http://www.nature.com/neuro/journal/v14/n3/fig_tab/nn.2736_F1.html

FROM GHENNAB TO CANNABIS: HOPES TO FIND A CURE FOR MULTIPLE SCLEROSIS ARE FLOURISHING  (abst – 2011)


Endocannabinoid signaling and energy metabolism: a target for dietary intervention.  

A study on the endogenous cannabinoid system synthetic and catabolic enzyme levels in patients with obstructive sleep apnea.  

Homeostatic changes of the endocannabinoid system in Parkinson's disease.  


Early exposure to Environmental enrichment alters the expression of genes of the endocannabinoid system (abst – 2011) http://www.unboundmedicine.com/medline/ebm/record/21419109/abstract/Early_exposure_to_Environmental_enrichment_alters_the_expression_of_genes_of_the_endocannabinoid_system


α-Tocopherol and α-tocopheryl phosphate interact with the cannabinoid system in the rodent hippocampus. (abst - 2011) http://www.sciencedirect.com/science/article/pii/S0891584911004539


Interictal Type 1 Cannabinoid Receptor Binding is Increased in Female Migraine Patients. (abst – 2011) http://www.ncbi.nlm.nih.gov/pubmed/22077199


Expression of cannabinoid receptors by human articular chondrocytes  

Peripheral effects of the endocannabinoid system in energy homeostasis: adipose tissue, liver and skeletal muscle.  

Intermittent ethanol consumption depresses endocannabinoid-signaling in the dorsolateral striatum of rat.  

The endocannabinoid system: an overview  
(full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3303140/

Endocannabinoids in nervous system health and disease: the big picture in a nutshell  
(full – 2012)  http://rspb.royalsocietypublishing.org/content/367/1607/3193.long

A Dysregulated Endocannabinoid-Eicosanoid Network Supports Pathogenesis in a Mouse Model of Alzheimer's Disease  
(full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3715876/

Irritable bowel syndrome: a dysfunction of the endocannabinoid system?  
(full – 2012)  http://www.gastrojournal.org/article/S0016-5085%2811%2901710-0/fulltext

Review article: Endocannabinoids in neuroendopsychology: multiphasic control of mitochondrial function  
(full – 2012)  http://rspb.royalsocietypublishing.org/content/367/1607/3342.full?sid=dd42995f-c629-4f8c-86a0-5e962e352fda

The dynamic nature of type 1 cannabinoid receptor (CB1) gene transcription  

Endocannabinoids Stimulate Human Melanogenesis via Type-1 Cannabinoid Receptor  
(full – 2012)  http://www.jbc.org/content/early/2012/03/19/jbc.M111.314880.full.pdf+html

Evidence for Bidirectional Endocannabinoid Transport across Cell Membranes  
(full – 2012)  http://www.jbc.org/content/287/41/34660.full

Differences in the endocannabinoid system of sperm from fertile and infertile men.  

Site-specific and time-dependent activation of the endocannabinoid system after transection of long-range projections.  
(full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3310878/?tool=pubmed

Cannabinoid modulation of neuroinflammatory disorders.  
(full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3386505/
Plasma Endocannabinoid Alterations in Individuals with Substance Use Disorder are Dependent on the "Mirror Effect" of Schizophrenia. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3457074/

A polymorphism in the gene of the endocannabinoid-degrading enzyme FAAH (FAAH C385A) is associated with emotional–motivational reactivity (full – 2012)

Role of cannabinoids in the regulation of bone remodeling (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3499879/

So what do we call GPR18 now? (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423231/

The cannabinoid receptor CB1 modulates the signaling properties of the lysophosphatidylinositol receptor GPR55. (full – 2012)
http://www.jbc.org/content/early/2012/11/16/jbc.M112.364109.long

Functional diversity on synaptic plasticity mediated by endocannabinoids (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3481528/

The endocannabinoid system and its role in schizophrenia: a systematic review of the literature. (full – 2012)

The effects of fasting duration on gastric emptying in man, an exploration of the role of the endocannabinoid system and inter-individual responsiveness (full – 2012)

Novel bioactive metabolites of dipyrone (metamizol). (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3248997/

The Endocannabinoid System: Cannabinoids in Diabetes and Diabetic Complications. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3349875/

N-acyl amines of docosahexaenoic acid and other n-3 polyunsatured fatty acids – From fishy endocannabinoids to potential leads (full – 2012)

Minireview: Endocannabinoids and Gonadal Hormones: Bidirectional Interactions in Physiology and Behavior (full – 2012)

Endocannabinoid signaling in female reproduction. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3382454/

Dynamic changes to the endocannabinoid system in models of chronic pain

Evaluation of the endogenous cannabinoid system in mediating the behavioral effects of dipyrone (metamizol) in mice. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3696505/

Interleukin-1β causes anxiety by interacting with the endocannabinoid system. (full – 2012) http://www.jneurosci.org/content/32/40/13896.long

Targeting the endocannabinoid system with cannabinoid receptor agonists: pharmacological strategies and therapeutic possibilities (full – 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3353.full?sid=1569c370-cd5c-4358-89ff-857201f5e069

The evolution and comparative neurobiology of endocannabinoid signaling (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3481536/


Extinction learning of rewards in the rat: is there a role for CB1 receptors? (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3161161/

Cellular and intracellular mechanisms involved in the cognitive impairment of cannabinoids (full - 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3254.full?sid=1569c370-cd5c-4358-89ff-857201f5e069

The Volitional Nature of Nicotine Exposure Alters Anandamide and Oleoylethanolamide Levels in the Ventral Tegmental Area. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3572454/

Cortisol-mediated adhesion of synovial fibroblasts is dependent on the degradation of anandamide and activation of the endocannabinoid system (full - 2012) http://onlinelibrary.wiley.com/doi/10.1002/art.37684/pdf

Review article: Why do cannabinoid receptors have more than one endogenous ligand? (full - 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3216.full?sid=1569c370-cd5c-4358-89ff-857201f5e069

Review article: The endocannabinoid system in normal and pathological brain ageing (full – 2012)
The molecular connections between the cannabinoid system and endometriosis
(full – 2012)  
http://rstb.royalsocietypublishing.org/content/367/1607/3326.full?sid=161e7b36-5055-448b-962e-697c782e901d

Involvement of the endocannabinoid system in reward processing in the human brain
(full – 2012)  
http://molehr.oxfordjournals.org/content/18/12/563.full

Wired to run: exercise-induced endocannabinoid signaling in humans and cursorial mammals with implications for the 'runner's high'. (full – 2012)  
http://jeb.biologists.org/content/215/8/1331.long

Cannabinoid Receptors CB1 and CB2 Form Functional Heteromers in Brain.  
(full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3375509/

Prevention of Fibrosis Progression in CCl4-Treated Rats: Role of the Hepatic Endocannabinoid and Apelin Systems  
(full – 2012)  
http://jpet.aspetjournals.org/content/340/3/629.full

Medial prefrontal cortex endocannabinoid system modulates baroreflex activity through CB1 receptors  
(full – 2012)  
http://ajpregu.physiology.org/content/302/7/R876

Cannabinoid modulation of noradrenergic circuits: Implications for psychiatric disorders.  
(full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3351574/

The endocannabinoid system: a key modulator of emotions and cognition  
(full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3490098/

Endocannabinoids at the synapse a decade after the Dies Mirabilis (29 March 2001): what we still do not know.  
(full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3424745/

Cannabinoid receptors: nomenclature and pharmacological principles.  
(full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3378782/

Circulating Endocannabinoid Concentrations and Sexual Arousal in Women.  
(full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3856894/

Alteration of endocannabinoid system in human gliomas.  
(full – 2012)  

Cannabinoid receptors: nomenclature and pharmacological principles.  
(full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3378782/

Pharmacological modulation of the endocannabinoid signalling alters binge-type eating behaviour in female rats  
(full – 2012)  
Sex differences in cannabinoid pharmacology: A reflection of differences in the endocannabinoid system?  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3492530/

Involvement of the Endocannabinoid System in Ethanol-Induced Corticostriatal Synaptic Depression.  (full – 2012)  
https://www.jstage.jst.go.jp/article/jphs/120/1/120_12118FP/_pdf

Multiple functions of endocannabinoid signaling in the brain.  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4273654/

Regulation of endocannabinoid release by G proteins: A paracrine mechanism of G protein-coupled receptor action.  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4169275/

Psychopharmacology of the endocannabinoids: far beyond anandamide.  (full – 2012)  

Targeting the endocannabinoid system with cannabinoid receptor agonists: pharmacological strategies and therapeutic possibilities  (full – 2012)  
http://rstb.royalsocietypublishing.org/content/367/1607/3353.full?sid=1569c370-ed5c-4358-89ff-85720f5e069

Endocannabinoid-Goα signalling inhibits axon regeneration in Caenorhabditis elegans by antagonizing Gqα-PKC-JNK signalling  (full – 2012)  
http://www.nature.com/ncomms/journal/v3/n10/full/ncomms2136.html

Endocannabinoid system: A newer molecular target for the treatment of alcohol-related behaviors  (full – 2012)  
http://www.wjgnet.com/2220-3192/full/v1/i3/44.htm

Gut microbiota and the development of obesity.  (full – 2012)  

How Weed Can Protect Us From Cancer and Alzheimer's  (book excerpt – 2012)  
http://www.alternet.org/story/156269/how_weed_can_protect_us_from_cancer_and_alzheimer%27s

The biochemical complexity of the endocannabinoid system with some remarks on stress and related disorders: a minireview  (abst – 2012)  

The genetic basis of the endocannabinoid system and drug addiction in humans  (abst – 2012)  

Mechanism of the Interaction of Cannabinoid System in Central Amygdala with Opioid System  (abst – 2012)  
Neuroprotective agents: cannabinoids. (abst – 2012)  


The biology that underpins the therapeutic potential of cannabis-based medicines for the control of spasticity in multiple sclerosis. (abst – 2012)  

The CB(1) Receptor-Mediated Endocannabinoid Signaling and NGF: The Novel Targets of Curcumin. (turmeric) (abst – 2012)  


Cannabinoid signalling regulates inflammation and energy balance: The importance of the brain-gut axis. (abst – 2012)  

Expression and localization of the cannabinoid receptor type 1 and the enzyme fatty acid amide hydrolase in the retina of vervet monkeys. (abst – 2012)  

The Role of Cannabinoids In Inflammatory Modulation of Allergic Respiratory Disorders, Inflammatory Pain and Ischemic Stroke. (abst – 2012)  

Sex differences in cannabinoid receptor-1 (CB1) pharmacology in mice selectively bred for high voluntary wheel-running behavior. (abst – 2012)  

Role of Lipid Rafts/Caveolae in the Anticancer Effect of Endocannabinoids. (abst – 2012)  

A current overview of cannabinoids and glucocorticoids in facilitating extinction of aversive memories: Potential extinction enhancers. (abst – 2013)  

http://www.bjjprocs.boneandjoint.org.uk/content/94-B/SUPP_XVIII/7.abstract?maxtoshow=&hits=25&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=130&sortspec=date&resourcetype=HWCIT


Nutritional n-3 polyunsaturated fatty acids deficiency alters cannabinoid receptor signaling pathway in the brain and associated anxiety-like behavior in mice.  (abst – 2012)  http://www.springerlink.com/content/ur5784gm34782505/


Investigation of endocannabinoid system genes suggests association between peroxisome proliferator activator receptor-α gene (PPARA) and schizophrenia.  (abst – 2012)  http://www.ncbi.nlm.nih.gov/pubmed/22920733


Adenosine A2A receptor activation stimulates collagen production in sclerodermic dermal fibroblasts either directly and through a cross-talk with the cannabinoid system.  (abst – 2012)  http://www.ncbi.nlm.nih.gov/pubmed/22033526

Oleamide restores sleep in adult rats that were subjected to maternal separation.  (abst – 2012)  http://www.sciencedirect.com/science/article/pii/S0091305712002493


Modulation of the cannabinoid receptors by hemopressin peptides. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3594051/

Endogenous cannabinoid receptor CB1 activation promotes vascular smooth muscle cell proliferation and neointima formation. (full – 2013) http://www.jlr.org/content/early/2013/03/11/jlr.M035147.long

Cannabinoid receptors are widely expressed in goldfish: molecular cloning of a CB2-like receptor and evaluation of CB1 and CB2 mRNA expression profiles in different organs. (full - 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3776019


Modulating the endocannabinoid system in human health and disease: successes and failures  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3684164/

Ghrelin-Induced Orexigenic Effect in Rats Depends on the Metabolic Status and Is Counteracted by Peripheral CB1 Receptor Antagonism.  (full – 2013)  http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0060918

Alterations to Melanocortinergic, GABAergic and Cannabinoid Neurotransmission Associated with Olanzapine-Induced Weight Gain  (full – 2013)  http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0033548


Cannabis, a complex plant: different compounds and different effects on individuals  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3736954/


Translational evidence for the involvement of the endocannabinoid system in stress-related psychiatric illnesses.  (full – 2013)  http://www.biolmoodanxietydisord.com/content/3/1/19
The cannabinoid receptor type 2 as mediator of mesenchymal stromal cell immunosuppressive properties. (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0080022

Genetic Background Can Result in a Marked or Minimal Effect of Gene Knockout (GPR55 and CB2 Receptor) in Experimental Autoimmune Encephalomyelitis Models of Multiple Sclerosis. (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0076907

Food for thought: hormonal, experiential, and neural influences on feeding and obesity. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3818543/

Modulation of the Endocannabinoids N-Arachidonylethanolamine (AEA) and 2-Arachidonoylglycerol (2-AG) on Executive Functions in Humans (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0066387

The endocannabinoid system, cannabinoids, and pain (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3820295/


The Endocannabinoid System and Sex Steroid Hormone-Dependent Cancers (full – 2013) http://www.hindawi.com/journals/ije/2013/259676/

The Endocannabinoid System and Spermatogenesis. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3864102/


Alterations of endocannabinoids in cerebrospinal fluid of dogs with epileptic seizure disorder. (full – 2013) http://www.biomedcentral.com/content/pdf/1746-6148-9-262.pdf


Autism-Associated Neuroligin-3 Mutations Commonly Disrupt Tonic Endocannabinoid Signaling (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3663050/

Effect of high fat-diet and obesity on gastrointestinal motility. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3890396/

The role of endocannabinoids system in fatty liver disease and therapeutic potentials.
Endocannabinoid and Cannabinoid-Like Fatty Acid Amide Levels Correlate with Pain-Related Symptoms in Patients with IBS-D and IBS-C: A Pilot Study. (full – 2013)

In vitro and in vivo models of Huntington's disease show alterations in the endocannabinoid system. (full – 2013)

Synaptamide, endocannabinoid-like derivative of docosahexaenoic acid with cannabinoid-independent function. (full – 2013)

The Influence of Cannabinoids on Generic Traits of Neurodegeneration. (full – 2013)

Recent Progress in Understanding the Pathophysiology of Post-Traumatic Stress Disorder: Implications for Targeted Pharmacological Treatment. (full – 2013)

FAAH selectively influences placebo effects. (full – 2013)

Therapeutic Opportunities through the Modulation of Endocannabinoid Transport. (full – 2013)

Endocannabinoid system as a potential mechanism for n-3 long-chain polyunsaturated fatty acid mediated cardiovascular protection. (full – 2013)

Effects of Acute Stress on Cardiac Endocannabinoids, Lipogenesis, and Inflammation in Rats. (full – 2013)

Neuroimmunne interactions of cannabinoids in neurogenesis: focus on interleukin-1β (IL-1β) signalling. (full – 2013)

The endocannabinoid system and emotional processing: A pharmacological fMRI study with Δ9-tetrahydrocannabinol. (full – 2013)

Endocannabinoid Signaling in the Etiology and Treatment of Major Depressive Illness. (full – 2013)

Depolarisation-induced suppression of a glycinergic synapse in the superior olivary complex by endocannabinoids. (full – 2013)
Regulation of nausea and vomiting by cannabinoids and the endocannabinoid system. (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3883513/

Comparative effects of parathion and chlorpyrifos on extracellular endocannabinoid levels in rat hippocampus: Influence on cholinergic toxicity. (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3831619/

Targeting the cannabinoid system for pain relief? (full – 2013)  http://www.e-aat.com/article/S1875-4597%2813%2900119-7/fulltext

Reductions in circulating endocannabinoid levels in individuals with post-traumatic stress disorder following exposure to the world trade center attacks. (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3780889/

Cannabinoid and opioid interactions: implications for opiate dependence and withdrawal. (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3742578/

Peripheral endocannabinoid system dysregulation in first-episode psychosis. (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3828529/


Elevating endocannabinoid levels: pharmacological strategies and potential therapeutic applications. (full – 2013)  http://journals.cambridge.org/download.php?file=%2FPNS%2FPNS73_01%2FS0029665113003649a.pdf&code=d82b0cf1bec110199f1f376d4cb1ef35

Low Level Chlorpyrifos Exposure Increases Anandamide Accumulation in Juvenile Rat Brain in the Absence of Brain Cholinesterase Inhibition. (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4071163/


Endocannabinoid crosstalk between placenta and maternal fat in a baboon model (Papio spp.) of obesity (full – 2013)  http://www.placentajournal.org/article/S0143-4004%2813%2900692-9/fulltext

Reduced Cannabinoid CB1 Receptor Binding in Alcohol Dependence Measured with Positron Emission Tomography. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3594469/

CB1 and CB2 Cannabinoid Receptor Antagonists Prevent Minocycline-Induced Neuroprotection Following Traumatic Brain Injury in Mice. (full – 2013) http://cercor.oxfordjournals.org/content/25/1/35.long

Performance in working memory and attentional control is associated with the rs2180619 SNP in the CNR1 gene. (full – 2013) http://onlinelibrary.wiley.com/doi/10.1111/gbb.12097/full


Pathophysiology of Human Visceral Obesity: An Update (full – 2013) http://physrev.physiology.org/content/93/1/359.long

Targeting the Endocannabinoid System to Treat Sepsis (review – 2013) http://www.signavitae.com/2013/05/targeting-the-endocannabinoid-system-to-treat-sepsis/

Natural Cannabinoids Improve Dopamine Neurotransmission and Tau and Amyloid Pathology in a Mouse Model of Tauopathy. (link to PDF – 2013) http://content.iospress.com/articles/journal-of-alzheimers-disease/jad130050

GPR55 and its interaction with membrane lipids: comparison with other endocannabinoid-binding receptors. (link to PDF - 2013) http://www.eurekaselect.com/105678/article


Nicotine-Induced Neuroprotection Against Ischemic Injury Involves Activation of Endocannabinoid System in Rats (abst – 2013) http://link.springer.com/article/10.1007/s11064-012-0927-6


Impact of omega-6 polyunsaturated fatty acid supplementation and γ-aminobutyric acid on astrogliogenesis through the endocannabinoid system. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/2363391

In search of endocannabinoid degradation enzymes inhibitors in nutmeg (abst – 2013) http://www.fasebj.org/cgi/content/meeting_abstract/27/1_MeetingAbstracts/1097.5?sid=eea722c0-971c-4daa-8b8c-38c0e63c19ad

Mapping endocannabinoid signaling networks in the mammalian brain (abst – 2013) http://www.fasebj.org/cgi/content/meeting_abstract/26/1_MeetingAbstracts/465.2?sid=eea722c0-971c-4daa-8b8c-38c0e63c19ad

Interrogating Therapeutic Manipulation of the Endocannabinoid System in Human Colon (abst – 2013) http://www.fasebj.org/content/26/1_Supplement/1123.1

Effects of compounds that interfere with the endocannabinoid system on behaviors predictive of anxiolytic and panicolytic activity in the elevated T-maze (abst – 2013) http://www.sciencedirect.com/science/article/pii/S0091305713001366


Endocannabinoid receptor (CB1R) deficiency affects maternal care and alters the dam's hippocampal oxytocin receptor and BDNF expression  (abst – 2013)  http://www.ncbi.nlm.nih.gov/pubmed/23895426


Small animal PET imaging of the type 1 cannabinoid receptor in a rodent model for anorexia nervosa.  (abst – 2013)  http://www.ncbi.nlm.nih.gov/pubmed/24006151


Dominant negative DISC1 mutant mice display specific social behaviour deficits and aberration in BDNF and cannabinoid receptor expression.  (abst – 2013)  http://www.ncbi.nlm.nih.gov/pubmed/24219803

Delineation of Domains Within the Cannabinoid CB1 and Dopamine D2 Receptors That Mediate the Formation of the Heterodimer Complex.  (abst – 2013)  http://www.ncbi.nlm.nih.gov/pubmed/24264530


The cytokine and endocannabinoid systems are co-regulated by NF-κB p65/RelA in cell culture and transgenic mouse models of Huntington's disease and in striatal tissue from Huntington's disease patients. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/24360910


Inhibition of the cannabinoid 2 receptor in CNS-injury induced immunodeficiency syndrome (abst – 2013) http://www.medical-hypotheses.com/article/S0306-9877%2814%2900117-0/abstract

Δ(9)-THC and N-arachidonoyl glycine regulate BV-2 microglial morphology and cytokine release plasticity: implications for signaling at GPR18. (full - 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3877838/

Endocannabinoid Modulation of Cortical Up-States and NREM Sleep (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3919802/


Prefrontal deficits in a murine model overexpressing the down syndrome candidate gene dyrk1a. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3953590/

The in vitro GcMAF effects on endocannabinoid system transcriptionomics, receptor formation, and cell activity of autism-derived macrophages. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3996516/

Quantification of anandamide and 2-arachidonoylglycerol plasma levels to examine potential influences of tetrahydrocannabinol application on the endocannabinoid system in humans (full – 2014) http://onlinelibrary.wiley.com/doi/10.1002/dta.1561/full


2012 Division of Medicinal Chemistry Award Address: Trekking the Cannabinoid Road: A Personal Perspective. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4064474/

Antidepressants and Changes in Concentration of Endocannabinoids and N-Acylethanolamines in Rat Brain Structures. (full – 2014) http://download.springer.com/static/pdf/559/art%253A10.1007%252Fs12640-014-9465-0.pdf?auth66=1395868546_998a8d5d87cb02529572689f9213e4a&ext=.pdf


Cannabidiol exerts sebostatic and antiinflammatory effects on human sebocytes. (full – 2014) http://www.jci.org/articles/view/64628


Endocannabinoid Receptors Gene Expression in Morbidly Obese Women with Nonalcoholic Fatty Liver Disease (full – 2014) http://www.hindawi.com/journals/bmri/2014/502542/


Involvement of the cannabinoid CB1 receptor in modulation of dopamine output in the prefrontal cortex associated with food restriction in rats. (full – 2014) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0092224


Getting high on the endocannabinoid system. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3997295/


Localization of diacylglycerol lipase alpha and monoacylglycerol lipase during postnatal development of the rat retina. (full – 2014)

Individual differences in response to positive and negative stimuli: endocannabinoid-based insight on approach and avoidance behaviors. (full – 2014)

Are cannabidiol and Δ9-tetrahydrocannabivarin negative modulators of the endocannabinoid system? A systematic review. (full – 2014)

Mutation of Putative GRK Phosphorylation Sites in the Cannabinoid Receptor 1 (CB1R) Confers Resistance to Cannabinoid Tolerance and Hypersensitivity to Cannabinoids in Mice. (full – 2014) http://www.jneurosci.org/content/34/15/5152.long

Enhanced Endocannabinoid-Mediated Modulation of Rostromedial Tegmental Nucleus Drive onto Dopamine Neurons in Sardinian Alcohol-Preferring Rats. (full – 2014)
http://www.jneurosci.org/content/34/38/12716.long

Chronic stimulation of the tone of endogenous anandamide reduces cue- and stress-induced relapse in rats. (full – 2014)
http://ijnp.oxfordjournals.org/content/18/1/pyu025.long

Impaired Fear Memory Specificity Associated with Deficient Endocannabinoid-Dependent Long-Term Plasticity. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4023141/

http://www.nature.com/npp/journal/v40/n2/full/npp2014198a.html

Translational evidence for a role of endocannabinoids in the etiology and treatment of posttraumatic stress disorder. (full – 2014)
http://www.psyneuen-journal.com/article/S0306-4530%2814%2900396-5/fulltext

Is fat taste ready for primetime? (full – 2014)

Tapping into the endocannabinoid system to ameliorate acute inflammatory flares and associated pain in mouse knee joints. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4201700/

Cocaine-Induced Behavioral Sensitization Is Associated With Changes in the Expression of Endocannabinoid and Glutamatergic Signaling Systems in the Mouse Prefrontal Cortex. (full – 2014) http://ijnp.oxfordjournals.org/content/18/1/pyu024.long

The Endocannabinoid/Endovanilloid System and Depression. (full – 2014)
Seizing an opportunity for the endocannabinoid system. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4243035/


Iron overload causes osteoporosis in Thalassemia Major patients through interaction with TRPV1 channels. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4258755/


Changes in CB1 and CB2 receptors in the post-mortem cerebellum of humans affected by spinocerebellar ataxias. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3954486/


The biological networks in studying cell signal transduction complexity: The examples of sperm capacitation and of endocannabinoid system. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4212279/


The CB1 Receptor as an Important Mediator of Hedonic Reward Processing (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4138748/


Acute Activation of Cannabinoid Receptors by Anandamide Reduces Gastro-Intestinal Motility and Improves Postprandial Glycemia in Mice. (full – 2014) http://diabetes.diabetesjournals.org/content/64/3/808.long


Endocannabinoid modulation by FAAH and MAGL within the analgesic circuitry of the periaqueductal grey. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4294036/
Developmental Increase in Hippocampal Endocannabinoid Mobilization: Role of Metabotropic Glutamate Receptor Subtype 5 and Phospholipase C (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4233278/

Molecular mechanisms of placebo responses in humans. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4372496/

Toward a translational approach to targeting the endocannabinoid system in posttraumatic stress disorder: A critical review of preclinical research. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4465924/

Chemical approaches to therapeutically target the metabolism and signaling of the endocannabinoid 2-AG and eicosanoids (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4159426/

Endocannabinoid signaling and food addiction. (full – 2014)


Endocannabinoid Signaling within the Basolateral Amygdala Integrates Multiple Stress Hormone Effects on Memory Consolidation. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4397407/

Prior stimulation of the endocannabinoid system prevents methamphetamine-induced dopaminergic neurotoxicity in the striatum through activation of CB2 receptors. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4939842/


Drug discovery strategies that focus on the endocannabinoid signaling system in psychiatric disease. (full – 2014) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4696509/

Programming and reprogramming neural cells by (endo-) cannabinoids: from physiological rules to emerging therapies (full – 2014)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4765324/

Nutritional omega-3 modulates neuronal morphology in the prefrontal cortex along with depression-related behaviour through corticosterone secretion (full – 2014)
http://www.nature.com/tp/journal/v4/n9/full/tp201477a.html

Endocannabinoids, Related Compounds and Their Metabolic Routes
The endocannabinoid system: an emerging key player in inflammation. (abst – 2014)  

Anti-depressive mechanism of repetitive transcranial magnetic stimulation in rat: The role of the endocannabinoid system. (abst – 2014)  

Organophosphate agents induce plasma hypertriglyceridemia in mouse via single or dual inhibition of the endocannabinoid hydrolyzing enzyme(s). (abst – 2014)  

Involvement of the endocannabinoid system in osteoarthritis pain. (abst – 2014)  

Endocannabinoids and neuropathic pain: focus on neuron-glia and endocannabinoid-neurotrophin interactions. (abst – 2014)  

The oral administration of trans-caryophyllene attenuates acute and chronic pain in mice (abst – 2014)  

The endocannabinoid system controls food intake via olfactory processes (abst – 2014)  

Altered Expression of the CB1 Cannabinoid Receptor in the Triple Transgenic Mouse Model of Alzheimer's Disease. (abst – 2014)  


Anandamide activation of CB1 receptors increases spontaneous bursting and oscillatory activity in the thalamus. (abst – 2014)  

Dexamethasone alleviates motion sickness in rats in part by enhancing the endocannabinoid system. (abst – 2014)  

Detailed characterization of the endocannabinoid system in human macrophages and foam cells, and anti-inflammatory role of type-2 cannabinoid receptor. (abst – 2014)  
Host Neuro- Immuno-Endocrine Responses In Periodontal Disease.  (abst – 2014)

Role of the Endocannabinoid System in the Neuroendocrine Responses to Inflammation.


Novel approaches to the development of anti-sepsis drugs.  (abst – 2014)

Modulation of the extinction of fear learning.  (abst – 2014)

New players in the fatty acyl ethanolamide metabolism.  (abst – 2014)

Endocannabinoids and energy homeostasis: An update.  (abst – 2014)


http://pubs.acs.org/doi/abs/10.1021/cb500177c

New insights into the molecular pathophysiology of fragile X syndrome and therapeutic perspectives from the animal model.  (abst – 2014)

Cannabinoid receptor antagonists and fatty acids alter endocannabinoid system gene expression and COX activity.  (abst – 2014)

Cognitive performance and peripheral endocannabinoid system receptor expression in schizophrenia.  (abst – 2014)

Terpenes and Lipids of the Endocannabinoid and Transient Receptor Potential-channel Biosignaling Systems.  (abst – 2014)
http://pubs.acs.org/doi/abs/10.1021/cn5000875

The endocannabinoid system and appetite: relevance for food reward.  (abst – 2014)


Cannabinoid receptor expression in femora and tibiae of C57/b1k6 mice fed DHA and relationship to bone ash and BMC. (bone mineral content) (abst – 2014) http://www.fasebj.org/content/28/1_Supplement/1032.2


Selected CNR1 polymorphisms and hyperandrogenemia as well as fat mass and fat distribution in women with polycystic ovary syndrome. (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/25093427

Inhibition of endocannabinoid neuronal uptake and hydrolysis as strategies for developing anxiolytic drugs. (abst – 2014)

The interaction between ghrelin and cannabinoid systems in penicillin-induced epileptiform activity in rats. (abst – 2014)
http://www.neuropeptidesjournal.com/article/S0143-4179(14)00080-8/abstract

New insights on food intake control by olfactory processes: the emerging role of the endocannabinoid system. (abst – 2014)

Inflammation in diabetic nephropathy: moving toward clinical biomarkers and targets for treatment. (abst – 2014)

Cannabis, cannabidiol, and epilepsy - From receptors to clinical response. (abst – 2014)

Colitis generates remote antinociception in rats: the role of the L-arginine/NO/cGMP/PKG/KATP pathway and involvement of cannabinoid and opioid systems. (abst – 2014)

Differences in receptor binding affinity of several phytocannabinoids does not explain their effects on neural cell cultures. (abst – 2014)

Paracetamol potentiates the antidepressant-like and anticomulsive-like effects of fluoxetine. (abst – 2014)

Cannabinoids and schizophrenia: therapeutic prospects. (abst – 2014)

Gastric bypass in morbid obese patients is associated with reduction in adipose tissue inflammation via N-oleoylethanolamide (OEA)-mediated pathways. (abst – 2014)

Truffles contain endocannabinoid metabolic enzymes and anandamide. (abst – 2014)

A quantitative LC-MS/MS method for the measurement of arachidonic acid, prostanoids, endocannabinoids, N-acylethanolamines and steroids in human plasma. (abst – 2014)
http://www.sciencedirect.com/science/article/pii/S1570023214006837

Endocannabinoid Metabolism by Cytochrome P450 Monoxygenases. (abst – 2014)


The sweetest pill to swallow: How patient neurobiology can be harnessed to maximise placebo effects (abst – 2014) http://www.sciencedirect.com/science/article/pii/S0149763413002157


Protective role of the cannabinoid receptor system in A2E-mediated photo-toxicity to retinal pigment epithelium (RPE) cells in an in-vitro model of age-related macular degeneration (AMD) (abst – 2014) http://iovs.arvojournals.org/article.aspx?articleid=2271845&resultClick=1


Endocannabinoid signalling and the deteriorating brain (abst – 2014) http://www.nature.com/nrn/journal/v16/n1/abs/nrn3876.html


Local uterine Ang-(1-7) infusion augments the expression of cannabinoid receptors and differentially alters endocannabinoid metabolizing enzymes in the decidualized uterus of pseudopregnant rats. (full – 2015) http://www.rbej.com/content/13/1/5


Antipurinergic therapy corrects the autism-like features in the Fragile X (Fmr1 knockout) mouse model. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4334917/


Cannabidiol Rescues Acute Hepatic Toxicity and Seizure Induced by Cocaine (full – 2015) http://www.hindawi.com/journals/mi/2015/523418/

Role for Endogenous BDNF in Endocannabinoid-Mediated Long-Term Depression at Neocortical Inhibitory Synapses (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4415885/


Effects of mood inductions by meal ambiance and moderate alcohol consumption on endocannabinoids and N-acylethanolamines in humans: a randomized crossover trial. (full – 2015) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0126421


Biased Agonism and Biased Allosteric Modulation at the CB1 Cannabinoid Receptor. (full – 2015) http://molpharm.aspetjournals.org/content/early/2015/06/04/mol.115.099192.long

Increased contextual fear conditioning in iNOS knockout mice: additional evidence for the involvement of nitric oxide in stress-related disorders and contribution of the endocannabinoid system. (full – 2015) http://ijnp.oxfordjournals.org/content/18/8/pyv005.long

Leptin Levels Are Negatively Correlated with 2-Arachidonoylglycerol in the Cerebrospinal Fluid of Patients with Osteoarthritis. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4383333/

Interaction between orexin A and cannabinoid system in the lateral hypothalamus of rats and effects of subchronic intraperitoneal administration of cannabinoid receptor inverse agonist on food intake and the nutritive utilization of protein. (full – 2015)
Effects of high-fructose diets on central appetite signaling and cognitive function. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC429636/

http://www.karger.com/Article/FullText/375454

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4278325/

Comparison of shock wave therapy and nutraceutical composed of Echinacea angustifolia, alpha lipoic acid, conjugated linoleic acid and quercetin (perinerv) in patients with carpal tunnel syndrome. (full – 2015)
http://iji.sagepub.com/content/early/2015/04/30/0394632015584501.long

Role of the endocannabinoid system in obesity induced by neuropeptide Y overexpression in noradrenergic neurons. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4423197/

Therapeutic approaches for the future treatment of Fragile X (full – 2015)

Endocannabinoid signaling in innate and adaptive immunity. (full – 2015)

New horizons for newborn brain protection: enhancing endogenous neuroprotection. (full – 2015)
http://fn.bmj.com/content/early/2015/06/10/archdischild-2014-306284.long

Anandamide, Acting via CB2 Receptors, Alleviates LPS-Induced Neuroinflammation in Rat Primary Microglial Cultures. (full – 2015)
http://www.hindawi.com/journals/np/2015/130639/

Role of the endogenous cannabinoid system in nicotine addiction: novel insights. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4373509/

Adipose tissue NAPE-PLD controls fat mass development by altering the browning process and gut microbiota. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4382707/

Lipid abundance in zebrafish embryos is regulated by complementary actions of the Endocannabinoid System and Retinoic Acid Pathway. (full – 2015)

Phytocannabinoids and epilepsy (full – 2015)
Cannabinoids and Epilepsy (full – 2015)  

Cannabis and psychopathology: The meandering journey of the last decade (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4462782/

Homeostatic regulation of brain functions by endocannabinoid signaling (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4468750/

Pathogenesis of Systemic Sclerosis. (full – 2015)  

Legal highs: staying on top of the flood of novel psychoactive substances. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4521440/

Current Status and Future of Cannabis Research (full – 2015)  

Cannabinoids: is there a potential treatment role in epilepsy? (full – 2015)  

http://ijnp.oxfordjournals.org/content/early/2015/09/04/ijnp.pyv095.long

Targeting the endocannabinoid system to treat anxiety-related disorders. (full – 2015)  

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4567222/

Plant derived substances with anti-cancer activity: from folklore to practice (full – 2015)  
http://journal.frontiersin.org/article/10.3389/fpls.2015.00799/full

The skeletal endocannabinoid system: clinical and experimental insights (full – 2015)  

Crosstalk between endocannabinoid and immune systems: a potential dysregulation in depression? (full – 2015)  

Increased Cortical Inhibition in Autism-Linked Neuroligin-3R451C Mice Is Due in Part to Loss of Endocannabinoid Signaling. (full – 2015)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0140638
Endocannabinoid signaling mediates oxytocin-driven social reward.  (full – 2015)  
http://www.pnas.org/content/112/45/14084.full

Circulating Endocannabinoids and the Polymorphism 385C>A in Fatty Acid Amide Hydrolase (FAAH) Gene May Identify the Obesity Phenotype Related to Cardiometabolic Risk: A Study Conducted in a Brazilian Population of Complex Interethnic Admixture.  (full – 2015)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0142728

Hypothalamic control of brown adipose tissue thermogenesis.  (full – 2015)  

Perinatal asphyxia results in altered expression of the hippocampal acylethanolamide/endocannabinoid signaling system associated to memory impairments in postweaned rats.  (full – 2015)  

New horizons for newborn brain protection: enhancing endogenous neuroprotection.  (full – 2015)  
http://fn.bmj.com/content/100/6/F541.full.pdf+html

Oxyradical Stress, Endocannabinoids, and Atherosclerosis.  (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4686160/

Metabolite profiling in posttraumatic stress disorder  (full – 2015)  

Cocaine-Induced Endocannabinoid Mobilization in the Ventral Tegmental Area.  (full – 2015)  
http://www.cell.com/cell-reports/fulltext/S2211-1247%2815%2900926-2

Cannabinoid type-1 receptor signaling in central serotonergic neurons regulates anxiety-like behavior and sociability.  (full – 2015)  
http://journal.frontiersin.org/article/10.3389/fnbeh.2015.00235/full

Developmental regulation of fear learning and anxiety behavior by endocannabinoids.  (full – 2015)  

Are the endocannabinoid-like compounds N-acyl aminoacids neuroprotective after traumatic brain injury?  (full – 2015)  

Dietary DHA reduced downstream endocannabinoid and inflammatory gene expression, epididymal fat mass, and improved aspects of glucose use in muscle in C57BL/6J mice.  (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4722239/

http://www.tandfonline.com/doi/full/10.1517/14728222.2015.1062878

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4318349/

Endocannabinoids and acute pain after total knee arthroplasty. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4299927/

Medicinal cannabis. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4674028/

The therapeutic potential of cannabinoids for movement disorders. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4357541/


Further human evidence for striatal dopamine release induced by administration of Δ9-tetrahydrocannabinol (THC): selectivity to limbic striatum (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4816196/

Endocannabinoid Signaling in Motivation, Reward, and Addiction: Influences on Mesocorticolimbic Dopamine Function. (full – 2015)


A runner's high depends on cannabinoid receptors in mice. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4620874/

The endocannabinoid system in guarding against fear, anxiety and stress. (full – 2015)
http://www.europeanneuropsychopharmacology.com/article/S0924-977X(15)00364-8/fulltext

Alterations in the Medullary Endocannabinoid System Contribute to Age-related Impairment of Baroreflex Sensitivity. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4424182/

Enhancement of endocannabinoid signalling protects against cocaine-induced neurotoxicity. (full – 2015)
Sex Differences in Molecular Signaling at Inhibitory Synapses in the Hippocampus. (full – 2015)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4532757/

The evolving role of the endocannabinoid system in gynaecological cancer. (full – 2015)  http://humupd.oxfordjournals.org/content/21/4/517.long


Endocannabinoid system activation may be associated with insulin resistance in women with polycystic ovary syndrome. (full – 2015)  http://www.fertstert.org/article/S0015-0282(15)00232-0/fulltext

Dynamics of expression and localization of the cannabinoid system in granulosa cells during oocyte nuclear maturation. (full – 2015)  http://www.fertstert.org/article/S0015-0282(15)00440-9/fulltext

Role of the endocannabinoid system in the mechanisms involved in the LPS-induced preterm labor. (full – 2015)  http://www.reproduction-online.org/content/150/6/463.long

The cannabinoid system in the retrosplenial cortex modulates fear memory consolidation, reconsolidation, and extinction. (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4749733/

The endocannabinoid system in renal cells: Regulation of Na+ transport by CB1 receptors through distinct cell signaling pathways. (full – 2015)


An endocannabinoid system is present in the mouse olfactory epithelium but does not modulate olfaction. (full – 2015) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4485596/


Protection from Radiation-Induced Pulmonary Fibrosis by Peripheral Targeting of Cannabinoid Receptor-1. (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4599364/


Endocannabinoid signaling at the periphery: 50 years after THC. (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4420685/


Molecular Targets of Cannabidiol in Neurological Disorders. (full – 2015) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4604182/

Anxiety, Stress, and Fear Response in Mice with Reduced Endocannabinoid Levels. (link through Elsevier to get full - 2015) http://www.ncbi.nlm.nih.gov/pubmed/25981172


Endocannabinoid signaling in the stress response of male and female songbirds. (link to PDF – 2015)


The therapeutic aspects of the endocannabinoid system (ECS) for cancer and their development: from nature to laboratory. (link to PDF – 2015) http://www.eurekaselect.com/137770/article


With education, nurses can help to bridge the marijuana gap (article – 2015) http://cannabistoday.bangordailynews.com/2015/07/09/home/with-education-nurses-can-help-to-bridge-the-marijuana-gap/


Differential role of cannabinoids in the pathogenesis of skin cancer.


Evidence against a critical role of CB1 receptors in adaptation of the hypothalamic-pituitary-adrenal axis and other consequences of daily repeated stress.


The placebo effect: from concepts to genes. (abst – 2015)


Pro-inflammatory obesity in aged cannabinoid-2 receptor deficient mice. (abst – 2015)

Fatty acids, endocannabinoids and inflammation. (abst – 2015)

Endocannabinoid regulation of amyloid-induced neuroinflammation. (abst – 2015)

Anandamide mediates cognitive judgement bias in rats. (abst – 2015)

Endocannabinoid Modulation of Predator Stress-Induced Long-Term Anxiety in Rats. (abst – 2015)


New insights on the role of the endocannabinoid system in the regulation of energy balance. (abst – 2015)

Co-mutated pathways analysis highlights the coordination mechanism in glioblastoma multiforme

Biosynthesis and Fate of Endocannabinoids. (abst – 2015)
http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_2

Distribution of the Endocannabinoid System in the Central Nervous System. (abst – 2015)
http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_3

Genetic Manipulation of the Endocannabinoid System. (abst – 2015)
http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_5

Endocannabinoids and Neurodegenerative Disorders: Parkinson's Disease, Huntington's Chorea, Alzheimer's Disease, and Others. (abst – 2015)
http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_8
Endocannabinoids and Mental Disorders. (abst – 2015)
http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_8

Endocannabinoids and Metabolic Disorders. (abst – 2015)
http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_10

Endocannabinoids and the Cardiovascular System in Health and Disease. (abst – 2015)
http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_14

Cannabis and Endocannabinoid Signaling in Epilepsy. (abst – 2015)
http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_10

Endocannabinoids and the Digestive Tract and Bladder in Health and Disease. (abst – 2015)
http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_14


Endocannabinoids and Cancer. (abst – 2015)
http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_16


Involvement of the infralimbic cortex and CA1 hippocampal area in reconsolidation of a contextual fear memory through CB1 receptors: effects of CP55,940. (abst – 2015) http://www.sciencedirect.com/science/article/pii/S1074742715002257


Endocannabinoids - at the crossroads between the gut microbiota and host metabolism. (abst – 2015)  
http://www.nature.com/nrendo/journal/v12/n3/full/nrendo.2015.211.html

Effects of bioactive fatty acid amide derivatives in zebrafish scale model of bone metabolism and disease. (abst – 2015)  

Stress and memory: A selective review on recent developments in the understanding of stress hormone effects on memory and their clinical relevance. (abst – 2015)  

CB1 receptors in the formation of the different phases of memory-related processes in the inhibitory avoidance test in mice. (abst – 2015)  

The Cannabis plant and the endocannabinoids: how an ancient medical plant helps uncovering of a major signaling system in our body (abst – 2015)  

Effects of metabolites of the analgesic agent dipyrone (metamizol) on rostral ventromedial medulla cell activity in mice. (abst – 2015)  

CB1 receptors into the Prelimbic Cortex modulate food intake in rats. (abst – 2015)  
http://www.fasebj.org/content/29/1_Supplement/655.1.abstract?sid=edf921ac-0690-4aa6-ac81-0546314dd384

Biotransformation of Tetrahydrocannabinol (abst – 2015)  

Interaction Between Endocannbinoid and Opioidergic Systems Regulates Food Intake in Neonatal Chicken (abst – 2015)  

Participation of the endocannabinoid system (ECS) in the weight-gain and sensitization to LPS exposure in a maternal obesity model (article – 2015)  
http://www.placentajournal.org/article/S0143-4004%2815%2900526-3/fulltext

Enhances Pleasure of Social Interactions by Stimulating Production of “Bliss Molecule” (news & abstract – 2015)  
http://neurosciencenews.com/oxytocin-anandamide-2926/

The Endocannabinoid System as a Therapeutic Target in Glaucoma (full – 2016)  
http://www.hindawi.com/journals,np/2016/9364091/
The Endocannabinoid System in the Retina: From Physiology to Practical and Therapeutic Applications  (full – 2016)
http://www.hindawi.com/journals/np/2016/2916732/


Cannabinoid Ligands and Alcohol Addiction: A Promising Therapeutic Tool or a Humbug?  (full – 2016)


Actions of the dual FAAH/MAGL inhibitor JZL195 in a murine neuropathic pain model.  (full – 2016)

Exposure to a Highly Caloric Palatable Diet During Pregestational and Gestational Periods Affects Hypothalamic and Hippocampal Endocannabinoid Levels at Birth and Induces Adiposity and Anxiety-Like Behaviors in Male Rat Offspring.  (full – 2016)

Evidence for the efficacy and effectiveness of THC-CBD oromucosal spray in symptom management of patients with spasticity due to multiple sclerosis  (full – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4710104/

Cannabinoids for pediatric epilepsy? Up in smoke or real science?  (full – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4729003/

GABA and Endocannabinoids Mediate Depotentiation of Schaffer Collateral Synapses Induced by Stimulation of Temperoammonic Inputs.  (full – 2016)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0149034

Differential Regulation of Eicosanoid and Endocannabinoid Production by Inflammatory Mediators in Human Choriodecidua.  (full – 2016)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0148306

A collaboration investigating endocannabinoid signalling in brain and bone  (full – 2016)

Endocannabinoids as Guardians of Metastasis  (full – 2016)
http://www.mdpi.com/1422-0067/17/2/230/htm
Transient increase of interleukin-1β after prolonged febrile seizures promotes adult epileptogenesis through long-lasting upregulating endocannabinoid signaling. (full – 2016) http://www.nature.com/articles/srep21931


An Increase in the Omega-6/Omega-3 Fatty Acid Ratio Increases the Risk for Obesity (full – 2016) http://www.mdpi.com/2072-6643/8/3/128/htm


Metabolism of Anandamide by Human Cytochrome P450 2J2 in the Reconstituted System and Human Intestinal Microsomes. (full – 2016) http://jpet.aspetjournals.org/content/early/2016/03/21/jpet.116.232553.long


Cannabis for posttraumatic stress disorder: A neurobiological approach to treatment (full – 2016)  

Impaired Ethanol-Induced Sensitization and Decreased Cannabinoid Receptor-1 in a Model of Posttraumatic Stress Disorder. (full – 2016)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0155759

Endovanilloids are potential activators of the trigeminovascular nocisensor complex (full – 2016)  

Functional selectivity of CB2 cannabinoid receptor ligands at a canonical and non-canonical pathway. (full – 2016)  
http://jpet.aspetjournals.org/content/early/2016/05/18/jpet.116.232561.long

Neuronal and Astrocytic Monoacylglycerol Lipase Limit the Spread of Endocannabinoid Signaling in the Cerebellum. (full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4865651/

Cannabinoid receptor type-1: breaking the dogmas. (full – 2016)  
http://f1000research.com/articles/5-990/v1

Modulation of cellular redox homeostasis by the endocannabinoid system. (full – 2016)  
http://rsob.royalsocietypublishing.org/content/6/4/150276

p21-activated kinase 1 restricts tonic endocannabinoid signaling in the hippocampus (full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4907698/

Endocannabinoid Modulation of Orbitostriatal Circuits Gates Habit Formation (full – 2016)  
http://www.cell.com/neuron/fulltext/S0896-6273%2816%2930157-X

Unmasking roles of the peripheral endocannabinoid system associated with bladder overactivity (full – 2016)  

Beyond Cannabis: Plants and the Endocannabinoid System (full – 2016)  
http://ge.tt/3Rgtrsa2

Cyclooxygenase-2 inhibition reduces stress-induced affective pathology. (full – 2016)  
https://elifesciences.org/content/5/e14137

Endocannabinoid Signaling Regulates Sleep Stability. (full – 2016)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0152473

Cannabinoid CB1 receptor inhibition blunts adolescent-typical increased binge alcohol and sucrose consumption in male C57BL/6J mice. (full – 2016)  

Does modulation of the endocannabinoid system have potential therapeutic utility in cerebellar ataxia? (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4983615/

Controlled downregulation of the cannabinoid CB1 receptor provides a promising approach for the treatment of obesity and obesity-derived type 2 diabetes. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4679742/


L-type calcium channels and MAP kinase contribute to thyrotropin-releasing hormone induced depolarization in thalamic paraventricular nucleus neurons. (full – 2016) http://ajpregu.physiology.org/content/310/11/R1120.long


Putative Epigenetic Involvement of the Endocannabinoid System in Anxiety- and Depression-Related Behaviors Caused by Nicotine as a Stressor. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4942073/


Endocannabinoids in the Gut. (full – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4940133/

Endocannabinoid-Mediated Plasticity in Nucleus Accumbens Controls Vulnerability to Anxiety after Social Defeat Stress. (full – 2016)
http://www.cell.com/cell-reports/fulltext/S2211-1247(16)30851-8

Indirect Modulation of the Endocannabinoid System by Specific Fractions of Nutmeg Total Extract (full – 2016)
Indirect modulation of the endocannabinoid system by specific fractions of nutmeg total extract.

Sulfation of the FLAG epitope is affected by co-expression of G protein-coupled receptors in a mammalian cell model. (full – 2016)
http://www.nature.com/articles/srep27316

Dual-Acting Compounds Targeting Endocannabinoid and Endovanilloid Systems-A Novel Treatment Option for Chronic Pain Management. (full – 2016)

Interaction between Cannabinoid System and Toll-Like Receptors Controls Inflammation. (full – 2016)
https://www.hindawi.com/journals/mi/2016/5831315/

CB2 and GPR55 Receptors as Therapeutic Targets for Systemic Immune Dysregulation (full – 2016)

Endocannabinoid signaling in social functioning: an RDoC perspective (full – 2016)
http://www.nature.com/tp/journal/v6/n9/full/tp2016169a.html

Turning Down the Thermostat: Modulating the Endocannabinoid System in Ocular Inflammation and Pain. (full – 2016)

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5040794/

Involvement of Endocannabinoids in Alcohol "Binge" Drinking: Studies of Mice with Human Fatty Acid Amide Hydrolase Genetic Variation and After CB1 Receptor Antagonists. (full – 2016)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4962692/

Exposure to a Highly Caloric Palatable Diet during the Perinatal Period Affects the Expression of the Endogenous Cannabinoid System in the Brain, Liver and Adipose Tissue of Adult Rat Offspring. (full – 2016)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0165432


An Increase in the Omega-6/Omega-3 Fatty Acid Ratio Increases the Risk for Obesity (full - 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4808858/


Cannabinoids reverse the effects of early stress on neurocognitive performance in adulthood. (full – 2016) http://learnmem.cshlp.org/content/23/7/349.long

Effects of Adolescent Intermittent Alcohol Exposure on the Expression of Endocannabinoid Signaling-Related Proteins in the Spleen of Young Adult Rats. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5035052/


Orexin-A represses satiety-inducing POMC neurons and contributes to obesity via stimulation of endocannabinoid signaling. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4855580/

Targeting the endocannabinoid/CB1 receptor system for treating obesity in Prader-Willi syndrome. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5123200/

Target-specific modulation of the descending prefrontal cortex inputs to the dorsal raphe nucleus by cannabinoids. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4868450/


Early Low Fat Diet Enriched with Linolenic Acid Reduces Liver Endocannabinoid Tone and Improves Late Glycemic Control After a High Fat Diet Challenge in Mice. (full – 2016) http://diabetes.diabetesjournals.org/content/65/7/1824.long

Medical Marijuana for Epilepsy? (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4911937/


A Personal Retrospective: Elevating Anandamide (AEA) by Targeting Fatty Acid Amide Hydrolase (FAAH) and the Fatty Acid Binding Proteins (FABPs). (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5062061/

The multiple waves of cannabinoid 1 receptor signaling. (full – 2016) http://molpharm.aspetjournals.org/content/90/5/620.long
Therapeutic Use of Cannabis in Inflammatory Bowel Disease  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5193087/  

A user’s guide to cannabinoid therapies in oncology  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5176373/  

Marijuana Compounds: A Nonconventional Approach to Parkinson’s Disease Therapy  
(full – 2016)  
https://www.hindawi.com/journals/pd/2016/1279042/  

Interaction between Cannabinoid System and Toll-Like Receptors Controls Inflammation  
(full – 2016)  
https://www.hindawi.com/journals/mi/2016/5831315/  

The Role of Visceral Hypersensitivity in Irritable Bowel Syndrome: Pharmacological Targets and Novel Treatments  

Endocannabinoid system: Role in depression, reward and pain control (Review).  
(link to PDF – 2016)  

Anti-N-methyl-D-aspartate receptor encephalitis and drug abuse - the probable role of molecular mimicry or the overstimulation of CB receptors in a 17-year-old adolescent - case report.  
(link to download – 2016)  
http://www.mppt.hu/folyoirat/1/abstract/?vol=18&issue=3&elsoidal=162  

Effects of activation of endocannabinoid system on myocardial metabolism.  
(click “ICI” for download – 2016)  

Cannabinoids and haemostasis.  
(click “ICI” for download – 2016)  

Cannabinoids in the Brain: New Vistas on an Old Dilemma  
(article – 2016)  
http://www.hindawi.com/journals/np/2016/9146713/  

Letter to the editor re Sredni et al.: spontaneous involution of pediatric low-grade gliomas: high expression of cannabinoid receptor 1 (CNR1) at the time of diagnosis may indicate involvement of the endocannabinoid system (2016)  
(letter – 2016)  

Cannabinoids.  
(1st page – 2016)  

Interactions between the endocannabinoid and nicotinic cholinergic systems: preclinical evidence and therapeutic perspectives.  
(abst – 2016)  

Role of the Endocannabinoid System in the Pathophysiology of Schizophrenia  
(abst – 2016)  


The cross-talk between electrophiles, antioxidant defence and the endocannabinoid system in fibroblasts and keratinocytes after UVA and UVB irradiation (abst – 2016) http://www.sciencedirect.com/science/article/pii/S0923181115300761


Metabolomic-Driven Elucidation of Serum Disturbances Associated with Alzheimer's Disease and Mild Cognitive Impairment. (abst – 2016)


Cannabinoids for the Treatment of Schizophrenia: An Overview. (abst – 2016)
http://www.eurekaselect.com/139245/article


Involvement of M1 and CB1 receptors in the anxiogenic-like effects induced by neostigmine injected into the rat prelimbic medial prefrontal cortex. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/26873081


Role of cannabinoids in gastrointestinal mucosal defense and inflammation. (abst – 2016) http://www.eurekaselect.com/140045/article


Endocannabinoids and Endocannabinoid-Related Mediators: Targets, Metabolism and Role In Neurological Disorders. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/26965148

SGIP1 Alters Internalization and Modulates Signaling of Activated Cannabinoid Receptor 1 in Biased Manner. (abst – 2016)

Effects of the antipsychotic paliperidone on stress-induced changes in the endocannabinoid system in rat prefrontal cortex. (abst – 2016)

Sevoflurane Prevents Stroke-induced Depressive and Anxiety Behaviors by Promoting Cannabinoid Receptor Subtype I-dependent Interaction Between β-Arrestin 2 and ERK1/2 in the Rat Hippocampus. (abst – 2016)

Rational Basis for the Use of Bergamot Essential Oil in Complementary Medicine to Treat Chronic Pain. (abst – 2016)

ALCOHOL DEPENDENCE--NEUROBIOLOGY AND TREATMENT.

Distinctive effects of eicosapentaenoic and docosahexaenoic acids in regulating neural stem cell fate are mediated via endocannabinoid signalling pathways. (abst – 2016)

Antagonism of dopamine receptor 2 long (D2L) affects cannabinoid receptor 1 (CB1) signaling in a cell culture model of striatal medium spiny projection neurons. (abst – 2016)

Antitumorigenic targets of cannabinoids - current status and implications. (abst – 2016)

Production of endocannabinoids by activated T cells and B cells modulates inflammation associated with delayed type hypersensitivity. (abst – 2016)

Targeting the cannabinoid CB2 receptor to attenuate the progression of motor deficits in LRRK2-transgenic mice. (abst – 2016)


Sustained glucocorticoid exposure recruits cortico-limbic CRH signaling to modulate endocannabinoid function. (abst – 2016)
http://www.psyneuen-journal.com/article/S0306-4530(16)30003-8/abstract

ENDOCANNABINOID SYSTEM: A multi-facet therapeutic target. (abst – 2016)
http://www.eurekaselect.com/141330/article
Crosstalk between liver antioxidant and the endocannabinoid systems after chronic administration of the FAAH inhibitor, URB597, to hypertensive rats. (abst – 2016)  

Broad impact of deleting endogenous cannabinoid hydrolyzing enzymes and the CB1 cannabinoid receptor on the endogenous cannabinoid-related lipidome in eight regions of the mouse brain. (abst – 2016)  

Fatty Acid Binding Protein-1 (FABP1) and the Human FABP1 T94A Variant: Roles in the Endocannabinoid System and Dyslipidemias. (abst – 2016)  

Mustard vesicants alter expression of the endocannabinoid system in mouse skin. (abst – 2016)  

Systemic and spinal administration of FAAH, MAGL inhibitors and dual FAAH/MAGL inhibitors produce antipruritic effect in mice. (abst – 2016)  

Interaction between paired-pulse facilitation and long-term potentiation during the stimulation of the cannabinoid and vanilloid systems in the dentate gyrus. (abst – 2016)  

Cannabinoid Type 2 Receptors Mediate a Cell Type-Specific Plasticity in the Hippocampus (abst – 2016)  
http://www.cell.com/neuron/abstract/S0896-6273%2816%2930025-3

Driving the need to feed: Insight into the collaborative interaction between ghrelin and endocannabinoid systems in modulating brain reward systems. (abst – 2016)  

Pharmacological inhibition of FAAH activity in rodents: a promising pharmacological approach for psychological - cardiac comorbidity? (abst – 2016)  

Adolescent social rejection alters pain processing in a CB1 receptor dependent manner. (abst – 2016)  

Reversal effect of simvastatin on the decrease in cannabinoid receptor 1 density in 6-hydroxydopamine lesioned rat brains. (abst – 2016)  

Expression analysis of cannabinoid receptors 1 and 2 in B cells during pregnancy and their role on cytokine production. (abst – 2016)  
http://www.jrijournal.org/article/S0165-0378%2816%2930026-2/abstract

Cannabis for refractory psoriasis-high hopes for a novel treatment and a literature review.
Fabp-1 gene ablation impacts brain endocannabinoid system in male mice. (abst – 2016)  

Comorbid Cannabis and Tobacco Use in Adolescents and Adults. (abst – 2016)  

MicroRNA let-7d is a target of cannabinoid CB1 receptor and controls cannabinoid signaling. (abst – 2016)  

Childhood Maltreatment in the Migraine Patient. (abst – 2016)  

Neural endocannabinoid CB1 receptor expression, social status, and behavior in male European starlings. (abst – 2016)  

Activity of muscarinic, galanin and cannabinoid receptors in the prodromal and advanced stages in the triple transgenic mice model of Alzheimer's disease. (abst – 2016)  

Differences in Chloride Gradients Allow for Three Distinct Types of Synaptic Modulation by Endocannabinoids. (abst – 2016)  

Activation of endocannabinoid system in the rat basolateral amygdala improved scopolamine-induced memory consolidation impairment. (abst – 2016)  


Need for Methods to Investigate Endocannabinoid Signaling. (abst – 2016)  
http://link.springer.com/protocol/10.1007%2F978-1-4939-3539-0_1

Assay of Endocannabinoid Oxidation by Cyclooxygenase-2. (abst – 2016)  

Experimental Evidence that 3-Methylglutaric Acid Disturbs Mitochondrial Function and Induced Oxidative Stress in Rat Brain Synaptosomes: New Converging Mechanisms. (abst – 2016)  

Assessing Gene Expression of the Endocannabinoid System. (abst – 2016)  

Could cannabidiol be used as an alternative to antipsychotics? (abst – 2016)  
http://www.journalofpsychiatricresearch.com/article/S0022-3956(16)30104-2/abstract
Dietary conjugated linoleic acid supplementation alters the expression of genes involved in the endocannabinoid system in the bovine endometrium and increases plasma progesterone concentrations. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27262886


Basolateral amygdala CB1 cannabinoid receptors are involved in cross state-dependent memory retrieval between morphine and ethanol. (abst – 2016) http://www.sciencedirect.com/science/article/pii/S0091305716301083

Identification of the oleic acid ethanolamide (OEA) isomer cis-vaccenic acid ethanolamide (VEA) as a highly abundant 18:1 fatty acid ethanolamide in blood plasma from rats and humans. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27334716


Mechanical and material properties of cortical and trabecular bone from cannabinoid receptor-1-null (Cnr1-/-) mice. (abst – 2016) http://www.medengphys.com/article/S1350-4533(16)30148-5/abstract


Anandamide reverses depressive-like behavior, neurochemical abnormalities and oxidative-stress parameters in streptozotocin-diabetic rats: Role of CB1 receptors.


mGluR1/5 activation in the lateral hypothalamus increases food intake via the endocannabinoid system. http://www.sciencedirect.com/science/article/pii/S0304394016305997


Important role of endocannabinoid signaling in the development of functional vision and locomotion in zebrafish.  
(abst – 2016)  

From Phytocannabinoids to Cannabinoid Receptors and Endocannabinoids: Pleiotropic Physiological and Pathological Roles Through Complex Pharmacology.  
(abst – 2016)  

Seeing through the smoke: human and animal studies of cannabis use and endocannabinoid signalling in corticolimbic networks  
(abst – 2016)  

Decreased CB receptor binding and cannabinoid signaling in three brain regions of a rat model of schizophrenia.  
(abst – 2016)  

Cannabinoids: Glutamatergic Transmission and Kynurenines.  
(abst – 2016)  

Parabens inhibit fatty acid amide hydrolase: A potential role in paraben-enhanced 3T3-L1 adipocyte differentiation.  
(abst – 2016)  

Docosahexaenoyl Serotonin, an endogenously formed n-3 fatty acid-serotonin conjugate has anti-inflammatory properties by attenuating IL-23–IL-17 signalling in macrophages  
(abst – 2016)  

Restricted vs. unrestricted wheel running in mice: Effects on brain, behavior and endocannabinoids.  
(abst – 2016)  
http://www.sciencedirect.com/science/article/pii/S0018506X16301799

Functions of synapse adhesion molecules neurexin/neurexins and neurodevelopmental disorders.  
(abst – 2016)  

Anandamide Suppresses Proinflammatory T Cell Responses In Vitro through Type-1 Cannabinoid Receptor-Mediated mTOR Inhibition in Human Keratinocytes.  
(abst – 2016)  

Cannabinoids and GI Disorders: Endogenous and Exogenous.  
(abst – 2016)  

Drug-Induced Alterations of Endocannabinoid-Mediated Plasticity in Brain Reward Regions.  
(abst – 2016)  

Dysregulation of the endocannabinoid signaling system in the cerebellum and brainstem in a transgenic mouse model of spinocerebellar ataxia type-3.  
(abst – 2016)  


Hemopressin peptides as modulators of the endocannabinoid system and their potential applications as therapeutic tools. (abst – 2016) http://www.eurekaselect.com/146167/article


Potential Future Pharmacological Treatment of Bladder Dysfunction. (abst – 2016)  

Acute Neurologic Disorder from an Inhibitor of Fatty Acid Amide Hydrolase.  
(abst – 2016)  

Endogenous cannabinoid system alterations and their role in epileptogenesis after brain injury in rat.  
(abst – 2016)  

Targeting the Endocannabinoid System in Psychiatric Illness. (abst – 2016)  

A role for the endocannabinoid system in premature luteal regression and progesterone withdrawal in lipopolysaccharide-induced early pregnancy loss model.  
(abst – 2016)  

Neuromodulatory effects of the dorsal hippocampal endocannabinoid system in dextromethorphan/morphine-induced amnesia. (abst – 2016)  

Endocannabinoid system in sexual motivational processes: is it a novel therapeutic horizon?  
(abst – 2016)  

Functional selectivity at G-protein coupled receptors: Advancing cannabinoid receptors as drug targets  
(abst – 2016)  

Considering Future Pharmacotherapy for PTSD  
(abst – 2016)  

The anabolic steroid nandrolone alters cannabinoid self-administration and brain CB1 receptor density and function. (abst – 2016)  

Cannabimimetic phytochemicals in the diet - an evolutionary link to food selection and metabolic stress adaptation? (abst – 2016)  

PKCβII-mediated cross-talk of TRPV1/CB2 modulates the glucocorticoid-induced osteoclast overactivity.  
(abst – 2016)  

Fetal Syndrome of Endocannabinoid Deficiency (FSECD) In Maternal Obesity.  
(abst – 2016)  

Cannabimimetic modulation of zebrafish fear learning and its functional analysis investigated by c-Fos expression  
(abst – 2016)  
Identification of an endocannabinoid system in the rat pars tuberalis-a possible interface in the hypothalamic-pituitary-adrenal system? (abst – 2016)

Phytocannabinoids: a growing family of plant natural products with increasing pharmacological and clinical importance (abst – 2016)

Muscarnic acetylcholine receptors control baseline activity and Hebbian stimulus-timing dependent plasticity in fusiform cells of the dorsal cochlear nucleus. (abst – 2016)

Cannabinoid receptors on peripheral leukocytes from patients with schizophrenia: Evidence for defective immunomodulatory mechanisms. (abst – 2016)

Circulating levels of endocannabinoids respond acutely to voluntary exercise, are altered in mice selectively bred for high voluntary wheel running, and differ between the sexes. (abst – 2016) https://www.ncbi.nlm.nih.gov/pubmed/28017680

The CB1 receptor is required for the establishment of the hyperlocomotor phenotype in developmentally-induced hypothyroidism in mice. (abst – 2016)


Chapter Eight – The Endocannabinoid System and Anxiety (abst – 2016)

Cannabinoids - a new weapon against cancer? (abst – 2016)


The endocannabinoid system: no longer anonymous in the control of nitrergic signalling? (link to PDF – 2017)


Decreased expression of fatty acid amide hydrolase in women with polycystic ovary syndrome. (abst – 2017) https://www.ncbi.nlm.nih.gov/pubmed/28132572


The Impact of CB2 Receptor Ligands on the MK-801-Induced Hyperactivity in Mice (full – 2017) http://link.springer.com/article/10.1007%2Fs12640-017-9702-4

**ENTOURAGE EFFECT – ENDOCANNABINOID**

THC: potential cannabis synergy and phytocannabinoid-terpenoid entourage effects. (full - 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165946/

N-Palmitoylethanolamine depot injection increased its tissue levels and those of other acylethanolamide lipids (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3746786/
Baseline Anandamide Levels and Body Weight Impact the Weight Loss Effect of CB1 Receptor Antagonism in Male Rats  (full – 2014)


**FAAH/ FATTY ACID AMIDE HYDROLASE**  + - breaks down anandamide

Selective alterations of the CB1 receptors and the fatty acid amide hydrolase in the ventral striatum of alcoholics and suicides. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2878847/


The serine hydrolase ABHD6 controls the accumulation and efficacy of 2-AG at cannabinoid receptors. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2970523/


Characterization of tunable piperidine and piperazine carbamates as inhibitors of endocannabinoid hydrolases (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2828288/?report=classic

Anandamide suppresses pain initiation through a peripheral endocannabinoid mechanism
R-Flurbiprofen Reduces Neuropathic Pain in Rodents by Restoring Endogenous Cannabinoids

Histomorphometric evaluation of cannabinoid receptor and anandamide modulating enzyme expression in the human endometrium through the menstrual cycle.

Chemistry around imidazopyrazine and ibuprofen: discovery of novel fatty acid amide hydrolase (FAAH) inhibitors.

An endocannabinoid system is localized to the hypophysial pars tuberalis of Syrian hamsters and responds to photoperiodic changes.

Novel natural and synthetic ligands of the endocannabinoid system.

Fructose affects enzymes involved in the synthesis and degradation of hypothalamic endocannabinoids.

Supply and demand for endocannabinoids.

Arachidonoyl ethanolamide (AEA)-induced apoptosis is mediated by J-series prostaglandins and is enhanced by fatty acid amide hydrolase (FAAH) blockade.

Endocannabinoid regulation of acute and protracted nicotine withdrawal: effect of FAAH inhibition.

A catalytically silent FAAH-1 variant drives anandamide transport in neurons.

The activity of the endocannabinoid metabolising enzyme fatty acid amide hydrolase in subcutaneous adipocytes correlates with BMI in metabolically healthy humans.

Dual inhibition of alpha/beta hydrolase domain 6 and fatty acid amide hydrolase increases endocannabinoid levels in neurons.

Propofol Enhances Memory Formation via an Interaction with the Endocannabinoid System.

The ABC membrane transporter ABCG2 prevents access of FAAH inhibitor URB937 to the central nervous system.  (full – 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3729352/

Fatty acid amide hydrolase blockade attenuates the development of collagen-induced arthritis and related thermal hyperalgesia in mice.  (full - 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3164582/

Multiple Changes in Peptide and Lipid Expression Associated with Regeneration in the Nervous System of the Medicinal Leech  (link to PDF – 2011)  http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.713.3790&rank=102


Localization of Cannabinoid-Related Proteins in the Murine Anterior Eye  (abst – 2011)  http://iovs.arvojournals.org/article.aspx?articleid=2356236&resultClick=1


Pharmacological characterization of the peripheral FAAH inhibitor URB937 in female rodents: interaction with the Abcg2 transporter in the blood-placenta barrier  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3525865/


The association of N-palmitoylethanolamine with the FAAH inhibitor URB597 impairs melanoma growth through a supra-additive action  (full – 2012)  http://www.biomedcentral.com/1471-2407/12/92


Inhibiting fatty acid amide hydrolase normalizes endotoxin-induced enhanced gastrointestinal motility in mice.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3372737/

Changes of Blood Endocannabinoids during Anaesthesia: a Special Case for Fatty Acid Amide Hydrolase Inhibition by Propofol?  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3394128/

The fatty acid amide hydrolase (FAAH) inhibitor PF-3845 acts in the nervous system to reverse LPS-induced tactile allodynia in mice  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423256/

Alterations in endocannabinoid tone following chemotherapy-induced peripheral neuropathy: effects of endocannabinoid deactivation inhibitors targeting fatty-acid amide hydrolase and monoacylglycerol lipase in comparison to reference analgesics following cisplatin treatment.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3525790/

β−Amyloid exacerbates inflammation in astrocytes lacking fatty acid amide hydrolase through a mechanism involving PPAR-α, PPAR-γ and TRPV1, but not CB1 or CB2 receptors  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3417461/

Ectopic pregnancy is associated with high anandamide levels and aberrant expression of FAAH and CB1 in fallopian tubes.  

Lack of effect of chronic pre-treatment with the FAAH inhibitor URB597 on inflammatory pain behaviour: evidence for plastic changes in the endocannabinoid system.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3449266/

Endocannabinoids at the synapse a decade after the Dies Mirabilis (29 March 2001): what we still do not know.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3424745/

Peripheral FAAH inhibition causes profound antinociception and protects against indomethacin-induced gastric lesions.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3738192/

Equipoient Inhibition of Fatty Acid Amide Hydrolase and Monoacylglycerol Lipase - Dual Targets of the Endocannabinoid System to Protect against Seizure Pathology. 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3480564/

Dual fatty acid amide hydrolase and monoacylglycerol lipase blockade produces THC-like Morris water maze deficits in mice.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3382457/

Sulfonyl Fluoride Inhibitors of Fatty Acid Amide Hydrolase  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3678964/
Psychopharmacology of the endocannabinoids: far beyond anandamide.  (full – 2012)  

CHRONIC, NONINVASIVE GLUCOCORTICOID ADMINISTRATION SUPPRESSES LIMBIC ENDOCANNABINOID SIGNALING IN MICE  
(full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3697830/

Endocannabinoid-Goα signalling inhibits axon regeneration in Caenorhabditis elegans by antagonizing Gqα-PKC-JNK signalling  
(full – 2012)  
http://www.nature.com/ncomms/journal/v3/n10/full/ncomms2136.html

Pharmacological manipulation of cannabinoid neurotransmission reduces neuroinflammation associated with normal aging  
(full – 2012)  
http://file.scirp.org/Html/1-8201656_23229.htm

Genetic variability in the endocannabinoid system and 12-week clinical response to citalopram treatment: the role of the CNR1, CNR2 and FAAH genes  
(full – 2012)  
http://journals.sagepub.com/doi/full/10.1177/0269881112454229

The biochemical complexity of the endocannabinoid system with some remarks on stress and related disorders: a minireview  
(abst – 2012)  

Acute reduction of anandamide-hydrolase (FAAH) activity is coupled with a reduction of nociceptive pathways facilitation in medication-overuse headache subjects after withdrawal treatment.  
(abst – 2012)  

Spinal Cord Fatty Acid Amide Hydrolase (FAAH) in Normal Micturition Control and Bladder Overactivity in Awake Rats.  
(abst – 2012)  

Endothelium-dependent mechanisms of the vasodilatory effect of the endocannabinoid, anandamide, in the rat pulmonary artery.  
(abst – 2012)  

Expression of fatty acid amide hydrolase (FAAH) in human, mouse, and rat urinary bladder and effects of FAAH inhibition on bladder function in awake rats.  
(abst – 2012)  

Inhibition of FAAH and activation of PPAR: New approaches to the treatment of cognitive dysfunction and drug addiction.  
(full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3662489/

Inhibition Of Fatty Acid Amide Hydrolase Activates Nrf2 Signaling And Induces Heme Oxygenase 1 Transcription In Breast Cancer Cells.  
(full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3791989/
Astroglial CB1 cannabinoid receptors regulate leptin signaling in mouse brain astrocytes. (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3854987/


Full Inhibition of Spinal FAAH Leads to TRPV1-Mediated Analgesic Effects in Neuropathic Rats and Possible Lipoxygenase-Mediated Remodeling of Anandamide Metabolism (full – 2013)  http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0060040


Fatty acid amide hydrolase deficiency enhances intraplaque neutrophil recruitment in atherosclerotic mice. (full – 2013)  http://atvb.ahajournals.org/content/33/2/215.long

FAAH selectively influences placebo effects. (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4222079/

Impulsivity, Variation in the Cannabinoid Receptor (CNR1) and Fatty Acid Amide Hydrolase (FAAH) Genes, and Marijuana-Related Problems. (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3817049/

The FAAH inhibitor URB597 efficiently reduces tyrosine hydroxylase expression through CB1- and FAAH-independent mechanisms. (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3687660/
Using the endocannabinoid system as a neuroprotective strategy in perinatal hypoxic-ischemic brain injury. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4146074/

The effects of anandamide signaling enhanced by the FAAH inhibitor URB597 on coping styles in rats. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3830591/

Differential expression of endocannabinoid system in normal and preeclamptic placentas: effects on nitric oxide synthesis. (full - 2013)  
http://www.placentajournal.org/article/S0143-4004%2812%2900393-1/fulltext

Induction of Endocannabinoid Levels in Juvenile Rat Brain Following Developmental Chlorpyrifos Exposure. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3954109/

Amygdala FAAH and anandamide: mediating protection and recovery from stress. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4169112/

Long-term consequences of perinatal fatty acid amino hydrolase inhibition (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3954482/

Stirring the Pot With Estrogens (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3697880/

Differential expression of endocannabinoid system in normal and preeclamptic placentas: Effects on nitric oxide synthesis (full – 2013)  
http://www.placentajournal.org/article/S0143-4004%2812%2900393-1/fulltext

Endocannabinoid and cannabinoid-like fatty acid amide levels correlate with pain-related symptoms in patients with IBS-D and IBS-C: a pilot study. (full – 2013)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0085073

Effects of C358A polymorphism of the endocannabinoid degrading enzyme fatty acid amide hydrolase (FAAH) on weight loss, adipocytokines levels, and insulin resistance after a high polyunsaturated fat diet in obese patients. (abst – 2013)  

Actions of the dual FAAH/MAGL inhibitor JZL195 in a murine inflammatory pain model. (abst – 2013)  

Decreased Enteric Fatty Acid Amide Hydrolase Activity is Associated with Colonic Inertia in Slow Transit Constipation (abst – 2013)  

Inhibition of fatty acid amide hydrolase (FAAH) as a novel therapeutic strategy in the treatment of pain and inflammatory diseases in the gastrointestinal tract (abst – 2013)  
Fatty acid amide hydrolase but not monoacyl glycerol lipase controls cell death induced by the endocannabinoid 2-arachidonoyl glycerol in hepatic cell populations. (abst – 2013) http://www.sciencedirect.com/science/article/pii/S0006291X13010206

(4-Phenoxyphenyl)tetrazolecarboxamides and related compounds as dual inhibitors of fatty acid amide hydrolase (FAAH) and monoacylglycerol lipase (MAGL). (abst – 2013) http://www.sciencedirect.com/science/article/pii/S0223523413000780


Getting high on the endocannabinoid system. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3997295/

Inhibition of Fatty Acid binding proteins elevates brain anandamide levels and produces analgesia. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3976407/


Prolonged monoacylglycerol lipase blockade causes equivalent CB1-receptor mediated adaptations in FAAH wild type and knockout mice. (full – 2014) http://jpet.aspetjournals.org/content/early/2014/05/21/jpet.114.212753.long


Localization of the cannabinoid CB1 receptor and the 2-AG synthesizing (DAGLα) and degrading (MAGL, FAAH) enzymes in cells expressing the Ca(2+)-binding proteins calbindin, calretinin, and parvalbumin in the adult rat hippocampus. (full – 2014) http://journal.frontiersin.org/Journal/10.3389/fnana.2014.00056/full


2012 Division of Medicinal Chemistry Award Address: Trekking the Cannabinoid Road: A Personal Perspective. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4064474/

Involvement of Fatty Acid Amide Hydrolase and Fatty Acid Binding Protein 5 in the Uptake of Anandamide by Cell Lines with Different Levels of Fatty Acid Amide Hydrolase Expression: A Pharmacological Study. (full – 2014) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0103479

The expression of cannabinoid receptor 1 is significantly increased in atopic patients (full – 2014) http://www.jacionline.org/article/S0091-6749%2813%2902936-9/fulltext

Ketoconazole Inhibits the Cellular Uptake of Anandamide via Inhibition of FAAH at Pharmacologically Relevant Concentrations (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3900727/


Delta-9 tetrahydrocannabinol (THC) and endocannabinoid degradative enzyme inhibitors attenuate intracranial self-stimulation (ICSS) in mice. (full – 2014) http://jpet.aspetjournals.org/content/early/2014/11/14/jpet.114.218677.long


Metabolism and disposition of MM-433593, a selective FAAH-1 inhibitor, in monkeys. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4186420/


Chronic stimulation of the tone of endogenous anandamide reduces cue- and stress-induced relapse in rats. (full – 2014) http://ijnp.oxfordjournals.org/content/18/1/pyu025.long

Tapping into the endocannabinoid system to ameliorate acute inflammatory flares and associated pain in mouse knee joints. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4201700/

Cocaine-Induced Behavioral Sensitization Is Associated With Changes in the Expression of Endocannabinoid and Glutamatergic Signaling Systems in the Mouse Prefrontal Cortex. (full – 2014) http://ijnp.oxfordjournals.org/content/18/1/pyu024.long

Effects of the fatty acid amide hydrolase inhibitor URB597 on pain-stimulated and pain-depressed behavior in rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3963812/

Exposure to Bisphenol A Exacerbates Migraine-Like Behaviors in a Multibehavior Model of Rat Migraine (full – 2014) http://toxsci.oxfordjournals.org/content/137/2/416.full.pdf+html


Elevation of Endogenous Anandamide Impairs LTP, Learning and Memory through CB1 Receptor Signaling in Mice. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4077345/


Synthesis of Phenoxyacyl-Ethanolamides and Their Effects on Fatty Acid Amide Hydrolase Activity (full – 2014) http://www.jbc.org/content/289/13/9340.full.pdf+html


Selective inhibition of FAAH produces antidiarrheal and antinociceptive effect mediated by endocannabinoids and cannabinoid-like fatty acid amides. (full – 2014)
Toward modulation of the endocannabinoid system for treatment of gastrointestinal disease: FAAHster but not "higher".  

JZL184 is anti-hyperalgesic in a murine model of cisplatin-induced peripheral neuropathy.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4268146/

N-Acylethanolamine-hydrolyzing acid amidase inhibition increases colon N-palmitoylethanolamine levels and counteracts murine colitis.  
http://www.fasebj.org/content/29/2/650.long

Anticonvulsant Effects of N-Arachidonoyl-Serotonin, a Dual FAAH Enzyme and TRPV1 Channel Blocker, on Experimental Seizures: The Roles of Cannabinoid CB1 Receptors and TRPV1 Channels.  

Endocannabinoid Regulation in Human Endometrium Across the Menstrual Cycle.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4527420/

Increased angiotensin II contraction of the uterine artery at early gestation in a transgenic model of hypertensive pregnancy is reduced by inhibition of endocannabinoid hydrolysis.  
http://hyper.ahajournals.org/content/64/3/619.long

Endocannabinoid modulation by FAAH and MAGL within the analgesic circuitry of the periaqueductal grey.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4294036/

The cannabinoid receptor antagonist AM251 increases paraoxon and chlorpyrifos oxon toxicity in rats.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4448943/

Strain differences in the expression of endocannabinoid genes and in cannabinoid receptor binding in the brain of Lewis and Fischer 344 rats.  

Normal aging in rats and pathological aging in human Alzheimer disease decrease FAAH activity: Modulation by cannabinoid agonists.  

Enhanced microglial activity in FAAH-/- animals.  

Attenuation of Cystitis and Pain Sensation in Mice Lacking Fatty Acid Amide Hydrolase.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4355044/

Attenuation of Cystitis and Pain Sensation in Mice Lacking Fatty Acid Amide Hydrolase.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4355044/
Inhibition of anandamide hydrolysis attenuates nociceptor sensitization in a murine model of chemotherapy-induced peripheral neuropathy. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4346731/

The dual FAAH/MAGL inhibitor JZL195 has enhanced effects on endocannabinoid transmission and motor behavior in rats as compared to those of the MAGL inhibitor JZL184. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4150743/


Programming and reprogramming neural cells by (endo-) cannabinoids: from physiological rules to emerging therapies (full – 2014) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4765324/


1-Aryl-2-((6-aryl)pyrimidin-4-yl)amino)ethanols as competitive inhibitors of fatty acid amide hydrolase. (abst – 2014) http://www.sciencedirect.com/science/article/pii/S0960894X14000869

New players in the fatty acyl ethanolamide metabolism.  (abst – 2014)


Inhibition of FAAH enzyme by pterostilbene: potential mechanism of anxiolytic action  (abst – 2014)  http://www.fasebj.org/content/28/1_Supplement/1144.10.abstract?sid=db987fd0-3ef0-4796-aff6-4103f0c84daf

The FAAH inhibitor PF-04457845 has THC-like rewarding and reinstatement effects in squirrel monkeys and increases dopamine levels in the nucleus accumbens shell in rats  (abst – 2014)  http://www.fasebj.org/content/28/1_Supplement/838.6.abstract?sid=db987fd0-3ef0-4796-aff6-4103f0c84daf


The fatty acid amide hydrolase in lymphocytes from sedentary and active subjects.  (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/23793235


Membrane lipids are key modulators of the endocannabinoid-hydrolase FAAH (abst – 2014) http://www.biochemj.org/content/457/3/463


Local uterine Ang-(1-7) infusion augments the expression of cannabinoid receptors and differentially alters endocannabinoid metabolizing enzymes in the decidualized uterus of pseudopregnant rats.  (full – 2015) http://www.rbej.com/content/13/1/5


Fatty Acid Binding Proteins (FABPs) are Intracellular Carriers for Δ9-Tetrahydrocannabinol (THC) and Cannabidiol (CBD).  (full – 2015) http://www.jbc.org/content/early/2015/02/09/jbc.M114.618447.long

Full Fatty Acid Amide Hydrolase Inhibition Combined with Partial Monoacylglycerol Lipase Inhibition: Augmented and Sustained Antinociceptive Effects with Reduced Cannabinimetic Side Effects in Mice  (full – 2015) http://jpet.aspetjournals.org/content/354/2/111.full

Turning Over a New Leaf: Cannabinoid and Endocannabinoid Modulation of Immune Function.  (full – 2015)
Increased contextual fear conditioning in iNOS knockout mice: additional evidence for the involvement of nitric oxide in stress-related disorders and contribution of the endocannabinoid system. (full – 2015) http://ijnp.oxfordjournals.org/content/18/8/pyv005.long

Defects in fatty acid amide hydrolase 2 in a male with neurologic and psychiatric symptoms. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4423390/


Homeostatic regulation of brain functions by endocannabinoid signaling (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4468750/


FAAH genetic variation enhances fronto-amygdala function in mouse and human. (full – 2015) http://www.nature.com/articles/ncomms7395.epdf?referrer_access_token=PXVrIqmH4cIKK8Z6Pdh7gAdRqN0iAjWeIl9jnR3ZOTv0MFY2u7ZdbRZ8yhzdTOJfa-O9HKMjv_5rG5vP0ZGVRHtjvxxd3D6Fuj0xbHtGY8oldf7UYS61rEzfzB5TJv1Bb-kK5Jw61Nd3-e65PpoQpwrtKFKljbGttma8f-Gc9DPI52xj63m2TF7oWmQChmZBBe97Cwro-D9ICraVhXE9mTvCCGGdvxFQFz8rPtg3fTonyQYDECUQWrfPFJNuaWEPYy1xb&tracking_referrer=blogs.scientificamerican.com

Multiple Forms of Endocannabinoid and Endovanilloid Signaling Regulate the Tonic Control of GABA Release (full – 2015) http://www.jneurosci.org/content/35/27/10039.full?sid=7e769d1b-9b77-42fe-92d0-8b337b34b9b6

Inhibition of FAAH confers increased stem cell migration via PPARα. (full - 2015) http://www.jlr.org/content/early/2015/08/11/jlr.M061473.long

Pharmacological activation of CB2 receptors counteracts the deleterious effect of ethanol on cell proliferation in the main neurogenic zones of the adult rat brain. (full – 2015) http://journal.frontiersin.org/article/10.3389/fncel.2015.00379/full


Cardioprotective effects of fatty acid amide hydrolase inhibitor URB694, in a rodent model of trait anxiety. (full – 2015) http://www.nature.com/articles/srep18218


Anti-inflammatory effects of N-acylethanolamines in rheumatoid arthritis synovial cells are mediated by TRPV1 and TRPA1 in a COX-2 dependent manner. (full – 2015) http://www.arthritis-research.com/content/17/1/321


Cannabinoid-based drugs targeting CB1 and TRPV1, the sympathetic nervous system, and arthritis. (full – 2015) http://www.arthritis-research.com/content/17/1/226

Cannabinoid-based drugs targeting CB1 and TRPV1, the sympathetic nervous system, and arthritis (full – 2015) http://link.springer.com/article/10.1186/s13075-015-0743-x

Corticotropin-Releasing Hormone Drives Anandamide Hydrolysis in the Amygdala to Promote Anxiety. (full - 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4348185/

Multitarget fatty acid amide hydrolase/cyclooxygenase blockade suppresses intestinal inflammation and protects against nonsteroidal anti-inflammatory drug-dependent gastrointestinal damage. (full – 2015) http://www.fasebj.org/content/29/6/2616.long


Activation of cannabinoid receptor 1 inhibits increased bladder activity induced by nerve growth factor. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4339033/


Endocannabinoid and ceramide levels are altered in patients with colorectal cancer. (full – 2015) https://www.spandidos-publications.com/or/34/1/447

Endocannabinoid Catabolic Enzymes Play Differential Roles in Thermal Homeostasis in Response to Environmental or Immune Challenge. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4477849/

Novel associations between FAAH genetic variants and postoperative central opioid-related adverse effects. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4492912/

Simultaneous inhibition of fatty acid amide hydrolase (FAAH) and monoacylglycerol lipase (MAGL) shares discriminative stimulus effects with Δ9-THC in mice.
A highly selective, reversible inhibitor identified by comparative chemoproteomics modulates diacylglycerol lipase activity in neurons. (full – 2015)

Effects of Fatty Acid Amide Hydrolase (FAAH) Inhibitors in Non-Human Primate Models of Nicotine Reward and Relapse. (full – 2015)

Phenotypic assessment of THC discriminative stimulus properties in fatty acid amide hydrolase knockout and wildtype mice. (full – 2015)

Dynamics of expression and localization of the cannabinoid system in granulosa cells during oocyte nuclear maturation. (full – 2015)

Role of the endocannabinoid system in the mechanisms involved in the LPS-induced preterm labor. (full – 2015)


Effects of peripheral FAAH blockade on NTG-induced hyperalgesia-evaluation of URB937 in an animal model of migraine. (full – 2015)

The effect of FAAH, MAGL, and Dual FAAH/MAGL inhibition on inflammatory and colorectal distension-induced visceral pain models in Rodents. (full – 2015)


Cannabinoids and Epilepsy (full – 2015)

Elevated Levels of Endocannabinoids in Chronic Hepatitis C May Modulate Cellular Immune Response and Hepatic Stellate Cell Activation. (link to PDF - 2015)

Endocannabinoids (article – 2015)

Inhibition of anandamide hydrolysis enhances noradrenergic and GABAergic transmission in the prefrontal cortex and basolateral amygdala of rats subjected to acute swim stress. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/25581607


Inhibition of FAAH reduces nitroglycerin-induced migraine-like pain and trigeminal neuronal hyperactivity in mice. (abst – 2015)


URB937, a peripherally-restricted inhibitor for fatty acid amide hydrolase, reduces prostaglandin E2-induced bladder overactivity and hyperactivity of bladder mechanoafferent nerve fibers in rats. (abst – 2015)

Comparative effects of parathion and chlorpyrifos on endocannabinoid and endocannabinoid-like lipid metabolites in rat striatum. (abst – 2015)

Inhibition of fatty-acid amide hydrolase (FAAH) exerts cognitive improvements in male but not female rats. (abst – 2015)

Interference with acute nausea and anticipatory nausea in rats by fatty acid amide hydrolase (FAAH) inhibition through a PPARα and CB1 receptor mechanism, respectively: a double dissociation. (abst – 2015)

Endocannabinoid regulation of amyloid-induced neuroinflammation. (abst – 2015)

Antidepressant-like activity and cardioprotective effects of fatty acid amide hydrolase inhibitor URB694 in socially stressed Wistar Kyoto rats. (abst – 2015)

Lipopolysaccharide Suppresses Carboxylesterase 2g Activity and 2-Arachidonylglycerol Hydrolysis: A Possible Mechanism to Regulate Inflammation. (abst – 2015)


A Double Whammy: Targeting Both Fatty Acid Amide Hydrolase (FAAH) and Cyclooxygenase (COX) To Treat Pain and Inflammation. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26486424

Dopamine-dependent CB1 receptor dysfunction at corticostriatal synapses in homozygous PINK1 knockout mice. (abst – 2015) http://www.sciencedirect.com/science/article/pii/S0028390815301441


Vaccenic acid suppresses intestinal inflammation by increasing the endocannabinoid anandamide and non-cannabinoid signaling molecules in a rat model of the metabolic syndrome. (full – 2016) http://www.jlr.org/content/early/2016/02/17/jlr.M066308.long
Differential Regulation of Eicosanoid and Endocannabinoid Production by Inflammatory Mediators in Human Choriodecidua. (full – 2016)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0148306

Endocannabinoids as Guardians of Metastasis (full – 2016)  
http://www.mdpi.com/1422-0067/17/2/230/htm

Sustained Endocannabinoid Signaling Compromises Decidual Function and Promotes Inflammation-induced Preterm Birth. (full – 2016)  
http://www.jbc.org/content/early/2016/02/21/jbc.M115.707836.long

Fatty acid amide hydrolase inhibitors confer anti-invasive and antimetastatic effects on lung cancer cells. (full – 2016)  

Safety, Tolerability and Pharmacokinetics of FAAH Inhibitor V158866: A Double-Blind, Randomised, Placebo-Controlled Phase I Study in Healthy Volunteers. (full – 2016)  

A Comparative Analysis of the Endocannabinoid System in the Retina of Mice, Tree Shrews, and Monkeys. (full – 2016)  
http://www.hindawi.com/journals/np/2016/3127658/

Metabolism of Anandamide by Human Cytochrome P450 2J2 in the Reconstituted System and Human Intestinal Microsomes. (full – 2016)  
http://jpet.aspetjournals.org/content/early/2016/03/21/jpet.116.232553.long

http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0148734

A pro-nociceptive phenotype unmasked in mice lacking fatty-acid amide hydrolase (full – 2016)  
http://mpx.sagepub.com/content/12/1744806916649192.long

p21-activated kinase 1 restricts tonic endocannabinoid signaling in the hippocampus (full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4907698/

Discriminative Stimulus Properties of the Endocannabinoid Catabolic Enzyme Inhibitor SA-57 in Mice. (full – 2016)  
http://jpet.aspetjournals.org/content/early/2016/06/15/jpet.115.229492.long

Unmasking roles of the peripheral endocannabinoid system associated with bladder overactivity (full – 2016)  

Beyond Cannabis: Plants and the Endocannabinoid System (full – 2016)  
http://ge.tt/3Rgrtsa2

Cyclooxygenase-2 inhibition reduces stress-induced affective pathology.

Cannabinoid receptor-dependent and -independent anti-proliferative effects of omega-3 ethanolamides in androgen receptor-positive and -negative prostate cancer cell lines. (full – 2016) http://carcin.oxfordjournals.org/content/31/9/1584.long


Age-specific influences of chronic administration of the fatty acid amide hydrolase inhibitor URB597 on cardiovascular parameters and organ hypertrophy in DOCA-salt hypertensive rats (full – 2016) http://www.sciencedirect.com/science/article/pii/S1734114015003412


Fatty Acid Binding Proteins are Intracellular Carriers for THC and CBD (full – 2016) http://www.jbc.org/content/290/14/8711.full


Indirect Modulation of the Endocannabinoid System by Specific Fractions of Nutmeg Total Extract (full – 2016) Indirect modulation of the endocannabinoid system by specific fractions of nutmeg total extract.


Involvement of Endocannabinoids in Alcohol "Binge" Drinking: Studies of Mice with Human Fatty Acid Amide Hydrolase Genetic Variation and After CB1 Receptor Antagonists. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4962692/


Exposure to a Highly Caloric Palatable Diet during the Perinatal Period Affects the Expression of the Endogenous Cannabinoid System in the Brain, Liver and Adipose Tissue of Adult Rat Offspring. (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0165432


Components of the cannabinoid system in the dorsal periaqueductal gray are related to resting heart rate (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4982395/

Opposite roles of cannabinoid receptors 1 and 2 in hepatocarcinogenesis. (full – 2016) http://gut.bmj.com/content/65/10/1721.long


Bisphenol A Induces Fatty Liver by an Endocannabinoid-Mediated Positive Feedback Loop. (full – 2016)
Role of the endocannabinoid system in the control of mouse myometrium contractility during the menstrual cycle. (full – 2016)

A Personal Retrospective: Elevating Anandamide (AEA) by Targeting Fatty Acid Amide Hydrolase (FAAH) and the Fatty Acid Binding Proteins (FABPs). (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5062061/

Inhibition of fatty acid amide hydrolase by BIA 10-2474 in rat brain. (full – 2016)
http://journals.sagepub.com/doi/full/10.1177/0271678X16668890

Long-Term Effects of Prenatal Exposure to Undernutrition on Cannabinoid Receptor-Related Behaviors: Sex and Tissue-Specific Alterations in the mRNA Expression of Cannabinoid Receptors and Lipid Metabolic Regulators. (full – 2016)


Lifelong imbalanced linoleic/alpha-linolenic acid intake impairs emotional and cognitive behavior in adult rats via changes in brain endocannabinoid system. (click “Full Text Links” to download – 2016)

A Genetic Component to National Differences in Happiness (abst – 2016)

Ligands for cannabinoid receptors, promising anticancer agents. (abst – 2016)

ω-Imidazolyl- and ω-Tetrazolylalkylcarbamates as Inhibitors of Fatty Acid Amide Hydrolase: Biological Activity and in vitro Metabolic Stability. (abst – 2016)

The endocannabinoid system in the human granulosa cell line KGN. (abst – 2016)

Dysregulated peripheral endocannabinoid system signaling is associated with cognitive deficits in first-episode psychosis. (abst – 2016)

Interactions between anandamide & corticotropin-releasing hormone signaling modulate human amygdala function & risk for anxiety disorders: An imaging genetics strategy for modeling molecular interactions (abst – 2016)  

Self-administration of the anandamide transport inhibitor AM404 by squirrel monkeys (abst – 2016)  

Interactions between dietary oil treatments and genetic variants modulate fatty acid ethanolamides in plasma and body weight composition. (abst – 2016)  


Sustained glucocorticoid exposure recruits cortico-limbic CRH signaling to modulate endocannabinoid function. (abst – 2016)  
http://www.psyneuen-journal.com/article/S0306-4530(16)30003-8/abstract

Cannabinoids for the Treatment of Schizophrenia: An Overview. (abst – 2016)  
http://www.eurekaselect.com/139245/article

Attenuation of cue-induced reinstatement of nicotine seeking by URB597 through cannabinoid CB1 receptor in rats. (abst – 2016)  

Immunohistochemical distribution of the cannabinoid receptor 1 and fatty acid amide hydrolase in the dog claustrum. (abst – 2016)  

Role of cannabinoids in gastrointestinal mucosal defense and inflammation. (abst – 2016)  
http://www.eurekaselect.com/140045/article

Sex differences in hippocampal response to endocannabinoids after exposure to severe stress. (abst – 2016)  

Dynamic of expression and localization of cannabinoid-degrading enzymes FAAH and MGLL in relation to CB1 during meiotic maturation of human oocytes. (abst – 2016)  

Protective role of cannabinoid CB1 receptors and vascular effects of chronic administration of FAAH inhibitor URB597 in DOCA-salt hypertensive rats. (abst – 2016)  

Elevation of 2-AG by monoacylglycerol lipase inhibition in the visceral insular cortex interferes with anticipatory nausea in a rat model. (abst – 2016)  

Genetically reduced FAAH activity may be a risk for the development of anxiety and depression in persons with repetitive childhood trauma. (abst – 2016) http://www.europeanneuropsychopharmacology.com/article/S0924-977X(16)00077-8/abstract


Broad impact of deleting endogenous cannabinoid hydrolyzing enzymes and the CB1 cannabinoid receptor on the endogenous cannabinoid-related lipidome in eight regions of the mouse brain. (abst – 2016) http://www.sciencedirect.com/science/article/pii/S1043661816303449


TRPV1-FAAH-COX: The Couples Game in Pain Treatment. (abst – 2016)

Assay of FAAH Activity. (abst – 2016)

Dietary conjugated linoleic acid supplementation alters the expression of genes involved in the endocannabinoid system in the bovine endometrium and increases plasma progesterone concentrations. (abst – 2016)

Fatty acid amide hydrolase inhibition for the symptomatic relief of Parkinson's disease. (abst – 2016)

Fatty acid amide hydrolase (FAAH), acetylcholinesterase (AChE) and butyrylcholinesterase (BuChE): networked targets for the development of carbamates as potential anti Alzheimer's Disease agents. (abst – 2016)
http://pubs.acs.org/doi/abs/10.1021/acs.jmedchem.6b00609

The multiplicity of spinal AA-5-HT anti-nociceptive action in a rat model of neuropathic pain. (abst – 2016)

Fatty acid amide hydrolase (FAAH) blockade ameliorates experimental colitis by altering microRNA expression and suppressing inflammation. (abst – 2016)


Heparin exerts anti-apoptotic effects on uterine explants by targeting the endocannabinoid system. (abst – 2016)

Co-administration of cannabidiol and capsazepine reduces L-DOPA-induced dyskinesia in mice: Possible mechanism of action (abst – 2016)

Just add water: cannabinoid discrimination in a water T-maze with FAAH(-/-) and (+/+) mice. (abst – 2016)

Deficient adolescent social behavior following early-life inflammation is ameliorated by augmentation of anandamide signaling. (abst – 2016)

Cannabinoid receptor agonist WIN55,212-2 and fatty acid amide hydrolase inhibitor URB597 may protect against cognitive impairment in rats of chronic cerebral
hypoperfusion via PI3K/AKT signaling. (abst – 2016)  

Involvement of endocannabinoid neurotransmission in the bed nucleus of stria terminalis in cardiovascular responses to acute restraint stress in rats. (abst – 2016)  

Metabolism of endocannabinoids. (abst – 2016)  

The endocannabinoid anandamide impairs in vitro decidualization of human cells. (abst – 2016)  

Pharmacological inhibition of fatty acid amide hydrolase attenuates social behavioural deficits in male rats prenatally exposed to valproic acid. (abst – 2016)  

Oleoylthanolamine and palmitoylthanolamine modulate intestinal permeability in vitro via TRPV1 and PPARα. (abst – 2016)  

Beyond the Direct Activation of Cannabinoid Receptors: New Strategies to Modulate the Endocannabinoid System in CNS-Related Diseases. (abst – 2016)  

Seeing through the smoke: human and animal studies of cannabis use and endocannabinoid signalling in corticolimbic networks (abst – 2016)  

Parabens inhibit fatty acid amide hydrolase: A potential role in paraben-enhanced 3T3-L1 adipocyte differentiation. (abst – 2016)  

Dysregulation of the endocannabinoid signaling system in the cerebellum and brainstem in a transgenic mouse model of spinocerebellar ataxia type-3. (abst – 2016)  

FAAH Gene Variation Moderates Stress Response and Symptom Severity in Patients with Posttraumatic Stress Disorder and Comorbid Alcohol Dependence. (abst – 2016)  

Peripheral Blood Mononuclear Cells Infiltration Downregulates Decidual FAAH Activity in an LPS-Induced Embryo Resorption Model. (abst – 2016)  

Chronic FAAH inhibition during nicotine abstinence alters habenular CB1 receptor activity and precipitates depressive-like behaviors (abst – 2016)  

Hemopressin peptides as modulators of the endocannabinoid system and their potential applications as therapeutic tools. (abst – 2016) http://www.eurekaselect.com/146167/article

Therapeutic potential of fatty acid amide hydrolase, monoacylglycerol lipase, and N-acylethanolamine acid amidase inhibitors. (abst – 2016) http://pubs.acs.org/doi/abs/10.1021/acs.jmedchem.6b00538


Brain uptake and metabolism of the endocannabinoid anandamide labeled in either the arachidonoyl or ethanolamine moiety. (abst – 2016) https://www.ncbi.nlm.nih.gov/pubmed/27889577


URB597 improves cognitive impairment induced by chronic cerebral hypoperfusion by inhibiting mTOR-dependent autophagy. (abst – 2016)


N-aryl 2-aryloxyacetamides as a new class of fatty acid amide hydrolase (FAAH) inhibitors (full – 2017) http://www.tandfonline.com/doi/full/10.1080/14756366.2016.1265520


Decreased expression of fatty acid amide hydrolase in women with polycystic ovary syndrome. (abst – 2017) https://www.ncbi.nlm.nih.gov/pubmed/28132572


FABP / FATTY ACID BINDING PROTEINS – they deliver cannabinoids to FAAH for destruction

Inhibition of Fatty Acid binding proteins elevates brain anandamide levels and produces analgesia. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3976407/

Involvement of Fatty Acid Amide Hydrolase and Fatty Acid Binding Protein 5 in the Uptake of Anandamide by Cell Lines with Different Levels of Fatty Acid Amide Hydrolase Expression: A Pharmacological Study. (full – 2014) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0103479
Fatty Acid-binding Protein 5 (FABP5) Regulates Cognitive Function Both by Decreasing Anandamide Levels and by Activating the Nuclear Receptor Peroxisome Proliferator-activated Receptor β/δ (PPARβ/δ) in the Brain. 
http://www.jbc.org/content/289/18/12748.full.pdf+html

Plasma-Free Fatty Acids, Fatty Acid-Binding Protein 4, and Mortality in Older Adults (from the Cardiovascular Health Study). 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4162821/

Fatty Acid Binding Protein-4 is expressed in the mouse placental labyrinth, yet is dispensable for placental triglyceride accumulation and fetal growth. 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4170794/

Impaired Neurogenesis by HIV-1-Gp120 is Rescued by genetic deletion of Fatty Acid Amide Hydrolase Enzyme. 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4594266/

Fatty Acid Binding Proteins (FABPs) are Intracellular Carriers for Δ9-Tetrahydrocannabinol (THC) and Cannabidiol (CBD). 
http://www.jbc.org/content/early/2015/02/09/jbc.M114.618447.long

Increased Plasma Levels of FABP4 and PTEN Is Associated with More Severe Insulin Resistance in Women with Gestational Diabetes Mellitus. 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4329941/

Fatty Acid-Binding Protein 4 (FABP4): Pathophysiological Insights and Potent Clinical Biomarker of Metabolic and Cardiovascular Diseases. 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4315049/

Fatty acid binding protein deletion suppresses inflammatory pain through endocannabinoid/N-acylethanolamine-dependent mechanisms. 

Bile salt recognition by human liver fatty acid binding protein. 

Fatty acid binding protein 5 (FABP5) regulates diet-induced obesity (DIO) via GIP secretion from enteroendocrine K-cells in response to fat ingestion. 
http://ajpendo.physiology.org/content/308/7/E583.long

Point-of-care heart-type fatty acid binding protein versus high-sensitivity troponin T testing in emergency patients at high risk for acute coronary syndrome. 
http://journals.sagepub.com/doi/full/10.1177/2048872615570221

Urinary early kidney injury molecules in children with beta-thalassemia major. 

Analysis of FABP4 expression pattern in rump fat deposition and metabolism of Altay sheep. 
Angiotensin II receptor blockers decrease serum concentration of fatty acid-binding protein 4 in patients with hypertension. (abst – 2015)

Examination of the Addictive and Behavioral Properties of Fatty Acid-Binding Protein Inhibitor SBF126. (full – 2016)

Fatty Acid Binding Proteins are Intracellular Carriers for THC and CBD (full – 2016) http://www.jbc.org/content/290/14/8711.full

A Personal Retrospective: Elevating Anandamide (AEA) by Targeting Fatty Acid Amide Hydrolase (FAAH) and the Fatty Acid Binding Proteins (FABPs). (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5062061/

Involvement of M1 and CB1 receptors in the anxiogenic-like effects induced by neostigmine injected into the rat prelimbic medial prefrontal cortex. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/26873081


Fatty Acid Binding Protein-1 (FABP1) and the Human FABP1 T94A Variant: Roles in the Endocannabinoid System and Dyslipidemias. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27117865


An update on PPAR activation by cannabinoids (abst – 2016)
http://www.ingentaconnect.com/search/article?option1=ta&value1=cannabinoid&sortDescending=true&sortField=prism_publicationDate&pageSize=10&index=6

Female Mice are Resistant to Fabp1 Gene Ablation-Induced Alterations in Brain Endocannabinoid Levels (abst – 2016)

FABP1: A Novel Hepatic Endocannabinoid and Cannabinoid Binding Protein (abst – 2016) http://pubs.acs.org/doi/abs/10.1021/acs.biochem.6b00446

The Peptide Hemopressin Acts through CB1 Cannabinoid Receptors to Reduce Food Intake in Rats and Mice (full – 2010)  http://www.jneurosci.org/content/30/21/7369.full

Binding of the hemopressin peptide to the cannabinoid CB1 receptor: structural insights. (abst – 2010)  http://pubs.acs.org/doi/abs/10.1021/bi1011833


Identification and quantification of a new family of peptide endocannabinoids (Pepcans) showing negative allosteric modulation at CB1 receptors. (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3481297/

Hemopressin forms self-assembled fibrillar nanostructures under physiologically relevant conditions. (abst – 2012)  http://pubs.acs.org/doi/abs/10.1021/bm201836f

Modulation of the cannabinoid receptors by hemopressin peptides. (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3594051/


Hemopressin, an inverse agonist of cannabinoid receptors, inhibits neuropathic pain in rats. (full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4112957/

Analgesic tolerance and cross-tolerance to the cannabinoid receptors ligands hemopressin, VD-hemopressin(α) and WIN55,212-2 at the supraspinal level in mice. (abst – 2014)  http://www.sciencedirect.com/science/article/pii/S0304394014005394


Mitochondrial CB1 receptor is involved in ACEA-induced protective effects on neurons and mitochondrial functions. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4516969/

The endocannabinoid system in renal cells: Regulation of Na+ transport by CB1 receptors through distinct cell signaling pathways. (full – 2015)  


Curcumin and hemopressin treatment attenuates cholestasis-induced liver fibrosis in rats: role of CB1 receptors (abst – 2016)  

Investigation of receptor binding and functional characteristics of hemopressin(1-7). (abst – 2016)  

Central administrations of hemopressin and related peptides inhibit gastrointestinal motility in mice. (abst – 2016)  

Effects of the cannabinoid 1 receptor peptide ligands hemopressin, (m)RVD-hemopressin(α) and (m)VD-hemopressin(α) on memory in novel object and object location recognition tasks in normal young and Aβ1-42-treated mice. (abst – 2016)  

Hemopressin peptides as modulators of the endocannabinoid system and their potential applications as therapeutic tools. (abst – 2016)  
http://www.eurekaselect.com/146167/article

DOES hemopressin bind metal ions in vivo? (abst – 2016)  

**LPI / L-α-LYSOPHOSPHATIDYLINOSITOL** + – GPR-55 agonist

GPR55 ligands promote receptor coupling to multiple signalling pathways. (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931561/?tool=pubmed

A role for L-alpha-lysophosphatidylinositol and GPR55 in the modulation of migration, orientation and polarization of human breast cancer cells. (full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931574/

Pharmacology of GPR55 in yeast and identification of GSK494581A as a mixed-activity glycine transporter subtype 1 inhibitor and GPR55 agonist. (full – 2011)  
http://jpet.aspetjournals.org/content/337/1/236.long
Lipid bilayer molecular dynamics study of lipid-derived agonists of the putative cannabinoid receptor, GPR55. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3086297/?tool=pubmed


The L-α-lysophosphatidylinositol/GPR55 system and its potential role in human obesity. (full – 2012) http://diabetes.diabetesjournals.org/content/61/2/281.long


The cannabinoid receptor CB1 modulates the signaling properties of the lysophosphatidylinositol receptor GPR55. (full – 2012) http://www.jbc.org/content/early/2012/11/16/jbc.M112.364109.long


Cannabinoid- and lysophosphatidylinositol-sensitive receptor GPR55 boosts neurotransmitter release at central synapses. (full – 2013) http://www.pnas.org/content/early/2013/03/06/1211204110.full.pdf+html


The Lysophosphatidylinositol Receptor GPR55 Modulates Pain Perception in the Periaqueductal Grey. (full – 2015) http://molpharm.aspetjournals.org/content/early/2015/05/12/mol.115.099333.long


The GPR55 agonist lysophosphatidylinositol mediates vasorelaxation of the rat mesenteric resistance artery and induces calcium release in rat mesenteric artery endothelial cells (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4459022/

Activation of the orphan receptor GPR55 by lysophosphatidylinositol promotes metastasis in triple-negative breast cancer. (full – 2016)
MAGL/ MGL/ MONOACYLGLYCEROL LIPASE + - breaks down 2-AG

Characterization of tunable piperidine and piperazine carbamates as inhibitors of endocannabinoid hydrolases (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2828288/?report=classic

The levels of the endocannabinoid receptor CB2 and its ligand 2-arachidonoylglycerol are elevated in endometrial carcinoma. (full – 2010)

Inhibition of monoacylglycerol lipase by troglitazone, N-arachidonoyl dopamine and the irreversible inhibitor JZL184: comparison of two different assays. (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3010564/

Architecture of cannabinoid signaling in mouse retina. (full – 2010)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2982216/

The serine hydrolase ABHD6 controls the accumulation and efficacy of 2-AG at cannabinoid receptors. (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2970523/

An endocannabinoid system is localized to the hypophysial pars tuberalis of Syrian hamsters and responds to photoperiodic changes. (abst – 2010)

Novel natural and synthetic ligands of the endocannabinoid system. (abst – 2010)

Genetic deletion of monoacylglycerol lipase alters endocannabinoid-mediated retrograde synaptic depression in the cerebellum. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3224879/

Inhibition of monoacylglycerol lipase (MAGL) attenuates NSAID-induced gastric hemorrhages in mice. (full – 2011)
http://jpet.aspetjournals.org/content/early/2011/06/09/jpet.110.175778.long

Propofol Enhances Memory Formation via an Interaction with the Endocannabinoid System (full – 2011)
The serine hydrolases MAGL, ABHD6 and ABHD12 as guardians of 2-arachidonoylglycerol signalling through cannabinoid receptors (full – 2011)

Endocannabinoid hydrolysis generates brain prostaglandins that promote neuroinflammation (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3249428/

The activity of the endocannabinoid metabolising enzyme fatty acid amide hydrolase in subcutaneous adipocytes correlates with BMI in metabolically healthy humans (full – 2011) http://www.lipidworld.com/content/10/1/129

Expression of the cannabinoid system in muscle: effects of a high fat diet and CB1 receptor blockade (full – 2011) http://www.biochemj.org/content/433/1/175

Multiple Changes in Peptide and Lipid Expression Associated with Regeneration in the Nervous System of the Medicinal Leech (link to PDF – 2011) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.713.3790&rank=102

Localization of Cannabinoid-Related Proteins in the Murine Anterior Eye (abst – 2011) http://iovs.arvojournals.org/article.aspx?articleid=2356236&resultClick=1


Intrinsic Up-Regulation of 2-AG Favors an Area Specific Neuronal Survival in Different In Vitro Models of Neuronal Damage. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3527460/

Dynamic changes to the endocannabinoid system in models of chronic pain (full – 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3300.full?sid=1569c370-cd5c-4358-89ff-857201f5e069

Dual fatty acid amide hydrolase and monoacylglycerol lipase blockade produces THC-like Morris water maze deficits in mice. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3382457/

Inhibition of monoacylglycerol lipase attenuates vomiting in Suncus murinus and 2-arachidonoylglycerol attenuates nausea in rats. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423233/
Inhibition of recombinant human carboxylesterase 1 and 2 and monoacylglycerol lipase by chlorpyrifos oxon, paraoxon and methyl paraoxon. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3345137/

The endocannabinoid system: an overview (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3303140/

Monoacylglycerol lipase is a new therapeutic target for Alzheimer’s disease (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3513645/

Endocannabinoid signaling in female reproduction. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3382454/

Alterations in endocannabinoid tone following chemotherapy-induced peripheral neuropathy: effects of endocannabinoid deactivation inhibitors targeting fatty-acid amide hydrolase and monoacylglycerol lipase in comparison to reference analgesics following cisplatin treatment. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3525790/

Spinal administration of the monoacylglycerol lipase inhibitor JZL184 produces robust inhibitory effects on nociceptive processing and the development of central sensitization in the rat (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3525864/

Monoacylglycerol lipase – a target for drug development? (full – 2012)

Activation of Type 5 Metabotropic Glutamate Receptors and Diacylglycerol Lipase-α Initiates 2-Arachidonoylglycerol Formation and Endocannabinoid-Mediated Analgesia. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3652685/

Equipotent Inhibition of Fatty Acid Amide Hydrolase and Monoacylglycerol Lipase - Dual Targets of the Endocannabinoid System to Protect against Seizure Pathology. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3480564/


Psychopharmacology of the endocannabinoids: far beyond anandamide. (full – 2012)

The biochemical complexity of the endocannabinoid system with some remarks on stress and related disorders: a minireview (abst – 2012)

Dual inhibition of MAGL and type II topoisomerase by N-phenylmaleimides as a potential strategy to reduce neuroblastoma cell growth. (abst – 2012)
Evidence For Functional Role Of CB1 Cannabinoid Receptors In The Mammalian Cone Pathway  
(abst – 2012)  http://iovs.arvojournals.org/article.aspx?articleid=2356936&resultClick=1

Monoacylglycerol Lipase (MAGL) Inhibition Attenuates Acute Lung Injury in Mice.  
(full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3808422/

Substrate-selective COX-2 inhibition decreases anxiety via endocannabinoid activation.  
(full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3788575/

Parsing the players: 2-AG synthesis and degradation in the CNS  

Neuregulin-1 Impairs the Long-term Depression of Hippocampal Inhibitory Synapses by Facilitating the Degradation of Endocannabinoid 2-AG.  
(full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3776056/

The monoacylglycerol lipase inhibitor JZL184 suppresses inflammatory pain in the mouse carrageenan model.  
(full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3717616/

Astroglial CB1 cannabinoid receptors regulate leptin signaling in mouse brain astrocytes.  
(full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3854987/

The monoacylglycerol lipase inhibitor JZL184 attenuates LPS-induced increases in cytokine expression in the rat frontal cortex and plasma: differential mechanisms of action.  
(full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3687661/

The FAAH inhibitor URB597 efficiently reduces tyrosine hydroxylase expression through CB₁- and FAAH-independent mechanisms.  
(full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3687660/

Implication of the anti-inflammatory bioactive lipid prostaglandin D2-glycerol ester in the control of macrophage activation and inflammation by ABHD6.  
(full – 2013)  http://www.pnas.org/content/110/43/17558.long

Dual Inhibition of Endocannabinoid Catabolic Enzymes Produces Enhanced Anti-Withdrawal Effects in Morphine-Dependent Mice.  

Therapeutic potential of monoacylglycerol lipase inhibitors.  
(full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3594462/
Mutation of Cys242 of Human Monoacylglycerol Lipase Disrupts Balanced Hydrolysis of 1- and 2-monoacylglycerols and Selectively Impairs Inhibitor Potency  (full – 2013)
http://molpharm.aspetjournals.org/content/early/2013/12/24/mol.113.090795.long


Targeting the cannabinoid system for pain relief?  (full – 2013)
http://www.e-aat.com/article/S1875-4597%2813%2900119-7/fulltext

Induction of Endocannabinoid Levels in Juvenile Rat Brain Following Developmental Chlorpyrifos Exposure.  (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3954109/

Antinociceptive activity without cannabimimetic side effects.  (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3954480/

Endocannabinoid and cannabinoïd-like fatty acid amide levels correlate with pain-related symptoms in patients with IBS-D and IBS-C: a pilot study.  (full – 2013)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0085073


(4-Phenoxyphenyl)tetrazolecarboxamides and related compounds as dual inhibitors of fatty acid amide hydrolase (FAAH) and monoacylglycerol lipase (MAGL).  (abst – 2013)  http://www.ncbi.nlm.nih.gov/pubmed/23281018

Aging modifies the enzymatic activities involved in 2-arachidonoylglycerol metabolism.  (abst – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3954478/

Vascular targets for cannabinoids: animal and human studies.  (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3953590/

Prefrontal deficits in a murine model overexpressing the down syndrome candidate gene dyrk1a.  (full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4064474/

2012 Division of Medicinal Chemistry Award Address: Trekking the Cannabinoid Road: A Personal Perspective.  (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4064474/

Heterogeneous presynaptic distribution of monoacylglycerol lipase, a multipotent regulator of nociceptive circuits in the mouse spinal cord.  (full – 2014)
The influence of monoacylglycerol lipase inhibition upon the expression of epidermal growth factor receptor in human PC-3 prostate cancer cells (full – 2014)

The effects of obesity, diabetes and metabolic syndrome on the hydrolytic enzymes of the endocannabinoid system in animal and human adipocytes. (full – 2014)

The expression of cannabinoid receptor 1 is significantly increased in atopic patients (full – 2014)

Localization of the cannabinoid CB1 receptor and the 2-AG synthesizing (DAGLα) and degrading (MAGL, FAAH) enzymes in cells expressing the Ca(2+)-binding proteins calbindin, calretinin, and parvalbumin in the adult rat hippocampus. (full – 2014)

Robust Hydrolysis of Prostaglandin Glycerol Esters by Human Monoacylglycerol Lipase (MAGL). (full – 2014)

Monoacylglycerol lipase promotes metastases in nasopharyngeal carcinoma. (full – 2014)

Delta-9 tetrahydrocannabinol (THC) and endocannabinoid degradative enzyme inhibitors attenuate intracranial self-stimulation (ICSS) in mice. (full – 2014)

Monoacylglycerol Lipase Inhibitor JZL184 Improves Behavior and Neural Properties in Ts65Dn Mice, a Model of Down Syndrome. (full – 2014)

Localization of diacylglycerol lipase alpha and monoacylglycerol lipase during postnatal development of the rat retina. (full – 2014)

Synaptic and Cognitive Improvements by Inhibition of 2-AG Metabolism Are through Upregulation of MicroRNA-188-3p in a Mouse Model of Alzheimer's Disease. (full - 2014)


Cocaine-Induced Behavioral Sensitization Is Associated With Changes in the Expression of Endocannabinoid and Glutamatergic Signaling Systems in the Mouse Prefrontal Cortex. (full – 2014)
Monoacylglycerol Lipase Inhibition Blocks Chronic Stress-Induced Depressive-Like Behaviors via Activation of mTOR Signaling.  (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4023150/


Increased angiotensin II contraction of the uterine artery at early gestation in a transgenic model of hypertensive pregnancy is reduced by inhibition of endocannabinoid hydrolysis.  (full – 2014) http://hyper.ahajournals.org/content/64/3/619.long

Endocannabinoid modulation by FAAH and MAGL within the analgesic circuitry of the periaqueductal grey.  (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4294036/

The cannabinoid receptor antagonist AM251 increases paraoxon and chlorpyrifos oxon toxicity in rats.  (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4448943/

Chemical approaches to therapeutically target the metabolism and signaling of the endocannabinoid 2-AG and eicosanoids  (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4159426/


Dual inhibition of monoacylglycerol lipase and cyclooxygenases synergistically reduces neuropathic pain in mice.  (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4376450/

The dual FAAH/MAGL inhibitor JZL195 has enhanced effects on endocannabinoid transmission and motor behavior in rats as compared to those of the MAGL inhibitor JZL184.  (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4150743/


Cannabinoids as therapeutic agents in cancer: current status and future implications.  (link to PDF- 2014)


The Role of Monoacylglycerol Lipase (MAGL) in the Cancer Progress.  (abst – 2014)

http://pubs.acs.org/doi/abs/10.1021/cb500177c

Identification and characterization of a new reversible MAGL inhibitor.  (abst – 2014)

Augmented tonic pain-related behavior in knockout mice lacking monoacylglycerol lipase, a major degrading enzyme for the endocannabinoid 2-arachidonoylglycerol.  (abst – 2014)

Attenuation of serotonin-induced itch responses by inhibition of endocannabinoid degradative enzymes, fatty acid amide hydrolase and monoacylglycerol lipase.  (abst – 2014)


The Role of Endocannabinoid Signaling in the Molecular Mechanisms of Neurodegeneration in Alzheimer's Disease.  (abst – 2014)


Piperazine and piperidine carboxamides and carbamates as inhibitors of fatty acid amide hydrolase (FAAH) and monoacylglycerol lipase (MAGL). (abst – 2014) http://www.sciencedirect.com/science/article/pii/S0968089614006488

Local uterine Ang-(1-7) infusion augments the expression of cannabinoid receptors and differentially alters endocannabinoid metabolizing enzymes in the decidualized uterus of pseudopregnant rats. (full – 2015) http://www.rbej.com/content/13/1/5

Inhibition of monoacylglycerol lipase reduces nicotine withdrawal (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4301695/

Blockade of monoacylglycerol lipase inhibits oligodendrocyte excitotoxicity and prevents demyelination in vivo (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4407719/

Blockade of 2-arachidonoylglycerol hydrolysis produces antidepressant-like effects and enhances adult hippocampal neurogenesis and synaptic plasticity (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4517601/

Global deletion of monoacylglycerol lipase in mice delays lipid absorption and alters energy homeostasis and diet-induced obesity. (full – 2015) http://www.jlr.org/content/early/2015/04/04/jlr.M058586.long

Selective Monoacylglycerol Lipase Inhibitors: Antinociceptive versus Cannabimimetic Effects in Mice (full – 2015) http://jpet.aspetjournals.org/content/353/2/424.full.pdf+html

Monoacylglycerol lipase inhibitor JZL184 reduces neuroinflammatory response in APdE9 mice and in adult mouse glial cells. (full – 2015) http://www.jneuroinflammation.com/content/12/1/81

Full Fatty Acid Amide Hydrolase Inhibition Combined with Partial Monoacylglycerol Lipase Inhibition: Augmented and Sustained Antinociceptive Effects with Reduced Cannabimimetic Side Effects in Mice (full – 2015) http://jpet.aspetjournals.org/content/354/2/111.full

Turning Over a New Leaf: Cannabinoid and Endocannabinoid Modulation of Immune Function. (full – 2015)

Task-specific enhancement of hippocampus-dependent learning in mice deficient in monoacylglycerol lipase, the major hydrolyzing enzyme of the endocannabinoid 2-arachidonoylglycerol. (full – 2015) http://journal.frontiersin.org/article/10.3389/fnbeh.2015.00134/full


Homeostatic regulation of brain functions by endocannabinoid signaling (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4468750/


Metabolic Interplay between Astrocytes and Neurons Regulates Endocannabinoid Action. (full – 2015) http://www.cell.com/cell-reports/fulltext/S2211-1247%2815%2900725-1


Multiple Forms of Endocannabinoid and Endovanilloid Signaling Regulate the Tonic Control of GABA Release (full – 2015) http://www.jneurosci.org/content/35/27/10039.full?sid=7e769d1b-9b77-42fe-92d0-8b337b34b9b6


Fine-tuning of synaptic upscaling at excitatory synapses by endocannabinoid signaling is mediated via the CB1 receptor. (full – 2015) http://www.nature.com/articles/srep16257


Specific Inter-residue Interactions as Determinants of Human Monoacylglycerol Lipase Catalytic Competency: A Role for Global Conformational Changes. (full – 2015) http://www.jbc.org/content/early/2015/11/10/jbc.M115.670257.long

CB1 cannabinoid receptor enrichment in the ependymal region of the adult human spinal cord. (full – 2015) http://www.nature.com/articles/srep17745


Monoglyceride lipase deficiency causes desensitization of intestinal cannabinoid receptor type 1 and increased colonic μ-opioid receptor sensitivity. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4556478/

Increasing levels of the endocannabinoid 2-AG is neuroprotective in the 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine mouse model of Parkinson's disease. (full – 2015) http://www.sciencedirect.com/science/article/pii/S0014488615300583

Deletion of Monoglyceride Lipase in Astrocytes Attenuates Lipopolysaccharide-Induced Neuroinflammation. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4705409/

Inhibition of monoacylglycerol lipase prevents chronic traumatic encephalopathy-like neuropathology in a mouse model of repetitive mild closed head injury. (full – 2015) http://jcb.sagepub.com/content/35/3/443.long

Correction to - Inhibition of Monoacylglycerol Lipase Prevents Chronic Traumatic Encephalopathy-Like Neuropathology in a Mouse Model of Repetitive Mild Closed Head Injury (full – 2015) http://jcb.sagepub.com/content/35/4/706


Postnatal ethanol exposure alters levels of 2-arachidonylethanol-metabolizing enzymes and pharmacological inhibition of monoacylglycerol (MAGL) does not cause neurodegeneration in neonatal mice. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4490952/

Endocannabinoid Catabolic Enzymes Play Differential Roles in Thermal Homeostasis in Response to Environmental or Immune Challenge. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4477849/

Simultaneous inhibition of fatty acid amide hydrolase (FAAH) and monoacylglycerol lipase (MAGL) shares discriminative stimulus effects with Δ9-THC in mice.
Peroxide-Dependent MGL Sulfenylation Regulates 2-AG-Mediated Endocannabinoid Signaling in Brain Neurons.  

A highly selective, reversible inhibitor identified by comparative chemoproteomics modulates diacylglycerol lipase activity in neurons.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4773911/

Combined inhibition of monoacylglycerol lipase and cyclooxygenases synergistically reduces neuropathic pain in mice  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4376450/

Phenotypic assessment of THC discriminative stimulus properties in fatty acid amide hydrolase knockout and wildtype mice.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4387086/

Monoacylglycerol lipase (MGLL) polymorphism rs604300 interacts with childhood adversity to predict cannabis dependence symptoms and amygdala habituation: Evidence from an endocannabinoid system-level analysis.  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4700831/

Dynamics of expression and localization of the cannabinoid system in granulosa cells during oocyte nuclear maturation.  
http://www.fertstert.org/article/S0015-0282(15)00440-9/fulltext

The effect of FAAH, MAGL, and Dual FAAH/MAGL inhibition on inflammatory and colorectal distension-induced visceral pain models in Rodents.  

Elevated Levels of Endocannabinoids in Chronic Hepatitis C May Modulate Cellular Immune Response and Hepatic Stellate Cell Activation.  
http://www.mdpi.com/1422-0067/16/4/7057

Role of the endocannabinoid 2-arachidonoylglycerol in aversive responses mediated by the dorsolateral periaqueductal grey.  
http://www.europeanneuropsychopharmacology.com/article/S0924-977X(15)00364-8/abstract

Loratadine analogues as MAGL inhibitors.  

[16-OR]: Vasoactive lipid mediators control uterine vascular reactivity at early pregnancy in the transgenic hAGNlxhREN rat.  
http://www.pregnancyhypertension.org/article/S2210-7789%2814%2900121-4/abstract

The role of cannabinoids in regulation of nausea and vomiting, and visceral pain.  


Genetic inactivation and prolonged pharmacologic inhibition of monoacylglycerol lipase have opposite effects on anesthetic sensitivity to propofol (abst – 2015) http://www.sciencedirect.com/science/article/pii/S0014299915302247


Dopamine-dependent CB1 receptor dysfunction at corticostriatal synapses in homozygous PINK1 knockout mice. (abst – 2015) http://www.sciencedirect.com/science/article/pii/S0028390815301441


Actions of the dual FAAH/MAGL inhibitor JZL195 in a murine neuropathic pain model.
Monoglyceride lipase deficiency modulates endocannabinoid signaling and improves plaque stability in ApoE-knockout mice.

Endocannabinoids as Guardians of Metastasis


2-arachidonoylglycerol signaling impairs short-term fear extinction.

Monoacylglycerol lipase inhibitors produce pro- or antidepressant responses via hippocampal CA1 GABAergic synapses.

A Lower Olfactory Capacity Is Related to Higher Circulating Concentrations of Endocannabinoid 2-Arachidonoylglycerol and Higher Body Mass Index in Women

Neuronal and Astrocytic Monoacylglycerol Lipase Limit the Spread of Endocannabinoid Signaling in the Cerebellum.

Prostaglandin E2 that triggers fever is synthesized through an endocannabinoid-dependent pathway.

Discriminative Stimulus Properties of the Endocannabinoid Catabolic Enzyme Inhibitor SA-57 in Mice.

Cyclooxygenase-2 inhibition reduces stress-induced affective pathology.

Stimulation of brain glucose uptake by cannabinoid CB2 receptors and its therapeutic potential in Alzheimer's disease.

Prolonged activation of human islet cannabinoid receptors in vitro induces adaptation but not dysfunction.


Indirect Modulation of the Endocannabinoid System by Specific Fractions of Nutmeg Total Extract (full – 2016)

Indirect modulation of the endocannabinoid system by specific fractions of nutmeg total extract.

Exposure to a Highly Caloric Palatable Diet during the Perinatal Period Affects the Expression of the Endogenous Cannabinoid System in the Brain, Liver and Adipose Tissue of Adult Rat Offspring. (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0165432


Components of the cannabinoid system in the dorsal periaqueductal gray are related to resting heart rate (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4982395/

Coordinated regulation of endocannabinoid-mediated retrograde synaptic suppression in the cerebellum by neuronal and astrocytic monoacylglycerol lipase. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5075776/


The selective monoacylglycerol lipase inhibitor MJN110 produces opioid sparing effects in a mouse neuropathic pain model. (link to PDF – 2016)
http://jpet.aspetjournals.org/content/early/2016/01/20/jpet.115.229971.abstract?sid=97527854-e2f-4d74-ad96-6ab0744dc240

Treating Depression in Alcoholics (news & abst – 2016)
http://neurosciencenews.com/alcoholism-depression-psychology-3541/

Ketamine and MAG Lipase Inhibitor-Dependent Reversal of Evolving Depressive Behavior during Forced Abstinence from Alcohol Drinking. (abst – 2016)

http://pubs.acs.org/doi/abs/10.1021/acs.jmedchem.5b01812

Role of cannabinoids in gastrointestinal mucosal defense and inflammation. (abst – 2016) http://www.eurekaselect.com/140045/article


Broad impact of deleting endogenous cannabinoid hydrolyzing enzymes and the CB1 cannabinoid receptor on the endogenous cannabinoid-related lipidome in eight regions of the mouse brain. (abst – 2016) http://www.sciencedirect.com/science/article/pii/S1043661816303449

Endocannabinoid 2-Arachidonoylglycerol Suppresses LPS-Induced Inhibition of A-Type Potassium Channel Currents in Caudate Nucleus Neurons Through CB1 Receptor. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27129498


Dietary conjugated linoleic acid supplementation alters the expression of genes involved in the endocannabinoid system in the bovine endometrium and increases plasma progesterone concentrations. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27262886


FABP1: A Novel Hepatic Endocannabinoid and Cannabinoid Binding Protein (abst – 2016) http://pubs.acs.org/doi/abs/10.1021/acs.biochem.6b00446


Hemopressin peptides as modulators of the endocannabinoid system and their potential applications as therapeutic tools. (abst – 2016) http://www.eurekaselect.com/146167/article
Therapeutic potential of fatty acid amide hydrolase, monoacylglycerol lipase, and N-acylethanolamine acid amidase inhibitors. (abst – 2016) 
http://pubs.acs.org/doi/abs/10.1021/acs.jmedchem.6b00538


**NADA/ N-ARACHIDONOYLDOPAMINE** + - CB1 agonist


The Role of Cannabinoid Receptors in the Descending Modulation of Pain (link to PDF - 2010) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.634.4866&rank=72

The antinociceptive potency of N-arachidonoyl-dopamine (NADA) and its interaction with endomorphin-1 at the spinal level. (abst – 2011) http://www.sciencedirect.com/science/article/pii/S0091305711001626

Endocannabinoids in nervous system health and disease: the big picture in a nutshell (full – 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3193.full

The endocannabinoid N-arachidonoyl dopamine (NADA) selectively induces oxidative stress-mediated cell death in hepatic stellate cells but not in hepatocytes (full – 2012) http://ajpgi.physiology.org/content/302/8/G873.long

The endocannabinoid N-arachidonoyldopamine (NADA) exerts neuroprotective effects after excitotoxic neuronal damage via cannabinoid receptor 1 (CB(1)). (abst – 2012) http://www.sciencedirect.com/science/article/pii/S0028390811005053


The endocannabinoid/endovanilloid N-arachidonoyl dopamine (NADA) and synthetic cannabinoid WIN55,212-2 abate the inflammatory activation of human endothelial cells. (full – 2014) http://www.jbc.org/content/early/2014/03/18/jbc.M113.536953.long


NONRETROGRADE ENDOCANNABINOID SIGNALING MODULATES RETINAL GANGLION CELL CALCIUM HOMEOSTASIS THROUGH THE TRPV1 CATION CHANNEL (abst - 2014) http://iovs.arvojournals.org/article.aspx?articleid=2268407&resultClick=1


A cannabinoid receptor agonist N-arachidonoyl dopamine inhibits adipocyte differentiation in human mesenchymal stem cells. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4428713/


The CB2 receptor and its role as a regulator of inflammation. (full – 2016)  

Endocannabinoid System: the Direct and Indirect Involvement in the Memory and Learning Processes—a Short Review (full – 2016)  

Identification of N-arachidonoyl dopamine as a highly biased ligand at cannabinoid CB1 receptors. (full – 2016)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4813372/

Endocannabinoid system: Role in depression, reward and pain control (Review).  
(link to PDF – 2016)  

Crosstalk between liver antioxidant and the endocannabinoid systems after chronic administration of the FAAH inhibitor, URB597, to hypertensive rats. (abst – 2016)  

N-Arachidonoyl Dopamine Inhibits NRAS Neoplastic Transformation by Suppressing Its Plasma Membrane Translocation. (abst – 2016)  

**NAGly/ N-ARACHIDDONOYL GLYCINE + – GPR-18 agonist**

N-arachidonoyl glycine, an abundant endogenous lipid, potently drives directed cellular migration through GPR18, the putative abnormal cannabidiol receptor. (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2865488/

N-arachidonoyl glycine, an endogenous lipid that acts as a vasorelaxant via nitric oxide and large conductance calcium-activated potassium channels. (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931560/

Toxicology studies with N-acetylglycine. (abst – 2010)  

Resolution of inflammation by N-arachidonoylglycine. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3196844/

siRNA knockdown of GPR18 receptors in BV-2 microglia attenuates N-arachidonoyl glycine-induced cell migration. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3493281/

Δ9-Tetrahydrocannabinol and N-arachidonoyl glycine are full agonists at GPR18 receptors and induce migration in human endometrial HEC-1B cells (full – 2012)  
N-arachidonoyl glycine induces macrophage apoptosis via GPR18.  

Evidence That A Functional Gpr18-based Signaling System In The Anterior Murine Eye Modulates Intraocular Pressure  
http://iovs.arvojournals.org/article.aspx?articleid=23588066&resultClick=1

N-Arachidonyl glycine does not activate G protein-coupled receptor 18 signaling via canonical pathways.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3533477/

A GPR18-based signaling system regulates IOP in murine eye.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3687663/

The Novel Endocannabinoid Receptor GPR18 is Expressed in the Rostral Ventrolateral Medulla and Exerts Tonic Restraining Influence on Blood Pressure.  
http://jpet.aspetjournals.org/content/early/2014/01/15/jpet.113.209213.long

Vascular targets for cannabinoids: animal and human studies.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3954478/

Neuronal Nitric Oxide Synthase Dependent Elevation in Adiponectin in the Rostral Ventrolateral Medulla Underlies GPR18-mediated Hypotension in Conscious Rats.  
http://jpet.aspetjournals.org/content/early/2014/08/06/jpet.114.216036.long

Δ(9)-THC and N-arachidonoyl glycine regulate BV-2 microglial morphology and cytokine release plasticity: implications for signaling at GPR18.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3877838/

Activation of GPR18 by Cannabinoid compounds: A tale of biased agonism.  

The cannabinoid acids, analogs and endogenous counterparts.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4351512/

Cannabinoid and lipid-mediated vasorelaxation in retinal microvasculature.  

Metabolomics uncovers dietary omega-3 fatty acid-derived metabolites implicated in anti-nociceptive responses after experimental spinal cord injury  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3844071/

Endocannabinoids as Guardians of Metastasis  
http://www.mdpi.com/1422-0067/17/2/230/htm

Evidence for a GPR18 Role in Diurnal Regulation of Intraocular Pressure.  
http://iovs.arvojournals.org/article.aspx?articleid=2588572
GPR18 undergoes a high degree of constitutive trafficking but is unresponsive to N-Arachidonoyl Glycine.  
(full – 2016)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4806671/

Lipidomics profile of a NAPE-PLD KO mouse provides evidence of a broader role of this enzyme in lipid metabolism in the brain.  
(abst – 2016)  

The endogenous lipid N-arachidonoyl glycine is hypotensive and nitric oxide-cGMP-dependent vasorelaxant.  
(abst – 2016)  

N-Oleoylglycine-induced hyperphagia was associated with the activation of AgRP neuron by CB1R.  
(abst – 2017)  

NAPE-PLD + - an enzyme involved in creating endocannabinoids

An endocannabinoid system is localized to the hypophysial pars tuberalis of Syrian hamsters and responds to photoperiodic changes.  
(abst – 2010)  

Fructose affects enzymes involved in the synthesis and degradation of hypothalamic endocannabinoids.  
(abst – 2010)  

Psychopharmacology of the endocannabinoids: far beyond anandamide.  
(full – 2012)  

Of mice and (wo)men: factors influencing successful implantation including endocannabinoids.  
(full – 2013)  
http://humupd.oxfordjournals.org/content/20/3/415.long

Differential expression of endocannabinoid system in normal and preeclamptic placentas: Effects on nitric oxide synthesis  
(full – 2013)  
http://www.placentajournal.org/article/S0143-4004%2812%2900393-1/fulltext

N-Acylethanolamines: lipid metabolites with functions in plant growth and development.  
(full – 2014)  

Diacylglycerol lipase α knockout mice demonstrate metabolic and behavioral phenotypes similar to those of cannabinoid receptor 1 knockout mice  
(full – 2015)  
http://journal.frontiersin.org/article/10.3389/fendo.2015.00086/full
Adipose tissue NAPE-PLD controls fat mass development by altering the browning process and gut microbiota. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4382707/

Homeostatic regulation of brain functions by endocannabinoid signaling (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4468750/


Endocannabinoid and ceramide levels are altered in patients with colorectal cancer. (full – 2015) https://www.spandidos-publications.com/or/34/1/447

Role of the endocannabinoid system in the mechanisms involved in the LPS-induced preterm labor. (full – 2015) http://www.reproduction-online.org/content/150/6/463.long


Blockade of Cannabinoid 1 Receptor Improves GLP-1R Mediated Insulin Secretion in Mice (abst – 2015) http://www.sciencedirect.com/science/article/pii/S0303720715301714


Discovery of Deskeptoraloxifene Analogues as Inhibitors of Mammalian, Pseudomonas aeruginosa, and NAPE Phospholipase D Enzymes (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4336625/


Endocannabinoid system as a regulator of tumor cell malignancy - biological pathways and clinical significance. (full – 2016)  

Targeting anandamide metabolism rescues core and associated autistic-like symptoms in rats prenatally exposed to valproic acid. (full – 2016)  
http://www.nature.com/tp/journal/v6/n9/full/tp2016182a.html

Role of cannabinoid receptor 1 in human adipose tissue for lipolysis regulation and insulin resistance. (full – 2016)  

Evidence for a GPR18 Role in Diurnal Regulation of Intraocular Pressure. (full – 2016)  
http://iovs.arvojournals.org/article.aspx?articleid=2588572

Elevated Systemic Levels of Endocannabinoids and Related Mediators Across the Menstrual Cycle in Women With Endometriosis. (full – 2016)  
http://journals.sagepub.com/doi/full/10.1177/1933719116630414

Can cannabinoids be a potential therapeutic tool in amyotrophic lateral sclerosis? (full – 2016)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5270417/

Lifelong imbalanced linoleic/alpha-linolenic acid intake impairs emotional and cognitive behavior in adult rats via changes in brain endocannabinoid system. (click “Full Text Links” to download – 2016)  

Endocannabinoid system: Role in depression, reward and pain control (Review). (link to PDF – 2016)  

The endocannabinoid system in the human granulosa cell line KGN. (abst – 2016)  

Cocaine-induced behavioral sensitization decreases the expression of endocannabinoid signaling-related proteins in the mouse hippocampus. (abst – 2016)  

Lipidomics profile of a NAPE-PLD KO mouse provides evidence of a broader role of this enzyme in lipid metabolism in the brain. (abst – 2016)  

Fabp-1 gene ablation impacts brain endocannabinoid system in male mice. (abst – 2016)  

Ethanol downregulates N-acyl phosphatidylethanolamine-phospholipase D expression in BV2 microglial cells via epigenetic mechanisms. (abst – 2016)  
Dietary conjugated linoleic acid supplementation alters the expression of genes involved in the endocannabinoid system in the bovine endometrium and increases plasma progesterone concentrations. (abst – 2016)  

Cannabinoid receptor agonist WIN55,212-2 and fatty acid amide hydrolase inhibitor URB597 may protect against cognitive impairment in rats of chronic cerebral hypoperfusion via PI3K/AKT signaling. (abst – 2016)  

Bile Acid Recognition by NAPE-PLD. (abst – 2016)  
http://pubs.acs.org/doi/abs/10.1021/acschembio.6b00624

Sex differences in alcohol consumption and alterations in nucleus accumbens endocannabinoid mRNA in alcohol-dependent rats. (abst – 2016)  

Therapeutic potential of fatty acid amide hydrolase, monoacylglycerol lipase, and N-acylethanolamine acid amidase inhibitors. (abst – 2016)  
http://pubs.acs.org/doi/abs/10.1021/acs.jmedchem.6b00538

Inflammation of peripheral tissues and injury to peripheral nerves induce differing effects in the expression of the calcium-sensitive anandamide-synthesising enzyme and related molecules in rat primary sensory neurons. (abst – 2016)  

Identification of an endocannabinoid system in the rat pars tuberalis—a possible interface in the hypothalamic-pituitary-adrenal system? (abst – 2016)  

NARAS / N-ARACHIDONOYL-L-SERINE + - binds very weakly to cannabinoid CB₁ and CB₂

Endocannabinoid-like N-arachidonoyl serine is a novel pro-angiogenic mediator. (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2936832/

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2936831/

N-arachidonoyl glycine, an abundant endogenous lipid, potently drives directed cellular migration through GPR18, the putative abnormal cannabidiol receptor. (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2865488/

N-arachidonoyl-serine is neuroprotective after traumatic brain injury by reducing apoptosis (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3170948/


OEA / OLEOYLETHANOLAMIDE + - an anandamide analog, GPR 119 and PPAR-α agonist

The fat-induced satiety factor oleoylethanolamide suppresses feeding through central release of oxytocin. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2900249/?tool=pubmed


Plasma anandamide and other N-acylethanolamines are correlated with their corresponding free fatty acid levels under both fasting and non-fasting conditions in women (full – 2010) http://www.nutritionandmetabolism.com/content/7/1/49

Dietary docosahexaenoic acid supplementation alters select physiological endocannabinoid-system metabolites in brain and plasma (full – 2010) http://www.jlr.org/content/51/6/1416.full.pdf+html


N-Acylethanolamine Levels and Expression of Their Metabolizing Enzymes during Pregnancy (full – 2010) http://endo.endojournals.org/content/151/8/3965.full


Endocannabinoids and Human Sperm Cells (link to PDF - 2010) http://www.mdpi.com/1424-8247/3/10/3200


Administration of URB597, oleoylethanolamide or palmitoylethanolamide increases waking and dopamine in rats. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3136458/?tool=pubmed


Effect of dietary krill oil supplementation on the endocannabinoidome of metabolically relevant tissues from high-fat-fed mice (full – 2011) http://www.nutritionandmetabolism.com/content/8/1/51

Gut fat sensing in the negative feedback control of energy balance--recent advances. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3139739/

Lipid transport function is the main target of oral oleoylethanolamide to reduce adiposity in high-fat-fed mice (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3111743/?tool=pubmed


The fatty acid amide hydrolase inhibitor URB597 exerts anti-inflammatory effects in hippocampus of aged rats and restores an age-related deficit in long-term potentiation (full – 2012) http://www.jneuroinflammation.com/content/9/1/79
The endocannabinoid system: an overview (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3303140/

Dynamic changes to the endocannabinoid system in models of chronic pain  
(full – 2012)  
http://rstb.royalsocietypublishing.org/content/367/1607/3300.full?sid=1569c370-cd5e-4358-89ff-857201f5e069

β−Amyloid exacerbates inflammation in astrocytes lacking fatty acid amide hydrolase through a mechanism involving PPAR-α, PPAR-γ and TRPV1, but not CB1 or CB2 receptors (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3417461/

The cytoprotective effects of oleoylethanolamide in insulin-secreting cells do not require activation of GPR119. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423238/

Endocannabinoids measurement in human saliva as potential biomarker of obesity. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3409167/?tool=pubmed

Plasma Endocannabinoid Alterations in Individuals with Substance Use Disorder are Dependent on the "Mirror Effect" of Schizophrenia. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3457074/

The endocannabinoid system in the rat dorsolateral periaqueductal grey mediates fear-conditioned analgesia and controls fear expression in the presence of nociceptive tone (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423235/

G-Protein-Coupled Receptors in Intestinal Chemosensation (full – 2012)  

Acute Stress Increases Circulating Anandamide and Other N-Acylethanolamines in Healthy Humans (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3442338/

Targeting cannabinoid receptor CB2 in cardiovascular disorders: promises and controversies (full – 2012)  

The Volitional Nature of Nicotine Exposure Alters Anandamide and Oleoylethanolamide Levels in the Ventral Tegmental Area. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3572454/

Hedonic eating is associated with increased peripheral levels of ghrelin and the endocannabinoid 2-arachidonoyl-glycerol in healthy humans: a pilot study. (full – 2012)  

Temporal changes in N-acyl ethanolamine content and metabolism throughout the peradolescent period (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3510355/

Pharmacological manipulation of cannabinoid neurotransmission reduces neuroinflammation associated with normal aging (full – 2012) 
http://file.scirp.org/Html/1-8201656_23229.htm

Synthesis of oleoylethanolamide using lipase. (abst – 2012) 

Orally administered oleoylethanolamide protects mice from focal cerebral ischemic injury by activating peroxisome proliferator-activated receptor α. (abst – 2012) 

Optimized synthesis and characterization of N-acyethanolamines and O-acyethanolamines, important family of lipid-signalling molecules. (abst – 2012) 

Effect of Oleoylethanolamide on Aqueous Humor Outflow. (abst – 2012) 
http://iovs.arvojournals.org/article.aspx?articleid=2352002&resultClick=1

Plasma concentrations of endocannabinoids and related primary Fatty Acid amides in patients with post-traumatic stress disorder. (full – 2013) 
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0062741

Anandamide Levels Fluctuate in the Bovine Oviduct during the Oestrous Cycle. (full – 2013) 
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0072521

Voluntary Running in Young Adult Mice Reduces Anxiety-Like Behavior and Increases the Accumulation of Bioactive Lipids in the Cerebral Cortex (full – 2013) 
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0081459

Fatty Acid Modulation of the Endocannabinoid System and the Effect on Food Intake and Metabolism (full – 2013) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3677644/

Elevated brain cannabinoid CB1 receptor availability in post-traumatic stress disorder: a positron emission tomography study. (full – 2013) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3752332/

Full Inhibition of Spinal FAAH Leads to TRPV1-Mediated Analgesic Effects in Neuropathic Rats and Possible Lipooxygenase-Mediated Remodeling of Anandamide Metabolism (full – 2013) 
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0060040

Fatty acid amide hydrolase deficiency enhances intraplaque neutrophil recruitment in atherosclerotic mice. (full – 2013) 
http://atvb.ahajournals.org/content/33/2/215.long
The cannabinoid TRPA1 agonist cannabichromene inhibits nitric oxide production in macrophages and ameliorates murine colitis. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3632250/

The Endocannabinoid System and Sex Steroid Hormone-Dependent Cancers (full – 2013) http://www.hindawi.com/journals/ije/2013/259676/

Of mice and (wo)men: factors influencing successful implantation including endocannabinoids. (full – 2013) http://humupd.oxfordjournals.org/content/20/3/415.long


Endocannabinoid and Cannabinoid-Like Fatty Acid Amide Levels Correlate with Pain-Related Symptoms in Patients with IBS-D and IBS-C: A Pilot Study. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3874007/


Effects of Acute Stress on Cardiac Endocannabinoids, Lipogenesis, and Inflammation in Rats. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3988664/

Evaluation of the insulin releasing and antihyperglycaemic activities of GPR55 lipid agonists using clonal beta-cells, isolated pancreatic islets and mice. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3949647/


Biosynthetic Pathways of Bioactive N-Acylethanolamines in Brain (link to PDF – 2013) http://www.eurekaselect.com/107971/article

Brain Molecules and Appetite: The Case of Oleoylethanolamide (link to download– 2013) http://www.eurekaselect.com/107948/article


Detection of the endocannabinoid metabolome in human plasma and breast milk (abst – 2013) http://www.fasebj.org/content/27/1_Supplement/45.8.short


Oleoylethanolamide enhances β-adrenergic-mediated thermogenesis and white-to-brown adipocyte phenotype in epididymal white adipose tissue in rat (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3882055/

Antidepressants and Changes in Concentration of Endocannabinoids and N-Acylethanolamines in Rat Brain Structures. (full – 2014) http://download.springer.com/static/pdf/559/art%253A10.1007%252Fs12640-014-9465-0.pdf?auth66=1395868546_998a8d5d87cb02529572689ff9213e4a&ext=.pdf
Vascular targets for cannabinoids: animal and human studies.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3954478/

Oleoylэтanolamide: a novel potential pharmacological alternative to cannabinoid antagonists for the control of appetite  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3996326/

A role for oleoylэтanolamide in chronic lymphocytic leukemia  
http://www.nature.com/leu/journal/v28/n7/full/leu201410a.html

Dietary Non-Esterified Oleic Acid Decreases the Jejunal Levels of Anorectic N-Acylethanolamines  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0100365

R-flurbiprofen attenuates experimental autoimmune encephalomyelitis in mice.  
http://embomolmed.embopress.org/content/6/11/1398.long

Moderate-Vigorous Physical Activity across Body Mass Index in Females: Modering Effect of Endocannabinoids and Temperament.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4125187/

Modulation of plasma N-acylethanolamine levels and physiological parameters by dietary fatty acid composition in humans.  
http://www.jlr.org/content/55/12/2655.long

Oleoylэтanolamide and Human Neural Responses to Food Stimuli in Obesity  

Vagal afferents are not necessary for the satiety effect of the gut lipid messenger oleoylэтanolamide  
http://ajpregu.physiology.org/content/307/2/R167

Systemic Administration of Oleoylэтanolamide Protects from Neuroinflammation and Anhedonia Induced by LPS in Rats  
http://ijnp.oxfordjournals.org/content/18/6/pyu111

Baseline Anandamide Levels and Body Weight Impact the Weight Loss Effect of CB1 Receptor Antagonism in Male Rats  

Role of oleoylэтanolamide as a feeding regulator in goldfish  
http://jeb.biologists.org/content/217/15/2761

Ultramicronized palmitoylэтanolamide normalizes intestinal motility in a murine model of post-inflammatory accelerated transit: involvement of CB1 receptors and TRPV1.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4243976/

Mechanisms of Exercise-Induced Hypoalgesia.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4302052/


The FAAH inhibitor PF-04457845 has THC-like rewarding and reinstatement effects in squirrel monkeys and increases dopamine levels in the nucleus accumbens shell in rats (abst – 2014) http://www.fasebj.org/content/28/1_Supplement/838.6.abstract?sid=db987fd0-3ef0-4796-aff6-4103f0c84daf


Deranged endocannabinoid responses to hedonic eating in underweight and recently weight-restored patients with anorexia nervosa. (full – 2015) http://ajcn.nutrition.org/content/101/2/262.long

Endocannabinoids modulate human blood-brain barrier permeability in vitro.
Fat Diet-Induced Insulin Resistance Does Not Increase Plasma Anandamide Levels or Potentiate Anandamide Insulinotropic Effect in Isolated Canine Islets. (full – 2015) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0123558


Anticipatory and consummatory effects of (hedonic) chocolate intake are associated with increased circulating levels of the orexigenic peptide ghrelin and endocannabinoids in obese adults. (full – 2015) http://www.foodandnutritionresearch.net/index.php/fnr/article/view/29678


Anti-inflammatory effects of N-acylethanolamines in rheumatoid arthritis synovial cells are mediated by TRPV1 and TRPA1 in a COX-2 dependent manner. (full – 2015) http://www.arthritis-research.com/content/17/1/321


Food Liking Enhances the Plasma Response of 2-Arachidonoylglycerol and of Pancreatic Polypeptide upon Modified Sham Feeding in Humans. (full – 2015) http://jn.nutrition.org/content/145/9/2169.long


Interference with acute nausea and anticipatory nausea in rats by fatty acid amide hydrolase (FAAH) inhibition through a PPARα and CB1 receptor mechanism, respectively: a double dissociation. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26297326


Endocannabinoid regulation in white and brown adipose tissue following thermogenic activation (full – 2016) http://www.jlr.org/content/early/2016/01/14/jlr.M065227.full.pdf+html?sid=da020ee7-4e2e-40b6-a400-27301739341e
Exposure to a Highly Caloric Palatable Diet During Pre- and Gestational Periods Affects Hypothalamic and Hippocampal Endocannabinoid Levels at Birth and Induces Adiposity and Anxiety-Like Behaviors in Male Rat Offspring. (full – 2016) http://journal.frontiersin.org/article/10.3389/fnbeh.2015.00339/full


Vaccenic acid suppresses intestinal inflammation by increasing the endocannabinoid anandamide and non-cannabinoid signaling molecules in a rat model of the metabolic syndrome. (full – 2016) http://www.jlr.org/content/early/2016/02/17/jlr.M066308.long


A role of CB1R in inducing θ-rhythm coordination between the gustatory and gastrointestinal insula. (full – 2016) http://www.nature.com/articles/srep32529


Endocannabinoid concentrations in hair are associated with PTSD symptom severity. (abst – 2016)  
http://www.psyneuen-journal.com/article/S0306-4530%2816%2930040-3/abstract

Endovanilloid control of pain modulation by the rostroventromedial medulla in an animal model of diabetic neuropathy. (abst – 2016)  

Fabp-1 gene ablation impacts brain endocannabinoid system in male mice. (abst – 2016)  

N-Oleoyl ethanolamine reduces inflammatory cytokines and adhesion molecules in TNF-α-induced human umbilical vein endothelial cells by activating CB2 and PPAR-α. (abst – 2016)  

Extraction and Simultaneous Quantification of Endocannabinoids and Endocannabinoid-Like Lipids in Biological Tissues. (abst – 2016)  
http://link.springer.com/protocol/10.1007%2F978-1-4939-3539-0_2

Identification of the oleic acid ethanolamide (OEA) isomer cis-vaccenic acid ethanolamide (VEA) as a highly abundant 18:1 fatty acid ethanolamide in blood plasma from rats and humans. (abst – 2016)  

Female Mice are Resistant to Fabp1 Gene Ablation-Induced Alterations in Brain Endocannabinoid Levels (abst – 2016)  

Oleoyl ethanolamine and palmitoylethanolamine modulate intestinal permeability in vitro via TRPV1 and PPARα. (abst – 2016)  

Dysregulation of the endocannabinoid signaling system in the cerebellum and brainstem in a transgenic mouse model of spinocerebellar ataxia type-3. (abst – 2016)  

Endocannabinoids and sleep (abst – 2016)  

Targeting brain and peripheral plasticity of the lipidome in acute kainic acid-induced epileptic seizures in mice via quantitative mass spectrometry. (abst – 2016)  

Plasma palmitoylethanolamide (PEA) as a potential biomarker for impaired coronary function. (abst – 2016)  
OLE/ OLEAMIDE - CB1 agonist

Oleamide administered into the nucleus accumbens shell regulates feeding behaviour via CB1 and 5-HT2C receptors. (full – 2010) http://ijnp.oxfordjournals.org/content/13/9/1247.long

Pitfalls in the sample preparation and analysis of N-acylethanolamines (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2936757/


Oleamide restores sleep in adult rats that were subjected to maternal separation. (abst – 2012) http://www.sciencedirect.com/science/article/pii/S0091305712002493

2-Arachidonoylglycerol into the lateral hypothalamus improves reduced sleep in adult rats subjected to maternal separation. (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/25356522


CB1 receptors in the formation of the different phases of memory-related processes in the inhibitory avoidance test in mice. (abst – 2015) http://www.sciencedirect.com/science/article/pii/S0166432815303326


Metabolomic-Driven Elucidation of Serum Disturbances Associated with Alzheimer's Disease and Mild Cognitive Impairment. (abst – 2016)

OMEGA-3/ CB1 CONNECTION +* - without Omega 3, new CB1 receptors are made imperfectly - also see NUTRITION – HEMP SEED OIL, CBR- CB1 RECEPTORS

Cannabinoid receptor-dependent and -independent anti-proliferative effects of omega-3 ethanolamides in androgen receptor-positive and -negative prostate cancer cell lines. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2930808/?tool=pubmed

Maternal Dietary Fat Determines Metabolic Profile and the Magnitude of Endocannabinoid Inhibition of the Stress Response in Neonatal Rat Offspring (full – 2010) http://endo.endojournals.org/content/151/4/1685.full?sid=f9729c9f-d221-42d4-81d8-8545db5d878

Dietary docosahexaenoic acid supplementation alters select physiological endocannabinoid-system metabolites in brain and plasma (full – 2010) http://www.jlr.org/content/51/6/1416.full.pdf+html

Pitfalls in the sample preparation and analysis of N-acylethanolamines (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2936757/


Effect of dietary krill oil supplementation on the endocannabinoidome of metabolically relevant tissues from high-fat-fed mice (full – 2011) http://www.nutritionandmetabolism.com/content/8/1/51

Fish oil promotes survival and protects against cognitive decline in severely undernourished mice by normalizing satiety signals. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3117120/

A synaptogenic amide N-docosahexaenoylethanolamide promotes hippocampal development (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3215906/

Greasing the wheels of managing overweight and obesity with omega-3 fatty acids. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3210336/

Hepatic n-3 Polyunsaturated Fatty Acid Depletion Promotes Steatosis and Insulin Resistance in Mice: Genomic Analysis of Cellular Targets (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3154437/
N-Docosahexanoyllethanolamide promotes development of hippocampal neurons (full – 2011) http://www.biochemj.org/content/435/2/327


Nutritional omega-3 deficiency abolishes endocannabinoid-mediated neuronal functions. Figure 1: n-3/n-6 PUFA dietary imbalance alters PUFAs level in mouse brain. (charts – 2011) http://www.nature.com/neuro/journal/v14/n3/fig_tab/nn.2736_F1.html


Omega-3 N-acylethanolamines are endogenously synthesised from omega-3 fatty acids in different human prostate and breast cancer cell lines. (abst – 2011) http://www.ncbi.nlm.nih.gov/pubmed/21995886


Metabolic effects of n-3 PUFA as phospholipids are superior to triglycerides in mice fed a high-fat diet: possible role of endocannabinoids. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3372498/

Dietary linoleic acid elevates endogenous 2-AG and anandamide and induces obesity. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3458187/

Type 2 Diabetes Associated Changes in the Plasma Non-Esterified Fatty Acids, Oxylipins and Endocannabinoids (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3493609/

Fish oil and inflammatory status alter the n-3 to n-6 balance of the endocannabinoid and oxylipin metabolomes in mouse plasma and tissues (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3483099/


Metabolic effects of n-3 PUFA as phospholipids are superior to triglycerides in mice fed a high-fat diet: possible role of endocannabinoids. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3372498/

Searching for health beneficial n-3 and n-6 fatty acids in plant seeds. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3380567/
Dietary linoleic acid elevates endogenous 2-arachidonoylglycerol and anandamide in Atlantic salmon (Salmo salar L.) and mice, and induces weight gain and inflammation in mice. (full - 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3548985/


Nutritional n-3 polyunsaturated fatty acids deficiency alters cannabinoid receptor signaling pathway in the brain and associated anxiety-like behavior in mice. (abst – 2012) http://www.springerlink.com/content/ur5784gm34782505/


Effect of omega-3 polyunsaturated fatty acids on the endocannabinoid system in osteoblast-like cells and muscle (abst – 2012) http://docs.lib.purdue.edu/dissertations/AAI3444794/


Effect of dietary fat type on anxiety-like and depression-like behavior in mice (full – 2013) http://www.springerplus.com/content/2/1/165

Chronic treatment with krill powder reduces plasma triglyceride and anandamide levels in mildly obese men (full – 2013) http://www.lipidworld.com/content/12/1/78

Voluntary Running in Young Adult Mice Reduces Anxiety-Like Behavior and Increases the Accumulation of Bioactive Lipids in the Cerebral Cortex (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0081459

Nutritional properties of dietary omega-3-enriched phospholipids. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3747496/
Association of Expanded Disability Status Scale and Cytokines after Intervention with Co-supplemented Hemp Seed, Evening Primrose Oils and Hot-natured Diet in Multiple Sclerosis Patients (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3648912/

Synaptamide, endocannabinoid-like derivative of docosahexaenoic acid with cannabinoid-independent function. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3541447/

Relationships between dietary macronutrients and adult neurogenesis in the regulation of energy metabolism. (full - 2013) http://journals.cambridge.org/action/displayFulltext?type=6&fid=8904779&jid=BJN&volumeid=109&issueld=09&aid=8904778&bodyId=&membershipNumber=&societyETOCSession=&fulltextType=RV&fileId=S000711451200579X

Endocannabinoid system as a potential mechanism for n-3 long-chain polyunsaturated fatty acid mediated cardiovascular protection. (full – 2013) http://journals.cambridge.org/download.php?file=%2FPNS%2FPNS72_04%2FS0029665113003406a.pdf&code=4d9803611e5020e9388169e5ae3c5095


Acyl migration evaluation in monoacylglycerols from Echium plantagineum seed oil and Marinol. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3933826/


Endogenous Signaling by Omega-3 Docosahexaenoic Acid-derived Mediators Sustains Homeostatic Synaptic and Circuitry Integrity. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3180614/

Docosahexaenoic acid, G protein-coupled receptors, and melanoma: is G protein-coupled receptor 40 a potential therapeutic target? (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4057893/

Modulation of plasma N-acylethanolamine levels and physiological parameters by dietary fatty acid composition in humans. (full – 2014)
http://www.jlr.org/content/55/12/2655.long

Metabolomics uncovers dietary omega-3 fatty acid-derived metabolites implicated in anti-nociceptive responses after experimental spinal cord injury (full – 2014)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3844071/

Modulation of Fear Memory by Dietary Polyunsaturated Fatty Acids via Cannabinoid Receptors (full – 2014) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4059893/

Nutritional omega-3 modulates neuronal morphology in the prefrontal cortex along with depression-related behaviour through corticosterone secretion (full – 2014)
http://www.nature.com/tp/journal/v4/n9/full/tp201477a.html

Potential Oil Yield, Fatty Acid Composition, and Oxidation Stability of the Hempseed Oil from Four Cannabis sativa L. Cultivars. (abst – 2014)

Endocannabinoid signaling and its regulation by nutrients. (abst – 2014)


Cannabinoid receptor expression in femora and tibiae of C57/blk6 mice fed DHA and relationship to bone ash and BMC. (bone mineral content) (abst – 2014) http://www.fasebj.org/content/28/1_Supplement/1032.2


Dietary DHA reduced downstream endocannabinoid and inflammatory gene expression, epididymal fat mass, and improved aspects of glucose use in muscle in C57BL/6J mice. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4722239/


Fetal endocannabinoids orchestrate the organization of pancreatic islet microarchitecture. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4653226/

Intake of farmed Atlantic salmon fed soybean oil increases hepatic levels of arachidonic acid-derived oxylipins and ceramides in mice (full – 2015) http://www.jnutbio.com/article/S0955-2863(15)00021-2/fulltext


Diet-induced changes in n-3 and n-6 derived endocannabinoids and reductions in headache pain and psychological distress. (full – 2015) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4522350/


Biosynthesis and Fate of Endocannabinoids. (abst – 2015) http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_2


Docosahexaenoic acid-supplementation prior to fasting prevents muscle atrophy in mice. (full – 2016)  http://onlinelibrary.wiley.com/doi/10.1002/jcsm.12103/full

Cannabinoid receptor-dependent and -independent anti-proliferative effects of omega-3 ethanolamides in androgen receptor-positive and -negative prostate cancer cell lines. (full – 2016)  http://carcin.oxfordjournals.org/content/31/9/1584.long

Early Low Fat Diet Enriched with Linolenic Acid Reduces Liver Endocannabinoid Tone and Improves Late Glycemic Control After a High Fat Diet Challenge in Mice. (full – 2016)  http://diabetes.diabetesjournals.org/content/65/7/1824.long

Dietary olive oil induces cannabinoid CB2 receptor expression in adipose tissue of ApcMin/+ transgenic mice (full – 2016)  https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5166557/

Effects of Different Levels of Hemp Seed (Cannabis Sativa L.) and Dextran Oligosaccharide on Growth Performance and Antibody Titer Response of Broiler Chickens (full – 2016)  http://www.tandfonline.com/doi/full/10.4081/ijas.2015.3473


Intake of a Western diet containing cod instead of pork alters fatty acid composition in tissue phospholipids and attenuates obesity and hepatic lipid accumulation in mice. (abst – 2016)  http://www.ncbi.nlm.nih.gov/pubmed/27155918


Circulating levels of endocannabinoids and oxylipins altered by dietary lipids in older women are likely associated with previously identified gene targets (abst – 2016) http://www.sciencedirect.com/science/article/pii/S1388198116302013

Docosahexaenoyl Serotonin, an endogenously formed n-3 fatty acid-serotonin conjugate has anti-inflammatory properties by attenuating IL-23–IL-17 signalling in macrophages (abst – 2016) http://www.sciencedirect.com/science/article/pii/S1388198116302499


**OMEGA-6/ENDOCANNABINOID CONNECTION** + - some endocannabinoids are made from Omega 6, you need it, but it is also pro-inflammatory, so too much is not good for you. Most folks get too much.

Exposure to a high-fat diet decreases sensitivity to Δ9-tetrahydrocannabinol-induced motor effects in female rats (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3014410/

Pitfalls in the sample preparation and analysis of N-acylethanolamines (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2936757/

Hepatic n-3 Polyunsaturated Fatty Acid Depletion Promotes Steatosis and Insulin Resistance in Mice: Genomic Analysis of Cellular Targets (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3154437/


Dietary linoleic acid elevates endogenous 2-arachidonoylglycerol and anandamide in Atlantic salmon (Salmo salar L.) and mice, and induces weight gain and inflammation in mice. (full - 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3548985/


Dietary linoleic acid elevates endogenous 2-AG and anandamide and induces obesity. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3458187/

Fish oil and inflammatory status alter the n-3 to n-6 balance of the endocannabinoid and oxylipin metabolomes in mouse plasma and tissues (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3483099/

Searching for health beneficial n-3 and n-6 fatty acids in plant seeds. (full – 2012)


Voluntary Running in Young Adult Mice Reduces Anxiety-Like Behavior and Increases the Accumulation of Bioactive Lipids in the Cerebral Cortex (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0081459

Association of Expanded Disability Status Scale and Cytokines after Intervention with Co-supplemented Hemp Seed, Evening Primrose Oils and Hot-natured Diet in Multiple Sclerosis Patients (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3648912/


Impact of omega-6 polyunsaturated fatty acid supplementation and γ-aminobutyric acid on astrogliogenesis through the endocannabinoid system (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/23633391


Modulation of Fear Memory by Dietary Polyunsaturated Fatty Acids via Cannabinoid Receptors (full – 2014) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4059893/


Lipid mediator profile in vernix caseosa reflects skin barrier development (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4629127/

Dietary DHA reduced downstream endocannabinoid and inflammatory gene expression, epididymal fat mass, and improved aspects of glucose use in muscle in C57BL/6J mice. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4722239/


Diet-induced changes in n-3 and n-6 derived endocannabinoids and reductions in headache pain and psychological distress. (full – 2015) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4522350/


Biosynthesis and Fate of Endocannabinoids. (abst – 2015) http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_2


An Increase in the Omega-6/Omega-3 Fatty Acid Ratio Increases the Risk for Obesity (full – 2016) http://www.mdpi.com/2072-6643/8/3/128/htm

Early Low Fat Diet Enriched with Linolenic Acid Reduces Liver Endocannabinoid Tone and Improves Late Glycemic Control After a High Fat Diet Challenge in Mice. (full – 2016) http://diabetes.diabetesjournals.org/content/65/7/1824.long

Dietary olive oil induces cannabinoid CB2 receptor expression in adipose tissue of ApcMin/+ transgenic mice (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5166557/
Effects of Different Levels of Hemp Seed (Cannabis Sativa L.) and Dextran Oligosaccharide on Growth Performance and Antibody Titer Response of Broiler Chickens (full – 2016) http://www.tandfonline.com/doi/full/10.4081/ijas.2015.3473


Intake of a Western diet containing cod instead of pork alters fatty acid composition in tissue phospholipids and attenuates obesity and hepatic lipid accumulation in mice. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27155918

Dietary conjugated linoleic acid supplementation alters the expression of genes involved in the endocannabinoid system in the bovine endometrium and increases plasma progesterone concentrations. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27262886


Circulating levels of endocannabinoids and oxylipins altered by dietary lipids in older women are likely associated with previously identified gene targets (abst – 2016) http://www.sciencedirect.com/science/article/pii/S1388198116302013

OMEGA-9

Pitfalls in the sample preparation and analysis of N-acylethanolamines (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2936757/

Multiple Changes in Peptide and Lipid Expression Associated with Regeneration in the Nervous System of the Medicinal Leech (link to PDF – 2011) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.713.3790&rank=102


Dietary olive oil induces cannabinoid CB2 receptor expression in adipose tissue of ApcMin/+ transgenic mice (full – 2016)
PALM S / PALMITOYL SERINE – may increase the activity of CB receptors


PEA – PALMITOYLETHANOLAMIDE/ NAE 16:0 + - CB 2, GPR55 & GPR119 agonist, limits FAAH


N-Acylethanolamine Levels and Expression of Their Metabolizing Enzymes during Pregnancy (full – 2010) http://endo.endojournals.org/content/151/8/3965.full


Pitfalls in the sample preparation and analysis of N-acylethanolamines  (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2936757/


Endocannabinoids and Human Sperm Cells  (link to PDF - 2010) http://www.mdpi.com/1424-8247/3/10/3200


Increasing Antiproliferative Properties of Endocannabinoids in N1E-115 Neuroblastoma Cells through Inhibition of Their Metabolism. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3203169/?tool=pubmed

Administration of URB597, oleoylethanolamide or palmitoylethanolamide increases waking and dopamine in rats. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3136458/?tool=pubmed

Palmitoylethanolamide reduces granuloma-induced hyperalgesia by modulation of mast cell activation in rats (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3034677/?tool=pubmed

High levels of N-palmitoylethanolamide and N-stearoylethanolamide in microdialysate samples from myalgic trapezius muscle in women. (full – 2011) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0027257

Taming THC: potential cannabis synergy and phytocannabinoid-terpenoid entourage effects. (full - 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165946/

Ocular Hypotensive Effect of Oral Palmitoyl-ethanolamide: A Clinical Trial (full – 2011) http://www.iovs.org/content/52/9/6096.full?sid=b5ebf404-f190-49ee-9076-758ee6c9190d

Effect of dietary krill oil supplementation on the endocannabinoidome of metabolically relevant tissues from high-fat-fed mice (full – 2011) http://www.nutritionandmetabolism.com/content/8/1/51


Functional and Structural Protection by N-Acylethanolamines in Diabetic Retinopathy (abst - 2011) http://iovs.arvojournals.org/article.aspx?articleid=2356082&resultClick=1

Dynamic changes to the endocannabinoid system in models of chronic pain (full – 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3300.full?sid=1569c370-cd5c-4358-89ff-8572015e069

Palmitoylethanolamide exerts neuroprotective effects in mixed neuroglial cultures and organotypic hippocampal slices via peroxisome proliferator-activated receptor-α. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3315437/?tool=pubmed

Cannabinoid Receptor Antagonist-Induced Striated Muscle Toxicity and Ethylmalonic-Adipic Aciduria in Beagle Dogs (full – 2012) http://toxsci.oxfordjournals.org/content/129/2/268.full


The association of N-palmitoylethanolamine with the FAAH inhibitor URB597 impairs melanoma growth through a supra-additive action (full – 2012) http://www.biomedcentral.com/1471-2407/12/92
The fatty acid amide hydrolase inhibitor URB597 exerts anti-inflammatory effects in hippocampus of aged rats and restores an age-related deficit in long-term potentiation (full – 2012) http://www.jneuroinflammation.com/content/9/1/79

Endocannabinoids measurement in human saliva as potential biomarker of obesity. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3409167/?tool=pubmed

β−Amyloid exacerbates inflammation in astrocytes lacking fatty acid amide hydrolase through a mechanism involving PPAR-α, PPAR-γ and TRPV1, but not CB1 or CB2 receptors (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3417461/

Therapeutic utility of palmitoylethanolamamide in the treatment of neuropathic pain associated with various pathological conditions: a case series (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3500919/

Palmitoylethanolamamide exerts neuroprotective effects in mixed neuroglial cultures and organotypic hippocampal slices via peroxisome proliferator-activated receptor-α (full – 2012) http://www.jneuroinflammation.com/content/9/1/49

Temporal changes in N-acylethanolamine content and metabolism throughout the peri-adolescent period (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3510355/

Acute Stress Increases Circulating Anandamide and Other N-Acylethanolamines in Healthy Humans (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3442338/

The Novel Reversible Fatty Acid Amide Hydrolase Inhibitor ST4070 Increases Endocannabinoid Brain Levels and Counteracts Neuropathic Pain in Different Animal Models (full – 2012) http://jpet.aspetjournals.org/content/342/1/188.full.pdf+html

The endocannabinoid system in the rat dorsolateral periaqueductal grey mediates fear-conditioned analgesia and controls fear expression in the presence of nociceptive tone (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423235/

Mast cell-glial axis in neuroinflammation and therapeutic potential of the anandamide congener palmitoylethanolamide. (full - 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3312.long


Effects of Palmitoylethanolamamide on Aqueous Humor Outflow. (full – 2012) http://www.iovs.org/content/53/8/4416.long

Fatty acid amide hydrolase ablation promotes ectopic lipid storage and insulin resistance due to centrally mediated hypothyroidism. (full - 2012) http://www.pnas.org/content/109/37/14966.long

Multimodal stepped care approach with acupuncture and PPAR-α agonist palmitoylethanolamide in the treatment of a patient with multiple sclerosis and central neuropathic pain. (full – 2012) http://aim.bmj.com/content/30/1/53.long


The interaction between intrathecal administration of low doses of palmitoylethanolamide and AM251 in formalin-induced pain related behavior and spinal cord IL1-β expression in rats. (abst – 2012) http://www.ncbi.nlm.nih.gov/pubmed/22201038


Using the endocannabinoid system as a neuroprotective strategy in perinatal hypoxic-ischemic brain injury. (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4146074/


Molecular evidence for the involvement of PPAR-δ and PPAR-γ in anti-inflammatory and neuroprotective activities of palmitoylethanolamide after spinal cord trauma (full – 2013)  http://www.jneuroinflammation.com/content/10/1/20


Treatment of chronic regional pain syndrome type 1 with palmitoylethanolamide and topical ketamine cream: modulation of nonneuronal cells (full - 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3643547/


Voluntary Running in Young Adult Mice Reduces Anxiety-Like Behavior and Increases the Accumulation of Bioactive Lipids in the Cerebral Cortex (full – 2013)  http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0081459

Full Inhibition of Spinal FAAH Leads to TRPV1-Mediated Analgesic Effects in Neuropathic Rats and Possible Lipoxygenase-Mediated Remodeling of Anandamide Metabolism (full – 2013)  http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0060040
The Endocannabinoid System and Sex Steroid Hormone-Dependent Cancers (full – 2013)  http://www.hindawi.com/journals/ije/2013/259676/

Palmitoylethanolamide and luteolin ameliorate development of arthritis caused by injection of collagen type II in mice (full – 2013)  http://arthritis-research.com/content/15/6/R192

A new co-ultramicronized composite including palmitoylethanolamide and luteolin to prevent neuroinflammation in spinal cord injury (full – 2013)  http://www.jneuroinflammation.com/content/10/1/91

CB1 and CB2 Cannabinoid Receptor Agonists Induce Peripheral Antinociception by Activation of the Endogenous Noradrenergic System. (full – 2013)  http://journals.lww.com/anesthesia-analgesia/Fulltext/2013/02000/CB1_and_CB2_Cannabinoid_Receptor_Agonists_Induce.31.aspx

Fatty acid amide hydrolase deficiency enhances intraplaque neutrophil recruitment in atherosclerotic mice. (full – 2013)  http://atvb.ahajournals.org/content/33/2/215.long

The cannabinoid TRPA1 agonist cannabichromene inhibits nitric oxide production in macrophages and ameliorates murine colitis. (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3632250/

Endocannabinoid and Cannabinoid-Like Fatty Acid Amide Levels Correlate with Pain-Related Symptoms in Patients with IBS-D and IBS-C: A Pilot Study. (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3874007/


Effectiveness of palmitoylethanolamide on endothelial dysfunction in ocular hypertensive patients: a randomized, placebo-controlled cross-over study. (full – 2013)  http://www.iovs.org/content/54/2/968.long

N-Palmitoylethanolamide depot injection increased its tissue levels and those of other acylethanolamide lipids (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3746786/

Effects of Acute Stress on Cardiac Endocannabinoids, Lipogenesis, and Inflammation in Rats. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3988664/

Evaluation of the insulin releasing and antihyperglycaemic activities of GPR55 lipid agonists using clonal beta-cells, isolated pancreatic islets and mice. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3949647/


N-Palmitoylethanolamine depot injection increased its tissue levels and those of other acylethanolamide lipids (full – 2013) http://www.ncbi.nlm.nih.gov/pubmed/23976843


Neuroglial Roots of Neurodegenerative Diseases: Therapeutic Potential of Palmitoylethanolamide in Models of Alzheimer’s Disease (link to PDF– 2013) http://www.eurekaselect.com/107977/article

Palmitoylethanolamide Reduces Formalin-Induced Neuropathic-Like Behaviour Through Spinal Glial/Microglial Phenotypical Changes in Mice (link to PDF – 2013) http://www.eurekaselect.com/107975/article

Effect of Diet on Tissue Levels of Palmitoylethanolamide (link to PDF – 2013) http://www.eurekaselect.com/107972/article


Evolution in pharmacologic thinking around the natural analgesic palmitoylethanolamide: from nonspecific resistance to PPAR-α agonist and effective nutraceutical (link to PDF – 2013) http://www.dovepress.com/articles.php?article_id=13950

Biosynthetic Pathways of Bioactive N-Acylethanolamines in Brain (link to PDF – 2013) http://www.eurekaselect.com/107971/article

Palmitoylethanolamide in Homeostatic and Traumatic Central Nervous System Injuries (link to PDF - 2013) http://www.eurekaselect.com/107976/article

New Insights in Mast Cell Modulation by Palmitoylethanolamide. (link to PDF – 2013) http://www.eurekaselect.com/107979/article
N-Palmitoylethanolamine depot injection increased its tissue levels and those of other acylethanolamide lipids (link to PDF- 2013) http://www.dovepress.com/articles.php?article_id=14008


Detection of the endocannabinoid metabolome in human plasma and breast milk (abst – 2013) http://www.fasebj.org/content/27/1_Supplement/45.8.short


Measurement of Palmitoylethanolamine and Other N-Acylethanolamines During Physiological and Pathological Conditions (abst – 2013) http://www.eurekaselect.com/107973/article

Palmitoylethanolamide is a New Possible Pharmacological Treatment for the Inflammation Associated with Trauma (abst – 2013) http://www.eurekaselect.com/106175/article


Palmitoylethanolamide and stearoylethanolamide levels in the interstitium of the trapezius muscle of women with chronic widespread pain and chronic neck-shoulder pain correlate with pain intensity and sensitivity. (abst – 2013) 

Effects of palmitoylethanolamide and luteolin in an animal model of anxiety/depression. (abst – 2013)  

Decreased Enteric Fatty Acid Amide Hydrolase Activity is Associated with Colonic Inertia in Slow Transit Constipation (abst – 2013) 

Administration of micronized palmitoylethanolamide (PEA)-transpolydatin in the treatment of chronic pelvic pain in women affected by endometriosis: preliminary results (abst – 2013)  

New insights in mast cell modulation by palmitoylethanolamide. (abst – 2013) 

Non-neuronal cell modulation relieves neuropathic pain: efficacy of the endogenous lipid palmitoylethanolamide. (abst – 2013)  

Vestibulodynia: synergy between palmitoylethanolamide + transpolydatin and transcutaneous electrical nerve stimulation. (abst – 2013) 

Palmitoylethanolamide stimulates phagocytosis of Escherichia coli K1 by macrophages and increases the resistance of mice against infections. (full – 2014) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4080545/

Antidepressants and Changes in Concentration of Endocannabinoids and N-Acylethanolamines in Rat Brain Structures. (full – 2014) 
http://download.springer.com/static/pdf/559/art%253A10.1007%252Fs12640-014-9465-0.pdf?auth66=1395868546_998a8d5d87cb02529572689f9213e4a&ext=.pdf

Vascular targets for cannabinoids: animal and human studies. (full – 2014) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3954478/

Dietary Non-Esterified Oleic Acid Decreases the Jejunal Levels of Anorectic N-Acylethanolamines (full – 2014)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0100365

Effects of chaiyuwendan decoction on endocannabinoids levels in adipose tissue of rats with chronic stress-induced depression. (full – 2014) 

R-flurbiprofen attenuates experimental autoimmune encephalomyelitis in mice. (full – 2014) 
http://embomolmed.embopress.org/content/6/11/1398.long
Increased levels of palmitoylethanolamide and other bioactive lipid mediators and enhanced local mast cell proliferation in canine atopic dermatitis. (full – 2014) http://www.biomedcentral.com/1746-6148/10/21


Systemic Administration of Oleoylethanolamide Protects from Neuroinflammation and Anhedonia Induced by LPS in Rats (full – 2014) http://ijnp.oxfordjournals.org/content/18/6/pyu111


N-Acylethanolamine-hydrolyzing acid amidase inhibition increases colon N-palmitoylethanolamine levels and counteracts murine colitis. (full – 2014) http://www.fasebj.org/content/29/2/650.long


Role of Endocannabinoid Activation of Peripheral CB1 Receptors in the Regulation of Autoimmune Disease. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4261058/

Effects of Two Different Specific Neck Exercise Interventions on Palmitoylethanolamide and Stearoylethanolamide Concentrations in the Interstitium of the Trapezius Muscle in Women with Chronic Neck Shoulder Pain (full – 2014) http://painmedicine.oxfordjournals.org/content/15/8/1379.long


The FAAH inhibitor PF-04457845 has THC-like rewarding and reinstatement effects in squirrel monkeys and increases dopamine levels in the nucleus accumbens shell in rats. (abst – 2014) http://www.fasebj.org/content/28/1_Supplement/838.6.abstract?sid=db987fd0-3ef0-4796-aff6-4103f0c84daf


Palmitoylethanolamide inhibits rMCP-5 expression by regulating MITF activation in rat chronic granulomatous inflammation. (abst – 2014)
Gastric bypass in morbid obese patients is associated with reduction in adipose tissue inflammation via N-oleoylethanolamide (OEA)-mediated pathways.  

A quantitative LC-MS/MS method for the measurement of arachidonic acid, prostanoids, endocannabinoids, N-acyethanolamines and steroids in human plasma.  
http://www.sciencedirect.com/science/article/pii/S1570023214006837

Protective effect of palmitoylethanolamide, a naturally-occurring molecule, in a rat model of cystitis.  

Diacerein is a potent and selective inhibitor of palmitoylethanolamide inactivation with analgesic activity in a rat model of acute inflammatory pain.  

Targeting inflammation: new therapeutic approaches in chronic kidney disease (CKD).  

Palmitoylethanolamide, a naturally occurring disease-modifying agent in neuropathic pain.  

Palmitoylethanolamide improves colon inflammation through an enteric glia/toll like receptor 4-dependent PPAR-α activation  
http://gut.bmj.com/content/63/8/1300.abstract?sid=a8fb2a13-4493-4045-8855-9a0bae1e5d51

Changes in Plasma Levels of N-Arachidonoyl Ethanolamine and N-Palmitoylethanolamine following Bariatric Surgery in Morbidly Obese Females with Impaired Glucose Homeostasis.  

Exposure to Allergen Causes Changes in NTS Neural Activities after Intratracheal Capsaicin Application, in Endocannabinoid Levels and in the Glia Morphology of NTS.  
http://www.hindawi.com/journals/bmri/2015/980983/

Effects of mood inductions by meal ambiance and moderate alcohol consumption on endocannabinoids and N-acyethylstanoamines in humans: a randomized crossover trial.  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0126421

Deranged endocannabinoid responses to hedonic eating in underweight and recently weight-restored patients with anorexia nervosa.  
http://ajcn.nutrition.org/content/101/2/262.long

Endocannabinoids modulate human blood-brain barrier permeability in vitro.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4459020/
Fat Diet-Induced Insulin Resistance Does Not Increase Plasma Anandamide Levels or Potentiate Anandamide Insulinotropic Effect in Isolated Canine Islets. (full – 2015) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0123558


Identification of prostamides, fatty acyl ethanolamines and their biosynthetic precursors in rabbit cornea. (full – 2015) http://www.jlr.org/content/early/2015/05/31/jlr.M055772.long

Anticipatory and consummatory effects of (hedonic) chocolate intake are associated with increased circulating levels of the orexigenic peptide ghrelin and endocannabinoids in obese adults. (full – 2015) http://www.foodandnutritionresearch.net/index.php/fnr/article/view/29678


Anti-inflammatory effects of N-acylethanolamines in rheumatoid arthritis synovial cells are mediated by TRPV1 and TRPA1 in a COX-2 dependent manner. (full – 2015) http://www.arthritis-research.com/content/17/1/321


Food Liking Enhances the Plasma Response of 2-Arachidonoylglycerol and of Pancreatic Polypeptide upon Modified Sham Feeding in Humans. (full – 2015) http://jn.nutrition.org/content/145/9/2169.long
The anti-inflammatory mediator palmitoylethanolamide enhances the levels of 2-arachidonoyl-glycerol and potentiates its actions at transient receptor potential vanilloid type-1 channels. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/25598150


Interference with acute nausea and anticipatory nausea in rats by fatty acid amide hydrolase (FAAH) inhibition through a PPARα and CB1 receptor mechanism, respectively: a double dissociation. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26297326


Effects of dietary CLA on n-3 HUFA score and N-acylethanolamides biosynthesis in the liver of obese Zucker rats.  (abst – 2015)  

Lipidomic Analysis of Endocannabinoid Signaling: Targeted Metabolite Identification and Quantification  (full – 2016)  
http://www.hindawi.com/journals/np/2016/2426398/

Endocannabinoid regulation in white and brown adipose tissue following thermogenic activation  (full – 2016)  
http://www.jlr.org/content/early/2016/01/14/jlr.M065227.full.pdf+html?sid=da020ee7-4e2e-40b6-a400-27301739341e

Exposure to a Highly Caloric Palatable Diet During Pregestational and Gestational Periods Affects Hypothalamic and Hippocampal Endocannabinoid Levels at Birth and Induces Adiposity and Anxiety-Like Behaviors in Male Rat Offspring.  (full – 2016)  

Lipidomic Analysis of Endocannabinoid Signaling: Targeted Metabolite Identification and Quantification.  (full – 2016)  
http://www.hindawi.com/journals/np/2016/2426398/

Selective Cannabinoid Receptor-1 Agonists Regulate Mast Cell Activation in an Oxazolone-Induced Atopic Dermatitis Model.  (full – 2016)  

Vaccenic acid suppresses intestinal inflammation by increasing the endocannabinoid anandamide and non-cannabinoid signaling molecules in a rat model of the metabolic syndrome.  (full – 2016)  
http://www.jlr.org/content/early/2016/02/17/jlr.M066308.long

Endocannabinoids as Guardians of Metastasis  (full – 2016)  
http://www.mdpi.com/1422-0067/17/2/230/htm

Fatty acid amide hydrolase inhibitors confer anti-invasive and antimetastatic effects on lung cancer cells.  (full – 2016)  

New insights into the yin and yang of the endocannabinoid system in health and disease  (full – 2016)  

Oral Palmitoylethanolamide Treatment Is Associated with Reduced Cutaneous Adverse Effects of Interferon-β1a and Circulating Proinflammatory Cytokines in Relapsing-Remitting Multiple Sclerosis.  (full – 2016)  

http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0148734
Endocannabinoid System: the Direct and Indirect Involvement in the Memory and Learning Processes—a Short Review (full – 2016)

Acetylcholine receptors from human muscle as pharmacological targets for ALS therapy. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4801305/

Elevated Systemic Levels of Endocannabinoids and Related Mediators Across the Menstrual Cycle in Women With Endometriosis. (full – 2016)
http://journals.sagepub.com/doi/full/10.1177/1933719116630414

Bisphenol A Induces Fatty Liver by an Endocannabinoid-Mediated Positive Feedback Loop. (full – 2016)

Responses of peripheral endocannabinoids and endocannabinoid-related compounds to hedonic eating in obesity (abst – 2016)

Endocannabinoid concentrations in hair are associated with PTSD symptom severity. (abst – 2016) http://www.psyneuen-journal.com/article/S0306-4530%2816%2930040-3/abstract


Endovanilloid control of pain modulation by the rostroventromedial medulla in an animal model of diabetic neuropathy. (abst – 2016)

2-pentadecyl-2-oxazoline: identification in coffee, synthesis and activity in a rat model of carrageenan-induced hindpaw inflammation (abst – 2016)


Extraction and Simultaneous Quantification of Endocannabinoids and Endocannabinoid-Like Lipids in Biological Tissues. (abst – 2016)
http://link.springer.com/protocol/10.1007%2F978-1-4939-3539-0_2

The multiplicity of spinal AA-5-HT anti-nociceptive action in a rat model of neuropathic pain. (abst – 2016)
Female Mice are Resistant to Fabp1 Gene Ablation-Induced Alterations in Brain Endocannabinoid Levels (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27450559


PLACEBO EFFECT – the endocannabinoid system is partly responsible for the placebo effect

Nonopioid placebo analgesia is mediated by CB1 cannabinoid receptors. (abst – 2011)

The Neurobiology of Placebo and Nocebo: How Expectations Influence Treatment Outcomes (full – 2013)

FAAH selectively influences placebo effects. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4222079/

Nocebo and placebo modulation of hypobaric hypoxia headache involves the cyclooxygenase-prostaglandins pathway. (abst – 2014)

SEA / STEAROYLETHANOLAMIDE

High levels of N-palmitoylethanolamide and N-stearoylethanolamide in microdialysate samples from myalgic trapezius muscle in women. (full – 2011)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0027257

Effect of Diet on Tissue Levels of Palmitoylethanolamide (link to PDF – 2013)
http://www.eurekaselect.com/107972/article

Palmitoylethanolamide and stearoylethanolamide levels in the interstitium of the trapezius muscle of women with chronic widespread pain and chronic neck-shoulder pain correlate with pain intensity and sensitivity. (abst – 2013)

Effects of Two Different Specific Neck Exercise Interventions on Palmitoylethanolamide and Stearoylethanolamide Concentrations in the Interstitium of the Trapezius Muscle in Women with Chronic Neck Shoulder Pain (full – 2014)
http://painmedicine.oxfordjournals.org/content/15/8/1379.long

Endocannabinoid signaling and food addiction. (full – 2014)
Roles of fatty acid ethanolamides (FAE) in traumatic and ischemic brain injury. (abst – 2014)

Effects of mood inductions by meal ambiance and moderate alcohol consumption on endocannabinoids and N-acyl-ethanolamines in humans: a randomized crossover trial. (full – 2015)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0126421

Intake of farmed Atlantic salmon fed soybean oil increases hepatic levels of arachidonic acid-derived oxylipins and ceramides in mice. (full – 2015)

Endocannabinoid concentrations in hair are associated with PTSD symptom severity. (abst – 2016)
http://www.psyneuen-journal.com/article/S0306-4530%2816%2930040-3/abstract

N-acyl ethanolamide and eicosanoid involvement in irritant dermatitis. (abst – 2016)

VIRODHAMINE + – GPR-55 & CB2 agonist; CB 1 agonist/ antagonist depending on dose

Endogenous cannabinoids in liver disease: Many darts for a single target. (abst – 2010)

The novel endocannabinoid virodhamine selectively induces cell death in hepatic stellate cells but not in hepatocytes. (abst – 2011)

The Endocannabinoids Anandamide and Virodhamine Modulate the Activity of the Candidate Cannabinoid Receptor GPR55. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3669693/

Psychopharmacology of the endocannabinoids: far beyond anandamide. (full – 2012)

Optimized synthesis and characterization of N-acylethanolamines and O-acyl-ethanolamines, important family of lipid-signalling molecules. (abst – 2012)

Working memory- and anxiety-related behavioral effects of repeated nicotine as a stressor: the role of cannabinoid receptors. (full– 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3599339/


Role of Endocannabinoid Activation of Peripheral CB1 Receptors in the Regulation of Autoimmune Disease. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4261058/


**VITAMIN E/ D α-TOCOPHEROL** – a modulator of the endocannabinoid system

α-Tocopherol and α-tocopheryl phosphate interact with the cannabinoid system in the rodent hippocampus. (abst - 2011) http://www.sciencedirect.com/science/article/pii/S0891584911004539

ENDOCANNABINOID SYSTEM GENETICS

Studies 2010 - 2017
+ = older studies in the 2000-2009 List.
* = older studies in Pre-2000 List.

**ABHD12 GENES** – cause production of an enzyme that breaks down 2-AG

Mutations in ABHD12 Cause the Neurodegenerative Disease PHARC: An Inborn Error of Endocannabinoid Metabolism (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2933347/?tool=pubmed

Targeted next-generation sequencing identifies a homozygous nonsense mutation in ABHD12, the gene underlying PHARC, in a family clinically diagnosed with Usher syndrome type 3 (full – 2012)  
http://www.ojrd.com/content/7/1/59

ABHD12 controls brain lysophosphatidylserine pathways that are deregulated in a murine model of the neurodegenerative disease PHARC. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3557017/

Two Novel Mutations in ABHD12: Expansion of the Mutation Spectrum in PHARC and Assessment of Their Functional Effects. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3855015/

Exome sequencing extends the phenotypic spectrum for ABHD12 mutations: from syndromic to nonsyndromic retinal degeneration. (abst – 2014)  

Functional validation of ABHD12 mutations in the neurodegenerative disease PHARC. (abst – 2016)  

**ATT / (ATT)n GENES** +

Sweet taste and (AAT)12 repeat in the cannabinoid receptor gene in obese females (letter – 2011)  
Association between a cannabinoid receptor gene (CNR1) polymorphism and cannabinoid-induced alterations of the auditory event-related P300 potential. (abst – 2011)
http://www.unboundmedicine.com/medline/ebm/record/21513772/abstract/Association_between_a_cannabinoid_receptor_gene__CNR1__polymorphism_and_cannabinoid_induced_alterations_of_the_auditory_event_related_P300_potential_

Association between a Genetic Variant of Type-1 Cannabinoid Receptor and Inflammatory Neurodegeneration in Multiple Sclerosis (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3877004/

Cannabinoid Receptor 1 Gene and Irritable Bowel Syndrome: Phenotype and Quantitative Traits. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3602676/

CNR1 variation is associated with the age at onset in Huntington disease. (abst – 2013)

Genetic polymorphism in pathogenesis of irritable bowel syndrome. (full – 2014)

Association of cannabinoid type 1 receptor and fatty acid amide hydrolase genetic polymorphisms in Chinese patients with irritable bowel syndrome. (abst – 2014)

**CB 1 GENES +**

A common polymorphism in the cannabinoid receptor 1 (CNR1) gene is associated with antipsychotic-induced weight gain in Schizophrenia. (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3055343/?tool=pubmed

A common CNR1 (cannabinoid receptor 1) haplotype attenuates the decrease in HDL cholesterol that typically accompanies weight gain. (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3013130/?tool=pubmed

Polymorphisms in the endocannabinoid receptor 1 in relation to fat mass distribution (full – 2010) http://www.eje-online.org/content/163/3/407.full

The Cannabinoid 1 Receptor (CNR1) 1359 G/A Polymorphism Modulates Susceptibility to Ulcerative Colitis and the Phenotype in Crohn's Disease (full - 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2829088/?tool=pmcentrez

Inactivation of the cannabinoid receptor CB1 prevents leukocyte infiltration and experimental fibrosis. (full – 2010)
G1359A polymorphism of the cannabinoid receptor gene (CNR1) and clinical results of biliopancreatic diversion (link to PDF – 2010)
http://www.europeanreview.org/article/724

Endocannabinoids and Schizophrenia (link to PDF – 2010)
http://www.mdpi.com/1424-8247/3/10/3101

G1359A polymorphism in the cannabinoid receptor-1 gene is associated with metabolic syndrome in the Chinese Han population. (abst – 2010)

Differential signaling in human cannabinoid CB(1) receptors and their splice variants in autaptic hippocampal neurons (full – 2011)

Cannabinoids and B cells: emerging targets for treating progressive multiple sclerosis (full – 2011)
http://msj.sagepub.com/content/17/3/259.long

Adipose tissue endocannabinoid system gene expression: depot differences and effects of diet and exercise (full – 2011)
http://www.lipidworld.com/content/10/1/194

Association of genetic variation in cannabinoid mechanisms and gastric motor functions and satiation in overweight and obesity. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3117918/

The association of the rs1049353 polymorphism of the CNR1 gene with hypoadiponectinemia. (full – 2011)

The highs and lows of cannabinoid receptor expression in disease: mechanisms and their therapeutic implications. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3141881/

Roles of G1359A polymorphism of the cannabinoid receptor gene (CNR1) on weight loss and adipokines after a hypocaloric diet (full – 2011)


Cannabinoid receptor 1 gene polymorphism and irritable bowel syndrome in the Korean population: a hypothesis-generating study. (abst – 2011)

G1359A polymorphism in the cannabinoid receptor-1 gene is associated with coronary artery disease in the Chinese Han population. (abst – 2011)
Personalized medicine can pave the way for the safe use of CB₁ receptor antagonists.

(abst – 2011)
http://www.cell.com/trends/pharmacological-sciences/abstract/S0165-6147(11)00035-6

Cannabinoid Receptor 1 (CNR1) 4895 C/T Genetic Polymorphism was Associated with Obesity in Japanese Men. (full – 2012)
https://www.jstage.jst.go.jp/article/jat/19/8/19_12732/_pdf

Binding of a tritiated inverse agonist to cannabinoid CB1 receptors is increased in patients with schizophrenia (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3463751/

The dynamic nature of type 1 cannabinoid receptor (CB1) gene transcription (full - 2012)

Randomized pharmacodynamic and pharmacogenetic trial of dronabinol effects on colon transit in irritable bowel syndrome-diarrhea. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3775711/

Irritable Bowel Syndrome: Methods, Mechanisms, and Pathophysiology. Genetic epidemiology and pharmacogenetics in irritable bowel syndrome (full – 2012)
http://ajpgi.physiology.org/content/302/10/G1075

CNR1 genotype influences HDL-cholesterol response to change in dietary fat intake. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3342253/

Sensation-seeking genes and physical activity in youth (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3581711/

Cannabinoid Receptor Genotype Moderation of the Effects of Childhood Physical Abuse on Anhedonia and Depression. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3706194/

Failure to extinguish fear and genetic variability in the human cannabinoid receptor 1. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3565211/

Cannabinoid Type 1 Receptor Gene Polymorphism and Macronutrient Intake. (full – 2012)
http://www.karger.com/Article/FullText/343563

Genetic variability in the endocannabinoid system and 12-week clinical response to citalopram treatment: the role of the CNR1, CNR2 and FAAH genes (full – 2012)
http://journals.sagepub.com/doi/full/10.1177/0269881112454229


Activation-dependent plasticity of polarized GPCR distribution on the neuronal surface. (full – 2013) [http://jmcb.oxfordjournals.org/content/5/4/250.long](http://jmcb.oxfordjournals.org/content/5/4/250.long)

Novel Insights Into CB1 Cannabinoid Receptor Signaling: A Key Interaction Identified Between EC3-Loop and TMH2. (full – 2013) [http://jpet.aspetjournals.org/content/early/2013/02/21/jpet.112.201046.long](http://jpet.aspetjournals.org/content/early/2013/02/21/jpet.112.201046.long)


Cannabis, a complex plant: different compounds and different effects on individuals (full – 2013) [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3736954/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3736954/)

Further evidence for association of polymorphisms in the CNR1 gene with cocaine addiction: confirmation in an independent sample and meta-analysis (full – 2013) [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3223560/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3223560/)


Impulsivity, Variation in the Cannabinoid Receptor (CNR1) and Fatty Acid Amide Hydrolase (FAAH) Genes, and Marijuana-Related Problems. (full – 2013) [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3817049/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3817049/)
Common polymorphism in the cannabinoid type 1 receptor gene (CNR1) is associated with microvascular complications in type 2 diabetes.  (full – 2013)  
http://www.jdejournal.com/article/S1056-8727(13)2900199-2/fulltext

The role of cannabinoid 1 receptor expressing interneurons in behavior.  (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3946968/

Reduced Cannabinoid CB1 Receptor Binding in Alcohol Dependence Measured with Positron Emission Tomographys.  (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3594469/

Performance in working memory and attentional control is associated with the rs2180619 SNP in the CNR1 gene.  (full – 2013)  

Computationally-predicted CB1 cannabinoid receptor mutants show distinct patterns of salt-bridges that correlate with their level of constitutive activity reflected in G protein coupling levels, thermal stability, and ligand binding.  (full – 2013)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4872635/

Evidence for a Common Endocannabinoid-Related Pathomechanism in Autism Spectrum Disorders  (link to full – 2013)  

Evidence for the involvement of cannabinoid receptors' polymorphisms in the pathophysiology of human diseases.  (abst – 2013)  

Role of Genetic Variation in the Cannabinoid Receptor Gene (CNR1) (G1359A Polymorphism) on Weight Loss and Cardiovascular Risk Factors After Liraglutide Treatment in Obese Patients With Diabetes Mellitus Type 2.  (abst – 2013)  

Genetic variation in the cannabinoid receptor gene (CNR1) (G1359A polymorphism) and their influence on anthropometric parameters and metabolic parameters under a high monounsaturated vs. high polyunsaturated fat hypocaloric diets.  (abst – 2013)  

CNR1 Gene and Risk of the Metabolic Syndrome in Patients With Schizophrenia.  (abst – 2013)  

Screening genetic variability at the CNR1 gene in both major depression etiology and clinical response to citalopram treatment.  (abst – 2013)  

Interrogating Therapeutic Manipulation of the Endocannabinoid System in Human Colon  (abst – 2013)  
http://www.fasebj.org/content/26/1_Supplement/1123.1


Cannabinoid receptor 1 gene polymorphisms and nonalcoholic Fatty liver disease in women with polycystic ovary syndrome and in healthy controls. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4127238/


Endocannabinoid Receptors Gene Expression in Morbidly Obese Women with Nonalcholic Fatty Liver Disease (full – 2014)  http://www.hindawi.com/journals/bmri/2014/502542/

Mutation of Putative GRK Phosphorylation Sites in the Cannabinoid Receptor 1 (CB1R) Confers Resistance to Cannabinoid Tolerance and Hypersensitivity to Cannabinoids in Mice. (full – 2014) http://www.jneurosci.org/content/34/15/5152.long


Mutations in the 'DRY' motif of the CB1 cannabinoid receptor result in biased receptor variants. (full - 2014) http://jme.endocrinology-journals.org/content/54/1/75.long


Selected CNR1 polymorphisms and hyperandrogenemia as well as fat mass and fat distribution in women with polycystic ovary syndrome. (abst – 2014)  http://www.ncbi.nlm.nih.gov/pubmed/25093427


Association study of CNR1, GAD1 and BDNF polymorphisms with male heroin dependence in the Dai population in Yunnan. (abst – 2014)  http://www.ncbi.nlm.nih.gov/pubmed/25252306


Cannabinoid receptor type 1 receptors on GABAergic vs. glutamatergic neurons differentially gate sex-dependent social interest in mice. (abst – 2014)  http://www.ncbi.nlm.nih.gov/pubmed/24698342

Lack of hypophagia in CB1 null mice is associated to decreased hypothalamic POMC and CART expression. (full – 2015)  http://ijnp.oxfordjournals.org/content/early/2015/03/09/ijnp.pyv011.long

Lack of association of DRD3 and CNR1 polymorphisms with premenstrual dysphoric disorders. (full – 2015)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4475771/

Diacylglycerol lipase α knockout mice demonstrate metabolic and behavioral phenotypes similar to those of cannabinoid receptor 1 knockout mice (full – 2015)  http://journal.frontiersin.org/article/10.3389/fendo.2015.00086/full


Impact of CB1 Receptor Deletion on Visual Responses and Organization of Primary Visual Cortex in Adult Mice (full – 2015) http://iovs.arvojournals.org/article.aspx?articleid=2474494&amp;resultClick=1


Dietary DHA reduced downstream endocannabinoid and inflammatory gene expression, epididymal fat mass, and improved aspects of glucose use in muscle in C57BL/6J mice. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4722239/


Role of the endocannabinoid system in the emotional manifestations of osteoarthritis pain. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4770330/

Endocannabinoid and ceramide levels are altered in patients with colorectal cancer. (full – 2015) https://www.spandidos-publications.com/or/34/1/447


Relationship between the 1359 G/A polymorphism of the Central Cannabinoid Receptor 1 (CNR1) gene and susceptibility to cannabis addiction in a Turkish population (abst – 2015) http://www.ingentaconnect.com/search/article?option1=tka&value1=cannabinoid&sortDescending=true&sortField=prism_publicationDate&pageSize=10&index=69

CB1 receptor transgenic mice in the cannabinoid triad: a novel approach to assess in vivo efficacy of CB1 ligands. (abst – 2015) http://www.fasebj.org/content/29/1_Supplement/LB490.abstract?sid=edf921ac-0690-4aa6-ac81-0546314dd384


Cannabinoid 1 receptor knockout mice display cold allodynia, but enhanced recovery from spared-nerve injury-induced mechanical hypersensitivity. (full – 2016) http://mpx.sagepub.com/content/12/1744806916649191.long

Enkephalin levels and the number of neuropeptide Y-containing interneurons in the hippocampus are decreased in female cannabinoid-receptor 1 knock-out mice. (full – 2016) [link to full via SCIENCE DIRECT – 2016]

Endocannabinoids in Feeding Behavior and Energy Homeostasis (full – 2016) [link to full via THE MEDICAL BIOCHEMISTRY PAGE – 2016]

Mice Expressing a "Hyper-Sensitive" Form of the Cannabinoid Receptor 1 (CB1) Are Neither Obese Nor Diabetic. (full – 2016) [link to full via PLOS ONE – 2016]

Interaction between interleukin-1β and type-1 cannabinoid receptor is involved in anxiety-like behavior in experimental autoimmune encephalomyelitis. (full – 2016) [link to full via JOURNAL OF NEUROINFLAMMATION – 2016]

Exposure to a Highly Caloric Palatable Diet during the Perinatal Period Affects the Expression of the Endogenous Cannabinoid System in the Brain, Liver and Adipose Tissue of Adult Rat Offspring. (full – 2016) [link to full via PLOS ONE – 2016]

The multiple waves of cannabinoid 1 receptor signaling. (full – 2016) [link to full via MOLPHARM – ASAP JOURNALS – 2016]

Getting into the weed: the role of the endocannabinoid system in the brain-gut axis. (link to full via ELSEVIER – 2016) [link to full via NCBI NLM NIH PUBMED – 2016]

Letter to the editor re Sredni et al.: spontaneous involution of pediatric low-grade gliomas: high expression of cannabinoid receptor 1 (CNR1) at the time of diagnosis may indicate involvement of the endocannabinoid system (2016) (letter – 2016) [link to full via LINK SPRINGER – 2016]

Interactions between the endocannabinoid and nicotinic cholinergic systems: preclinical evidence and therapeutic perspectives. (abst – 2016) [link to full via NCBI NLM NIH PUBMED – 2016]

Longitudinal predictors of cannabis use and dependence in offspring from families at ultra high risk for alcohol dependence and in control families. (abst – 2016) [link to full via NCBI NLM NIH PUBMED – 2016]

Effects of chronic exercise on the endocannabinoid system in Wistar rats with high-fat diet-induced obesity. (abst – 2016) [link to full via NCBI NLM NIH PUBMED – 2016]

Role of cannabinoid receptors in renal diseases. (abst – 2016) [link to full via NCBI NLM NIH PUBMED – 2016]

Dose-dependent cannabis use, depressive symptoms, and FAAH genotype predict sleep quality in emerging adults: a pilot study. (abst – 2016) [link to full via NCBI NLM NIH PUBMED – 2016]
Because difficulty is not the same for everyone: the impact of complexity in working memory is associated with cannabinoid 1 receptor genetic variation in young adults. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27108777

Prefrontal activity during working memory is modulated by the interaction of variation in CB1 and COX2 coding genes and correlates with frequency of cannabis use (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27261878

Dietary conjugated linoleic acid supplementation alters the expression of genes involved in the endocannabinoid system in the bovine endometrium and increases plasma progesterone concentrations. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27262886


Mechanical and material properties of cortical and trabecular bone from cannabinoid receptor-1-null (Cnr1-/-) mice. (abst – 2016) http://www.medengphys.com/article/S1350-4533(16)30148-5/abstract


Spontaneous involution of pediatric low-grade gliomas: high expression of cannabinoid receptor 1 (CNR1) at the time of diagnosis may indicate involvement of the endocannabinoid system. (abst – 2016) http://link.springer.com/article/10.1007%2Fs00381-016-3243-7


Expression of Dopamine Receptor 1A and Cannabinoid Receptor 1 Genes in the Cochlea and Brain after Salicylate-Induced Tinnitus. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27658122


— CB 2 GENES +


Loss of the cannabinoid receptor CB2 alters the mechanical but not the material properties of bone (abst – 2010) http://www.thebonejournal.com/article/S8756-3282%2810%2900716-7/abstract

CNR2 functional variant (Q63R) influences childhood immune thrombocytopenic purpura. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3232275/

Deletion of CB2 Cannabinoid Receptor Induces Schizophrenia-Related Behaviors in Mice (full – 2011) http://www.nature.com/npp/journal/v36/n7/full/npp201134a.html


Genetic variability in the endocannabinoid system and 12-week clinical response to citalopram treatment: the role of the CNR1, CNR2 and FAAH genes (full – 2012) http://journals.sagepub.com/doi/full/10.1177/0269881112454229


Cannabis, a complex plant: different compounds and different effects on individuals (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3736954/

Childhood immune thrombocytopenia-who will spontaneously recover? (full – 2013) http://www.seminhematol.org/article/S0037-1963%2813%2900032-2/fulltext


Association Between a Polymorphism in Cannabinoid Receptor 2 and Severe Necroinflammation in Patients With Chronic Hepatitis C. (full – 2013) http://www.cghjournal.org/article/S1542-3565%2813%2900687-3/fulltext


Interrogating Therapeutic Manipulation of the Endocannabinoid System in Human Colon (abst – 2013) http://www.fasebj.org/content/26/1_Supplement/1123.1

Endocannabinoid Receptors Gene Expression in Morbidly Obese Women with Nonalcoholic Fatty Liver Disease (full – 2014)
http://www.hindawi.com/journals/bmri/2014/502542/

Cannabinoid Receptor 2-63 QQ Variant Is Associated with Persistently Normal Aminotransferase Serum Levels in Chronic Hepatitis C. (full - 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4062424/

Cannabinoid Receptor 2-63 QQ Variant Is Associated with Persistently Normal Aminotransferase Serum Levels in Chronic Hepatitis C (full - 2014)
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0099450

The in vitro GcMAF effects on endocannabinoid system transcriptionomics, receptor formation, and cell activity of autism-derived macrophages. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3996516/

Genetic polymorphism in pathogenesis of irritable bowel syndrome. (full – 2014)

Examining the critical roles of human CB2 receptor residues Valine 3.32 (113) and Leucine 5.41 (192) in ligand recognition and downstream signaling activities. (full – 2014)
http://www.sciencedirect.com/science/article/pii/S0006291X14014636

Species Differences in Cannabinoid Receptor 2 and Receptor Responses to Cocaine Self-Administration in Mice and Rats. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4330519/

Synthetic marijuana "K2" induced ITP. (abst – 2014)

Genetic association analysis of CNR1 and CNR2 polymorphisms with schizophrenia in a Korean population. (abst – 2014)


Genetic background modifies the effects of type 2 cannabinoid receptor deficiency on bone mass and bone turnover. (abst – 2014)

No association between the functional cannabinoid receptor type 2 Q63R variants and inflammatory bowel disease in Turkish subjects. (full – 2015)
The Cannabinoid Receptor 2 Q63R Variant Modulates the Relationship between Childhood Obesity and Age at Menarche. (full – 2015)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0140142

Expression Analysis of CB2-GFP BAC Transgenic Mice (full – 2015)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0138986

The skeletal endocannabinoid system: clinical and experimental insights (full – 2015)


Effects of deleting cannabinoid receptor-2 on mechanical and material properties of cortical and trabecular bone (full – 2015)
http://www.tandfonline.com/doi/full/10.1080/23311916.2014.1001015

Role of the endocannabinoid system in the emotional manifestations of osteoarthritis pain. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4770330/

The impact of the CB2-63 polymorphism on the histological presentation of chronic hepatitis B. (link to full – 2015)
http://www.clinicalmicrobiologyandinfection.com/article/S1198-743X(15)00313-4/abstract


Association between cannabinoid receptor type 2 Q63R variant and oligo/polyarticular juvenile idiopathic arthritis. (abst – 2015)


Whole-cell biosensor for label-free detection of GPCR-mediated drug responses in personal cell lines. (abst – 2015)

Elucidating Cannabinoid Biology in Zebrafish (Danio rerio). (abst – 2015)

Deletion of CB2 cannabinoid receptors reduces synaptic transmission and long-term potentiation in the mouse hippocampus. (abst – 2015)

Effects of bioactive fatty acid amide derivatives in zebrafish scale model of bone metabolism and disease. (abst – 2015)
CB2 Cannabinoid Receptor Knockout in Mice Impairs Contextual Long-Term Memory and Enhances Spatial Working Memory (full – 2016)  
http://www.hindawi.com/journals/np/2016/9817089/

A collaboration investigating endocannabinoid signalling in brain and bone (full – 2016)  

CB2 Cannabinoid Receptor As Potential Target against Alzheimer's Disease (full – 2016)  

Genetic Versus Pharmacological Assessment of the Role of Cannabinoid Type 2 Receptors in Alcohol Reward-Related Behaviors. (full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4886733/

Genetic variation in the endocannabinoid system and response to Cognitive Behavior Therapy for child anxiety disorders. (full – 2016)  

Endocannabinoids in Feeding Behavior and Energy Homeostasis (full – 2016)  
http://themedicalbiochemistrypage.org/endocannabinoids.php

Exposure to a Highly Caloric Palatable Diet during the Perinatal Period Affects the Expression of the Endogenous Cannabinoid System in the Brain, Liver and Adipose Tissue of Adult Rat Offspring. (full – 2016)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0165432

Cannabinoid receptor 2 as anti-obesity target: inflammation, fat storage and browning modulation. (link to PDF – 2016)  

Ovariectomy Alters Gene Expression of the Hippocampal Formation in Middle-Aged Rats (link to PDF – 2016)  

Expression of functional cannabinoid CB2 receptor in VTA dopamine neurons in rats. (abst – 2016)  

Effects of chronic exercise on the endocannabinoid system in Wistar rats with high-fat diet-induced obesity. (abst – 2016)  

Dietary conjugated linoleic acid supplementation alters the expression of genes involved in the endocannabinoid system in the bovine endometrium and increases plasma progesterone concentrations. (abst – 2016)  
Cannabinoid 2 receptor is a novel anti-inflammatory target in experimental proliferative vitreoretinopathy. (abst – 2016)  

The endocannabinoid system and bone (abst – 2016)  

Cannabinoid Receptor 2 Functional Variant Contributes to the Risk for Pediatric Inflammatory Bowel Disease. (abst – 2016)  


**COMT GENES**

Molecular mechanisms underlying anorexia nervosa: focus on human gene association studies and systems controlling food intake. (abst – 2010)  

Cannabis, COMT and psychotic experiences. (full – 2011)  
http://bjp.rcpsych.org/content/199/5/380.long

COMT val158met and 5-HTTLPR genetic polymorphisms moderate executive control in cannabis users (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3682154/

What does a mouse tell us about neuregulin 1-cannabis interactions? (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3581817/

Psychosis-inducing effects of cannabis are related to both childhood abuse and COMT genotypes. (abst – 2013)  

Genetic moderation of the effects of cannabis: catechol-O-methyltransferase (COMT) affects the impact of Δ9-tetrahydrocannabinol (THC) on working memory performance but not on the occurrence of psychotic experiences. (full – 2015)  
http://journals.sagepub.com/doi/full/10.1177/0269881115609073
**CYP GENES** - production of their enzymes is blocked by THC, CBD and CBN

Effects of a Commonly Occurring Genetic Polymorphism of Human CYP3A4 (I118V) on the Metabolism of Anandamide   (full – 2010)
http://dmd.aspetjournals.org/content/38/11/2075.full

Characterization of major phytocannabinoids, cannabidiol and cannabinol, as isoform-selective and potent inhibitors of human CYP1 enzymes.   (abst – 2010)

Cannabidiol, a major phytocannabinoid, as a potent atypical inhibitor for CYP2D6.  (full – 2011)  http://dmd.aspetjournals.org/content/39/11/2049.full.pdf+html

Genome-wide association study of antibody response to smallpox vaccine.   (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3367131/


Functional consequences of synthetic cannabinoid metabolites and CYP2C9 polymorphisms   (abst – 2014)  http://www.fasebj.org/content/28/1_Supplement/838.4.abstract?sid=467bb529-0ecc-4ddc-af27-3f56f520a102

**DAGL GENES**

Genetic Disruption of 2-Arachidonoylglycerol Synthesis Reveals a Key Role for Endocannabinoid Signaling in Anxiety Modulation.   (full – 2014)  http://www.cell.com/cell-reports/fulltext/S2211-1247(14)00955-3

Diacylglycerol lipase α knockout mice demonstrate metabolic and behavioral phenotypes similar to those of cannabinoid receptor 1 knockout mice   (full – 2015)  http://journal.frontiersin.org/article/10.3389/fendo.2015.00086/full


Anxiety, Stress, and Fear Response in Mice with Reduced Endocannabinoid Levels. (link through Elsevier to get full - 2015)  

Exposure to a Highly Caloric Palatable Diet during the Perinatal Period Affects the Expression of the Endogenous Cannabinoid System in the Brain, Liver and Adipose Tissue of Adult Rat Offspring. (full – 2016)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0165432

Important role of endocannabinoid signaling in the development of functional vision and locomotion in zebrafish. (abst – 2016)  

**FAAH GENES**

More aroused, less fatigued: fatty acid amide hydrolase gene polymorphisms influence acute response to amphetamine. (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2945903/

385 C/A polymorphism of the fatty acid amide hydrolase gene is associated with metabolic syndrome in the Chinese Han population. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3258756/

Adipose tissue endocannabinoid system gene expression: depot differences and effects of diet and exercise (full – 2011)  
http://www.lipidworld.com/content/10/1/194

Association of genetic variation in cannabinoid mechanisms and gastric motor functions and satiation in overweight and obesity. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3117918/

The Endocannabinoid System as Pharmacological Target Derived from Its CNS Role in Energy Homeostasis and Reward. Applications in Eating Disorders and Addiction (link to PDF - 2011)  

A polymorphism in the gene of the endocannabinoid-degrading enzyme FAAH (FAAH C385A) is associated with emotional–motivational reactivity (full – 2012)  

Irritable Bowel Syndrome: Methods, Mechanisms, and Pathophysiology. Genetic epidemiology and pharmacogenetics in irritable bowel syndrome (full – 2012)  
http://ajpgi.physiology.org/content/302/10/G1075
Randomized pharmacodynamic and pharmacogenetic trial of dronabinol effects on colon transit in irritable bowel syndrome-diarrhea. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3775711/


Genetic variability in the endocannabinoid system and 12-week clinical response to citalopram treatment: the role of the CNR1, CNR2 and FAAH genes (full – 2012) http://journals.sagepub.com/doi/full/10.1177/0269881112454229


Investigation of endocannabinoid system genes suggests association between peroxisome proliferator activator receptor-α gene (PPARA) and schizophrenia. (abst – 2012) http://www.ncbi.nlm.nih.gov/pubmed/22920733


Moderation of antipsychotic-induced weight gain by energy balance gene variants in the RUPP autism network risperidone studies (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3693401/

FAAH selectively influences placebo effects. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4222079/

Impulsivity, Variation in the Cannabinoid Receptor (CNR1) and Fatty Acid Amide Hydrolase (FAAH) Genes, and Marijuana-Related Problems. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3817049/


Effects of C358A polymorphism of the endocannabinoid degrading enzyme fatty acid amide hydrolase (FAAH) on weight loss, adipocytokines levels, and insulin resistance after a high polyunsaturated fat diet in obese patients. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/24445122


Defects in fatty acid amide hydrolase 2 in a male with neurologic and psychiatric symptoms. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4423390/


FAAH genetic variation enhances fronto-amygdala function in mouse and human. (full – 2015) http://www.nature.com/articles/ncomms7395.pdf?referrer_access_token=PXVrlqmHqcIK8Z6Pdh7gAdRgN0jAjWel9jnR3ZoTv0MFY2u7ZdbRZ8yhzdTOJf a-Q9HKMjv_5rGSvPOZGVRltjjxvd36Fuji0xbHtGY8oldf7UY66frqFz8sTJv1Bb-kK5l6fjNd3- c65PooSpwroKFlbGttma8F-Gc9DPJ52xf63m2TF7oWmQChmZBEc79Crwo- D91CravaVhXE9mnTcCGGdvxOFz8rPtg3fonyQYDECUQWrPFJNuaWEPyy1xb&tracking_referrer=blogs.scientificamerican.com


Novel associations between FAAH genetic variants and postoperative central opioid-related adverse effects. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4492912/

Behavioral genetics: of mice, men, and internal bliss. (full – 2015)

Endocannabinoid regulation of amyloid-induced neuroinflammation. (abst – 2015)

A pro-nociceptive phenotype unmasked in mice lacking fatty-acid amide hydrolase (full – 2016) http://mpx.sagepub.com/content/12/1744806916649192.long

Genetic variation in the endocannabinoid system and response to Cognitive Behavior Therapy for child anxiety disorders. (full – 2016)


Involvement of Endocannabinoids in Alcohol "Binge" Drinking: Studies of Mice with Human Fatty Acid Amide Hydrolase Genetic Variation and After CB1 Receptor Antagonists. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4962692/


Cannabinoids and haemostasis. (click “ICI” for download – 2016)

Interactions between anandamide & corticotropin-releasing hormone signaling modulate human amygdala function & risk for anxiety disorders: An imaging genetics strategy for modeling molecular interactions (abst – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC26923505


Genetically reduced FAAH activity may be a risk for the development of anxiety and depression in persons with repetitive childhood trauma. (abst – 2016) http://www.europeanneuropsychopharmacology.com/article/S0924-977X(16)00077-8/abstract

Dose-dependent cannabis use, depressive symptoms, and FAAH genotype predict sleep quality in emerging adults: a pilot study.  (abst – 2016)


Genetic variation in FAAH is associated with cannabis use disorders in a young adult sample of Mexican Americans  (abst – 2016)

Seeing through the smoke: human and animal studies of cannabis use and endocannabinoid signalling in corticolimbic networks  (abst – 2016)


FABP GENES

Fatty Acid Binding Protein-1 (FABP1) and the Human FABP1 T94A Variant: Roles in the Endocannabinoid System and Dyslipidemias.  (abst – 2016)


FABP1 in wonderland.  (abst – 2016)

Female Mice are Resistant to Fabp1 Gene Ablation-Induced Alterations in Brain Endocannabinoid Levels  (abst – 2016)

**MAGL GENES**

Mutation of Cys242 of Human Monoacylglycerol Lipase Disrupts Balanced Hydrolysis of 1- and 2-monoacylglycerols and Selectively Impairs Inhibitor (full – 2013) http://molpharm.aspetjournals.org/content/early/2013/12/24/mol.113.090795.long

Monoglyceride lipase deficiency causes desensitization of intestinal cannabinoid receptor type 1 and increased colonic μ-opioid receptor sensitivity. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4556478/


Deletion of Monoglyceride Lipase in Astrocytes Attenuates Lipopolysaccharide-Induced Neuroinflammation. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4705409/


Genetic inactivation and prolonged pharmacologic inhibition of monoacylglycerol lipase have opposite effects on anesthetic sensitivity to propofol (abst – 2015) http://www.sciencedirect.com/science/article/pii/S0014299915302247

Neuronal and Astrocytic Monoacylglycerol Lipase Limit the Spread of Endocannabinoid Signaling in the Cerebellum. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4865651/

Exposure to a Highly Caloric Palatable Diet during the Perinatal Period Affects the Expression of the Endogenous Cannabinoid System in the Brain, Liver and Adipose Tissue of Adult Rat Offspring. (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0165432

RS GENES POLYMORPHISMS – various +

Cannabinoid receptor 1 gene polymorphisms and marijuana misuse interactions on white matter and cognitive deficits in schizophrenia. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3085576/

Variants at the endocannabinoid receptor CB1 gene (CNR1) and insulin sensitivity, type 2 diabetes, and coronary heart disease. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3686489/


Association study of Cannabinoid receptor 1 (CNR1) gene in tardive dyskinesia (full - 2011) http://www.nature.com/tpj/journal/v12/n3/full/tpj201093a.html


Endocannabinoid type 1 receptor gene (CNR1) polymorphisms (rs806381, rs10485170, rs6454674, rs2023239) and cardiovascular risk factors in postmenopausal women. (abst – 2011) http://www.ncbi.nlm.nih.gov/pubmed/21480765

Allele specific differences in the activity of a novel cannabinoid receptor 1(CNR1) gene intronic enhancer in hypothalamus, dorsal root ganglia and hippocampus. (full – 2012) http://www.jbc.org/content/early/2012/02/23/jbc.M111.336750.long

Confirmation that the AKT1 (rs2494732) genotype influences the risk of psychosis in cannabis users. (abst – 2012) http://www.ncbi.nlm.nih.gov/pubmed/22831980

Mutation of Cys242 of Human Monoacylglycerol Lipase Disrupts Balanced Hydrolysis of 1- and 2-monoacylglycerols and Selectively Impairs Inhibitor Potency (full – 2013) http://molpharm.aspetjournals.org/content/early/2013/12/24/mol.113.090795.long


Genetic polymorphism in pathogenesis of irritable bowel syndrome. (full – 2014)
Genetic predisposition to schizophrenia associated with increased use of cannabis. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4382963/


Genetic dissection of the endocannabinoid system and how it changed our knowledge of cannabinoid pharmacology and mammalian physiology (abst – 2014)

Genetic variability in the human cannabinoid receptor 1 is associated with resting state EEG theta power in humans. (abst – 2014)

Pharmacogenetics in irritable bowel syndrome (full – 2015)


Monoacylglycerol lipase (MGLL) polymorphism rs604300 interacts with childhood adversity to predict cannabis dependence symptoms and amygdala habituation: Evidence from an endocannabinoid system-level analysis. (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4700831/


Because difficulty is not the same for everyone: the impact of complexity in working memory is associated with cannabinoid 1 receptor genetic variation in young adults. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27108777


EPIGENETICS - genes being turned off, or on, by chemical reactions


Reduced expression of brain cannabinoid receptor 1 (Cnr1) is coupled with an increased complementary micro-RNA (miR-26b) in a mouse model of fetal alcohol spectrum disorders. (full – 2013) http://www.clinicalepigeneticsjournal.com/content/5/1/14


Low 17beta-Estradiol Levels in Cnr1 Knock-Out Mice Affect Spermatid Chromatin Remodeling by Interfering with Chromatin Reorganization. (full – 2013) http://www.biolreprod.org/content/88/6/152.long

Epigenetic Control of Skin Differentiation Genes by Phytocannabinoids (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3791996/


Reduced expression of brain cannabinoid receptor 1 (Cnr1) is coupled with an increased complementary micro-RNA (miR-26b) in a mouse model of fetal alcohol spectrum disorders. (full – 2014) http://www.clinicalepigeneticsjournal.com/content/5/1/14


Putative Epigenetic Involvement of the Endocannabinoid System in Anxiety- and Depression-Related Behaviors Caused by Nicotine as a Stressor. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4942073/


KNOCK-OUT MICE/ TRANSGENIC MICE +* – living examples of severely defective endocannabinoid systems.


Role of CB1 cannabinoid receptors on GABAergic neurons in brain aging (full– 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3131310/?tool=pubmed
Loss of the cannabinoid receptor CB2 alters the mechanical but not the material properties of bone  
http://www.thebonejournal.com/article/S8756-3282%2810%2900716-7/abstract

The type 2 cannabinoid receptor protects against age-related bone loss and ovariectomy induced bone loss by stimulating bone formation  
http://www.thebonejournal.com/article/S8756-3282%2810%2900619-8/abstract

Resistance to diet-induced adiposity in cannabinoid receptor-1 deficient mice is not due to impaired adipocyte function  
http://www.nutritionandmetabolism.com/content/8/1/93

The central cannabinoid CB1 receptor is required for diet-induced obesity and rimonabant's antiobesity effects in mice  

Cannabinoid type 1 receptor mediates depot-specific effects on differentiation, inflammation and oxidative metabolism in inguinal and epididymal white adipocytes.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3303536/

Endocannabinoids and traumatic brain injury  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165950/?tool=pubmed

Comparative effects of chlorpyrifos in wild type and cannabinoid Cb1 receptor knockout mice.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3205254/

Early onset of aging-like changes is restricted to cognitive abilities and skin structure in Cnr1(-/-) mice.  

The role of cannabinoid receptors in bone remodeling in a CB1/2 double knockout mouse  
http://www.fasebj.org/content/25/1_Supplement/492.5.abstract?sid=83333c52-526d-49fe-9599-25820e32f00b

Increased vulnerability to 6-hydroxydopamine lesion and reduced development of dyskinesias in mice lacking CB1 cannabinoid receptors  
http://europepmc.org/abstract/med/19419794

Role of CB1 cannabinoid receptors on GABAergic neurons in brain aging  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3131310/?tool=pubmed

Loss of CB1 receptors leads to differential age-related changes in reward-driven learning and memory.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3514639/

Acetaminophen differentially enhances social behavior and cortical cannabinoid levels in inbred mice.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3389197/
Upregulation of cannabinoid type 1 receptors in dopamine D2 receptor knockout mice is reversed by chronic forced ethanol consumption. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3004984/?tool=pubmed

Endocannabinoid signaling in female reproduction. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3382454/

Hypothalamic CB1 Cannabinoid Receptors Regulate Energy Balance in Mice (full – 2012)  

Resistance to diet-induced adiposity in cannabinoid receptor-1 deficient mice is not due to impaired adipocyte function. (full – 2012)  
http://www.nutritionandmetabolism.com/content/pdf/1743-7075-8-93.pdf

Angiotensin II induces vascular endocannabinoid release, which attenuates its vasoconstrictor effect via CB1 cannabinoid receptors. (full – 2012)  
http://www.jbc.org/content/early/2012/07/11/jbc.M112.346296.full.pdf+html

The CB1 Cannabinoid Receptor Drives Corticospinal Motor Neuron Differentiation through the Ctip2/Satb2 Transcriptional Regulation Axis. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3545190/

Cannabinoid receptor 1 in the vagus nerve is dispensable for body weight homeostasis but required for normal gastrointestinal motility. (full – 2012)  
http://www.jneurosci.org/content/32/30/10331.long

Evidence for the Putative Cannabinoid Receptor (GPR55)-Mediated Inhibitory Effects on Intestinal Contractility in Mice. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3548934/

How Weed Can Protect Us From Cancer and Alzheimer's (book excerpt – 2012)  
http://www.alternet.org/story/156269/how_weed_can_protect_us_from_cancer_and_alzheimer%27s

Impaired hippocampal glucoregulation in the cannabinoid CB(1) receptor knockout mice as revealed by an optimized in vitro experimental approach. (abst – 2012)  

Cannabinoid modulation of midbrain urocortin 1 neurones during acute and chronic stress. (abst – 2012)  

Cannabinoid CB1 receptor deficiency increases contextual fear memory under highly aversive conditions and long-term potentiation in vivo. (abst – 2012)  

Age-related changes of anandamide metabolism in CB1 cannabinoid receptor knockout mice: correlation with behaviour. (abst – 2012)  
Role of CB1 and CB2 cannabinoid receptors in the development of joint pain induced by monosodium iodoacetate. (abst – 2012) http://www.ncbi.nlm.nih.gov/pubmed/23199705


Evidence For Functional Role Of CB1 Cannabinoid Receptors In The Mammalian Cone Pathway (abst – 2012) http://iovs.arvojournals.org/article.aspx?articleid=2356936&resultClick=1


Genetic Background Can Result in a Marked or Minimal Effect of Gene Knockout (GPR55 and CB2 Receptor) in Experimental Autoimmune Encephalomyelitis Models of Multiple Sclerosis. (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0076907


Developmental Role for Endocannabinoid Signaling in Regulating Glucose Metabolism and Growth. (full – 2013) http://diabetes.diabetesjournals.org/content/62/7/2359.full?sid=2f5bda2b-a9c7-432a-9588-80c99189164d

Dissociation of the Pharmacological Effects of THC by mTOR Blockade. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3656376/

The CB1 receptor mediates the peripheral effects of ghrelin on AMPK activity but not on growth hormone release (full – 2013) http://www.fasebj.org/content/27/12/5112.long

Low 17beta-Estradiol Levels in Cnr1 Knock-Out Mice Affect Spermatid Chromatin Remodeling by Interfering with Chromatin Reorganization. (full – 2013) http://www.biolreprod.org/content/88/6/152.long


CB1 Receptor-Mediated Signaling Underlies the Hippocampal Synaptic, Learning and Memory Deficits Following Treatment with JWH-081, a New Component of Spice/K2 Preparations. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3959795/

Control of spasticity in a multiple sclerosis model using central nervous system-excluded CB1 cannabinoid receptor agonists. (full – 2013) http://www.fasebj.org/content/28/1/117.long
Loss of CB1 receptors leads to decreased cathepsin D levels and accelerated lipofuscin accumulation in the hippocampus. (full – 2013) http://www.sciencedirect.com/science/article/pii/S0047637413000869


Cardiorespiratory control as a function of wake-sleep behavior and diet in mice lacking CB1 cannabinoid receptors (abst – 2013) http://www.fasebj.org/content/27/1_Supplement/926.1.short


Endocannabinoids decrease neuropathic pain-related behavior in mice through the activation of one or both peripheral CB1 and CB2 receptors. (abst – 2013) http://www.sciencedirect.com/science/article/pii/S0028390813004802

Modulation of Strain-Specific Differences in Gene Expression by Cannabinoid Type 2 Receptor Deficiency. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/24370613

Prolonged monoacylglycerol lipase blockade causes equivalent CB1-receptor mediated adaptations in FAAH wild type and knockout mice. (full – 2014) http://jpet.aspetjournals.org/content/early/2014/05/21/jpet.114.212753.long

CB2 Receptor Deficiency Increases Amyloid Pathology and Alters Tau Processing in a Transgenic Mouse Model of Alzheimer's Disease. (full - 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3883962/

Endocannabinoid Modulation of Cortical Up-States and NREM Sleep (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3919802/

Multiple sleep alterations in mice lacking cannabinoid type 1 receptors. (full – 2014) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0089432

Involvement of cannabinoid receptors in peripheral and spinal morphine analgesia (full – 2014) http://www.sciencedirect.com/science/article/pii/S0306452213010531
Cardiorespiratory Anomalies in Mice Lacking CB1 Cannabinoid Receptors.  

Cannabinoids Alleviate Experimentally Induced Intestinal Inflammation by Acting at Central and Peripheral Receptors.  
(full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4183544/

Regulatory role of the Cannabinoid-2 receptor in stress-induced neuroinflammation in mice.  
(full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4243857/

Elevation of Endogenous Anandamide Impairs LTP, Learning and Memory through CB1 Receptor Signaling in Mice.  
(full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4077345/

Relationships between serotonergic and cannabinoid system in depressive-like behavior: a PET study with [11C]-DASB.  

Impairment of Corneal Epithelial Wound Healing in a TRPV1-Deficient Mouse  
(full – 2014)  http://iovs.arvojournals.org/article.aspx?articleid=2128931&resultClick=1

The CB1 Receptor as an Important Mediator of Hedonic Reward Processing  
(full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4138748/

What we know and do not know about the cannabinoid receptor 2 (CB2).  

Morphological and Behavioural Evidence for Impaired Prefrontal Cortical Function in Female CB1 Receptor Deficient Mice.  
(full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4128323/

Cannabinoid Type 1 (CB1) Receptors on Sim1-Expressing Neurons Regulate Energy Expenditure in Male Mice  

Chronic Cannabinoid Receptor 2 Activation Reverses Paclitaxel Neuropathy Without Tolerance or Cannabinoid Receptor 1-Dependent Withdrawal.  
(full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4209205/

Deficiency of cannabinoid receptor of type 2 worsens renal functional and structural abnormalities in streptozotocin-induced diabetic mice.  

Augmented tonic pain-related behavior in knockout mice lacking monoacylglycerol lipase, a major degrading enzyme for the endocannabinoid 2-arachidonoylglycerol.  


Lack of hypophagia in CB1 null mice is associated to decreased hypothalamic POMC and CART expression. (full – 2015) http://ijnp.oxfordjournals.org/content/early/2015/03/09/ijnp.pyv011.long

Genetic Dissection of Behavioural and Autonomic Effects of Δ9-Tetrahydrocannabinol in Mice (full – 2015) http://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.0050269

Understanding Cannabinoid Psychoactivity with Mouse Genetic Models (full – 2015) http://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.0050280


Diacylglycerol lipase α knockout mice demonstrate metabolic and behavioral phenotypes similar to those of cannabinoid receptor 1 knockout mice (full – 2015) http://journal.frontiersin.org/article/10.3389/fendo.2015.00086/full

Expression Analysis of CB2-GFP BAC Transgenic Mice (full – 2015) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0138986


Cannabinoid type-1 receptor signaling in central serotonergic neurons regulates anxiety-like behavior and sociability. (full – 2015) http://journal.frontiersin.org/article/10.3389/fnbeh.2015.00235/full

Role of the endocannabinoid system in the emotional manifestations of osteoarthritis pain. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4770330/


Phenotypic assessment of THC discriminative stimulus properties in fatty acid amide hydrolase knockout and wildtype mice. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4387086/


The type 2 cannabinoid receptor regulates susceptibility to osteoarthritis in mice. (full – 2015) http://www.oarsijournal.com/article/S1063-4584(15)01140-1/fulltext


An endocannabinoid system is present in the mouse olfactory epithelium but does not modulate olfaction. (full – 2015) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4485596/


Anxiety, Stress, and Fear Response in Mice with Reduced Endocannabinoid Levels. (link through Elsevier to get full - 2015) http://www.ncbi.nlm.nih.gov/pubmed/25981172

Participation of the endocannabinoid system (ECS) in the weight-gain and sensitization to LPS exposure in a maternal obesity model (article – 2015) http://www.placentajournal.org/article/S0143-4004%2815%2900526-3/fulltext

Increased tonic cannabinoid CB1R activity and brain region-specific desensitization of CB1R Gi/o signaling axis in mice with global genetic knockout of monoacylgllycerol
lipase. (abst – 2015)  

The influence of cannabinoids on learning and memory processes of the dorsal striatum.  
(abst – 2015)  

Genetic deletion of monoacylglycerol lipase (MAGL) leads to impaired cannabinoid  
receptor CB1 R signaling and anxiety-like behavior. (abst – 2015)  

Genetic inactivation and prolonged pharmacologic inhibition of monoacylglycerol lipase  
have opposite effects on anesthetic sensitivity to propofol (abst – 2015)  

Genetic Manipulation of the Endocannabinoid System. (abst – 2015)  
http://link.springer.com/chapter/10.1007%2F978-3-319-20825-1_5

Audiograms, gap detection thresholds, and frequency difference limens in cannabinoid  
receptor 1 knockout mice. (abst – 2015)  

Dopamine-dependent CB1 receptor dysfunction at corticostriatal synapses in  
homezygous PINK1 knockout mice. (abst – 2015)  

Beyond Lipoprotein Receptors: Learning from Receptor Knockouts Mouse Models about  

Deletion of CB2 cannabinoid receptors reduces synaptic transmission and long-term  
potentiation in the mouse hippocampus. (abst – 2015)  

Sex-dependence of anxiety-like behavior in cannabinoid receptor 1 (Cnr1) knockout  
mice. (abst – 2015)  

Blockade of Cannabinoid 1 Receptor Improves GLP-1R Mediated Insulin Secretion in  
Mice (abst – 2015)  

CB1 receptor transgenic mice in the cannabinoid triad: a novel approach to assess in vivo  
efficacy of CB1 ligands. (abst – 2015)  
http://www.fasebj.org/content/29/1_Supplement/LB490.abstract?sid=edf921ac-0690-4aa6-ac81- 
0546314dd384

CB2 Cannabinoid Receptor Knockout in Mice Impairs Contextual Long-Term Memory  
and Enhances Spatial Working Memory (full – 2016)  
http://www.hindawi.com/journals/np/2016/9817089/

A collaboration investigating endocannabinoid signalling in brain and bone
Fatty acid amide hydrolase inhibitors confer anti-invasive and antimetastatic effects on lung cancer cells. (full – 2016)

Cannabinoid 1 receptor knockout mice display cold allodynia, but enhanced recovery from spared-nerve injury-induced mechanical hypersensitivity. (full – 2016)
http://mpx.sagepub.com/content/12/1744806916649191.long


p21-activated kinase 1 restricts tonic endocannabinoid signaling in the hippocampus (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4907698/


Genetic Versus Pharmacological Assessment of the Role of Cannabinoid Type 2 Receptors in Alcohol Reward-Related Behaviors. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4886733/

Enkephalin levels and the number of neuropeptide Y-containing interneurons in the hippocampus are decreased in female cannabinoid-receptor 1 knock-out mice. (full – 2016) http://www.sciencedirect.com/science/article/pii/S0304394016301689

Cannabinoid receptor 2 modulates susceptibility to experimental cerebral malaria through a CCL17-dependent mechanism. (full – 2016) http://www.jbc.org/content/early/2016/07/29/jbc.M116.746594.long


Involvement of Endocannabinoids in Alcohol "Binge" Drinking: Studies of Mice with Human Fatty Acid Amide Hydrolase Genetic Variation and After CB1 Receptor Antagonists. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4962692/


Deletion of Gpr55 Results in Subtle Effects on Energy Metabolism, Motor Activity and Thermal Pain Sensation  
(full – 2016)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0167965

Opposite roles of cannabinoid receptors 1 and 2 in hepatocarcinogenesis.  
(full – 2016)  
http://gut.bmj.com/content/65/10/1721.long

Involvement of TRPV1 in the Olfactory Bulb in Rimonabant-Induced Olfactory Discrimination Deficit.  
(click “Full Text Links” for PDF – 2016)  

Physiological impact of CB1 receptor expression by hippocampal GABAergic interneurons.  
(abst – 2016)  

Cannabinoid receptor 2 augments eosinophil responsiveness and aggravates allergen-induced pulmonary inflammation in mice.  
(abst – 2016)  

A role for the endocannabinoid 2-arachidonoyl-sn-glycerol for social and high-fat food reward in male mice.  
(abst – 2016)  

Lipidomics profile of a NAPE-PLD KO mouse provides evidence of a broader role of this enzyme in lipid metabolism in the brain.  
(abst – 2016)  

Broad impact of deleting endogenous cannabinoid hydrolyzing enzymes and the CB1 cannabinoid receptor on the endogenous cannabinoid-related lipidome in eight regions of the mouse brain.  
(abst – 2016)  

Anatomical characterization of the cannabinoid cb1 receptor in cell type-specific mutant mouse rescue models.  
(abst – 2016)  

Just add water: cannabinoid discrimination in a water T-maze with FAAH(-/-) and (+/+) mice.  
(abst – 2016)  

Mechanical and material properties of cortical and trabecular bone from cannabinoid receptor-1-null (Cnr1-/-) mice.  
(abst – 2016)  

Cannabinoid 2 receptor is a novel anti-inflammatory target in experimental proliferative vitreoretinopathy.  
(abst – 2016)  

Cannabinoid receptor signaling induces proliferation but not neurogenesis in the mouse olfactory epithelium.  
(abst – 2016)  
CB1 Cannabinoid Receptors Mediate Cognitive Deficits and Structural Plasticity Changes During Nicotine Withdrawal. (abst – 2016)

A cannabinoid link between mitochondria and memory. (abst – 2016)

**MISC GENETICS** + – various genes that affect the Endocannabinoid System

The genetics of eating disorders. (abst – 2011)
http://link.springer.com/chapter/10.1007%2F7854_2010_79

Testing bidirectional effects between cannabis use and depressive symptoms: moderation by the serotonin transporter gene (abst – 2011)

The Interplay between Parental Monitoring and the Dopamine D4 Receptor Gene in Adolescent Cannabis Use (full – 2012)

Sensation-seeking genes and physical activity in youth (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3581711/


Genetic Variation Underlying Psychosis-inducing Effects of Cannabis: Critical Review and Future Directions (link to PDF – 2012)
http://www.eurekaselect.com/102835/article

Implantation failure in mice with a disruption in Phospholipase C beta 1 gene: lack of embryonic attachment, aberrant steroid hormone signalling and defective endocannabinoid metabolism (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3632219/

Testing bidirectional effects between cannabis use and depressive symptoms: moderation by the serotonin transporter gene (abst – 2013)

Genetic Disruption of 2-Arachidonoylglycerol Synthesis Reveals a Key Role for Endocannabinoid Signaling in Anxiety Modulation. (full – 2014)
http://www.cell.com/cell-reports/fulltext/S2211-1247(14)00955-3

Genetic predisposition to schizophrenia associated with increased use of cannabis. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4382963/
Genetic variation in personality traits explains genetic overlap between borderline personality features and substance use disorders.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4229407/

Strain differences in the expression of endocannabinoid genes and in cannabinoid receptor binding in the brain of Lewis and Fischer 344 rats.  (full – 2014)  

Genetic dissection of the endocannabinoid system and how it changed our knowledge of cannabinoid pharmacology and mammalian physiology  (abst – 2014)  

Genome-wide microarray analysis identifies a potential role for striatal retrograde endocannabinoid signaling in the pathogenesis of experimental L-DOPA-induced dyskinesia.  (abst – 2014)  

Strain- and context-dependent effects of the anandamide hydrolysis inhibitor URB597 on social behavior in rats  (abst – 2014)  

Genetic dissection of the endocannabinoid system and how it changed our knowledge of cannabinoid pharmacology and mammalian physiology  (abst – 2014)  

Heritability, SNP- and Gene-Based Analyses of Cannabis Use Initiation and Age at Onset.  (full – 2015)  

Increased Cortical Inhibition in Autism-Linked Neuroligin-3R451C Mice Is Due in Part to Loss of Endocannabinoid Signaling.  (full – 2015)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0140638

Loss of Either Rac1 or Rac3 GTPase Differentially Affects the Behavior of Mutant Mice and the Development of Functional GABAergic Networks.  (full – 2015)  
http://cercor.oxfordjournals.org/content/early/2015/11/17/cercor.bhv274.long

Adolescent cannabis exposure interacts with mutant DISC1 to produce impaired adult emotional memory.  (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4640936/

Are genetic variants for tobacco smoking associated with cannabis involvement?  (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4443812/

Orphan nuclear receptor oestrogen-related receptor γ (ERRγ) plays a key role in hepatic cannabinoid receptor type 1-mediated induction of CYP7A1 gene expression  (full – 2015)  
http://ajpendo.physiology.org/content/308/7/E583.long
In Silico Exploration of Cannabis sativa L. Genome for Simple Sequence Repeats (SSRs) (full – 2015)  
http://file.scirp.org/Html/24-2602459_62020.htm

Shared Predisposition in the Association Between Cannabis Use and Subcortical Brain Structure (full – 2015)  
http://jamanetwork.com/journals/jamapsychiatry/fullarticle/2429550

Genotoxic properties of representatives of alkylindazoles and aminoalkyl-indoles which are consumed as synthetic cannabinoids. (abst – 2015)  

Analysis of FABP4 expression pattern in rump fat deposition and metabolism of Altay sheep. (abst – 2015)  

Association of single nucleotide polymorphisms in catechol-O-methyltransferase and serine-threonine protein kinase genes in the Pakistani schizophrenic population: a study with special emphasis on cannabis and smokeless tobacco. (abst – 2015)  


Impact of a synthetic cannabinoid (CP-47,497-C8) on protein expression in human cells: evidence for induction of inflammation and DNA damage. (abst – 2015)  

Co-mutated pathways analysis highlights the coordination mechanism in glioblastoma multiforme (abst – 2015)  

The CCDC55 couples cannabinoid receptor CNR1 to a putative DISC1 schizophrenia pathway. (abst – 2015)  

KAT2B polymorphism identified for drug abuse in African Americans with regulatory links to drug abuse pathways in human prefrontal cortex. (abst – 2015)  

Endocannabinoid regulation in white and brown adipose tissue following thermogenic activation (full – 2016)  
http://www.jlr.org/content/early/2016/01/14/jlr.M065227.full.pdf+html?sid=da020ee7-4e2e-40b6-a400-27301739341e

Genome-wide association study of lifetime cannabis use based on a large meta-analytic sample of 32 330 subjects from the International Cannabis Consortium. (full – 2016)  
Synthetic cannabinoids revealing adrenoleukodystrophy  (full – 2016)


Exposure to a Highly Caloric Palatable Diet during the Perinatal Period Affects the Expression of the Endogenous Cannabinoid System in the Brain, Liver and Adipose Tissue of Adult Rat Offspring.  (full – 2016)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0165432

Assessing causality in associations between cannabis use and schizophrenia risk: a two-sample Mendelian randomization study.  (full – 2016)

Cannabidiol Modulates the Expression of Alzheimer's Disease-Related Genes in Mesenchymal Stem Cells.  (full – 2016)

Cannabis and Psychosis: a Critical Overview of the Relationship  (abst – 2016)

Connecting the dots, genome-wide association studies in substance use  (abst – 2016)
http://www.nature.com/mp/journal/vaop/ncurrent/full/mp201614a.html

Cannabis use and symptoms of anxiety in adolescence and the moderating effect of the serotonin transporter gene.  (abst – 2016)

COMT Val158Met genotype and cannabis use in people with an At Risk Mental State for psychosis: Exploring Gene x Environment interactions.  (abst – 2016)


Aberrant epilepsy-associated mutant Nav1.6 sodium channel activity can be targeted with cannabidiol.  (abst – 2016)  http://www.ncbi.nlm.nih.gov/pubmed/27267376
Assessing Gene Expression of the Endocannabinoid System. (abst – 2016)


Granny Storm Crow's List - July 2016
AMYRINS + – phytochemicals that inhibit the breakdown of 2-AG,

Activation of cannabinoid receptors by the pentacyclic triterpene α,β-amyrin inhibits inflammatory and neuropathic persistent pain in mice. (abst – 2011)  

The antinociceptive triterpene β-amyrin inhibits 2-arachidonoylglycerol (2-AG) hydrolysis without directly targeting CB receptors. (full – 2012)  

Antihyperglycemic and hypolipidemic effects of α, β-amyrin, a triterpenoid mixture from Protium heptaphyllum in mice (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3484111/

Adult mortality and blood feeding behavioral effects of α-amyrin acetate, a novel bioactive compound on in vivo exposed females of Anopheles stephensi Liston (Diptera: Culicidae). (abst – 2012)  

Transcriptional Profiles of the Response of Methicillin-Resistant Staphylococcus aureus to Pentacyclic Triterpenoids (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3577688/

Preventive and therapeutic oral administration of the pentacyclic triterpene α,β-amyrin ameliorates dextran sulfate sodium-induced colitis in mice: The relevance of cannabinoid system. (abst – 2013)  

Amyrin Attenuates Scopolamine-Induced Cognitive Impairment in Mice (full – 2014)  
https://www.jstage.jst.go.jp/article/bpb/37/7/37_b14-00113/_html

http://www.hindawi.com/journals/ecam/2015/238482/

ANTHOCYANINS/ANTHOCYADINS + – plant pigments, moderately activate CB1 & CB2 receptors
Stable Binding of Alternative Protein-enriched Food Matrices with Concentrated Cranberry Bioflavonoids for Functional Food Applications (full – 2013)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3769697/

http://www.hindawi.com/journals/ecam/2015/238482/

**BETA-CARYOPHYLLENE/ (E)-BCP** +* – CB2 agonist, also see TRANS-CARYOPHYLLENE

Cannabinoid and Terpenoid Reference Guide (undated)


Taming THC: potential cannabis synergy and phytocannabinoid-terpenoid entourage effects. (full - 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165946/

β-Caryophyllene inhibits dextran sulfate sodium-induced colitis in mice through CB2 receptor activation and PPARγ pathway. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3070571/

β-Caryophyllene ameliorates cisplatin-induced nephrotoxicity in a cannabinoid 2 receptor-dependent manner. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3312970/

Local Peripheral Effects of β-Caryophyllene through CB2 Receptors in Neuropathic Pain in Mice (full – 2012) http://file.scirp.org/Html/23613.html

Tailoring Your High: Compounds in Cannabis, Properties and Boiling Points (chart – 2012)
http://www.weedist.com/2012/07/tailoring-high-compounds-in-cannabis-properties-boiling-points/


Towards a better Cannabis drug. (full – 2013)

The cannabinoid CB2 receptor-selective phytocannabinoid beta-caryophyllene exerts analgesic effects in mouse models of inflammatory and neuropathic pain. (full – 2013)
http://www.europeanneuropsychopharmacology.com/article/S0924-977X%2813%2900302-7/fulltext
The endocannabinoid system, cannabinoids, and pain          (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3820295/

Activation of Cannabinoid CB2 Receptor-Mediated AMPK/CREB Pathway Reduces Cerebral Ischemic Injury.              (full – 2013)
http://ajp.amjpathol.org/article/S0002-9440%2812%2900890-5/fulltext

β-Caryophyllene causes regression of endometrial implants in a rat model of endometriosis without affecting fertility.         (abst – 2013)

The cannabinoid CB₂ receptor-selective phytocannabinoid beta-caryophyllene exerts analgesic effects in mouse models of inflammatory and neuropathic pain. (full – 2014)
http://www.europeanneuropsychopharmacology.com/article/S0924-977X%2813%2900302-7/fulltext

http://pubs.acs.org/doi/abs/10.1021/cb500177c

β-Caryophyllene, a CB2 Receptor agonist produces multiple behavioral changes relevant to anxiety and depression in mice. (abst – 2014)


β-Caryophyllene Ameliorates the Alzheimer-Like Phenotype in APP/PS1 Mice through CB2 Receptor Activation and the PPARγ Pathway. (abst – 2014)


In vitro binding affinity to human CB1 and CB2 receptors and antimicrobial activity of volatile oil from high potency Cannabis sativa (abst – 2014)

http://www.hindawi.com/journals/ecam/2015/238482/

Cannabinoid and Terpene Info (chart – 2015)
http://skunkpharmresearch.com/cannabinoid-info/

Beyond Cannabis: Plants and the Endocannabinoid System (full – 2016)
http://ge.tt/3Rgtrsa2

The CB2 receptor and its role as a regulator of inflammation. (full – 2016)

Cannabinoid Type 2 (CB2) Receptors Activation Protects against Oxidative Stress and Neuroinflammation Associated Dopaminergic Neurodegeneration in Rotenone Model of Parkinson's Disease. (full – 2016)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4969295/

β-Caryophyllene, a natural sesquiterpene lactone attenuates hyperglycemia mediated oxidative and inflammatory stress in experimental diabetic rats (abst – 2016)


Polypharmacological Properties and Therapeutic Potential of β-Caryophyllene: A Dietary Phytocannabinoid of Pharmaceutical Promise (abst – 2016)
http://www.ingentaconnect.com/search/article?option1=tka&value1=cannabinoid&sortDescending=true&sortField=prism_publicationDate&pageSize=10&index=8


BLACK PEPPER – contains BETA-CARYOPHYLLENE and other terpines.


Beyond Cannabis: Plants and the Endocannabinoid System (full – 2016) http://ge.tt/3Rgtrsa2

CANNABINOIDS IN OTHER PLANTS + - also see MAGNOLOL, CHOCOLATE, ECHINACEA, TEA

Phytocannabinoids beyond the Cannabis plant – do they exist? (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931553/?tool=pubmed

Cannabinomimetic lipid from a marine cyanobacterium. (full– 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3325759/


Marine Cyanobacterial Fatty Acid Amides Acting on Cannabinoid Receptors. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3748600/


CB1 and CB2 Receptors are Novel Molecular Targets for Tamoxifen and 4OH-Tamoxifen. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3860589/


Celastrol Attenuates Inflammatory and Neuropathic Pain Mediated by Cannabinoid Receptor Type 2. (full – 2014) http://www.mdpi.com/1422-0067/15/8/13637/htm


Indoloditerpenes from a Marine-Derived Fungal Strain of Dichotomomyces cejpii with Antagonistic Activity at GPR18 and Cannabinoid Receptors. (abst – 2014) http://pubs.acs.org/doi/abs/10.1021/np400850g

Stimulation of cannabinoid receptors by using Rubus coreanus extracts to control osteoporosis in aged male rats. (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/25136745


Protective effect of Xingnaojia formulation on rats with brain and liver damage caused by chronic alcoholism (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4665616/


Dietary Carbohydrates that Modulate the Immune System (abst – 2015) http://www.ingentaconnect.com/content/ben/ciemd/2015/00000002/00000001/art00009?crawler=true

Beyond Cannabis: Plants and the Endocannabinoid System (full – 2016) http://ge.tt/3Rgtrsa2

Indirect Modulation of the Endocannabinoid System by Specific Fractions of Nutmeg Total Extract (full – 2016)
Indirect modulation of the endocannabinoid system by specific fractions of nutmeg total extract.


**CANNABISOL**

Cannabisol, a novel Δ9-THC dimer possessing a unique methylene bridge, isolated from Cannabis sativa.  
(full – 2016)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5045039/

**CANNADOR** – a cannabis extract in pill form

Role of Cannabinoids in Multiple Sclerosis  
(link to PDF - 2011)  
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.659.8269&rank=26

**CANNFLAVIN-A/ CANNFLAVIN-B** - non-cannabinoid compounds from cannabis, flavinoids

Microbial metabolism of canflavin A and B isolated from Cannabis sativa.  
(full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4885748/

Tailoring Your High: Compounds in Cannabis, Properties and Boiling Points  
(chart – 2012)  
http://www.weedist.com/2012/07/tailoring-high-compounds-in-cannabis-properties-boiling-points/

Neuritogenic Effects of Cannabinoids with Nerve Growth Factor (NGF) on PC12 Cells  
(abst – 2013)  

Cannabinoid and Terpene Info  
(chart – 2015)  
http://skunkpharmresearch.com/cannabinoid-info/

(1)H NMR and HPLC/DAD for Cannabis sativa L. chemotype distinction, extract profiling and specification.  
(abst – 2015)  

**CARYOPHYLLENE OXIDE** - activates CB2 receptors

Synergistic Effect of Lupenone and Caryophyllene Oxide against Trypanosome cruzi.  
(full – 2013)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3671683/
CBC/ CANNABICHROMENE +*- phytocannabinoid, unknown receptor

Antidepressant-like effect of Delta(9)-tetrahydrocannabinol and other cannabinoids isolated from Cannabis sativa L. (full - 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2866040/?tool=pubmed

Disposition of Cannabichromene, Cannabidiol, and Δ9-Tetrahydrocannabinol and its Metabolites in Mouse Brain following Marijuana Inhalation Determined by High-Performance Liquid Chromatography-Tandem Mass Spectrometry (full - 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3023979/

Pharmacological evaluation of the natural constituent of Cannabis sativa, cannabichromene and its modulation by Δ9-tetrahydrocannabinol (full - 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2967639/

Assessment of the Genetic Stability of Micropropagated Plants of Cannabis sativa by ISSR Markers (abst – 2010)

The endocannabinoid system and cancer: therapeutic implication (full – 2011)

Effects of cannabinoids and cannabinoid-enriched Cannabis extracts on TRP channels and endocannabinoid metabolic enzymes. (full – 2011)

CANNABIS SATIVA PLANTS RICH IN CANNABICHROMENE AND ITS ACID, EXTRACTS THEREOF AND METHODS OF OBTAINING EXTRACTS THEREFROM (full – 2011) http://www.faqs.org/patents/app/20110098348

Non-psychoactive cannabinoids modulate the descending pathway of antinociception in anaesthetized rats through several mechanisms of action (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3041249/

The intersection between cannabis and cancer in the United States. (full – 2011)
http://www.croh-online.com/article/S1040-8428(11)00231-9/fulltext


Cannabinoids in children (abst – 2011)

Inhibitory effect of cannabichromene, a major non-psychoactive cannabinoid extracted from Cannabis sativa, on inflammation-induced hypermotility in mice. (full – 2012)
Cannabis—A Valuable Drug That Deserves Better Treatment (full – 2012)

Tailoring Your High: Compounds in Cannabis, Properties and Boiling Points (chart – 2012)

Analysis of cannabinoids in laser-microdissected trichomes of medicinal Cannabis sativa using LCMS and cryogenic NMR. (abst – 2012)

The cannabinoid TRPA1 agonist cannabichromene inhibits nitric oxide production in macrophages and ameliorates murine colitis. (full – 2013)

The effect cannabichromene on adult neural stem/progenitor cells. (abst – 2013)


Differences in receptor binding affinity of several phytocannabinoids does not explain their effects on neural cell cultures. (abst – 2014)

Seized cannabis seeds cultivated in greenhouse: A chemical study by gas chromatography–mass spectrometry and chemometric analysis (link through Elsevier to get link to get full – 2015)

Determination of 11 Cannabinoids in Biomass and Extracts of Different Varieties of Cannabis Using High-Performance Liquid Chromatography. (abst – 2015)

Cannabinoid and Terpene Info (chart – 2015)

Differential effectiveness of selected non-psychotropic phytocannabinoids on human sebocyte functions implicates their introduction in dry/seborrheic skin and acne treatment. (abst – 2016)

Cannabinoids, inflammation, and fibrosis. (abst – 2016)

In vitro Antimicrobial and Antioxidant Activity of Extracts from Six Chemotypes of Medicinal Cannabis (abst – 2016)
CBD/ CANNABIDIOL/ GWP- 42003  +* an agonist of the 5-HT₁₆ receptor, TRPV-2, GPR18 and GPR119, an antagonist of CB1 and CB2, GPR – 55, and helps prevent the breakdown of anandamide

The use of Cannabidiol (CBD) to Reduce Insomnia and the Urge To Use Alcohol in a Geriatric person in on going Behavior Therapy. (case report – undated)
http://cannabisclinicians.org/view-all-case-reports/entry/420/?pagenum=2

The use of Cannabidiol (CBD) and Meditation to reduce Binge Drinking, Anxiety and to improve Emotional Regulation in Long Term Behavior Therapy (case report – undated)
http://cannabisclinicians.org/view-all-case-reports/entry/437/?pagenum=2

Mixed mood disorder (case report – undated)
http://cannabisclinicians.org/view-all-case-reports/entry/228/?pagenum=2

Harm Reduction: Alcohol Use Disorder, Cannabis-induced Psychotic Disorder and a tale of two Hemp Oils, in a Patient diagnosed with a Cluster A & B Personality Disorders in Long Term Behavior Therapy. (case report – undated)
http://cannabisclinicians.org/view-all-case-reports/entry/601/?pagenum=2

Anxiety Associated with Dying (case report – undated)
http://cannabisclinicians.org/view-all-case-reports/entry/666/

International Union of Basic and Clinical Pharmacology. LXXIX. Cannabinoid Receptors and Their Ligands: Beyond CB1 and CB2 (full – 2010)
http://pharmrev.aspetjournals.org/content/62/4/588.full.pdf+html

Antidepressant-like effects of cannabidiol in mice: possible involvement of 5-HT1A receptors (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2823358/?tool=pubmed

Cannabinoid-mediated modulation of neuropathic pain and microglial accumulation in a model of murine type I diabetic peripheral neuropathic pain (full - 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2845559/?tool=pmcentrez

Cannabinoid receptor CB1 mediates baseline and activity-induced survival of new neurons in adult hippocampal neurogenesis (full - 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2898685/?tool=pmcentrez

Therapeutical use of the cannabinoids in psychiatry (full – 2010)

Cannabidiol Displays Antiepileptiform and Antiseizure Properties In Vitro and In Vivo (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2819831/?tool=pmcentrez
Acute administration of cannabidiol in vivo suppresses ischaemia-induced cardiac arrhythmias and reduces infarct size when given at reperfusion. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2936031/?tool=pubmed

Antitumorigenic Effects of Cannabinoids beyond Apoptosis (full - 2010) http://jpet.aspetjournals.org/content/332/2/336.full?sid=af53ea87-ab4b-426e-9c7e-8f750e9c4a17


Antidepressant-like effect of Delta(9)-tetrahydrocannabinol and other cannabinoids isolated from Cannabis sativa L. (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2866040/?tool=pubmed

Cannabidiol ameliorates cognitive and motor impairments in bile-duct ligated mice via 5-HT1A receptor activation. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2829220/?tool=pubmed


Cannabidiol Enhances the Inhibitory Effects of Δ9-Tetrahydrocannabinol on Human Glioblastoma Cell Proliferation and Survival (full - 2010) http://mct.aacrjournals.org/content/9/1/180.full

Cannabidiol Attenuates the Appetitive Effects of Δ9-Tetrahydrocannabinol in Humans Smoking Their Chosen Cannabis (full - 2010) http://www.nature.com/npp/journal/v35/n9/full/npp201058a.html

Disposition of Cannabichromene, Cannabidiol, and Δ9-Tetrahydrocannabinol and its Metabolites in Mouse Brain following Marijuana Inhalation Determined by High-Performance Liquid Chromatography-Tandem Mass Spectrometry (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3023979/

Impact of cannabidiol on the acute memory and psychotomimetic effects of smoked cannabis: naturalistic study. (full - 2010) http://bjp.rcpsych.org/content/197/4/285.long


A behavioural comparison of acute and chronic Delta9-tetrahydrocannabinol and cannabidiol in C57BL/6JArc mice. (full – 2010) http://ijnp.oxfordjournals.org/content/13/7/861.long
http://www.jpsmjournal.com/article/S0885-3924(09)00787-8/fulltext

http://www.cannabisinternational.org/info/Neuropathic-Pain.pdf

Anti-tumoural effects of cannabinoid combinations - Patent TW201002315 (A) — 2010-01-16 (full – 2010)  

The Potential Role of Cannabinoids in Modulating Serotonergic Signaling by Their Influence on Tryptophan Metabolism (full – 2010)  


Neural basis of anxiolytic effects of cannabidiol (CBD) in generalized social anxiety disorder: a preliminary report. (full - 2010)  
http://journals.sagepub.com/doi/full/10.1177/0269881110379283

Therapeutic Potential of Non-Psychotropic Cannabidiol in Ischemic Stroke (link to PDF – 2010)  
http://www.mdpi.com/1424-8247/3/7/2197

Endocannabinoids and psychiatric disorders: the road ahead (article – 2010)  

A randomised, double blind, placebo controlled, parallel group, pilot study of 1:1 and 20:1 ratio of formulated GW42003 : GW42004 plus GW42003 and GW42004 alone in the treatment of dyslipidaemia in subjects with Type 2 diabetes. (research summary – 2010)  

Assessment of the Genetic Stability of Micropropagated Plants of Cannabis sativa by ISSR Markers (abst – 2010)  

Intra-dorsal periaqueductal gray administration of cannabidiol blocks panic-like response by activating 5-HT1A receptors. (abst – 2010)  
http://www.unboundmedicine.com/medline/ebm/record/20457188/abstract/Intra_dorsal_periaqueductal_gra_y_administration_of_cannabidiol_blocks_panic_like_response_by_activating_5_HT1A_receptors
Decrease of plasminogen activator inhibitor-1 may contribute to the anti-invasive action of cannabidiol on human lung cancer cells. (abst - 2010)

Characterization of major phytocannabinoids, cannabidiol and cannabinol, as isoform-selective and potent inhibitors of human CYP1 enzymes. (abst – 2010)


Cannabidiol inhibits cancer cell invasion via upregulation of tissue inhibitor of matrix metalloproteinases-1. (abst - 2010)


Treatment with cannabidiol reverses oxidative stress parameters, cognitive impairment and mortality in rats submitted to sepsis by cecal ligation and puncture. (abst - 2010) http://www.ncbi.nlm.nih.gov/pubmed/20561509

The neuroprotective effect of cannabidiol in an in vitro model of newborn hypoxic-ischemic brain damage in mice is mediated by CB(2) and adenosine receptors. (abst – 2010)
http://www.unboundmedicine.com/medline/ebm/record/19900555/abstract/The_neuroprotective_effect_of_cannabidiol_in_an_in_vitro_model_of_newborn_hypoxic_ischemic_brain_damage_in_mice_is mediated_by_CB_2__and_adenosine_receptors


Cannabidiol reduces lipopolysaccharide-induced vascular changes and inflammation in the mouse brain: an intravital microscopy study (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3034694/?tool=pmcentrez

Pathways mediating the effects of cannabidiol on the reduction of breast cancer cell proliferation, invasion, and metastasis. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3410650/

Cannabidiol Reduces Aβ-Induced Neuroinflammation and Promotes Hippocampal Neurogenesis through PPARγ Involvement (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3230631/?tool=pubmed
Cannabidiol and other cannabinoids reduce microglial activation in vitro and in vivo: relevance to Alzheimers' disease (full – 2011)  
http://molpharm.aspetjournals.org/content/early/2011/02/24/mol.111.071290.long

Evaluation of the Cyclooxygenase Inhibiting Effects of Six Major Cannabinoids Isolated from Cannabis sativa (full – 2011)  
https://www.jstage.jst.go.jp/article/bpb/34/5/34_5_774/_pdf

Cannabidiol, a major phytocannabinoid, as a potent atypical inhibitor for CYP2D6. (full – 2011)  
http://dmd.aspetjournals.org/content/39/11/2049.full.pdf+html

A combined preclinical therapy of cannabinoids and temozolomide against glioma. (full – 2011)  
http://mct.aacrjournals.org/content/10/1/90.full

Role of Myeloid-Derived Suppressor Cells in Amelioration of Experimental Autoimmune Hepatitis Following Activation of TRPV1 Receptors by Cannabidiol (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3069975/?tool=pmcentrez

Cannabidiol protects against hepatic ischemia/reperfusion injury by attenuating inflammatory signaling and response, oxidative/nitrative stress, and cell death. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3081988/pdf/nihms278422.pdf

Cannabidiol causes activated hepatic stellate cell death through a mechanism of endoplasmic reticulum stress-induced apoptosis. (full – 2011)  

Effects of intracisternal administration of cannabidiol on the cardiovascular and behavioral responses to acute restraint stress. (full – 2011)  

Anti-Aversive Effects of Cannabidiol on Innate Fear-Induced Behaviors Evoked by an Ethological Model of Panic Attacks Based on a Prey vs the Wild Snake Epicrates cenchria crassus Confrontation Paradigm. (full - 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3242302/

Brief Report: Cannabidiol Prevents the Development of Cold and Mechanical Allodynia in Paclitaxel-Treated Female C57Bl6 Mice. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3249239/

Cannabidiol Reduces Intestinal Inflammation through the Control of Neuroimmune Axis (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3232190/?tool=pubmed

Prospects for cannabinoid therapies in basal ganglia disorders. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165947/

Influence of agroclimatic conditions on content of main cannabinoids in industrial hemp (Cannabis sativa L.) (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3096803/

Cannabidiol induces programmed cell death in breast cancer cells by coordinating the crosstalk between apoptosis and autophagy. (full – 2011) 
http://mct.aacrjournals.org/content/10/7/1161.long

Heterogeneity in the composition of marijuana seized in California. (full – 2011) 

Differential transcriptional profiles mediated by exposure to the cannabinoids cannabidiol and Δ(9) -tetrahydrocannabinol in BV-2 microglial cells (full – 2011) 

Cannabidiol, a Non-Psychotropic Component of Cannabis, Attenuates Vomiting and Nausea-like Behaviour via Indirect Agonism of 5-HT(1A) Somatodendritic: Autoreceptors in the Dorsal Raphe Nucleus. (full – 2011) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423241/

Non-psychoactive cannabinoids modulate the descending pathway of antinociception in anaesthetized rats through several mechanisms of action (full – 2011) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3041249/

Plasma cannabinoid pharmacokinetics following controlled oral delta9-tetrahydrocannabinol and oromucosal cannabis extract administration. (full – 2011) 
http://www.clinchem.org/content/57/1/66.long

Cannabidiol, a Non-Psychotropic Component of Cannabis, Attenuates Vomiting and Nausea-like Behaviour via Indirect Agonism of 5-HT(1A) Somatodendritic: Autoreceptors in the Dorsal Raphe Nucleus. (full – 2011) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423241/

A novel CB receptor GPR55 and its ligands are involved in regulation of gut movement in rodents. (full – 2011) 

Endocannabinoid system and psychiatry: in search of a neurobiological basis for detrimental and potential therapeutic effects. (full – 2011) 

Cannabidiol as an emergent therapeutic strategy for lessening the impact of inflammation on oxidative stress. (full – 2011) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3085542/

Cannabidiol inhibits the hyperphagia induced by cannabinoid-1 or serotonin-1A receptor agonists. (full – 2011) 
Cannabidiol inhibits pathogenic T cells, decreases spinal microglial activation and ameliorates multiple sclerosis-like disease in C57BL/6 mice.  
(full – 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165959/  

Cannabidiol improves brain and liver function in a fulminant hepatic failure-induced model of hepatic encephalopathy in mice.  
(full – 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3057300/  

Induction of apoptosis by cannabinoids in prostate and colon cancer cells is phosphatase dependent.  
(full – 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3280884/  

Cannabidiol protects against hepatic ischemia/reperfusion injury by attenuating oxidative stress, inflammatory response, and cell death  
(full – 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3081988/  

Cannabis with high cannabidiol content is associated with fewer psychotic experiences.  
(full – 2011)  http://www.schres-journal.com/article/S0920-9964%2811%2900224-6/fulltext  

Cannabidiol reduces the anxiety induced by simulated public speaking in treatment-naïve social phobia patients.  
(full – 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3079847/  

Cannabidiol reduces brain damage and improves functional recovery after acute hypoxia-ischemia in newborn pigs.  

Safety and Side Effects of Cannabidiol, a Cannabis sativa Constituent.  

Regulation of nausea and vomiting by cannabinoids  
(full - 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165951/  

Neural basis of anxiolytic effects of cannabidiol (CBD) in generalized social anxiety disorder: a preliminary report.  

US Patent Application 20110082195 - NEW USE FOR CANNABINOIDS  
(full – 2011)  http://www.faq.org/patents/app/20110082195  

Phytocannabinoids for use in the treatment of cancer - Patent GB2478595 (A) — 2011-09-14  

Patent WO 2010012506 A1 - CANNABINOIDS FOR USE IN TREATING OR PREVENTING COGNITIVE IMPAIRMENT AND DEMENTIA  


Cannabidiol as an anti-arrhythmic, the role of the CB1 receptors. (abst – 2011)  http://heart.bmj.com/content/97/24/e8.9.abstract


Cannabidiol potentiates Δ(9)-tetrahydrocannabinol (THC) behavioural effects and alters THC pharmacokinetics during acute and chronic treatment in adolescent rats. (abst - 2011)  http://www.ncbi.nlm.nih.gov/pubmed/21667074


Effect of cannabidiol on sleep disruption induced by the repeated combination tests consisting of open field and elevated plus-maze in rats. (abst – 2011)  http://www.sciencedirect.com/science/article/pii/S0028390811003467


Cannabidiol Dampens Streptozotocin-Induced Retinal Inflammation by Targeting of Microglial Activation (abst - 2011)  http://www.abstractsonline.com/plan/ViewAbstract.aspx?sKey=94b35de1-74b2-4d46-b062-7c104b5df681&cKey=eca34a2d-da44-4938-b0fa-3a6e652a1756
Plasma and brain pharmacokinetic profile of cannabidiol (CBD), cannabidivarine (CBDV), Δ(9)-tetrahydrocannabivarin (THCV) and cannabigerol (CBG) in rats and mice following oral and intraperitoneal administration and CBD action on obsessive-compulsive behaviour. (abst – 2011) http://www.ncbi.nlm.nih.gov/pubmed/21796370


The effect of CBD (BDS) botanical cannabinoid extraction on MCF-7 human breast carcinoma cells (abst – 2011) http://eprints.hud.ac.uk/16197/


Cannabidiol induced a contrasting pro-apoptotic effect between freshly isolated and precultured human monocytes. (abst – 2011) http://www.unboundmedicine.com/medline/ebm/record/20471992/abstract/Cannabidiol_induced_a_contrasting_pro_apoptotic_effect_between_freshly_isolated_and_precultured_human_monocytes

A synthetic cannabinoid, CP55940, inhibits lipopolysaccharide-induced cytokine mRNA expression in a cannabinoid receptor-independent mechanism in rat cerebellar granule cells. (abst – 2011)
Effect of cannabidiol treatment in alimentary induced fatty liver  

Interaction between non-psychotropic cannabinoids in marihuana: effect of cannabigerol (CBG) on the anti-nausea or anti-emetic effects of cannabidiol (CBD) in rats and shrews.  
(abst – 2011)  

The anxiolytic-like effects of cannabidiol injected into the bed nucleus of the stria terminalis are mediated by 5-HT1A receptors.  
(abst - 2011)  

Cannabidiol, a Cannabis sativa constituent, as an anxiolytic drug.  
(full – 2012)  

Towards the use of non-psychoactive cannabinoids for prostate cancer.  
(full – 2012)  

Cannabidiol protects oligodendrocyte progenitor cells from inflammation-induced apoptosis by attenuating endoplasmic reticulum stress.  
(full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3388241/

Cannabidiol inhibits growth and induces programmed cell death in kaposi sarcoma-associated herpesvirus-infected endothelium.  
(full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3527984/

Cannabidiol (CBD) enhances lipopolysaccharide (LPS)-induced pulmonary inflammation in C57BL/6 mice.  
(full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3632657/

Endocannabinoids in nervous system health and disease: the big picture in a nutshell  
(full – 2012)  
http://rstb.royalsocietypublishing.org/content/367/1607/3193.full

Cannabidiol enhances anandamide signaling and alleviates psychotic symptoms of schizophrenia.  
(full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3316151/?tool=pubmed

Cannabidiol, a non-psychotropic plant-derived cannabinoid, decreases inflammation in a murine model of acute lung injury: Role for the adenosine A2A receptor.  
(full – 2012)  
The Therapeutic Potential of Cannabis and Cannabinoids  (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3442177/

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3437528/

Pharmacological interventions in the treatment of the acute effects of cannabis: a systematic review of literature  (full – 2012)
http://www.harmreductionjournal.com/content/9/1/7

Cannabidiol exerts anti-convulsant effects in animal models of temporal lobe and partial seizures.  (full – 2012)
http://www.seizure-journal.com/article/S1059-1311%2812%2900057-X/fulltext

Distinct neurobehavioural effects of cannabidiol in transmembrane domain neuregulin 1 mutant mice.  (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3317922/

Cannabinoids suppress inflammatory and neuropathic pain by targeting α3 glycine receptors.  (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3371734/

Triggering of the TRPV2 channel by cannabidiol sensitizes glioblastoma cells to cytotoxic chemotherapeutic agents.  (full – 2012)
http://carcin.oxfordjournals.org/content/34/1/48.long

Multiple mechanisms involved in the large-spectrum therapeutic potential of cannabidiol in psychiatric disorders.  (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3481531/

Cannabidiol for neurodegenerative disorders: important new clinical applications for this phytocannabinoid?  (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3579248/

On Disruption of Fear Memory by Reconsolidation Blockade: Evidence from Cannabidiol Treatment.  (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3398715/

Cannabidiol reduces host immune response and prevents cognitive impairments in Wistar rats submitted to pneumococcal meningitis  (full – 2012)

Cannabidiol inhibits angiogenesis by multiple mechanisms.  (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3504989/

Cannabidiol in humans—the quest for therapeutic targets.  (full – 2012)

Cannabidiol exhibits anxiolytic but not antipsychotic property evaluated in the social interaction test.  (full – 2012)
Cannabinoids suppress inflammatory and neuropathic pain by targeting α3 glycine receptors (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3371734/

Islet protection and amelioration of diabetes type 2 in Psammomys obesus by treatment with cannabidiol (full - 2012) http://file.scirp.org/Html/17302.html


Topical and Systemic Cannabidiol Improves Trinitrobenzene Sulfonic Acid Colitis in Mice. (link to PDF - 2012) http://www.karger.com/Article/FullText/336871


A critical review of the antipsychotic effects of Cannabidiol: 30 years of a translational investigation. (link to PDF – 2012) http://www.eurekaselect.com/102849/article


What place for cannabis extract in MS? (abst – 2012) http://dtb.bmj.com/content/50/12/141.abstract


MicroRNAs and their role in the generation of myeloid derived suppressor cells (MDSC) by cannabidiol in vivo (abst – 2012) http://www.jimmunol.org/cgi/content/meeting_abstract/188/1_MeetingAbstracts/48.16?sid=c3422dd2-7ad0-42e4-a862-845dc670f7cf


Cannabidiol injected into the bed nucleus of the stria terminalis reduces the expression of contextual fear conditioning via 5-HT1A receptors. (abst – 2012) http://www.ncbi.nlm.nih.gov/pubmed/21148020


Id-1 is a Key Transcriptional Regulator of Glioblastoma Aggressiveness and a Novel Therapeutic Target. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3594064/


Direct modulation of the outer mitochondrial membrane channel, voltage-dependent anion channel 1 (VDAC1) by cannabidiol: a novel mechanism for cannabinoid-induced cell death. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3877544/

Modulation of cognitive and emotional processing by cannabidiol: the role of the anterior cingulate cortex (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3629308/

Cannabinoid- and lysophosphatidylinositol-sensitive receptor GPR55 boosts neurotransmitter release at central synapses. (full – 2013) http://www.pnas.org/content/early/2013/03/06/1211204110.full.pdf+html

Magnitude of stimulation dictates the cannabinoid-mediated differential T cell response to HIVgp120 (full – 2013) http://www.jleukbio.org/content/92/5/1093.full

Does Cannabidiol Protect Against Adverse Psychological Effects of THC? (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3797438/

Modulating the endocannabinoid system in human health and disease: successes and failures (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3684164/

An open-label extension study to investigate the long-term safety and tolerability of THC/CBD oromucosal spray and oromucosal THC spray in patients with terminal cancer-related pain refractory to strong opioid analgesics. (full – 2013) http://www.jpsmjournal.com/article/S0885-3924%2812%2900439-3/fulltext

A Phase I, open-label, randomized, crossover study in three parallel groups to evaluate the effect of Rifampicin, Ketoconazole, and Omeprazole on the pharmacokinetics of THC/CBD oromucosal spray in healthy volunteers  (full – 2013)
http://www.springerplus.com/content/2/1/236

Is the cardiovascular system a therapeutic target for cannabidiol?  (full – 2013)

Role of endogenous cannabinoid system in the gut.  (full - 2013)

Cannabidiol, a Non-Psychoactive Cannabinoid Compound, Inhibits Proliferation and Invasion in U87-MG and T98G Glioma Cells through a Multitarget Effect.  (full – 2013)  http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0076918


Is the cardiovascular system a therapeutic target for cannabidiol?  (full – 2013)


Stronger evidence is needed before accepting that cannabis plays an important role in the aetiology of schizophrenia in the population.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3544397/


COX-2 and PPAR-γ Confer Cannabidiol-Induced Apoptosis of Human Lung Cancer Cells.  (full – 2013)  http://mct.aacrjournals.org/content/12/1/69.long


The endocannabinoid system, cannabinoids, and pain  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3820295/

Impact of enzymatic and alkaline hydrolysis on CBD concentration in urine.
Transdermal delivery of cannabidiol attenuates binge alcohol-induced neurodegeneration in a rodent model of an alcohol use disorder. (full – 2013) [Link]

The anxiolytic effect of cannabidiol on chronically stressed mice depends on hippocampal neurogenesis: involvement of the endocannabinoid system. (full – 2013) [Link]

The effects of cannabidiol and its synergism with bortezomib in multiple myeloma cell lines. A role for transient receptor potential vanilloid type-2 (full – 2013) [Link]

Epigenetic Control of Skin Differentiation Genes by Phytocannabinoids (full – 2013) [Link]

Cannabidiol attenuates deficits of visuo-spatial associative memory induced by Δ9 tetrahydrocannabinol. (full – 2013) [Link]

Cannabidiol attenuates catalepsy induced by distinct pharmacological mechanisms via 5-HT1A receptors activation in mice. (full – 2013) [Link]

Enhancing the Activity of Cannabidiol and Other Cannabinoids In Vitro Through Modifications to Drug Combinations and Treatment Schedules. (full – 2013) [Link]

Microarray and Pathway Analysis Reveal Distinct Mechanisms Underlying Cannabinoid-Mediated Modulation of LPS-Induced Activation of BV-2 Microglial Cells (full – 2013) [Link]

The role of 5-HT1A receptors in the anti-aversive effects of cannabidiol on panic attack-like behaviors evoked in the presence of the wild snake Epicrates cenchria census (Reptilia, Boidae). (full – 2013) [Link]

Exogenous cannabinoids as substrates, inhibitors, and inducers of human drug metabolizing enzymes: a systematic review. (full – 2013) [Link]

Effects of acute systemic administration of cannabidiol on sleep-wake cycle in rats. (full – 2013) [Link]

US Patent Application 20130245110 - USE FOR CANNABINOIDS (CBD/ THCV for cholesterol control) (full – 2013) [Link]
Transdermal delivery of cannabidiol Patent 8435556 (full – 2013)
https://www.google.com/patents/US8435556

http://www.freepatentsonline.com/y2013/0245110.html

Transdermal delivery of cannabidiol Patent 8435556 (full – 2013)
https://www.google.com/patents/US8435556

Natural Cannabinoids Improve Dopamine Neurotransmission and Tau and Amyloid Pathology in a Mouse Model of Tauopathy. (link to PDF – 2013)
http://content.iospress.com/articles/journal-of-alzheimers-disease/jad130050

Understanding the Molecular Aspects of Tetrahydrocannabinol and Cannabidiol as Antioxidants (link to PDF - 2013)
http://www.mdpi.com/1420-3049/18/10/12663

Industrial hemp decreases intestinal motility stronger than indian hemp in mice. (link to PDF – 2013)
http://www.europeanreview.org/article/3266

The Inhibitory Effects of Cannabidiol on Systemic Malignant Tumors (letter – 2013)
http://www.jpsmjornal.com/article/S0885-3924%2813%2900115-2/fulltext

INTERVIEW : Martin Lee of Project CBD (interview – 2013)
http://www.ladybud.com/2013/11/12/interview-martin-lee-of-project-cbd/

Therapeutic potential of cannabinoid medicines. (abst – 2013)

Cannabidiol reverses the mCPP-induced increase in marble-burying behavior. (abst – 2013)

Cannabidiol enhances consolidation of explicit fear extinction in humans. (abst – 2013)

Cannabidiol inhibits the reward-facilitating effect of morphine: involvement of 5-HT1A receptors in the dorsal raphe nucleus. (abst – 2013)

Medicinal chemistry and pharmacology focused on cannabidiol, a major component of the fiber-type cannabis. (abst – 2013)

Endocannabinoid system modulator use in everyday clinical practice in the UK and Spain. (abst – 2013)
A new multiple sclerosis spasticity treatment option: effect in everyday clinical practice and cost-effectiveness in Germany. (abst – 2013)

A review of the cultivation and processing of cannabis (Cannabis sativa L.) for production of prescription medicines in the UK. (abst – 2013)


Mechanisms Of Cannabidiol Neuroprotection In Hypoxic-Ischemic Newborn Pigs: Role Of 5HT1A And CB2 Receptors. (abst – 2013)


Infusion of cannabidiol into infralimbic cortex facilitates fear extinction via CB1 receptors. (abst – 2013)

Cannabidiol attenuates the long lasting cognitive deficits and anxiogenic-like behaviors promoted by murine cerebral malaria (abst – 2013)
http://www.fasebj.org/content/27/1_Supplement/1097.9.abstract?sid=c40dd288-3dae-4c7a-b928-8e0c67991453

Interrogating Therapeutic Manipulation of the Endocannabinoid System in Human Colon (abst – 2013) http://www.fasebj.org/content/26/1_Supplement/1123.1


Cannabinoid Effects on β Amyloid Fibril and Aggregate Formation, Neuronal and Microglial-Activated Neurotoxicity In Vitro  (abst – 2013)

Protective effect of cannabidiol against cadmium hepatotoxicity in rats.  (abst – 2013)


Interleukin 17A evoked mucosal damage is attenuated by cannabidiol and anandamide in a human colonic explant model.  (abst – 2013)  http://www.sciencedirect.com/science/article/pii/S1043466613007345


A Multiple-Dose, Randomized, Double-Blind, Placebo-Controlled, Parallel-Group QT/QTc Study to Evaluate the Electrophysiologic Effects of THC/CBD Spray
LCMS Spectral Evidence of the Occurrence of Cannabinoid in Cannabis sativa Cell Cultures (abst – 2013)  

Sativex long-term use: an open-label trial in patients with spasticity due to multiple sclerosis. (abst – 2013)  

Anti-inflammatory role of cannabidiol and O-1602 in cerulein-induced acute pancreatitis in mice. (abst – 2013)  

Whole Cannabis Extracts of High Concentration Cannabidiol May Calm Seizures in Highly Refractory Pediatric Epilepsies (abst – 2013)  

Medicinal chemistry and pharmacology focused on cannabidiol, a major component of the fiber-type cannabis (abst – 2013)  

Motor effects of the non-psychotropic phytocannabinoid cannabidiol that are mediated by 5-HT1A receptors (abst – 2013)  

Cannabidiol administration into the bed nucleus of the stria terminalis alters cardiovascular responses induced by acute restraint stress through 5-HT₁A receptor. (abst – 2013)  

Cannabidiol inhibits paclitaxel-induced neuropathic pain through 5-HT1A receptors without diminishing nervous system function or chemotherapy efficacy. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3969077/

Δ(9)-THC and N-arachidonoyl glycine regulate BV-2 microglial morphology and cytokine release plasticity: implications for signaling at GPR18. (full - 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3877838/

Cannabinoids for treatment of Alzheimer's disease: moving toward the clinic. (full – 2014)  

Who Benefits Most from THC:CBD Spray? Learning from Clinical Experience. (full – 2014)  
http://www.karger.com/Article/FullText/357743

THC:CBD Spray and MS Spasticity Symptoms: Data from Latest Studies. (full – 2014)  
http://www.karger.com/Article/FullText/357742
Cannabidiol exerts sebostatic and antiinflammatory effects on human sebocytes. (full – 2014) http://www.jci.org/articles/view/64628


Cyclosporine and Herbal Supplement Interactions (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3913293/


Cannabidiol: Pharmacology and potential therapeutic role in epilepsy and other neuropsychiatric disorders (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4707667/

Cannabinoid-induced autophagy regulates suppressor of cytokine signaling (SOCS)-3 in intestinal epithelium. (full – 2014) http://ajpgi.physiology.org/content/307/2/G140


Cannabidiol protects liver from binge alcohol-induced steatosis by mechanisms including inhibition of oxidative stress and increase in autophagy (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4112960/


Cannabidiol enhances microglial phagocytosis via transient receptor potential (TRP) channel activation (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3997281/

Acute effects of delta-9-tetrahydrocannabinol, cannabidiol and their combination on facial emotion recognition: A randomised, double-blind, placebo-controlled study in cannabis users. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4398332/

A protocol for the delivery of cannabidiol (CBD) and combined CBD and [increment]9-tetrahydrocannabinol (THC) by vaporisation. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4274767/


Targeting multiple cannabinoid antitumor pathways with a resorcinol derivative leads to inhibition of advanced stages of breast cancer. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4209152/

The Combination of Cannabidiol and Δ9-Tetrahydrocannabinol Enhances the Anticancer Effects of Radiation in an Orthotopic Murine Glioma Model. (full – 2014) http://mct.aacrjournals.org/content/13/12/2955.long

Cannabidiol improves vasorelaxation in Zucker Diabetic fatty rats through cyclooxygenase activation. (full – 2014) http://jpet.aspetjournals.org/content/351/2/457.long

Type 1 Cannabinoid Receptor Ligands Display Functional Selectivity in a Cell Culture Model of Striatal Medium Spiny Projection Neurons (full – 2014) http://www.jbc.org/content/289/36/24845.long

Cannabinoids in experimental stroke: a systematic review and meta-analysis. (full – 2014) http://jcb.sagepub.com/content/35/3/348.long

Cannabidiol fails to reverse hypothermia or locomotor suppression induced by Δ9-tetrahydrocannabinol in Sprague-Dawley rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4376456/

In Vitro Anticancer Activity of Plant-Derived Cannabidiol on Prostate Cancer Cell Lines (full – 2014) http://file.scirp.org/Html/5-2500510_47691.htm


Programming and reprogramming neural cells by (endo-) cannabinoids: from physiological rules to emerging therapies (full – 2014) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4765324/


Physiological intestinal oxygen modulates the Caco-2 cell model and increases sensitivity to the phytocannabinoid cannabidiol. (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/24464350

Voltage-gated sodium (NaV) channel blockade by plant cannabinoids does not confer anticonvulsant effects per se. (abst – 2014) http://www.sciencedirect.com/science/article/pii/S0304394014002031

Long-term cannabidiol treatment prevents the development of social recognition memory deficits in Alzheimer's disease transgenic mice. (abst – 2014)  

Delta-9-Tetrahydrocannabinol/Cannabidiol (Sativex®): A Review of Its Use in Patients with Moderate to Severe Spasticity Due to Multiple Sclerosis. (abst – 2014)  

The detection of THC, CBD and CBN in the oral fluid of Sativex® patients using two on-site screening tests and LC-MS/MS. (abst – 2014)  

Therapeutic Satisfaction and Subjective Effects of Different Strains of Pharmaceutical-Grade Cannabis. (abst – 2014)  

Intrahypothalamic injection of cannabidiol increases the extracellular levels of adenosine in nucleus accumbens in rats. (abst – 2014)  

EFFICACY AND SAFETY OF EPIDIOLEX (CANNABIDIOL) IN CHILDREN AND YOUNG ADULTS WITH TREATMENT-RESISTANT EPILEPSY: INITIAL DATA FROM AN EXPANDED ACCESS PROGRAM (abst – 2014)  
https://www.aesnet.org/meetings_events/annual_meeting_abstracts/view/1868751#sthash.pbnOqzNG.dpuf

Cannabidiol can improve complex sleep-related behaviours associated with rapid eye movement sleep behaviour disorder in Parkinson's disease patients: a case series. (abst – 2014)  

Cannabinoids inhibit angiogenic capacities of Endothelial cells via release of Tissue inhibitor of matrix metalloproteinases-1 from lung cancer cells. (abst – 2014)  

The therapeutic efficacy of cannabinoid receptor type 1 ligands in Huntington's disease may depend on their functional selectivity (abst – 2014)  
http://www.fasebj.org/content/28/1_Supplement/846.6.abstract?sid=467bb529-0ecc-4ddc-af27-3f56f520a102

The effect of CBD, CBG and a combination of CBD plus CBG on Haccat human skin carcinoma cells (abst – 2014)  
http://www.fasebj.org/content/28/1_Supplement/1048.19.abstract?sid=db987fd0-3ef0-4796-aff6-4103f0c84daf

CANNABINOIDS INCREASE LUNG CANCER CELL LYSIS BY LYMPHOKINE-ACTIVATED KILLER CELLS VIA UPREGULATION OF ICAM-1. (abst – 2014)  

Cannabis-Based Medicine Reduces Multiple Pathological Processes in AβPP/PS1 Mice. (abst – 2014)  
Cannabinoid-induced changes in respiration of brain mitochondria. (abst – 2014)

Delta-9-tetrahydrocannabinol + cannabidiol. A reasonable option for some patients with multiple sclerosis. (abst – 2014)

Cannabis, cannabidiol, and epilepsy - From receptors to clinical response. (abst – 2014)

Cannabidiol and endogenous opioid peptide-mediated mechanisms modulate antinociception induced by transcutaneous electrostimulation of the peripheral nervous system. (abst – 2014)

Differences in receptor binding affinity of several phytocannabinoids does not explain their effects on neural cell cultures. (abst – 2014)

Evaluation of the tolerability and efficacy of Sativex in multiple sclerosis. (abst – 2014)

The differential characterization of GPR55 receptor in human peripheral blood reveals a distinctive expression in monocytes and NK cells and a proinflammatory role in these innate cells. (abst – 2014)

Cannabidiol improves lung function and inflammation in mice submitted to LPS-induced acute lung injury. (abst – 2014)

Inhibition of colon carcinogenesis by a standardized Cannabis sativa extract with high content of cannabidiol. (abst – 2014)

Cannabinoids and schizophrenia: therapeutic prospects. (abst – 2014)

Cannabinoids determination in oral fluid by SPME-GC/MS and UHPLC-MS/MS and its application on suspected drivers. (abst – 2014)

Protective effects of cannabidiol against hippocampal cell death and cognitive impairment induced by bilateral common carotid artery occlusion in mice. (abst – 2014)

Potential applications of marijuana and cannabinoids in medicine (abst – 2014)


THE EFFECT OF EPIDIOLEX (CANNABIDIOL) ON SERUM LEVELS OF CONCOMITANT ANTI-EPILEPTIC DRUGS IN CHILDREN AND YOUNG ADULTS WITH TREATMENT-RESISTANT EPILEPSY IN AN EXPANDED ACCESS PROGRAM (abst – 2014) https://www.aesnet.org/meetings_events/annual_meeting_abstracts/view/1868391#sthash.uxbwgudh.dpuf


Fatty Acid Binding Proteins (FABPs) are Intracellular Carriers for Δ9-Tetrahydrocannabinol (THC) and Cannabidiol (CBD). (full – 2015) http://www.jbc.org/content/early/2015/02/09/jbc.M114.618447.long

Cannabidiol Rescues Acute Hepatic Toxicity and Seizure Induced by Cocaine (full – 2015) http://www.hindawi.com/journals/mi/2015/523418/

Possible Immunosuppressive Effects of Drug Exposure and Environmental and Nutritional Effects on Infection and Vaccination  
http://www.hindawi.com/journals/mi/2015/349176/

Activation of GPR55 Receptors Exacerbates oxLDL-Induced Lipid Accumulation and Inflammatory Responses, while Reducing Cholesterol Efflux from Human Macrophages.  
(full – 2015)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0126839

Turning Over a New Leaf: Cannabinoid and Endocannabinoid Modulation of Immune Function.  
(full – 2015)  

Cannabis and Cannabinoids–for health professionals (PDQ®)  
(full – 2015)  
http://www.cancer.gov/about-cancer/treatment/cam/hp/cannabis-pdq#section/all

(full – 2015)  
http://www.ncbi.nlm.nih.gov/books/NBK65875/

Reactive oxygen species-mediated therapeutic response and resistance in glioblastoma.  
(full – 2015)  
http://www.nature.com/cddis/journal/v6/n1/full/cddis2014566a.html

Exploiting Cannabinoid-Induced Cytotoxic Autophagy to Drive Melanoma Cell Death.  
(full – 2015)  
http://www.jidonline.org/article/S0022-202X(15)37287-0/fulltext

Cannabidiol, a non-psychoactive cannabinoid, leads to EGR2-dependent anergy in activated encephalitogenic T cells.  
(full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4363052/

Cannabidiol Attenuates Sensorimotor Gating Disruption and Molecular Changes Induced by Chronic Antagonism of NMDA receptors in Mice.  
(full – 2015)  
http://ijnp.oxfordjournals.org/content/18/5/pyu041.long

Cannabidiol causes endothelium-dependent vasorelaxation of human mesenteric arteries via CB1 activation.  
(full – 2015)  
http://cardiovascres.oxfordjournals.org/content/early/2015/06/30/cvr.cvv179.long

Phytocannabinoids and epilepsy  
(full – 2015)  

Cannabinoids and Epilepsy  
(full – 2015)  

Cannabinoid-induced autophagy regulates suppressor of cytokine signaling-3 in intestinal epithelium.  
(full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4101681/

Pharmacological profiling of the hemodynamic effects of cannabinoid ligands: a combined in vitro and in vivo approach.  
(full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4492759/
Current Status and Future of Cannabis Research (full – 2015)

Cannabinoids: is there a potential treatment role in epilepsy? (full – 2015)

Cannabinoid CB1 Receptor Agonists Do Not Decrease, but may Increase Acoustic Trauma-Induced Tinnitus in Rats. (full – 2015)
http://journal.frontiersin.org/article/10.3389/fneur.2015.00060/full

Plant derived substances with anti-cancer activity: from folklore to practice (full – 2015)
http://journal.frontiersin.org/article/10.3389/fpls.2015.00799/full

Cannabis – the Israeli perspective (full – 2015)

The skeletal endocannabinoid system: clinical and experimental insights (full – 2015)

Investigational new drugs for focal epilepsy. (full – 2015)

Biased Type 1 Cannabinoid Receptor Signalling Influences Neuronal Viability in a Cell Culture Model of Huntington Disease. (full – 2015)
http://molpharm.aspetjournals.org/content/early/2015/12/23/mol.115.101980.long

Alcohol Versus Cannabinoids: A Review of Their Opposite Neuro-Immunomodulatory Effects and Future Therapeutic Potentials (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4607066/

Neural correlates of cannabidiol and Δ9-tetrahydrocannabinol interactions in mice: implications for medical cannabis. (full – 2015)


Cannabidiol as an Intervention for Addictive Behaviors: A Systematic Review of the Evidence (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4444130/

Medicinal cannabis. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4674028/

Role of the Endocannabinoid System in Diabetes and Diabetic Complications. (full – 2015)


Critical Role of Mast Cells and Peroxisome Proliferator-Activated Receptor γ in the Induction of Myeloid-Derived Suppressor Cells by Marijuana Cannabidiol In Vivo. (full – 2015) http://www.jimmunol.org/content/194/11/5211.long

The effect of cannabidiol on ischemia/reperfusion-induced ventricular arrhythmias: the role of adenosine A1 receptors. (full – 2015) http://cpt.sagepub.com/content/20/1/76.long


The adverse health effects of synthetic cannabinoids with emphasis on psychosis-like effects. (full – 2015) http://journals.sagepub.com/doi/full/10.1177/0269881114565142


Marijuana: A Time-Honored but Untested Treatment for Epilepsy.  (full – 2015)

Cannabidiol for the Prevention of Graft-Versus-Host-Disease after Allogeneic Hematopoietic Cell Transplantation: Results of a Phase II Study.  (full – 2015)
http://www.bbmt.org/article/S1083-8791(15)00375-4/fulltext

Cannabidiol, a Major Non-Psychotrophic Cannabis Constituent Enhances Fracture Healing and Stimulates Lysyl Hydroxylase Activity in Osteoblasts.  (full – 2015)

Cannabidiol is a negative allosteric modulator of the type 1 cannabinoid receptor.  (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4621983/

Flax Fiber Hydrophobic Extract Inhibits Human Skin Cells Inflammation and Causes Remodeling of Extracellular Matrix and Wound Closure Activation.  (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4539444/

Molecular Targets of Cannabidiol in Neurological Disorders.  (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4604182/

Cannabinoids and Epilepsy  (full – 2015)

Seized cannabis seeds cultivated in greenhouse: A chemical study by gas chromatography–mass spectrometry and chemometric analysis (link through Elsevier to get link to get full – 2015)

Addressing the stimulant treatment gap: A call to investigate the therapeutic benefits potential of cannabinoids for crack-cocaine use. (link through Elsevier to get link to PDF – 2015)

Purified Cannabidiol, the main non-psychotropic component of Cannabis sativa, alone, counteracts neuronal apoptosis in experimental multiple sclerosis. (link to PDF – 2015)  http://www.europeanreview.org/article/10049

The entourage effect: Synergistic actions of plant cannabinoids  (letter – 2015)
https://www.researchgate.net/publication/268878607_Medical_marijuana_in_neurology

When Weed Is The Cure: A Doctor's Case for Medical Marijuana  (interview – 2015)
http://www.npr.org/sections/health-shots/2015/07/14/422876973/when-weed-is-the-cure-a-doctors-case-for-medical-marijuana?utm_medium=RSS&utm_campaign=authorinterviews

Peripherally Restricted Cannabinoids for the Treatment of Pain.  (abst – 2015)
Cannabidiol in patients with treatment-resistant epilepsy: an open-label interventional trial. (abst – 2015)
http://www.thelancet.com/journals/laneur/article/PIIS1474-4422%2815%2900379-8/abstract

Two non-psychoactive cannabinoids reduce intra-cellular lipid levels and inhibit hepatosteatosis. (abst – 2015)

Cannabidiol increases survival and promotes rescue of cognitive function in a murine model of Cerebral Malaria. (abst – 2015)

Decreased glial reactivity could be involved in the antipsychotic-like effect of cannabidiol. (abst – 2015)

Cannabidiol (CBD) and its analogs: a review of their effects on inflammation. (abst – 2015)

A systematic review of the antipsychotic properties of cannabidiol in humans. (abst – 2015)

Effects of cannabidiol on contractions and calcium signaling in rat ventricular myocytes. (abst – 2015)

Effects of intra-infralimbic prefrontal cortex injections of cannabidiol in the modulation of emotional behaviors in rats: Contribution of 5HT1A receptors and stressful experiences. (abst – 2015)

Δ9-Tetrahydrocannabinol alone and combined with cannabidiol mitigate fear memory through reconsolidation disruption. (abst – 2015)

Cannabinoid-Induced Changes in the Activity of Electron Transport Chain Complexes of Brain Mitochondria. (abst – 2015)

Dissociation between the panicolytic effect of cannabidiol microinjected into the substantia nigra, pars reticulata, and fear-induced antinociception elicited by bicuculline administration in deep layers of the superior colliculus: The role of CB1-endocannabinoid receptor in the ventral mesencephalon. (abst – 2015)


The neuroprotection of cannabidiol against MPP+-induced toxicity in PC12 cells involves trkA receptors, upregulation of axonal and synaptic proteins, neuritogenesis, and might be relevant to Parkinson's disease (abst – 2015) http://www.sciencedirect.com/science/article/pii/S0887233315300047


Effectiveness and Tolerability of THC/CBD Oromucosal Spray for Multiple Sclerosis Spasticity in Italy: First Data from a Large Observational Study. (abst – 2015)
Oromucosal Spray for Multiple Sclerosis Spasticity in Italy: First Data from a Large Observational Study. (abst – 2015)

Cannabis species and cannabinoid concentration preference among sleep-disturbed medicinal cannabis users. (abst – 2015)

Cannabidiol protects an in vitro model of the blood brain barrier (BBB) from oxygen-glucose deprivation via PPARγ and 5-HT1A. (abst – 2015)


Δ9-Tetrahydrocannabinol alone and combined with cannabidiol mitigate fear memory through reconsolidation disruption. (abst – 2015)

Delta(9) -tetrahydrocannabinol and cannabidiol as potential curative agents for cancer: A critical examination of the preclinical literature. (abst – 2015)

Cannabidiol protects an in vitro model of the blood brain barrier (BBB) from oxygen-glucose deprivation via PPARγ and 5-HT1A. (abst – 2015)

Evidence for the efficacy and effectiveness of THC-CBD oromucosal spray in symptom management of patients with spasticity due to multiple sclerosis (full – 2016)

Cannabinoids for pediatric epilepsy? Up in smoke or real science? (full – 2016)

Cannabis sativa: The Plant of the Thousand and One Molecules (full – 2016)

Natural product modulators of transient receptor potential (TRP) channels as potential anti-cancer agents. (full – 2016)

Systematic Review of Pharmacological Properties of the Oligodendrocyte Lineage. (full – 2016)

THC:CBD in Daily Practice: Available Data from UK, Germany and Spain. (full – 2016) http://www.karger.com/Article/FullText/444234


Identification of Psychoactive Degradants of Cannabidiol in Simulated Gastric and Physiological Fluid (full – 2016) http://online.liebertpub.com/doi/10.1089/can.2015.0004


TRPV2 is a novel biomarker and therapeutic target in triple negative breast cancer (full – 2016) http://www.impactjournals.com/oncotarget/index.php?journal=oncotarget&page=article&op=view&path%5B%5D=9663&path%5B%5D=30267

In vitro and in vivo efficacy of non-psychoactive cannabidiol in neuroblastoma. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4791143/


Fatty Acid Binding Proteins are Intracellular Carriers for THC and CBD (full – 2016) http://www.jbc.org/content/290/14/8711.full

Efficacy and safety of cannabinoid oromucosal spray for multiple sclerosis spasticity. (full – 2016) http://jnnp.bmj.com/content/early/2016/05/08/jnnp-2015-312591.long

Endocannabinoid system as a regulator of tumor cell malignancy - biological pathways and clinical significance. (full – 2016)
Effects of Cannabidiol and Hypothermia on Short-Term Brain Damage in New-Born Piglets after Acute Hypoxia-Ischemia. (full – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4940392/

Beyond Cannabis: Plants and the Endocannabinoid System (full – 2016)
http://ge.tt/3Rgtrsa2

Human Metabolites of Cannabidiol: A Review on Their Formation, Biological Activity, and Relevance in Therapy (full – 2016)
http://online.liebertpub.com/doi/full/10.1089/can.2015.0012

Cannabidiol rather than Cannabis sativa extracts inhibit cell growth and induce apoptosis in cervical cancer cells. (full – 2016)

Evaluation of Two Commercially Available Cannabidiol Formulations for Use in Electronic Cigarettes (full – 2016)

Dietary fats and pharmaceutical lipid excipients increase systemic exposure to orally administered cannabis and cannabis-based medicines (full – 2016)

Endocannabinoid signaling in social functioning: an RDoC perspective (full – 2016)
http://www.nature.com/tp/journal/v6/n9/full/tp2016169a.html

Cannabidiol, among Other Cannabinoid Drugs, Modulates Prepulse Inhibition of Startle in the SHR Animal Model: Implications for Schizophrenia Pharmacotherapy (full – 2016)

Current Therapeutic Cannabis Controversies and Clinical Trial Design Issues (full – 2016)

Cannabidiol Prevents Motor and Cognitive Impairments Induced by Reserpine in Rats (full – 2016)

The CB2 receptor and its role as a regulator of inflammation. (full – 2016)

Endocannabinoid System: the Direct and Indirect Involvement in the Memory and Learning Processes—a Short Review (full – 2016)

Cannabidiol Regulation of Learned Fear: Implications for Treating Anxiety-Related Disorders. (full – 2016)


Traditional marijuana, high-potency cannabis and synthetic cannabinoids: increasing risk for psychosis. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5032490/

An Orally Active Cannabis Extract with High Content in Cannabidiol attenuates Chemically-induced Intestinal Inflammation and Hypermotility in the Mouse. (full - 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5047908/

Cannabinoids synergize with carfilzomib, reducing multiple myeloma cells viability and migration. (full – 2016) http://www.impactjournals.com/oncotarget/index.php?journal=oncotarget&page=article&op=view&path%5B%5D=12721&path%5B%5D=40316


Cannabidiol Counteracts Amphetamine-Induced Neuronal and Behavioral Sensitization of the Mesolimbic Dopamine Pathway through a Novel mTOR/p70S6 Kinase Signaling Pathway. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4854973/


Cannabidiol Modulates the Expression of Alzheimer's Disease-Related Genes in Mesenchymal Stem Cells. (full – 2016)

A user’s guide to cannabinoid therapies in oncology (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5176373/

Hippocampal harms, protection and recovery following regular cannabis use
(full – 2016) http://www.nature.com/tp/journal/v6/n1/full/tp2015201a.html

Cannabidiol attenuates OGD/R-induced damage by enhancing mitochondrial bioenergetics and modulating glucose metabolism via pentose-phosphate pathway in hippocampal neurons. (full – 2016)

Investigational new drugs for focal epilepsy. (full – 2016)

Δ9-Tetrahydrocannabinol decreases willingness to exert cognitive effort in male rats. (link to PDF – 2016) http://jpn.ca/articles-in-press/41-6-150363/

Cannabidiol limits Tcell-mediated chronic autoimmune myocarditis: implications to autoimmune disorders and organ transplantation. (click “Molecular Medicine” for PDF – 2016)

Using Medical Cannabis in an Oncology Practice (article – 2016) (needs free registration)
http://www.cancernetwork.com/oncology-journal/using-medical-cannabis-oncology-practice#sthash.CjT8fR9n.uWvEhiSG.dpuf

Using Medical Cannabis in an Oncology Practice (1st page – 2016)
http://www.cancernetwork.com/oncology-journal/using-medical-cannabis-oncology-practice#sthash.CjT8fR9n.dpuf

Analysis of a commercial marijuana e-cigarette formulation. (abst – 2016)
(This article has a delayed release and will be available in PMC on June 1, 2017)


Cannabidiol Post-Treatment Alleviates Rat Epileptic-Related Behaviors and Activates Hippocampal Cell Autophagy Pathway Along with Antioxidant Defense in Chronic Phase of Pilocarpine-Induced Seizure (abst – 2016)

Antidepressant-like effect of cannabidiol injection into the ventral medial prefrontal cortex – possible involvement of 5-HT1A and CB1 receptors. (abst – 2016)
Changes in cannabis potency over the last two decades (1995-2014) - Analysis of current data in the United States (abst – 2016)

Cannabinoids for the Treatment of Schizophrenia: An Overview. (abst – 2016)
http://www.eurekaselect.com/139245/article

Pharmacokinetics of Cannabis in Cancer Cachexia-Anorexia Syndrome. (abst – 2016)

Cannabinoid Receptor 2 Participates in Amyloid-β Processing in a Mouse Model of Alzheimer's Disease but Plays a Minor Role in the Therapeutic Properties of a Cannabis-Based Medicine. (abst – 2016)

Cannabidiol, neuroprotection and neuropsychiatric disorders (abst – 2016)

Cannabinoids: Medical implications. (abst – 2016)

Cannabis in Pain Treatment: Clinical & Research Considerations. (abst – 2016)

Cannabidiol and epilepsy: rationale and therapeutic potential. (abst – 2016)

The effect of cannabinoids on the stretch reflex in multiple sclerosis spasticity. (abst – 2016)

Beyond the CB1 Receptor: Is Cannabidiol the Answer for Disorders of Motivation? (abst – 2016)

The therapeutic use of cannabinoids: Forensic aspects. (abst – 2016)

Cannabidiol promotes browning in 3T3-L1 adipocytes. (abst – 2016)

Suppression of invasion and metastasis in aggressive salivary cancer cells through targeted inhibition of ID1 gene expression (abst – 2016)
http://www.cancerletters.info/article/S0304-3835%2816%2930256-7/abstract

Pharmacokinetic Drug Interactions with Tobacco, Cannabinoids and Smoking Cessation Products. (abst – 2016)

Cannabidiol attenuates haloperidol-induced catalepsy and c-Fos protein expression in the dorsolateral striatum via 5-HT1A receptors in mice. (abst – 2016)


Prohedonic Effect of Cannabidiol in a Rat Model of Depression  (abst – 2016) http://www.karger.com/Article/Abstract/443890

Aberrant epilepsy-associated mutant Nav1.6 sodium channel activity can be targeted with cannabidiol.  (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27267376


Could cannabidiol be used as an alternative to antipsychotics?  (abst – 2016) http://www.journalofpsychiatricresearch.com/article/S0022-3956(16)30104-2/abstract


From cannabis to cannabidiol to treat epilepsy, where are we? (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27587196


Detection and Mapping of Cannabinoids in single hair samples through rapid derivatization- Matrix-Assisted Laser Desorption Ionization Mass Spectrometry.


Cannabidiol reduces neuroinflammation and promotes neuroplasticity and functional recovery after brain ischemia. (abst – 2016)


Cannabis and epilepsy: An ancient treatment returns to the fore. (abst – 2016)

Phytocannabinoids: a growing family of plant natural products with increasing pharmacological and clinical importance (abst – 2016)

Interactions between cannabidiol and Δ9-THC following acute and repeated dosing: Rebound hyperactivity, sensorimotor gating and epigenetic and neuroadaptive changes in the mesolimbic pathway. (abst – 2016)

In vitro Antimicrobial and Antioxidant Activity of Extracts from Six Chemotypes of Medicinal Cannabis (abst – 2016)


Using Medical Marijuana to Stop Childhood Seizures (news & abstract – 2016)


Neuroimaging studies towards understanding the central effects of pharmacological cannabis products on patients with epilepsy. (abst – 2017)

Is there a role for cannabidiol in psychiatry? (abst – 2017)
Molecular Targets of the Phytocannabinoids: A Complex Picture (abst – 2017)
http://link.springer.com/chapter/10.1007%2F978-3-319-45541-9_4

**CBDA/ CANNABIDIOLIC ACID +** - precursor to Cannabidiol


Cannabis as a Unique Functional Food (full – 2011)
http://apothecary-genetics.spruz.com/gfile/75r4!-!HLKELE!-!svyr5/cannabis_as_a_unique_functional_food.pdf

Effects of cannabinoids and cannabinoid-enriched Cannabis extracts on TRP channels and endocannabinoid metabolic enzymes. (full – 2011)


The effects of cannabidiolic acid and cannabidiol on contractility of the gastrointestinal tract of Suncus murinus. (abst – 2011)

Cannabidiolic acid, a major cannabinoid in fiber-type cannabis, is an inhibitor of MDA-MB-231 breast cancer cell migration. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4009504/

Contrasting protective effects of cannabinoids against oxidative stress and amyloid-β evoked neurotoxicity in vitro. (abst – 2012)

Heat Exposure of Cannabis sativa Extracts Affects the Pharmacokinetic and Metabolic Profile in Healthy Male Subjects. (abst – 2012)

Analysis of cannabinoids in laser-microdissected trichomes of medicinal Cannabis sativa using LCMS and cryogenic NMR. (abst – 2012)

Effect of low doses of cannabidiolic acid and ondansetron on LiCl-induced conditioned gaping (a model of nausea-induced behaviour) in rats. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3682714/
Cannabidiolic acid prevents vomiting in Suncus murinus and nausea-induced behaviour in rats by enhancing 5-HT(1A) receptor activation. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3596650/

Medicinal chemistry and pharmacology focused on cannabidiol, a major component of the fiber-type cannabis. (abst – 2013)  

Suppression of lithium chloride-induced conditioned gaping (a model of nausea-induced behaviour) in rats (using the taste reactivity test) with metoclopramide is enhanced by cannabidiolic acid. (abst – 2013)  

Medicinal chemistry and pharmacology focused on cannabidiol, a major component of the fiber-type cannabis (abst – 2013)  

Down-regulation of cyclooxygenase-2 (COX-2) by cannabidiolic acid in human breast cancer cells (full – 2014)  

http://www.mdpi.com/1420-3049/19/11/18781/htm

A comparison of cannabidiolic acid with other treatments for anticipatory nausea using a rat model of contextually elicited conditioned gaping. (abst – 2014)  

INVESTIGATING SEDATIVE, PREANAESTHETIC & ANTI-ANXIETY EFFECTS OF HERBAL EXTRACT OF CANNABIS SATIVA IN COMPARISON WITH DIAZEPAM IN RATS (abst – 2014)  

Cannabinoids Production by Hairy Root Cultures of Cannabis sativa L. (full – 2015)  
http://file.scirp.org/Html/21-2601738_58491.htm

Method for the Analysis of Cannabinoids and Terpenes in Cannabis (link to PDF – 2015)  
http://www.ingentaconnect.com/search/article?option1=tka&value1=cannabinoid&sortDescending=true&sortField=prism_publicationDate&pageSize=10&index=7

Method for the Analysis of Cannabinoids and Terpenes in Cannabis (link to PDF – 2015)  
http://www.ingentaconnect.com/content/aoac/jaoac/2015/00000098/00000006/art00005?token=00531db4de92a00fa0716383a4b3b2570507b75245a7b6f384741282a726e2d2954496f642f4666c016


Effect of combined doses of Δ⁹-tetrahydrocannabinol (THC) and cannabidiolic acid (CBDA) on acute and anticipatory nausea using rat (Sprague- Dawley) models of conditioned gaping. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26381155


Evolution of the Cannabinoid and Terpene Content during the Growth of Cannabis sativa Plants from Different Chemotypes. (abst – 2016) http://pubs.acs.org/doi/abs/10.1021/acs.jnatprod.5b00949


Effect of combined oral doses of Δ9-tetrahydrocannabinol (THC) and cannabidiolic acid (CBDA) on acute and anticipatory nausea in rat models. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27438607

Cannabidiolic acid-mediated selective down-regulation of c-fos in highly aggressive breast cancer MDA-MB-231 cells: possible involvement of its down-regulation in the
abrogation of aggressiveness.  

Quality Control of Traditional Cannabis Tinctures: Pattern, Markers, and Stability  
(full – 2017)  
http://www.mdpi.com/2218-0532/84/3/567/htm

CBDV/ CANNABIDIVARIN/ GWP42006 + – unknown receptor

Anticonvulsant effects of GWP42006 in vitro and in vivo in rat  
(abst - 2010)  

Cannabidivarin is anticonvulsant in mouse and rat.  
(full – 2012)  

Use of the phytocannabinoid cannabidivarin (cbdv) in the treatment of epilepsy - Patent Application #: #20120004251  
(full – 2012)  
http://www.freshpatents.com/-dt20120105ptan20120004251.php

The effect of GWP42006, a cannabinoid extract on MCF-7 human breast carcinoma cells  
(link to PDF – 2012)  
http://eprints.hud.ac.uk/15130/

Phytocannabinoids as novel therapeutic agents in CNS disorders.  
(abst – 2012)  

Cannabidivarin (CBDV) suppresses pentylenetetrazole (PTZ)-induced increases in epilepsy-related gene expression.  
(full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3840466/

Epigenetic Control of Skin Differentiation Genes by Phytocannabinoids  
(full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3791966/

Cannabidivarin-rich cannabis extracts are anticonvulsant in mouse and rat via a CB1 receptor-independent mechanism.  
(full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3792005/

Evaluation of the potential of the phytocannabinoids, cannabidivarin (CBDV) and Δ9-tetrahydrocannabinvarin (THCV), to produce CB1 receptor inverse agonism symptoms of nausea in rats.  
(full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3792004/

Cannabidiol: Pharmacology and potential therapeutic role in epilepsy and other neuropsychiatric disorders  
(full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4707667/
Differences in receptor binding affinity of several phytocannabinoids does not explain their effects on neural cell cultures. (abst – 2014)  

Nonpsychotropic Plant Cannabinoids, Cannabidivarin (CBDV) and Cannabidiol (CBD), Activate and Desensitize Transient Receptor Potential Vanilloid 1 (TRPV1) Channels in Vitro: Potential for the Treatment of Neuronal Hyperexcitability (abst – 2014)  
http://pubs.acs.org/doi/abs/10.1021/cn5000524

Phytocannabinoids and epilepsy (full – 2015)  

Investigational new drugs for focal epilepsy. (full – 2015)  

Effect of Non-psychotropic Plant-derived Cannabinoids on Bladder Contractility: Focus on Cannabigerol. (abst – 2015)  

Determination of 11 Cannabinoids in Biomass and Extracts of Different Varieties of Cannabis Using High-Performance Liquid Chromatography. (abst – 2015)  

Differential effectiveness of selected non-psychotropic phytocannabinoids on human sebocyte functions implicates their introduction in dry/seborrheic skin and acne treatment. (abst – 2016)  

Phytocannabinoids: a growing family of plant natural products with increasing pharmacological and clinical importance (abst – 2016)  


**CBG/ CANNABIGEROL +* - CB2 agonist, inhibits the reuptake of endocannabinoids**

Patent application title: THERAPEUTIC USES OF CANNABIGEROL (full - 2010)  
http://www.faaqs.org/patents/app/20100292345

Evidence that the plant cannabinoid cannabigerol is a highly potent alpha2-adrenoceptor agonist and moderately potent 5HT1A receptor antagonist. (full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2823359/?tool=pubmed

Antidepressant-like effect of Delta(9)-tetrahydrocannabinol and other cannabinoids isolated from Cannabis sativa L. (full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2866040/?tool=pubmed


Plasma and brain pharmacokinetic profile of cannabidiol (CBD), cannabidivarine (CBDV), Δ(9)-tetrahydrocannabivarin (THCV) and cannabigerol (CBG) in rats and mice following oral and intraperitoneal administration and CBD action on obsessive-compulsive behaviour. (abst – 2011) http://www.ncbi.nlm.nih.gov/pubmed/21796370


Epigenetic Control of Skin Differentiation Genes by Phytocannabinoids
(full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3791996/


The effect of CBG (BDS) botanical cannabinoid extract on MCF-7 human breast carcinoma cells (abst – 2013)
http://www.fasebj.org/content/27/1_Supplement/1105.21.short

Effect of chronic exposure to rimonabant and phytocannabinoids on anxiety-like behavior and saccharin palatability. (abst – 2013)

LCMS Spectral Evidence of the Occurrence of Cannabinoid in Cannabis sativa Cell Cultures (abst – 2013)


A cannabigerol derivative suppresses immune responses and protects mice from experimental autoimmune encephalomyelitis. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3984273/

Neuroprotective Properties of Cannabigerol in Huntington's Disease: Studies in R6/2 Mice and 3-Nitropropionate-lesioned Mice. (full - 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4322067/

Colon carcinogenesis is inhibited by the TRPM8 antagonist cannabigerol, a Cannabis-derived non-psychotropic cannabinoid. (full – 2014)
http://carcin.oxfordjournals.org/content/35/12/2787.long

Voltage-gated sodium (NaV) channel blockade by plant cannabinoids does not confer anticonvulsant effects per se. (abst – 2014)

The effect of CBD, CBG and a combination of CBD plus CBG on Haccat human skin carcinoma cells (abst – 2014)
http://www.fasebj.org/content/28/1_Supplement/1048.19.abstract?sid=db987fd0-3ef0-4796-aff6-4103f0c84daf

Differences in receptor binding affinity of several phytocannabinoids does not explain their effects on neural cell cultures. (abst – 2014)
Phytocannabinoids and epilepsy (full – 2015)

Seized cannabis seeds cultivated in greenhouse: A chemical study by gas chromatography–mass spectrometry and chemometric analysis (link through Elsevier to get link to get full – 2015)

Cannabinoid and Terpene Info (chart – 2015)
http://skunkpharmresearch.com/cannabinoid-info/

(1)H NMR and HPLC/DAD for Cannabis sativa L. chemotype distinction, extract profiling and specification. (abst – 2015)

Effect of Non-psychotropic Plant-derived Cannabinoids on Bladder Contractility: Focus on Cannabigerol. (abst – 2015)

Determination of 11 Cannabinoids in Biomass and Extracts of Different Varieties of Cannabis Using High-Performance Liquid Chromatography. (abst – 2015)

Beyond Cannabis: Plants and the Endocannabinoid System (full – 2016)
http://ge.tt/3Rgtrsa2

Cannabigerol is a novel, well-tolerated appetite stimulant in pre-satiated rats. (full – 2016)

Differential effectiveness of selected non-psychotropic phytocannabinoids on human sebocyte functions implicates their introduction in dry/seborrheic skin and acne treatment. (abst – 2016)

Cannabinoid disposition in oral fluid after controlled smoked, vaporized, and oral cannabis administration. (abst – 2016)

Free and Glucuronide Whole Blood Cannabinoids’ Pharmacokinetics after Controlled Smoked, Vaporized, and Oral Cannabis Administration in Frequent and Occasional Cannabis Users: Identification of Recent Cannabis Intake. (abst – 2016)

Quality Control of Traditional Cannabis Tinctures: Pattern, Markers, and Stability (full – 2017)
http://www.mdpi.com/2218-0532/84/3/567/htm

CBGA / CANNABIGEROLIC ACID + - precursor of cannabigerol


Affinity comparison of different THCA synthase to CBGA using modeling computational approaches (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3916817/

http://www.mdpi.com/1420-3049/19/11/18781/htm

Method for the Analysis of Cannabinoids and Terpenes in Cannabis (link to PDF – 2015)
http://www.ingentaconnect.com/search/article?option1=tka&value1=cannabinoid&sortDescending=true&sortField=prism_publicationDate&pageSize=10&index=7

Method for the Analysis of Cannabinoids and Terpenes in Cannabis (link to PDF – 2015)
http://www.ingentaconnect.com/content/aoac/jaoac/2015/00000098/00000006/art000052?token=00531db4de92a00fa0716383a4b3b2570507b75245a7b6f384741282a726e2d2954496f642f466fc016


Production of Δ9-tetrahydrocannabinolic acid from cannabigerolic acid by whole cells of Pichia (Komagataella) pastoris expressing Δ9-tetrahydrocannabinolic acid synthase from Cannabis sativa L. (abst – 2015)
http://link.springer.com/article/10.1007%2Fs10529-015-1853-x

(1)H NMR and HPLC/DAD for Cannabis sativa L. chemotype distinction, extract profiling and specification. (abst – 2015)

Determination of 11 Cannabinoids in Biomass and Extracts of Different Varieties of Cannabis Using High-Performance Liquid Chromatography. (abst – 2015)

Harvesting the biosynthetic machineries that cultivate a variety of indispensable plant natural products. (full – 2016)

Beyond Cannabis: Plants and the Endocannabinoid System (full – 2016)
http://ge.tt/3Rgtrsa2
Evolution of the Cannabinoid and Terpene Content during the Growth of Cannabis sativa Plants from Different Chemotypes. (abst – 2016)
http://pubs.acs.org/doi/abs/10.1021/acs.jnatprod.5b00949

Δ9-Tetrahydrocannabinolic acid synthase: the application of a plant secondary metabolite enzyme in biocatalytic chemical synthesis. (abst – 2016)

Quality Control of Traditional Cannabis Tinctures: Pattern, Markers, and Stability (full – 2017)
http://www.mdpi.com/2218-0532/84/3/567/htm

**CBN/ CANNABINOL + - CB2 agonist, weak CB1 agonist**


Characterization of major phytocannabinoids, cannabidiol and cannabinol, as isoform-selective and potent inhibitors of human CYP1 enzymes. (abst – 2010)

Assessment of the Genetic Stability of Micropropagated Plants of Cannabis sativa by ISSR Markers (abst – 2010)

Tailoring Your High: Compounds in Cannabis, Properties and Boiling Points (chart – 2012)
http://www.weedist.com/2012/07/tailoring-high-compounds-in-cannabis-properties-boiling-points/

Cannabinol and cannabidiol exert opposing effects on rat feeding patterns. (abst – 2012)

Analysis of cannabinoids in laser-microdissected trichomes of medicinal Cannabis sativa using LCMS and cryogenic NMR. (abst – 2012)

Exogenous cannabinoids as substrates, inhibitors, and inducers of human drug metabolizing enzymes: a systematic review. (full – 2013)

Transdermal delivery of cannabidiol Patent 8435556 (full – 2013)
https://www.google.com/patents/US8435556

LCMS Spectral Evidence of the Occurrence of Cannabinoid in Cannabis sativa Cell Cultures (abst – 2013)
Neuritogenic Effects of Cannabinoids with Nerve Growth Factor (NGF) on PC12 Cells (abst – 2013)  

Cannabidiol: Pharmacology and potential therapeutic role in epilepsy and other neuropsychiatric disorders (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4707667/

Hair analysis for THCA-A, THC and CBN after passive in vivo exposure to marijuana smoke. (full – 2014)  

Selected terpenoids from medicinal plants modulate endoplasmic reticulum stress in metabolic disorders (full – 2014)  

Oral fluid cannabinoids in chronic frequent cannabis smokers during ad libitum cannabis smoking. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4362971/

Cannabinoids as therapeutic agents in cancer: current status and future implications. (link to PDF - 2014)  

The detection of THC, CBD and CBN in the oral fluid of Sativex® patients using two on-site screening tests and LC-MS/MS. (abst – 2014)  

Differences in receptor binding affinity of several phytocannabinoids does not explain their effects on neural cell cultures. (abst – 2014)  

Cannabinoids determination in oral fluid by SPME-GC/MS and UHPLC-MS/MS and its application on suspected drivers. (abst – 2014)  

Simultaneous quantification of delta-9-THC, THC-acid A, CBN and CBD in seized drugs using HPLC-DAD. (abst – 2014)  

Potential applications of marijuana and cannabinoids in medicine (abst – 2014)  

Turning Over a New Leaf: Cannabinoid and Endocannabinoid Modulation of Immune Function. (full – 2015)  
Phytocannabinoids and epilepsy  (full – 2015)

Seized cannabis seeds cultivated in greenhouse: A chemical study by gas chromatography–mass spectrometry and chemometric analysis (link through Elsevier to get link to get full – 2015)

Cannabinoid and Terpene Info  (chart – 2015)
http://skunkpharmresearch.com/cannabinoid-info/

Comprehensive monitoring of the occurrence of 22 drugs of abuse and transformation products in airborne particulate matter in the city of Barcelona.  (abst – 2015)


The CB2 receptor and its role as a regulator of inflammation.  (full – 2016)


A study of cannabis potency in France over a 25 years period (1992-2016).
C28H34N2O6 - a secondary metabolite of THC


CHOCOLATE +* - contains a tiny amount of Anandamide and compounds that block its breakdown


Anticipatory and consummatory effects of ( hedonic) chocolate intake are associated with increased circulating levels of the orexigenic peptide ghrelin and endocannabinoids in obese adults. (full – 2015) http://www.foodandnutritionresearch.net/index.php/fnr/article/view/29678

Beyond Cannabis: Plants and the Endocannabinoid System (full – 2016) http://ge.tt/3Rgtrs2

Exposure to a Highly Caloric Palatable Diet during the Perinatal Period Affects the Expression of the Endogenous Cannabinoid System in the Brain, Liver and Adipose Tissue of Adult Rat Offspring. (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0165432

**CURCUMIN** - a CB1 antagonist in turmeric


**ECHINACEA** + - contains CB1 and CB 2 agonists and inverse agonists, and prevents the break-down of Anandamide

Alkamides and a neolignan from Echinacea purpurea roots and the interaction of alkamides with G-protein-coupled cannabinoid receptors. (abst – 2011)  

Comparison of shock wave therapy and nutraceutical composed of Echinacea angustifolia, alpha lipoic acid, conjugated linoleic acid and quercetin (perinerv) in patients with carpal tunnel syndrome. (full – 2015)  
http://iji.sagepub.com/content/early/2015/04/30/0394632015584501.long

http://www.hindawi.com/journals/ecam/2015/238482/

Beyond Cannabis: Plants and the Endocannabinoid System (full – 2016)  
http://ge.tt/3Rgtrsa2

**ENTOURAGE EFFECT – PHYTOCANNABINOIDS** +

Taming THC: potential cannabis synergy and phytocannabinoid-terpenoid entourage effects. (full - 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165946/

Cannabis-Based Medicine Reduces Multiple Pathological Processes in AβPP/PS1 Mice. (abst – 2014)  

Overcoming the Bell-Shaped Dose-Response of Cannabidiol by Using Cannabis Extract Enriched in Cannabidiol (full – 2015)  
http://file.scirp.org/Html/5-2500582_53912.htm

Cannabidiol, a Major Non-Psychotrophic Cannabis Constituent Enhances Fracture Healing and Stimulates Lysyl Hydroxylase Activity in Osteoblasts. (full – 2015)  

Cannabinoids and Epilepsy (full – 2015)  

The entourage effect: Synergistic actions of plant cannabinoids (letter – 2015)  
https://www.researchgate.net/publication/268878607_Medical_marijuana_in_neurology
Δ9-Tetrahydrocannabinol alone and combined with cannabidiol mitigate fear memory through reconsolidation disruption.  (abst – 2015)  

Synergy between cannabidiol, cannabidiolic acid, and Δ9-tetrahydrocannabinol in the regulation of emesis in the Suncus murinus (house musk shrew).  (abst – 2015)  

Cannabinoids for the Treatment of Movement Disorders.  (abst – 2015)  

Cannabinoids synergize with carfilzomib, reducing multiple myeloma cells viability and migration.  (full – 2016)  
http://www.impactjournals.com/oncotarget/index.php?journal=oncotarget&page=article&op=view&path%5B%5D=12721&path%5B%5D=40316


**EPIDIOLEX** - a CBD-based extract used for epilepsy

Epidiolex - GW Pharmaceuticals  (drug development page – 2013)  
http://www.gwpharm.com/Epidiolex.aspx

EFFICACY AND SAFETY OF EPIDIOLEX (CANNABIDIOL) IN CHILDREN AND YOUNG ADULTS WITH TREATMENT-RESISTANT EPILEPSY: INITIAL DATA FROM AN EXPANDED ACCESS PROGRAM  (abst – 2014)  
https://www.aesnet.org/meetings_events/annual_meeting_abstracts/view/1868751#sthash.pbnOqzNG.dpuf

THE EFFECT OF EPIDIOLEX (CANNABIDIOL) ON SERUM LEVELS OF CONCOMITANT ANTI-EPILEPTIC DRUGS IN CHILDREN AND YOUNG ADULTS WITH TREATMENT-RESISTANT EPILEPSY IN AN EXPANDED ACCESS PROGRAM  (abst – 2014)  
https://www.aesnet.org/meetings_events/annual_meeting_abstracts/view/1868391#sthash.uxbwgudh.dpuf

Cannabinoids for pediatric epilepsy? Up in smoke or real science?  (full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4729003/

Analysis of endocannabinoid signaling elements and related proteins in lymphocytes of patients with Dravet syndrome.  (full – 2016)  
Current Therapeutic Cannabis Controversies and Clinical Trial Design Issues

ENDOCANNABINOID SYSTEM: A multi-facet therapeutic target.
(abst – 2016) http://www.eurekaselect.com/141330/article

FLAVONOIDS +

Phytocannabinoids beyond the Cannabis plant – do they exist? (full - 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931553/?tool=pubmed

Stable Binding of Alternative Protein-enriched Food Matrices with Concentrated Cranberry Bioflavonoids for Functional Food Applications (full – 2013)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3769697/

Tailoring Your High: Compounds in Cannabis, Properties and Boiling Points (chart – 2012)
http://www.weedist.com/2012/07/tailoring-high-compounds-in-cannabis-properties-boiling-points/

Early Phenylpropanoid Biosynthetic Steps in Cannabis sativa: Link between Genes and Metabolites (full – 2013) http://www.mdpi.com/1422-0067/14/7/13626/htm

Ethephon application stimulates cannabinoids and plastidic terpenoids production in Cannabis sativa at flowering stage (abst – 2013)


Flavonoids from Perovskia atriplicifolia and Their in Vitro Displacement of the Respective Radioligands for Human Opioid and Cannabinoid Receptors. (abst – 2015) http://pubs.acs.org/doi/abs/10.1021/acs.jnatprod.5b00218

Chapter 2 – Biosynthesis and Pharmacology of Phytocannabinoids and Related Chemical Constituents (abst – 2016)

A systematic review of plant-derived natural compounds for anxiety disorders.
Polyphenolic Compounds and Antioxidant Activity of Cold-Pressed Seed Oil from Finola Cultivar of Cannabis sativa L.  (abst – 2016)  

GW-42004 - see THCV/ TETRAHYDROCANNABIVARIN

GWP-42003 – see CBD/ CANNABIDIOL

GWP- 42006 - see CBDV/ CANNABIDIVARIN

HONKIOL + - from magnolia trees, CB1 agonist, CB2 antagonist, also see 4’-O-METHYLHONOKIOL, MAGNOLOL


Anti-inflammatory effects of the neurotransmitter agonist Honokiol in a mouse model of allergic asthma.  (full – 2010)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3197781/

Honokiol inhibits the progression of collagen-induced arthritis by reducing levels of pro-inflammatory cytokines and matrix metalloproteinases and blocking oxidative tissue damage  (full – 2010)  https://www.jstage.jst.go.jp/article/jphs/114/1/114_10070FP/_pdf


Honokiol arrests cell cycle, induces apoptosis, and potentiates the cytotoxic effect of gemcitabine in human pancreatic cancer cells. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3123370/


Magnolia Extract, Magnolol, and Metabolites: Activation of Cannabinoid CB2 Receptors and Blockade of the Related GPR55. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4027495/

Honokiol activates AMP-activated protein kinase in breast cancer cells via an LKB1-dependent pathway and inhibits breast carcinogenesis. (full – 2012) http://breast-cancer-research.com/content/14/1/R35

Honokiol in combination with radiation targets notch signaling to inhibit colon cancer stem cells. (full – 2012) http://mct.aacrjournals.org/content/11/4/963.long


Neuro-modulating effects of honokiol: a review. (full - 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3769637/

Honokiol-induced apoptosis and autophagy in glioblastoma multiforme cells. (full - 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3813738/

Honokiol protects rat hearts against myocardial ischemia reperfusion injury by reducing oxidative stress and inflammation. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3523945/

Anti-proliferative effect of honokiol in oral squamous cancer through the regulation of specificity protein 1. (full – 2013)  

Honokiol, a low molecular weight natural product, prevents inflammatory response and cartilage matrix degradation in human osteoarthritis chondrocytes. (full – 2013)  

Honokiol as a Radiosensitizing Agent for Colorectal cancers. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3844429/

Honokiol inhibits U87MG human glioblastoma cell invasion through endothelial cells by regulating membrane permeability and the epithelial-mesenchymal transition. (full – 2014)  

Evaluation of anti-HIF and anti-angiogenic properties of honokiol for the treatment of ocular neovascular diseases (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4244131/

Honokiol inhibits androgen receptor activity in prostate cancer cells (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3946953/

Honokiol affects melanoma cell growth by targeting the AMP-activated protein kinase signaling pathway. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4433539/

Magnolia dealbata seeds extract exert cytotoxic and chemopreventive effects on MDA-MB231 breast cancer cells. (full – 2014)  

Honokiol inhibits melanoma stem cells by targeting notch signaling. (full – 2014)  

Honokiol nanosuspensions: Preparation, increased oral bioavailability and dramatically enhanced biodistribution in the cardio-cerebro-vascular system. (abst – 2014)  


**MAGNOLOL** + - from magnolia trees, CB2 agonist, and GPR-55 antagonist

Magnolia Extract, Magnolol, and Metabolites: Activation of Cannabinoid CB2 Receptors and Blockade of the Related GPR55. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4027495/


Magnolol Ameliorates Ligature-Induced Periodontitis in Rats and Osteoclastogenesis: In Vivo and In Vitro Study (full – 2013) http://www.hindawi.com/journals/ecam/2013/634095/

Effects of magnolol on impairment of learning and memory abilities induced by scopolamine in mice. (full – 2013) https://www.jstage.jst.go.jp/article/bpb/36/5/36_b12-00880/_html

Magnolol inhibits angiogenesis by regulating ROS-mediated apoptosis and the PI3K/AKT/mTOR signaling pathway in mES/EB-derived endothelial-like cells. (full – 2013) http://www.spandidos-publications.com/jio/43/2/600

Magnolia extract, magnolol and metabolites: activation of cannabinoid CB2 receptors and blockade of the related GPR55. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4027495/

Autophagy triggered by magnolol derivative negatively regulates angiogenesis. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3920944/

Magnolol suppresses vascular endothelial growth factor-induced angiogenesis by inhibiting ras-dependent mitogen-activated protein kinase and phosphatidylinositol 3-kinase/akt signaling pathways. (1st page - 2013)


Magnolol inhibits colonic motility through down-regulation of voltage-sensitive L-type Ca(2+) channels of colonic smooth muscle cells in rats. (abst – 2013)


Magnolol inhibits migration of vascular smooth muscle cells via cytoskeletal remodeling pathway to attenuate neointima formation. (abst – 2013)

Long-term supplementation of honokiol and magnolol ameliorates body fat accumulation, insulin resistance, and adipose inflammation in high-fat fed mice. (abst – 2013)

Resuscitation from experimental traumatic brain injury by magnolol therapy. (abst – 2013)


Anti-hepatitis B virus lignans from the root of Streblus asper. (abst – 2013)

Magnolol suppresses hypoxia-induced angiogenesis via inhibition of HIF-1α/VEGF signaling pathway in human bladder cancer cells. (abst – 2013)

Synthesis of Tetrahydrohonokiol Derivates and Their Evaluation for Cytotoxic Activity against CCRF-CEM Leukemia, U251 Glioblastoma and HCT-116 Colon Cancer Cells. (link to PDF – 2014) http://www.mdpi.com/1420-3049/19/1/1223


**MELILOTUS SUA VEOLENS LEDAB /SWEET MELIOT** – may increase the number of CB2 receptors
Effect of melilotus extract on lung injury by upregulating the expression of cannabinoid CB2 receptors in septic rats.  (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3995869/

**NAMISOL**  + – a THC tablet

Novel Δ(9)-tetrahydrocannabinol formulation Namisol® has beneficial pharmacokinetics and promising pharmacodynamic effects.  (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3394127/


**NELUMBO NUCIFERA / SACRED LOTUS**  – contains a CB2 antagonist

Effect of Nelumbo nucifera Petal Extracts on Lipase, Adipogenesis, Adipolysis, and Central Receptors of Obesity  (full – 2013)
http://www.hindawi.com/journals/ecam/2013/145925/


**NUTMEG / MACE**  – prevents the breakdown of Anandamide and 2-AG, prolonging their effects

Screening of selected Asian spices for anti obesity-related bioactivities.  

Indirect Modulation of the Endocannabinoid System by Specific Fractions of Nutmeg Total Extract  (full – 2016)
Indirect modulation of the endocannabinoid system by specific fractions of nutmeg total extract,
OLIVE OIL – may cause a temporary upregulation of CB1 tumor suppressor gene and CB2 receptors

Extravirgin olive oil up-regulates CB1 tumor suppressor gene in human colon cancer cells and in rat colon via epigenetic mechanisms. (abst – 2014)  

http://www.hindawi.com/journals/ecam/2015/238482/

Dietary olive oil induces cannabinoid CB2 receptor expression in adipose tissue of ApcMin/+ transgenic mice (full – 2016)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5166557/

4’-O-METHYLHONOKIOL, +- from magnolia trees, CB2 agonist, increases 2-AG levels, also see MAGNOLOL, HONOKIOL

Inhibitory effect of ethanol extract of Magnolia officinalis and 4-O-methylhonokiol on memory impairment and neuronal toxicity induced by beta-amyloid. (abst – 2010)  

4-O-Methylhonokiol attenuates memory impairment in presenilin 2 mutant mice through reduction of oxidative damage and inactivation of astrocytes and the ERK pathway. (abst – 2011)  

Methylhonokiol attenuates neuroinflammation: a role for cannabinoid receptors? (full – 2012)  
http://www.jneuroinflammation.com/content/9/1/135

Inhibitory effect of 4-O-methylhonokiol on lipopolysaccharide-induced neuroinflammation, amyloidogenesis and memory impairment via inhibition of nuclear factor-kappaB in vitro and in vivo models. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3323460/

4-O-methylhonokiol prevents memory impairment in the Tg2576 transgenic mice model of Alzheimer's disease via regulation of β-secretase activity. (abst – 2012)  

4’-O-methylhonokiol increases levels of 2-arachidonoyl glycerol in mouse brain via selective inhibition of its COX-2-mediated oxygenation. (full – 2015)  

http://www.hindawi.com/journals/ecam/2015/238482/
Targeting Cannabinoid CB2 Receptors in the Central Nervous System. Medicinal Chemistry Approaches with Focus on Neurodegenerative Disorders.  
(full – 2016)  
http://journal.frontiersin.org/article/10.3389/fnins.2016.00406/full

PHYTOCANNABINOIDS/ PLANT EXTRACTS +*

Cannabinoid and Terpenoid Reference Guide       (undated)  

Antidepressant-like effect of delta9-tetrahydrocannabinol and other cannabinoids isolated from Cannabis sativa L.       (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2866040/?tool=pubmed

The plant cannabinoid Delta9-tetrahydrocannabinvarin can decrease signs of inflammation and inflammatory pain in mice.              (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931567/?tool=pubmed

Phytocannabinoids beyond the Cannabis plant – do they exist?             (full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931553/?tool=pubmed

Preliminary efficacy and safety of an oromucosal standardized cannabis extract in chemotherapy-induced nausea and vomiting                 (full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2997305/pdf/bcp0070-0656.pdf

Antibacterial analysis of crude extracts from the leaves of Tagetes erecta and Cannabis sativa                      (full – 2010)  
http://www.ipublishing.co.in/ijesarticles/twelve/articles/voltwo/EIJES3150.pdf

AMELIORATIVE POTENTIAL OF CANNABIS SATIVA EXTRACT ON DIABETES INDUCED NEUROPATHIC PAIN IN RATS               (link to PDF – 2010)  
http://search.proquest.com/openview/55b14fee70957a172b19e93f47304c37/1?pq-origsite=gscholar

Comparative topical anti-inflammatory activity of cannabinoids and cannabivarins.  
(abst – 2010)  

Non-CB1, non-CB2 receptors for endocannabinoids, plant cannabinoids, and synthetic cannabimimetics: focus on G-protein-coupled receptors and transient receptor potential channels.       (abst – 2010)  
http://www.unboundmedicine.com/medline/ebm/record/19847654/abstract/Non_CB1_non_CB2_receptors_for_endocannabinoids_plant_cannabinoids_and_synthetic_cannabimimetics_focus_on_G_protein_coupled_receptors_and_transient_receptor_potential_channels_

A low-∆9tetrahydrocannabinol cannabis extract induces hyperphagia in rats.  
(abst – 2010)  


Taming THC: potential cannabis synergy and phytocannabinoid-terpenoid entourage effects.  (full - 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165946/

Prospects for cannabinoid therapies in basal ganglia disorders.  (full – 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165947/


Cannabinoids: occurrence and medicinal chemistry. (abst – 2011)  
http://www.unboundmedicine.com/medline/ebm/record/21254969/abstract/Cannabinoids:_occurrence_and_medical_chemistry

Acute and chronic cannabinoid extracts administration affects motor function in a CREAE model of multiple sclerosis. (abst – 2011)  

Cannabis sativa and the endogenous cannabinoid system: therapeutic potential for appetite regulation. (abst – 2011)  

Non-Δ9tetrahydrocannabinol phytocannabinoids stimulate feeding in rats. (abst – 2011)  

EFFECT OF CANNABIS SATIVA ALCOHOLIC EXTRACT ON HIPPOCAMPUS NEURONAL DENSITY IN RATS (abst – 2011)  

EVALUATION ALLELOPATHIC EFFECT OF HEMP (CANNABIS SATIVA L.) ON GERMINATION AND GROWTH OF THREE KINDS OF WEEDS (abst – 2011)  

FROM GHENNAB TO CANNABIS: HOPES TO FIND A CURE FOR MULTIPLE SCLEROSIS ARE FLOURISHING (abst – 2011)  

EFFECT OF AQUATIC EXTRACT OF CANNABIS SATIVA LEAVES ON DEGENERATION OF ALPHA MOTONEURONS IN SPINAL CORD AFTER SCIATIC NERVE COMPRESSION IN RATS (abst – 2011)  

The Endocannabinoid System and Plant-Derived Cannabinoids in Diabetes and Diabetic Complications (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3349875/

The Therapeutic Potential of Cannabis and Cannabinoids (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3442177/

Sativex-like Combination of Phytocannabinoids is Neuroprotective in Malonate-Lesioned Rats, an Inflammatory Model of Huntington's Disease: Role of CB(1) and CB(2) Receptors. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3382456/

Cannabinoid-associated cell death mechanisms in tumor models (Review). (full – 2012)  

Cannabis Responsive Head Injury Induced Mutiple Disabilities: A Case Report (full - 2012)  
http://file.scirp.org/Html/9-2500130_16958.htm

Multiple Sclerosis and Extract of Cannabis: results of the MUSEC trial. (full – 2012)
Differential migratory properties of monocytes isolated from human subjects naïve and non-naïve to Cannabis. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4476512/

Effect of extraction conditions on total polyphenol contents, antioxidant and antimicrobial activities of Cannabis sativa L. (full – 2012)
https://www.researchgate.net/publication/260824507_Effect_of_extraction_conditions_on_total_polyphenol_contents_antioxidant_and_antimicrobial_activities_of_Cannabis_sativa_L

Antimicrobial Activity of Cannabis sativa L. (full – 2012)
http://file.scirp.org/Html/10-8801078_18123.htm

Characterisation of cannabinoid composition in a diverse Cannabis sativa L. germplasm collection (link to PDF – 2015)

Phytocannabinoids as novel therapeutic agents in CNS disorders. (abst – 2012)

Heat Exposure of Cannabis sativa Extracts Affects the Pharmacokinetic and Metabolic Profile in Healthy Male Subjects. (abst – 2012)


The biology that underpins the therapeutic potential of cannabis-based medicines for the control of spasticity in multiple sclerosis. (abst – 2012)

Evolution of the Content of THC and Other Major Cannabinoids in Drug-Type Cannabis Cuttings and Seedlings During Growth of Plants (abst – 2012)


Non-Δ⁹tetrahydrocannabinol phytocannabinoids stimulate feeding in rats. (abst – 2012)

Marijuana: modern medical chimaera. (abst – 2012)
Phytocannabinoids tetrahydrocannabinol and cannabidiol act against rotenone induced damages in murine cell cultures (abst – 2012)

Studies on the Optimization of Agrotechniques to Maximize the Productivity of Two Cannabis Chemotypes Cultivated to Produce Medicinal Grade Plant Material (abst – 2012)


Pro-resolution, protective and anti-nociceptive effects of a cannabis extract in the rat gastrointestinal tract. (full – 2013)

The pharmacologic and clinical effects of medical cannabis. (full – 2013)

Neuroprotective effects of Cannabis sativa leaves extracts on α-Motoneurons density after sciatic nerve injury in rats (full – 2013)

Cannabis, a complex plant: different compounds and different effects on individuals (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3736954/

Towards a better Cannabis drug. (full – 2013)

Molecular Mechanisms Involved in the Antitumor Activity of Cannabinoids on Gliomas: Role for Oxidative Stress. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3835116/

Part I of the American Herbal Pharmacopoeia cannabis monograph (Preview) (full – 2013)

Cannabis Induces a Clinical Response in Patients with Crohn's Disease: a Prospective Placebo-Controlled Study. (full – 2013)
Epigenetic Control of Skin Differentiation Genes by Phytocannabinoids (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3791996/

Cannabidivarin-rich cannabis extracts are anticonvulsant in mouse and rat via a CB1 receptor-independent mechanism. (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3792005/


Natural Cannabinoids Improve Dopamine Neurotransmission and Tau and Amyloid Pathology in a Mouse Model of Tauopathy. (link to PDF – 2013)  http://content.iospress.com/articles/journal-of-alzheimers-disease/jad130050


The effect of CBG (BDS) botanical cannabinoid extract on MCF-7 human breast carcinoma cells (abst – 2013)  http://www.fasebj.org/content/27/1_Supplement/1105.21.short

The medicinal use of cannabis and cannabinoids--an international cross-sectional survey on administration forms. (abst – 2013)  http://www.unboundmedicine.com/medline/citation/24175484/The medicinal use of cannabis and cannabinoids--an international cross-sectional survey on administration forms.


Synthetic cannabis: a comparison of patterns of use and effect profile with natural cannabis in a large global sample. (abst – 2013)

Whole Cannabis Extracts of High Concentration Cannabidiol May Calm Seizures in Highly Refractory Pediatric Epilepsies (abst – 2013)

Ethenoph application stimulates cannabinoids and plastidic terpenoids production in Cannabis sativa at flowering stage (abst – 2013)

http://www.neurology.org/content/82/17/1556.long

The case for medical marijuana in epilepsy. (full – 2014)


Are cannabidiol and Δ9 -tetrahydrocannabivarin negative modulators of the endocannabinoid system? A systematic review. (full – 2014)

A protocol for the delivery of cannabidiol (CBD) and combined CBD and [increment]9-tetrahydrocannabinol (THC) by vaporisation. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4274767/

Cannabis use by individuals with multiple sclerosis: effects on specific immune parameters. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4170074/


Cannabinoids and schizophrenia: therapeutic prospects. (abst – 2014)

Inhibition of colon carcinogenesis by a standardized Cannabis sativa extract with high content of cannabidiol. (abst – 2014)
Cannabis for inflammatory bowel disease. (abst – 2014)


Differences in receptor binding affinity of several phytocannabinoids does not explain their effects on neural cell cultures. (abst – 2014)

Potential applications of marijuana and cannabinoids in medicine (abst – 2014)

Re-branding cannabis: the next generation of chronic pain medicine? (abst – 2014)


Phytocannabinoids and epilepsy (full – 2015)

Cannabinoids and Epilepsy (full – 2015)

Current Status and Future of Cannabis Research (full – 2015)

Cannabinoids: is there a potential treatment role in epilepsy? (full – 2015)

Marijuana for Glaucoma: A Recipe for Disaster or Treatment? (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4553646/

Plant derived substances with anti-cancer activity: from folklore to practice (full – 2015)
http://journal.frontiersin.org/article/10.3389/fpls.2015.00799/full

http://www.hindawi.com/journals/ecam/2015/238482/

Endocannabinoids are conserved inhibitors of the Hedgehog pathway. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4371992/

Narrative review of the safety and efficacy of marijuana for the treatment of commonly state-approved medical and psychiatric disorders (full – 2015)


The effect of phytocannabinoids on airway hyper-responsiveness, airway inflammation, and cough (full – 2015) http://jpet.aspetjournals.org/content/353/1/169.long


The role of cannabinoids in adult neurogenesis. (full – 2015) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4543605/

Method for the Analysis of Cannabinoids and Terpenes in Cannabis (link to PDF – 2015) http://www.ingentaconnect.com/content/aoac/jaoac/2015/00000098/00000006/art00005?token=00531db4de92a00fa0716383a4b3b2570507b75245a7b6f384741282a726e2d2954496f642f466fc016


Cannabinoid and Terpene Info (chart – 2015) http://skunkpharmresearch.com/cannabinoid-info/


Neuroprotection in Experimental Autoimmune Encephalomyelitis and Progressive Multiple Sclerosis by Cannabis-Based Cannabinoids. (abst – 2015)  
http://link.springer.com/article/10.1007%2Fs11481-014-9575-8

Phytocannabinoids for Cancer Therapeutics: Recent Updates and Future Prospects. (abst – 2015)  

Cannabinoids for the Treatment of Movement Disorders. (abst – 2015)  

Cannabis, Cannabinoids, and Cerebral Metabolism: Potential Applications in Stroke and Disorders of the Central Nervous System. (abst – 2015)  

Issues and promise in clinical studies of botanicals with anticonvulsant potential. (abst – 2015)  
http://www.ncbi.nlm.nih.gov/pubmed/26341963

Cannabis - therapy for the future? (abst – 2015)  

Cannabinoids and Cytochrome P450 Interactions. (abst – 2015)  

Differential physiological and behavioral cues observed in individuals smoking botanical marijuana versus synthetic cannabinoid drugs. (abst – 2015)  

Cannabinoid-induced autophagy: protective or death role? (abst – 2015)  

The Cannabis plant and the endocannabinoids: how an ancient medical plant helps uncovering of a major signaling system in our body (abst – 2015)  

Effect of Cannabis sativa extract on gastric acid secretion, oxidative stress and gastric mucosal integrity in rats (abst – 2015)  

The safety and efficacy of 3% Cannabis seeds extract cream for reduction of human cheek skin sebum and erythema content. (abst – 2015)  

Biotransformation of Tetrahydrocannabinol (abst – 2015)  
The effect of cannabis on oxidative stress and neurodegeneration induced by intrastriatal rotenone injection in rats (abst – 2015)  
http://link.springer.com/article/10.1007/s00580-014-1907-9

Medical education on cannabis and cannabinoids: Perspectives, challenges, and opportunities. (abst – 2015)  

Harvesting the biosynthetic machineries that cultivate a variety of indispensable plant natural products. (full – 2016)  

Cannabis sativa: The Plant of the Thousand and One Molecules (full – 2016)  

Natural product modulators of transient receptor potential (TRP) channels as potential anti-cancer agents. (full – 2016)  
http://pubs.rsc.org/en/content/articlehtml/2016/cs/c5cs00916b

Cannabinoid receptor type-1: breaking the dogmas. (full – 2016)  
http://f1000research.com/articles/5-990/v1

Gastric acid inhibitory and gastric protective effects of Cannabis and cannabinoids (full – 2016)  

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4927043/

Cannabidiol rather than Cannabis sativa extracts inhibit cell growth and induce apoptosis in cervical cancer cells. (full – 2016)  

Establishment of a New Drug Code for Marihuana Extract. Final rule. (full – 2016)  

Preclinical and Clinical Assessment of Cannabinoids as Anti-Cancer Agents. (full – 2016)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5054289/

A user’s guide to cannabinoid therapies in oncology (full – 2016)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5176373/

Establishment of a New Drug Code for Marihuana Extract (full – 2016)  

Cannabis and Dr Piffard-A Century Ahead of the Curve. (article – 2016)  
http://archderm.jamanetwork.com/article.aspx?articleid=2547236
Harvesting Benefits from Cannabinoids. (article – 2016)
http://www.cell.com/cell/fulltext/S0092-8674(16)31675-0

Chapter 2 – Biosynthesis and Pharmacology of Phytocannabinoids and Related Chemical Constituents (abst – 2016)

Review of Various Herbal Supplements as Complementary Treatments for Oral Cancer. (abst – 2016)

Plant-Derived and Endogenous Cannabinoids in Epilepsy. (abst – 2016)

Cannabinoids: Medical implications. (abst – 2016)

Marijuana-derived Δ-9-tetrahydrocannabinol suppresses Th1/Th17 cell-mediated delayed-type hypersensitivity through microRNA regulation. (abst – 2016)

Simultaneous Analysis of Cannabinoid and Synthetic Cannabinoids in Dietary Supplements Using UPLC with UV and UPLC-MS-MS. (abst – 2016)

Phytochemicals as adjunctive with conventional anticancer therapies. (abst – 2016)

Pure Δ9-tetrahydrocannabivarin and a Cannabis sativa extract with high content in Δ9-tetrahydrocannabivarin inhibit nitrite production in murine peritoneal macrophages. (abst – 2016)

FABP1: A Novel Hepatic Endocannabinoid and Cannabinoid Binding Protein (abst – 2016)
http://pubs.acs.org/doi/abs/10.1021/acs.biochem.6b00446

The gastrointestinal tract - a central organ of cannabinoid signaling in health and disease. (abst – 2016)

Delineating the Efficacy of a Cannabis-Based Medicine at Advanced Stages of Dementia in a Murine Model. (abst – 2016)

From cannabis to cannabidiol to treat epilepsy, where are we? (abst – 2016)

From Phytocannabinoids to Cannabinoid Receptors and Endocannabinoids: Pleiotropic Physiological and Pathological Roles Through Complex Pharmacology. (abst – 2016)


Molecular Targets of the Phytocannabinoids: A Complex Picture (abst – 2017) http://link.springer.com/chapter/10.1007%2F978-3-319-45541-9_4


RHODODENDRON
New cannabinoid-like chromane and chromene derivatives from Rhododendron anthropogonoides. (full – 2011)
https://www.jstage.jst.go.jp/article/cpb/59/11/59_11_1409/_pdf

Daurichromenic acid-producing oxidocyclase in the young leaves of Rhododendron dauricum. (abst – 2014)

A Novel Class of Plant Type III Polyketide Synthase Involved in Orsellinic Acid Biosynthesis from Rhododendron dauricum. (full – 2016)

**SAFFRON** - a CB1/ CB2 antagonist

The role of phytochemicals in the treatment and prevention of dementia. (abst – 2011)

Modulation of Type-1 and Type-2 Cannabinoid Receptors by Saffron in a Rat Model of Retinal Neurodegeneration. (full – 2016)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0166827

**SATIVEX / NABIXIMOLS** + - a THC/CBD cannabis extract oral spray, legal in the UK, but not the USA

Summary of Product Characteristics- Sativex Oralmucosal Spray (full – 2010)
http://www.medicines.org.uk/EMC/medicine/23262/SPC/Sativex+Oralmucosal+Spray/

Pharmacology and toxicology of Cannabis derivatives and endocannabinoid agonists. (link to PDF – 2010)
http://www.eurekaselect.com/85221/article

Meta-analysis of the efficacy and safety of Sativex (nabiximols), on spasticity in people with multiple sclerosis (link to download - 2010)
http://journals.sagepub.com/doi/abs/10.1177/1352458510367462

Randomized controlled trial of Sativex to treat detrusor overactivity in multiple sclerosis. (abst – 2010)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=314

Plasma cannabinoid pharmacokinetics following controlled oral delta9-tetrahydrocannabinol and oromucosal cannabis extract administration. (full– 2011)
http://www.clinchem.org/content/57/1/66.long
Subjective and physiological effects after controlled Sativex and oral THC administration. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3836266/

Emerging treatment options for spasticity in multiple sclerosis; clinical utility of cannabinoids (link to PDF – 2011) http://www.dovepress.com/articles.php?article_id=7675

Role of Cannabinoids in Multiple Sclerosis (link to PDF - 2011) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.659.8269&rank=26


The Therapeutic Potential of Cannabis and Cannabinoids (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3442177/


A placebo-controlled, parallel-group, randomized withdrawal study of subjects with symptoms of spasticity due to multiple sclerosis who are receiving long-term Sativex® (nabiximols). (full – 2012) http://msj.sagepub.com/content/18/2/219.long


Endocannabinoids in nervous system health and disease: the big picture in a nutshell (full – 2012)  http://rstb.royalsocietypublishing.org/content/367/1607/3193.full

Can oral fluid cannabinoid testing monitor medication compliance and/or cannabis smoking during oral THC and oromucosal Sativex administration? (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3612560/

Targeting the endocannabinoid system with cannabinoid receptor agonists: pharmacological strategies and therapeutic possibilities (full – 2012)  http://rstb.royalsocietypublishing.org/content/367/1607/3353.full?sid=1569c370-cd5c-4358-89ff-857201f5e069

Treatment of Tourette syndrome with cannabinoids. (link to PDF – 2012)  http://www.hindawi.com/journals/bn/2013/294264/abs/


What place for cannabis extract in MS? (abst – 2012) http://dtb.bmj.com/content/50/12/141.abstract


A Phase I, open-label, randomized, crossover study in three parallel groups to evaluate the effect of Rifampicin, Ketoconazole, and Omeprazole on the pharmacokinetics of THC/CBD oromucosal spray in healthy volunteers (full – 2013) http://www.springerplus.com/content/2/1/236


An open-label extension study to investigate the long-term safety and tolerability of THC/CBD oromucosal spray and oromucosal THC spray in patients with terminal cancer-related pain refractory to strong opioid analgesics. (full – 2013) http://www.jpsmjournal.com/article/S0885-3924%2812%2900439-3/fulltext

Multiple sclerosis and the blood-central nervous system barrier. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3562587/


Natural Cannabinoids Improve Dopamine Neurotransmission and Tau and Amyloid Pathology in a Mouse Model of Tauopathy. (link to PDF – 2013) http://content.iospress.com/articles/journal-of-alzheimers-disease/jad130050

Cannabis derivatives therapy for a seronegative stiff-person syndrome: a case report.  

A new multiple sclerosis spasticity treatment option: effect in everyday clinical practice and cost-effectiveness in Germany.  


A review of the cultivation and processing of cannabis (Cannabis sativa L.) for production of prescription medicines in the UK.  

Sativex long-term use: an open-label trial in patients with spasticity due to multiple sclerosis.  

Advances in the management of multiple sclerosis spasticity: experiences from recent studies and everyday clinical practice.  

A Multiple-Dose, Randomized, Double-Blind, Placebo-Controlled, Parallel-Group QT/QTc Study to Evaluate the Electrophysiologic Effects of THC/CBD Spray  

Who Benefits Most from THC:CBD Spray? Learning from Clinical Experience.  

THC:CBD Spray and MS Spasticity Symptoms: Data from Latest Studies.  

(full - 2014)  http://www.neurology.org/content/82/17/1556.long

Getting high on the endocannabinoid system.  
(full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3997295/

Medical marijuana for cancer.  

Nabiximols as an Agonist Replacement Therapy During Cannabis Withdrawal: A Randomized Clinical Trial.  


Nabiximols (THC/CBD Oromucosal Spray, Sativex®) in Clinical Practice - Results of a Multicenter, Non-Interventional Study (MOVE 2) in Patients with Multiple Sclerosis Spasticity. (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/24525548


The detection of THC, CBD and CBN in the oral fluid of Sativex® patients using two on-site screening tests and LC-MS/MS. (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/24699310


Exploiting Cannabinoid-Induced Cytotoxic Autophagy to Drive Melanoma Cell Death. (full – 2015) http://www.jidonline.org/article/S0022-202X(15)37287-0/fulltext


Prevalence and determinants of cannabinoid prescription for the management of chronic noncancer pain: a postal survey of physicians in the Abitibi-Témiscamingue region of Quebec (full – 2015) http://cmajopen.ca/content/3/2/E251.full?sid=139f05c1-b441-476b-99ff-addf8c918e1a


Sequela of Cannabis as Medicine (full – 2015) http://painmedicine.oxfordjournals.org/content/16/7/1447


Evidence for the efficacy and effectiveness of THC-CBD oromucosal spray in symptom management of patients with spasticity due to multiple sclerosis (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4710104/


THC:CBD in Daily Practice: Available Data from UK, Germany and Spain. (full – 2016) http://www.karger.com/Article/FullText/444234

Efficacy and safety of cannabinoid oromucosal spray for multiple sclerosis spasticity. (full – 2016) http://jnnp.bmj.com/content/early/2016/05/08/jnnp-2015-312591.long


Should we care about sativex-induced neurobehavioral effects? A 6-month follow-up study. (link to PDF – 2016) http://www.europeanreview.org/article/11188

Δ9-Tetrahydrocannabinol decreases willingness to exert cognitive effort in male rats. (link to PDF – 2016) http://jpn.ca/articles-in-press/41-6-150363/

Using Medical Cannabis in an Oncology Practice (article – 2016) (needs free registration) http://www.cancernetwork.com/oncology-journal/using-medical-cannabis-oncology-practice#sthash.CjT8fR9n.uWvEhfSG.dpuf

Using Medical Cannabis in an Oncology Practice (1st page – 2016) http://www.cancernetwork.com/oncology-journal/using-medical-cannabis-oncology-practice#sthash.CjT8fR9n.dpuf


Medical use of cannabis products : Lessons to be learned from Israel and Canada. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/26767992


Effects of fixed or self-titrated dosages of Sativex on cannabis withdrawal and cravings. (abst – 2016) [www.ncbi.nlm.nih.gov/pubmed/26925704]


Techniques and technologies for the bioanalysis of Sativex®, metabolites and related compounds. (abst – 2016) [www.ncbi.nlm.nih.gov/pubmed/27005853]


Toll-like receptor signalling as a cannabinoid target in Multiple Sclerosis. (abst – 2016) [www.sciencedirect.com/science/article/pii/S0028390816301459]

ENDOCANNABINOID SYSTEM: A multi-facet therapeutic target. (abst – 2016) [www.eurekaselect.com/141330/article]


Role of nurses in the managements of symptoms associated with spasticity in patients with multiple sclerosis (abst – 2016)  

Delineating the Efficacy of a Cannabis-Based Medicine at Advanced Stages of Dementia in a Murine Model. (abst – 2016)  

Cortical and spinal excitability in patients with multiple sclerosis and spasticity after oromucosal cannabinoid spray. (abst – 2016)  
https://www.ncbi.nlm.nih.gov/pubmed/27772772

Cannabinoids, inflammation, and fibrosis. (abst – 2016)  

Muscle elastography: a new imaging technique for multiple sclerosis spasticity measurement. (abst – 2016)  

Irish general practitioner attitudes toward decriminalisation and medical use of cannabis: results from a national survey (full – 2017)  

**SPIRANS** - polycyclic compounds having a carbon atom which is a member of two rings.

Bioactive spirans and other constituents from the leaves of Cannabis sativa f. sativa. (abst – 2016)  

**TAMOXIFEN** - anti-cancer drug from Yew trees, activates CB1 and CB2 receptors

CB1 and CB2 Receptors are Novel Molecular Targets for Tamoxifen and 4OH-Tamoxifen. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3860589/

Tamoxifen Isomers and Metabolites Exhibit Distinct Affinity and Activity at Cannabinoid Receptors: Potential Scaffold for Drug Development (full – 2016)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0167240

Selective Estrogen Receptor Modulators: Cannabinoid Receptor Inverse Agonists with Differential CB1 and CB2 Selectivity. (full – 2016)  
Delineating the molecular mechanisms of tamoxifen’s oncolytic actions in estrogen receptor-negative cancers. (abst – 2016)

**TEA- (Camellia sinensis (L.))** + – weakly activates CB1 and CB2 receptors

Tea catechins' affinity for human cannabinoid receptors. (full– 2010)
http://www.thefreelibrary.com/Tea+catechins%27+affinity+for+human+cannabinoid+receptors.-a0221094461


http://www.hindawi.com/journals/ecam/2015/238482/


**TERPINOIDS/ TERPENES** ++ - they help cannabinoids work better, also see Beta Carophyllene

Cannabinoid and Terpenoid Reference Guide (undated)

Taming THC: potential cannabis synergy and phytocannabinoid-terpenoid entourage effects. (full - 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165946/


Tailoring Your High: Compounds in Cannabis, Properties and Boiling Points (chart – 2012)
http://www.weedist.com/2012/07/tailoring-high-compounds-in-cannabis-properties-boiling-points/

THE EFFECTS OF JAMONATE ON PLASTIDAL TERPENOIDS ON CANNABIS SATIVA L. AT VEGETATIVE STAGE (abst – 2012)

The endocannabinoid system, cannabinoids, and pain (full – 2013)
Synergistic Effect of Lupenone and Caryophyllene Oxide against Trypanosome cruzi. (full – 2013) [link]

Influence of mevinolin on chloroplast terpenoids in Cannabis sativa. (full – 2014) [link]

Selected terpenoids from medicinal plants modulate endoplasmic reticulum stress in metabolic disorders (full – 2014) [link]

Terpenes and Lipids of the Endocannabinoid and Transient Receptor Potential-channel Biosignaling Systems. (abst – 2014) [link]

In vitro binding affinity to human CB1 and CB2 receptors and antimicrobial activity of volatile oil from high potency Cannabis sativa (abst – 2014) [link]

Phytocannabinoids and epilepsy (full – 2015) [link]

Seized cannabis seeds cultivated in greenhouse: A chemical study by gas chromatography–mass spectrometry and chemometric analysis (link through Elsevier to get link to get full – 2015) [link]

Method for the Analysis of Cannabinoids and Terpenes in Cannabis (link to PDF – 2015) [link]

The entourage effect: Synergistic actions of plant cannabinoids (letter – 2015) [link]

Cannabinoid and Terpene Info (chart – 2015) [link]

Harvesting the biosynthetic machineries that cultivate a variety of indispensable plant natural products. (full – 2016) [link]

Cannabis sativa: The Plant of the Thousand and One Molecules (full – 2016) [link]

Natural product modulators of transient receptor potential (TRP) channels as potential anti-cancer agents. (full – 2016) [link]
Evaluating the Effects of Gamma-Irradiation for Decontamination of Medicinal Cannabis. (full – 2016)  

Analysis of a commerical marijuana e-cigarette formulation. (abst – 2016)  
(This article has a delayed release and will be available in PMC on June 1, 2017)  

Chapter 2 – Biosynthesis and Pharmacology of Phytocannabinoids and Related Chemical Constituents (abst – 2016)  

Evolution of the Cannabinoid and Terpene Content during the Growth of Cannabis sativa Plants from Different Chemotypes. (abst – 2016)  
http://pubs.acs.org/doi/abs/10.1021/acs.jnatprod.5b00949

A systematic review of plant-derived natural compounds for anxiety disorders. (abst – 2016)  
http://www.eurekaselect.com/139238/article

Rational Basis for the Use of Bergamot Essential Oil in Complementary Medicine to Treat Chronic Pain. (abst – 2016)  

**THC/ TETRAHYDROCANNABINOL**  
|CB1, CB2 & GPR-18 agonist |

Cannabinoids reduce ErbB2-driven breast cancer progression through Akt inhibition (full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2917429/?tool=pmcentrez

Antitumorigenic Effects of Cannabinoids beyond Apoptosis (full - 2010)  
http://ipet.aspetjournals.org/content/332/2/336.full?sid=af53ea87-ab4b-426e-9c7e-8f750e9c4a17

Cannabinoid receptor CB1 mediates baseline and activity-induced survival of new neurons in adult hippocampal neurogenesis (full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2898685/?tool=pmcentrez

Therapeutical use of the cannabinoids in psychiatry (full – 2010)  

Effect of (-)-Delta(9)-tetrahydrocannabinoid on the hepatic redox state of mice. (full – 2010)  

The effects of Delta-tetrahydrocannabinol and cannabidiol alone and in combination on damage, inflammation and in vitro motility disturbances in rat colitis. (full - 2010)
Smoked cannabis for chronic neuropathic pain: a randomized controlled trial  
(full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931570/?tool=pubmed

Antidepressant-like effect of Delta(9)-tetrahydrocannabinol and other cannabinoids isolated from Cannabis sativa L.  
(full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2886040/?tool=pubmed

Cannabinoid Administration Attenuates the Progression of Simian Immunodeficiency Virus  
(full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3131805/

Nutritional Interventions for Cancer-induced Cachexia  
(full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3106221/

Disposition of Cannabichromene, Cannabidiol, and Δ9-Tetrahydrocannabinol and its Metabolites in Mouse Brain following Marijuana Inhalation Determined by High-Performance Liquid Chromatography-Tandem Mass Spectrometry  
(full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3023979/

International Union of Basic and Clinical Pharmacology. LXXIX. Cannabinoid Receptors and Their Ligands: Beyond CB1 and CB2  
(full – 2010)  
http://pharmrev.aspetjournals.org/content/62/4/588.full.pdf+html

Modulation of Adipocyte Biology by Δ9-Tetrahydrocannabinol  
(full - 2010)  
http://onlinelibrary.wiley.com/doi/10.1038/oby.2010.100/full

Delta9-tetrahydrocannabinol is a full agonist at CB1 receptors on GABA neuron axon terminals in the hippocampus.  
(full – 2010)  

Pharmacological evaluation of the natural constituent of Cannabis sativa, cannabichromene and its modulation by Δ9-tetrahydrocannabinol  
(full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2967639/

Exposure to a high-fat diet decreases sensitivity to Δ9-tetrahydrocannabinol-induced motor effects in female rats  
(full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3014410/

Impact of cannabidiol on the acute memory and psychotomimetic effects of smoked cannabis: naturalistic study.  
(full - 2010)  
http://bjp.rcpsych.org/content/197/4/285.long

THC Prevents MDMA Neurotoxicity in Mice.  
(full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2824821/
A behavioural comparison of acute and chronic Delta9-tetrahydrocannabinol and cannabidiol in C57BL/6JArc mice. (full – 2010)  
http://ijnp.oxfordjournals.org/content/13/7/861.long

Interaction of drugs of abuse and maintenance treatments with human P-glycoprotein (ABCB1) and breast cancer resistance protein (ABCG2). (full – 2010)  
http://ijnp.oxfordjournals.org/content/13/7/905.long

http://www.jpsmjournal.com/article/S0885-3924%2809%2900787-8/fulltext

Cannabinoid-Induced Hyperemesis: A Conundrum—From Clinical Recognition to Basic Science Mechanisms (full - 2010)  
http://www.mdpi.com/1424-8247/3/7/2163/htm

The Potential Role of Cannabinoids in Modulating Serotonergic Signaling by Their Influence on Tryptophan Metabolism (full – 2010)  

http://www.google.com/patents/US7674922

Anti-tumoural effects of cannabinoid combinations - Patent TW201002315 (A) — 2010-01-16 (full – 2010)  

http://www.cannabisinternational.org/info/Neuropathic-Pain.pdf

Mechanisms of Broad-Spectrum Antiemetic Efficacy of Cannabinoids against Chemotherapy-Induced Acute and Delayed Vomiting (link to PDF – 2010)  
http://www.mdpi.com/1424-8247/3/9/2930

Pharmacology and toxicology of Cannabis derivatives and endocannabinoid agonists. (link to PDF – 2010)  
http://www.eurekaselect.com/85221/article

The Role of Cannabinoid Receptors in the Descending Modulation of Pain (link to PDF - 2010)  
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.634.4866&rank=72

Tocolytic Effect of Δ9-Tetrahydrocannabinol in Mice Model of Lipopolysaccharide—Induced Preterm Delivery: Role of Nitric Oxide (link to download - 2010)  
http://journals.sagepub.com/doi/abs/10.1177/1933719109358456
Endocannabinoids and psychiatric disorders: the road ahead  (article – 2010)  

Delta-9-Tetrahydrocannabinol Disruption of Time Perception and of Self-Timed Actions  (letter – 2010)  

Cannabinoids Inhibit Cellular Respiration of Human Oral Cancer Cells  (abst - 2010)  

The dual effects of delta(9)-tetrahydrocannabinol on cholangiocarcinoma cells: anti-invasion activity at low concentration and apoptosis induction at high concentration.  (abst – 2010)  

The results of an experimental indoor hydroponic Cannabis growing study, using the 'Screen of Green' (ScrOG) method-Yield, tetrahydrocannabinol (THC) and DNA analysis.  (abst – 2010)  

Chronic cannabinoid administration lowers viral replication in lymph nodes of SIV infected Rhesus macaques  (abst - 2010)  
http://www.fasebj.org/content/24/1_Supplement/752.6.abstract?sid=fbdd98b1-1fa3-4724-b0c2-afc89e3b0e46

Tetrahydrocannabinol (THC) for cramps in amyotrophic lateral sclerosis: a randomised, double-blind crossover trial.  (abst – 2010)  

Characterization of major phytocannabinoids, cannabidiol and cannabinol, as isoform-selective and potent inhibitors of human CYP1 enzymes.  (abst – 2010)  

Assessment of the Genetic Stability of Micropropagated Plants of Cannabis sativa by ISSR Markers  (abst – 2010)  

Oral Delta 9-tetrahydrocannabinol improved refractory Gilles de la Tourette syndrome in an adolescent by increasing intracortical inhibition: a case report.  (abst - 2010)  

Activity-based anorexia in C57/BL6 mice: effects of the phytocannabinoid, Delta9-tetrahydrocannabinol (THC) and the anandamide analogue, OMDM-2.  (abst – 2010)  

Postmortem redistribution of THC in the pig.  (abst – 2010)  
DOSE-DEPENDENT EFFECTS ON VENTILATION AT REST INDUCED BY HIGH DOSES OF CANNABINOIDS IN RATS (abst – 2010)

http://jpet.aspetjournals.org/content/early/2011/06/14/jpet.111.182717.long

Evaluation of the Cyclooxygenase Inhibiting Effects of Six Major Cannabinoids Isolated from Cannabis sativa (full – 2011)
https://www.jstage.jst.go.jp/article/bpb/34/5/34_5_774/_pdf

Cannabis with high cannabidiol content is associated with fewer psychotic experiences. (full – 2011) http://www.schres-journal.com/article/S0920-9964%2811%2900224-6/fulltext

Pretreatment with Δ9-tetrahydrocannabinol (THC) increases cocaine-stimulated activity in adolescent but not adult male rats (full – 2011)

Taming THC: potential cannabis synergy and phytocannabinoid-terpenoid entourage effects. (full - 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165946/

Inhibition of monoacylglycerol lipase (MAGL) attenuates NSAID-induced gastric hemorrhages in mice. (full – 2011)
http://jpet.aspetjournals.org/content/early/2011/06/09/jpet.110.175778.long

Cannabinoid potentiation of glycine receptors contributes to cannabis-induced analgesia. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3388539/

Prospects for cannabinoid therapies in basal ganglia disorders. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165947/

Stimulation of the midkine/ALK axis renders glioma cells resistant to cannabinoid antitumoral action. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3131933/

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3096803/

The fatty acid amide hydrolase inhibitor URB 597: interactions with anandamide in rhesus monkeys. (full – 2011)

Neurophysiological functioning of occasional and heavy cannabis users during THC intoxication. (full – 2011)

Delta-9-tetrahydrocannabinol may palliate altered chemosensory perception in cancer patients: results of a randomized, double-blind, placebo-controlled pilot trial. (full – 2011) http://annonc.oxfordjournals.org/content/22/9/2086.long


Central mediation and differential blockade by cannabinergic of the discriminative stimulus effects of the cannabinoid CB1 receptor antagonist rimonabant in rats. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3727221/


Sex Differences in Cannabinoid 1 vs. Cannabinoid 2 Receptor-Selective Antagonism of Antinociception Produced by Δ9-Tetrahydrocannabinol and CP55,940 in the Rat (full – 2011) http://jpet.aspetjournals.org/content/340/3/787.full


Clozapine and SCH 23390 prevent the spatial working memory disruption induced by Δ9-THC administration into the medial prefrontal cortex. (full – 2011) http://www.sciencedirect.com/science/article/pii/S0006899311001533

The safety of modafinil in combination with oral Δ9-tetrahydrocannabinol in humans (full - 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3645879/


Combined effects of THC and caffeine on working memory in rats. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423236/

Plasma cannabinoid pharmacokinetics following controlled oral delta9-tetrahydrocannabinol and oromucosal cannabis extract administration. (full– 2011) http://www.clinchem.org/content/57/1/66.long

The dual neuroprotective-neurotoxic profile of cannabinoid drugs. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165949/

A combined preclinical therapy of cannabinoids and temozolomide against glioma.
Tolerance and cross-tolerance to neurocognitive effects of THC and alcohol in heavy cannabis users. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3045517/

Tolerance to chronic delta-9-tetrahydrocannabinol (Δ⁹-THC) in rhesus macaques infected with simian immunodeficiency virus. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3140653/


The cannabinoid receptor agonist THC attenuates weight loss in a rodent model of activity-based anorexia. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3096804/

Regulation of hippocampal cannabinoid CB1 receptor actions by adenosine A1 receptors and chronic caffeine administration: implications for the effects of Δ9-tetrahydrocannabinol on spatial memory. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3055664/

Regulation of nausea and vomiting by cannabinoids (full - 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165951/


Cannabidiol potentiates Δ(9)-tetrahydrocannabinol (THC) behavioural effects and alters THC pharmacokinetics during acute and chronic treatment in adolescent rats. (abst - 2011) http://www.ncbi.nlm.nih.gov/pubmed/21667074

Disruptive effects of the prototypical cannabinoid Δ⁹-tetrahydrocannabinol and the fatty acid amide inhibitor URB-597 on go/no-go auditory discrimination performance and olfactory reversal learning in rats. (abst – 2011)  

Behavioral alterations in cystic fibrosis mice are prevented by cannabinoid treatment in infancy (abst – 2011)  

Δ(9)-THC and WIN55,212-2 affect brain tissue levels of excitatory amino acids in a phenotype-, compound-, dose-, and region-specific manner (abst – 2011)  
http://www.unboundmedicine.com/medline/ebm/record/21645556/abstract/%CE%94_9__THC_and_WIN55212_2_affect_brain_tissue_levels_of_excitatory_amino_acids_in_a_phenotype__compound__dose__and_region_specific_manner

Effects of synthetic cannabinoids on electroencephalogram power spectra in rats. (abst – 2011)  
http://www.unboundmedicine.com/medline/ebm/record/21640532/abstract/Effects_of_synthetic_cannabinoids_on_electroencephalogram_power_spectra_in_rats

THC and CBD oromucosal spray (Sativex®) in the management of spasticity associated with multiple sclerosis. (abst - 2011)  

Pharmacokinetics of a combination of Δ9-tetrahydro-cannabinol and celecoxib in a porcine model of hemorrhagic shock. (abst – 2011)  
http://www.unboundmedicine.com/medline/ebm/record/21341278/abstract/Pharmacokinetics_of_a_combination_of_%CF%94%99_tetrahydro_cannabinol_and_celecoxib_in_a_porcine_model_of_hemorrhagicShock

A drug discovery case history of 'delta-9-tetrahydrocannabinol, cannabidiol'. (abst – 2011)  

Pre- and post-conditioning treatment with an ultra-low dose of Δ9-tetrahydrocannabinol (THC) protects against pentylentetrazole (PTZ)-induced cognitive damage. (abst – 2011)  

VARIATIONS IN TERPENE PROFILES OF DIFFERENT STRAINS OF CANNABIS SATIVA L. (abst – 2011)  
http://www.actahort.org/members/showpdf?booknr=925_15

Biotechnology of Cannabis sativa L. (abst – 2011)  
Targeting cannabinoid receptor CB2 in cardiovascular disorders: promises and controversies (full – 2012)

Synaptic Targets of Δ9-Tetrahydrocannabinol in the Central Nervous System. (full – 2012)
http://perspectivesinmedicine.cshlp.org/content/early/2012/12/03/cshperspect.a012237.long

Pharmacological modulation of the endocannabinoid signalling alters binge-type eating behaviour in female rats (full – 2012)

The cannabinoid receptor agonist THC attenuates weight loss in a rodent model of activity-based anorexia. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3096804/?tool=pubmed

Effects of ethanol, Δ(9)-tetrahydrocannabinol, or their combination on object recognition memory and object preference in adolescent and adult male rats. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3477605/

GPR18 in microglia: implications for the CNS and endocannabinoid system signaling (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3525861/

Towards the use of non-psychoactive cannabinoids for prostate cancer. (full – 2012)

Cannabinoid 2 (CB2) Receptor Involvement in the Down-regulation but not Up-regulation of Serum IgE Levels in Immunized Mice. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3419805/

Cannabidiol in humans-the quest for therapeutic targets. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC24281562

So what do we call GPR18 now? (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423231/

Δ9-Tetrahydrocannabinol and N-arachidonyl glycine are full agonists at GPR18 receptors and induce migration in human endometrial HEC-1B cells (full – 2012)

Endocannabinoids in nervous system health and disease: the big picture in a nutshell (full – 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3193.full

Rimonabant eliminates responsiveness to workload changes in a time-constrained food-reinforced progressive ratio procedure in rats. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3387812/
Cellular and intracellular mechanisms involved in the cognitive impairment of cannabinoids  (full - 2012)  http://rstb.royalsocietypublishing.org/content/367/1607/3254.full?sid=1569c370-cd5c-4358-89ff-857201f5e069

Acute cannabinoids impair working memory through astroglial CB1 receptor modulation of hippocampal LTD.  (full – 2012)  http://www.sciencedirect.com/science/article/pii/S0092867412001420

Acute effects of THC on time perception in frequent and infrequent cannabis users  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3581701/

Review article: The endocannabinoid system in normal and pathological brain ageing  (full – 2012)  http://rstb.royalsocietypublishing.org/content/367/1607/3326.full?sid=161e7b36-5055-448b-962e-697c782e901d

Involvement of the endocannabinoid system in reward processing in the human brain  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3266503/


Multiple Sclerosis and Extract of Cannabis: results of the MUSEC trial.  (full – 2012)  http://jnnp.bmj.com/content/83/11/1125.long


Chronic administration of THC prevents the behavioral effects of intermittent adolescent MDMA administration and attenuates MDMA-induced hyperthermia and neurotoxicity in rats  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3189263/

Brain regional differences in CB1 receptor adaptation and regulation of transcription.  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3772765/

Δ9-Tetrahydrocannabinol acts as a partial agonist/antagonist in mice.  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3697741/

Effects of delta-9-tetrahydrocannabinol on evaluation of emotional images  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3664416/

The periaqueductal gray contributes to bidirectional enhancement of antinociception between morphine and cannabinoids.  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3959123/
Bimodal Control of Fear-Coping Strategies by CB1 Cannabinoid Receptors. (full – 2012) http://www.jneurosci.org/content/32/21/7109.long

Dual fatty acid amide hydrolase and monoacylglycerol lipase blockade produces THC-like Morris water maze deficits in mice. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3382457/

Spice drugs are more than harmless herbal blends: A review of the pharmacology and toxicology of synthetic cannabinoids. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3936256/

Effect of ion pairing on in vitro transcorneal permeability of a Δ(9)-tetrahydrocannabinol prodrug: potential in glaucoma therapy. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4194211/


The Therapeutic Potential of Cannabis and Cannabinoids (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3442177/


AM2389, a high-affinity, in vivo potent CB1-receptor-selective cannabinergic ligand as evidenced by drug discrimination in rats and hypothermia testing in mice (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3291515/


Treatment of Tourette syndrome with cannabinoids. (link to PDF – 2012)
A critical review of the antipsychotic effects of Cannabidiol: 30 years of a translational investigation. (link to PDF – 2012) http://www.eurekaselect.com/102849/article


What place for cannabis extract in MS? (abst – 2012)
http://dtb.bmj.com/content/50/12/141.abstract

Analysis of cannabinoids in laser-microdissected trichomes of medicinal Cannabis sativa using LCMS and cryogenic NMR. (abst – 2012)


Evolution of the Content of THC and Other Major Cannabinoids in Drug-Type Cannabis Cuttings and Seedlings During Growth of Plants (abst – 2012)

Phytocannabinoids tetrahydrocannabinol and cannabidiol act against rotenone induced damages in murine cell cultures (abst – 2012)

Effects of Δ9-Tetrahydrocannabinol Administration on Human Encoding and Recall Memory Function: A Pharmacological fMRI Study. (abst – 2012)

Evidence That A Functional Gpr18-based Signaling System In The Anterior Murine Eye Modulates Intraocular Pressure (abst – 2012)
http://iovs.arvojournals.org/article.aspx?articleid=2358806&resultClick=1

Cannabidiol for the treatment of cannabis withdrawal syndrome: a case report (abst – 2012)

Involvement of PPARγ in the antitumoral action of cannabinoids on hepatocellular carcinoma. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3674350/

Local delivery of cannabinoid-loaded microparticles inhibits tumor growth in a murine xenograft model of glioblastoma multiforme. (full – 2013)
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0054795

Modulating the endocannabinoid system in human health and disease: successes and failures (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3684164/

Diuretic effects of cannabinoids. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3533417/

Stronger evidence is needed before accepting that cannabis plays an important role in the aetiology of schizophrenia in the population. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3544397/
Does Cannabidiol Protect Against Adverse Psychological Effects of THC? (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3797438/

A Phase I, open-label, randomized, crossover study in three parallel groups to evaluate the effect of Rifampicin, Ketoconazole, and Omeprazole on the pharmacokinetics of THC/CBD oromucosal spray in healthy volunteers (full – 2013)  http://www.springerplus.com/content/2/1/236

Surinabant, a selective CB(1) antagonist, inhibits THC-induced central nervous system and heart rate effects in humans. (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3703229/


Prior Exposure to THC Increases the Addictive Effects of Nicotine in Rats. (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3656362/


Combined antiproliferative effects of the aminoalkylindole WIN55,212-2 and radiation in breast cancer cells. (full – 2013)  http://jpet.aspetjournals.org/content/early/2013/11/20/jpet.113.205120.long


The effects of caffeine, nicotine, ethanol, and tetrahydrocannabinol on exercise performance (full – 2013)  http://www.nutritionandmetabolism.com/content/10/1/71

Δ9-tetrahydrocannabinol impairs the inflammatory response to influenza infection: role of antigen-presenting cells and the cannabinoid receptors 1 and 2. (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3551428/


Dissociation of the Pharmacological Effects of THC by mTOR Blockade. (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3656376/
Differential Expression of Intracellular and Extracellular CB(2) Cannabinoid Receptor Protein by Human Peripheral Blood Leukocytes. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3587044/

The endocannabinoid system and emotional processing: A pharmacological fMRI study with Δ9-tetrahydrocannabinol (full – 2013)  
http://www.europeanneuropsychopharmacology.com/article/S0924-977X(13)00195-8/fulltext

http://jat.oxfordjournals.org/content/37/3/152.full

Reducing cannabinoid abuse and preventing relapse by enhancing endogenous brain levels of kynurenic acid. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3835353/

Modulation of cognitive and emotional processing by cannabidiol: the role of the anterior cingulate cortex (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3629308/

The endocannabinoid system, cannabinoids, and pain (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3820295/

Amygdala activity contributes to the dissociative effect of cannabis on pain perception. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3549497/

Cannabinoid facilitation of fear extinction memory recall in humans. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3445738/

An open-label extension study to investigate the long-term safety and tolerability of THC/CBD oromucosal spray and oromucosal THC spray in patients with terminal cancer-related pain refractory to strong opioid analgesics. (full – 2013)  

Human metabolites of synthetic cannabinoids JWH-018 and JWH-073 bind with high affinity and act as potent agonists at cannabinoid type-2 receptors. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3685885/

Magnitude of stimulation dictates the cannabinoid-mediated differential T cell response to HIVgp120 (full – 2013)  
http://www.jleukbio.org/content/92/5/1093.full

Effect of Cannabinoid Receptor Activation on Spreading Depression. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3586901/

Changes on metabolic parameters induced by acute cannabinoid administration (CBD, THC) in a rat experimental model of nutritional vitamin A deficiency (full – 2013)  
Pharmacokinetic and Pharmacodynamic Profile of Supratherapeutic Oral Doses of Δ9-
-THC in Cannabis Users.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3691290/

THC reduces the anticipatory nucleus accumbens response to reward in subjects with a
nicotine addiction.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3590996/

Cannabinoids Inhibit T-cells via Cannabinoid Receptor 2 in an In Vitro Assay for Graft
Rejection, the Mixed Lymphocyte Reaction.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3864984/

Cannabidiol attenuates deficits of visuo-spatial associative memory induced by Δ9
tetrahydrocannabinol.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3838683/

Distinct pharmacology and metabolism of K2 synthetic cannabinoids compared to Δ9-
THC: Mechanism underlying greater toxicity?  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3945037/

Reducing cannabinoid abuse and preventing relapse by enhancing endogenous brain
levels of kynurenic acid.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3835353/

The cannabinoid receptor type 1 is essential for mesenchymal stem cell survival and
differentiation: implications for bone health.  
http://www.hindawi.com/journals/sci/2013/796715/

Biphasic effects of Δ9-tetrahydrocannabinol on brain stimulation reward and motor
activity  
http://ijnp.oxfordjournals.org/content/16/10/2273

Marijuana’s dose-dependent effects in daily marijuana smokers.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4547548/

Diuretic effects of cannabinoid agonists in mice.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3872476/

Microarray and Pathway Analysis Reveal Distinct Mechanisms Underlying Cannabinoid-
Mediated Modulation of LPS-Induced Activation of BV-2 Microglial Cells  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3634783/

Exogenous cannabinoids as substrates, inhibitors, and inducers of human drug
metabolizing enzymes: a systematic review.  

Does olanzapine inhibit the psychomimetic effects of Δ9-tetrahydrocannabinol?  
http://journals.sagepub.com/doi/full/10.1177/0269881112446534
Natural Cannabinoids Improve Dopamine Neurotransmission and Tau and Amyloid Pathology in a Mouse Model of Tauopathy. (link to PDF – 2013) http://content.iospress.com/articles/journal-of-alzheimers-disease/jad130050

Understanding the Molecular Aspects of Tetrahydrocannabinol and Cannabidiol as Antioxidants (link to PDF - 2013) http://www.mdpi.com/1420-3049/18/10/12663


Medicinal Cannabis and Painful Sensory Neuropathy (editorial – 2013) http://journalofethics.ama-assn.org/2013/05/oped1-1305.html


Cannabis derivatives therapy for a seronegative stiff-person syndrome: a case report.  

A review of the cultivation and processing of cannabis (Cannabis sativa L.) for production of prescription medicines in the UK.  

The pseudokinase tribbles homologue-3 plays a crucial role in cannabinoid anticancer action.  

Additive antiemetic efficacy of Δ9-THC with vanilloid TRPV1 receptor agonists in the least shrew (Cryptotis parva)  

Effects of anandamide and other CB1 ligands on cognitive function  
(abst – 2013)  http://www.fasebj.org/content/27/1_Supplement/1097.10.abstract?sid=9823a79f-d5d0-46e6-b4b6-85d1443e01da

Conditioned taste aversion elicited by synthetic cannabinoid JWH-018 in mice is attenuated by pretreatment with phytocannabinoid Δ9-THC  
(abst – 2013)  http://www.fasebj.org/content/26/1_Supplement/660.4.abstract?sid=e6079848-a965-4a39-9656-0d675b46986f

Interrogating Therapeutic Manipulation of the Endocannabinoid System in Human Colon  
(abst – 2013)  http://www.fasebj.org/cgi/content/meeting_abstract/26/1_MeetingAbstracts/1123.1?sid=eea722c0-971c-4d99-88b8c-38c0e636c19ad

Do cannabinoids exhibit a tyramine-like effect?  

Chronic Cannabis Abuse, Δ9-tetrahydrocannabinol and Thyroid Function  

Sex differences in anti-allodynic, anti-hyperalgesic and anti-edema effects of Δ9-tetrahydrocannabinol in the rat.  

Preparation and characterization of Δ9-tetrahydrocannabinol-loaded biodegradable polymeric microparticles and their antitumoral efficacy on cancer cell lines.  

Palmitoylethanolamide: From endogenous cannabimimetic substance to innovative medicine for the treatment of cannabis dependence.  
Effect of chronic exposure to rimonabant and phytocannabinoids on anxiety-like behavior and saccharin palatability.  
(http://www.sciencedirect.com/science/article/pii/S0091305712002985)

Cannabinoids Decrease the Th17 Inflammatory Autoimmune Phenotype.  
(http://www.ncbi.nlm.nih.gov/pubmed/23892791)

Cannabis affects people differently: inter-subject variation in the psychotogenic effects of Δ9-tetrahydrocannabinol: a functional magnetic resonance imaging study with healthy volunteers.  
(http://www.ncbi.nlm.nih.gov/pubmed/23020923)

Exercise increases plasma THC concentrations in regular cannabis users.  
(http://www.ncbi.nlm.nih.gov/pubmed/24018317)

Cannabinoid Effects on β Amyloid Fibril and Aggregate Formation, Neuronal and Microglial-Activated Neurotoxicity In Vitro  
(http://www.ncbi.nlm.nih.gov/pubmed/24030360)

Δ9-Tetrahydrocannabinol is protective through PPARγ dependent mitochondrial biogenesis in a cell culture model of Parkinson’s Disease  
(http://jnnp.bmj.com/content/84/11/e2.58.abstract)

Biochemical and immunohistochemical changes in delta-9-tetrahydrocannabinol-treated type 2 diabetic rats.  
(http://www.ncbi.nlm.nih.gov/pubmed/23845579)

Decreased Enteric Fatty Acid Amide Hydrolase Activity is Associated with Colonic Inertia in Slow Transit Constipation  

LCMS Spectral Evidence of the Occurrence of Cannabinoid in Cannabis sativa Cell Cultures  

A Multiple-Dose, Randomized, Double-Blind, Placebo-Controlled, Parallel-Group QT/QTc Study to Evaluate the Electrophysiologic Effects of THC/CBD Spray  
(http://www.ncbi.nlm.nih.gov/pubmed/27121791)

Toxicological profiles of selected synthetic cannabinoids showing high binding affinities to the cannabinoid receptor subtype CB₁.  

Sativex long-term use: an open-label trial in patients with spasticity due to multiple sclerosis.  
(http://www.ncbi.nlm.nih.gov/pubmed/22878432)
Neuritogenic Effects of Cannabinoids with Nerve Growth Factor (NGF) on PC12 Cells

Synthetic cannabis: a comparison of patterns of use and effect profile with natural cannabis in a large global sample. (abst – 2013)

THE EFFECT OF ABA ON PIGMENTS AND TETRAHYDROCANNABINOL IN CANNABIS SATIVA AT FLOWERING STAGE (abst – 2013)

Δ(9)-THC and N-arachidonoyl glycine regulate BV-2 microglial morphology and cytokine release plasticity: implications for signaling at GPR18. (full - 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3877838/

Who Benefits Most from THC:CBD Spray? Learning from Clinical Experience. 

THC:CBD Spray and MS Spasticity Symptoms: Data from Latest Studies. 

Hair analysis for THCA-A, THC and CBN after passive in vivo exposure to marijuana smoke. (full – 2014)

Getting high on the endocannabinoid system. 
(full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3997295/

Cannabinoids for treatment of Alzheimer's disease: moving toward the clinic. 

How Cannabis Causes Paranoia: Using the Intravenous Administration of ∆9-Tetrahydrocannabinol (THC) to Identify Key Cognitive Mechanisms Leading to Paranoia. 
 (full – 2014) http://schizophreniabulletin.oxfordjournals.org/content/early/2014/07/01/schbul.sbu098.long

Vascular targets for cannabinoids: animal and human studies. 
(full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3954478/

 (full - 2014) http://www.neurology.org/content/82/17/1556.long

Cannabidiol: Pharmacology and potential therapeutic role in epilepsy and other neuropsychiatric disorders 
(full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4707667/

2012 Division of Medicinal Chemistry Award Address: Trekking the Cannabinoid Road: A Personal Perspective. (full– 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4064474/


Impact of efficacy at the mu opioid receptor on antinociceptive effects of combinations of mu opioid receptor agonists and cannabinoid receptor agonists. (full – 2014) http://jpet.aspetjournals.org/content/early/2014/09/05/jpet.114.216648.long


An exploratory study of the combined effects of orally administered methylphenidate and delta-9-tetrahydrocannabinol (THC) on cardiovascular function, subjective effects, and performance in healthy adults. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4250392/


Cannabinoid Modulation of Amygdala Subregion Functional Connectivity to Social Signals of Threat. (full - 2014) http://ijnp.oxfordjournals.org/content/18/3/pyu104.long


Cannabinoids inhibit cholinergic contraction in human airways through prejunctional CB1 receptors.  (full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4243853/

Blood levels do not predict behavioral or physiological effects of $\Delta^9$-tetrahydrocannabinol in rhesus monkeys with different patterns of exposure.  (full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4251811/


$\Delta(9)$-Tetrahydrocannabinol treatment during human monocyte differentiation reduces macrophage susceptibility to HIV-1 infection.  (full – 2014)  http://www.ncbi.nlm.nih.gov/pubmed/24562630

Acute administration of $\Delta 9$ tetrahydrocannabinol does not prevent enhancement of sensory gating by clozapine in DBA/2 mice.  (full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3945413/

Acute effects of delta-9-tetrahydrocannabinol, cannabidiol and their combination on facial emotion recognition: A randomised, double-blind, placebo-controlled study in cannabis users.  (full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4398332/

A protocol for the delivery of cannabidiol (CBD) and combined CBD and [increment]$9$-tetrahydrocannabinol (THC) by vaporisation.  (full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4274767/


Histone modifications are associated with $\Delta 9$-tetrahydrocannabinol-mediated alterations in antigen-specific T cell responses.  (full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4081916/
Chronic administration of Δ9-tetrahydrocannabinol induces intestinal anti-inflammatory microRNA expression during acute SIV infection of rhesus macaques. (full – 2014) http://jvi.asm.org/content/89/2/1168.long

Sex differences in antinociceptive tolerance to delta-9-tetrahydrocannabinol in the rat. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4161674/

Targeting multiple cannabinoid antitumor pathways with a resorcinol derivative leads to inhibition of advanced stages of breast cancer. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4209152/

The Combination of Cannabidiol and Δ9-Tetrahydrocannabinol Enhances the Anticancer Effects of Radiation in an Orthotopic Murine Glioma Model. (full – 2014) http://mct.aacrjournals.org/content/13/12/2955.long

Differences in Δ9-Tetrahydrocannabinol Metabolism and In Vivo Pharmacology Following Acute and Repeated Dosing in Adolescent Rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4106361/

Type 1 Cannabinoid Receptor Ligands Display Functional Selectivity in a Cell Culture Model of Striatal Medium Spiny Projection Neurons (full – 2014) http://www.jbc.org/content/289/36/24845.long

Effects of 20 mg oral Δ9-tetrahydrocannabinol on the olfactory function of healthy volunteers. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4243870/

Cannabinoids in experimental stroke: a systematic review and meta-analysis. (full – 2014) http://jcb.sagepub.com/content/35/3/348.long

Chemical approaches to therapeutically target the metabolism and signaling of the endocannabinoid 2-AG and eicosanoids (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4159426/

Cannabinoid modulation of prefrontal-limbic activation during fear extinction learning and recall in humans (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3960373/

Chronic Cannabinoid Receptor 2 Activation Reverses Paclitaxel Neuropathy Without Tolerance or Cannabinoid Receptor 1-Dependent Withdrawal. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4209205/


Cannabidiol fails to reverse hypothermia or locomotor suppression induced by Δ9-tetrahydrocannabinol in Sprague-Dawley rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4376456/
Prior stimulation of the endocannabinoid system prevents methamphetamine-induced dopaminergic neurotoxicity in the striatum through activation of CB2 receptors. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4939842/


Programming and reprogramming neural cells by (endo-) cannabinoids: from physiological rules to emerging therapies (full – 2014) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4765324/


The detection of THC, CBD and CBN in the oral fluid of Sativex® patients using two on-site screening tests and LC-MS/MS. (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/24699310


Cannabinoids for epilepsy: is marijuana an effective treatment for epilepsy?


The therapeutic efficacy of cannabinoid receptor type 1 ligands in Huntington's disease may depend on their functional selectivity (abst – 2014) http://www.fasebj.org/content/28/1_Supplement/846.6.abstract?sid=467bb529-0ece-4dcd-af27-3f56520a102


The FAAH inhibitor PF-04457845 has THC-like rewarding and reinstatement effects in squirrel monkeys and increases dopamine levels in the nucleus accumbens shell in rats (abst – 2014) http://www.fasebj.org/content/28/1_Supplement/838.6.abstract?sid=db987fd0-3ef0-4796-af0-4103f0e84dafa


Determination of Δ9-tetrahydrocannabinolic acid A (Δ9-THCA-A) in whole blood and plasma by LC-MS/MS and application in authentic samples from drivers suspected of...
driving under the influence of cannabis.  (abst – 2014)

Cannabinoid-induced changes in respiration of brain mitochondria.  (abst – 2014)

Inhibition of endocannabinoid neuronal uptake and hydrolysis as strategies for developing anxiolytic drugs.  (abst – 2014)


Effect of Marijuana Use on Outcomes in Traumatic Brain Injury.  (abst – 2014)

Engineering of Δ9-tetrahydrocannabinol delivery systems based on surface modified-PLGA nanoplatforms.  (abst – 2014)


Differences in receptor binding affinity of several phytocannabinoids does not explain their effects on neural cell cultures.  (abst – 2014)


Cannabinoids and schizophrenia: therapeutic prospects.  (abst – 2014)

Comparative effects of pulmonary and parenteral Δ9-tetrahydrocannabinol exposure on extinction of opiate-induced conditioned aversion in rats.  (abst - 2014)

Involvement of central and peripheral cannabinoid receptors on antinociceptive effect of tetrahydrocannabinol in muscle pain. (abst – 2014)

Cannabinoids determination in oral fluid by SPME-GC/MS and UHPLC-MS/MS and its application on suspected drivers. (abst – 2014)

Interaction Between the Endocannabinoid and Serotonergic System in the Exhibition of Head Twitch Response in Four Mouse Strains. (abst – 2014)

Potential applications of marijuana and cannabinoids in medicine (abst – 2014)

Simultaneous quantification of delta-9-THC, THC-acid A, CBN and CBD in seized drugs using HPLC-DAD. (abst – 2014)

Stereodivergent Total Synthesis of Δ9-Tetrahydrocannabinols (abst – 2014)

Acute subjective effects after smoking joints containing up to 69 mg Δ9-tetrahydrocannabinol in recreational users: a randomized, crossover clinical trial. (abst – 2014)

Effects of Δ9-tetrahydrocannabinol in individuals with a familial vulnerability to alcoholism. (abst – 2014)

Developmentally vitamin D-deficient rats show enhanced prepulse inhibition after acute Δ9-tetrahydrocannabinol. (abst – 2014)

INVESTIGATING SEDATIVE, PREANAESTHETIC & ANTI-ANXIETY EFFECTS OF HERBAL EXTRACT OF CANNABIS SATIVA IN COMPARISON WITH DIAZEPAM IN RATS (abst – 2014)

Cannabinoid Receptor CB2 Is Involved in Tetrahydrocannabinol-Induced Anti-Inflammation against Lipopolysaccharide in MG-63 Cells (full – 2015)
http://www.hindawi.com/journals/mi/2015/362126/

Quantitative analysis of performance on a progressive-ratio schedule: effects of reinforcer type, food deprivation and acute treatment with Δ9-tetrahydrocannabinol (THC) (full – 2015)

Cannabis and Cannabinoids–for health professionals (PDQ®) (full– 2015)
http://www.cancer.gov/about-cancer/treatment/cam/hp/cannabis-pdq#section/all

http://www.ncbi.nlm.nih.gov/books/NBK65875/
Fatty Acid Binding Proteins (FABPs) are Intracellular Carriers for Δ9-Tetrahydrocannabinol (THC) and Cannabidiol (CBD). (full – 2015) http://www.jbc.org/content/early/2015/02/09/jbc.M114.618447.long

Genetic Dissection of Behavioural and Autonomic Effects of Δ9-Tetrahydrocannabinol in Mice (full – 2015) http://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.0050269


Possible Immunosuppressive Effects of Drug Exposure and Environmental and Nutritional Effects on Infection and Vaccination (full – 2015) http://www.hindawi.com/journals/mi/2015/349176/


Controlled Cannabis Vaporizer Administration: Blood and Plasma Cannabinoids with and without Alcohol. (full – 2015) http://www.clinchem.org/content/61/6/850.long


Exploiting Cannabinoid-Induced Cytotoxic Autophagy to Drive Melanoma Cell Death. (full – 2015) http://www.jidonline.org/article/S0022-202X(15)37287-0/fulltext

Cannabis in cancer care. (full – 2015) http://escholarship.org/uc/item/6367m6vj#page-1

Cognitive Impairment Induced by Delta9-tetrahydrocannabinol Occurs through Heteromers between Cannabinoid CB1 and Serotonin 5-HT2A Receptors. (full – 2015) http://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.1002194

Role of dopamine type 1 receptors and DARPP-32 in Δ9-THC-mediated induction of ΔFosB in the mouse forebrain. (full – 2015) http://jpet.aspetjournals.org/content/early/2015/06/22/jpet.115.224428.long


Current Status and Future of Cannabis Research (full – 2015)
Cannabis – the Israeli perspective (full – 2015)  

Cannabinoid CB1 Receptor Agonists Do Not Decrease, but may Increase Acoustic Trauma-Induced Tinnitus in Rats. (full – 2015)  
http://journal.frontiersin.org/article/10.3389/fneur.2015.00060/full

Plant derived substances with anti-cancer activity: from folklore to practice (full – 2015)  
http://journal.frontiersin.org/article/10.3389/fpls.2015.00799/full

Investigational new drugs for focal epilepsy. (full – 2015)  

http://jop.sagepub.com/content/early/2015/11/12/0269881115615104.long

Biased Type 1 Cannabinoid Receptor Signalling Influences Neuronal Viability in a Cell Culture Model of Huntington Disease. (full – 2015)  
http://molpharm.aspetjournals.org/content/early/2015/12/23/mol.115.101980.long

Alcohol Versus Cannabinoids: A Review of Their Opposite Neuro-Immunomodulatory Effects and Future Therapeutic Potentials (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4607066/

http://journal.frontiersin.org/article/10.3389/fmicb.2015.01452/full

Neural correlates of cannabidiol and Δ9-tetrahydrocannabinol interactions in mice: implications for medical cannabis. (full – 2015)  

Selective Reduction of THC's Unwanted Effects through Serotonin Receptor Inhibition. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4497641/

Simultaneous inhibition of fatty acid amide hydrolase (FAAH) and monoacylglycerol lipase (MAGL) shares discriminative stimulus effects with Δ9-THC in mice. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4407717/

http://www.mdpi.com/1660-4601/13/1/5/htm
Role of dopamine type 1 receptors and DARPP-32 in Δ9-THC-mediated induction of ΔFosB in the mouse forebrain. (full – 2015)
http://jpet.aspetjournals.org/content/early/2015/06/22/jpet.115.224428.long

Medicinal cannabis. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4674028/

Neuropsychological sex differences associated with age of initiated use among young adult cannabis users. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4441859/

Further human evidence for striatal dopamine release induced by administration of Δ9-tetrahydrocannabinol (THC): selectivity to limbic striatum (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4816196/

Δ9 Tetrahydrocannabinol attenuates Staphylococcal enterotoxin B-induced inflammatory lung injury and prevents mortality in mice by modulation of miR-17-92 cluster and induction of T-regulatory cells. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4376457/

The Antitumor Activity of Plant-Derived Non-Psychoactive Cannabinoids. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4470774/

Gonadal hormones do not alter the development of antinociceptive tolerance to delta-9-tetrahydrocannabinol in adult rats. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4430373/

Effects of Cannabinoids on T-cell Function and Resistance to Infection. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4470840/

A sativex-like combination of phytocannabinoids as a disease-modifying therapy in a viral model of multiple sclerosis. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4507161/

Safety, pharmacodynamics, and pharmacokinetics of multiple oral doses of delta-9-tetrahydrocannabinol in older persons with dementia (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4480847/

Phenotypic assessment of THC discriminative stimulus properties in fatty acid amide hydrolase knockout and wildtype mice. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4387086/

Cannabinoids Production by Hairy Root Cultures of Cannabis sativa L. (full – 2015)
http://file.scirp.org/Html/21-2601738_58491.htm

Cannabis in the Treatment of Dystonia, Dyskinesias, and Tics (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4604174/

The adverse health effects of synthetic cannabinoids with emphasis on psychosis-like effects. (full – 2015) http://journals.sagepub.com/doi/full/10.1177/0269881114565142


Cannabidiol is a negative allosteric modulator of the type 1 cannabinoid receptor. (full – 2015) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4621983/


Seized cannabis seeds cultivated in greenhouse: A chemical study by gas chromatography–mass spectrometry and chemometric analysis (link through Elsevier to get link to get full – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26746824


Potency 101 (printable card set – 2015)
Cannabinoid and Terpene Info  (chart – 2015)
http://skunkpharmresearch.com/cannabinoid-info/

Effect of induced polyploidy on some biochemical parameters in Cannabis sativa L.  (abst – 2015)

Peripherally Restricted Cannabinoids for the Treatment of Pain.  (abst – 2015)

A Synthetic Cannabinoid MAM-2201 Potently Suppresses Synaptic Transmission via Activation of Presynaptic CB1 Receptors and Reduces Synaptically-Evoked Intracellular Ca2+ Transients in Cerebellar Purkinje Cells.  (abst – 2015)

Evaluation of an On-site Drug-testing Device for the Detection of Synthetic Cannabinoids in Illegal Herbal Products.  (abst – 2015)

Neuroprotection in Experimental Autoimmune Encephalomyelitis and Progressive Multiple Sclerosis by Cannabis-Based Cannabinoids.  (abst – 2015)
http://link.springer.com/article/10.1007%2Fs11481-014-9575-8

The effects of beta-arrestin1 deletion on acute cannabinoid activity, brain cannabinoid receptors and tolerance to cannabinoids in mice.  (abst – 2015)

Metabolism of classical cannabinoids and the synthetic cannabinoid JWH-018.  (abst – 2015)

Effect of oral THC pretreatment on marijuana cue-induced responses in cannabis dependent volunteers  (abst – 2015)

Cannabidiol (CBD) and its analogs: a review of their effects on inflammation.  (abst – 2015)

For whom the endocannabinoid tolls: Modulation of innate immune function and implications for psychiatric disorders.  (abst – 2015)

Distribution of Δ9 -Tetrahydrocannabinol and 11-Nor-9-Carboxy-Δ9-Tetrahydrocannabinol Acid in Postmortem Biological Fluids and Tissues From Pilots Fatally Injured in Aviation Accidents.  (abst – 2015)


Repeated administration of phytocannabinoid Δ9-THC or synthetic cannabinoids JWH-018 and JWH-073 induces tolerance to hypothermia but not locomotor suppression in mice, and reduces CB1 receptor expression and function in a brain region-specific manner. (abst – 2015) http://www.sciencedirect.com/science/article/pii/S1043661815002108

Effect of combined doses of Δ9-tetrahydrocannabinol (THC) and cannabidiolic acid (CBDA) on acute and anticipatory nausea using rat (Sprague- Dawley) models of conditioned gaping. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26381155


Controlled release tablet formulation containing natural δ9 tetrahydrocannabinol.  


Inhibitors of Fatty Acid Amide Hydrolase and Monoacylglycerol Lipase: New Targets for Future Antidepressants.  
(abst – 2015)  http://www.eurekaselect.com/132200/article

Endocannabinoid Mechanisms Influencing Nausea.  
(abst – 2015)

An Introduction to the Endogenous Cannabinoid System.  
(abst – 2015)

Use of Cannabinoids for Spasticity and Pain Management in MS.  
(abst – 2015)

Oral Cannabidiol does not Alter the Subjective, Reinforcing or Cardiovascular Effects of Smoked Cannabis.  
(abst – 2015)

Cannabinoid-induced autophagy: protective or death role?  
(abst – 2015)

Curcumin sensitizes human U-87 glioblastoma and MCF-7 breast cancer cells to the endocannabinoid reuptake inhibitor OMDM-2  
(abst – 2015)

THC exerts neuroprotective effect in glutamate affected murine primary mesencephalic cultures and neuroblastoma N18TG2 cells  
(abst – 2015)

Intravenous Delta-9-Tetrahydrocannabinol to Prevent Postoperative Nausea and Vomiting: A Randomized Controlled Trial  
(abst – 2015)

Effectiveness and Tolerability of THC/CBD Oromucosal Spray for Multiple Sclerosis Spasticity in Italy: First Data from a Large Observational Study.  
(abst – 2015)

The disease-modifying effects of a Sativex-like combination of phytocannabinoids in mice with experimental autoimmune encephalomyelitis are preferentially due to Δ(9)-tetrahydrocannabinol acting through CB1 receptors.  
(abst – 2015)

CB1 receptor transgenic mice in the cannabinoid triad: a novel approach to assess in vivo efficacy of CB1 ligands. (abst – 2015) http://www.fasebj.org/content/29/1_Supplement/LB490.abstract?sid=edf921ac-0690-4aa6-ac81-0546314dd384

Effects of Synthetic Cannabinoid JWH-018 and Phytocannabinoid Δ9-THC on Learning and Memory in Mice (abst – 2015) http://www.fasebj.org/content/29/1_Supplement/615.5.abstract?sid=edf921ac-0690-4aa6-ac81-0546314dd384


Cannabinoid Ligands and Alcohol Addiction: A Promising Therapeutic Tool or a Humbug? (full – 2016)
The Pharmacological Basis of Cannabis Therapy for Epilepsy. (full – 2016)
http://jpet.aspetjournals.org/content/early/2016/01/19/jpet.115.230151.long

Characterization of a novel adult murine immortalized microglial cell line and its activation by amyloid-beta. (full – 2016)

Disposable screen printed sensor for the electrochemical detection of delta-9-tetrahydrocannabinol in undiluted saliva. (full – 2016)
http://journal.chemistrycentral.com/content/10/1/1

Comparisons of Δ9-tetrahydrocannabinol and Anandamide on a Battery of Cognition-related Behavior in Nonhuman Primates. (full – 2016)
http://jpet.aspetjournals.org/content/early/2016/01/29/jpet.115.228189.long


Evidence for the efficacy and effectiveness of THC-CBD oromucosal spray in symptom management of patients with spasticity due to multiple sclerosis (full – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4710104/

Harvesting the biosynthetic machineries that cultivate a variety of indispensable plant natural products. (full – 2016)

Cannabis sativa: The Plant of the Thousand and One Molecules (full – 2016)


THC:CBD in Daily Practice: Available Data from UK, Germany and Spain. (full – 2016) http://www.karger.com/Article/FullText/444234

Behavioral Characterization of the Effects of Cannabis Smoke and Anandamide in Rats. (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0153327

Identification of Psychoactive Degradants of Cannabidiol in Simulated Gastric and Physiological Fluid (full – 2016)
http://online.liebertpub.com/doi/10.1089/can.2015.0004

Functional selectivity of CB2 cannabinoid receptor ligands at a canonical and non-canonical pathway. (full – 2016)
Tolerance to the diuretic effects of cannabinoids and cross-tolerance to a kappa-opioid agonist in THC-treated mice. (full – 2016)

Modulation of cellular redox homeostasis by the endocannabinoid system. (full – 2016)

CB2 Cannabinoid Receptor As Potential Target against Alzheimer's Disease (full – 2016)

Discriminative Stimulus Properties of the Endocannabinoid Catabolic Enzyme Inhibitor SA-57 in Mice. (full – 2016)

In vitro and in vivo efficacy of non-psychoactive cannabidiol in neuroblastoma. (full – 2016)

Interactions between cannabinoid receptor agonists and mu opioid receptor agonists in rhesus monkeys discriminating fentanyl. (full – 2016)

CBD-enriched medical cannabis for intractable pediatric epilepsy: The current Israeli experience. (full – 2016)

Delta-9-tetrahydrocannabinol protects against MPP+ toxicity in SH-SY5Y cells by restoring proteins involved in mitochondrial biogenesis. (full – 2016)

Fatty Acid Binding Proteins are Intracellular Carriers for THC and CBD (full – 2016)

Efficacy and safety of cannabinoid oromucosal spray for multiple sclerosis spasticity. (full – 2016)


Endocannabinoid system as a regulator of tumor cell malignancy - biological pathways and clinical significance. (full – 2016)

High on Cannabis and Calcineurin Inhibitors: A Word of Warning in an Era of Legalized Marijuana (full – 2016)
Dihydroceramide accumulation mediates cytotoxic autophagy of cancer cells via autolysosome destabilization. (full – 2016)
http://www.tandfonline.com/doi/full/10.1080/15548627.2016.1213927

Dietary fats and pharmaceutical lipid excipients increase systemic exposure to orally administered cannabis and cannabis-based medicines (full – 2016)

Endocannabinoid signaling in social functioning: an RDoC perspective (full – 2016)
http://www.nature.com/tp/journal/v6/n9/full/tp2016169a.html


The CB2 receptor and its role as a regulator of inflammation. (full – 2016)

Biased Agonism of Three Different Cannabinoid Receptor Agonists in Mouse Brain Cortex (full – 2016)

Presynaptic G Protein-Coupled Receptors: Gatekeepers of Addiction? (full – 2016)

Endocannabinoid System: the Direct and Indirect Involvement in the Memory and Learning Processes—a Short Review (full – 2016)

Traditional marijuana, high-potency cannabis and synthetic cannabinoids: increasing risk for psychosis. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5032490/

Cannabinoids synergize with carfilzomib, reducing multiple myeloma cells viability and migration. (full – 2016) http://www.impactjournals.com/oncotarget/index.php?journal=oncotarget&page=article&op=view&path%5B%5D=12721&path%5B%5D=40316


Severe motor and vocal tics controlled with Sativex®. (full – 2016)
http://journals.sagepub.com/doi/full/10.1177/1039856216663737
A Personal Retrospective: Elevating Anandamide (AEA) by Targeting Fatty Acid Amide Hydrolase (FAAH) and the Fatty Acid Binding Proteins (FABPs). (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5062061/

A user’s guide to cannabinoid therapies in oncology (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5176373/


Δ9-Tetrahydrocannabinol decreases willingness to exert cognitive effort in male rats. (link to PDF – 2016) http://jpn.ca/articles-in-press/41-6-150363/


Using Medical Cannabis in an Oncology Practice (article – 2016) (needs free registration) http://www.cancernetwork.com/oncology-journal/using-medical-cannabis-oncology-practice/sthash.CjT8fR9n.uWvEhfNG.dpuf

Using Medical Cannabis in an Oncology Practice (1st page – 2016) http://www.cancernetwork.com/oncology-journal/using-medical-cannabis-oncology-practice/sthash.CjT8fR9n.dpuf

Analysis of a commerical marijuana e-cigarette formulation. (abst – 2016) (This article has a delayed release and will be available in PMC on June 1, 2017) https://www.ncbi.nlm.nih.gov/pubmed/27059691

Disruption of hippocampal synaptic transmission and long-term potentiation by psychoactive synthetic cannabinoid 'Spice' compounds: comparison with Δ9-tetrahydrocannabinol. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/26732435


Safety and Efficacy of Medical Cannabis Oil for Behavioral and Psychological Symptoms of Dementia: An-Open Label, Add-On, Pilot Study. (abst – 2016)  

Sex differences in the subjective effects of oral Δ9-THC in cannabis users. (abst – 2016)  

Changes in cannabis potency over the last two decades (1995-2014) - Analysis of current data in the United States (abst – 2016)  

Involvement of the orexin/hypocretin system in the pharmacological effects induced by Δ9-tetrahydrocannabinol. (abst – 2016)  

Self-administration of the anandamide transport inhibitor AM404 by squirrel monkeys (abst – 2016)  

Efficacy, tolerability, and safety of cannabinoids in gastroenterology: A systematic review (abst – 2016)  

Cannabis-induced psychosis associated with high potency "wax dabs". (abst – 2016)  

Pharmacokinetics of Cannabis in Cancer Cachexia-Anorexia Syndrome. (abst – 2016)  

Blockade of Nicotine and Cannabinoid Reinforcement and Relapse by a Cannabinoid CB1-Receptor Neutral Antagonist AM4113 and Inverse Agonist Rimonabant in Squirrel Monkeys. (abst – 2016)  

Cannabinoid Receptor 2 Participates in Amyloid-β Processing in a Mouse Model of Alzheimer's Disease but Plays a Minor Role in the Therapeutic Properties of a Cannabis-Based Medicine. (abst – 2016)  

Cannabinoids: Medical implications. (abst – 2016)  

Combined treatment with morphine and Δ9-tetrahydrocannabinol (THC) in rhesus monkeys: antinociceptive tolerance and withdrawal. (abst – 2016)  

Lack of hippocampal CB1 receptor desensitization by Δ9-tetrahydrocannabinol in aged mice and by low doses of JZL 184. (abst – 2016)  

Influence of thermal hair straightening on cannabis and cocaine content in hair. (abst – 2016)  
The effect of cannabinoids on the stretch reflex in multiple sclerosis spasticity.  

Preclinical studies on the reinforcing effects of cannabinoids. A tribute to the scientific research of Dr. Steve Goldberg.  

Functional effects of cannabinoids during dopaminergic specification of human neural precursors derived from induced pluripotent stem cells.  

Mesoporous Silica Particles as a Multifunctional Delivery System for Pain Relief in Experimental Neuropathy.  

Marijuana-derived Δ-9-tetrahydrocannabinol suppresses Th1/Th17 cell-mediated delayed-type hypersensitivity through microRNA regulation.  

The therapeutic use of cannabinoids: Forensic aspects.  

Pharmacokinetic Drug Interactions with Tobacco, Cannabinoids and Smoking Cessation Products.  

Chronic Δ9-Tetrahydrocannabinol Administration Reduces IgE+B Cells but Unlikely Enhances Pathogenic SIVmac251 Infection in Male Rhesus Macaques of Chinese Origin.  

Pharmacokinetics of (synthetic) cannabinoids in pigs and their relevance for clinical and forensic toxicology.  

Effects of Delta-9-Tetrahydrocannabinol and Cannabidiol on Cisplatin-Induced Neuropathy in Mice.  

Medicinal cannabis: Principal cannabinoids concentration and their stability evaluated by a high performance liquid chromatography coupled to diode array and quadrupole time of flight mass spectrometry method.  

Discriminative Stimulus Properties of Phytocannabinoids, Endocannabinoids, and Synthetic Cannabinoids.  

A High Efficacy Cannabinergic Ligand (AM4054) used as a Discriminative Stimulus: Generalization to other Adamantyl Analogs and Δ9-THC in Rats. (abst – 2016) http://www.sciencedirect.com/science/article/pii/S0091305716301022


Effect of combined oral doses of Δ9-tetrahydrocannabinol (THC) and cannabidiolic acid (CBDA) on acute and anticipatory nausea in rat models. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27438607


Hydrophobic Ligand Entry and Exit Pathways of the CB1 Cannabinoid Receptor (abst – 2016) http://pubs.acs.org/doi/abs/10.1021/acs.jcim.6b00499
Cannabis and epilepsy: An ancient treatment returns to the fore. (abst – 2016)

Phytocannabinoids: a growing family of plant natural products with increasing pharmacological and clinical importance (abst – 2016)

Using Medical Marijuana to Stop Childhood Seizures (news & abstract – 2016)

Interactions between cannabidiol and Δ9-THC following acute and repeated dosing: Rebound hyperactivity, sensorimotor gating and epigenetic and neuroadaptive changes in the mesolimbic pathway. (abst – 2016)

Behavioral Determinants of Cannabinoid Self-Administration in Old-World Monkeys. (abst – 2016)

Dried haematic microsamples and LC-MS/MS for the analysis of natural and synthetic cannabinoids. (abst – 2016)

In vitro Antimicrobial and Antioxidant Activity of Extracts from Six Chemotypes of Medicinal Cannabis (abst – 2016)


Acute and residual effects in adolescent rats resulting from exposure to the novel synthetic cannabinoids AB-PINACA and AB-FUBINACA (full – 2017)

Cannabinoid Receptors in the Central Nervous System: Their Signaling and Roles in Disease. (full – 2017)

Quality Control of Traditional Cannabis Tinctures: Pattern, Markers, and Stability (full – 2017)
http://www.mdpi.com/2218-0532/84/3/567/htm

Cannabinoid CB2 receptor ligand profiling reveals biased signalling and off-target activity (full – 2017)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5216056/

Role of cannabis in digestive disorders (abst – 2017)
http://www.ingentaconnect.com/search/article?option1=tka&value1=cannabinoid&sortDescending=true&sortField=prism_publicationDate&pageSize=10&index=3

Neuroimaging studies towards understanding the central effects of pharmacological cannabis products on patients with epilepsy. (abst – 2017)

Molecular Targets of the Phytocannabinoids: A Complex Picture (abst – 2017)
http://link.springer.com/chapter/10.1007%2F978-3-319-45541-9_4

Comparison of the discriminative stimulus and response rate effects of Δ9-tetrahydrocannabinol and synthetic cannabinoids in female and male rats. (abst – 2017)


**THC ACID/ THCA + - non-psychoactive precursor of THC**

Evaluation of the Cyclooxygenase Inhibiting Effects of Six Major Cannabinoids Isolated from Cannabis sativa (full – 2011)
https://www.jstage.jst.go.jp/article/bpb/34/5/34_5_774/_pdf

Cannabis as a Unique Functional Food (full – 2011)
http://apothecary-genetics.spruz.com/gfile/75r4-!HLKELE-!svyr5/cannabis_as_a_unique_functional_food.pdf

Effects of cannabinoids and cannabinoid-enriched Cannabis extracts on TRP channels and endocannabinoid metabolic enzymes. (full – 2011)

Immunological approach using monoclonal antibody against Δ(9)-tetrahydrocannabinolic acid (THCA) to discern cannabis plants and to investigate new drug candidates. (abst – 2011)

A real-time PCR assay for the relative quantification of the tetrahydrocannabinolic acid (THCA) synthase gene in herbal Cannabis samples (abst – 2011)
Differential Modulation by Delta(9)-Tetrahydrocannabinol (Δ(9)-THC) of CD40 Ligand (CD40L) Expression in Activated Mouse Splenic CD4(+) T cells. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3657729/

Heat Exposure of Cannabis sativa Extracts Affects the Pharmacokinetic and Metabolic Profile in Healthy Male Subjects. (abst – 2012)

Effects of cannabinoids Δ(9)-tetrahydrocannabinol, Δ(9)-tetrahydrocannabinolic acid and cannabidiol in MPP(+) affected murine mesencephalic cultures. (abst – 2012)

Structure and Function of Δ1-Tetrahydrocannabinolic Acid (THCA) Synthase, the Enzyme Controlling the Psychoactivity of Cannabis sativa. (abst - 2012)

Analysis of cannabinoids in laser-microdissected trichomes of medicinal Cannabis sativa using LCMS and cryogenic NMR. (abst – 2012)

In planta imaging of Δ9-tetrahydrocannabinolic acid in Cannabis sativa L. with hyperspectral coherent anti-Stokes Raman scattering microscopy (full – 2013)

Extraction of high quality DNA from seized moroccan cannabis resin (hashish). (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3790795/

Tetrahydrocannabinolic acid reduces nausea-induced conditioned gaping in rats and vomiting in Suncus murinus. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3792001/

Analysis of THCA synthase gene expression in cannabis: A preliminary study by real-time quantitative PCR. (abst – 2013)

LCMS Spectral Evidence of the Occurrence of Cannabinoid in Cannabis sativa Cell Cultures (abst – 2013)

Affinity comparison of different THCA synthase to CBGA using modeling computational approaches (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3916817/

Hair analysis for THCA-A, THC and CBN after passive in vivo exposure to marijuana smoke. (full – 2014)
Cannabinoid findings in children hair - what do they really tell us? An assessment in the light of three different analytical methods with focus on interpretation of Δ9-tetrahydrocannabinolic acid A concentrations. (full – 2014)  

http://www.mdpi.com/1420-3049/19/11/18781/htm

A comparison of cannabidiolic acid with other treatments for anticipatory nausea using a rat model of contextually elicited conditioned gaping. (abst – 2014)  

A PCR marker Linked to a THCA synthase Polymorphism is a Reliable Tool to Discriminate Potentially THC-Rich Plants of Cannabis sativa L (abst – 2014)  

Determination of Δ9-tetrahydrocannabinolic acid A (Δ9-THCA-A) in whole blood and plasma by LC-MS/MS and application in authentic samples from drivers suspected of driving under the influence of cannabis. (abst – 2014)  

Simultaneous quantification of delta-9-THC, THC-acid A, CBN and CBD in seized drugs using HPLC-DAD. (abst – 2014)  

Differences in receptor binding affinity of several phytocannabinoids does not explain their effects on neural cell cultures. (abst – 2014)  

Finding cannabinoids in hair does not prove cannabis consumption. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4595642/

Cannabinoids Production by Hairy Root Cultures of Cannabis sativa L. (full – 2015)  
http://file.scirp.org/Html/21-2601738_58491.htm

Enrichment and identification of Δ(9)-Tetrahydrocannabinolic acid synthase from Pichia pastoris culture supernatants. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4560726/

Method for the Analysis of Cannabinoids and Terpenes in Cannabis (link to PDF – 2015)  
http://www.ingentaconnect.com/search/article?option1=tka&value1=cannabinoid&sortDescending=true&sortField=prism_publicationDate&pageSize=10&index=7

Method for the Analysis of Cannabinoids and Terpenes in Cannabis (link to PDF – 2015)  
http://www.ingentaconnect.com/content/aoac/jaoac/2015/00000098/00000006/art00005?token=00531db4de92a00f0716383a4b3b2570507b75245a76f384741282a726e2d2954496f642f466fc016

Potency 101 (printable card set – 2015) (good info!)
Production of Δ9-tetrahydrocannabinolic acid from cannabigerolic acid by whole cells of Pichia (Komagataella) pastoris expressing Δ9-tetrahydrocannabinolic acid synthase from Cannabis sativa L. (abst – 2015)
http://link.springer.com/article/10.1007%2Fs10529-015-1853-x

Δ9-Tetrahydrocannabinolic acid synthase production in Pichia pastoris enables chemical synthesis of cannabinoids. (abst – 2015)


(1)H NMR and HPLC/DAD for Cannabis sativa L. chemotype distinction, extract profiling and specification. (abst – 2015)


Determination of 11 Cannabinoids in Biomass and Extracts of Different Varieties of Cannabis Using High-Performance Liquid Chromatography. (abst – 2015)

Harvesting the biosynthetic machineries that cultivate a variety of indispensable plant natural products. (full – 2016)

Evolution of the Cannabinoid and Terpene Content during the Growth of Cannabis sativa Plants from Different Chemotypes. (abst – 2016)
http://pubs.acs.org/doi/abs/10.1021/acs.jnatprod.5b00949

Medicinal cannabis: Principal cannabinoids concentration and their stability evaluated by a high performance liquid chromatography coupled to diode array and quadrupole time of flight mass spectrometry method. (abst – 2016)

Monitoring Metabolite Profiles of Cannabis sativa L. Trichomes during Flowering Period Using 1H NMR-Based Metabolomics and Real-Time PCR. (abst – 2016)

Δ9-Tetrahydrocannabinolic acid synthase: the application of a plant secondary metabolite enzyme in biocatalytic chemical synthesis. (abst – 2016)
Cannabis and epilepsy: An ancient treatment returns to the fore. (abst – 2016)

Quality Control of Traditional Cannabis Tinctures: Pattern, Markers, and Stability (full – 2017)
http://www.mdpi.com/2218-0532/84/3/567/htm


**TETRAHYDROCANNABIORCOL** + – activates the TRPA1 channel

TRPA1 mediates spinal antinociception induced by acetaminophen and the cannabinoid Δ9-tetrahydrocannabiorcol (full – 2011)
http://www.nature.com/ncomms/journal/v2/n11/full/ncomms1559.html

**THCV/ TETRAHYDROCANNABIVARIN/ GWP- 42004** +* CB1 & CB2 antagonist

Delta9-tetrahydrocannabivarin testing may not have the sensitivity to detect marijuana use among individuals ingesting dronabinol. (full - 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2815025/?tool=pubmed

The plant cannabinoid Delta9-tetrahydrocannabivarin can decrease signs of inflammation and inflammatory pain in mice. (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931567/?tool=pubmed

Delta-Tetrahydrocannabivarin suppresses in vitro epileptiform and in vivo seizure activity in adult rats. (full - 2010)

A randomised, double blind, placebo controlled, parallel group, pilot study of 1:1 and 20:1 ratio of formulated GW42003 : GW42004 plus GW42003 and GW42004 alone in the treatment of dyslipidaemia in subjects with Type 2 diabetes. (research summary – 2010)

Assessment of the Genetic Stability of Micropropagated Plants of Cannabis sativa by ISSR Markers (abst – 2010)


Plasma and brain pharmacokinetic profile of cannabidiol (CBD), cannabidivarine (CBDV), Δ(9)-tetrahydrocannabivarin (THCV) and cannabigerol (CBG) in rats and mice following oral and intraperitoneal administration and CBD action on obsessive-compulsive behaviour. (abst – 2011) http://www.ncbi.nlm.nih.gov/pubmed/21796370

Δ(8) -Tetrahydrocannabivarin prevents hepatic ischaemia/reperfusion injury by decreasing oxidative stress and inflammatory responses through cannabinoid CB(2) receptors. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423240/

The Endocannabinoid System and Plant-Derived Cannabinoids in Diabetes and Diabetic Complications (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3349875/


The cannabinoid Δ(9)-tetrahydrocannabivar (THCV) ameliorates insulin sensitivity in two mouse models of obesity. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3671751/
Evaluation of the potential of the phytocannabinoids, cannabidivarin (CBDV) and Δ9-tetrahydrocannabivarin (THCV), to produce CB1 receptor inverse agonist symptoms of nausea in rats.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3792004/


Cannabidiol: Pharmacology and potential therapeutic role in epilepsy and other neuropsychiatric disorders  (full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4707667/


Neural Effects of Cannabinoid CB1 Neutral Antagonist Tetrahydrocannabivarin (THCv) on Food Reward and Aversion in Healthy Volunteers.  (full – 2014)  http://ijnp.oxfordjournals.org/content/18/6/pyu094.long

Tetrahydrocannabivarin (THCv) reduces Default Mode Network and increases Executive Control Network Resting State Functional Connectivity in Healthy Volunteers.  (full – 2015)  http://ijnp.oxfordjournals.org/content/early/2015/09/10/ijnp.pyv092.long

The effect of five day dosing with THCV on THC-induced cognitive, psychological and physiological effects in healthy male human volunteers: A placebo-controlled, double-blind, crossover pilot trial.  (full – 2015)  http://jop.sagepub.com/content/early/2015/11/12/0269881115615104.long

The phytocannabinoid, Δ(9) -tetrahydrocannabivarin, can act through 5-HT1 A receptors to produce antipsychotic effects.  (full – 2015)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4337703/


Cannabinoid and Terpene Info  (chart – 2015)


**THCVA/ TETRAHYDROCANNABIVARIC ACID**

Method for the Analysis of Cannabinoids and Terpenes in Cannabis (link to PDF – 2015) http://www.ingentaconnect.com/search/article?option1=tka&value1=cannabinoid&sortDescending=true&sortField=prism_publicationDate&pageSize=10&index=7

Method for the Analysis of Cannabinoids and Terpenes in Cannabis (link to PDF – 2015) http://www.ingentaconnect.com/content/aoac/jaoac/2015/00000098/00000006/art00005?token=00531db4de92a00fa0716383a4b3b2570507b75245a7b6f384741282a726e2d2954496f642f466fc016

TRANS-CARYOPHYLLENE – CB 2 agonist

Activation of Cannabinoid CB2 Receptor-Mediated AMPK/CREB Pathway Reduces Cerebral Ischemic Injury. (full – 2013) http://ajp.amjpathol.org/article/S0002-9440%2812%2900890-5/fulltext


Trans-Caryophyllene Suppresses Hypoxia-Induced Neuroinflammatory Responses by Inhibiting NF-κB Activation in Microglia. (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/24488604


COMPOUNDS THAT AFFECT the ECS
STUDIES to 2017

(Because of the limited number of early studies, there are no date restrictions in this section. Derivatives are usually classed with their parent compound simply because they are coming out so fast)

ACETAMINOPHEN/ PARACETAMOL/TYLENOL - changes into AM-404, which stops anandamide break-down

Conversion of acetaminophen to the bioactive N-acylphenolamine AM404 via fatty acid amide hydrolase-dependent arachidonic acid conjugation in the nervous system.
(full – 2005) http://www.jbc.org/content/280/36/31405.long


Paracetamol: New Vistas of an Old Drug (full – 2006)

The local antinociceptive effects of paracetamol in neuropathic pain are mediated by cannabinoid receptors. (abst – 2007) http://www.sciencedirect.com/science/article/pii/S0014299907007935


Can autism be triggered by acetaminophen activation of the endocannabinoid system?
Paracetamol-induced hypothermia is independent of cannabinoids and transient receptor potential vanilloid-1 and is not mediated by AM404. (full – 2011) http://dmd.aspetjournals.org/content/39/9/1689.full

Acetaminophen inhibits status epilepticus in cultured hippocampal neurons. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3052417/

TRPA1 mediates spinal antinociception induced by acetaminophen and the cannabinoid Δ9-tetrahydrocannabinol (full – 2011) http://www.nature.com/ncomms/journal/v2/n11/full/ncomms1559.html


Acetaminophen differentially enhances social behavior and cortical cannabinoid levels in inbred mice. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3389197/


Cannabidiol Rescues Acute Hepatic Toxicity and Seizure Induced by Cocaine
Association between paracetamol use in infancy or childhood with body mass index.

Use of paracetamol during pregnancy and child neurological development.

Acetaminophen Attenuates House Dust Mite Induced Allergic Airway Disease in Mice.
(full – 2015)  http://jpet.aspetjournals.org/content/early/2016/07/08/jpet.116.233684.long

Hypothermic activity of acetaminophen; involvement of GABAA receptor, theoretical and experimental studies.  (full – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4923466/

The intraocular pressure-lowering properties of intravenous paracetamol.
(full – 2016)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4948718/

Paracetamol sharpens reflection and spatial memory: a double-blind randomized controlled study in healthy volunteers.  (full – 2016)

Acetaminophen Use for Fever in Children Associated with Autism Spectrum Disorder.
(full – 2016)  https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5044872/

**BPA/ Bisphenol A** – a compound in plastics that disrupts the endocannabinoid system

Bisphenol A Induces Fatty Liver by an Endocannabinoid-Mediated Positive Feedback Loop.  (full – 2016)


**DIPYRONE/ METAMIZOL** – an NSAID that works by activating the CB1 receptors
Evaluation of the endogenous cannabinoid system in mediating the behavioral effects of dipyrone (metamizol) in mice. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3696505/


The analgesic effect of dipyrone in peripheral tissue involves two different mechanisms: Neuronal KATP channel opening and CB1 receptor activation. (full – 2014) http://www.sciencedirect.com/science/article/pii/S0014299914005561


**IBUPROFEN** – blocks the breakdown of anandamide (which is what actually relieves your pain)

Ibuprofen inhibits rat brain deamidation of anandamide at pharmacologically relevant concentrations. Mode of inhibition and structure-activity relationship. (full – 1997) http://jpet.aspetjournals.org/content/283/2/729.long


Differences in the pharmacological properties of rat and chicken brain fatty acid amidohydrolase. (full – 2000) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1572338/

Effects of pH on the inhibition of fatty acid amidohydrolase by ibuprofen. (full – 2001) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1572815/


Inhibition of fatty acid amide hydrolase, a key endocannabinoid metabolizing enzyme, by analogues of ibuprofen and indomethacin.  (abst – 2009)  http://www.ncbi.nlm.nih.gov/pubmed/17397826


Cannabinoid system and cyclooxygenases inhibitors.  (full - 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3056416/


Inhibitory properties of ibuprofen and its amide analogues towards the hydrolysis and cyclooxygenation of the endocannabinoid anandamide.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3606911/


Inhibition of Endocannabinoid Metabolism by the Metabolites of Ibuprofen and Flurbiprofen.  (full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4111603/
Multitarget fatty acid amide hydrolase/cyclooxygenase blockade suppresses intestinal inflammation and protects against nonsteroidal anti-inflammatory drug-dependent gastrointestinal damage. (full – 2015) http://www.fasebj.org/content/29/6/2616.long


A Randomized Placebo Controlled Trial of Ibuprofen for Respiratory Syncytial Virus Infection in a Bovine Model (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0152913

**PHTHALATES** - compounds in plastic that disrupt the endocannabinoid system and hormone levels


**R-FLURBIPROFEN** – may help restore more normal endocannabinoid levels

R-Flurbiprofen Reduces Neuropathic Pain in Rodents by Restoring Endogenous Cannabinoids (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2869361/


R-flurbiprofen attenuates experimental autoimmune encephalomyelitis in mice. (full – 2014) http://embomolmed.embopress.org/content/6/11/1398.long
**SUGAR / FRUCTOSE**

Modulation of sweet taste sensitivity by orexigenic and anorexigenic factors. (full – 2010) [https://www.jstage.jst.go.jp/article/endocrj/57/6/57_K10E-095/_pdf](https://www.jstage.jst.go.jp/article/endocrj/57/6/57_K10E-095/_pdf)


Pathophysiology of Human Visceral Obesity: An Update (full – 2013) [http://physrev.physiology.org/content/93/1/359.long](http://physrev.physiology.org/content/93/1/359.long)


**SUGAR - GLUCOSE**

N-oleoyldopamine enhances glucose homeostasis through the activation of GPR119. (full – 2010) [http://mend.endojournals.org/content/24/1/161.long](http://mend.endojournals.org/content/24/1/161.long)

Modulation of sweet taste sensitivity by orexigenic and anorexigenic factors. (full – 2010) [https://www.jstage.jst.go.jp/article/endocrj/57/6/57_K10E-095/_pdf](https://www.jstage.jst.go.jp/article/endocrj/57/6/57_K10E-095/_pdf)

Endocannabinoids selectively enhance sweet taste. (full – 2010) [http://www.pnas.org/content/107/2/935.long](http://www.pnas.org/content/107/2/935.long)


TAK-875, an orally available G protein-coupled receptor 40/free fatty acid receptor 1 agonist, enhances glucose-dependent insulin secretion and improves both postprandial and fasting hyperglycemia in type 2 diabetic rats. (full – 2011) [http://jpet.aspetjournals.org/content/339/1/228.long](http://jpet.aspetjournals.org/content/339/1/228.long)

GPR119 Regulates Murine Glucose Homeostasis Through Incretin Receptor-Dependent and Independent Mechanisms (full – 2011) [http://endo.endojournals.org/content/152/2/374.full?sid=c7413b30-1046-4f9c-b028-e46f78f293d9](http://endo.endojournals.org/content/152/2/374.full?sid=c7413b30-1046-4f9c-b028-e46f78f293d9)
GPR119 Regulates Murine Glucose Homeostasis Through Incretin Receptor-Dependent and Independent Mechanisms  (full – 2011)  
http://endo.endojournals.org/content/152/2/374.full?sid=c7413b30-1046-4f9c-b028-c46f78f293d9

Central Endocannabinoid Signaling Regulates Hepatic Glucose Production and Systemic Lipolysis  (full – 2011)  
http://diabetes.diabetesjournals.org/content/60/4/1055.full

TAK-875, an orally available G protein-coupled receptor 40/free fatty acid receptor 1 agonist, enhances glucose-dependent insulin secretion and improves both postprandial and fasting hyperglycemia in type 2 diabetic rats.  (full – 2011)  
http://jpet.aspetjournals.org/content/339/1/228.long

Relationships between glucose, energy intake and dietary composition in obese adults with type 2 diabetes receiving the cannabinoid 1 (CB1) receptor antagonist, rimonabant  (full – 2012)  
http://www.nutritionj.com/content/11/1/50

Does rimonabant independently affect free fatty acid and glucose metabolism?  (full – 2012)  

Optimization of (2,3-dihydro-1-benzofuran-3-yl)acetic acids: discovery of a non-free fatty acid-like, highly bioavailable G protein-coupled receptor 40/free fatty acid receptor 1 agonist as a glucose-dependent insulinotropic agent.  (abst – 2012)  
http://pubs.acs.org/doi/abs/10.1021/jm300170m

Induction of Glucose Intolerance by Acute Administration of Rimonabant.  (abst – 2012)  

The impact of marijuana use on glucose, insulin, and insulin resistance among US adults  (full – 2013)  
http://www.amjmed.com/article/S0002-9343%2813%2900200-3/fulltext

Developmental Role for Endocannabinoid Signaling in Regulating Glucose Metabolism and Growth.  (full – 2013)  
http://diabetes.diabetesjournals.org/content/62/7/2359.full?sid=2f5bda2b-a9c7-432a-9588-80c99189164d

Docosahexaenoyl ethanolamide improves glucose uptake and alters endocannabinoid system gene expression in proliferating and differentiating C2C12 myoblasts.  (full – 2014)  

α/β-Hydrolase Domain-6-Accessible Monoacylglycerol Controls Glucose-Stimulated Insulin Secretion  (full – 2014)  
http://www.cell.com/cell-metabolism/fulltext/S1550-4131(14)00166-1

The G-Protein-Coupled Long-Chain Fatty Acid Receptor GPR40 and Glucose Metabolism.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4176464/

Glucose concentration in culture medium affects mRNA expression of TRPV1 and CB1 receptors and changes capsaicin toxicity in PC12 cells.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4322151/


Cannabinoid CB1 receptors and mTORC1 signalling pathway interact to modulate glucose homeostasis. (full – 2015) http://dmm.biologists.org/content/9/1/51.long

Dietary DHA reduced downstream endocannabinoid and inflammatory gene expression, epididymal fat mass, and improved aspects of glucose use in muscle in C57BL/6J mice. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4722239/

Cannabinoid CB1 receptors and mTORC1 signalling pathway interact to modulate glucose homeostasis (full – 2015) http://dmm.biologists.org/content/9/1/51.long


Mice Expressing a "Hyper-Sensitive" Form of the Cannabinoid Receptor 1 (CB1) Are Neither Obese Nor Diabetic. (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0160462


**SUGAR / SUCROSE** – table sugar

Voluntary Exercise and Sucrose Consumption Enhance Cannabinoid CB1 Receptor Sensitivity in the Striatum (full - 2010) http://www.nature.com/npp/journal/v35/n2/full/npp2009141a.html

Endocannabinoids selectively enhance sweet taste. (full – 2010) http://www.pnas.org/content/107/2/935.long


Cannabinoid CB1 receptor inhibition blunts adolescent-typical increased binge alcohol and sucrose consumption in male C57BL/6J mice. (full – 2016) http://www.sciencedirect.com/science/article/pii/S0091305716300089


**TRICOR/ FENOFIBRATE** – works by activating CB2 receptors, a partial CB1 agonist

SYNLTONICS CANNABINOIDS, ETC.

STUDIES to 2017

(Because of the limited number of early studies, there are no date restrictions in this section. Derivatives are usually classed with their parent compound simply because they are coming out so fast)

4a – blocks the break-down of 2-AG

http://pubs.acs.org/doi/abs/10.1021/acs.jmedchem.5b01812

AA-5-HT - blocks both FAAH and TRPV-1

Dual-Acting Compounds Targeting Endocannabinoid and Endovanilloid Systems-A Novel Treatment Option for Chronic Pain Management. (full – 2016)

The multiplicity of spinal AA-5-HT anti-nociceptive action in a rat model of neuropathic pain. (abst – 2016)

A dual inhibitor of FAAH and TRPV1 channels shows dose-dependent effect on depression-like behaviour in rats. (abst – 2016)
**AB-CHMINACA** – a very strong CB1 & 2 agonist

AB-CHMINACA, AB-PINACA, and FUBIMINA: Affinity and Potency of Novel Synthetic Cannabinoids in Producing Δ9-Tetrahydrocannabinol-Like Effects in Mice. (full – 2015) [http://jpet.aspetjournals.org/content/early/2015/06/23/jpet.115.225326.long](http://jpet.aspetjournals.org/content/early/2015/06/23/jpet.115.225326.long)


The 2-alkyl-2H-indazole regioisomers of synthetic cannabinoids AB-CHMINACA, AB-FUBINACA, AB-PINACA, and 5F-AB-PINACA are possible manufacturing impurities with cannabimimetic activities. (full – 2016) [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4971050/](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4971050/)


Thermolytic degradation of synthetic cannabinoids: chemical exposures and pharmacological consequences (link to download – 2017) [http://jpet.aspetjournals.org/content/early/2017/01/13/jpet.116.238717.long](http://jpet.aspetjournals.org/content/early/2017/01/13/jpet.116.238717.long)
**AB-PINACA Group** – a strong CB1 and 2 agonist

AB-CHMINACA, AB-PINACA, and FUBIMINA: Affinity and Potency of Novel Synthetic Cannabinoids in Producing Δ9-Tetrahydrocannabinol-Like Effects in Mice. (full – 2015) [http://jpet.aspetjournals.org/content/early/2015/06/23/jpet.115.225326.long](http://jpet.aspetjournals.org/content/early/2015/06/23/jpet.115.225326.long)


The 2-alkyl-2H-indazole regioisomers of synthetic cannabinoids AB-CHMINACA, AB-FUBINACA, AB-PINACA, and 5F-AB-PINACA are possible manufacturing impurities with cannabimimetic activities. (full – 2016) [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4971050/](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4971050/)


Thermolytic degradation of synthetic cannabinoids: chemical exposures and pharmacological consequences (link to download – 2017) [http://jpet.aspetjournals.org/content/early/2017/01/13/jpet.116.238717.long](http://jpet.aspetjournals.org/content/early/2017/01/13/jpet.116.238717.long)

**ABN-CBD/ ABNORMAL CANNABIDIOL/ CAY10429** - GPR-18 agonist? GPR-55 agonist?
Effects of cannabinoids on L1210 murine leukemia. 1. Inhibition of DNA synthesis.  

A cannabinoid with cardiovascular activity but no overt behavioral effects.  

Cannabinoid-induced mesenteric vasodilation through an endothelial site distinct from CB1 or CB2 receptors.  
(full – 1999)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC24203/

Vasodilator actions of abnormal-cannabidiol in rat isolated small mesenteric artery  
(full - 2003)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1573773/?tool=pmcentrez

Selective ligands and cellular effectors of a G protein-coupled endothelial cannabinoid receptor.  
(full – 2003)  http://molpharm.aspetjournals.org/content/63/3/699.long

G Protein-coupled Endothelial Receptor for Atypical Cannabinoid Ligands Modulates a Ca2+-dependent K+ Current  
(full – 2003)  http://www.jbc.org/content/278/46/46188.full

Anandamide-Mediated CB1/CB2 Cannabinoid Receptor-Independent Nitric Oxide Production in Rabbit Aortic Endothelial Cells  
(full – 2007)  http://jpet.aspetjournals.org/content/321/3/930.long

2-Arachidonylglycerol ether and abnormal cannabidiol-induced vascular smooth muscle relaxation in rabbit pulmonary arteries via receptor-pertussis toxin sensitive G proteins-ERK1/2 signaling.  

Identification of the vasodilatory endothelial cannabinoid receptor in the human pulmonary artery.  

Inhibition of human neutrophil chemotaxis by endogenous cannabinoids and phytocannabinoids: evidence for a site distinct from CB1 and CB2.  
(full – 2008)  http://molpharm.aspetjournals.org/content/73/2/441.long

Vasoactive and Neuroprotective Actions of a Non-Pyschotropic Atypical Cannabinoid in the Retina  
(abst – 2009)  http://iovs.arvojournals.org/article.aspx?articleid=2363001&resultClick=1

International Union of Basic and Clinical Pharmacology. LXXIX. Cannabinoid Receptors and Their Ligands: Beyond CB1 and CB2  

Effects of abnormal cannabidiol on oxytocin-induced myometrial contractility  
N-arachidonoyl glycine, an abundant endogenous lipid, potently drives directed cellular migration through GPR18, the putative abnormal cannabidiol receptor (full – 2010) [108x695]http://www.biomedcentral.com/1471-2202/11/44

Abnormal-Cannabidiol-Induced Increase in Aqueous Humor Outflow (abst – 2010) [108x656]http://iovs.arvojournals.org/article.aspx?articleid=2368788&resultClick=1


siRNA knockdown of GPR18 receptors in BV-2 microglia attenuates N-arachidonoyl glycine-induced cell migration (full – 2012) [108x497]http://www.jmolecularsignaling.com/content/7/1/10


Mechanism of Central Atypical Cannabinoid Receptor GPR18-Mediated Hypotension in Conscious Rats (abst – 2013) [108x207]http://www.fasebj.org/content/27/1_Supplement/654.15.short


Neuronal Nitric Oxide Synthase Dependent Elevation in Adiponectin in the Rostral Ventrolateral Medulla Underlies GPR18-mediated Hypotension in Conscious Rats. (full – 2014) [108x89]http://jpet.aspetjournals.org/content/early/2014/08/06/jpet.114.216036.long
The Novel Endocannabinoid Receptor GPR18 is Expressed in the Rostral Ventrolateral Medulla and Exerts Tonic Restraining Influence on Blood Pressure. (full – 2014) http://jpet.aspetjournals.org/content/early/2014/01/15/jpet.113.209213.long


Role of Endothelium in Abnormal Cannabidiol-Induced Vasoactivity in Retinal Arterioles. (full – 2015) http://iovs.arvojournals.org/article.aspx?articleid=2343105&resultClick=1


Treatment with the GPR55 antagonist CID16020046 increases neutrophil activation in mouse atherogenesis. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27465665


ACEA/ ARACHIDONYL-2’-CHLOROETHYLAMIDE - CB1 agonist

Synthesis and characterization of potent and selective agonists of the neuronal cannabinoid receptor (CB1) (full – 1999) http://jpet.aspetjournals.org/content/289/3/1427.long


The cannabinoids R(-)-7-hydroxy-delta-6-tetra-hydrocannabinol-dimethylheptyl (HU-210), 2-O-arachidonoylglycerylether (HU-310) and arachidonyl-2-chloroethylamide (ACEA) increase isoflurane provoked sleep duration by activation of cannabinoids 1 (CB1)-receptors in mice. (abst – 2002) http://www.ncbi.nlm.nih.gov/pubmed/12095655

Differential effect of cannabinoid agonists and endocannabinoids on histamine release from distinct regions of the rat brain.  (full – 2006)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1769340/?tool=pubmed

Cannabinoid derivatives induce cell death in pancreatic MIA PaCa-2 cells via a receptor-independent mechanism.  (full – 2006)

Agonists of cannabinoid receptor 1 and 2 inhibit experimental colitis induced by oil of mustard and by dextran sulfate sodium  (full – 2006)
http://ajpgi.physiology.org/content/291/2/G364

Arachidonyl-2'-chloroethylamide, a highly selective cannabinoid CB1 receptor agonist, enhances the anticonvulsant action of valproate in the mouse maximal electroshock-induced seizure model.  (abst – 2006)

ACEA (arachidonyl-2-chloroethylamide), the selective cannabinoid CB1 receptor agonist, protects against aspirin-induced gastric ulceration.  (abst – 2006)

Opposing control of cannabinoid receptor stimulation on amyloid-beta-induced reactive gliosis: in vitro and in vivo evidence.  (full - 2007)
http://jpet.aspetjournals.org/content/322/3/1144.long

Antiaversive Effects of Cannabinoids: Is the Periaqueductal Gray Involved (link to PDF - 2007)

Ultra-low dose cannabinoid antagonist AM251 enhances cannabinoid anticonvulsant effects in the pentylenetetrazole-induced seizure in mice.  (abst – 2007)

Attenuation of Experimental Autoimmune Hepatitis by Exogenous and Endogenous Cannabinoids: Involvement of Regulatory T Cells  (full - 2008)
http://molpharm.aspetjournals.org/content/74/1/20.full?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=320&res
ourcetype=HWCIT#content-block

Cannabinoid modulation of cutaneous Adelta nociceptors during inflammation.  (full – 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2585399/?tool=pubmed

Cannabinoid-mediated antinociception is enhanced in rat osteoarthritic knees.  (full – 2008)

Cannabinoid receptor activation induces apoptosis through tumor necrosis factor alpha-mediated ceramide de novo synthesis in colon cancer cells.  (full – 2008)
http://clincancerres.aacrjournals.org/content/14/23/7691.long
Additive Interaction of the Cannabinoid Receptor I Agonist Arachidonyl-2-chloroethylamide with Etomidate in a Sedation Model in Mice (full – 2008)  
http://anesthesiology.pubs.asahq.org/article.aspx?articleid=1932072&resultClick=3

Endocannabinoids enhance lipid synthesis and apoptosis of human sebocytes via cannabinoid receptor-2-mediated signaling. (link to PDF – 2008)  
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.328.8372

Peripheral cannabinoid CB1 receptors inhibit evoked responses of nociceptive neurones in vivo  (abst – 2008)  

Cannabinoid CB(1) receptor activation modulates spontaneous contractile activity in mouse ileal longitudinal muscle. (abst – 2008)  
http://www.ncbi.nlm.nih.gov/pubmed/18234188

Endocannabinoid and serotonergic systems are needed for acetaminophen-induced analgesia. (abst – 2008)  

Endogenous cannabinoids induce fever through the activation of CB1 receptors. (full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2765314/?tool=pubmed

Cannabinoid CB1 receptor elevation of intracellular calcium in neuroblastoma SH-SY5Y cells: interactions with muscarinic and delta-opioid receptors. (full – 2009)  

The effects of intracerebroventricular AM-251, a CB1-receptor antagonist, and ACEA, a CB1-receptor agonist, on penicillin-induced epileptiform activity in rats. (full – 2009)  

Involvement of nitric system in the anticonvulsant effect of the cannabinoid CB(1) agonist ACEA in the pentylenetetrazole-induced seizure in mice. (abst – 2009)  

Involvement of nitric oxide in the gastroprotective effect of ACEA, a selective cannabinoid CB1 receptor agonist, on aspirin-induced gastric ulceration. (abst – 2009)  

Effect of arachidonyl-2'-chloroethylamide, a selective cannabinoid CB1 receptor agonist, on the protective action of the various antiepileptic drugs in the mouse maximal electroshock-induced seizure model. (abst – 2009)  

Role of cannabinoid CB1 receptors on macronutrient selection and satiety in rats. (abst – 2009)  

Pharmacological synergism between cannabinoids and paclitaxel in gastric cancer cell lines. (abst – 2009)  
Regulatory Role of Cannabinoid Receptor 1 in Stress-Induced Excitotoxicity and Neuroinflammation  
(full - 2010)  
http://www.nature.com/npp/journal/vaop/ncurrent/full/npp2010214a.html

Inactivation of the cannabinoid receptor CB1 prevents leukocyte infiltration and experimental fibrosis.  
(full – 2010)  

Small intestinal cannabinoid receptor changes following a single colonic insult with oil of mustard in mice.  
(full – 2010)  

Cannabinoids attenuate cancer pain and proliferation in a mouse model.  
(full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3099480/

Association between lipid accumulation and the cannabinoid system in Huh7 cells expressing HCV genes  
(link to PDF – 2011)  

Alkamides and a neolignan from Echinacea purpurea roots and the interaction of alkamides with G-protein-coupled cannabinoid receptors.  
(abst – 2011)  

The Effect of Hypoxia on G Protein Coupled (CB1) Receptor Gene Expression in Cortical B50 Neurons in Culture  
(abst – 2011)  
http://www.maxwellsci.com/jp/abstract.php?jid=BJPT&no=92&abs=05

Inhibition of basal and ultraviolet B-induced melanogenesis by cannabinoid CB(1) receptors: a keratinocyte-dependent effect.  
(abst – 2011)  

L-Type Calcium Channel Mediates Anticonvulsant Effect of Cannabinoids in Acute and Chronic Murine Models of Seizure.  
(abst – 2011)  

Changes in the cannabinoid (CB1) receptor expression level and G-protein activation in kainic acid induced seizures.  
(abst – 2011)  

Opposing Roles for Cannabinoid Receptor Type-1 (CB(1)) and Transient Receptor Potential Vanilloid Type-1 Channel (TRPV1) on the Modulation of Panic-Like Responses in Rats.  
(full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3242309/

Cannabinoid Receptors CB1 and CB2 Form Functional Heteromers in Brain.  
(full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3375509/

CB1 cannabinoid receptor activation rescues amyloid β-induced alterations in behaviour and intrinsic electrophysiological properties of rat hippocampal CA1 pyramidal neurones.
Photoperiodic Changes in Endocannabinoid Levels and Energetic Responses to Altered Signalling at CB1 Receptors in Siberian Hamsters (full – 2012) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4060156/

Contrasting effects of different cannabinoid receptor ligands on mouse ingestive behavior (abst – 2012) 
http://www.unboundmedicine.com/medline/ebm/record/22772336/abstract/Contrasting_effects_of_different_cannabinoid_receptor_ligands_on_mouse_ingestive_behavior


Protective effect of cannabinoid CB1 receptor activation against altered intrinsic repetitive firing properties induced by Aβ neurotoxicity. (abst – 2012) 

Contrasting protective effects of cannabinoids against oxidative stress and amyloid-β evoked neurotoxicity in vitro. (abst – 2012) 

Cannabinoids and muscular pain. Effectiveness of the local administration in rat. (abst – 2012) 

Revisiting CB1 Receptor as Drug Target in Human Melanoma. (abst – 2012) 

Effect of ACEA-a selective cannabinoid CB1 receptor agonist on the protective action of different antiepileptic drugs in the mouse pentylenetetrazole-induced seizure model. (abst – 2012) 


Distribution and function of the endocannabinoid system in the rat and human bladder. (abst – 2012) 

Type-1 (CB(1)) Cannabinoid Receptor Promotes Neuronal Differentiation and Maturation of Neural Stem Cells. (full – 2013) 
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0054271

Role of endogenous cannabinoid system in the gut. (full - 2013) 

Cannabinoid modulation of chronic mild stress-induced selective enhancement of trace fear conditioning in adolescent rats. (full – 2013) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3883309/


Cannabinoid receptor 1 controls human mucosal-type mast cell degranulation and maturation in situ. (full – 2013) http://www.jacionline.org/article/S0091-6749%2813%2900057-2/fulltext


CB1 Cannabinoid Receptor Agonist Prevents NGF-Induced Sensitization of TRPV1 in Sensory Neurons. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3752375/

Targeting the cannabinoid system for pain relief? (full – 2013) http://www.e-aat.com/article/S1875-4597%2813%2900119-7/fulltext


Cannabinoid-induced autophagy regulates suppressor of cytokine signaling (SOCS)-3 in intestinal epithelium.  (full – 2014)  http://ajpgi.physiology.org/content/307/2/G140


CB1 augments mGluR5 function in medial prefrontal cortical neurons to inhibit amygdala hyperactivity in an arthritis pain model.  (full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4288820/

The endocannabinoid 2-AG controls skeletal muscle cell differentiation via CB1 receptor-dependent inhibition of Kv7 channels.  (full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4066524/

Activation of CB1 inhibits NGF-induced sensitization of TRPV1 in adult mouse afferent neurons.  (full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4626020/


Negative Regulation of Leptin-induced ROS Formation by CB1 Receptor Activation in Hypothalamic Neurons.  (full – 2015)  http://www.jbc.org/content/early/2015/04/13/jbc.M115.646885.full.pdf+html
Intrathecal cannabinoid-1 receptor agonist prevents referred hyperalgesia in acute acrolein-induced cystitis in rats.  (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4446380/

A Basal Tone of 2-Arachidonoylglycerol Contributes to Early Oligodendrocyte Progenitor Proliferation by Activating Phosphatidylinositol 3-Kinase (PI3K)/AKT and the Mammalian Target of Rapamycin (MTOR) Pathways.  (full – 2015)  

Interaction between Cannabinoid Compounds and Capsazepine in Protection against Acute Pentylenetetrazole-induced Seizure in Mice.  (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4499434/

Cannabinoid-induced autophagy regulates suppressor of cytokine signaling-3 in intestinal epithelium.  (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4101681/

Pharmacological profiling of the hemodynamic effects of cannabinoid ligands: a combined in vitro and in vivo approach.  (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4492759/

Pharmacological activation of CB2 receptors counteracts the deleterious effect of ethanol on cell proliferation in the main neurogenic zones of the adult rat brain.  (full – 2015)  

The Cannabinoid Receptor CB1 Interacts with the WAVE1 Complex and Plays a Role in Actin Dynamics and Structural Plasticity in Neurons.  (full – 2015)  
http://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.1002286

Mitochondrial CB1 receptor is involved in ACEA-induced protective effects on neurons and mitochondrial functions.  (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4516969/

Activation of cannabinoid receptor 1 inhibits increased bladder activity induced by nerve growth factor.  (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4339033/

Enhancement of endocannabinoid signalling protects against cocaine-induced neurotoxicity.  (full – 2015)  

Type 1 cannabinoid receptor modulates water deprivation-induced homeostatic responses.  (full – 2015)  
http://ajpregu.physiology.org/content/309/11/R1358.long

Cannabinoid receptor type 1 agonist ACEA improves motor recovery and protects neurons in ischemic stroke in mice.  (full – 2015)  
Further Evidence for the Neuroplastic Role of Cannabinoids: A Study in Organotypic Hippocampal Slice Cultures. (abst – 2015)

CB 1Cannabinoid Receptor Agonist Inhibits Matrix Metalloproteinase Activity in Spinal Cord Injury: A Possible Mechanism of Improved Recovery. (abst – 2015)


ACEA (a highly selective cannabinoid CB1 receptor agonist) stimulates hippocampal neurogenesis in mice treated with antiepileptic drugs. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26225920


The type-1 cannabinoid receptor modulates the hydroelectrolytic balance independently of the energy homeostasis during salt load (abst – 2015) http://www.sciencedirect.com/science/article/pii/S0018506X15301252

Dopamine-dependent CB1 receptor dysfunction at corticostriatal synapses in homozygous PINK1 knockout mice. (abst – 2015) http://www.sciencedirect.com/science/article/pii/S0028390815301441

Blockade of Cannabinoid 1 Receptor Improves GLP-1R Mediated Insulin Secretion in Mice (abst – 2015) http://www.sciencedirect.com/science/article/pii/S0303720715301714


Modulation of cellular redox homeostasis by the endocannabinoid system. (full – 2016) http://rsob.royalsocietypublishing.org/content/6/4/150276


Impaired Excitatory Neurotransmission in the Urinary Bladder from the Obese Zucker Rat: Role of Cannabinoid Receptors. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4902197/


The Orphan Nuclear Receptor ERRγ Regulates Hepatic CB1 Receptor-Mediated Fibroblast Growth Factor 21 Gene Expression (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0159425
A role of CB1R in inducing θ-rhythm coordination between the gustatory and gastrointestinal insula. (full – 2016) http://www.nature.com/articles/srep32529


Rescue of Impaired mGluR5-Driven Endocannabinoid Signaling Restores Prefrontal Cortical Output to Inhibit Pain in Arthritic Rats. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4719019/


Cannabinoid receptor type 1 mediates high-fat diet-induced insulin resistance by increasing forkhead box O1 activity in a mouse model of obesity (abst – 2016) http://www.spandidos-publications.com/10.3892/ijmm.2016.2475


Antagonism of dopamine receptor 2 long (D2L) affects cannabinoid receptor 1 (CB1) signaling in a cell culture model of striatal medium spiny projection neurons. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27053685


Δ9-Tetrahydrocannabinol Reverses TNFα-induced Increase in Airway Epithelial Cell Permeability through CB2 Receptors (abst – 2016)

Pharmacokinetic-pharmacodynamic influence of N-palmitoylethanolamine, arachidonyl-2′-chloroethylamide and WIN 55,212-2 on the anticonvulsant activity of antiepileptic drugs against audiogenic seizures in DBA/2 mice (abst – 2016)

Overactivation of cannabinoid receptor type 1 in rostral ventrolateral medulla promotes cardiovascular responses in spontaneously hypertensive rats. (abst – 2016)

Antihyperalgesic effect of CB1 receptor activation involves the modulation of P2X3 receptor in the primary afferent neuron. (abst – 2017)

ACPA/ ARACHIDONYLCYCLOPROPYLAMIDE – a potent CB1 agonist


Arachidonylcyclopropylamide increases microglial cell migration through cannabinoid CB2 and abnormal-cannabidiol-sensitive receptors. (abst – 2003)


Effects of Cannabinoids on Caffeine Contractures in Slow and Fast Skeletal Muscle Fibers of the Frog (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2697372/?tool=pmcentrez

Anxiolytic-like effect induced by the cannabinoid CB1 receptor agonist, arachydonilcyclopropylamide (ACPA), in the rat amygdala is mediated through the D1 and D2 dopaminergic systems. (full – 2011)
http://journals.sagepub.com/doi/full/10.1177/0269881110376688

Effects of gonadal hormones on the peripheral cannabinoid receptor 1 (CB1R) system under a myositis condition in rats. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3578305/
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3771033/

Cannabinoids inhibit energetic metabolism and induce AMPK-dependent autophagy in pancreatic cancer cells. (full – 2013)

Comparative proteomic and phosphoproteomic profiling of pancreatic adenocarcinoma cells treated with CB1 or CB2 agonists. (abst – 2013)

Cannabinoids as therapeutic agents in cancer: current status and future implications. (link to PDF - 2014)

Effects of cannabinoids on tension induced by acetylcholine and choline in slow skeletal muscle fibers of the frog. (abst – 2014)

Cannabinoid receptor type 1 activation by arachidonylcyclopropylamide in rat aortic rings causes vasorelaxation involving calcium-activated potassium channel subunit alpha-1 and calcium channel, voltage-dependent, L type, alpha 1C subunit. (abst – 2014)

The effect of BLA GABA(A) receptors in anxiolytic-like effect and aversive memory deficit induced by ACPA. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4669909/

The involvement of medial septum 5-HT1 and 5-HT2 receptors on ACPA-induced memory consolidation deficit: Possible role of TRPC3, TRPC6 and TRPV2. (full – 2015)
http://journals.sagepub.com/doi/full/10.1177/0269881115609021

Modulation of the effects of the cannabinoid agonist, ACPA, on spatial and non-spatial novelty detection in mice by dopamine D1 receptor drugs infused into the basolateral amygdala. (abst – 2015)

Involvement of the serotonergic system of the ventral hippocampus (CA3) on amnesia induced by ACPA in mice. (abst – 2015)

The dual effect of CA1 NMDA receptor modulation on ACPA-induced amnesia in step-down passive avoidance learning task. (abst – 2015)
The hippocampal NMDA receptors may be involved in acquisition, but not expression of ACPA-induced place preference. (abst – 2015) http://www.sciencedirect.com/science/article/pii/S0278584615001311


Cannabinoids-Induced Vasodilation in Rat Mesenteric Artery: Possible Mechanisms of Action (abst – 2015) http://www.fasebj.org/content/29/1_Supplement/948.6.abstract?sid=edf921ac-0690-4aa6-ac81-0546314dd384


Interaction between hippocampal serotonin and cannabinoid systems in reactivity to spatial and object novelty detection. (abst – 2016)
Neuromodulatory effects of the dorsal hippocampal endocannabinoid system in dextromethorphan/morphine-induced amnesia. (abst – 2016)

ADELMIDROL – semisynthetic derivative of azelaic acid, and is an analogue of PEA


Effect of a mucoadhesive gel and dental scaling on gingivitis in dogs. (abst – 2008)

Mast cell morphometry and densitometry in experimental skin wounds treated with a gel containing adelmidrol: a placebo controlled study. (abst – 2008)

Adelmidrol, a palmitoylethanolamide analogue, reduces chronic inflammation in a carrageenin-granuloma model in rats (full – 2009)

Inhibitory effect of topical adelmidrol on antigen-induced skin wheal and mast cell behavior in a canine model of allergic dermatitis. (full – 2012)

Effectiveness of vaginal adelmidrol for treating pelvic visceral discomforts and anxiety: a prospective observational study. (abst – 2013)

AJULEMIC ACID/ AjA/ IP-751/ HU-239/ CT-3 - analog of Δ8-THC-11-oic acid, mechanism of action not established, also see JBT- 101

The Role of Cannabis and Cannabinoids in Pain Management (full – 2002)
Analgesic effect of the synthetic cannabinoid CT-3 on chronic neuropathic pain: a randomized controlled trial. (full - 2003)
http://jama.ama-assn.org/cgi/content/full/290/13/1757
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabis&searchid=1&FIRSTINDEX=0&resourcetype=HWCIT

Future of Cannabis and Cannabinoids in Therapeutics (link to PDF - 2003)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.597.1387&rank=7

Ajulemic acid: A novel cannabinoid produces analgesia without a “high” (abst - 2004)

Ajulemic acid (IP-751): Synthesis, proof of principle, toxicity studies, and clinical trials (link to PDF - 2005)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2751505/

Cannabimimetic Properties of Ajulemic Acid (full - 2006)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2633725/?tool=pmcentrez

Cannabimimetic Properties of Ajulemic Acid (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2633725/

In humans, ajulemic acid has a more favorable side-effect profile than THC for the treatment of chronic neuropathic pain (full - 2007)

Letter: Preclinical assessment of abuse liability of ajulemic acid (letter - 2007)

Suppression of fibroblast metalloproteinases by ajulemic acid, a nonpsychoactive cannabinoid acid. (abst - 2007)

Effects of IP-751, ajulemic acid, on bladder overactivity induced by bladder irritation in rats. (abst - 2007)


Cannabinoids in the management of difficult to treat pain (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2503660/?tool=pmcentrez

Ajulemic acid, a nonpsychoactive cannabinoid acid, suppresses osteoclastogenesis in mononuclear precursor cells and induces apoptosis in mature osteoclast-like cells. (abst - 2008)

Ajulemic acid, a synthetic cannabinoid acid, induces an antiinflammatory profile of eicosanoids in human synovial cells. (abst – 2008)

Cannabinoids, Endocannabinoids, and Related Analogs in Inflammation  (full - 2009)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2664885/?tool=pmcentrez


Ajulemic acid, a synthetic cannabinoid, increases formation of the endogenous proresolving and anti-inflammatory eicosanoid, lipoxin A4  (full - 2009)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2669421/


Control of spasticity in a multiple sclerosis model using central nervous system-excluded CB1 cannabinoid receptor agonists.  (full – 2013)  http://www.fasebj.org/content/28/1/117.long


Ultrapure ajulemic acid has improved CB2 selectivity with reduced CB1 activity.  (abst – 2014)  http://www.sciencedirect.com/science/article/pii/S0968089614003368


AM-111/ D-JNKI-1/ XG-102 – blocks the MAPK-JNK signal pathway

A peptide inhibitor of c-Jun N-terminal kinase protects against both aminoglycoside and acoustic trauma-induced auditory hair cell death and hearing loss.  (full – 2003) http://www.jneurosci.org/content/23/24/8596.long


The JNK inhibitor XG-102 protects against TNBS-induced colitis.  (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3302790/

Neuroprotection by inhibiting the c-Jun N-terminal kinase pathway after cerebral ischemia occurs independently of interleukin-6 and keratinocyte-derived chemokine (KC/CXCL1) secretion.  (full – 2012) http://www.jneuroinflammation.com/content/9/1/76

Inhibition of JNK by a peptide inhibitor reduces traumatic brain injury-induced tauopathy in transgenic mice.  (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3268782/
Specific inhibition of the JNK pathway promotes locomotor recovery and neuroprotection after mouse spinal cord injury. (abst – 2012)  

The JNK inhibitor D-JNKI-1 blocks apoptotic JNK signaling in brain mitochondria. (abst – 2012)  

Molecular mechanisms involved in cochlear implantation trauma and the protection of hearing and auditory sensory cells by inhibition of c-Jun-N-terminal kinase signaling. (abst – 2013)  

Mitochondrial JNK phosphorylation as a novel therapeutic target to inhibit neuroinflammation and apoptosis after neonatal ischemic brain damage. (abst – 2013)  

Implication of JNK pathway on tau pathology and cognitive decline in a senescence-accelerated mouse model. (abst – 2013)  

c-Jun N-terminal kinase has a key role in Alzheimer disease synaptic dysfunction in vivo (full – 2014)  
http://www.nature.com/cddis/journal/v5/n1/full/cddis2013559a.html

The impact of JNK inhibitor D-JNKI-1 in a murine model of chronic colitis induced by dextran sulfate sodium. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3650567/


AM-251 – GPR 55 agonist, CB1 antagonist/ inverse agonist

Inhibition of Rat C6 Glioma Cell Proliferation by Endogenous and Synthetic Cannabinoids. Relative Involvement of Cannabinoid and Vanilloid Receptors (full - 2001)  
http://jpet.aspetjournals.org/content/299/3/951.full

Influence of the CB1 receptor antagonist, AM 251, on the regional haemodynamic effects of WIN-55212-2 or HU 210 in conscious rats (full - 2002)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1573379/?tool=pmcentrez

CB1 cannabinoid receptor antagonism promotes remodeling and cannabinoid treatment prevents endothelial dysfunction and hypotension in rats with myocardial infarction (full - 2003)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1573770/?tool=pmcentrez
Vasodilator actions of abnormal-cannabidiol in rat isolated small mesenteric artery  
(full - 2003)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1573773/?tool=pmcentrez

Inhibition of Inflammatory Hyperalgesia by Activation of Peripheral CB2 Cannabinoid Receptors  

Cannabinoid CB1 receptor activation does not prevent the toxicity of glutamate towards embryonic chick telencephalon primary cultures.  

Cannabinoid CB2 receptor activation reduces mouse myocardial ischemia-reperfusion injury: involvement of cytokine/chemokines and PMN  

Effects of cannabinoid receptor-2 activation on accelerated gastrointestinal transit in lipopolysaccharide-treated rats  
(full - 2004)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1575196/?tool=pmcentrez

Up-Regulation of Cyclooxygenase-2 Expression Is Involved in R(−)-Methanandamide-Induced Apoptotic Death of Human Neuroglioma Cells  
(full - 2004)  http://molpharm.aspetjournals.org/content/66/6/1643.full.pdf+html

Heterogeneity in the mechanisms of vasorelaxation to anandamide in resistance and conduit rat mesenteric arteries  

Activation of peripheral cannabinoid receptors attenuates cutaneous hyperalgesia produced by a heat injury.  

The cannabinoid 1 receptor antagonist, AM251, prolongs the survival of rats with severe acute pancreatitis.  

CENTRAL CANNABINOID REGULATION OF FOOD INTAKE IN CHICKENS  (link to PDF - 2005)  
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.587.5749&rank=38

Cannabinoids augment the release of neuropeptide Y in the rat hypothalamus  

Binding affinity and agonist activity of putative endogenous cannabinoids at the human neocortical CB1 receptor  

Amnestic effect of intrahippocampal AM251, a CB1-selective blocker, in the inhibitory avoidance, but not in the open field habituation task, in rats  

Cannabinoid CB1 receptor antagonists cause status epilepticus-like activity in the hippocampal neuronal culture model of acquired epilepsy  
(full - 2006)
Endocannabinoids potently protect the newborn brain against AMPA-kainate receptor-mediated excitotoxic damage  (full - 2006)

AM 251 produces sustained reductions in food intake and body weight that are resistant to tolerance and conditioned taste aversion  (full - 2006)

Antinociceptive effect of cannabinoid agonist WIN 55,212–2 in rats with a spinal cord injury  (full - 2006)

Vasorelaxant effects of oleamide in rat small mesenteric artery indicate action at a novel cannabinoid receptor.  (full – 2006)

Cannabinoids in acute gastric damage and pancreatitis.  (full – 2006)

Cannabinoid derivatives induce cell death in pancreatic MIA PaCa-2 cells via a receptor-independent mechanism.  (full – 2006)

EFFECT OF CANNABINOIDS ON TESTICULAR ISCHEMIA-REPERFUSION INJURY IN RAT  (link to PDF – 2006)

Inhibition of Salivary Secretion by Activation of Cannabinoid Receptors  (full - forum repost - 2006)

Antihyperalgesic effects of local injections of anandamide, ibuprofen, rofecoxib and their combinations in a model of neuropathic pain.  (abst – 2006)

Local interactions between anandamide, an endocannabinoid, and ibuprofen, a nonsteroidal anti-inflammatory drug, in acute and inflammatory pain.  (abst – 2006)

Cardiovascular effects of cannabinoids in conscious spontaneously hypertensive rats  (full - 2007)

CANNABINOID-INDUCED HYPERPHAGIA: CORRELATION WITH INHIBITION OF PROOPIOMELANOCORTIN NEURONS?  (full - 2007)

Cannabinoid action in the olfactory epithelium  (full - 2007)
Antiaversive Effects of Cannabinoids: Is the Periaqueductal Gray Involved
(link to PDF - 2007)

Cannabinoids Excite Hypothalamic Melanin-Concentrating Hormone But Inhibit Hypocretin/Orexin Neurons: Implications for Cannabinoid Actions on Food Intake and Cognitive Arousal
(link to PDF - 2007)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.325.4131&rank=145

Ultra-low dose cannabinoid antagonist AM251 enhances cannabinoid anticonvulsant effects in the pentylenetetrazole-induced seizure in mice. (abst – 2007)

The local antinociceptive effects of paracetamol in neuropathic pain are mediated by cannabinoid receptors (abst – 2007)

Effect of Endocannabinoid System on the Neurogenic Function of Rat Corpus Cavernosum (abst – 2007)

Cannabinoids Inhibit HIV-1 Gp120-Mediated Insults in Brain Microvascular Endothelial Cells (full - 2008)
http://www.jimmunol.org/cgi/content/full/181/9/6406?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=160&resource_type=HWCIT

Attenuation of Experimental Autoimmune Hepatitis by Exogenous and Endogenous Cannabinoids: Involvement of Regulatory T Cells (full - 2008)
http://molpharm.aspetjournals.org/content/74/1/20.full?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=320&resource_type=HWCIT#content-block

The cannabinoid receptor agonist, WIN 55, 212-2, attenuates tumor-evoked hyperalgesia through peripheral mechanisms. (full – 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2678169/

Loss of cannabinoid receptor 1 accelerates intestinal tumor growth (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2561258/?tool=pubmed

Acute hypertension reveals depressor and vasodilator effects of cannabinoids in conscious rats (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2697765/?tool=pmcentrez

Activating Parabrachial Cannabinoid CB1 Receptors Selectively Stimulates Feeding of Palatable Foods in Rats (full - 2008)
Feeding induced by cannabinoids is mediated independently of the melanocortin system. (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2386290/?tool=pubmed

Acute effects of endocannabinoid anandamide and CB1 receptor antagonist, AM251 in the regulation of thyrotropin secretion. (full – 2008) http://joe.endocrinology-journals.org/content/199/2/235.long


Synthetic and plant-derived cannabinoid receptor antagonists show hypophagic properties in fasted and non-fasted mice (full - 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2697695/?tool=pubmed

Pretreatment with electroacupuncture induces rapid tolerance to focal cerebral ischemia through regulation of endocannabinoid system. (full – 2009) http://stroke.ahajournals.org/content/40/6/2157.long

Endocannabinoids in the rat basolateral amygdala enhance memory consolidation and enable glucocorticoid modulation of memory (full - 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2660732/?tool=pmcentrez


Role of endocannabinoid signaling in anxiety and depression. (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3808114/


Processing cardiovascular information in the vlPAG during electroacupuncture in rats: roles of endocannabinoids and GABA (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2692771/#!po=4.54545


Regulation of the Hypothalamic-Pituitary-Adrenal Axis Circadian Rhythm by Endocannabinoids Is Sexually Diergic (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2964781/?tool=pmcentrez


GPR55 ligands promote receptor coupling to multiple signalling pathways. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931561/?tool=pubmed
Cannabinoid receptor CB1 mediates baseline and activity-induced survival of new neurons in adult hippocampal neurogenesis (full - 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2898685/?tool=pubmed

Spinal and peripheral analgesic effects of the CB cannabinoid receptor agonist AM1241 in two models of bone cancer-induced pain. (full - 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931557/?tool=pubmed

Endocannabinoid involvement in endometriosis. (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2972363/

The Neuroprotective Effect of Cannabinoid Receptor Agonist (WIN55,212-2) in Paraoxon Induced Neurotoxicity in PC12 Cells and N-methyl-D-aspartate Receptor Interaction (full – 2010)

Naphthalen-1-yl-(4-pentyloxynaphthalen-1-yl)methanone (SAB378), a peripherally restricted cannabinoid CB1/CB2 receptor agonist, inhibits gastrointestinal motility but has no effect on experimental colitis in mice. (full – 2010)
http://jpet.aspetjournals.org/content/334/3/973.long

The Endocannabinoid System Tonically Regulates Inhibitory Transmission and Depresses the Effect of Ethanol in Central Amygdala (full - 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2904853/

Pharmacological characterization of GPR55, a putative cannabinoid receptor. (full – 2010)

Oleamide administered into the nucleus accumbens shell regulates feeding behaviour via CB1 and 5-HT2C receptors. (full – 2010)
http://ijnp.oxfordjournals.org/content/13/9/1247.long

The endocannabinoid system modulates the valence of the emotion associated to food ingestion (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3116974/

Endocannabinoids selectively enhance sweet taste. (full – 2010)
http://www.pnas.org/content/107/2/935.long

Cannabinoid Receptors, CB1 and CB2, as Novel Targets for Inhibition of Non-Small Cell Lung Cancer Growth and Metastasis (full – 2010)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3025486/

Anandamide and AM251, via water, modulate food intake at central and peripheral level in fish. (abst – 2010)

Involvement of ERK 1/2 activation in electroacupuncture pretreatment via cannabinoid CB1 receptor in rats. (abst – 2010)


A Pilot Study into the Effects of the CB1 Cannabinoid Receptor Agonist WIN55,212-2 or the Antagonist/Inverse Agonist AM251 on Sleep in Rats (full – 2011) http://www.hindawi.com/journals/sd/2011/178469/


Cannabinoid potentiation of glycine receptors contributes to cannabis-induced analgesia. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3388539/


Cannabinoid receptor-mediated regulation of neuronal activity in the main olfactory bulb (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3397690/

Disruption of metabotropic glutamate receptor signalling is a major defect at cerebellar parallel fibre-Purkinje cell synapses in staggerer mutant mice. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3145934/

α-Tocopherol and α-tocopheryl phosphate interact with the cannabinoid system in the rodent hippocampus. (abst - 2011) http://www.sciencedirect.com/science/article/pii/S0891584911004539

Cannabidiol as an anti-arrhytmic, the role of the CB1 receptors. (abst – 2011) http://heart.bmj.com/content/97/24/e8.9.abstract


Endocannabinoid CB1 receptors modulate visual output from the thalamus. (abst – 2011) http://www.ncbi.nlm.nih.gov/pubmed/21773721


The effect of CBD (BDS) botanical cannabinoid extraction on MCF-7 human breast carcinoma cells (abst – 2011) http://eprints.hud.ac.uk/16197/

The antinociceptive potency of N-arachidonoyl-dopamine (NADA) and its interaction with endomorphin-1 at the spinal level.  (abst – 2011)  http://www.sciencedirect.com/science/article/pii/S0091305711001626

Tak1 Interactions With TRPV1 and CB1 Control IL-6 and IL-8 Release in Human Corneal Epithelial Cells  (abst – 2011)  http://iovs.arvojournals.org/article.aspx?articleid=2349956&resultClick=1

CB1 Activation Reduces TRPV1-induced Responses in Human Corneal Epithelial Cells  (abst – 2011)  http://iovs.arvojournals.org/article.aspx?articleid=2353114&resultClick=1

Cannabinoid Receptor Type 1 (CB1) Activation Inhibits Small GTPase RhoA Activity and Regulates Motility of Prostate Carcinoma Cells  (full – 2012)  http://endo.endojournals.org/content/153/1/29.full

Inhibition of monoacylglycerol lipase attenuates vomiting in Suncus murinus and 2-arachidonoylglycerol attenuates nausea in rats.  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423233/


A Role for the Cannabinoid 1 Receptor in Neuronal Differentiation of Adult Spinal Cord Progenitors in vitro is Revealed through Pharmacological Inhibition and Genetic Deletion.  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3265030/?tool=pubmed

Cannabinoid HU210 Protects Isolated Rat Stomach against Impairment Caused by Serum of Rats with Experimental Acute Pancreatitis.  (full - 2012)  http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0052921

The cannabinoid receptor CB1 modulates the signaling properties of the lysophosphatidylinositol receptor GPR55.  (full – 2012)  http://www.jbc.org/content/early/2012/11/16/jbc.M112.364109.long

Medial prefrontal cortex endocannabinoid system modulates baroreflex activity through CB1 receptors  (full – 2012)  http://ajpregu.physiology.org/content/302/7/R876

The anti-nausea effects of CB(1) agonists are mediated by an action at the visceral insular cortex.  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3492992/

So what do we call GPR18 now?  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423231/
Opposing Roles for Cannabinoid Receptor Type-1 (CB(1)) and Transient Receptor Potential Vanilloid Type-1 Channel (TRPV1) on the Modulation of Panic-Like Responses in Rats. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3242309/

Nicotine-induced anxiety-like behavior in a rat model of the novelty-seeking phenotype is associated with long-lasting neuropeptidergic and neuroplastic adaptations in the amygdala: Effects of the cannabinoid receptor 1 antagonist AM251. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3697052/


Effects of gonadal hormones on the peripheral cannabinoid receptor 1 (CB1R) system under a myositis condition in rats. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3578305/

Differences in peripheral endocannabinoid modulation of scratching behavior in facial vs. spinally-innervated skin. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3394407/

Cannabinoid Receptors CB1 and CB2 Form Functional Heteromers in Brain. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3375509/

Involvement of the Endocannabinoid System in Ethanol-Induced Corticostriatal Synaptic Depression. (full – 2012) https://www.jstage.jst.go.jp/article/jphs/120/1/120_12118FP/_pdf


AM2389, a high-affinity, in vivo potent CB1-receptor-selective cannabinergic ligand as evidenced by drug discrimination in rats and hypothermia testing in mice (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3291515/

Oleamide restores sleep in adult rats that were subjected to maternal separation. (abst – 2012)  

Cannabinoid type 1 receptor ligands WIN 55,212-2 and AM 251 alter anxiety-like behaviors of marmoset monkeys in an open-field test. (abst – 2012)  

The cannabinoid receptor CB₁ inverse agonist AM251 potentiates the anxiogenic activity of urocortin I in the basolateral amygdala. (abst – 2012)  

Cannabinoids and muscular pain. Effectiveness of the local administration in rat. (abst – 2012)  

Endocannabinoid analogues exacerbate marble-burying behavior in mice via TRPV1 receptor. (abst – 2012)  

WIN55212-2 attenuates amyloid-beta-induced neuroinflammation in rats through activation of cannabinoid receptors and PPAR-γ pathway. (abst – 2012)  

Revisiting CB1 Receptor as Drug Target in Human Melanoma. (abst – 2012)  

Stimulation of acumbens shell cannabinoid CB(1) receptors by noladin ether, a putative endocannabinoid, modulates food intake and dietary selection in rats. (abst – 2012)  

Mechanism of the Interaction of Cannabinoid System in Central Amygdale with Opioid System (abst – 2012)  

The interaction between intrathecal administration of low doses of palmitoylethanolamide and AM251 in formalin-induced pain related behavior and spinal cord IL1-β expression in rats. (abst – 2012)  

Endothelium-dependent mechanisms of the vasodilatory effect of the endocannabinoid, anandamide, in the rat pulmonary artery. (abst – 2012)  

Anti-Inflammatory Effect of the Endocannabinoid Anandamide in Experimental Periodontitis and Stress in the Rat (abst – 2012)  
http://content.karger.com/produktedb/produkte.asp?doi=339113

The cannabinoid Δ(9)-tetrahydrocannabivarin (THCV) ameliorates insulin sensitivity in two mouse models of obesity. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3671751/

Role of endocannabinoids and cannabinoid-1 receptors in cerebrocortical blood flow regulation. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3537620/


Activation of Type 1 Cannabinoid Receptor (CB1R) Promotes Neurogenesis in Murine Subventricular Zone Cell Cultures (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0063529


Insulin induces long-term depression of VTA dopamine neurons via endocannabinoids (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4072656/

A role for O-1602 and G protein-coupled receptor GPR55 in the control of colonic motility in mice. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3677091/


Phencyclidine-induced social withdrawal results from deficient stimulation of cannabinoid CB1 receptors: implications for schizophrenia. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3717536/

CB1 and CB2 Cannabinoid Receptor Agonists Induce Peripheral Antinociception by Activation of the Endogenous Noradrenergic System. (full – 2013) http://journals.lww.com/anesthesia-analgesia/Fulltext/2013/02000/CB1_and_CB2_Cannabinoid_Receptor_Agonists_Induce.31.aspx

Long-term CB1 receptor blockade enhances vulnerability to anxiogenic-like effects of cannabinoids. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3691020/


Evaluation of the role of striatal cannabinoid CB1 receptors on movement activity of parkinsonian rats induced by reserpine.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3730975/

Rapid Glucocorticoid-Induced Activation of TRP and CB1 Receptors Causes Biphasic Modulation of Glutamate Release in Gastric-Related Hypothalamic Preautonomic Neurons.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3560102/

Cannabinoids ameliorate impairments induced by chronic stress to synaptic plasticity and short-term memory.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3682147/

Cannabinoid HU210 Protects Isolated Rat Stomach against Impairment Caused by Serum of Rats with Experimental Acute Pancreatitis  (full – 2013)  http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0052921


Using the endocannabinoid system as a neuroprotective strategy in perinatal hypoxic-ischemic brain injury.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4146074/

Cannabinoid CB1 Receptors Mediate the Gastroprotective Effect of Neurotensin.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3586888/


Cannabinoid receptor 1 controls human mucosal-type mast cell degranulation and maturation in situ.  (full – 2013)  http://www.jacionline.org/article/S0091-6749%2813%2900057-2/fulltext

Involvement of prelimbic medial prefrontal cortex in panic-like elaborated defensive behaviour and innate fear-induced antinociception elicited by GABAA receptor blockade in the dorsomedial and ventromedial hypothalamic nuclei: role of the endocannabinoid CB1 receptor.  (full – 2013)  http://ijnp.oxfordjournals.org/content/16/8/1781.long

Cannabinoid Receptor Activation Prevents the Effects of Chronic Mild Stress on Emotional Learning and LTP in a Rat Model of Depression. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3924526/


Differential expression of endocannabinoid system in normal and preeclamptic placentas: effects on nitric oxide synthesis. (full - 2013) http://www.placentajournal.org/article/S0143-4004%2812%2900393-1/fulltext

CB1 Cannabinoid Receptor Agonist Prevents NGF-Induced Sensitization of TRPV1 in Sensory Neurons. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3752375/

Comparative effects of parathion and chlorpyrifos on extracellular endocannabinoid levels in rat hippocampus: Influence on cholinergic toxicity. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3831619/


CB1 and CB2 Cannabinoid Receptor Antagonists Prevent Minocycline-Induced Neuroprotection Following Traumatic Brain Injury in Mice. (full – 2013) http://cercor.oxfordjournals.org/content/25/1/35.long

Distribution and Possible Function of Cannabinoid Receptor Subtype 1 in the Human Prostate*—An Inhibitory Role for Growth in the Human Prostate Cancer (full – 2013) http://file.scirp.org/Html/12-5000121_31406.htm


Neuroprotective effects of topical CB1 agonist WIN 55212-2 on Retinal ganglion cells after acute rise in intraocular pressure induced ischemia in rat. (abst – 2013)  

Role of TRPV1 receptors on panic-like behaviors mediated by the dorsolateral periaqueductal gray in rats. (abst – 2013)  

Role of intra-accumbal cannabinoid CB1 receptors in the potentiation, acquisition and expression of morphine-induced conditioned place preference. (abst – 2013)  

Central functional response to the novel peptide cannabinoid, hemopressin. (abst – 2013)  

Entopeduncular nucleus endocannabinoid system modulates sleep-waking cycle and mood in rats. (abst – 2013)  

2-AG into the lateral hypothalamus increases REM sleep and cFos expression in melanin concentrating hormone neurons in rats. (abst – 2013)  

Impact of omega-6 polyunsaturated fatty acid supplementation and γ-aminobutyric acid on astrogliogenesis through the endocannabinoid system. (abst – 2013)  

Endocannabinoids mediate hyposalivation induced by inflammogens in the submandibular glands and hypothalamus. (abst – 2013)  

Effects of compounds that interfere with the endocannabinoid system on behaviors predictive of anxiolytic and panicolytic activity in the elevated T-maze (abst – 2013)  

Modulation of anxiety-like behaviour by the endocannabinoid 2-arachidonoylglycerol (2-AG) in the dorsolateral periaqueductal gray. (abst – 2013)  

The role of α2-adrenoceptors in the anti-convulsant effects of cannabinoids on pentylenetetrazole-induced seizure threshold in mice. (abst – 2013)  

Regulation of cell proliferation by GPR55/cannabinoid receptors using (R,R')-4’-methoxy-1-naphthylfenoterol in rat C6 glioma cell line (abst – 2013)
(R,R′)-4′-methoxy-1-naphthylfenoterol Inhibits GPR55 signaling and the modulation of motility in human cancer cells

CB1 and CB2 contribute to antinociceptive and anti-inflammatory effects of electroacupuncture on experimental arthritis of the rat temporomandibular joint.

Anandamide modulates the neuroendocrine responses induced by extracellular volume expansion.

Activation of spinal cannabinoid cb2 receptors inhibits neuropathic pain in streptozotocin-induced diabetic mice.

Complex interaction between anandamide and the nitrergic system in the dorsolateral periaqueductal gray to modulate anxiety-like behavior in rats.

Novel effects of the cannabinoid inverse agonist AM 251 on parameters related to metabolic syndrome in obese Zucker rats.

The endocannabinoid anandamide induces apoptosis of rat decidual cells through a mechanism involving ceramide synthesis and p38 MAPK activation.

The endocannabinoid system mediates aerobic exercise-induced antinociception in rats.

Endocannabinoids decrease neuropathic pain-related behavior in mice through the activation of one or both peripheral CB1 and CB2 receptors.

Angiotensin II-induced activation of central AT1 receptors exerts endocannabinoid-mediated gastroprotective effect in rats.

Cytotoxicity of synthetic cannabinoids on primary neuronal cells of the forebrain: the involvement of cannabinoid CB1 receptors and apoptotic cell death.

Concurrent pharmacological modification of cannabinoid-1 and glucagon-like peptide-1 receptor activity affects feeding behavior and body weight in rats fed a free-choice, high-carbohydrate diet.

Prophylactic cannabinoid administration blocks the development of paclitaxel-induced neuropathic nociception during analgesic treatment and following cessation of drug delivery. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3998744/

Involvement of cannabinoid receptors in peripheral and spinal morphine analgesia (full – 2014) http://www.sciencedirect.com/science/article/pii/S0306452213010531

Effect of intermittent cold exposure on brown fat activation, obesity, and energy homeostasis in mice. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3895006/

CB1 cannabinoid receptors are involved in neuroleptic-induced enhancement of brain neurotensin. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4016688/

2012 Division of Medicinal Chemistry Award Address: Trekking the Cannabinoid Road: A Personal Perspective. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4064474/

Anandamide Protects HT22 Cells Exposed to Hydrogen Peroxide by Inhibiting CB1 Receptor-Mediated Type 2 NADPH Oxidase. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4127243/


Cannabinoid Type 1 and Type 2 Receptor Antagonists Prevent Attenuation of Serotonin-Induced Reflex Apneas by Dronabinol in Sprague-Dawley Rats. (full – 2014) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0111412


Interaction between Antagonist of Cannabinoid Receptor and Antagonist of Adrenergic Receptor on Anxiety in Male Rat. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4202541/

Differential modulation of endogenous cannabinoid CB1 and CB2 receptors in spontaneous and splice variants of ghrelin-induced food intake in conscious rats.
Tapping into the endocannabinoid system to ameliorate acute inflammatory flares and associated pain in mouse knee joints. (full – 2014) [Link](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4201700/)

Hemopressin, an inverse agonist of cannabinoid receptors, inhibits neuropathic pain in rats. (full – 2014) [Link](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4112957/)

TRPV1 mediates cellular uptake of anandamide and thus promotes endothelial cell proliferation and network-formation. (full – 2014) [Link](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4265754/)

Colon carcinogenesis is inhibited by the TRPM8 antagonist cannabigerol, a Cannabis-derived non-psychotropic cannabinoid. (full – 2014) [Link](http://carcin.oxfordjournals.org/content/35/12/2787.long)

Anticonvulsant Effects of N-Arachidonoyl-Serotonin, a Dual FAAH Enzyme and TRPV1 Channel Blocker, on Experimental Seizures: The Roles of Cannabinoid CB1 Receptors and TRPV1 Channels. (full – 2014) [Link](http://onlinelibrary.wiley.com/doi/10.1111/bcpt.12232/full)

Endocannabinoid modulation by FAAH and MAGL within the analgesic circuitry of the periaqueductal grey. (full – 2014) [Link](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4294036/)

The cannabinoid receptor antagonist AM251 increases paraoxon and chlorpyrifos oxon toxicity in rats. (full – 2014) [Link](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4448943/)

Programming and reprogramming neural cells by (endo-) cannabinoids: from physiological rules to emerging therapies (full – 2014) [Link](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4765324/)


Cannabinoid Receptor Type 1 Antagonist, AM251, Attenuates Mechanical Allodynia and Thermal Hyperalgesia after Burn Injury (link to PDF – 2014) [Link](http://anesthesiology.pubs.asahq.org/article.aspx?articleid=1936541&resultClick=3)

Blockade of cannabinoid CB1 and CB2 receptors does not prevent the antipruritic effect of systemic paracetamol. (abst – 2014) [Link](http://www.ncbi.nlm.nih.gov/pubmed/24399199)


Low anandamide doses facilitate male rat sexual behaviour through the activation of CB1 receptors. (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/24671517


Mn-SOD Upregulation by Electroacupuncture Attenuates Ischemic Oxidative Damage via CB1R-Mediated STAT3 Phosphorylation. (abst – 2014)  

Anxiogenic-like effects induced by hemopressin in rats. (abst – 2014)  

Involvement of central and peripheral cannabinoid receptors on antinociceptive effect of tetrahydrocannabinol in muscle pain. (abst – 2014)  

Systemic or intra-amygdala infusion of an endocannabinoid CB1 receptor antagonist AM251 blocked propofol-induced anterograde amnesia. (abst – 2014)  

Attenuation of persistent pain-related behavior by fatty acid amide hydrolase (FAAH) inhibitors in a rat model of HIV sensory neuropathy. (abst – 2014)  

The hypotensive effect of intrathecally injected (m)VD-hemopressin(α) in urethane-anesthetized rats. (abst – 2014)  

Involvement of 2-arachidonoylglycerol signaling in social challenge responding of male CD1 mice. (abst – 2014)  

Cannabinoid Type 1 Receptor Antagonist, AM251, Prevents Attenuation Of Serotonin-induced Apneas By Dronabinol In Sprague-Dawley Rats (abst – 2014)  

Organophosphate agents induce plasma hypertriglyceridemia in mouse via single or dual inhibition of the endocannabinoid hydrolyzing enzyme(s). (abst – 2014)  

2-Arachidonoyl glycerol sensitizes the pars distalis and enhances forskolin-stimulated prolactin secretion in Syrian hamsters. (abst – 2014)  

http://www.jneuroinflammation.com/content/pdf/s12974-014-0216-1.pdf

Cannabinoid Receptor CB2 Is Involved in Tetrahydrocannabinol-Induced Anti-Inflammation against Lipopolysaccharide in MG-63 Cells (full – 2015)  
http://www.hindawi.com/journals/mi/2015/362126/
Role for Endogenous BDNF in Endocannabinoid-Mediated Long-Term Depression at Neocortical Inhibitory Synapses (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4415885/

Interaction between orexin A and cannabinoid system in the lateral hypothalamus of rats and effects of subchronic intraperitoneal administration of cannabinoid receptor inverse agonist on food intake and the nutritive utilization of protein. (full – 2015)
http://www.jpp.krakow.pl/journal/archive/04_15/pdf/181_04_15_article.pdf

Role of the endocannabinoid system in obesity induced by neuropeptide Y overexpression in noradrenergic neurons. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4423197/

Bi-directional CB1 receptor-mediated cardiovascular effects of cannabinoids in anaesthetized rats: role of the paraventricular nucleus. (full – 2015)
http://www.jpp.krakow.pl/journal/archive/06_15/pdf/343_06_15_article.pdf

Tonic endocannabinoid-mediated modulation of GABA release is independent of the CB1 content of axon terminals. (full – 2015)
http://www.nature.com/ncomms/2015/150420/ncomms7557/full/ncomms7557.html

Coadministration of indomethacin and minocycline attenuates established paclitaxel-induced neuropathic thermal hyperalgesia: Involvement of cannabinoid CB1 receptors. (full – 2015)
http://www.nature.com/srep/2015/150618/srep10541/pdf/srep10541.pdf

Pharmacological profiling of the hemodynamic effects of cannabinoid ligands: a combined in vitro and in vivo approach. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4492759/

Multiple Forms of Endocannabinoid and Endovanilloid Signaling Regulate the Tonic Control of GABA Release (full – 2015)
http://www.jneurosci.org/content/35/27/10039.full?sid=7e769d1b-9b77-42fe-92d0-8b337b34b9b6

Cannabinoid receptor activation in the juvenile rat brain results in rapid biomechanical alterations: Neurovascular mechanism as a putative confounding factor (full – 2015)
http://jcb.sagepub.com/content/early/2015/09/23/0271678X15606923.long

Pharmacological Blockade of Cannabinoid CB1 Receptors in Diet-Induced Obesity Regulates Mitochondrial Dihydrolipoamide Dehydrogenase in Muscle. (full – 2015)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0145244

Mitochondrial CB1 receptor is involved in ACEA-induced protective effects on neurons and mitochondrial functions. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4516969/

Acute and Chronic Ethanol Exposure Differentially Regulate CB1 Receptor Function at Glutamatergic Synapses in the Rat Basolateral Amygdala. (full – 2015)

Activation of cannabinoid receptor 1 inhibits increased bladder activity induced by nerve growth factor. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4339033/


The GPR55 agonist lysophosphatidylinositol mediates vasorelaxation of the rat mesenteric resistance artery and induces calcium release in rat mesenteric artery endothelial cells (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4459022/

Chronic administration with AM251 improves albuminuria and renal tubular structure in obese rats. (full – 2015) http://joe.endocrinology-journals.org/content/225/2/113.long

Modulation of sweet taste sensitivities by endogenous leptin and endocannabinoids in mice. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4461413/


In vitro and non-invasive in vivo effects of the cannabinoid-1 receptor agonist AM841 on gastrointestinal motor function in the rat. (full – 2015) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4918633/

Type 1 cannabinoid receptor modulates water deprivation-induced homeostatic responses. (full – 2015) http://ajpregu.physiology.org/content/309/11/R1358.long

The cannabinoid system in the retrosplenial cortex modulates fear memory consolidation, reconsolidation, and extinction. (full – 2015) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4749733/

Cannabinoid receptor type 1 agonist ACEA improves motor recovery and protects neurons in ischemic stroke in mice. (full – 2015)


Endocannabinoid signaling in the stress response of male and female songbirds. (link to PDF – 2015)


Modulatory effects by CB1 receptors on rat spinal locomotor networks after sustained application of agonists or antagonists. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26126926
Enhanced vasorelaxation effect of endogenous anandamide on thoracic aorta in renal vascular hypertension rats. (abst – 2015)

Cannabinoids Regulate Intestinal Motor Function and Electrophysiological Activity of Myocytes in Rodents. (abst – 2015)

Microinjection of orexin-A into the rat locus coeruleus nucleus induces analgesia via cannabinoid type-1 receptors. (abst – 2015)

Cannabidiol, a Cannabis sativa constituent, inhibits cocaine-induced seizures in mice: Possible role of the mTOR pathway and reduction in glutamate release. (abst – 2015)


Endocannabinoids, through opioids and prostaglandins, contribute to fever induced by key pyrogenic mediators. (abst – 2015)

Mechanisms of vasorelaxation induced by the cannabidiol analogue compound O-1602 in the rat small mesenteric artery. (abst – 2015)

Effects of CB1 receptor agonism and antagonism on behavioural fear and physiological stress responses in adult intact, ovariectomized, and estradiol-replaced female rats. (abst – 2015)

Stimulation OF IN VIVO dopamine transmission and intravenous self-administration in rats and mice by JWH-018, a Spice cannabinoid. (abst – 2015)

Effect of nucleus accumbens shell 5-HT4 receptors on the impairment of ACPA-induced emotional memory consolidation in male Wistar rats. (abst – 2015)

Anandamide mediates cognitive judgement bias in rats. (abst – 2015)

Palmitoylethanolamide attenuates PTZ-induced seizures through CB1 and CB2 receptors. (abst – 2015)

The Efficacy of Eslicarbazepine Acetate in Models of Trigeminal, Neuropathic, and Visceral Pain: The Involvement of 5-HT1B/1D Serotonergic and CB1/CB2 Cannabinoid Receptors. (abst – 2015)

Involvement of opioid system in antidepressant-like effect of the cannabinoid CB1 receptor inverse agonist AM-251 after physical stress in mice.  (abst – 2015)  http://www.ncbi.nlm.nih.gov/pubmed/26609670


Involvement of the infralimbic cortex and CA1 hippocampal area in reconsolidation of a contextual fear memory through CB1 receptors: effects of CP55,940.  (abst – 2015)  http://www.sciencedirect.com/science/article/pii/S1074742715002257


CB1 receptors in the formation of the different phases of memory-related processes in the inhibitory avoidance test in mice.  (abst – 2015)  http://www.sciencedirect.com/science/article/pii/S0166432815303326

Low-Dose Cannabinoid Type 2 Receptor Agonist Attenuates Tolerance to Repeated Morphine Administration via Regulating μ-Opioid Receptor Expression in Walker 256 Tumor-Bearing Rats.  (abst – 2015)  http://www.ncbi.nlm.nih.gov/pubmed/26720619


CB1 receptors into the Prelimbic Cortex modulate food intake in rats.  (abst – 2015)  http://www.fasebj.org/content/29/1_Supplement/655.1.abstract?sid=edf921ac-0690-4aa6-ac81-0546314dd384

Functional interaction between the orexin-1 and CB1 receptors within the nucleus accumbens in the conditioned place preference induced by the lateral hypothalamus stimulation.  (abst – 2015)  http://www.sciencedirect.com/science/article/pii/S0091305715000647
Correlations between the Memory-Related Behavior and the Level of Oxidative Stress Biomarkers in the Mice Brain, Provoked by an Acute Administration of CB Receptor Ligands

Cannabinoid Ligands and Alcohol Addiction: A Promising Therapeutic Tool or a Humbug?

GABABR-Dependent Long-Term Depression at Hippocampal Synapses between CB1-Positive Interneurons and CA1 Pyramidal Cells

GABA and Endocannabinoids Mediate Depotentiation of Schaffer Collateral Synapses Induced by Stimulation of Temporoammonic Inputs.

Study the Effect of Endocannabinoid System on Rat Behavior in Elevated Plus-Maze.

Fatty acid amide hydrolase inhibitors confer anti-invasive and antimetastatic effects on lung cancer cells.

Cannabinoid Receptors CB1 and CB2 Modulate the Electroretinographic Waves in Vervet Monkeys.

Estrogen Receptor Beta and 2-arachidonoylglycerol Mediate the Suppressive Effects of Estradiol on Frequency of Postsynaptic Currents in Gonadotropin-Releasing Hormone Neurons of Metestrous Mice: An Acute Slice Electrophysiological Study.

Synthetic Ligands of Cannabinoid Receptors Affect Dauer Formation in the Nematode Caenorhabditis elegans.

A pro-nociceptive phenotype unmasked in mice lacking fatty-acid amide hydrolase

Endovanilloids are potential activators of the trigeminovascular nocisensor complex

Cannabinoid Receptors Are Overexpressed in CLL but of Limited Potential for Therapeutic Exploitation.

p21-activated kinase 1 restricts tonic endocannabinoid signaling in the hippocampus

Cannabinoi CB1 receptor inhibition blunts adolescent-typical increased binge alcohol and sucrose consumption in male C57BL/6J mice. (full – 2016) http://www.sciencedirect.com/science/article/pii/S0091305716300089

Impaired Excitatory Neurotransmission in the Urinary Bladder from the Obese Zucker Rat: Role of Cannabinoid Receptors. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4902197/


Inhibition of interleukin-1β-induced endothelial tissue factor expression by the synthetic cannabinoid WIN 55,212-2. (full – 2016) http://www.impactjournals.com/oncotarget/index.php?journal=oncotarget&page=article&op=view&path%5B%5D=11367&path%5B%5D=35984

A role of CB1R in inducing θ-rhythm coordination between the gustatory and gastrointestinal insula. (full – 2016) http://www.nature.com/articles/srep32529

Involvement of Endocannabinoids in Alcohol "Binge" Drinking: Studies of Mice with Human Fatty Acid Amide Hydrolase Genetic Variation and After CB1 Receptor Antagonists. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4962692/


Exposure to a Highly Caloric Palatable Diet during the Perinatal Period Affects the Expression of the Endogenous Cannabinoid System in the Brain, Liver and Adipose Tissue of Adult Rat Offspring. (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0165432


AM251 Suppresses Epithelial-Mesenchymal Transition of Renal Tubular Epithelial Cells (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0167848


The inhibitory effect of combination treatment with leptin and cannabinoid CB1 receptor agonist on food intake and body weight gain is mediated by serotonin 1B and 2C receptors. (click Full Text Links for PDF – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27512006

Disruption of hippocampal synaptic transmission and long-term potentiation by psychoactive synthetic cannabinoid 'Spice' compounds: comparison with Δ9-tetrahydrocannabinol. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/26732435


Endocannabinoids, through opioids and prostaglandins, contribute to fever induced by key pyrogenic mediators. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/26291402


Cannabinoid receptor type 1 mediates high-fat diet-induced insulin resistance by increasing forkhead box O1 activity in a mouse model of obesity (abst – 2016) http://www.spandidos-publications.com/10.3892/ijmm.2016.2475

Involvement of M1 and CB1 receptors in the anxiogenic-like effects induced by neostigmine injected into the rat prelimbic medial prefrontal cortex. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/26873081


Stress induces analgesia via orexin 1 receptor-initiated endocannabinoid/CB1 signaling in the mouse periaqueductal gray. (abst – 2016) http://www.sciencedirect.com/science/article/pii/S0028390816300545


CB1 cannabinoid receptor-mediated anandamide signalling reduces the defensive behaviour evoked through GABAA receptor blockade in the dorsomedial division of the ventromedial hypothalamus. (abst – 2016) http://www.sciencedirect.com/science/article/pii/S0028390816301393


Basolateral amygdala CB1 cannabinoid receptors are involved in cross state-dependent memory retrieval between morphine and ethanol. (abst – 2016)

Activation of cannabinoid CB1 receptors suppresses the ROS-induced hypersensitivity of rat vagal lung C-fiber afferents. (abst – 2016)

PnPP-19, a spider toxin peptide, induces peripheral antinociception through opioid and cannabinoid receptors and inhibition of neutral endopeptidase. (abst – 2016)


Co-administration of cannabidiol and capsazepine reduces L-DOPA-induced dyskinesia in mice: Possible mechanism of action (abst – 2016)

Effects of the cannabinoid 1 receptor peptide ligands hemopressin, (m)RVD-hemopressin(α) and (m)VD-hemopressin(α) on memory in novel object and object location recognition tasks in normal young and Aβ1-42-treated mice. (abst – 2016)

Blockade of Cannabinoid CB1 receptor attenuates the acquisition of morphine-induced conditioned place preference along with a downregulation of ERK, CREB phosphorylation, and BDNF expression in the nucleus accumbens and hippocampus. (abst – 2016)

A study of cannabinoid-1 receptors during the early phase of excitotoxic damage to rat spinal locomotor networks in vitro. (abst – 2016)

Involvement of endocannabinoid neurotransmission in the bed nucleus of stria terminalis in cardiovascular responses to acute restraint stress in rats. (abst – 2016)

Endocannabinoids participate in placental apoptosis induced by hypoxia inducible factor-1. (abst – 2016)

Behavioral evidence for the interaction between cannabinoids and Catha edulis F. (Khat) in mice. (abst – 2016)

Anandamide reverses depressive-like behavior, neurochemical abnormalities and oxidative-stress parameters in streptozotocin-diabetic rats: Role of CB1 receptors.

mGluR1/5 activation in the lateral hypothalamus increases food intake via the endocannabinoid system. (abst – 2016) http://www.sciencedirect.com/science/article/pii/S0304394016305997


Dorsal hippocampus cannabinoid type 1 receptors modulate the expression of contextual fear conditioning in rats: Involvement of local glutamatergic/nitrergic and GABAergic neurotransmissions. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27591981


Overexpression of cannabinoid receptor 1 promotes renal cell carcinoma progression.
CB1 cannabinoid receptor-mediated anandamide signalling reduces the defensive behaviour evoked through GABA A receptor blockade in the dorsomedial division of the ventromedial hypotalamus. (abst – 2016) http://www.sciencedirect.com/science/article/pii/S0028390816301393


Cannabinoid receptors and TRPA1 on neuroprotection in a model of retinal ischemia (abst – 2016) http://www.sciencedirect.com/science/article/pii/S0014483516304791


N-Oleoylglycine-induced hyperphagia was associated with the activation of AgRP neuron by CB1R. (abst – 2017) https://www.ncbi.nlm.nih.gov/pubmed/28102080

Antihyperalgesic effect of CB1 receptor activation involves the modulation of P2X3 receptor in the primary afferent neuron. (abst – 2017) https://www.ncbi.nlm.nih.gov/pubmed/28131783

**AM-281** - CB1 antagonist and inverse agonist


Effects of AM281, a cannabinoid antagonist, on systemic haemodynamics, internal carotid artery blood flow and mortality in septic shock in rats  
(http://bja.oxfordjournals.org/content/94/5/563.full)

Dual modulation of endocannabinoid transport and fatty acid amide hydrolase protects against excitotoxicity  
(http://www.jneurosci.org/content/25/34/7813.long)

Treatment of Tourette-syndrome with cannabinoids: results from clinical and neuroimaging studies  

Cannabinoid antagonist AM 281 reduces mortality rate and neurologic dysfunction after cecal ligation and puncture in rats.  
(http://www.ncbi.nlm.nih.gov/pubmed/16276190)

The analgesic activity of paracetamol is prevented by the blockade of cannabinoid CB1 receptors  
(http://www.sciencedirect.com/science/article/pii/S0014299905013178)

Effects of AM281, a cannabinoid antagonist, on circulatory deterioration and cytokine production in an endotoxin shock model: comparison with norepinephrine.  
(http://www.ncbi.nlm.nih.gov/pubmed/17072693)

(http://www.ncbi.nlm.nih.gov/pubmed/18261198)

GPR55 ligands promote receptor coupling to multiple signalling pathways.  
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931561/?tool=pubmed)

Expression of cannabinoid CB1 receptors by vagal afferent neurons: kinetics and role in influencing neurochemical phenotype  
(http://ajpgi.physiology.org/content/299/1/G63.full?sid=fc6948f0-78cf-405c-981b-afaa05ee417c)

Cannabinoid receptor-dependent and -independent anti-proliferative effects of omega-3 ethanolamides in androgen receptor-positive and -negative prostate cancer cell lines.  
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2930808/?tool=pubmed)

Cannabinoids inhibit peptidoglycan-induced phosphorylation of NF-κB and cell growth in U87MG human malignant glioma cells.  
(http://www.spandidos-publications.com/or/28/4/1176;jsessionid=52ED17697BFDC92E6F5F848306023474?text=fulltext)

Angiotensin II induces vascular endocannabinoid release, which attenuates its vasoconstrictor effect via CB1 cannabinoid receptors.  
(http://www.jbc.org/content/early/2012/07/11/jbc.M112.346296.full.pdf+html)
Early Endogenous Activation of CB1 and CB2 Receptors after Spinal Cord Injury Is a Protective Response Involved in Spontaneous Recovery

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3496738/

The cannabinoid receptor CB1 modulates the signaling properties of the lysophosphatidylinositol receptor GPR55.

http://www.jbc.org/content/early/2012/11/16/jbc.M112.364109.long

Regulation of endocannabinoid release by G proteins: A paracrine mechanism of G protein-coupled receptor action.

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4169275/

Peripheral antinociceptive effect of anandamide and drugs that affect the endocannabinoid system on the formalin test in normal and streptozotocin-diabetic rats.


Endogenous cannabinoid receptor CB1 activation promotes vascular smooth muscle cell proliferation and neointima formation.

http://www.jlr.org/content/early/2013/03/11/jlr.M035147.long

Using the endocannabinoid system as a neuroprotective strategy in perinatal hypoxic-ischemic brain injury.

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4146074/

Monoacylglycerol Lipase (MAGL) Inhibition Attenuates Acute Lung Injury in Mice.

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3808422/

Acetaldehyde as a drug of abuse: insight into AM281 administration on operant-conflict paradigm in rats


AM281, Cannabinoid Antagonist/Inverse agonist, Ameliorates Scopolamine-Induced Cognitive Deficit.

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3586915/

Cannabinoid receptor activation in the nucleus tractus solitaries produces baroreflex-like responses in the rat.

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3614708/

The non-selective cannabinoid receptor agonist WIN 55,212-2 attenuates responses of C-fiber nociceptors in a murine model of cancer pain.

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3753184/

GPR55 and its interaction with membrane lipids: comparison with other endocannabinoid-binding receptors.

http://www.eurekaselect.com/105678/article

Cannabinoid Receptors as Therapeutic Targets for Dialysis-Induced Peritoneal Fibrosis.

Dysregulation of Cannabinoid CB1 Receptor and Associated Signaling Networks in Brains of Cocaine Addicts and Cocaine-Treated Rodents. (abst – 2013) 

Peripheral and Spinal Activation of Cannabinoid Receptors by Joint Mobilization Alleviates Postoperative Pain in Mice. (abst – 2013) 

The effect of AM281, a cannabinoid antagonist, on memory performance during spontaneous morphine withdrawal in mice (full – 2014) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3895301/

2012 Division of Medicinal Chemistry Award Address: Trekking the Cannabinoid Road: A Personal Perspective. (full – 2014) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4064474/

NMP-7 inhibits chronic inflammatory and neuropathic pain via block of Cav3.2 T-type calcium channels and activation of CB2 receptors. (full – 2014) 
http://www.molecularpain.com/content/pdf/1744-8069-10-77.pdf


Increased contextual fear conditioning in iNOS knockout mice: additional evidence for the involvement of nitric oxide in stress-related disorders and contribution of the endocannabinoid system. (full – 2015) 
http://ijnp.oxfordjournals.org/content/18/8/pyv005.long


A Basal Tone of 2-Arachidonoylglycerol Contributes to Early Oligodendrocyte Progenitor Proliferation by Activating Phosphatidylinositol 3-Kinase (PI3K)/AKT and the Mammalian Target of Rapamycin (MTOR) Pathways. (full – 2015) 

Pathogenesis of Systemic Sclerosis. (full – 2015) 

Tonic Modulation of Nociceptive Behavior and Allodynia by Cannabinoid Receptors in Formalin Test in Rats (click Full Text Links for PDF – 2015) 
Cannabinoid agonists rearrange synaptic vesicles at excitatory synapses and depress motoneuron activity in vivo. (abst – 2015)

Phenotype-dependent inhibition of glutamatergic transmission on nucleus accumbens medium spiny neurons by the abused inhalant toluene. (abst – 2015)

The monoacylglycerol lipase inhibitor JZL184 decreases inflammatory response in skeletal muscle contusion in rats. (abst – 2015)

The endocannabinoid system and associative learning and memory in zebrafish. (abst – 2015)

The role of the peripheral cannabinoid system in the pathogenesis of detrusor overactivity evoked by increased intravesical osmolarity in rats. (abst – 2015)

Cannabinoid 2 receptor activation reduces leukocyte adhesion and improves capillary perfusion in the iridal microvasculature during systemic inflammation. (abst – 2015)

Evaluation of the abuse potential of AM281, a new synthetic cannabinoid CB1 receptor antagonist. (abst – 2015)

Cannabinoids-Induced Vasodilation in Rat Mesenteric Artery: Possible Mechanisms of Action (abst – 2015)
http://www.fasebj.org/content/29/1_Supplement/948.6.abstract?sid=edf921ac-0690-4aa6-ac81-0546314dd384

Endocannabinoid Signaling Regulates Sleep Stability. (full – 2016)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0152473

Cannabinoid receptor-dependent and -independent anti-proliferative effects of omega-3 ethanolamides in androgen receptor-positive and -negative prostate cancer cell lines. (full – 2016)
http://carcin.oxfordjournals.org/content/31/9/1584.long

Role of cannabinoid receptor 1 in human adipose tissue for lipolysis regulation and insulin resistance. (full – 2016)

Endocannabinoid System: the Direct and Indirect Involvement in the Memory and Learning Processes—a Short Review (full – 2016)

Major dorsoventral differences in the modulation of the local CA1 hippocampal network by NMDA, mGlu5, adenosine A2A and cannabinoid CB1 receptors. (abst – 2016)
Facilitatory effect of AM281 on recognition memory in rats (abst – 2016)

Cannabinoid Receptor 1 Mediates Homing of Bone Marrow-Derived Mesenchymal Stem Cells Triggered by Chronic Liver Injury. (abst – 2016)

AM-356 – see R-Methanandamide

**AM – 374/ HEXADECYL SULFONYLFLUORIDE** – strongly blocks FAAH

Compounds acting at the endocannabinoid and/or endovanilloid systems reduce hyperkinesia in a rat model of Huntington's disease. (full – 2003)


Dual modulation of endocannabinoid transport and fatty acid amide hydrolase protects against excitotoxicity (full – 2005) http://www.jneurosci.org/content/25/34/7813.long

Endocannabinoid enhancement protects against kainic acid-induced seizures and associated brain damage. (full – 2007) http://jpet.aspetjournals.org/content/322/3/1059.long

Sulfonyl Fluoride Inhibitors of Fatty Acid Amide Hydrolase (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3678964/

**AM-404** – cannabinoid transport inhibitor, made in the body from acetaminophen- See ACETAMINOPHEN


Anandamide transport is independent of fatty-acid amide hydrolase activity and is blocked by the hydrolysis-resistant inhibitor AM1172. (full – 2004) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC423268/


Dual modulation of endocannabinoid transport and fatty acid amide hydrolase protects against excitotoxicity (full – 2005) http://www.jneurosci.org/content/25/34/7813.long


Conversion of acetaminophen to the bioactive N-acylphenolamine AM404 via fatty acid amide hydrolase-dependent arachidonic acid conjugation in the nervous system. (full – 2005) http://www.jbc.org/content/280/36/31405.long


The Endogenous Cannabinoid Anandamide Produces δ-9-Tetrahydrocannabinol-Like Discriminative and Neurochemical Effects That Are Enhanced by Inhibition of Fatty Acid Amide Hydrolase but Not by Inhibition of Anandamide Transport (full - 2007) http://jpet.aspetjournals.org/content/321/1/370.full

Δ9-Tetrahydrocannabinol (THC) and AM 404 protect against cerebral ischaemia in gerbils through a mechanism involving cannabinoid and opioid receptors (full - 2007) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2189998/

STUDIES OF ANANDAMIDE ACCUMULATION INHIBITORS IN CEREBELLAR GRANULE NEURONS (full – 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2248273/

The acetaminophen-derived bioactive N-acylphenolamine AM404 inhibits NFAT by targeting nuclear regulatory events. (abst – 2007)  

Pharmacological enhancement of endocannabinoid signaling reduces the cholinergic toxicity of diisopropylfluorophosphate. (full – 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2659532/

Pro-drugs for indirect cannabinoids as therapeutic agents. (abst – 2008)  

Role of endocannabinoid signaling in anxiety and depression. (full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3808114/

Inhibition of monoacylglycerol lipase by troglitazone, N-arachidonoyl dopamine and the irreversible inhibitor JZL184: comparison of two different assays. (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3010564/

Pharmacological elevation of anandamide impairs short-term memory by altering the neurophysiology in the hippocampus. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3156972/

The anandamide transport inhibitor AM404 reduces the rewarding effects of nicotine and nicotine-induced dopamine elevations in the nucleus accumbens shell in rats (full – 2011)  

Role of endocannabinoid and glutamatergic systems in DOI-induced head-twitch response in mice. (abst – 2011)  

Acetaminophen differentially enhances social behavior and cortical cannabinoid levels in inbred mice. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3389197/

Involvement of the Endocannabinoid System in Ethanol-Induced Corticostratial Synaptic Depression. (full – 2012)  
https://www.jstage.jst.go.jp/article/jphs/120/1/120_12118FP/_pdf

Endocannabinoid analogues exacerbate marble-burying behavior in mice via TRPV1 receptor. (abst – 2012)  

Effects of the anandamide uptake blocker AM404 on food intake depend on feeding status and route of administration. (abst – 2012)  

Inhibition of fatty acid amide hydrolase by URB597 attenuates the anxiolytic-like effect of acetaminophen in the mouse elevated plus-maze test. (abst – 2012)  

Diuretic effects of cannabinoids.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3533417/

Therapeutic Opportunities through the Modulation of Endocannabinoid Transport (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4255948/

Targeting the cannabinoid system for pain relief?  (full – 2013)  http://www.e-aat.com/article/S1875-4597%2813%2900119-7/fulltext

AM404 attenuates reinstatement of nicotine seeking induced by nicotine-associated cues and nicotine priming but does not affect nicotine- and food-taking.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4058760/

Diuretic effects of cannabinoid agonists in mice.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3872476/

2012 Division of Medicinal Chemistry Award Address: Trekking the Cannabinoid Road: A Personal Perspective.  (full– 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4064474/


2-AG promotes the expression of conditioned fear via cannabinoid receptor type 1 on GABAergic neurons (abst – 2015) http://link.springer.com/article/10.1007%2Fs00213-015-3917-y


The intraocular pressure-lowering properties of intravenous paracetamol. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4948718/


**AM-630** – CB2 inverse agonist


CENTRAL CANNABINOID REGULATION OF FOOD INTAKE IN CHICKENS  (link to PDF - 2005)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.587.5749&rank=38

Antinociceptive effect of cannabinoid agonist WIN 55,212–2 in rats with a spinal cord injury  (full - 2006)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1861843/?tool=pmcentrez

Endocannabinoids potently protect the newborn brain against AMPA-kainate receptor-mediated excitotoxic damage  (full - 2006)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1751782/?tool=pmcentrez


Inhibition of Salivary Secretion by Activation of Cannabinoid Receptors  (full - forum repost - 2006)


The local antinociceptive effects of paracetamol in neuropathic pain are mediated by cannabinoid receptors  (abst – 2007)  http://www.sciencedirect.com/science/article/pii/S0014299907007935

Regulation of Bone Mass, Osteoclast Function, and Ovariectomy-Induced Bone Loss by the Type 2 Cannabinoid Receptor  (full - 2008)  http://press.endocrine.org/doi/full/10.1210/en.2008-0150

Attenuation of Experimental Autoimmune Hepatitis by Exogenous and Endogenous Cannabinoids: Involvement of Regulatory T Cells  (full - 2008)  http://molpharm.aspetjournals.org/content/74/1/20.full?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=320&resourcetype=HWCIT#content-block

The cannabinoid receptor agonist, WIN 55, 212-2, attenuates tumor-evoked hyperalgesia through peripheral mechanisms.  (full – 2008)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2678169/


Cannabinoid CB2 Receptor Potentiates Obesity-Associated Inflammation, Insulin Resistance and Hepatic Steatosis  (full - 2009)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2688760/?tool=pubmed


Cannabinoid receptor-dependent and -independent anti-proliferative effects of omega-3 ethanolamides in androgen receptor-positive and -negative prostate cancer cell lines.  (full – 2010)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2930808/?tool=pubmed

Naphthalen-1-yl-(4-pentyloxynaphthalen-1-yl)methanone (SAB378), a peripherally restricted cannabinoid CB1/CB2 receptor agonist, inhibits gastrointestinal motility but has no effect on experimental colitis in mice.  (full – 2010)  http://jpet.aspetjournals.org/content/334/3/973.long


Cannabinoid Receptors, CB1 and CB2, as Novel Targets for Inhibition of Non-Small Cell Lung Cancer Growth and Metastasis  (full – 2010)  https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3025486/


Brain cannabinoid CB2 receptors modulate cocaine's actions in mice  (full – 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3164946/

Cannabinoid receptor-2 (CB2) agonist ameliorates colitis in IL-10(-/-) mice by attenuating the activation of T cells and promoting their apoptosis.  (full – 2011)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4117838/


The role of central CB2 cannabinoid receptors on food intake in neonatal chicks (abst – 2011)  http://www.ncbi.nlm.nih.gov/pubmed/21927979


Effects of a Selective Cannabinoid CB2 Agonist and Antagonist on Intravenous Nicotine Self Administration and Reinstatement of Nicotine Seeking. (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3266883/?tool=pubmed

Early Endogenous Activation of CB1 and CB2 Receptors after Spinal Cord Injury Is a Protective Response Involved in Spontaneous (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3496738/

Differences in peripheral endocannabinoid modulation of scratching behavior in facial vs. spinally-innervated skin. (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3394407/

Cannabinoid CB(2) receptor-mediated regulation of impulsive-like behaviour in DBA/2 mice. (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3252982/

The role of CB2 receptor ligands in human eosinophil function (full – 2012)  http://www.biomedcentral.com/content/pdf/2050-6511-13-S1-A13.pdf


Cannabinoid Receptors CB1 and CB2 Form Functional Heteromers in Brain. (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3375509/

The maintenance of cisplatin- and paclitaxel-induced mechanical and cold allodynia is suppressed by cannabinoid CB2 receptor activation and independent of CXCR4 signaling in models of chemotherapy-induced peripheral neuropathy (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3502129/

Inhibition of monoacylglycerol lipase attenuates vomiting in Suncus murinus and 2-arachidonoyl glycerol attenuates nausea in rats. (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423233/

Local Peripheral Effects of β-Caryophyllene through CB2 Receptors in Neuropathic Pain in Mice (full – 2012)  http://file.scirp.org/Html/23613.html

Cannabinoid Receptor CB2 Modulates Axon Guidance (link to PDF - 2012)
Effect of omega-3 polyunsaturated fatty acids on the endocannabinoid system in osteoblast-like cells and muscle (abst – 2012)
http://docs.lib.purdue.edu/dissertations/AAI3444794/


Electroacupuncture reduces the expression of proinflammatory cytokines in inflamed skin tissues through activation of cannabinoid CB2 receptors. (abst – 2012) http://www.ncbi.nlm.nih.gov/pubmed/22337285

Monoacylglycerol Lipase (MAGL) Inhibition Attenuates Acute Lung Injury in Mice. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3808422/

Using the endocannabinoid system as a neuroprotective strategy in perinatal hypoxic-ischemic brain injury. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4146074/

CB1 and CB2 Cannabinoid Receptor Agonists Induce Peripheral Antinociception by Activation of the Endogenous Noradrenergic System. (full – 2013) http://journals.lww.com/anesthesia-analgesia/Fulltext/2013/02000/CB1_and_CB2_Cannabinoid_Receptor_Agonists_Induce.31.aspx
Characterization of cannabinoid receptor ligands in tissues natively expressing cannabinoid CB2 receptors.  (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3687668/

Activation of Cannabinoid Receptor 2 Inhibits Experimental Cystitis.  (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3652164/

Diuretic effects of cannabinoids.  (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3533417/

Inhibitory effects of endocannabinoid on the action potential of pacemaker cells in sinoatrial nodes of rabbits.  (full – 2013)

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3687661/

The non-selective cannabinoid receptor agonist WIN 55,212-2 attenuates responses of C-fiber nociceptors in a murine model of cancer pain.  (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3753184/

Activation of Cannabinoid CB2 Receptor-Mediated AMPK/CREB Pathway Reduces Cerebral Ischemic Injury.  (full – 2013)
http://ajp.amjpathol.org/article/S0002-9440%2812%2900890-5/fulltext

Role of CB2 Cannabinoid Receptor in the Rewarding, Reinforcing and Physical Effects of Nicotine.  (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3799072/

CB1 and CB2 Cannabinoid Receptor Antagonists Prevent Minocycline-Induced Neuroprotection Following Traumatic Brain Injury in Mice.  (full – 2013)
http://cercor.oxfordjournals.org/content/25/1/35.long

Diuretic effects of cannabinoid agonists in mice.  (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3872476/

Targeting the Endocannabinoid System to Treat Sepsis  (review – 2013)
http://www.signavitae.com/2013/05/targeting-the-endocannabinoid-system-to-treat-sepsis/

Inhibition of endocannabinoid degradation in experimental endotoxemia reduces leukocyte adhesion and improves capillary perfusion in the gut.  (abst – 2013)

The complex effects of cannabinoids on insulin secretion from rat isolated islets of Langerhans.  (abst – 2013)

Mechanisms Of Cannabidiol Neuroprotection In Hypoxic-Ischemic Newborn Pigs: Role Of 5HT1A And CB2 Receptors.  (abst – 2013)


PPARγ mediates the effects of WIN55,212-2, an synthetic cannabinoid, on the proliferation and apoptosis of the BEL-7402 hepatocarcinoma cells. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/24062073


Antagonism of cannabinoid receptor 2 pathway suppresses IL-6-induced immunoglobulin IgM secretion (full – 2014) http://www.biomedcentral.com/2050-6511/15/30


Prophylactic cannabinoid administration blocks the development of paclitaxel-induced neuropathic nociception during analgesic treatment and following cessation of drug delivery. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3998744/

Cannabinoid Type 1 and Type 2 Receptor Antagonists Prevent Attenuation of Serotonin-Induced Reflex Apneas by Dronabinol in Sprague-Dawley Rats. (full – 2014) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0111412

NMP-7 inhibits chronic inflammatory and neuropathic pain via block of Cav3.2 T-type calcium channels and activation of CB2 receptors. (full– 2014) http://www.molecularpain.com/content/pdf/1744-8069-10-77.pdf


Tapping into the endocannabinoid system to ameliorate acute inflammatory flares and associated pain in mouse knee joints. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4201700/


Acute Activation of Cannabinoid Receptors by Anandamide Reduces Gastro-Intestinal Motility and Improves Postprandial Glycemia in Mice. (full – 2014) http://diabetes.diabetesjournals.org/content/64/3/808.long

Colon carcinogenesis is inhibited by the TRPM8 antagonist cannabigerol, a Cannabis-derived non-psychotropic cannabinoid. (full – 2014) http://carcin.oxfordjournals.org/content/35/12/2787.long
Chronic Cannabinoid Receptor 2 Activation Reverses Paclitaxel Neuropathy Without Tolerance or Cannabinoid Receptor 1-Dependent Withdrawal. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4209205/


Involvement of central and peripheral cannabinoid receptors on antinociceptive effect of tetrahydrocannabinol in muscle pain. (abst – 2014)

Cannabinoid Receptor CB2 Is Involved in Tetrahydrocannabinol-Induced Anti-Inflammation against Lipopolysaccharide in MG-63 Cells (full – 2015)
http://www.hindawi.com/journals/mi/2015/362126/

Cannabinoid CB2 Receptors in a Mouse Model of Aβ Amyloidosis: Immunohistochemical Analysis and Suitability as a PET Biomarker of Neuroinflammation. (full - 2015) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0129618

A Basal Tone of 2-Arachidonoylglycerol Contributes to Early Oligodendrocyte Progenitor Proliferation by Activating Phosphatidylinositol 3-Kinase (PI3K)/AKT and the Mammalian Target of Rapamycin (MTOR) Pathways. (full – 2015)

CB2R orchestrates fibrogenesis through regulation of inflammatory response during the repair of skeletal muscle contusion. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4466920/

In vitro and non-invasive in vivo effects of the cannabinoid-1 receptor agonist AM841 on gastrointestinal motor function in the rat. (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4918633/

Pathogenesis of Systemic Sclerosis. (full – 2015)

The skeletal endocannabinoid system: clinical and experimental insights (full – 2015)


Activation of Cannabinoid CB2 receptors Reduces Hyperalgesia in an Experimental Autoimmune Encephalomyelitis Mouse Model of Multiple Sclerosis. (full – 2015)
Renal effects of chronic pharmacological manipulation of CB2 receptors in rats with diet-induced obesity  (full – 2015)  

Endocannabinoid and nitric oxide interaction mediates food intake in neonatal chicken.  (full – 2015)  
http://www.tandfonline.com/doi/full/10.1080/00071668.2015.1059407

Tonic Modulation of Nociceptive Behavior and Allodynia by Cannabinoid Receptors in Formalin Test in Rats  (click Full Text Links for PDF – 2015)  

Activation of murine microglial N9 cells is attenuated through cannabinoid receptor CB2 signaling.  (abst – 2015)  

Antidepressant-like effects of the cannabinoid receptor ligands in the forced swimming test in mice: Mechanism of action and possible interactions with cholinergic system.  (abst – 2015)  

2-AG promotes the expression of conditioned fear via cannabinoid receptor type 1 on GABAergic neurons  (abst – 2015)  

http://link.springer.com/article/10.1007%2Fs12035-015-9154-x

Protective effect of paeoniflorin on the hippocampus in rats with cerebral ischemia-reperfusion through activating cannabinoid receptor 2  (abst – 2015)  


Role of cannabinoidergic system on food intake in neonatal layer-type chicken.  (abst – 2015)  

The monoacylglycerol lipase inhibitor JZL184 decreases inflammatory response in skeletal muscle contusion in rats.  (abst – 2015)  

Role of CB2 receptors in social and aggressive behavior in male mice.  (abst – 2015)  

Cannabinoid functions in the amygdala contribute to conditioned fear memory in streptozotocin-induced diabetic mice: interaction with glutamatergic functions.  (abst – 2015)  


The role of the peripheral cannabinoid system in the pathogenesis of detrusor overactivity evoked by increased intravesical osmolarity in rats. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26243021


Cannabinoids-Induced Vasodilation in Rat Mesenteric Artery: Possible Mechanisms of Action  (abst – 2015)  http://www.fasebj.org/content/29/1_Supplement/948.6.abstract?sid=edf921ac-0690-4aa6-ac81-0546314dd384


Correlations between the Memory-Related Behavior and the Level of Oxidative Stress Biomarkers in the Mice Brain, Provoked by an Acute Administration of CB Receptor Ligands  (full – 2016)  http://www.hindawi.com/journals/np/2016/9815092/

CB2 Cannabinoid Receptor Knockout in Mice Impairs Contextual Long-Term Memory and Enhances Spatial Working Memory  (full – 2016)  http://www.hindawi.com/journals/np/2016/9817089/


Functional selectivity of CB2 cannabinoid receptor ligands at a canonical and non-canonical pathway.  (full – 2016)  http://jpet.aspetjournals.org/content/early/2016/05/18/jpet.116.232561.long


The cannabinoid quinol VCE-004.8 alleviates bleomycin-induced scleroderma and exerts potent antifibrotic effects through peroxisome proliferator-activated receptor-γ and CB2 pathways. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4757881/

Cannabinoid receptor-dependent and -independent anti-proliferative effects of omega-3 ethanolamides in androgen receptor-positive and -negative prostate cancer cell lines. (full – 2016) http://carcin.oxfordjournals.org/content/31/9/1584.long

Genetic Versus Pharmacological Assessment of the Role of Cannabinoid Type 2 Receptors in Alcohol Reward-Related Behaviors. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4886733/

Impaired Excitatory Neurotransmission in the Urinary Bladder from the Obese Zucker Rat: Role of Cannabinoid Receptors. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4902197/

Effects of various cannabinoid ligands on choice behaviour in a rat model of gambling. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4803149/

Cannabinoid CB2 receptors are involved in the regulation of fibrogenesis during skin wound repair in mice. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4805070/

Cannabinoid receptor subtype 2 (CB2R) agonist, GW405833 reduces agonist-induced Ca(2+) oscillations in mouse pancreatic acinar cells. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4949433/


Inhibition of interleukin-1β-induced endothelial tissue factor expression by the synthetic cannabinoid WIN 55,212-2. (full – 2016) http://www.impactjournals.com/oncotarget/index.php?journal=oncotarget&page=article&op=view&path%5B%5D=11367&path%5B%5D=35984


Attenuation of Cocaine-Induced Conditioned Place Preference and Motor Activity via Cannabinoid CB2 Receptor Agonism and CB1 Receptor Antagonism in Rats (full – 2016) http://ijnp.oxfordjournals.org/content/early/2016/12/19/ijnp.pyw102.long

CB2 receptor activation prevents glial-derived neurotoxic mediator production, BBB leakage and peripheral immune cell infiltration and rescues dopamine neurons in the MPTP model of Parkinson's disease. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4892852/


Cannabinoids Occlude the HIV-1 Tat-Induced Decrease in GABAergic Neurotransmission in Prefrontal Cortex Slices. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/26993829


Cannabinoid receptors and TRPA1 on neuroprotection in a model of retinal ischemia (abst – 2016)  http://www.sciencedirect.com/science/article/pii/S0014483516304791

The Impact of CB2 Receptor Ligands on the MK-801-Induced Hyperactivity in Mice (full – 2017)  http://link.springer.com/article/10.1007%2Fs12640-017-9702-4


AM-678 - see JWH-100

AM-694 – a very strong CB1 & CB2 agonist, about 500 times stronger than THC


Spice/K2 drugs - more than innocent substitutes for marijuana. (full – 2013)
Toxicological profiles of selected synthetic cannabinoids showing high binding affinities to the cannabinoid receptor subtype CB$_1$. (abst – 2013)


Effects and risks associated with novel psychoactive substances: mislabeling and sale as bath salts, spice, and research chemicals. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3965957/


**AM-841.** CB1 agonist

(-)-7'-Isothiocyanato-11-hydroxy-1',1'-dimethylheptylhexahydrocannabinol (AM841), a high-affinity electrophilic ligand, interacts covalently with a cysteine in helix six and activates the CB1 cannabinoid receptor. (full – 2005) http://molpharm.aspetjournals.org/content/68/6/1623.long
Cannabinoids Alleviate Experimentally Induced Intestinal Inflammation by Acting at Central and Peripheral Receptors. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4183544/

AM841, a covalent cannabinoid ligand, powerfully slows gastrointestinal motility in normal and stressed mice in a peripherally-restricted manner. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4403103/

In vitro and non-invasive in vivo effects of the cannabinoid-1 receptor agonist AM841 on gastrointestinal motor function in the rat. (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4918633/

**AM-1172** - anandamide transport inhibitor

Anandamide transport is independent of fatty-acid amide hydrolase activity and is blocked by the hydrolysis-resistant inhibitor AM1172. (full – 2004)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC423268/

**STUDIES OF ANANDAMIDE ACCUMULATION INHIBITORS IN CEREBELLAR GRANULE NEURONS** (full – 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2248273/

Therapeutic Opportunities through the Modulation of Endocannabinoid Transport (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4255948/

2012 Division of Medicinal Chemistry Award Address: Trekking the Cannabinoid Road: A Personal Perspective. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4064474/

**AM-1220** – potent CB1 agonist, weak CB2 agonist

Spice/K2 drugs - more than innocent substitutes for marijuana. (full – 2013)
http://ijnp.oxfordjournals.org/content/17/3/509

Hair analysis as a tool to evaluate the prevalence of synthetic cannabinoids in different populations of drug consumers. (abst – 2014)


**AM-1241** - CB 2 agonist

Activation of CB2 cannabinoid receptors by AM1241 inhibits experimental neuropathic pain: Pain inhibition by receptors not present in the CNS (full - 2003) http://www.pnas.org/content/100/18/10529.full


CB2 cannabinoid receptor activation produces antinociception by stimulating peripheral release of endogenous opioids (full - 2005) http://www.pnas.org/content/102/8/3093.full


In vitro pharmacological characterization of AM1241: a protean agonist at the cannabinoid CB2 receptor? (full - 2006) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2013801/?tool=pubmed


The CB2 cannabinoid agonist AM-1241 prolongs survival in a transgenic mouse model of amyotrophic lateral sclerosis when initiated at symptom onset (full - 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2819701/?tool=pmcentrez

Peripheral Cannabinoids Attenuate Carcinoma Induced Nociception in Mice (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2771220/

Selective Activation of Cannabinoid CB2 Receptors Suppresses Neuropathic Nociception Induced by Treatment with the Chemotherapeutic Agent Paclitaxel in Rats (full - 2008) http://jpet.aspetjournals.org/content/327/2/584.full#content-block


Spinal and peripheral analgesic effects of the CB cannabinoid receptor agonist AM1241 in two models of bone cancer-induced pain. (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931557/?tool=pubmed

A cannabinoid 2 receptor agonist attenuates bone cancer-induced pain and bone loss. (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2871326/

Cannabinoids attenuate cancer pain and proliferation in a mouse model. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3099480/


Antinociceptive effects induced through the stimulation of spinal cannabinoid type 2 receptors in chronically inflamed mice (abst - 2011) http://www.unboundmedicine.com/medline/ebm/record/21771590/abstract/Antinociceptive_effects_induced_through_the_stimulation_of_spinal_cannabinoid_type_2_receptors_in_chronically_inflamed_mice

Effects of a Selective Cannabinoid CB2 Agonist and Antagonist on Intravenous Nicotine Self Administration and Reinstatement of Nicotine Seeking. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3266883/?tool=pubmed

Prevention of Fibrosis Progression in CCl4-Treated Rats: Role of the Hepatic Endocannabinoid and Apelin Systems (full – 2012) http://jpet.aspetjournals.org/content/340/3/629.full

Dynamic changes to the endocannabinoid system in models of chronic pain (full – 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3300.full?sid=1569c370-cd5c-4358-89ff-857201f5e069


Electroacupuncture reduces the expression of proinflammatory cytokines in inflamed skin tissues through activation of cannabinoid CB2 receptors. (abst – 2012) http://www.ncbi.nlm.nih.gov/pubmed/22337285

Diuretic effects of cannabinoids. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3533417/
Using the endocannabinoid system as a neuroprotective strategy in perinatal hypoxic-ischemic brain injury. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4146074/

Characterization of cannabinoid receptor ligands in tissues natively expressing cannabinoid CB2 receptors. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3687668/

CB2 cannabinoid agonist enhanced neurogenesis in GFAP/Gp120 transgenic mice displaying deficits in neurogenesis. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3904265/

Diuretic effects of cannabinoid agonists in mice. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3872476/

Cannabinoid Receptors as Therapeutic Targets for Dialysis-Induced Peritoneal Fibrosis. (abst – 2013)  

Pharmacology of Cannabinoid Receptor Agonists and a Cyclooxygenase-2 Inhibitor in Rat Bone Tumor Pain. (abst – 2013)  

Activation of CB2 receptors as a potential therapeutic target for migraine: evaluation in an animal model  (full – 2014)  

2012 Division of Medicinal Chemistry Award Address: Trekking the Cannabinoid Road: A Personal Perspective. (full– 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4064474/

The cannabinoid CB2 receptor agonist AM1241 enhances neurogenesis in GFAP/Gp120 transgenic mice displaying deficits in neurogenesis (full – 2014)  

Effects of cannabinoid receptor type 2 on endogenous myocardial regeneration by activating cardiac progenitor cells in mouse infarcted heart. (link to PDF – 2014)  

Terpenes and Lipids of the Endocannabinoid and Transient Receptor Potential-channel Biosignaling Systems. (abst – 2014)  
http://pubs.acs.org/doi/abs/10.1021/cn5000875

Interaction of a Cannabinoid-2 Agonist With Tramadol on Nociceptive Thresholds and Immune Responses in a Rat Model of Incisional Pain. (abst – 2014)  

Drugs of Abuse in HIV infection and neurotoxicity (full – 2015)  
Time-Dependent Protection of CB2 Receptor Agonist in Stroke. (full – 2015)  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0132487

A synergistic interaction of 17-β-estradiol with specific cannabinoid receptor type 2 antagonist/inverse agonist on proliferation activity in primary human osteoblasts. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4487012/

Role of the Endocannabinoid System in Diabetes and Diabetic Complications. (full – 2015)  

Renal effects of chronic pharmacological manipulation of CB2 receptors in rats with diet-induced obesity (full – 2015)  

Cannabinoid Receptor-2 Regulates Embryonic Hematopoietic Stem Cell Development via PGE2 and P-selectin Activity. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4781665/

Cannabinoid Receptor-2 Regulates Embryonic Hematopoietic Stem Cell Development via Prostaglandin E2 and P-Selectin Activity. (full – 2015)

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4781665/

Activation of murine microglial N9 cells is attenuated through cannabinoid receptor CB2 signaling. (abst – 2015)  


Low-Dose Cannabinoid Type 2 Receptor Agonist Attenuates Tolerance to Repeated Morphine Administration via Regulating μ-Opioid Receptor Expression in Walker 256 Tumor-Bearing Rats. (abst – 2015)  

The cannabinoid CB2 receptor-specific agonist AM1241 increases pentylenetetrazole-induced seizure severity in Wistar rats. (abst – 2015)  
http://www.epires-journal.com/article/S0920-1211(16)30131-0/abstract
Activation of Cannabinoid Receptor Type II by AM1241 Ameliorates Myocardial Fibrosis via Nrf2-Mediated Inhibition of TGF-β1/Smad3 Pathway in Myocardial Infarction Mice (full – 2016) http://www.karger.com/Article/FullText/447855


**AM-1346** - CB1 agonist


Effects of AM1346, a high-affinity CB1 receptor selective anandamide analog, on open-field behavior in rats. (abst – 2007) http://www.ncbi.nlm.nih.gov/pubmed/17912052

Discriminative stimulus functions in rats of AM1346, a high-affinity CB1R selective anandamide analog. (full – 2008) http://www.springerlink.com/content/n278340k6q47141k/fulltext.html

Discriminative stimulus functions in rats of AM1346, a high-affinity CB1R selective anandamide analog. (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3727224/

2012 Division of Medicinal Chemistry Award Address: Trekking the Cannabinoid Road: A Personal Perspective. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4064474/

**AM-1710** – CB2 agonist and CB1 antagonist


Pharmacological characterization of AM1710, a putative cannabinoid CB(2) agonist from the cannabilactone class: Antinociception without central nervous system side-effects. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3089437/pdf/nihms280008.pdf

Central mediation and differential blockade by cannabinergics of the discriminative stimulus effects of the cannabinoid CB1 receptor antagonist rimonabant in rats. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3727221/

The maintenance of cisplatin- and paclitaxel-induced mechanical and cold allosthenia is suppressed by cannabinoid CB2 receptor activation and independent of CXCR4 signaling in models of chemotherapy-induced peripheral neuropathy (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3502129/

Intrathecal cannabilactone CB(2)R agonist, AM1710, controls pathological pain and restores basal cytokine levels. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3603341/

Prophylactic cannabinoid administration blocks the development of paclitaxel-induced neuropathic nociception during analgesic treatment and following cessation of drug delivery. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3998744/

2012 Division of Medicinal Chemistry Award Address: Trekking the Cannabinoid Road: A Personal Perspective. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4064474/

Chronic Cannabinoid Receptor 2 Activation Reverses Paclitaxel Neuropathy Without Tolerance or Cannabinoid Receptor 1-Dependent Withdrawal. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4209205/

Functional selectivity of CB2 cannabinoid receptor ligands at a canonical and non-canonical pathway. (full – 2016) http://jpet.aspetjournals.org/content/early/2016/05/18/jpet.116.232561.long

Two Janus cannabinoids that are both CB2 agonists and CB1 antagonists. (link to PDF – 2016) http://jpet.aspetjournals.org/content/early/2016/12/07/jpet.116.236539.long

AM-2201 – CB1 agonist, about 14 times stronger than THC
Spice drugs are more than harmless herbal blends: A review of the pharmacology and toxicology of synthetic cannabinoids. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3936256/


Qualitative Confirmation of 9 Synthetic Cannabinoids and 20 Metabolites in Human Urine Using LC-MS/MS and Library Search. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3874406/

High Times, Low Sats: Diffuse Pulmonary Infiltrates Associated with Chronic Synthetic Cannabinoid Use. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3657026/


Moving around the molecule: Relationship between chemical structure and in vivo activity of synthetic cannabinoids. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3944940/

Sulfaphenazole and α-Napthoflavone Attenuate the Metabolism of the Synthetic Cannabinoids JWH-018 and AM2201 Found in K2/Spice. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4154622/


Exogenous cannabinoids as substrates, inhibitors, and inducers of human drug metabolizing enzymes: a systematic review. (full– 2013)
Detection of Synthetic Cannabinoids in Oral Fluid Using ELISA and LC-MS-MS.

Toxicological Findings of Synthetic Cannabinoids in Recreational Users.

Validation of a Novel Immunoassay for the Detection of Synthetic Cannabinoids and Metabolites in Urine Specimens. (abst – 2013)

A Case of Cannabinoid Hyperemesis Syndrome Caused by Synthetic Cannabinoids. (abst – 2013)

Blood Synthetic Cannabinoid Concentrations in Cases of Suspected Impaired Driving (abst – 2013)

http://pubs.acs.org/doi/abs/10.1021/ac4024704

Prevalence of synthetic cannabinoids in blood samples from Norwegian drivers suspected of impaired driving during a seven weeks period. (abst – 2013)

Detection of urinary metabolites of AM-2201 and UR-144, two novel synthetic cannabinoids. (abst – 2013)

Characteristics of the designer drug and synthetic cannabinoid receptor agonist AM-2201 regarding its chemistry and metabolism (abst – 2013)

Analysis of AM-2201 and metabolites in a drugs and driving case (abst – 2013)

Cytotoxicity of synthetic cannabinoids on primary neuronal cells of the forebrain: the involvement of cannabinoid CB1 receptors and apoptotic cell death (abst – 2013)

Analysis of AM-2201 and metabolites in a drugs and driving case (abst – 2013)

Quantitative urine confirmatory testing for synthetic cannabinoids in randomly collected urine specimens. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4363290/

Identification and quantification of synthetic cannabinoids in 'spice-like' herbal mixtures: A snapshot of the German situation in the autumn of 2012. (abst – 2014)
Analysis of new classes of recreational drugs in sewage: Synthetic cannabinoids and amphetamine-like substances. (abst – 2014)  

LC-QTOF-MS as a superior strategy to immunoassay for the comprehensive analysis of synthetic cannabinoids in urine. (abst – 2014)  

Driving under the influence of synthetic cannabinoids ("Spice"): a case series. (abst – 2014)  

Determination of AM-2201 metabolites in urine and comparison with JWH-018 abuse. (abst – 2014)  

Urinary prevalence, metabolite detection rates, temporal patterns and evaluation of suitable LC-MS/MS targets to document synthetic cannabinoid intake in US military urine specimens. (abst – 2014)  

Use of Synthetic Cannabinoids in Patients With Psychotic Disorders: Case Series. (abst – 2014)  

Legal highs: staying on top of the flood of novel psychoactive substances. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4521440/

https://www.dovepress.com/emerging-drugs-of-abuse-current-perspectives-on-synthetic-cannabinoids-peer-reviewed-fulltext-article-SAR

Cluster of Acute Toxicity from Ingestion of Synthetic Cannabinoid-Laced Brownies. (full – 2015)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4675604/

Evaluation of an On-site Drug-testing Device for the Detection of Synthetic Cannabinoids in Illegal Herbal Products. (abst – 2015)  

Genotoxic properties of representatives of alkylindazoles and aminoalkyl-indoles which are consumed as synthetic cannabinoids. (abst – 2015)  

http://pubs.acs.org/doi/abs/10.1021/acschemneuro.5b00107

Death due to diabetic ketoacidosis: Induction by the consumption of synthetic cannabinoids? (abst – 2015)  

Disruption of hippocampal synaptic transmission and long-term potentiation by psychoactive synthetic cannabinoid 'Spice' compounds: comparison with Δ9-tetrahydrocannabinol. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/26732435


**AM-2233** – CB1 agonist


**AM-2389** – CB1 agonist


AM2389, a high-affinity, in vivo potent CB1-receptor-selective cannabimimetic ligand as evidenced by drug discrimination in rats and hypothermia testing in mice (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3291515/

**AM-3506**  — blocks the break-down of Anandamide

Inhibitor of fatty acid amide hydrolase normalizes cardiovascular function in hypertension without adverse metabolic effects.  (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3003779/

Convergent translational evidence of a role for anandamide in amygdala-mediated fear extinction, threat processing and stress-reactivity  (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3549323/

Sulfonyl Fluoride Inhibitors of Fatty Acid Amide Hydrolase  (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3678964/


Modulating the endocannabinoid system in human health and disease: successes and failures  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3684164/

Role of endogenous cannabinoid system in the gut.  (full - 2013)

2012 Division of Medicinal Chemistry Award Address: Trekking the Cannabinoid Road: A Personal Perspective.  (full– 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4064474/


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**AM-4054/ ADAMANTYL**  - CB1 agonist

Behavioral Profile of the Novel Cannabinoid Agonist AM4054  (thesis - 2006)
http://digitalcommons.uconn.edu/cgi/viewcontent.cgi?article=1016&context=srhonors_theses&sei-redir=1#search=%22am-4054%20%20%20CB1%22

Effects of a Selective Cannabinoid Agonist and Antagonist on Body Temperature in Rats  (abst - 2007)
Diuretic effects of cannabinoids. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3533417/

Behavioral effects of the novel potent cannabinoid CB1 agonist AM 4054. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4015344/

Effects of a novel CB1 agonist on visual attention in male rats: Role of strategy and expectancy in task accuracy. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4006576/

Diuretic effects of cannabinoid agonists in mice. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3872476/

Effects of anandamide and other CB1 ligands on cognitive function (abst – 2013)  
http://www.fasebj.org/content/27/1_Supplement/1097.10.abstract?sid=9823a79f-d5d0-4666-b4b6-85d1e43e01da

http://www.fasebj.org/content/29/1_Supplement/1019.16.abstract?sid=c4ccc42-fab7-47a3-b773-6d918d6b77a

Tolerance to the diuretic effects of cannabinoids and cross-tolerance to a kappa-opioid agonist in THC-treated mice. (full – 2016)  
http://jpet.aspetjournals.org/content/early/2016/05/26/jpet.116.232132.long

A High Efficacy Cannabinergic Ligand (AM4054) used as a Discriminative Stimulus: Generalization to other Adamantyl Analogs and Δ9-THC in Rats. (abst – 2016)  

**AM-4113** – CB1 antagonist

Effects of a Selective Cannabinoid Agonist and Antagonist on Body Temperature in Rats (abst - 2007)  
http://www.fasebj.org/cgi/content/meeting_abstract/21/5/A409?maxtoshow=&hits=80&RESULTFORMA T=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=800&res ourcectype=HWCIT
The neutral cannabinoid CB₁ receptor antagonist AM4113 regulates body weight through changes in energy intake in the rat. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3023913/

Central mediation and differential blockade by cannabinoids of the discriminative stimulus effects of the cannabinoid CB₁ receptor antagonist rimonabant in rats. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3727221/


2012 Division of Medicinal Chemistry Award Address: Trekking the Cannabinoid Road: A Personal Perspective. (full– 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4064474/


Effects of various cannabinoid ligands on choice behaviour in a rat model of gambling. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4504748/

The CB₁ neutral antagonist AM4113 retains the therapeutic efficacy of the inverse agonist rimonabant for nicotine dependence and weight loss, with better psychiatric tolerability. (link to PDF – 2016) http://ijnp.oxfordjournals.org/content/early/2016/08/03/ijnp.pyw068.long


**AM-4301** - MAGL inhibitor

**AM-4302** - dual MAGL/FAAH inhibitor

A comparison of novel, selective fatty acid amide hydrolase (FAAH), monoacylglycerol lipase (MAGL) or dual FAAH/MAGL inhibitors to suppress acute and anticipatory nausea in rat models. (abst – 2016)

**AM-4303** - FAAH inhibitor

A comparison of novel, selective fatty acid amide hydrolase (FAAH), monoacylglycerol lipase (MAGL) or dual FAAH/MAGL inhibitors to suppress acute and anticipatory nausea in rat models. (abst – 2016)

**AM-6538** - a strong antagonist of CB1 receptors that “freezes” them for easier study

Crystal Structure of the Human Cannabinoid Receptor CB1

Harvesting Benefits from Cannabinoids. (article – 2016)
http://www.cell.com/cell/fulltext/S0092-8674(16)31675-0

**AM-6545** – peripherally restricted CB1 antagonist, no “high”

Rehashing endocannabinoid antagonists: can we selectively target the periphery to safely treat obesity and type 2 diabetes? (full – 2010)

A novel peripherally restricted cannabinoid receptor antagonist, AM6545, reduces food intake and body weight, but does not cause malaise, in rodents (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2990160/

The novel cannabinoid CB1 antagonist AM6545 suppresses food intake and food-reinforced behavior. (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3522179/

Peripheral CB1 cannabinoid receptor blockade improves cardiometabolic risk in mouse models of obesity. (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2912197/
Central mediation and differential blockade by cannabinoids of the discriminative stimulus effects of the cannabinoid CB1 receptor antagonist rimonabant in rats. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3727221/


2012 Division of Medicinal Chemistry Award Address: Trekking the Cannabinoid Road: A Personal Perspective. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4064474/


**AM-6546 – CB1 antagonist**

Endocannabinoid signaling in the gut mediates preference for dietary unsaturated fats. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3659363/

**AM-6701 – equally blocks the break-down of 2-AG and anandamide**

Equipotent Inhibition of Fatty Acid Amide Hydrolase and Monoacylglycerol Lipase - Dual Targets of the Endocannabinoid System to Protect against Seizure Pathology. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3480564/
**AM-6702** - strongly blocks the break-down of anandamide, and, weakly, 2-AG

Equipotent Inhibition of Fatty Acid Amide Hydrolase and Monoacylglycerol Lipase - Dual Targets of the Endocannabinoid System to Protect against Seizure Pathology. 
(full – 2012) 
[link](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3480564/)

**AM-9053**

N-acylethanolamine-hydrolyzing acid amidase and fatty acid amide hydrolase inhibition differentially affect N-acylethanolamine levels and macrophage activation. 
(abst – 2017) 
[link](https://www.ncbi.nlm.nih.gov/pubmed/28065729)

**ARN-2508** - blocks the break-down of anandamide

Multitarget fatty acid amide hydrolase/cyclooxygenase blockade suppresses intestinal inflammation and protects against nonsteroidal anti-inflammatory drug-dependent gastrointestinal damage. 
(full – 2015) 
[link](http://www.fasebj.org/content/29/6/2616.long)

**AS-1535907** - GPR119 agonist

American Diabetes Association--70th scientific sessions--research on novel therapeutics: part 2. 
(abst – 2010) 
[link](http://www.ncbi.nlm.nih.gov/pubmed/20799137)

The role of small molecule GPR119 agonist, AS1535907, in glucose-stimulated insulin secretion and pancreatic β-cell function 
(abst – 2010) 
[link](http://www.ncbi.nlm.nih.gov/pubmed/21114601)

Novel GPR119 agonist AS1535907 contributes to first-phase insulin secretion in rat perfused pancreas and diabetic db/db mice. 
(abst – 2010) 
[link](http://www.sciencedirect.com/science/article/pii/S0006291X10018668)
**AS-1907417** - GPR119 agonist

AS1907417, a novel GPR119 agonist, as an insulinotropic and β-cell preservative agent for the treatment of type 2 diabetes.  
(abst – 2010)  

**BIA- 10-2474** – a failed FAAH inhibitor, caused brain damage and death.

Dual-Acting Compounds Targeting Endocannabinoid and Endovanilloid Systems-A Novel Treatment Option for Chronic Pain Management.  
(full – 2016)  

Inhibition of fatty acid amide hydrolase by BIA 10-2474 in rat brain.  
(full – 2016)  
http://journals.sagepub.com/doi/full/10.1177/0271678X16668890

What failed BIA 10–2474 Phase I clinical trial? Global speculations and recommendations for future Phase I trials  
(full – 2016)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5020770/

Acute Neurologic Disorder from an Inhibitor of Fatty Acid Amide Hydrolase.  
(abst – 2016)  

**CANNABINOR** - CB2 agonist

Patent application title: Treatment Of Lower Urinary Tract Dysfunction With CB2-Receptor-Selective Agonists  
(full – 2009)  
http://www.faqs.org/patents/app/20090312414

Effects of cannabinor, a novel selective cannabinoid 2 receptor agonist, on bladder function in normal rats.  
(abst – 2010)  

Cannabinor, a selective cannabinoid-2 receptor agonist, improves bladder emptying in rats with partial urethral obstruction.  
(full – 2011)  
http://www.jurology.com/article/S0022-5347%2810%2904713-0/fulltext

**3 CARBOXAMIDO-5-ARYL-ISOXAZOLES** – CB 2 agonists

3-Carboxamido-5-aryl-isoxazoles as new CB2 agonists for the treatment of colitis.  
(abst – 2013)  
Switching cannabinoid response from CB2 agonists to FAAH inhibitors. (abst – 2014)

**CB-13** - CB1/CB2 dual agonist with limited brain penetration

Cannabinoids Alleviate Experimentally Induced Intestinal Inflammation by Acting at Central and Peripheral Receptors. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4183544/


Dual agonism of peripheral cannabinoid CB1/CB2 receptors suppresses cardiac myocyte hypertrophy (abst – 2014) http://www.fasebj.org/content/28/1_Supplement/652.9.abstract?sid=db987fd0-3ef0-4796-aff6-4103f0c84daf


**CB–65** - CB 2 agonist

The role of central CB2 cannabinoid receptors on food intake in neonatal chicks (abst – 2011) http://www.ncbi.nlm.nih.gov/pubmed/21927979


CESAMET – see NABILONE

CID16020046 – a GPR-55 antagonist

A selective antagonist reveals a potential role of G protein-coupled receptor 55 in platelet and endothelial cell function. (full – 2013)  http://jpet.aspetjournals.org/content/346/1/54.long

TRPV1 mediates cellular uptake of anandamide and thus promotes endothelial cell proliferation and network-formation. (full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4265754/


The GPR55 antagonist CID16020046 protects against intestinal inflammation. (full – 2015)  https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4587547/

Treatment with the GPR55 antagonist CID16020046 increases neutrophil activation in mouse atherogenesis. (abst – 2016)  http://www.ncbi.nlm.nih.gov/pubmed/27465665
**CE** - a CB1 antagonist

Endocannabinoid System: the Direct and Indirect Involvement in the Memory and Learning Processes—a Short Review  
(full – 2016) 

**COMPOUND A** - CB1/2 agonist that is excluded from the brain

An Effective Prodrug Strategy to Selectively Enhance Ocular Exposure of a Cannabinoid Receptor (CB1/2) Agonist.  
(abst – 2013) 
http://pubs.acs.org/doi/abs/10.1021/jm4004939

**COMPOUND 7**

Design, Synthesis and Biological Evaluation of Novel, Non-Brain Penetrant, Hybrid Cannabinoid CB1R Inverse Agonist/Inducible Nitric Oxide Synthase (iNOS) Inhibitors for the Treatment of Liver Fibrosis  
(abst – 2017) 
http://pubs.acs.org/doi/abs/10.1021/acs.jmedchem.6b01504

**COMPOUND 39** - CB2 agonist

Novel Triazolopyrimidine-Derived Cannabinoid Receptor 2 Agonists As Potential Treatment for Inflammatory Kidney Diseases.  
(abst – 2015) 

**COR-167** - CB2 agonist

A novel CB2 agonist, COR167, potently protects rat brain cortical slices against OGD and reperfusion injury.  
(abst – 2012) 

Potent immunomodulatory activity of a highly selective cannabinoid CB2 agonist on immune cells from healthy subjects and patients with multiple sclerosis  
(abst – 2016) 
Cannabimimetic activity from CP-47,497, a derivative of 3-phenylcyclohexanol (abst - 1982)
http://jpet.aspetjournals.org/content/223/2/516.abstract?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=Hexahydrocannabinol&searchid=1&FIRSTINDEX
=0&resourcetype=HWCIT

The Conformational Properties of the Highly Selective Cannabinoid Receptor Ligand CP-55,940 (full - 1996)
http://www.jbc.org/content/271/18/10640.full?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=Hexahydrocannabinol&searchid=1&FIRSTINDEX
=0&resourcetype=HWCIT

Cannabinoids augment the release of neuropeptide Y in the rat hypothalamus (abst – 2005)

Withdrawal Phenomena and Dependence Syndrome After the Consumption of "Spice Gold" (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2719097/?tool=pmcentrez

Spice drugs: cannabinoids as a new designer drugs. (abst - 2009)
http://www.unboundmedicine.com/medline/ebm/record/19718488/abstract/
%5BSpice_drugs:_cannabinoids_as_a_new_designer_drugs_%5D


Pharmacological properties and dependence liabilities of synthetic cannabinoids (abst – 2010)
http://www.unboundmedicine.com/medline/ebm/record/20681249/abstract/
%5BPharmacological_properties_and_dependence_liabilities_of_synthetic_cannabinoids%5D


College students and use of K2: an emerging drug of abuse in young persons (full – 2011) http://www.substanceabusepolicy.com/content/6/1/16

Marijuana-based Drugs: Innovative Therapeutics or Designer Drugs of Abuse? (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3139381/?tool=pubmed

Investigating a not-so-natural high.  (full – 2011)
http://pubs.acs.org/doi/full/10.1021/ac900564u

CP47,497-C8 and JWH073, commonly found in 'Spice' herbal blends, are potent and efficacious CB(1) cannabinoid receptor agonists.  (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3094488/

Synthetic cannabinoids in oral fluid.  (full – 2011)
http://jat.oxfordjournals.org/content/35/7/424.long

Use of high-resolution accurate mass spectrometry to detect reported and previously unreported cannabinomimetics in "herbal high" products.  (full – 2011)
http://jat.oxfordjournals.org/content/34/5/252.long


Cytotoxicity of synthetic cannabinoids found in "Spice" products: The role of cannabinoid receptors and the caspase cascade in the NG 108-15 cell line.  (abst – 2011)

Effects of synthetic cannabinoids on electroencephalogram power spectra in rats.  (abst – 2011)
http://www.unboundmedicine.com/medline/ebm/record/21640532/abstract/Effects_of_synthetic_cannabinoids_on_electroencephalogram_power_spectra_in_rats

The emergence and analysis of synthetic cannabinoids.  (abst – 2011)

Detection and quantification of new designer drugs in human blood: part 1 - synthetic cannabinoids.  (full – 2012)

Characterization of In Vitro Metabolites of CP 47,497, a Synthetic Cannabinoid, in Human Liver Microsomes by LC-MS/MS.  (abst – 2012)

Identification of synthetic cannabinoids in herbal incense blends in the United States.  (abst – 2012)

The spice in France: mixed herbs containing synthetic cannabinoids.  (abst – 2012)

Acute toxicity due to the confirmed consumption of synthetic cannabinoids: Clinical and laboratory findings.  (abst – 2012)
“Spiceophrenia”: a systematic overview of “Spice”-related psychopathological issues and a case report  

The K2/Spice Phenomenon: emergence, identification, legislation and metabolic characterization of synthetic cannabinoids in herbal incense products.  
(full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4100246/

Simultaneous quantification of 20 synthetic cannabinoids and 21 metabolites, and semi-quantification of 12 alkyl hydroxy metabolites in human urine by liquid chromatography-tandem mass spectrometry.  
(full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3963402/

Spice/K2 drugs - more than innocent substitutes for marijuana.  
(full – 2013)  http://ijnp.oxfordjournals.org/content/17/3/509

Synthetic Cannabinoids: Crisis of The Decade  
(link to PDF - 2013)  http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.684.46&rank=8

Getting up to speed with the public health and regulatory challenges posed by new psychoactive substances in the information age  

Cytotoxicity of synthetic cannabinoids on primary neuronal cells of the forebrain: the involvement of cannabinoid CB1 receptors and apoptotic cell death.  

A survey of synthetic cannabinoid consumption by current cannabis users.  

Investigation of the in vitro toxicological properties of the synthetic cannabimimetic drug CP-47,497-C8.  

Emerging drugs of abuse: current perspectives on synthetic cannabinoids.  

Impact of a synthetic cannabinoid (CP-47,497-C8) on protein expression in human cells: evidence for induction of inflammation and DNA damage.  

Multi-residue determination of 10 selected new psychoactive substances in wastewater samples by liquid chromatography-tandem mass spectrometry.  

CB1 receptor transgenic mice in the cannabinoid triad: a novel approach to assess in vivo efficacy of CB1 ligands.  
(abst – 2015)
CP-50,556-1 / LEVONANTRADOL - CB1 & CB2 agonist

Clinical experience with levonantradol hydrochloride in the prevention of cancer chemotherapy-induced nausea and vomiting. (abst – 1981)

Randomised Clinical Trial of Levonantradol and Chlorpromazine in the Prevention of Radiotherapy-induced Vomiting. (abst - 1982)

Levonantradol, a new antiemetic with a high rate of side-effects for the prevention of nausea and vomiting in patients receiving cancer chemotherapy. (abst – 1982)

Respiratory and cardiovascular depressant effects of nabilone, N-methyllevonantradol and delta 9-tetrahydrocannabinol in anesthetized cats. (abst - 1983)
http://jpet.aspetjournals.org/content/227/2/508.abstract?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=marihuana&searchid=1&FIRSTINDEX=1920&res ourctype=HWCIT

Levonantradol: a synthetic cannabinoid in the treatment of severe chemotherapy-induced nausea and vomiting resistant to conventional anti-emetic therapy. (abst – 1983)

Antiemetic efficacy of levonantradol compared to delta-9-tetrahydrocannabinol for chemotherapy-induced nausea and vomiting. (abst – 1985)


Marijuana-based Drugs: Innovative Therapeutics or Designer Drugs of Abuse? (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3139381/?tool=pubmed


Levonantradol: asymmetric synthesis and structural analysis. (abst – 2013) http://pubs.rsc.org/en/Content/ArticleLanding/2013/CC/c3cc41388h

**CP-55,940** - CB1, CB2 & GPR-55 agonist, a synthetic analog of THC

Molecular cloning of a human cannabinoid receptor which is also expressed in testis (full – 1991) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1151556/

Cannabinoid receptor agonists inhibit Ca current in NG108-15 neuroblastoma cells via a pertussis toxin-sensitive mechanism. (full - 1992) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1907498/?tool=pmcentrez&page=1

Cross-tolerance between delta-9-tetrahydrocannabinol and the cannabimimetic agents, WIN 55,212-2 and anandamide. (full - 1993) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2175863/?tool=pmcentrez&page=1


Involvement of Dynorphin B in the Antinociceptive Effects of the Cannabinoid CP55,940 in the Spinal Cord (full - 1997) http://jpet.aspetjournals.org/content/281/2/730.full


Cannabinoid Receptor Agonists Protect Cultured Rat Hippocampal Neurons from Excitotoxicity (full - 1998) http://molpharm.aspetjournals.org/content/54/3/459.full


Cannabinoid CB1-receptor mediated regulation of gastrointestinal motility in mice in a model of intestinal inflammation (full - 2001) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1572987/?tool=pmcentrez

Despite substantial degradation, 2-arachidonoylglycerol is a potent full efficacy agonist mediating CB(1) receptor-dependent G-protein activation in rat cerebellar membranes. (full – 2001) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1572991/


The potent emetogenic effects of the endocannabinoid, 2-AG (2-arachidonoylglycerol) are blocked by delta(9)-tetrahydrocannabinol and other cannabinoids. (full – 2002) http://jpet.aspetjournals.org/content/300/1/34.long


Cannabinoid CB1 receptor activation does not prevent the toxicity of glutamate towards embryonic chick telencephalon primary cultures. (abst – 2003) http://www.ncbi.nlm.nih.gov/pubmed/14659458

Oleamide is a selective endogenous agonist of rat and human CB1 cannabinoid receptors. (full – 2004) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1574194/

Synergistic Interactions between Cannabinoids and Environmental Stress in the Activation of the Central Amygdala  (full - 2005)  
http://www.nature.com/npp/journal/v30/n3/full/1300535a.html


Binding affinity and agonist activity of putative endogenous cannabinoids at the human neocortical CB1 receptor  (abst – 2005)  

Effects of repeated administration with CP-55,940, a cannabinoid CB1 receptor agonist on the metabolism of the hepatic heme.  (abst – 2005)  

Sphingosine and its analog, the immunosuppressant 2-amino-2-(2-[4-octylphenyl]ethyl)-1,3-propanediol, interact with the CB1 cannabinoid receptor.  (full – 2006)  
http://molpharm.aspetjournals.org/content/70/1/41.long

Chronologically overlapping occurrences of nicotine-induced anxiety- and depression-related behavioral symptoms: effects of anxiolytic and cannabinoid drugs  (full - 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2075518/?tool=pubmed

Control of spasticity in a multiple sclerosis model is mediated by CB1, not CB2, cannabinoid receptors.  (full - 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2189718/?tool=pubmed

The orphan receptor GPR55 is a novel cannabinoid receptor.  (full – 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2095107/?tool=pubmed

Acute and chronic administration of the cannabinoid receptor agonist CP 55,940 attenuates tumor-evoked hyperalgesia.  (full – 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1995024/

Spinal cannabinoid receptor type 2 activation reduces hypersensitivity and spinal cord glial activation after paw incision.  (full - 2007)  
http://anesthesiology.pubs.asahq.org/article.aspx?articleid=1922987&resultClick=3

Virodhamine and CP55,940 modulate cAMP production and IL-8 release in human bronchial epithelial cells.  (full – 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2042924/?tool=pubmed

CB2 receptors in the brain: role in central immune function  (full - 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219530/?tool=pmcentrez

Anandamide-Mediated CB1/CB2 Cannabinoid Receptor-Independent Nitric Oxide Production in Rabbit Aortic Endothelial Cells  (full – 2007)  
http://jpet.aspetjournals.org/content/321/3/930.long

Cannabidiol, unlike synthetic cannabinoids, triggers activation of RBL-2H3 mast cells (link to PDF – 2007) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.506.3245&rank=52


Attenuation of Experimental Autoimmune Hepatitis by Exogenous and Endogenous Cannabinoids: Involvement of Regulatory T Cells (full - 2008) http://molpharm.aspetjournals.org/content/74/1/20.full?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=320&resource=HWCIT#content-block

Cannabinoids Inhibit HIV-1 Gp120-Mediated Insults in Brain Microvascular Endothelial Cells (full - 2008) http://www.jimmunol.org/cgi/content/full/181/9/6406?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=160&resource=HWCIT

Activation of cannabinoid receptors prevents antigen-induced asthma-like reaction in guinea pigs. (full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4514116/

Sensitivity to delta9-tetrahydrocannabinol is selectively enhanced in beta-arrestin2 -/- mice. (full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2751575/


Cannabinoids enhance gastric X/A-like cells activity. (link to PDF – 2008) http://search.proquest.com/openview/0660941d8d9d0c05ce8277f592dabf02/1?pq-origsite=gscholar&cbl=34373


Peripheral and central sites of action for the non-selective cannabinoid agonist WIN 55,212-2 in a rat model of post-operative pain (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2707976/
Distribution and function of cannabinoid receptors 1 and 2 in the rat, monkey and human bladder. (abst - 2009)  [PubMed link]

Inhibition of fatty acid amide hydrolase, a key endocannabinoid metabolizing enzyme, by analogues of ibuprofen and indomethacin. (abst – 2009)  [PubMed link]

International Union of Basic and Clinical Pharmacology. LXXIX. Cannabinoid Receptors and Their Ligands: Beyond CB1 and CB2 (full – 2010)  [PDF link]

Attenuation of morphine antinociceptive tolerance by a CB(1) receptor agonist and an NMDA receptor antagonist: Interactive effects. (full – 2010)  [PubMed link]

Cannabinoid inhibition of macrophage migration to the trans-activating (Tat) protein of HIV-1 is linked to the CB(2) cannabinoid receptor. (full – 2010)  [PubMed link]

The expression level of CB1 and CB2 receptors determines their efficacy at inducing apoptosis in astrocytomas. (full - 2010)  [PubMed link]

Rimonabant-induced Delta9-tetrahydrocannabinol withdrawal in rhesus monkeys: discriminative stimulus effects and other withdrawal signs. (full – 2010)  [PubMed link]

Inhibition of monoacylglycerol lipase by troglitazone, N-arachidonoyl dopamine and the irreversible inhibitor JZL184: comparison of two different assays. (full – 2010)  [PubMed link]

The Role of Cannabinoid Receptors in the Descending Modulation of Pain (link to PDF - 2010)  [PDF link]

Transient receptor potential A1 and cannabinoid receptor activity in human normal and hyperplastic prostate: relation to nerves and interstitial cells (abst – 2010)  [PubMed link]

Protective effects of the synthetic cannabinoids CP55,940 and JWH-015 on rat brain mitochondria upon paraquat exposure. (abst – 2010)  [PubMed link]

Cannabinoids increase conditioned ultrasonic vocalisations and cat odour avoidance in rats: strain differences in drug-induced anxiety. (abst – 2010)  [PubMed link]
Sex Differences in Cannabinoid 1 vs. Cannabinoid 2 Receptor-Selective Antagonism of Antinociception Produced by Δ9-Tetrahydrocannabinol and CP55,940 in the Rat (full – 2011) http://jpet.aspetjournals.org/content/340/3/787.full


Mouse models for studying pain in sickle disease: effects of strain, age, and acuteness. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3779783/

Cannabinoid potentiation of glycine receptors contributes to cannabis-induced analgesia. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3388539/

The schizophrenia susceptibility gene neuregulin 1 modulates tolerance to the effects of cannabinoids. (full – 2011) http://ijnp.oxfordjournals.org/content/14/5/631.long


A synthetic cannabinoid, CP55940, inhibits lipopolysaccharide-induced cytokine mRNA expression in a cannabinoid receptor-independent mechanism in rat cerebellar granule cells. (abst – 2011) http://www.unboundmedicine.com/medline/ebm/record/21492165/abstract/A_synthetic_cannabinoid_CP55940_inhibits_lipopolysaccharide_induced_cytokine_mRNA_expression_in_a_cannabinoid_receptor_independent_mechanism_in_rat_cerebellar_granule_cells

Allosteric modulator ORG27569 induces a CB1 Cannabinoid receptor high affinity agonist binding state, receptor internalization and Gi-independent ERK1/2 activation. (full – 2012) http://www.jbc.org/content/early/2012/02/16/jbc.M111.316463.long

Biphasic Effects of Cannabinoids in Anxiety Responses: CB1 and GABA(B) Receptors in the Balance of GABAergic and Glutamatergic Neurotransmission. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3473327/

GPR18 in microglia: implications for the CNS and endocannabinoid system signaling
Acetaminophen differentially enhances social behavior and cortical cannabinoid levels in inbred mice. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3389197/


Effects of CP 55,940--agonist of CB1 cannabinoid receptors on ghrelin and somatostatin producing cells in the rat pancreas. (link to PDF – 2012) https://journals.viamedica.pl/folia_histochemica_cytobiologica/article/view/18705

Contrasting effects of different cannabinoid receptor ligands on mouse ingestive behavior (abst – 2012) http://www.unboundmedicine.com/medline/ebm/record/22772336/abstract/Contrasting_effects_of_differen t_cannabinoid_receptor_ligands_on_mouse_ingestive_behaviour


Interactions between mu opioid receptor agonists and cannabinoid receptor agonists in rhesus monkeys: antinociception, drug discrimination, and drug self-administration. (full – 2013) http://jpet.aspetjournals.org/content/early/2013/03/27/jpet.113.204099.long

Characterization of cannabinoid receptor ligands in tissues natively expressing cannabinoid CB2 receptors. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3687668/

Novel Insights Into CB1 Cannabinoid Receptor Signaling: A Key Interaction Identified Between EC3-Loop and TMH2. (full – 2013) http://jpet.aspetjournals.org/content/early/2013/02/21/jpet.112.201046.long

Long-term CB1 receptor blockade enhances vulnerability to anxiogenic-like effects of cannabinoids. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3691020/

Using the endocannabinoid system as a neuroprotective strategy in perinatal hypoxic-ischemic brain injury. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4146074/


Phencyclidine-induced social withdrawal results from deficient stimulation of cannabinoid CB1 receptors: implications for schizophrenia. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3717536/

Distinct roles of β-arrestin 1 and β-arrestin 2 in ORG27569-induced biased signaling and internalization of the cannabinoid receptor one (CB1) (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3617280/

Human metabolites of synthetic cannabinoids JWH-018 and JWH-073 bind with high affinity and act as potent agonists at cannabinoid type-2 receptors. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3685885/

G-Protein Receptor Kinase 5 Regulates the Cannabinoid Receptor 2-Induced Upregulation of Serotonin 2A Receptors. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3668730/

Cannabinoid receptor activation in the nucleus tractus solitaries produces baroreflex-like responses in the rat. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3614708/


Combined antiproliferative effects of the aminoalkylindole WIN55,212-2 and radiation in breast cancer cells. (full – 2013) http://jpet.aspetjournals.org/content/early/2013/11/20/jpet.113.205120.long

The role of cannabinoid 1 receptor expressing interneurons in behavior. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3946968/


Interactions between mu opioid receptor agonists and cannabinoid receptor agonists CP55940 and WIN55212-2 in rhesus monkeys: evaluation of treatment- and abuse-related effects (abst – 2013) http://www.fasebj.org/content/27/1_Supplement/1097.3.abstract?sid=b188b212-67f6-4544-827b-5e857c313f2e

Changes in cannabinoid CB1 receptor functionality in the female rat prefrontal cortex following a high fat diet.  
[Abstract – 2013]  

Regulation of cell proliferation by GPR55/cannabinoid receptors using (R,R')-4'-methoxy-1-naphthylfenoterol in rat C6 glioma cell line  
[Abstract – 2013]  
http://www.abstractsonline.com/plan/ViewAbstract.aspx?sKey=695437a2-7613-4bef-8697-2294df2da859&cKey=18ba6eb0-2c5f-4004-a56f-2d1f450e2ed1&mKey=9b2d28e7-24a0-466f-a3e9-07c21f6e9be9

Cytotoxicity of synthetic cannabinoids on primary neuronal cells of the forebrain: the involvement of cannabinoid CB1 receptors and apoptotic cell death.  
[Abstract – 2013]  

The agonist binding mechanism of human CB2 receptor studied by molecular dynamics simulation, free energy calculation and 3D-QSAR studies.  
[Abstract – 2013]  

Cannabinoid neuromodulation in the adult early visual cortex.  
[Full – 2014]  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0087362

The influence of monoacylglycerol lipase inhibition upon the expression of epidermal growth factor receptor in human PC-3 prostate cancer cells  
[Full – 2014]  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4109781/

Vascular targets for cannabinoids: animal and human studies.  
[Full – 2014]  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3954478/

Impact of efficacy at the mu opioid receptor on antinociceptive effects of combinations of mu opioid receptor agonists and cannabinoid receptor agonists.  
[Full – 2014]  
http://jpet.aspetjournals.org/content/early/2014/09/05/jpet.114.216648.long

Behavioral effects of the cannabinoid CB1 receptor allosteric modulator ORG27569 in rats.  
[Full – 2014]  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4186448/

Cannabinoids inhibit cholinergic contraction in human airways through prejunctional CB1 receptors.  
[Full – 2014]  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4243853/

Cannabinoid inhibits HIV-1 Tat-stimulated adhesion of human monocyte-like cells to extracellular matrix proteins.  
[Full – 2014]  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4089388/

Effects of repeated dosing with mechanistically distinct antinociceptive ligands in a rat model of neuropathic spinal cord injury pain.  
[Full – 2014]  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4184706/

Allosteric Modulation of a Cannabinoid G Protein-coupled Receptor BINDING SITE ELUCIDATION AND RELATIONSHIP TO G PROTEIN SIGNALING  
[Full – 2014]  
http://www.jbc.org/content/289/9/5828.full.pdf+html
Examining the critical roles of human CB2 receptor residues Valine 3.32 (113) and Leucine 5.41 (192) in ligand recognition and downstream signaling activities. (full – 2014)  
http://www.sciencedirect.com/science/article/pii/S0006291X14014636

Type 1 Cannabinoid Receptor Ligands Display Functional Selectivity in a Cell Culture Model of Striatal Medium Spiny Projection Neurons (full – 2014)  
http://www.jbc.org/content/289/36/24845.long

Early increase of cannabinoid receptor density after experimental traumatic brain injury in the newborn piglet. (link to PDF – 2014)  

The therapeutic efficacy of cannabinoid receptor type 1 ligands in Huntington's disease may depend on their functional selectivity (abst – 2014)  
http://www.fasebj.org/content/28/1_Supplement/846.6.abstract?sid=467bb529-0ecc-4ddc-af27-3f56f520a102

Harmful effects of law-evading herbs as a new trend in Japan: behavioral and cytotoxicological properties of synthetic cannabinoids. (abst – 2014)  

Cannabinoid receptor agonists reduce the short-term mitochondrial dysfunction and oxidative stress linked to excitotoxicity in the rat brain. (abst – 2014)  

CP55,940 attenuates spatial memory retrieval in mice. (abst – 2014)  

Biased Agonism and Biased Allosteric Modulation at the CB1 Cannabinoid Receptor. (full – 2015)  
http://molpharm.aspetjournals.org/content/early/2015/06/04/mol.115.099192.long

Bi-directional CB1 receptor-mediated cardiovascular effects of cannabinoids in anaesthetized rats: role of the paraventricular nucleus. (full – 2015)  
http://www.jpp.krakow.pl/journal/archive/06_15/pdf/343_06_15_article.pdf

Fetal Alcohol Spectrum Disorder: Potential Role of Endocannabinoids Signaling. (full – 2015)  

Cannabinoid receptor activation in the juvenile rat brain results in rapid biomechanical alterations: Neurovascular mechanism as a putative confounding factor (full – 2015)  
http://jcb.sagepub.com/content/early/2015/09/23/0271678X15606923.long

Biased Type 1 Cannabinoid Receptor Signalling Influences Neuronal Viability in a Cell Culture Model of Huntington Disease. (full – 2015)  
http://molpharm.aspetjournals.org/content/early/2015/12/23/mol.115.101980.long

Preclinical evaluation of SMM-189, a cannabinoid receptor 2-specific inverse agonist.
The effect of phytocannabinoids on airway hyper-responsiveness, airway inflammation, and cough

CB1 Knockout Mice Unveil Sustained CB2-Mediated Anti-Alldynic Effects of the Mixed CB1/CB2 Agonist CP55,940 in a Mouse Model of Paclitaxel-Induced Neuropathic Pain.

Selective Monoacylglycerol Lipase Inhibitors: Antinociceptive versus Cannabimimetic Effects in Mice

A potential role for cannabinoid receptors in the therapeutic action of fenofibrate

The cannabinoid system in the retrosplenial cortex modulates fear memory consolidation, reconsolidation, and extinction.

Cannabinoid receptor interacting protein (CRIP1a) attenuates CB1R signaling in neuronal cells.

The effect of FAAH, MAGL, and Dual FAAH/MAGL inhibition on inflammatory and colorectal distension-induced visceral pain models in Rodents.

Effects of amphetamine, morphine, and CP 55, 940 on Go/No-Go task performance in rhesus monkeys.

The effects of beta-arrestin1 deletion on acute cannabinoid activity, brain cannabinoid receptors and tolerance to cannabinoids in mice.

For whom the endocannabinoid tolls: Modulation of innate immune function and implications for psychiatric disorders.

Effects of acute and repeated dosing of the synthetic cannabinoid CP55,940 on intracranial self-stimulation in mice

2-AG promotes the expression of conditioned fear via cannabinoid receptor type 1 on GABAergic neurons

Peripherally Restricted Cannabinoids for the Treatment of Pain.


Involvement of the infralimbic cortex and CA1 hippocampal area in reconsolidation of a contextual fear memory through CB1 receptors: effects of CP55,940. (abst – 2015) http://www.sciencedirect.com/science/article/pii/S1074742715002257


CB1 receptor transgenic mice in the cannabinoid triad: a novel approach to assess in vivo efficacy of CB1 ligands. (abst – 2015) http://www.fasebj.org/content/29/1_Supplement/LB490.abstract?sid=edf921ac-0690-4aa6-ac81-0546314dd384

Combined Treatment with Morphine and Δ9-Tetrahydrocannabinol (THC) in Rhesus Monkeys: Antinociceptive Tolerance and Withdrawal (abst – 2015) http://www.fasebj.org/content/29/1_Supplement/616.9.abstract?sid=edf921ac-0690-4aa6-ac81-0546314dd384


GABABR-Dependent Long-Term Depression at Hippocampal Synapses between CB1-Positive Interneurons and CA1 Pyramidal Cells (full – 2016) http://journal.frontiersin.org/article/10.3389/fncel.2016.00004/full

Functional selectivity of CB2 cannabinoid receptor ligands at a canonical and non-canonical pathway. (full – 2016)
http://jpet.aspetjournals.org/content/early/2016/05/18/jpet.116.232561.long

Discriminative Stimulus Properties of the Endocannabinoid Catabolic Enzyme Inhibitor SA-57 in Mice. (full – 2016)
http://jpet.aspetjournals.org/content/early/2016/06/15/jpet.115.229492.long

Interactions between cannabinoid receptor agonists and mu opioid receptor agonists in rhesus monkeys discriminating fentanyl. (full – 2016)

Pharmacological characterization of repeated administration of the first generation abused synthetic cannabinoid CP47,497. (full – 2016)

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4927043/

Mice Expressing a "Hyper-Sensitive" Form of the Cannabinoid Receptor 1 (CB1) Are Neither Obese Nor Diabetic. (full – 2016)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0160462

Targeting Cannabinoid CB2 Receptors in the Central Nervous System. Medicinal Chemistry Approaches with Focus on Neurodegenerative Disorders. (full – 2016)
http://journal.frontiersin.org/article/10.3389/fnins.2016.00406/full

The CB2 receptor and its role as a regulator of inflammation. (full – 2016)

The endocannabinoid anandamide causes endothelium-dependent vasorelaxation in human mesenteric arteries. (full – 2016)

Adverse Social Experiences in Adolescent Rats Result in Enduring Effects on Social Competence, Pain Sensitivity and Endocannabinoid Signaling (full – 2016)

Endocannabinoid System: the Direct and Indirect Involvement in the Memory and Learning Processes—a Short Review (full – 2016)

CB1 receptor activation in the rat paraventricular nucleus induces bi-directional cardiovascular effects via modification of glutamatergic and GABAergic neurotransmission. (full – 2016)
Identification of N-arachidonoyl dopamine as a highly biased ligand at cannabinoid CB1 receptors. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4813372/


Cannabinoid Receptor Interacting Protein (CRIP) 1a competition with β-arrestin for CB1 receptor binding sites. (link to PDF – 2016) http://molpharm.aspetjournals.org/content/early/2016/11/28/mol.116.104638.long

Behavioral Characterization of Kappa Opioid Receptor Agonist Spiradoline and Cannabinoid Receptor Agonist CP55940 Mixtures in Rats. (link to download – 2016) http://jpet.aspetjournals.org/content/early/2016/11/30/jpet.116.235630.long


Cannabinoid Receptor Interacting Protein (CRIP1a) suppresses agonist-driven CB1 receptor internalization, and regulates receptor replenishment in an agonist-biased manner. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27513693


Cannabinoid CB2 receptor ligand profiling reveals biased signalling and off-target activity (full – 2017)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5216056/

Thermolytic degradation of synthetic cannabinoids: chemical exposures and pharmacological consequences (link to download – 2017)
http://jpet.aspetjournals.org/content/early/2017/01/13/jpet.116.238717.long

CRA–13- CB1 & CB2 agonist

Cannabinoid Receptor Agonist 13, a Novel Cannabinoid Agonist: First in Human Pharmacokinetics and Safety (full – 2009)
http://dmd.aspetjournals.org/content/37/4/827.full

Intestinal lymphatic transport enhances the post-prandial oral bioavailability of a novel cannabinoid receptor agonist via avoidance of first-pass metabolism. (abst – 2009)

CT-3 – see AJULMIC ACID

DH-CBD / DEHYDROXYLCANNABIDIOL - a nonpsychoactive cannabinoid

Cannabinoids suppress inflammatory and neuropathic pain by targeting α3 glycine receptors (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3371734/


DEXANABINOL - see HU-211

DRONABINOL – see MARINOL
**EAM-2201**


**ELMIRIC ACIDS** - anandamide analogs

Potential anti-inflammatory actions of the elmiric (lipoamino) acids (full - 2007)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1896102/?tool=pmcentrez

The elmiric acids: biologically active anandamide analogs (full - 2008)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2621443/?tool=pmcentrez

Cannabinoids, Endocannabinoids, and Related Analogs in Inflammation (full - 2009)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2664885/?tool=pubmed

**ENP11** – a potent CB1 antagonist, analog of rimonabant


**ETS-2101** - see HU-211
**FAAH II** – a FAAH inhibitor

Fatty acid amide hydrolase (FAAH) blockade ameliorates experimental colitis by altering microRNA expression and suppressing inflammation.  

**5FAKB-4**

Acute Toxicity Associated with Use of 5F-Derivations of Synthetic Cannabinoid Receptor Agonists with Analytical Confirmation.  

**[18F]MK-9470** - a radioligand with high affinity for CB1 receptors

In vivo activation of endocannabinoid system in temporal lobe epilepsy with hippocampal sclerosis.  
[full – 2011](http://brain.oxfordjournals.org/content/134/4/1033.long)

**FUBINACA GROUP**

Δ9-Tetrahydrocannabinol-like effects of novel synthetic cannabinoids found on the gray market.  
[full – 2015](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4497846/)


A Common Source Outbreak of Severe Delirium Associated with Exposure to the Novel Synthetic Cannabinoid ADB-PINACA  

Death due to diabetic ketoacidosis: Induction by the consumption of synthetic cannabinoids?  

New psychoactive substances: driving greater complexity into the drug problem  

The 2-alkyl-2H-indazole regioisomers of synthetic cannabinoids AB-CHMINACA, AB-FUBINACA, AB-PINACA, and 5F-AB-PINACA are possible manufacturing impurities with cannabimimetic activities.  (full – 2016)  https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4971050/


Thermolytic degradation of synthetic cannabinoids: chemical exposures and pharmacological consequences  (link to download – 2017)  http://jpet.aspetjournals.org/content/early/2017/01/13/jpet.116.238717.long

**FUBIMINA/ BIM-2201** – CB 1 and 2 agonist

AB-CHMINACA, AB-PINACA, and FUBIMINA: Affinity and Potency of Novel Synthetic Cannabinoids in Producing Δ9-Tetrahydrocannabinol-Like Effects in Mice.  (full – 2015)  http://jpet.aspetjournals.org/content/early/2015/06/23/jpet.115.225326.long

**GP-1a** - CB2 agonist


Selective CB2 receptor activation ameliorates EAE by reducing Th17 differentiation and immune cell accumulation in the CNS. (full – 2013) [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3906668/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3906668/)


Cannabinoid CB2 receptors are involved in the regulation of fibrogenesis during skin wound repair in mice. (full – 2016) [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4805070/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4805070/)


The cannabinoid 2 receptor agonist β-caryophyllene modulates the inflammatory reaction induced by Mycobacterium bovis BCG by inhibiting neutrophil migration. (abst – 2016)  

**GW-6471** – a potent PPAR-α antagonist

Effect of Oleoylethanolamide on Aqueous Humor Outflow. (abst – 2012)  
http://iovs.arvojournals.org/article.aspx?articleid=2352002&resultClick=1

Peroxisome Proliferator-Activated Receptor-α Inhibition Protects Against Doxorubicin-Induced Cardiotoxicity in Mice. (abst – 2015)  

A role of CB1R in inducing θ-rhythm coordination between the gustatory and gastrointestinal insula. (full – 2016)  
http://www.nature.com/articles/srep32529

Pharmacokinetic-pharmacodynamic influence of N-palmitoylethanolamine, arachidonyl-2′-chloroethylamide and WIN 55,212-2 on the anticonvulsant activity of antiepileptic drugs against audiogenic seizures in DBA/2 mice. (abst – 2016)  

Palmitoylethanolamide reduces inflammation and itch in a mouse model of contact allergic dermatitis. (abst – 2016)  

Pharmacokinetic-pharmacodynamic influence of N-palmitoylethanolamine, arachidonyl-2′-chloroethylamide and WIN 55,212-2 on the anticonvulsant activity of antiepileptic drugs against audiogenic seizures in DBA/2 mice. (abst – 2016)  

**GW-405833** – a potent partial CB2 agonist and CB1 antagonist

Paradoxical effects of the cannabinoid CB2 receptor agonist GW405833 on rat osteoarthritic knee joint pain. (full – 2010)  
http://www.oarsijournal.com/article/S1063-4584%2810%2900315-8/fulltext

Brain cannabinoid CB2 receptors modulate cocaine's actions in mice (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3164946/

Dynamic changes to the endocannabinoid system in models of chronic pain
Characterization of cannabinoid receptor ligands in tissues natively expressing cannabinoid CB2 receptors. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3687668/

Cannabinoid Receptor 2 Protects against Acute Experimental Sepsis in Mice. (full – 2013) http://www.hindawi.com/journals/mi/2013/741303/

Endocannabinoid signaling in the gut mediates preference for dietary unsaturated fats. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3659363/


Effects of the cannabinoid 2 receptor-selective agonist GW405833 in assays of acute pain-stimulated and pain-depressed behavior in rats (abst – 2013) http://www.fasebj.org/content/27/1_Supplement/886.9.abstract?sid=6740ccbe-1f93-4779-b975-a966a2a4ae87


The cannabinoid CB2 receptor agonist GW405833 does not ameliorate brain damage induced by hypoxia-ischemia in rats (abst – 2014) http://www.sciencedirect.com/science/article/pii/S0304394014002766

Cannabinoid receptor subtype 2 (CB2R) agonist, GW405833 reduces agonist-induced Ca(2+) oscillations in mouse pancreatic acinar cells. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4949433/


Two Janus cannabinoids that are both CB2 agonists and CB1 antagonists. (link to PDF – 2016) http://jpet.aspetjournals.org/content/early/2016/12/07/jpet.116.236539.long


GW-833972A – a strong CB 2 agonist

Inhibitory activity of the novel CB2 receptor agonist, GW833972A, on guinea-pig and human sensory nerve function in the airways. (full – 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2579660/

GW-9508

http://www.spandidos-publications.com/ijmm/34/4/1117

Dose-response estrogen promotes osteogenic differentiation via GPR40 (FFAR1) in murine BMMSCs. (abst - 2015)

HEXAHYDROCANNABINOLS - cannabinoid derivatives

Hexahydrocannabinols, novel synthetic cannabinoid derivatives, suppress the tumor growth by inhibiting the VEGF secretion and angiogenesis (abst - 2009)
http://www.fasebj.org/content/23/1_Supplement/761.3.abstract?sid=464545f2-6446-441c-8bd2-bfe13ce45124

Involvement of NSAID-activated gene-1 in a novel synthetic hexahydrocannabinol analogue-induced growth inhibition and apoptosis of colon cancer cells (abst - 2010)
http://www.fasebj.org/content/24/1_Supplement/965.8.abstract?sid=6b251fb8-c8bc-4920-b1b0-6bd634b1df26


Novel hexahydrocannabinol analogs as potential anti-cancer agents inhibit cell proliferation and tumor angiogenesis. (abst – 2011)
Anti-tumor activity of the novel hexahydrocannabinol analog LYR-8 in Human colorectal tumor xenograft is mediated through the inhibition of Akt and hypoxia-inducible factor-1α activation. (full – 2012) https://www.jstage.jst.go.jp/article/bpb/35/6/35_b12-00020/pdf

**HU-210** - CB 1 & CB 2 agonist, over 100 times stronger than THC


Palmitoylethanolamide inhibits the expression of fatty acid amide hydrolase and enhances the anti-proliferative effect of anandamide in human breast cancer cells (link to download - 2001) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1222054/pdf/11485574.pdf?tool=pmcentrez

Targeting CB2 cannabinoid receptors as a novel therapy to treat malignant lymphoblastic disease (full - 2002) http://bloodjournal.hematologylibrary.org/cgi/content/full/100/2/627?ijkey=eb71d6d7a06f311440761cfac6a7d081bce2771d
Influence of the CB1 receptor antagonist, AM 251, on the regional haemodynamic effects of WIN-55212-2 or HU 210 in conscious rats (full - 2002) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1573379/?tool=pmcentrez


Activation of cannabinoid receptors decreases the area of ischemic myocardial necrosis. (abst - 2002) https://www.ncbi.nlm.nih.gov/pubmed/12428278

Increase of the heart arrhythmogenic resistance and decrease of the myocardial necrosis zone during activation of cannabinoid receptors (abst – 2002) http://www.ncbi.nlm.nih.gov/pubmed/12136723

The cannabinoids R(-)-7-hydroxy-delta-6-tetra-hydrocannabinol-dimethylheptyl (HU-210), 2-O-arachidonoylglycercytlether (HU-310) and arachidonyl-2-chloroethylamide (ACEA) increase isoflurane provoked sleep duration by activation of cannabinoids 1 (CB1)-receptors in mice. (abst – 2002) http://www.ncbi.nlm.nih.gov/pubmed/12095655

CB1 cannabinoid receptor antagonism promotes remodeling and cannabinoid treatment prevents endothelial dysfunction and hypotension in rats with myocardial infarction (full - 2003) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1573770/?tool=pmcentrez


The endogenous cannabinoid system protects against colonic inflammation (full - 2004) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC385396/

Cannabinoids promote embryonic and adult hippocampus neurogenesis and produce anxiolytic- and antidepressant-like effects (full - 2005) http://www.jci.org/articles/view/25509/version/1

Direct cerebrovascular effects of CB1 receptor activation by the synthetic endocannabinoid HU-210 in vivo (full - 2005) http://jcb.sagepub.com/content/25/1_suppl/S581.full

The analgesic activity of paracetamol is prevented by the blockade of cannabinoid CB1 receptors (abst – 2005) http://www.sciencedirect.com/science/article/pii/S0014299905013178

Activation of CB1 and CB2 receptors attenuates the induction and maintenance of inflammatory pain in the rat. (abst - 2005) http://www.ncbi.nlm.nih.gov/pubmed/16289798

Actions of the FAAH inhibitor URB597 in neuropathic and inflammatory chronic pain models (full - 2006) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1751298/?tool=pmcentrez


Increased endocannabinoid levels reduce the development of precancerous lesions in the mouse colon (full - 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2755791/?tool=pmcentrez


Cannabinoids Induce Glioma Stem-like Cell Differentiation and Inhibit Gliomagenesis (full - 2007) http://www.jbc.org/content/282/9/6854.long

The synthetic cannabinoid HU210 induces spatial memory deficits and suppresses hippocampal firing rate in rats (full – 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2013991/


Repeated Cannabinoid Injections into the Rat Periaqueductal Gray Enhances Subsequent Morphine Antinociception (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2743428/?tool=pmcentrez

Cannabinoid receptor 1 is a potential drug target for treatment of translocation-positive rhabdomyosarcoma (full - 2009) http://mct.aacrjournals.org/content/8/7/1838.full

Role of endocannabinoid signaling in anxiety and depression. (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3808114/


Antitumorigenic Effects of Cannabinoids beyond Apoptosis (full - 2010) http://jpet.aspetjournals.org/content/332/2/336.full?sid=af53ea87-ab4b-426e-9c7e-8f750e9c4a17


Cannabinoid Receptor Type 1 Protects Nigrostriatal Dopaminergic Neurons against MPTP Neurotoxicity by Inhibiting Microglial Activation. (full – 2011) http://www.jimmunol.org/content/187/12/6508.full?sid=c3422dd2-7ad0-42e4-a862-845dc670f7ef
Cannabinoid potentiation of glycine receptors contributes to cannabis-induced analgesia. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3388539/

Pharmacological activation/inhibition of the cannabinoid system affects alcohol withdrawal-induced neuronal hypersensitivity to excitotoxic insults. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3158793/

Regulation of nausea and vomiting by cannabinoids (full - 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165951/


Cannabinoid HU210 Protects Isolated Rat Stomach against Impairment Caused by Serum of Rats with Experimental Acute Pancreatitis. (full - 2012) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0052921

Activation of Cannabinoid Receptor 2 reduces inflammation in acute experimental pancreatitis via intra-acinar activation of p38 and MK2-dependent mechanisms. (full – 2012) http://ajpgi.physiology.org/content/304/2/G181

Spice drugs are more than harmless herbal blends: A review of the pharmacology and toxicology of synthetic cannabinoids. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3936256/

The anti-nausea effects of CB(1) agonists are mediated by an action at the visceral insular cortex. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3492992/

The periaqueductal gray contributes to bidirectional enhancement of antinociception between morphine and cannabinoids. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3959123/

Acute cannabinoids impair working memory through astroglial CB1 receptor modulation of hippocampal LTD. (full – 2012) http://www.sciencedirect.com/science/article/pii/S0092867412001420

Contrasting effects of different cannabinoid receptor ligands on mouse ingestive behavior (abst – 2012) http://www.unboundmedicine.com/medline/ebm/record/22772336/abstract/Contrasting_effects_of_different_cannabinoid_receptor_ligands_on_mouse_ingestive_behavior


Cannabinoid HU210 Protects Isolated Rat Stomach against Impairment Caused by Serum of Rats with Experimental Acute Pancreatitis (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0052921


Using the endocannabinoid system as a neuroprotective strategy in perinatal hypoxic-ischemic brain injury. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4146074/


Spice/K2 drugs - more than innocent substitutes for marijuana. (full – 2013) http://ijnp.oxfordjournals.org/content/17/3/509


Synthetic Cannabinoids: Crisis of The Decade (link to PDF - 2013) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.684.46&rank=8

Functional Residues Essential for the Activation of the CB1 Cannabinoid Receptor.  
(abstract - 2013)  

Effects of cannabinoids and related fatty acids upon the viability of P19 embryonal carcinoma cells.  
(abstract – 2013)  

Cytotoxicity of synthetic cannabinoids on primary neuronal cells of the forebrain: the involvement of cannabinoid CB1 receptors and apoptotic cell death.  
(abstract – 2013)  

The Cannabinoid Agonist HU210 Delays Retinal Degeneration and Vision Loss  
(abstract – 2013)  
http://iovs.arvojournals.org/article.aspx?articleid=2148029&resultClick=1

Vascular targets for cannabinoids: animal and human studies.  
(full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3954478/

Understanding itch: An update on mediators and mechanisms of pruritus.  
(full – 2014)  
http://www.ijdvl.com/article.asp?issn=0378-6323;year=2014;volume=80;issue=2;spage=106;epage=114;aulast=Hassan

Individual differences in response to positive and negative stimuli: endocannabinoid-based insight on approach and avoidance behaviors.  
(full – 2014)  

Neuroprotective effects of the cannabinoid agonist HU210 on retinal degeneration.  
(abstract – 2014)  

Role of Cyclic Nucleotides and NO Synthase in Mechanisms of Cardioprotective Effects of Cannabinoid HU-210.  
(abstract – 2014)  

Protective role of the cannabinoid receptor system in A2E-mediated photo-toxicity to retinal pigment epithelium (RPE) cells in an in-vitro model of age-related macular degeneration (AMD)  
(abstract – 2014)  
http://iovs.arvojournals.org/article.aspx?articleid=2271845&resultClick=1

Promising cannabinoid-based therapies for Parkinson's disease: motor symptoms to neuroprotection.  
(full – 2015)  
http://www.molecularneurodegeneration.com/content/pdf/s13024-015-0012-0.pdf

Biased Agonism and Biased Allosteric Modulation at the CB1 Cannabinoid Receptor.  
(full – 2015)  
http://molpharm.aspetjournals.org/content/early/2015/06/04/mol.115.099192.long


Synthetic and endogenous cannabinoids protect retinal neurons from AMPA excitotoxicity in vivo, via activation of CB1 receptors: Involvement of PI3K/Akt and MEK/ERK signaling pathways. (abst – 2015) http://www.sciencedirect.com/science/article/pii/S0014483515001554


Dopamine-dependent CB1 receptor dysfunction at corticostriatal synapses in homozygous PINK1 knockout mice. (abst – 2015) http://www.sciencedirect.com/science/article/pii/S0028390815301441

Cannabinoid Ligands and Alcohol Addiction: A Promising Therapeutic Tool or a Humbug? (full – 2016)  

Endogenous and Synthetic Cannabinoids as Therapeutics in Retinal Disease  
(full – 2016)  
http://www.hindawi.com/journals/np/2016/8373020/  

CB2 Cannabinoid Receptor As Potential Target against Alzheimer's Disease  
(full – 2016)  

Endocannabinoid System: the Direct and Indirect Involvement in the Memory and Learning Processes—a Short Review  
(full – 2016)  

Effect of synthetic cannabinoids on spontaneous neuronal activity: Evaluation using Ca2+ spiking and multi-electrode arrays.  
(abst – 2016)  

Activation of cannabinoid CB1 receptors suppresses the ROS-induced hypersensitivity of rat vagal lung C-fiber afferents.  
(abst – 2016)  

First-Episode of Synthetic Cannabinoid-Induced Psychosis in a Young Adult, Successfully Managed with Hospitalization and Risperidone.  
(full – 2016)  
http://www.hindawi.com/journals/crips/2016/7257489/

The CB2 receptor and its role as a regulator of inflammation.  
(full – 2016)  

Δ9-Tetrahydrocannabinol Reverses TNFα-induced Increase in Airway Epithelial Cell Permeability through CB2 Receptors  
(abst – 2016)  

Exocannabinoids effect on in vitro bovine oocyte maturation via activation of AKT and ERK1/2.  
(abst – 2016)  

The Anti-Inflammatory Effect and Intestinal Barrier Protection of HU210 Differentially Depend on TLR4 Signaling in Dextran Sulfate Sodium-Induced Murine Colitis  
(abst – 2016)  

The CB1 receptor is required for the establishment of the hyperlocomotor phenotype in developmentally-induced hypothyroidism in mice.  
(abst – 2016)  

HU-211, a Novel Noncompetitive N-Methyl-D-Aspartate Antagonist, Improves Neurological Deficit and Reduces Infarct Volume After Reversible Focal Cerebral Ischemia in the Rat (full - 1995) http://stroke.ahajournals.org/cgi/content/full/26/12/2313


Protection Against Septic Shock and Suppression of Tumor Necrosis Factor α and Nitric Oxide Production by Dexanabinol (HU-211), a Nonpsychotropic Cannabinoid (full - 1997) http://jpet.aspetjournals.org/content/283/2/918.full

Cytokine production in the brain following closed head injury: dexanabinol (HU-211) is a novel TNF-alpha inhibitor and an effective neuroprotectant. (abst – 1997) http://www.ncbi.nlm.nih.gov/pubmed/9042110


Dexanabinol (HU-211) has a beneficial effect on axonal sprouting and survival after rat optic nerve crush injury. (full – 2003) http://www.sciencedirect.com/science/article/pii/S0042698902004947
Future of Cannabis and Cannabinoids in Therapeutics  (link to PDF - 2003)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.597.1387&rank=7


Therapeutic potential of cannabinoids in CNS disease.  (abst - 2003)

Dexanabinol: dexamabinone, HU 211, PA 50211, PRS 211007, sinnabidol.

Dexanabinol prevents development of vasospasm in the rat femoral artery model.

Effects of cannabinoids and related fatty acids upon the viability of P19 embryonal
carcinoma cells.  (abst – 2013)

Cannabinoids in experimental stroke: a systematic review and meta-analysis.
(full – 2014)  http://jcb.sagepub.com/content/35/3/348.long

**HU-308 - CB2 agonist**

HU-308: a specific agonist for CB(2), a peripheral cannabinoid receptor.  (full - 1999)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC24419/?tool=pubmed

Peripheral cannabinoid receptor, CB2, regulates bone mass  (full - 2005)
http://www.pnas.org/content/103/3/696.full

Cannabinoid CB2 receptor agonist activity in the hindpaw incision model of

Non-psychoactive CB2 cannabinoid agonists stimulate neural progenitor proliferation

Pivotal Advance: Cannabinoid-2 receptor agonist HU-308 protects against hepatic
ischemia/reperfusion injury by attenuating oxidative stress, inflammatory response, and
apoptosis  (full - 2007)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2225476/?tool=pmcentrez

Endocannabinoids, cannabinoid receptors and inflammatory stress: an interview with Dr.
Pál Pacher  (link to PDF - interview - 2007)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.510.3426
Regulation of Bone Mass, Osteoclast Function, and Ovariectomy-Induced Bone Loss by the Type 2 Cannabinoid Receptor (full - 2008)  

Gadolinium-HU-308-incorporated micelles. (full – 2011)  

Is lipid signaling through cannabinoid 2 receptors part of a protective system?  
(full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3062638/

The Type 2 Cannabinoid Receptor Regulates Bone Mass and Ovariectomy-Induced Bone Loss by Affecting Osteoblast Differentiation and Bone Formation (full – 2011)  

CB2 Cannabinoid Receptors Promote Neural Progenitor Cell Proliferation via mTORC1 Signaling (full – 2011)  
http://www.jbc.org/content/287/2/1198.full

Cannabinoid-2 Receptor Activation Protects against Infarct and Ischemia/Reperfusion Heart Injury. (abst – 2011)  

The CB2 receptor regulates osteoclast formation, breast cancer cell migration and osteoclast/tumour cell interaction via the PI3 Kinase/AKT pathway (abst – 2011)  
http://www.thebonejournal.com/article/S8756-3282%2811%2900177-3/abstract

Cannabinoid receptor 2 activation reduces intestinal leukocyte recruitment and systemic inflammatory mediator release in acute experimental sepsis (full – 2012)  
http://ccforum.com/content/16/2/R47

Cannabinoids ameliorate disease progression in a model of multiple sclerosis in mice, acting preferentially through CB(1) receptor-mediated anti-inflammatory effects. (abst - 2012)  

Effect of omega-3 polyunsaturated fatty acids on the endocannabinoid system in osteoblast-like cells and muscle (abst – 2012)  
http://docs.lib.purdue.edu/dissertations/AAI3444794/

Prospects for cannabinoid therapies in viral encephalitis. (full – 2013)  

Characterization of bladder function in a cannabinoid receptor type 2 knockout mouse in vivo and in vitro. (abst – 2013)  

The role of Cannabinoid receptors on light-induced photoreceptor degeneration (abst – 2013)  
http://iovs.arvojournals.org/article.aspx?articleid=2149928&resultClick=1

Experimental cannabinoid 2 receptor-mediated immune modulation in sepsis. (full – 2014)  
http://www.hindawi.com/journals/mi/2014/978678/
2012 Division of Medicinal Chemistry Award Address: Trekking the Cannabinoid Road: A Personal Perspective. (full– 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4064474/

Antagonism of cannabinoid receptor 2 pathway suppresses IL-6-induced immunoglobulin IgM secretion (full – 2014) http://www.biomedcentral.com/2050-6511/15/30

Expression of cannabinoid receptor 2 and its inhibitory effects on synovial fibroblasts in rheumatoid arthritis. (full – 2014) http://rheumatology.oxfordjournals.org/content/53/5/802.long


Type-2 cannabinoid receptor regulates proliferation, apoptosis, differentiation, and OPG/RANKL ratio of MC3T3-E1 cells exposed to Titanium particles. (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/25292314

Protective role of the cannabinoid receptor system in A2E-mediated photo-toxicity to retinal pigment epithelium (RPE) cells in an in-vitro model of age-related macular degeneration (AMD) (abst – 2014) http://iovs.arvojournals.org/article.aspx?articleid=2271845&resultClick=1

Primary Macrophage Chemotaxis Induced by Cannabinoid Receptor 2 Agonists Occurs Independently of the CB2 Receptor. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4451551/

Bone cell-autonomous contribution of type 2 cannabinoid receptor to breast cancer induced osteolysis. (full – 2015) http://www.jbc.org/content/early/2015/07/20/jbc.M115.649608.long


The type 2 cannabinoid receptor regulates susceptibility to osteoarthritis in mice. (full – 2015) http://www.oarsijournal.com/article/S1063-4584(15)01140-1/fulltext

Protective effect of paeoniflorin on the hippocampus in rats with cerebral ischemia-reperfusion through activating cannabinoid receptor 2 (abst – 2015)  

Potential of the cannabinoid CB2 receptor as a pharmacological target against inflammation in Parkinson's disease. (abst – 2015)  

Pro-inflammatory obesity in aged cannabinoid-2 receptor deficient mice. (abst – 2015)  

A collaboration investigating endocannabinoid signalling in brain and bone (full – 2016)  

CB2 Cannabinoid Receptor As Potential Target against Alzheimer's Disease (full – 2016)  

CB2 cannabinoid receptor activation promotes colon cancer progression via AKT/GSK3β signaling pathway (full – 2016)  
http://www.impactjournals.com/oncotarget/index.php?journal=oncotarget&page=article&op=view&path%5B%5D=11968&path%5B%5D=37882

The CB2 receptor and its role as a regulator of inflammation. (full – 2016)  

Activation of Cannabinoid Receptor 2 Ameliorates DSS-Induced Colitis through Inhibiting NLRP3 Inflammasome in Macrophages. (full – 2016)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5017608/

Anti-Inflammatory and Osteoprotective Effects of Cannabinoid-2 Receptor Agonist Hu-308 in a Rat Model of Lipopolysaccharide-Induced Periodontitis. (abst – 2016)  

Cannabinoid 2 (CB2) receptor agonism reduces lithium chloride-induced vomiting in Suncus murinus and nausea-induced conditioned gaping in rats. (abst – 2016)  

Selective activation of CB2 receptor improves efferocytosis in cultured macrophages. (abst – 2016)  

Cannabinoid 2 receptor is a novel anti-inflammatory target in experimental proliferative vitreoretinopathy. (abst – 2016)  

The endocannabinoid anandamide causes endothelium-dependent vasorelaxation in human mesenteric arteries. (full – 2016)  
Cannabinoid CB2 receptor ligand profiling reveals biased signalling and off-target activity (full – 2017)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5216056/

**HU-310** – CB1 agonist

Despite substantial degradation, 2-arachidonoylglycerol is a potent full efficacy agonist mediating CB(1) receptor-dependent G-protein activation in rat cerebellar membranes. (full – 2001)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1572991/

The cannabinoids R(-)-7-hydroxy-delta-6-tetrahydrocannabinol-dimethylheptyl (HU-210), 2-O-arachidonoylglycerylether (HU-310) and arachidonyl-2-chloroethylamide (ACEA) increase isoflurane provoked sleep duration by activation of cannabinoids 1 (CB1)-receptors in mice. (abst – 2002)  

Ether-linked analogue of 2-arachidonoylglycerol (noladin ether) was not detected in the brains of various mammalian species (full – 2003)  

Peripheraly selective cannabinoid 1 receptor (CB1R) agonists for the treatment of neuropathic pain. (abst – 2016)  
http://pubs.acs.org/doi/abs/10.1021/acs.jmedchem.6b00516

**HU-320** – chemically related to CBD, mechanism of action not established

A novel synthetic, nonpsychoactive cannabinoid acid (HU-320) with antiinflammatory properties in murine collagen-induced arthritis. (full - 2004)  

**HU-239** - see AJULEMIC ACID

**HU-331** – derived from cannabidiol (CBD), mechanism of action not established

A cannabinoid quinone inhibits angiogenesis by targeting vascular endothelial cells. (full - 2006)  
http://molpharm.aspetjournals.org/content/70/1/51.long
A Cannabinoid Anticancer Quinone, HU-331, Is More Potent and Less Cardiotoxic Than Doxorubicin: A Comparative in Vivo Study (full - 2007)  
http://jpet.aspetjournals.org/content/322/2/646.full

HU-331, a novel cannabinoid-based anticancer topoisomerase II inhibitor (full - 2007)  
http://mct.aacrjournals.org/content/6/1/173.long

HU-331: a cannabinoid quinone, with uncommon cytotoxic properties and low toxicity. (abst - 2007)  

Antitumorigenic Effects of Cannabinoids beyond Apoptosis (full - 2010)  
http://jpet.aspetjournals.org/content/332/2/336.full?sid=af53ea87-ab4b-426e-9c7e-8f750e9c4a17

Characterization of HU-331 as a cannabinoid quinone inhibitor of topoisomerase II (abst – 2014)  
http://www.fasebj.org/content/28/1_Supplement/549.6.abstract?sid=db987fd0-3ef0-4796-aff6-4103f0c84dab

HU-331 Is a Catalytic Inhibitor of Topoisomerase Iiα (abst – 2014)  
http://pubs.acs.org/doi/abs/10.1021/tx500245m

HU-444 – a CBD derivative

HU-444, A Novel, Potent Anti-Inflammatory, Non-Psychotropic Cannabinoid. (full – 2015)  
http://jpet.aspetjournals.org/content/early/2015/08/13/jpet.115.226100.long

HU-446 – a CBD derivative

HU-446 and HU-465, derivatives of the non-psychoactive cannabinoid cannabidiol, decrease the activation of encephalitogenic T cells. (full – 2015)  

HU-465 – a CBD derivative
HU-446 and HU-465, derivatives of the non-psychoactive cannabinoid cannabidiol, decrease the activation of encephalitogenic T cells.  

**HU-910 / LISINOPRIL** – CB2 agonist

A new cannabinoid 2 receptor agonist HU-910 attenuates oxidative stress, inflammation, and cell death associated with hepatic ischemia/reperfusion injury.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423243/

Alcohol Versus Cannabinoids: A Review of Their Opposite Neuro-Immunomodulatory Effects and Future Therapeutic Potentials  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4607066/

Therapy with a Selective Cannabinoid Receptor Type 2 Agonist Limits Albuminuria and Renal Injury in Mice with Type 2 Diabetic Nephropathy.  

Cannabinoid CB2 receptor ligand profiling reveals biased signalling and off-target activity  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5216056/

**HUF-101 / 4’-F-CBD** - a synthetic fluorinated CBD derivative

Fluorinated Cannabidiol Derivatives: Enhancement of Activity in Mice Models Predictive of Anxiolytic, Antidepressant and Antipsychotic Effects.  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0158779

**IBIPINABANT/ IBI** – a powerful CB1 antagonist- causes heart damage in dogs

Pooled sample strategy in conjunction with high-resolution liquid chromatography-mass spectrometry-based background subtraction to identify toxicological markers in dogs treated with ibipinabant.  
Cannabinoid Receptor Antagonist-Induced Striated Muscle Toxicity and Ethylmalonic-Adipic Aciduria in Beagle Dogs  (full – 2012)
http://toxsci.oxfordjournals.org/content/129/2/268.full


Formulation and process design for a solid dosage form containing a spray-dried amorphous dispersion of ibipinabant.  (abst – 2013)

**IR700DX-mbc94** – a CB2- targeted photosensitizer

Cannabinoid CB2 Receptor as a New Phototherapy Target for Inhibition of Tumor Growth.  (abst – 2014)  http://pubs.acs.org/doi/abs/10.1021/mp5001923

**JBT-101/ RESUNAB** - an ultra-purified form of Ajulemic Acid

Ultrapure ajulemic acid has improved CB2 selectivity with reduced CB1 activity.  (abst – 2014)  http://www.sciencedirect.com/science/article/pii/S0968089614003368


**JD-5037** - CB1 agonist with limited brain penetration


Hepatic cannabinoid-1 receptors mediate diet-induced insulin resistance by increasing de novo synthesis of long-chain ceramides.  (full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3839256/

Targeting the endocannabinoid/CB1 receptor system for treating obesity in Prader-Willi syndrome. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5123200/

**JMG-14** – a Rimonobant analog, CB1 antagonist


**JNJ-1661010** - a FAAH inhibitor


Anti-inflammatory effects of N-acylethanolamines in rheumatoid arthritis synovial cells are mediated by TRPV1 and TRPA1 in a COX-2 dependent manner. (full – 2015) http://www.arthritis-research.com/content/17/1/321


**JTE-907**

JWH-015 — CB2 & GPR-55 agonist, mildly activates CB1 receptors

Effects of cannabinoid receptor agonists on neuronally-evoked contractions of urinary bladder tissues isolated from rat, mouse, pig, dog, monkey and human (full - 2000)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1571997/

Targeting CB2 cannabinoid receptors as a novel therapy to treat malignant lymphoblastic disease (full - 2002)
http://bloodjournal.hematologylibrary.org/cgi/content/full/100/2/6277
ijkey=eb71d6d7a06f311440761cfac6a7d081bcc2771d


CB2 cannabinoid receptors in trabecular meshwork cells mediate JWH015-induced enhancement of aqueous humor outflow facility. (full - 2005)
http://www.iovs.org/content/46/6/1988.long

Stimulation of cannabinoid receptor 2 (CB2) suppresses microglial activation (full – 2005) http://www.springerlink.com/content/tq77102q4185073/fulltext.html

CENTRAL CANNABINOID REGULATION OF FOOD INTAKE IN CHICKENS (link to PDF - 2005)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.587.5749&rank=38


Chemical modification of the naphthoyl 3-position of JWH-015: In search of a fluorescent probe to the cannabinoid CB2 receptor (abst – 2005)

CB2 cannabinoid receptor agonist, JWH-015 triggers apoptosis in immune cells: Potential role for CB2 selective ligands as immunosuppressive agents (full – 2006)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1864948/

Cannabinoid derivatives induce cell death in pancreatic MIA PaCa-2 cells via a receptor-independent mechanism. (full – 2006)

Potential role for CB2 selective ligands as immunosuppressive agents (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1864948/?tool=pmcentrez

Opposing control of cannabinoid receptor stimulation on amyloid-beta-induced reactive gliosis: in vitro and in vivo evidence. (full - 2007)
http://jpet.aspetjournals.org/content/322/3/1144.long
Spinal cannabinoid receptor type 2 activation reduces hypersensitivity and spinal cord glial activation after paw incision.  
(http://anesthesiology.pubs.asahq.org/article.aspx?articleid=1922987&resultClick=3) 

In vivo effects of CB2 receptor-selective cannabinoids on the vasculature of normal and arthritic rat knee joints  

CB2 cannabinoid receptor agonist JWH-015 modulates human monocyte migration through defined intracellular signaling pathways.  
(http://ajpheart.physiology.org/content/294/3/H1145.long) 

Behavioral effects of CB2 cannabinoid receptor activation and its influence on food and alcohol consumption.  
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4219871/) 

Endocannabinoids enhance lipid synthesis and apoptosis of human sebocytes via cannabinoid receptor-2-mediated signaling.  
(link to PDF – 2008)  
(http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.328.8372) 

Presence and regulation of cannabinoid receptors in human retinal pigment epithelial cells.  
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2697670/?tool=pubmed) 

Inhibition of human tumour prostate PC-3 cell growth by cannabinoids R(+) Methanandamide and JWH-015: Involvement of CB2  
(http://www.nature.com/bjc/journal/v101/n6/full/6605248a.html) 

The activation of cannabinoid CB2 receptors stimulates in situ and in vitro beta-amyloid removal by human macrophages.  
(abort - 2009)  

Cannabinoid Receptors, CB1 and CB2, as Novel Targets for Inhibition of Non-Small Cell Lung Cancer Growth and Metastasis  
(https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3025486/) 

Protective effects of the synthetic cannabinoids CP55,940 and JWH-015 on rat brain mitochondria upon paraquat exposure.  
(abort – 2010)  
(http://www.ncbi.nlm.nih.gov/pubmed/20514518) 

Crosstalk between Chemokine Receptor CXCR4 and Cannabinoid Receptor CB(2) in Modulating Breast Cancer Growth and Invasion.  
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3168464/?tool=pubmed) 

Marijuana-based Drugs: Innovative Therapeutics or Designer Drugs of Abuse?  
(full – 2011)  
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3139381/?tool=pubmed) 

The Antinociceptive Effects of JWH-015 in Chronic Inflammatory Pain Are Produced by Nitric Oxide-eGMP-PKG-KATP Pathway Activation Mediated by Opioids.
Beyond THC: The New Generation of Cannabinoid Designer Drugs.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3198780/?tool=pubmed

Cannabinoids and bone: endocannabinoids modulate human osteoclast function in vitro  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423262/

Intrathecal Administration of the Cannabinoid 2 Receptor Agonist JWH015 Can Attenuate Cancer Pain and Decrease mRNA Expression of the 2B Subunit of N-Methyl-D-Aspartic Acid  
http://journals.lww.com/anesthesia-analgesia/Fulltext/2011/08000/Intrathecal_Administration_of_the_Cannabinoid_2.33.aspx

Cannabinoid receptor 2 agonist ameliorates mesenteric angiogenesis and portosystemic collaterals in cirrhotic rats.  

Disease modification of breast cancer-induced bone remodeling by cannabinoid 2 receptor agonists.  

GPR18 in microglia: implications for the CNS and endocannabinoid system signaling  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3525861/

Evidence for the Putative Cannabinoid Receptor (GPR55)-Mediated Inhibitory Effects on Intestinal Contractility in Mice.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3548934/

Spice drugs are more than harmless herbal blends: A review of the pharmacology and toxicology of synthetic cannabinoids.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3936256/

The CB(2)-preferring agonist JWH015 also potently and efficaciously activates CB(1) in autaptic hippocampal neurons.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3601544/

Cannabinoid Receptor CB2 Modulates Axon Guidance  
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.727.7765&rank=63&q=cannabinoid&osm=&ossid=

Contrasting protective effects of cannabinoids against oxidative stress and amyloid-β evoked neurotoxicity in vitro.  

Cannabinoids and muscular pain. Effectiveness of the local administration in rat.  

Acute toxicity due to the confirmed consumption of synthetic cannabinoids: Clinical and laboratory findings.  
Combined antiproliferative effects of the aminoalkylindole WIN55,212-2 and radiation in breast cancer cells.  (full – 2013)  
http://jpet.aspetjournals.org/content/early/2013/11/20/jpet.113.205120.long

Involvement of PPARγ in the antitumoral action of cannabinoids on hepatocellular carcinoma.  (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3674350/

Chronic activation of cannabinoid receptors in vitro does not compromise mouse islet function.  (full – 2013)  

Using the endocannabinoid system as a neuroprotective strategy in perinatal hypoxic-ischemic brain injury.  (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4146074/

Spice/K2 drugs - more than innocent substitutes for marijuana.  (full – 2013)  
http://ijnp.oxfordjournals.org/content/17/3/509

Cannabinoid CB2 receptor activation attenuates cytokine-evoked mucosal damage in a human colonic explant model without changing epithelial permeability.  (abst – 2013)  

Cannabinoid Effects on β Amyloid Fibril and Aggregate Formation, Neuronal and Microglial-Activated Neurotoxicity In Vitro  (abst – 2013)  

Vascular targets for cannabinoids: animal and human studies.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3954478/

Cannabinoid CB2 receptor (CB2R) stimulation delays rubrospinal mitochondrial-dependent degeneration and improves functional recovery after spinal cord hemisection by ERK1/2 inactivation.  (full – 2014)  
http://www.nature.com/cddis/journal/v5/n9/full/cddis2014364a.html

Treatment with a Heme Oxygenase 1 Inducer Enhances the Antinociceptive Effects of µ-Opioid, δ-Opioid, and Cannabinoid 2 Receptors during Inflammatory Pain  (full – 2014)  
http://jpet.aspetjournals.org/content/351/1/224.long

Cannabinoids as therapeutic agents in cancer: current status and future implications.  
(link to PDF- 2014)  

Evaluation of selective cannabinoid CB1 and CB2 receptor agonists in a mouse model of lipopolysaccharide-induced interstitial cystitis.  (abst – 2014)  

Intrathecal Injection of JWH015 Attenuates Remifentanil-Induced Postoperative Hyperalgesia by Inhibiting Activation of Spinal Glia in a Rat Model.  (abst – 2014)
Anti-Obesity Effect of the CB2 Receptor Agonist JWH-015 in Diet-Induced Obese Mice. (full – 2015) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0140592


Modulation of cellular redox homeostasis by the endocannabinoid system. (full – 2016) http://rsob.royalsocietypublishing.org/content/6/4/150276


Endocannabinoid System: the Direct and Indirect Involvement in the Memory and Learning Processes—a Short Review (full – 2016)

Cannabinoid receptor-2 agonist inhibits macrophage induced EMT in non-small cell lung cancer by downregulation of EGFR pathway. (abst – 2016)


JWH-018 / “BONZAI” – CB1 agonist, 5 times stronger than THC, and can be fatal

Withdrawal Phenomena and Dependence Syndrome After the Consumption of "Spice Gold" (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2719097/?tool=pmcentrez


JWH018, a common constituent of 'Spice' herbal blends, is a potent and efficacious cannabinoid CB(1) receptor agonist. (full - 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931559/?tool=pubmed

Involvement of cannabinoid-1 and cannabinoid-2 receptors in septic ileus. (full – 2010)

Bad Mojo: use of the new marijuana substitute leads to more and more ED visits for acute psychosis (editorial – 2010)


Pharmacological properties and dependence liabilities of synthetic cannabinoids (abst – 2010) http://www.unboundmedicine.com/medline/ebm/record/20681249/abstract/%5BPotential_cannabinoid%5D


College students and use of K2: an emerging drug of abuse in young persons (full – 2011) http://www.substanceabusepolicy.com/content/6/1/16


Marijuana-based Drugs: Innovative Therapeutics or Designer Drugs of Abuse? (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3139381/?tool=pubmed


Synthetic cannabinoids in oral fluid. (full – 2011) http://jat.oxfordjournals.org/content/35/7/424.long

Use of high-resolution accurate mass spectrometry to detect reported and previously unreported cannabinomimetics in "herbal high" products. (full – 2011) http://jat.oxfordjournals.org/content/34/5/252.long


Severe toxicity following synthetic cannabinoid ingestion. (full – 2011)
Synthetic cannabinoid JWH-018 and psychosis: An explorative study. (abst – 2011)
http://www.ncbi.nlm.nih.gov/pubmed/21316162

Cardiotoxicity associated with the synthetic cannabinoid, K9, with laboratory confirmation. (abst – 2011)

The emergence and analysis of synthetic cannabinoids. (abst – 2011)

Comparison of "herbal highs" composition. (abst – 2011)

"Spice" girls: synthetic cannabinoid intoxication. (abst – 2011)

Three cases of "spice" exposure. (abst – 2011)

Effects of synthetic cannabinoids on electroencephalogram power spectra in rats. (abst – 2011)
http://www.unboundmedicine.com/medline/ebm/record/21640532/abstract/Effects_of_synthetic_cannabinoids_on_electroencephalogram_power_spectra_in_rats

A Characterization of Synthetic Cannabinoid Exposures Reported to the National Poison Data System in 2010 (full – 2012)

The role of CB2 receptor ligands in human eosinophil function (full – 2012)

A survey study to characterize use of Spice products (synthetic cannabinoids). (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3217086/

JWH-018 and JWH-073: \{\Delta^9\}-Tetrahydrocannabinol-Like Discriminative Stimulus Effects in Monkeys. (full – 2012)

Adolescent Exposure of JWH-018 “Spice” Produces Subtle Effects on Learning and Memory Performance in Adulthood (full – 2012)
http://file.scirp.org/Html/2-3900080_19505.htm

Detection and disposition of JWH-018 and JWH-073 in mice after exposure to "Magic Gold" smoke. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3677765/
Inhalation exposure to smoke from synthetic "marijuana" produces potent cannabimimetic effects in mice. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3501554/

A major glucuronidated metabolite of JWH-018 is a neutral antagonist at CB1 receptors. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3921679/

Spice drugs are more than harmless herbal blends: A review of the pharmacology and toxicology of synthetic cannabinoids. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3936256/

Determination of naphthalen-1-yl-(1-pentylindol-3-yl)methanone (JWH-018) in mouse blood and tissue after inhalation exposure to ‘buzz’ smoke by HPLC/MS/MS (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3697740/


Synthetic cannabis (abst – 2012) http://tidsskriftet.no/article/2896636/en_GB

Differential drug-drug interactions of the synthetic Cannabinoids JWH-018 and JWH-073: implications for drug abuse liability and pain therapy. (full - 2013) http://jpet.aspetjournals.org/content/early/2013/06/25/jpet.113.206003.long

The Directive 2010/63/EU on animal experimentation may skew the conclusions of pharmacological and behavioural studies. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3737502/


Human metabolites of synthetic cannabinoids JWH-018 and JWH-073 bind with high affinity and act as potent agonists at cannabinoid type-2 receptors. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3685885/

Qualitative Confirmation of 9 Synthetic Cannabinoids and 20 Metabolites in Human Urine Using LC-MS/MS and Library Search. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3874406/


High Times, Low Sats: Diffuse Pulmonary Infiltrates Associated with Chronic Synthetic Cannabinoid Use. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3657026/

Simultaneous quantification of 20 synthetic cannabinoids and 21 metabolites, and semi-quantification of 12 alkyl hydroxy metabolites in human urine by liquid chromatography-

Ischemic stroke after use of the synthetic marijuana "spice" (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3863350/

Moving around the molecule: Relationship between chemical structure and in vivo activity of synthetic cannabinoids. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3944940/

Spice/K2 drugs - more than innocent substitutes for marijuana. (full – 2013) http://ijnp.oxfordjournals.org/content/17/3/509

Sulfaphenazole and α-Naphthoflavone Attenuate the Metabolism of the Synthetic Cannabinoids JWH-018 and AM2201 Found in K2/Spice. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4154622/


Synthetic Cannabinoids: Crisis of The Decade (link to PDF - 2013) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.684.46&rank=8


Toxicological profiles of selected synthetic cannabinoids showing high binding affinities to the cannabinoid receptor subtype CB₁. (abst – 2013)


Review of detection frequency and type of synthetic cannabinoids in herbal compounds analyzed by Istanbul Narcotic Department of the Council of Forensic Medicine, Turkey. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/23910858

The omega and omega-1 monohydroxyl metabolites of the abused K2/Spice synthetic cannabinoids JWH-018 and JWH- 073 bind with high affinity and act as agonists at human cannabinoid 2 receptors (hCB2s) (abst – 2013) http://www.fasebj.org/content/26/1_Supplement/660.8.abstract?sid=ad340c8e-cc99-4eda-84a0-c19d6efcdd3

Conditioned taste aversion elicited by synthetic cannabinoid JWH-018 in mice is attenuated by pretreatment with phytocannabinoid \( \Delta 9 \)-THC (abst – 2013) http://www.fasebj.org/content/26/1_Supplement/660.4.abstract?sid=e6079848-a965-4a39-9656-0d675b46986f


Effects and risks associated with novel psychoactive substances: mislabeling and sale as bath salts, spice, and research chemicals. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3965957/
Screening for synthetic cannabinoids in hair by using LC-QTOF MS: A new and powerful approach to study the penetration of these new psychoactive substances in the population (full – 2014) http://msl.sagepub.com/content/54/1/22.long


Quantitative urine confirmatory testing for synthetic cannabinoids in randomly collected urine specimens. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4363290/


Functional consequences of synthetic cannabinoid metabolites and CYP2C9 polymorphisms (abst – 2014) 
http://www.fasebj.org/content/28/1_Supplement/838.4.abstract?sid=467bb529-0ecc-4ddc-af27-3f56f520a102


Intravenous Lipid Emulsion Therapy for Acute Synthetic Cannabinoid Intoxication: Clinical Experience in Four Cases (full – 2015)
http://www.hindawi.com/journals/criem/2015/180921/


A Reliable Method for the Separation and Detection of Synthetic Cannabinoids by Supercritical Fluid Chromatography with Mass Spectrometry, and Its Application to Plant Products. (full – 2015)
https://www.jstage.jst.go.jp/article/cpb/63/10/63_c15-00170/_html

https://www.dovepress.com/emerging-drugs-of-abuse-current-perspectives-on-synthetic-cannabinoids-peer-reviewed-fulltext-article-SAR


Cardiovascular side effects related with use of synthetic cannabinoids "bonzai" : two case reports.  (full – 2015)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4462325/

Convulsant effects of high efficacy synthetic cannabinoid JWH-018 in mice (abst – 2015)  
http://www.fasebj.org/content/29/1_Supplement/614.7.abstract?sid=edf921ac-0690-4aa6-ac81-0546314dd384

A Synthetic Cannabinoid MAM-2201 Potently Suppresses Synaptic Transmission via Activation of Presynaptic CB1 Receptors and Reduces Synaptically-Evoked Intracellular Ca2+ Transients in Cerebellar Purkinje Cells. (abst – 2015)  

Detection Times of Carboxylic Acid Metabolites of the Synthetic Cannabinoids JWH-018 and JWH-073 in Human Urine.  (abst – 2015)  

Evaluation of an On-site Drug-testing Device for the Detection of Synthetic Cannabinoids in Illegal Herbal Products.  (abst – 2015)  

Metabolism of classical cannabinoids and the synthetic cannabinoid JWH-018.  (abst – 2015)  

http://pubs.acs.org/doi/abs/10.1021/acschemneuro.5b00107

JWH-018 impairs sensorimotor functions in mice.  (abst – 2015)  

Stimulation OF IN VIVO dopamine transmission and intravenous self-administration in rats and mice by JWH-018, a Spice cannabinoid.  (abst – 2015)  

Repeated administration of phytocannabinoid Δ9-THC or synthetic cannabinoids JWH-018 and JWH-073 induces tolerance to hypothermia but not locomotor suppression in mice, and reduces CB1 receptor expression and function in a brain region-specific manner.  (abst – 2015)  

Death due to diabetic ketoacidosis: Induction by the consumption of synthetic cannabinoids?  (abst – 2015)  

Mass spectral studies on 1-n-pentyl-3-(1-naphthoyl)indole (JWH-018), three deuterium-labeled analogues and the inverse isomer 1-naphthoyl-3-n-pentylindole.  (abst – 2015)  


Effects of Synthetic Cannabinoid JWH-018 and Phytocannabinoid Δ9-THC on Learning and Memory in Mice (abst – 2015) http://www.fasebj.org/content/29/1_Supplement/615.5.abstract?sid=edf921ac-0690-4aa6-ac81-0546314dd384


Synthetic Cannabinoid 'Bonzai' Intoxication: Six Case Series. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4894237/

Unusual side effect of cannabis use: acute abdomen due to duodenal perforation (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4936980/


First-Episode of Synthetic Cannabinoid-Induced Psychosis in a Young Adult, Successfully Managed with Hospitalization and Risperidone. (full – 2016) http://www.hindawi.com/journals/crips/2016/7257489/

Disruption of hippocampal synaptic transmission and long-term potentiation by psychoactive synthetic cannabinoid 'Spice' compounds: comparison with Δ9-tetrahydrocannabinol. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/26732435


JWH-018 ω-OH, a shared hydroxy metabolite of the two synthetic cannabinoids JWH-018 and AM-2201, undergoes oxidation by alcohol dehydrogenase and aldehyde dehydrogenase enzymes in vitro forming the carboxylic acid metabolite.  (abst – 2016)  

Evaluation of first generation synthetic cannabinoids on binding at non-cannabinoid receptors and in a battery of in vivo assays in mice.  (abst – 2016)  

Thermolytic degradation of synthetic cannabinoids: chemical exposures and pharmacological consequences  (link to download – 2017)  
http://jpet.aspetjournals.org/content/early/2017/01/13/jpet.116.238717.long

Comparison of the discriminative stimulus and response rate effects of Δ9-tetrahydrocannabinol and synthetic cannabinoids in female and male rats.  (abst – 2017)  

JWH-019 – CB1 & CB2 agonist

http://jat.oxfordjournals.org/content/35/7/386.long

Identification of synthetic cannabinoids in herbal incense blends in the United States.  (abst – 2012)  

Simultaneous quantification of 20 synthetic cannabinoids and 21 metabolites, and semi-quantification of 12 alkyl hydroxy metabolites in human urine by liquid chromatography-tandem mass spectrometry.  (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3963402/

Moving around the molecule: Relationship between chemical structure and in vivo activity of synthetic cannabinoids.  (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3944940/

Inhibitory effect of synthetic cannabinoids on CYP1A activity in mouse liver microsomes.  (link to PDF – 2014)  
https://www.jstage.jst.go.jp/article/jts/39/6/39_815/_article
Could spice drugs induce psychosis with abnormal movements similar to catatonia?  
(1st page – 2014)  
http://guilfordjournals.com/doi/abs/10.1521/psyc.2014.77.2.206

LC-QTOF-MS as a superior strategy to immunoassay for the comprehensive analysis of 
synthetic cannabinoids in urine.  
(abstract – 2014)  

Driving under the influence of synthetic cannabinoids ("Spice"): a case series.  
(abstract – 2014)  

Hair analysis as a tool to evaluate the prevalence of synthetic cannabinoids in different 
populations of drug consumers.  
(abstract – 2014)  

Evaluation of an On-site Drug-testing Device for the Detection of Synthetic 
Cannabinoids in Illegal Herbal Products.  
(abstract – 2015)  

JWH-073 - CB1 & CB2 agonist

Spice drugs: cannabinoids as a new designer drugs.  
(abstract - 2009)  
http://www.unboundmedicine.com/medline/ebm/record/19718488/abstract/
%5BSpice_drugs:_cannabinoids_as_a_new_designer_drugs_%5D

Spice: a never ending story?  
(abstract – 2009)  

Chemical analysis of synthetic cannabinoids as designer drugs in herbal products.  
(abstract – 2010)  

Monitoring of herbal mixtures potentially containing synthetic cannabinoids as 
psychoactive compounds.  
(abstract – 2010)  

College students and use of K2: an emerging drug of abuse in young persons  
(full – 2011)  
http://www.substanceabusepolicy.com/content/6/1/16

Beyond THC: The New Generation of Cannabinoid Designer Drugs.  
(full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3187647/?tool=pubmed

Synthetic cannabinoids in oral fluid.  
(full – 2011)  
http://jat.oxfordjournals.org/content/35/7/424.long

Marijuana-based Drugs: Innovative Therapeutics or Designer Drugs of Abuse?  
(full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3139381/?tool=pubmed
CP47,497-C8 and JWH073, commonly found in 'Spice' herbal blends, are potent and efficacious CB(1) cannabinoid receptor agonists. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3094488/


Monohydroxylated metabolites of the K2 synthetic cannabinoid JWH-073 retain intermediate to high cannabinoid 1 receptor (CB1R) affinity and exhibit neutral antagonist to partial agonist activity. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3288656/


Spice drugs are more than harmless herbal blends: A review of the pharmacology and toxicology of synthetic cannabinoids. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3936256/

A survey study to characterize use of Spice products (synthetic cannabinoids).
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3217086/)


Differential drug-drug interactions of the synthetic Cannabinoids JWH-018 and JWH-073: implications for drug abuse liability and pain therapy. (full - 2013) http://jpet.aspetjournals.org/content/early/2013/06/25/jpet.113.206003.long


Human metabolites of synthetic cannabinoids JWH-018 and JWH-073 bind with high affinity and act as potent agonists at cannabinoid type-2 receptors. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3685885/

Qualitative Confirmation of 9 Synthetic Cannabinoids and 20 Metabolites in Human Urine Using LC-MS/MS and Library Search. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3874406/


Moving around the molecule: Relationship between chemical structure and in vivo activity of synthetic cannabinoids. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3944940/

Exogenous cannabinoids as substrates, inhibitors, and inducers of human drug metabolizing enzymes: a systematic review. (full – 2013)

Detection of Synthetic Cannabinoids in Oral Fluid Using ELISA and LC-MS-MS. (full – 2013)

Synthetic Cannabinoids: Crisis of The Decade (link to PDF - 2013)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.684.46&rank=8

Toxicological profiles of selected synthetic cannabinoids showing high binding affinities to the cannabinoid receptor subtype CB₁. (abst – 2013)


Validation of a Novel Immunoassay for the Detection of Synthetic Cannabinoids and Metabolites in Urine Specimens. (abst – 2013)

The omega and omega-1 monohydroxyl metabolites of the abused K2/Spice synthetic cannabinoids JWH-018 and JWH-073 bind with high affinity and act as agonists at human cannabinoid 2 receptors (hCB2s) (abst – 2013)
http://www.fasebj.org/content/26/1_Supplement/660.8.abstract?sid=ad340c8c-cc99-4eda-84a0-c19d65efcdd3

Smart drugs: green shuttle or real drug? (abst – 2013)

A Case of Cannabinoid Hyperemesis Syndrome Caused by Synthetic Cannabinoids. (abst – 2013)

Monitoring of urinary metabolites of JWH-018 and JWH-073 in legal cases. (abst – 2013)

Screening for synthetic cannabinoids in hair by using LC-QTOF MS: A new and powerful approach to study the penetration of these new psychoactive substances in the population (full – 2014) http://msl.sagepub.com/content/54/1/22.long


Quantitative urine confirmatory testing for synthetic cannabinoids in randomly collected urine specimens. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4363290/


A Reliable Method for the Separation and Detection of Synthetic Cannabinoids by Supercritical Fluid Chromatography with Mass Spectrometry, and Its Application to Plant Products. (full – 2015)
https://www.jstage.jst.go.jp/article/cpb/63/10/63_c15-00170/_html

Emerging drugs of abuse: current perspectives on synthetic cannabinoids.
(full – 2015)
https://www.dovepress.com/emerging-drugs-of-abuse-current-perspectives-on-synthetic-cannabinoids-peer-reviewed-fulltext-article-SAR

Synthetic cannabinoids: the multi-organ failure and metabolic derangements associated with getting high. (full– 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4558292/

Detection Times of Carboxylic Acid Metabolites of the Synthetic Cannabinoids JWH-018 and JWH-073 in Human Urine. (abst – 2015)

Evaluation of an On-site Drug-testing Device for the Detection of Synthetic Cannabinoids in Illegal Herbal Products. (abst – 2015)

Repeated administration of phytocannabinoid Δ9-THC or synthetic cannabinoids JWH-018 and JWH-073 induces tolerance to hypothermia but not locomotor suppression in mice, and reduces CB1 receptor expression and function in a brain region-specific manner. (abst – 2015)

Multi-residue determination of 10 selected new psychoactive substances in wastewater samples by liquid chromatography-tandem mass spectrometry. (abst – 2015)

Cannabinoid Ligands and Alcohol Addiction: A Promising Therapeutic Tool or a Humbug? (full – 2016)

First-Episode of Synthetic Cannabinoid-Induced Psychosis in a Young Adult, Successfully Managed with Hospitalization and Risperidone. (full – 2016)
http://www.hindawi.com/journals/crips/2016/7257489/

Effect of JWH-250, JWH-073 and their interaction on "tetrad", sensorimotor, neurological and neurochemical responses in mice. (abst – 2016)


**JWH-081** - CB1 agonist

Spice drugs are more than harmless herbal blends: A review of the pharmacology and toxicology of synthetic cannabinoids. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3936256/


CB1 Receptor-Mediated Signaling Underlies the Hippocampal Synaptic, Learning and Memory Deficits Following Treatment with JWH-081, a New Component of Spice/K2 Preparations. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3959795/

Spice/K2 drugs - more than innocent substitutes for marijuana. (full – 2013) http://ijnp.oxfordjournals.org/content/17/3/509


Review of detection frequency and type of synthetic cannabinoids in herbal compounds analyzed by Istanbul Narcotic Department of the Council of Forensic Medicine, Turkey. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/23910858


Could spice drugs induce psychosis with abnormal movements similar to catatonia?
LC-QTOF-MS as a superior strategy to immunoassay for the comprehensive analysis of synthetic cannabinoids in urine. (abst – 2014)  

Urinary prevalence, metabolite detection rates, temporal patterns and evaluation of suitable LC-MS/MS targets to document synthetic cannabinoid intake in US military urine specimens. (abst – 2014)  

A case of law-evading herbs poisoning that induced shock and myocardial damage (abst – 2014)  

Hair analysis as a tool to evaluate the prevalence of synthetic cannabinoids in different populations of drug consumers. (abst – 2014)  

Legal highs: staying on top of the flood of novel psychoactive substances. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4521440/


**JWH-100 / AM-678 - CB1 agonist**

College students and use of K2: an emerging drug of abuse in young persons  
(full – 2011)  
http://www.substanceabusepolicy.com/content/6/1/16

**JWH-122 – CB1 agonist**

Identification and characterization of JWH-122 used as new ingredient in "Spice-like" herbal incenses. (abst – 2011)  

Spice drugs are more than harmless herbal blends: A review of the pharmacology and toxicology of synthetic cannabinoids. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3936256/

Analysis of 30 synthetic cannabinoids in serum by liquid chromatography-electrospray ionization tandem mass spectrometry after liquid-liquid extraction (abst – 2012)  


Qualitative Confirmation of 9 Synthetic Cannabinoids and 20 Metabolites in Human Urine Using LC-MS/MS and Library Search. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3874406/


Acute Psychosis Associated with Recreational Use of Benzofuran 6-(2-Aminopropyl)Benzofuran (6-APB) and Cannabis. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3770991/

Spice/K2 drugs - more than innocent substitutes for marijuana. (full – 2013) http://ijnp.oxfordjournals.org/content/17/3/509

Toxicological profiles of selected synthetic cannabinoids showing high binding affinities to the cannabinoid receptor subtype CB₁. (abst – 2013)


A Case of Cannabinoid Hyperemesis Syndrome Caused by Synthetic Cannabinoids.
Blood Synthetic Cannabinoid Concentrations in Cases of Suspected Impaired Driving

Prevalence of synthetic cannabinoids in blood samples from Norwegian drivers suspected of impaired driving during a seven weeks period.

Screening for synthetic cannabinoids in hair by using LC-QTOF MS: A new and powerful approach to study the penetration of these new psychoactive substances in the population

Quantitative urine confirmatory testing for synthetic cannabinoids in randomly collected urine specimens.

Identification and quantification of synthetic cannabinoids in 'spice-like' herbal mixtures: A snapshot of the German situation in the autumn of 2012.

Analysis of new classes of recreational drugs in sewage: Synthetic cannabinoids and amphetamine-like substances.

LC-QTOF-MS as a superior strategy to immunoassay for the comprehensive analysis of synthetic cannabinoids in urine.

Driving under the influence of synthetic cannabinoids ("Spice"): a case series.

Can JWH-210 and JWH-122 be detected in adipose tissue four weeks after single oral drug administration to rats?

Characterization of in vitro metabolites of JWH-018, JWH-073 and their 4-methyl derivatives, markers of the abuse of these synthetic cannabinoids.

Determination of major metabolites of MAM-2201 and JWH-122 in in vitro and in vivo studies to distinguish their intake.

Urinary prevalence, metabolite detection rates, temporal patterns and evaluation of suitable LC-MS/MS targets to document synthetic cannabinoid intake in US military urine specimens.

Simultaneous determination of five naphthoylindole-based synthetic cannabinoids and metabolites and their deposition in human and rat hair.
A case of law-evading herbs poisoning that induced shock and myocardial damage

Legal highs: staying on top of the flood of novel psychoactive substances.
(full – 2015)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4521440/

Emerging drugs of abuse: current perspectives on synthetic cannabinoids.
(full – 2015)
https://www.dovepress.com/emerging-drugs-of-abuse-current-perspectives-on-synthetic-cannabinoids-peer-reviewed-fulltext-article-SAR


**JWH-133/ 3-(1,1-dimethylbutyl)-1-deoxy-Δ8-THC** - CB2 agonist

Inhibition of guinea-pig and human sensory nerve activity and the cough reflex in guinea-pigs by cannabinoid (CB2) receptor activation.  (full - 2003)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1574031/?tool=pubmed

Inhibition of tumor angiogenesis by cannabinoids  (abst - 2003)

Effects of cannabinoid receptor-2 activation on accelerated gastrointestinal transit in lipopolysaccharide-treated rats  (full - 2004)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1575196/?tool=pmcentrez


Activation of CB1 and CB2 receptors attenuates the induction and maintenance of inflammatory pain in the rat.  (abst - 2005)
Endocannabinoids potently protect the newborn brain against AMPA-kainate receptor-mediated excitotoxic damage (full - 2006)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1751782/?tool=pmcentrez

Signaling pathways involved in the cardioprotective effects of cannabinoids. (full - 2006)

Agonists of cannabinoid receptor 1 and 2 inhibit experimental colitis induced by oil of mustard and by dextran sulfate sodium (full – 2006)
http://ajpgi.physiology.org/content/291/2/G364

Non-psychoactive CB2 cannabinoid agonists stimulate neural progenitor proliferation (abst - 2006)

Cannabinoid-2 receptor mediates protection against hepatic ischemia/reperfusion injury (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2228252/?tool=pmcentrez

Cannabinoids Induce Glioma Stem-like Cell Differentiation and Inhibit Gliomagenesis (full - 2007)
http://www.jbc.org/content/282/9/6854.long

Anti-inflammatory property of the cannabinoid receptor-2-selective agonist JWH-133 in a rodent model of autoimmune uveoretinitis (abst - 2007)

Influence of nicotinic receptor modulators on CB2 cannabinoid receptor agonist (JWH133)-induced antinociception in mice. (abst – 2007)

Attenuation of Experimental Autoimmune Hepatitis by Exogenous and Endogenous Cannabinoids: Involvement of Regulatory T Cells (full - 2008)
http://molpharm.aspetjournals.org/content/74/1/20.full?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=320&resourcetype=HWCIT#content-block

In vivo effects of CB2 receptor-selective cannabinoids on the vasculature of normal and arthritic rat knee joints (full - 2008)

Regression of Fibrosis after Chronic Stimulation of Cannabinoid CB2 Receptor in Cirrhotic Rats (full - 2008)
http://jpet.aspetjournals.org/content/324/2/475.full?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=320&resourcetype=HWCIT#content-block

Additive Interaction of the Cannabinoid Receptor I Agonist Arachidonyl-2-chloroethylamide with Etomidate in a Sedation Model in Mice (full – 2008)
http://anesthesiology.pubs.asahq.org/article.aspx?articleid=1932072&resultClick=3
Cannabinoid 2 receptor induction by IL-12 and its potential as a therapeutic target for the treatment of anaplastic thyroid carcinoma. (full - 2008) http://www.nature.com/cgt/journal/v15/n2/full/7701101a.html

Cannabinoid receptor agonists inhibit growth and metastasis of breast cancer (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4128286/


Cannabinoid CB2 Receptor Potentiates Obesity-Associated Inflammation, Insulin Resistance and Hepatic Steatosis (full - 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2688760/?tool=pubmed


Synthetic cannabinoid receptor agonists inhibit tumor growth and metastasis of breast cancer (full - 2009) http://mct.aacrjournals.org/content/8/11/3117.full

The endocannabinoid 2-arachidonoylglycerol promotes sperm development through activation of cannabinoid-2 receptors (link to PDF - 2009) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.505.7026&rank=36


Cannabinoids reduce ErbB2-driven breast cancer progression through Akt inhibition (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2917429/?tool=pmcentrez

The levels of the endocannabinoid receptor CB2 and its ligand 2-arachidonoylglycerol are elevated in endometrial carcinoma. (full – 2010) http://press.endocrine.org/doi/10.1210/en.2009-0883
Small intestinal cannabinoid receptor changes following a single colonic insult with oil of mustard in mice. (full – 2010)  

Antitumorigenic Effects of Cannabinoids beyond Apoptosis (full - 2010)  
http://jpet.aspetjournals.org/content/332/2/336.full?sid=af53ea87-ab4b-426e-9c7e-8f750e9e4a17

Targeting the cannabinoid pathway limits the development of fibrosis and autoimmunity in a mouse model of systemic sclerosis. (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2893662/

Cannabinoid (JWH-133) therapy could be effective for treatment of corneal neovascularization (link to PDF – 2010)  

Activation of cannabinoid 2 receptors protects against cerebral ischemia by inhibiting neutrophil recruitment. (abst – 2010)  

Cannabidiol and other cannabinoids reduce microglial activation in vitro and in vivo: relevance to Alzheimer's disease (full – 2011)  
http://molpharm.aspetjournals.org/content/early/2011/02/24/mol.111.071290.long

Is lipid signaling through cannabinoid 2 receptors part of a protective system? (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3062638/

The activation of the cannabinoid receptor type 2 reduces neutrophilic protease-mediated vulnerability in atherosclerotic plaques (full – 2011)  
http://eurheartj.oxfordjournals.org/content/33/7/846.full

Beneficial paracrine effects of cannabinoid receptor 2 on liver injury and regeneration. (full – 2011)  

Cannabinoid CB2 receptors protect against alcoholic liver disease by regulating kupffer cell polarization in mice. (full – 2011)  

Brain cannabinoid CB2 receptors modulate cocaine's actions in mice (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3164946/

Cannabinoid receptor-2 (CB2) agonist ameliorates colitis in IL-10(-/-) mice by attenuating the activation of T cells and promoting their apoptosis. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4117838/

Atheroprotection via cannabinoid receptor-2 is mediated by circulating and vascular cells in vivo. (abst – 2011)  
Antinociceptive effects induced through the stimulation of spinal cannabinoid type 2 receptors in chronically inflamed mice  (abst - 2011)  http://www.unboundmedicine.com/medline/ebm/record/21771590/abstract/Antinociceptive_effects_induced_through_the_stimulation_of_spinal_cannabinoid_type_2_receptors_in_chronically_inflamed_mice


The CB2 receptor regulates osteoclast formation, breast cancer cell migration and osteoclast/tumour cell interaction via the PI3 Kinase/AKT pathway  (abst – 2011)  http://www.thebonejournal.com/article/S8756-3282%2811%2900177-3/abstract

Prolonged oral Cannabinoid Administration prevents Neuroinflammation, lowers beta-amyloid Levels and improves Cognitive Performance in Tg APP 2576 Mice.  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3292807/

Cannabinoid CB(2) receptor-mediated regulation of impulsive-like behaviour in DBA/2 mice.  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3252982/

Cannabinoid Receptors CB1 and CB2 Form Functional Heteromers in Brain.  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3375509/


Spice drugs are more than harmless herbal blends: A review of the pharmacology and toxicology of synthetic cannabinoids.  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3936256/

The fatty acid amide hydrolase inhibitor URB597 exerts anti-inflammatory effects in hippocampus of aged rats and restores an age-related deficit in long-term potentiation  (full – 2012)  http://www.jneuroinflammation.com/content/9/1/79


Dynamic changes to the endocannabinoid system in models of chronic pain  (full – 2012)  http://rstb.royalsocietypublishing.org/content/367/1607/3300.full?sid=1569c370-cd5c-4358-89ff-857201f5e069

GPR18 in microglia: implications for the CNS and endocannabinoid system signaling  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3525861/

Cannabinoid receptor CB2 protects against balloon-induced neointima formation.  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3774259/
Cannabinoid type 2 receptor activation downregulates stroke-induced classic and alternative brain macrophage/microglial activation concomitant to neuroprotection. (full – 2012) http://stroke.ahajournals.org/content/43/1/211.long

Activation of cannabinoid receptor 2 attenuates leukocyte-endothelial cell interactions and blood-brain barrier dysfunction under inflammatory conditions. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3325902/

Cannabinoid Receptor CB2 Modulates Axon Guidance (link to PDF - 2012) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.727.7765&rank=63&q=cannabinoid&osm=&ossid=


Characterization of cannabinoid receptor ligands in tissues natively expressing cannabinoid CB2 receptors. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3687668/

Attenuation of HIV-1 replication in macrophages by cannabinoid receptor 2 agonists. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3629438/

Treatment with CB 2 Agonist JWH-133 Reduces Histological Features Associated with Erectile Dysfunction in Hypercholesterolemic Mice. (full – 2013) http://www.hindawi.com/journals/cdi/2013/263846/

Effect of Cannabinoid Receptor Activation on Spreading Depression. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3586901/

Cannabinoid CB2 Receptors Regulate Central Sensitization and Pain Responses Associated with Osteoarthritis of the Knee Joint. (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0080440


Activation of Cannabinoid Type 2 Receptor by JWH133 Protects Heart Against Ischemia/Reperfusion-Induced Apoptosis. (full – 2013) http://www.ncbi.nlm.nih.gov/pubmed/23711495

The cannabinoid CB2 receptor-selective phytocannabinoid beta-caryophyllene exerts analgesic effects in mouse models of inflammatory and neuropathic pain (full – 2013) http://www.europeaneuropsychopharmacology.com/article/S0924-977X%2813%2900302-7/fulltext

Critical appraisal of the potential use of cannabinoids in cancer management. (link to PDF – 2013)

CB2 Cannabinoid Receptor Agonist Ameliorates Alzheimer-Like Phenotype in AβPP/PS1 Mice. (abst – 2013)

Synaptic plasticity alterations associated with memory impairment induced by deletion of CB2 cannabinoid receptors. (abst – 2013)


Increase of mesenchymal stem cell migration by Cannabidiol via activation of p42/44 MAPK. (abst – 2013)

CB2 Receptor Activation Ameliorates the Proinflammatory Activity in Acute Lung Injury Induced by Paraquat. (full – 2014)
http://www.hindawi.com/journals/bmri/2014/971750/

CB2 Receptor Activation Inhibits Melanoma Cell Transmigration through the Blood-Brain Barrier. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4057719/

Repositioning therapy for thyroid cancer: new insights on established medications. (full – 2014)
http://erc.endocrinology-journals.org/content/21/3/R183.long

A cannabigerol derivative suppresses immune responses and protects mice from experimental autoimmune encephalomyelitis. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3984273/

Cannabinoid receptor 2 as a potential therapeutic target in rheumatoid arthritis. (full – 2014)
http://www.biomedcentral.com/1471-2474/15/275

Cannabinoid CB2 receptors modulate midbrain dopamine neuronal activity and dopamine-related behavior in mice. (full – 2014)
http://www.pnas.org/content/early/2014/10/30/1413210111.long

High hopes for cannabinoid agonists in the treatment of rheumatic diseases. (full – 2014)

Cannabinoid receptor type-2 stimulation, blockade, and deletion alters the vascular inflammatory responses to traumatic brain injury. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4248435/
Cannabinoids inhibit cholinergic contraction in human airways through prejunctional CB1 receptors. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4243853/


The cannabinoid CB₂ receptor-selective phytocannabinoid beta-caryophyllene exerts analgesic effects in mouse models of inflammatory and neuropathic pain. (full – 2014)
http://www.europeanneuropsychopharmacology.com/article/S0924-977X%2813%2900302-7/fulltext

Cannabinoid type 2 receptor stimulation attenuates brain edema by reducing cerebral leukocyte infiltration following subarachnoid hemorrhage in rats. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4067767/

Cannabinoid Receptor Type 2 Agonist Attenuates Apoptosis by Activation of Phosphorylated CREB-Bcl-2 Pathway After Subarachnoid Hemorrhage in Rats. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4194247/


Species Differences in Cannabinoid Receptor 2 and Receptor Responses to Cocaine Self-Administration in Mice and Rats. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4330519/

Chronic activation of CB2 cannabinoid receptors in the hippocampus increases excitatory synaptic transmission. (full - 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4398527/

Cannabinoids as therapeutic agents in cancer: current status and future implications. (link to PDF- 2014)


Protective Role of CB2 Receptor Activation in Galactosamine/LPS-induced Acute Liver Failure Through Regulation of Macrophage Polarization and miRNAs. (full – 2015) http://jpet.aspetjournals.org/content/early/2015/03/06/jpet.114.220368.long

Primary Macrophage Chemotaxis Induced by Cannabinoid Receptor 2 Agonists Occurs Independently of the CB2 Receptor. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4451551/


CB2R orchestrates fibrogenesis through regulation of inflammatory response during the repair of skeletal muscle contusion. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4466920/

Bone cell-autonomous contribution of type 2 cannabinoid receptor to breast cancer induced osteolysis. (full – 2015) http://www.jbc.org/content/early/2015/07/20/jbc.M115.649608.long


Pharmacological activation of CB2 receptors counteracts the deleterious effect of ethanol on cell proliferation in the main neurogenic zones of the adult rat brain. (full – 2015) http://journal.frontiersin.org/article/10.3389/fncel.2015.00379/full


Role of the endocannabinoid system in the emotional manifestations of osteoarthritis pain. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4770330/


2-AG promotes the expression of conditioned fear via cannabinoid receptor type 1 on GABAergic neurons (abst – 2015) http://link.springer.com/article/10.1007%2Fs00213-015-3917-y


Cannabinoids-Induced Vasodilation in Rat Mesenteric Artery: Possible Mechanisms of Action (abst – 2015) http://www.fasebj.org/content/29/1_Supplement/948.6.abstract?sid=edf921ac-0690-4aa6-ac81-0546314dd384
Correlations between the Memory-Related Behavior and the Level of Oxidative Stress Biomarkers in the Mice Brain, Provoked by an Acute Administration of CB Receptor Ligands  (full – 2016)  http://www.hindawi.com/journals/np/2016/9815092/


Functional selectivity of CB2 cannabinoid receptor ligands at a canonical and non-canonical pathway.  (full – 2016)  http://jpet.aspetjournals.org/content/early/2016/05/18/jpet.116.232561.long


Genetic Versus Pharmacological Assessment of the Role of Cannabinoid Type 2 Receptors in Alcohol Reward-Related Behaviors.  (full – 2016)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4886733/

The Cannabinoid Receptor 2 Protects Against Alcoholic Liver Disease Via a Macrophage Autophagy-Dependent Pathway.  (full – 2016)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4921859/


Inhibition of interleukin-1β-induced endothelial tissue factor expression by the synthetic cannabinoid WIN 55,212-2.  (full – 2016)  http://www.impactjournals.com/oncotarget/index.php?journal=oncotarget&page=article&op=view&path%5B%5D=11367&path%5B%5D=35984

CB2 cannabinoid receptor activation promotes colon cancer progression via AKT/GSK3β signaling pathway  (full – 2016)  http://www.impactjournals.com/oncotarget/index.php?journal=oncotarget&page=article&op=view&path%5B%5D=11968&path%5B%5D=37882

Vascular Dysfunction in a Transgenic Model of Alzheimer's Disease: Effects of CB1R and CB2R Cannabinoid Agonists. (full – 2016)

The CB2 receptor and its role as a regulator of inflammation. (full – 2016)

Endocannabinoid System: the Direct and Indirect Involvement in the Memory and Learning Processes—a Short Review (full – 2016)

Attenuation of Cocaine-Induced Conditioned Place Preference and Motor Activity via Cannabinoid CB2 Receptor Agonism and CB1 Receptor Antagonism in Rats (full – 2016)
http://ijnp.oxfordjournals.org/content/early/2016/12/19/ijnp.pyw102.long

CB2 receptor activation prevents glial-derived neurotoxic mediator production, BBB leakage and peripheral immune cell infiltration and rescues dopamine neurons in the MPTP model of Parkinson's disease. (full – 2016)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4892852/

Role of the endocannabinoid system in the control of mouse myometrium contractility during the menstrual cycle. (full – 2016)

Cannabinoid receptor 2 as anti-obesity target: inflammation, fat storage and browning modulation. (link to PDF- 2016)

Cannabinoid Receptor Type 2 Agonist Attenuates Acute Neurogenic Pulmonary Edema by Preventing Neutrophil Migration after Subarachnoid Hemorrhage in Rats (abst - 2016)
http://link.springer.com/chapter/10.1007/978-3-319-18497-5_24

Expression of functional cannabinoid CB2 receptor in VTA dopamine neurons in rats. (abst – 2016)

JWH-133, a Selective Cannabinoid CB2 Receptor Agonist, Exerts Toxic Effects on Neuroblastoma SH-SY5Y Cells (abst – 2016)

Cannabinoid receptor 2 augments eosinophil responsiveness and aggravates allergen-induced pulmonary inflammation in mice. (abst – 2016)

Cannabinoid Receptor 1 Mediates Homing of Bone Marrow-Derived Mesenchymal Stem Cells Triggered by Chronic Liver Injury. (abst – 2016)


The Impact of CB2 Receptor Ligands on the MK-801-Induced Hyperactivity in Mice (full – 2017) http://link.springer.com/article/10.1007%2Fs12640-017-9702-4


JWH–150 - CB2 agonist
JWH-200  - CB1 agonist

Spice drugs are more than harmless herbal blends: A review of the pharmacology and
toxicology of synthetic cannabinoids.  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3936256/

Identification of synthetic cannabinoids in herbal incense blends in the United States.  

Simultaneous quantification of 20 synthetic cannabinoids and 21 metabolites, and semi-
quantification of 12 alkyl hydroxy metabolites in human urine by liquid chromatography-
tandem mass spectrometry.  (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3963402/

Spice/K2 drugs - more than innocent substitutes for marijuana.  (full – 2013)  
http://ijnp.oxfordjournals.org/content/17/3/509

Detection of Synthetic Cannabinoids in Oral Fluid Using ELISA and LC-MS-MS.  

Synthetic Cannabinoids: Crisis of The Decade  (link to PDF - 2013)  
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.684.46&rank=8

In vivo and in vitro metabolism of the synthetic cannabinoid JWH-200.  (abst – 2013)  

Urinary prevalence, metabolite detection rates, temporal patterns and evaluation of
suitable LC-MS/MS targets to document synthetic cannabinoid intake in US military

Evaluation of an On-site Drug-testing Device for the Detection of Synthetic
Cannabinoids in Illegal Herbal Products.  (abst – 2015)  

JWH-210  – CB1 agonist, about 90 times stronger than natural THC
Spice drugs are more than harmless herbal blends: A review of the pharmacology and toxicology of synthetic cannabinoids. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3936256/


Qualitative Confirmation of 9 Synthetic Cannabinoids and 20 Metabolites in Human Urine Using LC-MS/MS and Library Search. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3874406/


Synthetic Cannabinoids: Crisis of The Decade (link to PDF - 2013) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.684.46&rank=8

Toxicological profiles of selected synthetic cannabinoids showing high binding affinities to the cannabinoid receptor subtype CB₁. (abst – 2013) http://link.springer.com/article/10.1007%2Fs00204-013-1029-1


Synthetic Cannabinoid-Induced Immunosuppression Augments Cerebellar Dysfunction in Tetanus-Toxin Treated Mice  
(link to PDF – 2016)  
http://www.biomolther.org/journal/view.html?uid=731&vmd=Full

Adverse effects after the use of JWH-210 - a case series from the EU Spice II plus project.  
(abst – 2016)  

Pharmacokinetics of (synthetic) cannabinoids in pigs and their relevance for clinical and forensic toxicology.  
(abst – 2016)  

Metabolic patterns of JWH-210, RCS-4, and THC in pig urine elucidated using LC-HR-MS/MS: Do they reflect patterns in humans?  
(abst – 2016)  

Distribution of Synthetic cannabinoids JWH-210, RCS-4 and Δ 9-Tetrahydrocannabinol After Intravenous Administration to Pigs.  
(abst – 2016)  

JWH-250 – CB 1 agonist

(full – 2011)  
http://jat.oxfordjournals.org/content/35/7/386.long

Spice drugs are more than harmless herbal blends: A review of the pharmacology and toxicology of synthetic cannabinoids.  
(full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3936256/

Phenazepam and cannabinomimetics sold as herbal highs in New Zealand.  
(abst – 2012)  

Identification of synthetic cannabinoids in herbal incense blends in the United States.  
(abst – 2012)  

“Spiceophrenia”: a systematic overview of “Spice”-related psychopathological issues and a case report  
(full – 2013)  

Qualitative Confirmation of 9 Synthetic Cannabinoids and 20 Metabolites in Human Urine Using LC-MS/MS and Library Search.  
(full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3874406/
Simultaneous quantification of 20 synthetic cannabinoids and 21 metabolites, and semi-quantification of 12 alkyl hydroxy metabolites in human urine by liquid chromatography-tandem mass spectrometry. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3963402/

Spice/K2 drugs - more than innocent substitutes for marijuana. (full – 2013)  
http://ijnp.oxfordjournals.org/content/17/3/509

Synthetic Cannabinoids: Crisis of The Decade (link to PDF - 2013)  
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.684.46&rank=8

Validation of a Novel Immunoassay for the Detection of Synthetic Cannabinoids and Metabolites in Urine Specimens. (abst – 2013)  

Smart drugs: green shuttle or real drug? (abst – 2013)  

Blood Synthetic Cannabinoid Concentrations in Cases of Suspected Impaired Driving (abst – 2013)  

Prevalence of synthetic cannabinoids in blood samples from Norwegian drivers suspected of impaired driving during a seven weeks period. (abst – 2013)  

Screening for synthetic cannabinoids in hair by using LC-QTOF MS: A new and powerful approach to study the penetration of these new psychoactive substances in the population (full – 2014)  
http://msl.sagepub.com/content/54/1/22.long

Could spice drugs induce psychosis with abnormal movements similar to catatonia? (1st page – 2014)  
http://guilfordjournals.com/doi/abs/10.1521/psyc.2014.77.2.206

LC-QTOF-MS as a superior strategy to immunoassay for the comprehensive analysis of synthetic cannabinoids in urine. (abst – 2014)  

Urinary prevalence, metabolite detection rates, temporal patterns and evaluation of suitable LC-MS/MS targets to document synthetic cannabinoid intake in US military urine specimens. (abst – 2014)  

Hair analysis as a tool to evaluate the prevalence of synthetic cannabinoids in different populations of drug consumers. (abst – 2014)  

Legal highs: staying on top of the flood of novel psychoactive substances. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4521440/

First-Episode of Synthetic Cannabinoid-Induced Psychosis in a Young Adult, Successfully Managed with Hospitalization and Risperidone. (full – 2016) http://www.hindawi.com/journals/crips/2016/7257489/


**JZL-184** – blocks the breakdown of 2-AG

Selective blockade of 2-arachidonoylglycerol hydrolysis produces cannabinoid behavioral effects (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2605181/

Blockade of 2-arachidonoylglycerol hydrolysis by selective monoacylglycerol lipase inhibitor 4-nitrophenyl 4-(dibenzo[d][1,3]dioxol-5-yI(hydroxy)methyl)piperidine-1-carboxylate (JZL184) Enhances retrograde endocannabinoid signaling. (full – 2009) http://jpet.aspetjournals.org/content/331/2/591.long

Monoacylglycerol lipase limits the duration of endocannabinoid-mediated depolarization-induced suppression of excitation in autaptic hippocampal neurons. (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2784730/


Inhibition of COX-2 expression by endocannabinoid 2-arachidonoylglycerol is mediated via PPAR-γ (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165961/

Genetic deletion of monoacylglycerol lipase alters endocannabinoid-mediated retrograde synaptic depression in the cerebellum. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3224879/
Endocannabinoid hydrolysis generates brain prostaglandins that promote neuroinflammation. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3249428/

Inhibition of monoacylglycerol lipase (MAGL) attenuates NSAID-induced gastric hemorrhages in mice. (full – 2011)
http://jpet.aspetjournals.org/content/early/2011/06/09/jpet.110.175778.long

Increasing 2-arachidonoyl glycerol signaling in the periphery attenuates mechanical hyperalgesia in a model of bone cancer pain. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3104059/

Spinal administration of the monoacylglycerol lipase inhibitor JZL184 produces robust inhibitory effects on nociceptive processing and the development of central sensitization in the rat. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3525864/

Monoacylglycerol lipase is a new therapeutic target for Alzheimer’s disease. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3513645/

Inhibition of monoacylglycerol lipase attenuates vomiting in Suncus murinus and 2-arachidonoyl glycerol attenuates nausea in rats. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423233/

Differences in peripheral endocannabinoid modulation of scratching behavior in facial vs. spinally-innervated skin. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3394407/

Dynamic changes to the endocannabinoid system in models of chronic pain (full – 2012)
http://rstb.royalsocietypublishing.org/content/367/1607/3300.full?sid=1569c370-cd5c-4358-89ff-8572015e069

Monoacylglycerol Lipase (MAGL) Inhibition Attenuates Acute Lung Injury in Mice. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3808422/

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3687661/

The monoacylglycerol lipase inhibitor JZL184 suppresses inflammatory pain in the mouse carrageenan model. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3717616/

Dual Inhibition of Endocannabinoid Catabolic Enzymes Produces Enhanced Anti-Withdrawal Effects in Morphine-Dependent Mice. (full – 2013)
Repeated Low Dose Administration of the Monoacylglycerol Lipase Inhibitor JZL184 Retains CB1 Receptor Mediated Antinociceptive and Gastoprotective Effects. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3657109/


The influence of monoacylglycerol lipase inhibition upon the expression of epidermal growth factor receptor in human PC-3 prostate cancer cells (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4109781/

Prolonged monoacylglycerol lipase blockade causes equivalent CB1-receptor mediated adaptations in FAAH wild type and knockout mice. (full – 2014) http://jpet.aspetjournals.org/content/early/2014/05/21/jpet.114.212753.long


Delta-9 tetrahydrocannabinol (THC) and endocannabinoid degradative enzyme inhibitors attenuate intracranial self-stimulation (ICSS) in mice. (full – 2014) http://jpet.aspetjournals.org/content/early/2014/11/14/jpet.114.218677.long


Monoacylglycerol Lipase Inhibition Blocks Chronic Stress-Induced Depressive-Like Behaviors via Activation of mTOR Signaling. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4023150/

Hemopressin, an inverse agonist of cannabinoid receptors, inhibits neuropathic pain in rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4112957/
JZL184 is anti-hyperalgesic in a murine model of cisplatin-induced peripheral neuropathy. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4268146/

Increased angiotensin II contraction of the uterine artery at early gestation in a transgenic model of hypertensive pregnancy is reduced by inhibition of endocannabinoid hydrolysis. (full– 2014) http://hyper.ahajournals.org/content/64/3/619.long

Endocannabinoid modulation by FAAH and MAGL within the analgesic circuitry of the periaqueductal grey. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4294036/


Prior stimulation of the endocannabinoid system prevents methamphetamine-induced dopaminergic neurotoxicity in the striatum through activation of CB2 receptors. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4939842/

Dual inhibition of monoacylglycerol lipase and cyclooxygenases synergistically reduces neuropathic pain in mice. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4376450/

The dual FAAH/MAGL inhibitor JZL195 has enhanced effects on endocannabinoid transmission and motor behavior in rats as compared to those of the MAGL inhibitor JZL184. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4150743/


Programming and reprogramming neural cells by (endo-) cannabinoids: from physiological rules to emerging therapies (full – 2014) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4765324/


The monoacylglycerol lipase inhibitor JZL184 is neuroprotective and alters glial cell phenotype in the chronic MPTP mouse model. (abst – 2014)  
http://www.neurobiologyofaging.org/article/S0197-4580(14)00384-4/abstract

Involvement of 2-arachidonoylglycerol signaling in social challenge responding of male CD1 mice. (abst – 2014)  

Inhibition of monoacylglycerol lipase reduces nicotine withdrawal (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4301695/

Blockade of monoacylglycerol lipase inhibits oligodendrocyte excitotoxicity and prevents demyelination in vivo (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4407719/

Selective Monoacylglycerol Lipase Inhibitors: Antinociceptive versus Cannabimimetic Effects in Mice (full – 2015)  
http://jpet.aspetjournals.org/content/353/2/424.full.pdf+html

Blockade of 2-arachidonoylglycerol hydrolysis produces antidepressant-like effects and enhances adult hippocampal neurogenesis and synaptic plasticity (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4517601/

Monoacylglycerol lipase inhibitor JZL184 reduces neuroinflammatory response in APdE9 mice and in adult mouse glial cells. (full – 2015)  
http://www.jneuroinflammation.com/content/12/1/81

Full Fatty Acid Amide Hydrolase Inhibition Combined with Partial Monoacylglycerol Lipase Inhibition: Augmented and Sustained Antinociceptive Effects with Reduced Cannabimimetic Side Effects in Mice (full – 2015)  
http://jpet.aspetjournals.org/content/354/2/111.full

A Basal Tone of 2-Arachidonoylglycerol Contributes to Early Oligodendrocyte Progenitor Proliferation by Activating Phosphatidylinositol 3-Kinase (PI3K)/AKT and the Mammalian Target of Rapamycin (MTOR) Pathways. (full – 2015)  

Multiple Forms of Endocannabinoid and Endovanilloid Signaling Regulate the Tonic Control of GABA Release (full – 2015)  
http://www.jneurosci.org/content/35/27/10039.full?sid=7e769d1b-9b77-42fe-92d0-8b337b34b9b6

Fine-tuning of synaptic upscaling at excitatory synapses by endocannabinoid signaling is mediated via the CB1 receptor. (full – 2015)  
http://www.nature.com/articles/srep16257

Endocannabinoids Mediate Muscarinic Acetylcholine Receptor-Dependent Long-Term Depression in the Adult Medial Prefrontal Cortex. (full – 2015)  
Increasing levels of the endocannabinoid 2-AG is neuroprotective in the 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine mouse model of Parkinson's disease. (full – 2015) http://www.sciencedirect.com/science/article/pii/S0014488615300583

Training-Associated Emotional Arousal Shapes Endocannabinoid Modulation of Spatial Memory Retrieval in Rats. (full – 2015) http://www.jneurosci.org/content/35/41/13962.long

Endocannabinoid Catabolic Enzymes Play Differential Roles in Thermal Homeostasis in Response to Environmental or Immune Challenge. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4477849/

Simultaneous inhibition of fatty acid amide hydrolase (FAAH) and monoacylglycerol lipase (MAGL) shares discriminative stimulus effects with Δ9-THC in mice. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4407717/


Phenotypic assessment of THC discriminative stimulus properties in fatty acid amide hydrolase knockout and wildtype mice. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4387086/


2-AG promotes the expression of conditioned fear via cannabinoid receptor type 1 on GABAergic neurons. (abst – 2015) http://link.springer.com/article/10.1007%2Fs00213-015-3917-y
The monoacylglycerol lipase inhibitor JZL184 decreases inflammatory response in skeletal muscle contusion in rats.  (abst – 2015)

Modulatory effects by CB1 receptors on rat spinal locomotor networks after sustained application of agonists or antagonists.  (abst – 2015)

Genetic inactivation and prolonged pharmacologic inhibition of monoacylglycerol lipase have opposite effects on anesthetic sensitivity to propofol  (abst – 2015)

Inhibition of monoacylglycerol lipase (MAGL) enhances cue-induced reinstatement of nicotine-seeking behavior in mice.  (abst – 2015)


2-arachidonoylglycerol signaling impairs short-term fear extinction.  (full – 2016)

p21-activated kinase 1 restricts tonic endocannabinoid signaling in the hippocampus  (full – 2016)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4907698/

Discriminative Stimulus Properties of the Endocannabinoid Catabolic Enzyme Inhibitor SA-57 in Mice.  (full – 2016)
http://jpet.aspetjournals.org/content/early/2016/06/15/jpet.115.229492.long

Endocannabinoid Signaling Regulates Sleep Stability.  (full – 2016)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0152473


http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4923145/

Endocannabinoid System: the Direct and Indirect Involvement in the Memory and Learning Processes—a Short Review  (full – 2016)

Interacting Cannabinoid and Opioid Receptors in the Nucleus Accumbens Core Control Adolescent Social Play.  (full – 2016)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5110529/
Rescue of Impaired mGluR5-Driven Endocannabinoid Signaling Restores Prefrontal Cortical Output to Inhibit Pain in Arthritic Rats. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4719019/


**JZL-195** - stops the breakdown of anandamide, PEA, OEA and 2-AG

Dual blockade of FAAH and MAGL identifies behavioral processes regulated by endocannabinoid crosstalk in vivo.  
(full – 2009)  
http://www.pnas.org/content/106/48/20270.long

Dual fatty acid amide hydrolase and monoacylglycerol lipase blockade produces THC-like Morris water maze deficits in mice.  
(full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3382457/

Astrogial CB1 cannabinoid receptors regulate leptin signaling in mouse brain astrocytes.  
(full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3854987/

Actions of the dual FAAH/MAGL inhibitor JZL195 in a murine inflammatory pain model.  
(abst – 2013)  

Endocannabinoid modulation by FAAH and MAGL within the analgesic circuitry of the periaqueductal grey.  
(full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4294036/

The dual FAAH/MAGL inhibitor JZL195 has enhanced effects on endocannabinoid transmission and motor behavior in rats as compared to those of the MAGL inhibitor JZL184.  
(full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4150743/

Simultaneous inhibition of fatty acid amide hydrolase (FAAH) and monoacylglycerol lipase (MAGL) shares discriminative stimulus effects with δ9-THC in mice.  
(full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4407717/

Phenotypic assessment of THC discriminative stimulus properties in fatty acid amide hydrolase knockout and wildtype mice.  
(full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4387086/

Opposite control of frontocortical 2-arachidonoylglycerol turnover rate by cannabinoid type-1 (CB1 ) receptors located on glutamatergic neurons and on astrocytes.  
(full – 2015)  

The effect of FAAH, MAGL, and Dual FAAH/MAGL inhibition on inflammatory and colorectal distension-induced visceral pain models in Rodents.  
(full – 2015)  

Distinct roles of the endocannabinoids anandamide and 2-arachidonoylglycerol in social behavior and emotionality at different developmental ages in rats.  
(abst – 2015)  

Actions of the dual FAAH/MAGL inhibitor JZL195 in a murine neuropathic pain model.  
(full – 2016)  
Discriminative Stimulus Properties of the Endocannabinoid Catabolic Enzyme Inhibitor SA-57 in Mice. (full – 2016)
http://jpet.aspetjournals.org/content/early/2016/06/15/jpet.115.229492.long

Mice Expressing a "Hyper-Sensitive" Form of the Cannabinoid Receptor 1 (CB1) Are Neither Obese Nor Diabetic. (full – 2016)
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0160462

Systemic and spinal administration of FAAH, MAGL inhibitors and dual FAAH/MAGL inhibitors produce antipruritic effect in mice. (abst – 2016)

KM-233 – CB2 agonist


Synthesis of Novel Cannabinoid Ligands and Their Use as Anti-Glioma and Anti-Inflammatory Agents (full – 2010)


Functional selectivity of CB2 cannabinoid receptor ligands at a canonical and non-canonical pathway. (full – 2016)
http://jpet.aspetjournals.org/content/early/2016/05/18/jpet.116.232561.long

KML-29 – stops the production of MAGL, thus preventing the breakdown of 2-AG

In vivo characterization of the highly selective monoacylglycerol lipase inhibitor KML29: Antinociceptive activity without cannabimimetic side effects. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3954480/

Comparative biochemical characterization of the monoacylglycerol lipase inhibitor KML29 in brain, spinal cord, liver, spleen, fat and muscle tissue. (full – 2014)
Postnatal ethanol exposure alters levels of 2-arachidonylglycerol-metabolizing enzymes and pharmacological inhibition of monoacylglycerol (MAGL) does not cause neurodegeneration in neonatal mice. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4490952/


KN38-7271/ BAY38-7271 – CB1 & CB2 agonist

Characterization of the diarylether sulfonylester (-)-(R)-3-(2-hydroxymethylindanyl-4-oxy)phenyl-4,4,4-trifluoro-1-sulfonate (BAY 38-7271) as a potent cannabinoid receptor agonist with neuroprotective properties. (full – 2002) http://jpet.aspetjournals.org/content/302/1/359.long


3-[2-cyano-3-(trifluoromethyl)phenoxy]phenyl-4,4,4-trifluoro-1-butanesulfonate (BAY 59-3074): a novel cannabinoid Cb1/Cb2 receptor partial agonist with antihyperalgesic and antiallodynic effects. (full – 2004) http://jpet.aspetjournals.org/content/310/2/620.long


**LBP-1** - CB1 agonist with a minimal high

Low brain penetrant CB1 receptor agonists for the treatment of neuropathic pain.  
(abst - 2012)  

**LEI-105** - a potent, highly selective and reversible dual DAGL-α/DAGL-β inhibitor

A highly selective, reversible inhibitor identified by comparative chemoproteomics modulates diacylglycerol lipase activity in neurons.  (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4773911/

**LY3038404 HCl** - a highly selective CB2 agonist

Cannabinoid receptor 2 agonist attenuates pain related behavior in rats with chronic alcohol / high fat diet induced pancreatitis.  (full – 2014)  
http://www.molecularpain.com/content/10/1/66

**MAB-CHMINACA/ ADB-CHMINACA**

Postmortem distribution of MAB-CHMINACA in body fluids and solid tissues of a human cadaver.  (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4525191/

Case Series of Synthetic Cannabinoid Intoxication from One Toxicology Center.  
(full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4899060/

Identification of New Synthetic Cannabinoid ADB-CHMINACA (MAB-CHMINACA) Metabolites in Human Hepatocytes  

Schedules of Controlled Substances: Temporary Placement of the Synthetic Cannabinoid MAB-CHMINACA Into Schedule I. Final order.  (abst – 2016)  

Acute intoxication of four individuals following use of the synthetic cannabinoid MAB-CHMINACA.  (abst – 2016)  
Identification and quantification of synthetic cannabinoids in "spice-like" herbal mixtures: Update of the German situation for the spring of 2016. (abst – 2016)

**MAM-2201** - CB1 & CB2 agonist, a hybrid of JWH-122 and AM-2201

Cytotoxicity of synthetic cannabinoids on primary neuronal cells of the forebrain: the involvement of cannabinoid CB1 receptors and apoptotic cell death. (abst – 2013)

Inhibitory effect of synthetic cannabinoids on CYP1A activity in mouse liver microsomes. (link to PDF – 2014) https://www.jstage.jst.go.jp/article/jts/39/6/39_815/_article

Identification and quantification of synthetic cannabinoids in 'spice-like' herbal mixtures: A snapshot of the German situation in the autumn of 2012. (abst – 2014)

LC-QTOF-MS as a superior strategy to immunoassay for the comprehensive analysis of synthetic cannabinoids in urine. (abst – 2014)


https://www.dovepress.com/emerging-drugs-of-abuse-current-perspectives-on-synthetic-cannabinoids-peer-reviewed-fulltext-article-SAR


**MARINOL/ DRONABINOL** - a synthetic THC, CB1 & CB2 agonist, legal in the US

Cannabinoids (encyclopedia entry) http://www.chemie.de/lexikon/e/Cannabinoids/

Cannabis, Coca, & Poppy: Nature’s Addictive Plants - Cannabis (article – undated) http://www.deamuseum.org/ccp/cannabis/history.html

CANNABIS AND MARINOL IN THE TREATMENT OF MIGRAINE HEADACHE (abst - undated) http://www.druglibrary.net/schaffer/hemp/migrn2.htm

Dronabinol enhancement of appetite in cancer patients.  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=149  
(abst - 1990)

Recent clinical experience with dronabinol.  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=90  
(abst - 1991)

Dronabinol and prochlorperazine in combination for treatment of cancer chemotherapy-induced nausea and vomiting.  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=28  
(abst - 1991)

Chronic Migraine Headache: five cases successfully treated with Marinol and/or illicit cannabis.  
http://www.druglibrary.org/schaffer/hemp/migrn1.htm  
(abst - 1991)

Dronabinol stimulates appetite and causes weight gain in HIV patients.  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=20  
(abst - 1992)

Dronabinol effects on weight in patients with HIV infection.  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=45  
(abst - 1992)

Effect of dronabinol on nutritional status in HIV infection.  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=150  
(abst - 1993)

Treatment of spasticity in spinal cord injury with dronabinol, a tetrahydrocannabinol derivative.  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=112  
(abst - 1995)

Intractable nausea and vomiting due to gastrointestinal mucosal metastases relieved by tetrahydrocannabinol (dronabinol).  
http://www.jpsmjornal.com/article/S0885-3924%2897%2900229-7/pdf  
(full - 1997)

Marinol vs. Marijuana: Politics, Science, and Popular Culture  
(article – 1997)

Effects of dronabinol on anorexia and disturbed behavior in patients with Alzheimer's disease  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=59  
(abst - 1997)

Abuse potential of dronabinol (Marinol).  
(abst – 1998)

Schedules of controlled substances: rescheduling of the Food and Drug Administration approved product containing synthetic dronabinol [(−)-[DELTA] less than 9 greater than - (trans)-tetrahydrocannabinol] in sesame oil and encapsulated in soft gelatin capsules from schedule II to schedule III. Department of Justice (DOJ), Drug Enforcement Administration (DEA). Final rule.  
(full – 1999)
Effects of smoked cannabis and oral d9-tetrahydrocannabinol on nausea and emesis after cancer chemotherapy

Cannabinoids for control of chemotherapy induced nausea and vomiting: quantitative systematic review

The Role of Cannabis and Cannabinoids in Pain Management

Preliminary observation with dronabinol in patients with intractable pruritus secondary to cholestatic liver disease.

Cannabis and the brain.

CANNABINOIDs: POTENTIAL ANTICANCER AGENTS

Cannabinoid rotation in a young woman with chronic cystitis

Safety and efficacy of dronabinol in the treatment of agitation in patients with Alzheimer’s disease A retrospective chart review

On the application of cannabis in paediatrics and epileptology.

Open-label study of dronabinol in the treatment of refractory agitation in Alzheimer’s disease: a pilot study

Therapeutic potential of cannabinoids in CNS disease.

MARINOL® (Dronabinol) Capsules

Does the cannabinoid dronabinol reduce central pain in multiple sclerosis? Randomised double blind placebo controlled crossover trial

A Novel Intervention for the Treatment of Gout in an Elderly Rehabilitation Patient in Whom Conventional Treatment was Ineffective
Cannabinoid agonists in the treatment of blepharospasm--a case report study. (link to PDF - 2004)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.505.5231&rank=11

http://medicalmarijuana.procon.org/sourcefiles/marinol.pdf

Marinol vs Natural Cannabis (full - 2005)

Dronabinol can't replace medical marijuana (article - 2005)

Testimony of Terry Jacobs to FDA - why he prefers for medical marijuana to Marinol (testimony – forum repost - 2005)

Pharmacokinetics of cannabinoids. (abst – 2005)


Effect of a cannabinoid agonist on gastrointestinal transit and postprandial satiation in healthy human subjects: a randomized, placebo-controlled study (full - 2006)

WO 2006063109 A2 - Room-temperature stable dronabinol formulations (full – 2006)

Dronabinol reduces signs and symptoms of idiopathic intracranial hypertension : a case report (abst - 2006)
http://www.liebertonline.com/doi/abs/10.1089/jop.2006.22.68

Dronabinol for supportive therapy in patients with malignant melanoma and liver metastases (abst - 2006)

Cannabinoids as therapeutic agents in cardiovascular disease: a tale of passions and illusions. (full - 2007)
Effects of a cannabinoid receptor agonist on colonic motor and sensory functions in humans: a randomized, placebo-controlled study  (full - 2007)
http://ajpgi.physiology.org/cgi/content/full/293/1/G137


Letter: Cannabinoid medicines and the need for the scientific method  (letter – 2007)

Appetite stimulants in cystic fibrosis: a systematic review.  (summary – 2007)


Efficacy of dronabinol alone and in combination with ondansetron versus ondansetron alone for delayed chemotherapy-induced nausea and vomiting.  (abst - 2007)


Dronabinol and retinal hemodynamics in humans.  (abst - 2007)


SUPPORTING RESEARCH INTO THE THERAPEUTIC ROLE OF MARIJUANA  (full – 2008)
https://www.acponline.org/acp_policy/policies/supporting_medmarijuana_2008.pdf

Cannabinoids in the management of difficult to treat pain  (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2503660/?tool=pmcentrez

Treating depression with cannabinoids  (full - 2008)


Current Status of Cannabis Treatment of Multiple Sclerosis with an Illustrative Case Presentation of a Patient with MS, Complex Vocal Tics, Paroxysmal Dystonia, and Marijuana Dependence Treated with Dronabinol.  (abst - 2008)  

Deaths from Marijuana v. 17 FDA-Approved Drugs  (full - 2009)  

Emerging strategies for exploiting cannabinoid receptor agonists as medicines.  (full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2697681/

Effects of \(\Delta^9\)-tetrahydrocannabinol on reward and anxiety in rats exposed to chronic unpredictable stress.  (link to download – 2009)  

THC can improve symptoms of schizophrenia  (article– 2009)  

Cluster attacks responsive to recreational cannabis and dronabinol.  (abst - 2009)  

Synthetic delta-9-tetrahydrocannabinol (dronabinol) can improve the symptoms of schizophrenia.  (abst - 2009)  
http://www.unboundmedicine.com/medline/ebm/record/19440079/abstract/

Neurobiology and Systems Physiology of the Endocannabinoid System  (abst – 2009)  

Use of dronabinol (delta-9-THC) in autism: A prospective single-case-study with an early infantile autistic child  (full – 2010)  
http://www.cannabis-med.org/data/pdf/en_2010_04_1_0.pdf

Delta9-tetrahydrocannabivarin testing may not have the sensitivity to detect marijuana use among individuals ingesting dronabinol.  (full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2815025/?tool=pubmed

DEA- Listing of Approved Drug Products Containing Dronabinol in Schedule III  (full – 2010)  

Nutritional Interventions for Cancer-induced Cachexia  (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3106221/

Efficacy and tolerability of high-dose dronabinol maintenance in HIV-positive marijuana smokers: a controlled laboratory study.  (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3325767/

Pharmacology and toxicology of Cannabis derivatives and endocannabinoid agonists.  (link to PDF – 2010)  
http://www.eurekaselect.com/85221/article
Dramatic improvement of refractory Isaacs' syndrome after treatment with dronabinol. (1st page – 2010)  

http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=313

Dronabinol for the treatment of unspecific pain, restlessness and spasticity in neuropaediatrics (abst – 2010)  

Pharmacogenetic Trial of a Cannabinoid Agonist Shows Reduced Fasting Colonic Motility in Patients with Non-Constipated Irritable Bowel Syndrome. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3202649/

Subjective and physiological effects after controlled Sativex and oral THC administration. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3836266/

Combined effects of acute, very-low-dose ethanol and delta(9)-tetrahydrocannabinol in healthy human volunteers (full - 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3018238/

Delta-9-tetrahydrocannabinol may palliate altered chemosensory perception in cancer patients: results of a randomized, double-blind, placebo-controlled pilot trial. (full – 2011)  
http://annonc.oxfordjournals.org/content/22/9/2086.long

Dronabinol for the treatment of cannabis dependence: a randomized, double-blind, placebo-controlled trial. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3154755/

Antagonist-elicited cannabis withdrawal in humans. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3717344/


Dronabinol, a cannabinoid agonist, reduces hair pulling in trichotillomania: a pilot study. (abst – 2011)  
http://www.unboundmedicine.com/medline/ebm/record/21590520/abstract/Dronabinol_a_cannabinoid_agonist_reduces_hair_pulling_in_trichotillomania_a_pilot_study

Cannabinoids in children (abst – 2011)  

Endocannabinoids in nervous system health and disease: the big picture in a nutshell (full – 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3193.full


The Therapeutic Potential of Cannabis and Cannabinoids (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3442177/

Can oral fluid cannabinoid testing monitor medication compliance and/or cannabis smoking during oral THC and oromucosal Sativex administration? (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3612560/


Irritable Bowel Syndrome: Methods, Mechanisms, and Pathophysiology. Genetic epidemiology and pharmacogenetics in irritable bowel syndrome (full – 2012) http://ajpgi.physiology.org/content/302/10/G1075

Effects of delta-9-tetrahydrocannabinol on evaluation of emotional images (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3664416/

Genetic Epidemiology and Pharmacogenetics in Irritable Bowel Syndrome. (full - 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3362100/

Randomized pharmacodynamic and pharmacogenetic trial of dronabinol effects on colon transit in irritable bowel syndrome-diarrhea. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3775711/


Targeting the endocannabinoid system with cannabinoid receptor agonists: pharmacological strategies and therapeutic possibilities (full – 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3353.full?sid=1569c370-cd5c-4358-89ff-857201f5e069


Cannabinoid facilitation of fear extinction memory recall in humans.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3445738/


Plasma Cannabinoid Concentrations During Dronabinol Pharmacotherapy for Cannabis Dependence.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3955404/


The Subjective Psychoactive Effects of Oral Dronabinol Studied in a Randomized, Controlled Crossover Clinical Trial For Pain.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4013220/


Dronabinol Treatment of Refractory Nausea and Vomiting Related to Peritoneal Carcinomatosis.  (full – 2013)  http://ajh.sagepub.com/content/32/1/5.long

Acyl migration evaluation in monoacylglycerols from Echium plantagineum seed oil and Marinol.  (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3933826/
Effect of dronabinol on progression in progressive multiple sclerosis (CUPID): a randomised, placebo-controlled trial (link to PDF – 2013)
http://www.thelancet.com/journals/laneur/article/PIIS1474-4422%2813%2970159-5/abstract


Medicinal Cannabis and Painful Sensory Neuropathy (editorial – 2013) http://virtualmentor.ama-assn.org/2013/05/oped1-1305.html


Getting high on the endocannabinoid system. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3997295/


Cannabinoid Type 1 and Type 2 Receptor Antagonists Prevent Attenuation of Serotonin-Induced Reflex Apneas by Dronabinol in Sprague-Dawley Rats. (full – 2014) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0111412


Impact of dronabinol on quantitative electroencephalogram (qEEG) measures of sleep in obstructive sleep apnea syndrome. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3869068/

Medical marijuana: more questions than answers. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4243838/

Cannabinoid modulation of prefrontal-limbic activation during fear extinction learning and recall in humans (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3960373/


http://cmajopen.ca/content/3/2/E251.full?sid=139f05c1-b441-476b-99ff-addf8c9188e1a

Comparing treatment effects of oral THC on simulated and on-the-road driving performance: testing the validity of driving simulator drug research (full – 2015)  

Emerging Drugs for Common Conditions of Sleepiness: Obstructive Sleep Apnea and Narcolepsy. (full – 2015)  
http://www.tandfonline.com/doi/full/10.1517/14728214.2015.1115480

Sequelaes of Cannabis as Medicine (full – 2015)  
http://painmedicine.oxfordjournals.org/content/16/7/1447

Safety, pharmacodynamics, and pharmacokinetics of multiple oral doses of delta-9-tetrahydrocannabinol in older persons with dementia (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4480847/

Cannabis in the Treatment of Dystonia, Dyskinesias, and Tics (full – 2015)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4604174/

Safety of oral dronabinol during opioid withdrawal in humans. (full – 2015)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4663169/

The effects of dronabinol during detoxification and the initiation of treatment with extended release naltrexone. (full – 2015)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4536087/

Clinical perspectives on medical marijuana (cannabis) for neurologic disorders. (full – 2015)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4549715/

Changes in IGF-I, urinary free cortisol and adipokines during dronabinol therapy in anorexia nervosa: Results from a randomised, controlled trial. (abst – 2015)  

Do Cannabinoid Receptor Agonists Have A Role In The Intensive Care Unit? ... Totally Dude! (abst – 2015)  

A state-of-the-art review of the management and treatment of taste and smell alterations in adult oncology patients. (abst – 2015)  

Cannabinoids for the Treatment of Agitation and Aggression in Alzheimer's Disease. (abst – 2015)  


Dronabinol for chemotherapy-induced nausea and vomiting unresponsive to antiemetics. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4869612/

Mice Expressing a "Hyper-Sensitive" Form of the Cannabinoid Receptor 1 (CB1) Are Neither Obese Nor Diabetic. (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0160462


Using Medical Cannabis in an Oncology Practice (article – 2016) (needs free registration) http://www.cancernetwork.com/oncology-journal/using-medical-cannabis-oncology-practice#sthash.CjT8fR9n.uWvEhfSG.dpuf

Using Medical Cannabis in an Oncology Practice (1st page – 2016) http://www.cancernetwork.com/oncology-journal/using-medical-cannabis-oncology-practice#sthash.CjT8fR9n.dpuf


MDA-7 – strong CB2 agonist


Adenoviral endoplasmic reticulum-targeted mda-7/interleukin-24 vector enhances human cancer cell killing. (full – 2008) http://met.aacrjournals.org/content/7/8/2528.long

Prevention of Paclitaxel-Induced Neuropathy Through Activation of the Central Cannabinoid Type 2 Receptor System (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3334436/


Combining histone deacetylase inhibitors with MDA-7/IL-24 enhances killing of renal carcinoma cells (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3925659/


MDA-19 – strong CB2 agonist


MDMB-CHMICA


**MDMB-CHMCZA**

Characterization of the synthetic cannabinoid MDMB-CHMCZCA. (full -2016)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5238538/

**MJN-110** – blocks the break-down of 2-AG

Selective Monoacylglycerol Lipase Inhibitors: Antinociceptive versus Cannabimimetic Effects in Mice (full – 2015) http://jpet.aspetjournals.org/content/353/2/424.full.pdf+html


Discriminative Stimulus Properties of the Endocannabinoid Catabolic Enzyme Inhibitor SA-57 in Mice. (full – 2016) http://jpet.aspetjournals.org/content/early/2016/06/15/jpet.115.229492.long

The selective monoacylglycerol lipase inhibitor MJN110 produces opioid sparing effects in a mouse neuropathic pain model. (link to PDF – 2016) http://jpet.aspetjournals.org/content/early/2016/01/20/jpet.115.229971.abstract?sid=97527854-e2fb-4d74-ad96-6ab0744dc240


**MK-0364** – see TARANABANT

**ML-193** – a GPR-55 antagonist

The Lysophosphatidylinositol Receptor GPR55 Modulates Pain Perception in the Periaqueducial Grey. (full – 2015) http://molpharm.aspetjournals.org/content/early/2015/05/12/mol.115.099333.long

**MM-433593** - inhibits FAAH thus increasing anandamide

Metabolism and disposition of MM-433593, a selective FAAH-1 inhibitor, in monkeys. (full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4186420/

**MRI-1867** – a peripherally restricted hybrid CB,R/iNOS inhibitor

Hybrid inhibitor of peripheral cannabinoid-1 receptors and inducible nitric oxide synthase mitigates liver fibrosis (full – 2016)  https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4979564/

**MT-178** - CB2 agonist


**NABILONE/ CESAMET** - a synthetic THC, CB1 & CB2 agonist, legal in US

Brand Names : Cesamet  (monograph - undated)  http://www.medicinenet.com/nabilone-oral/article.htm

Microbiological transformations of nabilone, a synthetic cannabinoid. (full - 1979)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC243333/?tool=pmcentrez&page=1

Superiority of nabilone over prochlorperazine as an antiemetic in patients receiving cancer chemotherapy. (abst - 1979)  http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=126

The efficacy and safety of nabilone (a synthetic cannabinoid) in the treatment of anxiety (abst - 1981)  
http://www.ncbi.nlm.nih.gov/pubmed/6117575

A double-blind, controlled trial of nabilone vs. prochlorperazine for refractory emesis induced by cancer chemotherapy. (abst - 1982)  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=146

A multi-institutional Phase III study of nabilone vs. placebo in chemotherapy-induced nausea and vomiting. (abst - 1982)  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=156

Anti-emetic efficacy and toxicity of nabilone, a synthetic cannabinoid, in lung cancer chemotherapy. (full - 1983) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2011510/?tool=pmcentrez&page=1

Comparison of bronchial effects of nabilone and terbutaline in healthy and asthmatic subjects. (abst - 1983)  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=43

Respiratory and cardiovascular depressant effects of nabilone, N-methyllevonantradol and delta 9-tetrahydrcannabinol in anesthetized cats. (abst - 1983)  
http://jpet.aspetjournals.org/content/227/2/508.abstract?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=marihuana&searchid=1&FIRSTINDEX=1920&resourcetype=HWCIT

Acute Effects of Natural and Synthetic Cannabis Compounds on Prolactin Levels in Human Males. (abst – 1984)  

An initial evaluation of Nabilone in the control of radiotherapy-induced nausea and vomiting. (abst – 1984)  

A cross-over comparison of nabilone and prochlorperazine for emesis induced by cancer chemotherapy. (abst - 1985)  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=128

Nabilone and metoclopramide in the treatment of nausea and vomiting due to cisplatinum: a double blind study. (abst - 1986)  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=121

Crossover comparison of the antiemetic efficacy of nabilone and alizapride in patients with nonseminomatous testicular cancer receiving cisplatin therapy. (abst - 1986)  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=127

Prospective randomized double-blind trial of nabilone versus domperidone in the treatment of cytotoxic-induced emesis. (abst - 1986)  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=129

Nabilone: an alternative antiemetic for cancer chemotherapy. (abst - 1986)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=120

A species comparison of the toxicity of nabilone, a new synthetic cannabinoid. (abst – 1987)

Species specificity in the metabolism of nabilone. Relationship between toxicity and metabolic routes. (abst - 1987)

A double-blind randomised cross-over comparison of nabilone and metoclopramide in the control of radiation-induced nausea. (abst - 1987)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=130

A randomized trial of oral nabilone and prochlorperazine compared to intravenous metoclopramide and dexamethasone in the treatment of nausea and vomiting induced by chemotherapy regimens containing cisplatin or cisplatin analogues. (abst – 1988)

Effect of nabilone on nausea and vomiting after total abdominal hysterectomy (abst - 1994)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=137

Effect of nabilone on nausea and vomiting (letter - 1995)
http://bja.oxfordjournals.org/cgi/reprint/74/1/111?
maxtoshow=&hits=80&RESULTFORMAT=1&andorexacttitle=and&andorexacttitleabs=and&fulltext=can
nabinoid&andorexactfulltext=and&searchid=1&FIRSTINDEX=0&sortspec=relevance&resourcetype=HW
CIT

http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=11

The therapeutic potential of cannabis and cannabinoids for multiple sclerosis and spinal injury (full – 1997)
http://www.druglibrary.net/olsen/HEMP/IHA/jiha4101.html

The effects of the cannabinoid receptor agonist nabilone on L-DOPA induced dyskinesia in patients with idiopathic Parkinson's disease (PD). (abst - 1998)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=153

Analgesic effect of the cannabinoid analogue nabilone is not mediated by opioid receptors. (excerpt - 1999)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=203

Cannabis and cannabinoids: pharmacology and rationale for clinical use (abst – 1999)


Effects of nabilone, a synthetic cannabinoid, on postoperative pain (link to download – 2006) http://link.springer.com/article/10.1007%2FBF03022793


Nabilone significantly reduces spasticity-related pain (abst - 2006) http://www.cannabis-med.org/studies/ww_en-db_study_show.php?s_id=200

The synthetic cannabinoid nabilone improves pain and symptom management in cancer patients (abst - 2006) http://www.cannabis-med.org/studies/ww_en-db_study_show.php?s_id=177

Synthetic cannabinomimetic nabilone on patients with chronic pain  (abst - 2006)  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=197

The synthetic cannabinoid nabilone improves pain and symptom management in cancer patients  (abst - 2006)  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=177

The synthetic cannabinoid nabilone improves pain and symptom management in cancer patients  (abst - 2006)  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=177

Nabilone improves pain and symptom management in cancer patients  
(abstract - 2006)  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=177

Synthetic cannabinomimetic nabilone on patients with chronic pain  (abst - 2006)  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=197

Cannabinoids as therapeutic agents in cardiovascular disease: a tale of passions and illusions.  
(full - 2007)  

Cesamet (nabilone) capsule  
(info page - 2007)  

Cannabinoids for postoperative pain .  
(letter - 2007)  
http://anesthesiology.pubs.asahq.org/article.aspx?articleid=1931347&resultClick=3

Cannabinoids in the treatment of chemotherapy-induced nausea and vomiting: beyond prevention of acute emesis.  
(abstract – 2007)  

Symptomatic treatment of multiple sclerosis using cannabinoids: recent advances.  
(abstract - 2007)  

Cannabinoids in the management of difficult to treat pain  
(full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2503660/?tool=pmcentrez

Comparison of analgesic effects and patient tolerability of nabilone and dihydrocodeine for chronic neuropathic pain: randomised, crossover, double blind study.  
(full – 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2213874/?tool=pubmed

Nabilone for the treatment of pain in fibromyalgia.  
(abst - 2008)  

Cannabinoids, Endocannabinoids, and Related Analogs in Inflammation  
(full - 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2664885/?tool=pmcentrez

Emerging strategies for exploiting cannabinoid receptor agonists as medicines.  
(full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2697681/
The use of a synthetic cannabinoid in the management of treatment-resistant nightmares in posttraumatic stress disorder (PTSD).  (full - 2009)  

Cannabinoids as pharmacotherapies for neuropathic pain: from the bench to the bedside. (full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2755639/

A pilot study using nabilone for symptomatic treatment in Huntington's disease.  (abst – 2009)  
http://www.unboundmedicine.com/medline/ebm/record/19845035/abstract/A_pilot_study_using_nabilone_for_symptomatic_treatment_in_Huntington%27s_disease

Central side-effects of therapies based on CB1 cannabinoid receptor agonists and antagonists: focus on anxiety and depression.  (abst – 2009)  

The Effects of Nabilone on Sleep in Fibromyalgia: Results of a Randomized Controlled Trial.  (full - 2010)  

A randomized, double-blinded, crossover pilot study assessing the effect of nabilone on spasticity in persons with spinal cord injury.  (full - 2010)  
http://www.archives-pmr.org/article/S0003-9993(10)00072-9/fulltext

Pharmacology and toxicology of Cannabis derivatives and endocannabinoid agonists.  (link to PDF – 2010)  
http://www.eurekaselect.com/85221/article

CESAMET® CII (nabilone) Capsules For Oral Administration  
(archived drug label - 2010)  

An Open-Label Comparison of Nabilone and Gabapentin as Adjuvant Therapy or Monotherapy in the Management of Neuropathic Pain in Patients with Peripheral Neuropathy.  (abst – 2010)  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=311

The Therapeutic Potential of Cannabis and Cannabinoids  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3442177/

http://www.cadth.ca/media/pdf/htis/july-2012/RC0368%20Cannabinoids%20Final.pdf

Endocannabinoids in nervous system health and disease: the big picture in a nutshell  
(full – 2012)  
http://rstb.royalsocietypublishing.org/content/367/1607/3193.full


Targeting the endocannabinoid system with cannabinoid receptor agonists: pharmacological strategies and therapeutic possibilities (full – 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3353.full?sid=1569c370-cd5c-4358-89ff-857201f5e069


Nabilone decreases marijuana withdrawal and a laboratory measure of marijuana relapse. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3682150/

Combined antiproliferative effects of the aminoalkylindole WIN55,212-2 and radiation in breast cancer cells. (full – 2013) http://jpet.aspetjournals.org/content/early/2013/11/20/jpet.113.205120.long


Medical marijuana for cancer. (full – 2014)

Use of a Synthetic Cannabinoid in a Correctional Population for Posttraumatic Stress Disorder-Related Insomnia and Nightmares, Chronic Pain, Harm Reduction, and Other Indications: A Retrospective Evaluation. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4165471/

Drug discovery strategies that focus on the endocannabinoid signaling system in psychiatric disease. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4696509/

Medical marijuana: more questions than answers. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4243838/

http://www.safeaccesssnow.org/medical_cannabis_research_what_does_the_evidence_say

Nabilone as an Adjunctive to Gabapentin for Multiple Sclerosis-Induced Neuropathic Pain: A Randomized Controlled Trial (full – 2015)

Promising cannabinoid-based therapies for Parkinson's disease: motor symptoms to neuroprotection. (full – 2015)
http://www.molecularneurodegeneration.com/content/pdf/s13024-015-0012-0.pdf

http://www.psyneuen-journal.com/article/S0306-4530(14)00413-2/fulltext

Cannabis and Cannabinoids–for health professionals (PDQ®) (full– 2015)
http://www.cancer.gov/about-cancer/treatment/cam/hp/cannabis-pdq#section/all

http://www.ncbi.nlm.nih.gov/books/NBK65875/

Plant derived substances with anti-cancer activity: from folklore to practice (full – 2015)
http://journal.frontiersin.org/article/10.3389/fpls.2015.00799/full

https://www.dovepress.com/emerging-drugs-of-abuse-current-perspectives-on-synthetic-cannabinoids-peer-reviewed-fulltext-article-SAR

http://www.hindawi.com/journals/ecam/2015/238482/
http://cmajopen.ca/content/3/2/E251.full?sid=139f05c1-b441-476b-99ff-addf8c918e1a

Sequelae of Cannabis as Medicine (full – 2015)
http://painmedicine.oxfordjournals.org/content/16/7/1447

Cannabis in the Treatment of Dystonia, Dyskinesias, and Tics (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4604174/

Clinical perspectives on medical marijuana (cannabis) for neurologic disorders. (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4549715/

The effectiveness of cannabinoids in the management of chronic nonmalignant neuropathic pain: a systematic review. (abst – 2015)

Investigational drugs under development for the treatment of PTSD (abst – 2015)

Cannabinoids for the Treatment of Agitation and Aggression in Alzheimer's Disease. (abst – 2015)

Cannabis and Cannabinoids (PDQ®)Health Professional Version (full – 2016)
https://www.ncbi.nlm.nih.gov/books/NBK65755/

Endocannabinoid system: Role in depression, reward and pain control (Review). (link to PDF – 2016)

Using Medical Cannabis in an Oncology Practice (article – 2016)
(needs free registration)
http://www.cancernetwork.com/oncology-journal/using-medical-cannabis-oncology-practice#sthash.CjT8fR9n.uWvEhfSG.dpuf

Using Medical Cannabis in an Oncology Practice (1st page – 2016)
http://www.cancernetwork.com/oncology-journal/using-medical-cannabis-oncology-practice#sthash.CjT8fR9n.dpuf

Cannabis and Cannabinoids. (1st page – 2016)
http://jamanetwork.com/journals/jama/article-abstract/2592497

Efficacy, tolerability and safety of cannabinoids for chronic neuropathic pain: A systematic review of randomized controlled studies. (scroll down for English version) (abst – 2016)
Cannabinoids: Medical implications.  (abst – 2016)

Nabilone for the Management of Pain.  (abst – 2016)

Effects of zolpidem alone and in combination with nabilone on cannabis withdrawal and a laboratory model of relapse in cannabis users.  (abst – 2016)

ENDOCANNABINOID SYSTEM: A multi-facet therapeutic target.  (abst – 2016)
http://www.eurekaselect.com/141330/article

Cannabinoids, inflammation, and fibrosis.  (abst – 2016)

NESS0327 - CB 1 antagonist

Docosahexaenoyl ethanolamide improves glucose uptake and alters endocannabinoid system gene expression in proliferating and differentiating C2C12 myoblasts.  (full – 2014)

Multiple Forms of Endocannabinoid and Endovanilloid Signaling Regulate the Tonic Control of GABA Release  (full – 2015)
http://www.jneurosci.org/content/35/27/10039.full?sid=7e769d1b-9b77-42fe-92d0-8b337b34b9b6

Possible Therapeutic Doses of Cannabinoid Type 1 Receptor Antagonist Reverses Key Alterations in Fragile X Syndrome Mouse Model  (full – 2016)
http://www.mdpi.com/2073-4425/7/9/56/htm

NIDA-41020 – a powerful CB1 antagonist

Pharmacokinetic-pharmacodynamic influence of N-palmitoylethanolamine, arachidonoyl-2′-chloroethylamide and WIN 55,212-2 on the anticonvulsant activity of antiepileptic drugs against audiogenic seizures in DBA/2 mice  (abst – 2016)

Pharmacokinetic-pharmacodynamic influence of N-palmitoylethanolamine, arachidonoyl-2′-chloroethylamide and WIN 55,212-2 on the anticonvulsant activity of antiepileptic drugs against audiogenic seizures in DBA/2 mice.  (abst – 2016)
**NMP-7** - CB 2 agonist

NMP-7 inhibits chronic inflammatory and neuropathic pain via block of Cav3.2 T-type calcium channels and activation of CB2 receptors.  
(full – 2014)  
http://www.molecularpain.com/content/pdf/1744-8069-10-77.pdf

**NMP-181** – CB 2 agonist

Analgesic effect of a mixed T-type channel inhibitor/CB2 receptor agonist  
(full – 2013)  
http://www.molecularpain.com/content/9/1/32

**NS TYR** - an anandamide analog

N-stearoyltyrosine protects primary cortical neurons against Aβ(1-40)-induced injury through inhibiting endocannabinoid degradation.  
(abst – 2015)  

**O-1602** – cannabidiol analog, GPR-18 & GPR-55 agonist

International Union of Basic and Clinical Pharmacology. LXXIX. Cannabinoid Receptors and Their Ligands: Beyond CB1 and CB2  
(full – 2010)  
http://pharmrev.aspetjournals.org/content/62/4/588.full.pdf+html

A role for the putative cannabinoid receptor GPR55 in the islets of Langerhans.  
(full – 2011)  
http://joe.endocrinology-journals.org/content/211/2/177.long

A novel CB receptor GPR55 and its ligands are involved in regulation of gut movement in rodents.  
(full – 2011)  

Anandamide exerts its antiproliferative actions on cholangiocarcinoma by activation of the GPR55 receptor.  
(full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3126905/

The atypical cannabinoid O-1602 protects against experimental colitis and inhibits neutrophil recruitment.  
(full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3116968/
The abnormal cannabidiol analogue O-1602 reduces nociception in a rat model of acute arthritis via the putative cannabinoid receptor GPR55. (abst – 2011)

The atypical cannabinoid O-1602 shows antitumorigenic effects in colon cancer cells and reduces tumor growth in a colitis-associated colon cancer model (full – 2012)
http://www.biomedcentral.com/content/pdf/2050-6511-13-S1-A23.pdf

GPR18 in microglia: implications for the CNS and endocannabinoid system signaling (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3525861/

Evidence for the Putative Cannabinoid Receptor (GPR55)-Mediated Inhibitory Effects on Intestinal Contractility in Mice. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3548934/

siRNA knockdown of GPR18 receptors in BV-2 microglia attenuates N-arachidonoyl glycine-induced cell migration (full – 2012)
http://www.jmolecularsignaling.com/content/7/1/10


The atypical cannabinoid O-1602 increases hind paw sensitisation in the chronic constriction injury model of neuropathic pain. (abst – 2012)


Evidence That A Functional Gpr18-based Signaling System In The Anterior Murine Eye Modulates Intraocular Pressure (abst – 2012)
http://iovs.arvojournals.org/article.aspx?articleid=2358806&resultClick=1

O-1602, an atypical cannabinoid, inhibits tumor growth in colitis-associated colon cancer through multiple mechanisms (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3529923/

Role of endogenous cannabinoid system in the gut. (full - 2013)

A role for O-1602 and G protein-coupled receptor GPR55 in the control of colonic motility in mice. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3677091/

A GPR18-based signaling system regulates IOP in murine eye. (full– 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3687663/

Evaluation of the insulin releasing and antihyperglycaemic activities of GPR55 lipid agonists using clonal beta-cells, isolated pancreatic islets and mice. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3949647/

Regulation of cell proliferation by GPR55/cannabinoid receptors using (R,R')-4’-methoxy-1-naphthylfenoterol in rat C6 glioma cell line (abst – 2013) http://www.abstractsonline.com/Plan/ViewAbstract.aspx?sKey=695437a2-7613-4bef-8697-2294df2da859&cKey=18ba6eb0-2c5f-4004-a56f-2d1f450e2ed1&mKey=9b2d28e7-24a0-466f-a3c9-07c21f6e9be9


(R,R’)-4’-methoxy-1-naphthylfenoterol Inhibits GPR55 signaling and the modulation of motility in human cancer cells (abst – 2013) http://www.abstractsonline.com/Plan/ViewAbstract.aspx?sKey=25370896-7d13-4f15-be76-f664d79b577d&cKey=87b7feca-15ec-42b7-aca7-48c6b1d42773&mKey=9b2d28e7-24a0-466f-a3c9-07c21f6e9be9

Cannabinoid Effects on β Amyloid Fibril and Aggregate Formation, Neuronal and Microglial-Activated Neurotoxicity In Vitro (abst – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4089978


Cannabinoids inhibit cholinergic contraction in human airways through prejunctional CB1 receptors. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4243853/


The differential characterization of GPR55 receptor in human peripheral blood reveals a distinctive expression in monocytes and NK cells and a proinflammatory role in these innate cells. (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/25344934

Activation of GPR55 Receptors Exacerbates oxLDL-Induced Lipid Accumulation and Inflammatory Responses, while Reducing Cholesterol Efflux from Human Macrophages. (full – 2015) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0126839
Pharmacological profiling of the hemodynamic effects of cannabinoid ligands: a combined in vitro and in vivo approach. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4492759/

Central administration of GPR55 receptor agonist and antagonist modulates anxiety-related behaviors in rats. (abst – 2015)  

Mechanisms of vasorelaxation induced by the cannabidiol analogue compound O-1602 in the rat small mesenteric artery. (abst – 2015)  

The effect of O-1602, an atypical cannabinoid, on morphine-induced conditioned place preference and physical dependence (full – 2016)  

GPR55-dependent stimulation of insulin secretion from isolated mouse and human islets of Langerhans. (abst – 2016)  

O-1663 – acts rather like a combination of THC and CBD

Targeting multiple cannabinoid antitumor pathways with a resorcinol derivative leads to inhibition of advanced stages of breast cancer. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4209152/

O-1812 – a stable analog of anandamide


Sensitivity to delta9-tetrahydrocannabinol is selectively enhanced in beta-arrestin2 -/- mice. (full – 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2751575/

β-adrenergic Antagonists, Carbonic Anhydrase Inhibitors And α2-agonists Reduce The Effects Of Cannabinoids In A Rat Glaucoma Model (abst – 2011)  
http://iovs.arvojournals.org/article.aspx?articleid=2360875&resultClick=1
O-1918 - GPR-18 and CB2 antagonist,


G Protein-coupled Endothelial Receptor for Atypical Cannabinoid Ligands Modulates a Ca2+-dependent K+ Current (full – 2003) http://www.jbc.org/content/278/46/46188.full

Heterogeneity in the mechanisms of vasorelaxation to anandamide in resistance and conduit rat mesenteric arteries (full – 2004) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1574972/

Atypical cannabinoid stimulates endothelial cell migration via a Gi/Go-coupled receptor distinct from CB1, CB2 or EDG-1 (abst – 2004) http://www.sciencedirect.com/science/article/pii/S0014299904001906?np=y

Vasorelaxant effects of oleamide in rat small mesenteric artery indicate action at a novel cannabinoid receptor. (full – 2006) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1616976/


Anandamide-Mediated CB1/CB2 Cannabinoid Receptor-Independent Nitric Oxide Production in Rabbit Aortic Endothelial Cells (full – 2007) http://jpet.aspetjournals.org/content/321/3/930.long


Vasoactive and Neuroprotective Actions of a Non-Psychotropic Atypical Cannabinoid in the Retina (abst – 2009) http://iovs.arvojournals.org/article.aspx?articleid=2363001&resultClick=1

Abnormal-Cannabidiol-Induced Increase in Aqueous Humor Outflow (abst – 2010) http://iovs.arvojournals.org/article.aspx?articleid=2368788&resultClick=1


A GPR18-based signaling system regulates IOP in murine eye. (full – 2013)
Mechanisms of endothelium-dependent relaxation evoked by anandamide in isolated human pulmonary arteries. (full – 2014)

Neuronal Nitric Oxide Synthase Dependent Elevation in Adiponectin in the Rostral Ventrolateral Medulla Underlies GPR18-mediated Hypotension in Conscious Rats. (full – 2014)

Vascular targets for cannabinoids: animal and human studies. (full – 2014)

Activation of GPR18 by Cannabinoid compounds: A tale of biased agonism. (full – 2014)

A role for GPR55 in human placental venous endothelial cells. (full – 2015)

The GPR55 agonist lysophosphatidylinositol mediates vasorelaxation of the rat mesenteric resistance artery and induces calcium release in rat mesenteric artery endothelial cells (full – 2015)

Mechanisms of vasorelaxation induced by the cannabidiol analogue compound O-1602 in the rat small mesenteric artery. (abst – 2015)

Abnormal cannabidiol attenuates experimental colitis in mice, promotes wound healing and inhibits neutrophil recruitment. (full – 2016)

The endocannabinoid anandamide causes endothelium-dependent vasorelaxation in human mesenteric arteries. (full – 2016)

Evidence for a GPR18 Role in Diurnal Regulation of Intraocular Pressure. (full – 2016)

Endocannabinoids inhibit neurogenic inflammation in murine joints by a non-canonical cannabinoid receptor mechanism. (abst – 2016)

The Effect of Chronic Activation of the Novel Endocannabinoid Receptor GPR18 on Myocardial Function and Blood Pressure in Conscious Rats. (abst – 2016)
CB2 receptor activation attenuates microcirculatory dysfunction during cerebral ischemic/reperfusion injury. (full - 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3319431/


Activation of cannabinoid receptor 2 attenuates leukocyte-endothelial cell interactions and blood-brain barrier dysfunction under inflammatory conditions. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3325902/


Using the endocannabinoid system as a neuroprotective strategy in perinatal hypoxic-ischemic brain injury. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4146074/

O-1602, an atypical cannabinoid, inhibits tumor growth in colitis-associated colon cancer through multiple mechanisms (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3529923/

Attenuation of HIV-1 replication in macrophages by cannabinoid receptor 2 agonists. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3629438/

Effect of cannabinoid CB2 receptor agonism on learning and memory in a mouse model of photothrombosis (abst – 2013) http://www.fasebj.org/content/27/1_Supplement/1097.4.abstract?sid=01da6a98-e459-4153-9d22-acca30408ac8

Cannabinoid receptor type-2 stimulation, blockade, and deletion alters the vascular inflammatory responses to traumatic brain injury. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4248435/

A CB2-Selective Cannabinoid Suppresses T-Cell Activities and Increases Tregs and IL-10 (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4528965/

A selective cannabinoid CB2 agonist attenuates damage and improves memory retention following stroke in mice. (full – 2015) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4552583/
Targeting Cannabinoid CB2 Receptors in the Central Nervous System. Medicinal Chemistry Approaches with Focus on Neurodegenerative Disorders.  

O-2050  - CB1 antagonist

Suppression of feeding, drinking, and locomotion by a putative cannabinoid receptor "silent antagonist"  

Hypothalamic 2-arachidonoylglycerol regulates multistage process of high-fat diet preferences.  

Angiotensin II induces vascular endocannabinoid release, which attenuates its vasoconstrictor effect via CB1 cannabinoid receptors.  
(full – 2012)  http://www.jbc.org/content/early/2012/07/11/jbc.M112.346296.full.pdf+html

Structural analogs of pyrazole and sulfonamide cannabinoids: Effects on acute food intake in mice.  
(full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3586205/

The complex effects of cannabinoids on insulin secretion from rat isolated islets of Langerhans.  

O-2050 facilitates noradrenaline release and increases the CB1 receptor inverse agonistic effect of rimonabant in the guinea pig hippocampus.  

Biased Agonism of Three Different Cannabinoid Receptor Agonists in Mouse Brain Cortex  

Hierarchical glucocorticoid-endocannabinoid interplay regulates the activation of the nucleus accumbens by insulin.  

Cannabinoid receptors and TRPA1 on neuroprotection in a model of retinal ischemia  

O-2545  - CB1 agonist
Cannabinoid agonists rearrange synaptic vesicles at excitatory synapses and depress motoneuron activity in vivo. (abst – 2015)

Synthetic Ligands of Cannabinoid Receptors Affect Dauer Formation in the Nematode Caenorhabditis elegans. (full – 2016)
http://www.g3journal.org/content/early/2016/04/11/g3.116.026997.long

**O-7460** – blocks the formation of 2-AG

A novel fluorophosphonate inhibitor of the biosynthesis of the endocannabinoid 2-arachidonoylglycerol with potential anti-obesity effects. (full – 2013)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3687659/

CB1 Cannabinoid Receptors Mediate Cognitive Deficits and Structural Plasticity Changes During Nicotine Withdrawal. (abst – 2016)

**OL-135** - a FAAH inhibitor

Endocannabinoid System: the Direct and Indirect Involvement in the Memory and Learning Processes—a Short Review (full – 2016)

**OMDM-1** – blocks the reuptake of endocannabinoids

Up-regulation of the endocannabinoid system in the uterus of leptin knockout (ob/ob) mice and implications for fertility (full – 2005)
http://molehr.oxfordjournals.org/content/11/1/21.full

Cisplatin increases brain 2-arachidonoylglycerol (2-AG) and concomitantly reduces intestinal 2-AG and anandamide levels in the least shrew. (abst – 2005)

Therapeutic Opportunities through the Modulation of Endocannabinoid Transport (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4255948/

For whom the endocannabinoid tolls: Modulation of innate immune function and implications for psychiatric disorders. (abst – 2015)
OMDM-2 – blocks the reuptake of endocannabinoids

Novel selective and metabolically stable inhibitors of anandamide cellular uptake

In vivo pharmacological actions of two novel inhibitors of anandamide cellular uptake.

A new strategy to block tumor angiogenesis by inhibiting endocannabinoid inactivation

Development of the first potential covalent inhibitors of anandamide cellular uptake.

Effects of endocannabinoid neurotransmission modulators on brain stimulation reward.

STUDIES OF ANANDAMIDE ACCUMULATION INHIBITORS IN CEREBELLAR GRANULE NEURONS
(full – 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2248273/


Neuronal and glial alterations in the cerebellar cortex of maternally deprived rats: gender differences and modulatory effects of two inhibitors of endocannabinoid inactivation.

Gender-dependent cellular and biochemical effects of maternal deprivation on the hippocampus of neonatal rats: a possible role for the endocannabinoid system.

Activity-based anorexia in C57/BL6 mice: effects of the phytocannabinoid, Delta9-tetrahydrocannabinol (THC) and the anandamide analogue, OMDM-2. (abst – 2010)

Therapeutic Opportunities through the Modulation of Endocannabinoid Transport
(full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4255948/

The administration of endocannabinoid uptake inhibitors OMDM-2 or VDM-11 promotes sleep and decreases extracellular levels of dopamine in rats. (abst – 2013)

For whom the endocannabinoid tolls: Modulation of innate immune function and implications for psychiatric disorders. (abst – 2015)

Curcumin sensitizes human U-87 glioblastoma and MCF-7 breast cancer cells to the endocannabinoid reuptake inhibitor OMDM-2 (abst – 2015)

**ORG-27569** - enhances agonist-binding affinity to CB1

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3145811/


A key agonist-induced conformational change in the cannabinoid receptor CB1 is blocked by the allosteric ligand Org 27569. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3460482/

Distinct roles of β-arrestin 1 and β-arrestin 2 in ORG27569-induced biased signaling and internalization of the cannabinoid receptor one (CB1) (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3617280/


Behavioral effects of the cannabinoid CB1 receptor allosteric modulator ORG27569 in rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4186448/

In-vivo pharmacological evaluation of the CB1-receptor allosteric modulator Org-27569. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4042670/

Allosteric Modulation of a Cannabinoid G Protein-coupled Receptor BINDING SITE ELUCIDATION AND RELATIONSHIP TO G PROTEIN SIGNALING (full – 2014) http://www.jbc.org/content/289/9/5828.full.pdf+html

Effects of the cannabinoid CB1 receptor allosteric modulator ORG 27569 on reinstatement of cocaine- and methamphetamine-seeking behavior in rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4161648/

Biased Agonism and Biased Allosteric Modulation at the CB1 Cannabinoid Receptor. (full – 2015) http://molpharm.aspetjournals.org/content/early/2015/06/04/mol.115.099192.long

Endogenous vs Exogenous Allosteric Modulators in GPCRs: A dispute for shuttling CB1 among different membrane microenvironments. (full – 2015) http://www.nature.com/articles/srep15453

PB-22 / QUPIC/ “CRAZY MONKEY”/ “PSYCLONE” and DERIVATIVES


Acute Toxicity Associated with Use of 5F-Derivations of Synthetic Cannabinoid Receptor Agonists with Analytical Confirmation. (abst – 2016)  

Synthetic Cannabinoid Abuse Resulting in ST-Segment Elevation Myocardial Infarction Requiring Percutaneous Coronary Intervention. (abst – 2016)  

Analytical differentiation of quinolinyl- and isoquinolinyl-substituted 1-(5-fluoropentyl)-1H-indole-3-carboxylates: 5F-PB-22 and its ten isomers. (full – 2017)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5215287/

Thermolytic degradation of synthetic cannabinoids: chemical exposures and pharmacological consequences (link to download – 2017)  
http://jpet.aspetjournals.org/content/early/2017/01/13/jpet.116.238717.long

**PF-622** – a FAAH inhibitor

Parabens inhibit fatty acid amide hydrolase: A potential role in paraben-enhanced 3T3-L1 adipocyte differentiation. (abst – 2016)  

**PF-3845** – blocks the breakdown of anandamide

Discovery and characterization of a highly selective FAAH inhibitor that reduces inflammatory pain. (full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2692831/

Inhibition of monoacylglycerol lipase (MAGL) attenuates NSAID-induced gastric hemorrhages in mice. (full – 2011)  
http://jpet.aspetjournals.org/content/early/2011/06/09/jpet.110.175778.long

The fatty acid amide hydrolase (FAAH) inhibitor PF-3845 acts in the nervous system to reverse LPS-induced tactile allodynia in mice (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423256/

The monoacylglycerol lipase inhibitor JZL184 suppresses inflammatory pain in the mouse carrageenan model. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3717616/

Dual Inhibition of Endocannabinoid Catabolic Enzymes Produces Enhanced Anti-Withdrawal Effects in Morphine-Dependent Mice. (full – 2013)  
Delta-9 tetrahydrocannabinol (THC) and endocannabinoid degradative enzyme inhibitors attenuate intracranial self-stimulation (ICSS) in mice. (full – 2014) http://jpet.aspetjournals.org/content/early/2014/11/14/jpet.114.218677.long


The fatty acid amide hydrolase inhibitor PF-3845 promotes neuronal survival, attenuates inflammation and improves functional recovery in mice with traumatic brain injury. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4437642/


Full Fatty Acid Amide Hydrolase Inhibition Combined with Partial Monoacylglycerol Lipase Inhibition: Augmented and Sustained Antinociceptive Effects with Reduced Cannabimimetic Side Effects in Mice (full – 2015) http://jpet.aspetjournals.org/content/354/2/111.full

Multiple Forms of Endocannabinoid and Endovanilloid Signaling Regulate the Tonic Control of GABA Release (full – 2015) http://www.jneurosci.org/content/35/27/10039.full?sid=7e769d1b-9b77-42fe-92d0-8b337b34b9b6

Endocannabinoid Catabolic Enzymes Play Differential Roles in Thermal Homeostasis in Response to Environmental or Immune Challenge. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4477849/

Interference with acute nausea and anticipatory nausea in rats by fatty acid amide hydrolase (FAAH) inhibition through a PPARα and CB1 receptor mechanism, respectively: a double dissociation. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26297326

Discriminative Stimulus Properties of the Endocannabinoid Catabolic Enzyme Inhibitor SA-57 in Mice. (full – 2016) http://jpet.aspetjournals.org/content/early/2016/06/15/jpet.115.229492.long

Elevation of 2-AG by monoacylglycerol lipase inhibition in the visceral insular cortex interferes with anticipatory nausea in a rat model. (abst – 2016)  

Systemic and spinal administration of FAAH, MAGL inhibitors and dual FAAH/MAGL inhibitors produce antipruritic effect in mice. (abst – 2016)  

The multiplicity of spinal AA-5-HT anti-nociceptive action in a rat model of neuropathic pain. (abst – 2016)  

Pharmacological inhibition of fatty acid amide hydrolase attenuates social behavioural deficits in male rats prenatally exposed to valproic acid. (abst – 2016)  

**PF-04457845** – blocks the breakdown of anandamide

Peripheral FAAH inhibition causes profound antinociception and protects against indomethacin-induced gastric lesions. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3738192/

A Systems Pharmacology Perspective on the Clinical Development of Fatty Acid Amide Hydrolase Inhibitors for Pain (full – 2014)  
http://www.nature.com/psp/journal/v3/n1/full/psp201372a.html

2012 Division of Medicinal Chemistry Award Address: Trekking the Cannabinoid Road: A Personal Perspective. (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4064474/

The FAAH inhibitor PF-04457845 has THC-like rewarding and reinstatement effects in squirrel monkeys and increases dopamine levels in the nucleus accumbens shell in rats (abst – 2014)  
http://www.fasebj.org/content/28/1_Supplement/838.6.abstract?sid=db987fd0-3ef0-4796-aff6-4103f0c84daf

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4635238/


Effects of fatty acid amide hydrolase (FAAH) inhibitors on working memory in rats. (abst – 2016)  
Deficient adolescent social behavior following early-life inflammation is ameliorated by augmentation of anandamide signaling. (abst – 2016)  

**1-PHENYLISATIN** – a selective CB2 modulator


Selective modulator of cannabinoid receptor type 2 reduces memory impairment and infarct size during cerebral hypoperfusion and vascular dementia. (abst – 2016)  
http://www.ncbi.nlm.nih.gov/pubmed/27586843

Selective modulator of cannabinoid receptor type 2 (CB2) against biochemical alterations and brain damage in chronic cerebral hypoperfusion induced vascular dementia. (abst – 2016)  

**4(PM49)** - CB1 partial agonist

Synthetic cannabinoid quinones: Preparation, in vitro antiproliferative effects and in vivo prostate antitumor activity. (abst – 2013)  

**43 (PM226)** - potent CB2 agonist

Chromenopyrazole, a Versatile Cannabinoid Scaffold with in Vivo Activity in a Model of Multiple Sclerosis. (abst – 2016)  
http://pubs.acs.org/doi/abs/10.1021/acs.jmedchem.6b00397

**PnPP-19** – a synthetic peptide, a CB1 agonist, design based on spider venom

PnPP-19, a spider toxin peptide, induces peripheral antinociception through opioid and cannabinoid receptors and inhibition of neutral endopeptidase. (abst – 2016)  
**PSN-632408** - a GPR 119 agonist

Direct activation of the proposed anti-diabetic receptor, GPR119 in cardiomyoblasts decreases markers of muscle metabolic activity (abst – 2015)

**QUPIC** – see PB-22

**RCS-4**

Identification and Structural Elucidation of Four Cannabimimetic Compounds (RCS-4, AM-2201, JWH-203 and JWH-210) in Seized Products (full – 2013)
http://jat.oxfordjournals.org/content/37/2/56.full.pdf+html

Genotoxic properties of XLR-11, a widely consumed synthetic cannabinoid, and of the benzoyl indole RCS-4 (full – 2016)

Metabolic patterns of JWH-210, RCS-4, and THC in pig urine elucidated using LC-HR-MS/MS: Do they reflect patterns in humans? (abst – 2016)

Distribution of Synthetic cannabinoids JWH-210, RCS-4 and ∆ 9-Tetrahydrocannabinol After Intravenous Administration to Pigs. (abst – 2016)

**RHC-80267**

Disease-Modifying Effects of RHC80267 and JZL184 in a Pilocarpine Mouse Model of Temporal Lobe Epilepsy (full – 2014)

A Basal Tone of 2-Arachidonoylglycerol Contributes to Early Oligodendrocyte Progenitor Proliferation by Activating Phosphatidylinositol 3-Kinase (PI3K)/AKT and the Mammalian Target of Rapamycin (MTOR) Pathways. (full – 2015)

Selective inhibition of sucrose and ethanol intake by SR 141716, an antagonist of central cannabinoid (CB1) receptors. (link to PDF – 1994) www.druglibrary.org/crl/behavior/armone-01.pdf


Assessment of Anandamide Interaction with the Cannabinoid Brain Receptor: SR 141716A Antagonism Studies in Mice and Autoradiographic Analysis of Receptor Binding in Rat Brain (full – 1998) http://jpet.aspetjournals.org/content/284/3/1209.long


Cannabinoid-induced mesenteric vasodilation through an endothelial site distinct from CB1 or CB2 receptors. (full – 1999) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC24203/

SR141716A Antagonizes the disruptive effects of cannabinoid ligands on learning in rats. (full – 1999) http://jpet.aspetjournals.org/content/282/3/1526.long


Cannabinoid CB1 receptor-mediated inhibition of prolactin release and signaling mechanisms in GH4C1 cells. (full – 2000) http://press.endocrine.org/doi/full/10.1210/endo.141.5.7454


Cannabinoids decrease the K+ M-current in hippocampal CA1 neurons (link to PDF - 2000) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.326.2509&rank=84


The cannabinoid CB1 receptor antagonist SR 141716A reverses the antiemetic and motor depressant actions of WIN 55, 212-2 (full – 2001) http://www.nature.com/npp/journal/v24/n2/full/1395605a.html


Cannabinoid receptor type 1 modulates excitatory and inhibitory neurotransmission in mouse colon (full – 2003)
Compounds acting at the endocannabinoid and/or endovanilloid systems reduce hyperkinesia in a rat model of Huntington's disease. (full – 2003)

Enhancement of androgen receptor expression induced by (R)-methanandamide in prostate LNCaP cells. (full – 2003)

Anandamide initiates Ca2+ signaling via CB2 receptor linked to phospholipase C in calf pulmonary endothelial cells. (full – 2003)
[http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1574152/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1574152/)

Future of Cannabis and Cannabinoids in Therapeutics (link to PDF - 2003)

Anandamide enhances extracellular levels of adenosine and induces sleep: an in vivo microdialysis study. (abst - 2003)

Cannabinoid modulation of sensitivity to time. (abst – 2003)

Evidence for an Interaction between CB1 Cannabinoid and Melanocortin MCR-4 Receptors in Regulating Food Intake (full – 2004)

Heterogeneity in the mechanisms of vasorelaxation to anandamide in resistance and conduit rat mesenteric arteries (full – 2004)
[http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1574972/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1574972/)

Oleamide is a selective endogenous agonist of rat and human CB1 cannabinoid receptors. (full – 2004)
[http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1574194/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1574194/)

Noladin ether, a putative endocannabinoid, attenuates sensory neurotransmission in the rat isolated mesenteric arterial bed via a non-CB1/CB2 G(i/o) linked receptor. (full – 2004)

Cannabinoid Receptor Agonists Inhibit Sensory Nerve Activation in Guinea Pig Airways (full – 2004)

The THC-induced suppression of Th1 polarization in response to Legionella pneumophila infection is not mediated by increases in corticosterone and PGE2. (abst – 2004)
A Comparison of the Discriminative Stimulus Effects of $\Delta^9$-Tetrahydrocannabinol and O-1812, a Potent and Metabolically Stable Anandamide Analog, in Rats.  

Differential effects of the sleep-inducing lipid oleamide and cannabinoids on the induction of long-term potentiation in the CA1 neurons of the rat hippocampus in vitro. 

Overeating, Alcohol and Sucrose Consumption Decrease in Cb1 Receptor Deleted Mice.  

Ethanol Induces Higher Bec in Cb1 Cannabinoid Receptor Knockout Mice While Decreasing Ethanol Preference.  
(full – 2005)  http://alcalc.oxfordjournals.org/content/40/1/54.long

Activation of the Peripheral Endocannabinoid System in Human Obesity  
(full - 2005)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2228268/?tool=pmcentrez

Enhancing Cannabinoid Neurotransmission Augments the Extinction of Conditioned Fear  

Cannabinoid receptor ligands mediate growth inhibition and cell death in mantle cell lymphoma  

Up-regulation of the endocannabinoid system in the uterus of leptin knockout (ob/ob) mice and implications for fertility  

The analgesic activity of paracetamol is prevented by the blockade of cannabinoid CB1 receptors  

A role for endocannabinoids in viral-induced dyskinetic and convulsive phenomena.  

The Cannabinoid Cb1 Receptor Antagonist Rimonabant Attenuates the Hypotensive Effect of Smoked Marijuana in Male Smokers.  

Weight Control in Individuals With Diabetes  
Sphingosine and its analog, the immunosuppressant 2-amino-2-(2-[4-octylphenyl]ethyl)-1,3-propanediol, interact with the CB1 cannabinoid receptor.  (full – 2006)
http://molpharm.aspetjournals.org/content/70/1/41.long

Anxiolytic-like properties of the anandamide transport inhibitor AM404.  (full – 2006)
http://www.nature.com/npp/journal/v31/n12/full/1301061a.html

Vasorelaxant effects of oleamide in rat small mesenteric artery indicate action at a novel cannabinoid receptor.  (full – 2006)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1616976/

Cannabinoid derivatives induce cell death in pancreatic MIA PaCa-2 cells via a receptor-independent mechanism.  (full – 2006)

Cannabinoid receptors in invertebrates  (full – 2006)

Cannabinoid receptors as a target for therapy of ovarian cancer  (abst – 2006)
http://cancerres.aacrjournals.org/content/66/8_Supplement/1084.1

Lack of tolerance to the suppressing effect of rimonabant on chocolate intake in rats.  (abst – 2006)

Effects of endocannabinoid neurotransmission modulators on brain stimulation reward.  (abst – 2006)

Discriminative stimulus functions of AM-1346, a CB1R selective anandamide analog in rats trained with Delta9-THC or (R)-methanandamide (AM-356).  (abst – 2006)

Cross-sensitization and cross-tolerance between exogenous cannabinoid antinociception and endocannabinoid-mediated stress-induced analgesia  (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2771679/?tool=pubmed

Cannabionoids as therapeutic agents in cardiovascular disease: a tale of passions and illusions.  (full - 2007)

Single and multiple doses of rimonabant antagonize acute effects of smoked cannabis in male cannabis users.  (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2689519/?tool=pubmed

Oleamide: a fatty acid amide signaling molecule in the cardiovascular system?  (full – 2007)
Rimonabant (SR141716) exerts anti-proliferative and immunomodulatory effects in human peripheral blood mononuclear cells. (full - 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2267266/?tool=pmcentrez

CB1 receptors mediate the analgesic effects of cannabinoids on colorectal distension-induced visceral pain in rodents. (full – 2007)  
http://www.jneurosci.org/content/29/5/1554.long

The Cannabinoid Agonist Win55212 Reduces Brain Damage in an In Vivo Model of Hypoxic-Ischemic Encephalopathy in Newborn Rats (full – 2007)  
http://www.nature.com/pr/journal/v62/n3/full/pr2007213a.html

Anandamide-Mediated CB1/CB2 Cannabinoid Receptor-Independent Nitric Oxide Production in Rabbit Aortic Endothelial Cells (full – 2007)  
http://jpet.aspetjournals.org/content/321/3/930.long

Inhibition of milk ingestion and growth after administration of a neutral cannabinoid CB1 receptor antagonist on the first postnatal day in the mouse. (full - 2007)  
http://www.nature.com/pr/journal/v62/n5/full/pr2007273a.html

Antiaversive Effects of Cannabinoids: Is the Periaqueductal Gray Involved (link to PDF - 2007)  

FIGHTING DRUG DEPENDENCE BY BLOCKING CANNABINOID TYPE 1 RECEPTORS (link to PDF – 2007)  
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.326.8811&rank=134&q=cannabinoid&osm=&ossid=

Cardiovascular Abnormalities in Cirrhosis: the Possible Mechanisms (abst - 2007)  
http://jthc.tums.ac.ir/index.php/jthc/article/view/64/64

Cannabinoid CB1 receptors in the paraventricular nucleus and central control of penile erection: immunocytochemistry, autoradiography and behavioral studies (abst – 2007)  

Sensitivity to delta9-tetrahydrocannabinol is selectively enhanced in beta-arrestin2 -/- mice. (full – 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2751575/

Prejunctional and peripheral effects of the cannabinoid CB(1) receptor inverse agonist rimonabant (SR 141716). (full – 2008)  

Differential response to a selective cannabinoid receptor antagonist (SR141716: rimonabant) in female mice from lines selectively bred for high voluntary wheel-running behaviour. (abst – 2008)  

Cat odour-induced anxiety--a study of the involvement of the endocannabinoid system. (abst – 2008)  
Cannabinoid CB(1) receptor activation modulates spontaneous contractile activity in mouse ileal longitudinal muscle.  (abst – 2008)  
http://www.ncbi.nlm.nih.gov/pubmed/18234188

Cannabinoid-1 receptor inverse agonists: current understanding of mechanism of action and unanswered questions  (full – 2009)  
http://www.nature.com/ijo/journal/v33/n9/full/ijo2009132a.html

The psychiatric side-effects of rimonabant.  (full – 2009)  

Peripheral and central sites of action for the non-selective cannabinoid agonist WIN 55,212-2 in a rat model of post-operative pain  (full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2707976/

Effects of the cannabinoid CB1 receptor antagonist rimonabant on distinct measures of impulsive behavior in rats.  (full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1915592/?tool=pubmed

Effect of Δ9-tetrahydrocannabinol, a cannabinoid receptor agonist, on the triggering of transient lower oesophageal sphincter relaxations in dogs and humans  (full - 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2697772/?tool=pmcentrez

The endocannabinoid system and diabetes - critical analyses of studies conducted with rimonabant  (full - 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2770455/?tool=pmcentrez

Cannabinoids for clinicians: the rise and fall of the cannabinoid antagonists  (full – 2009)  
http://www.eje-online.org/cgi/content/full/161/5/655?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=160&resourcetype=HWCIT

Role of endocannabinoid signaling in anxiety and depression.  (full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3808114/

Evaluation of Prevalent Phytocannabinoids in the Acetic Acid Model of Visceral Nociception  (full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2765124/?tool=pubmed

Systematic review and meta-analysis on the adverse events of rimonabant treatment: Considerations for its potential use in hepatology  (full - 2009)  
http://www.biomedcentral.com/1471-230X/9/75

Post-ischemic brain damage: the endocannabinoid system in the mechanisms of neuronal death.  (full - 2009)  
The endocannabinoid system as a link between homoeostatic and hedonic pathways involved in energy balance regulation  (full – 2009)
http://www.nature.com/ijo/journal/v33/n2s/full/ijo200967a.html

Cannabinoid receptor activation reverses kainate-induced synchronized population burst firing in rat hippocampus  (full – 2009)

Endocannabinoids and cardiovascular prevention: real progress?  (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3184683/

Impairments in Endocannabinoid Signaling and Depressive Illness

Neurobiology and Systems Physiology of the Endocannabinoid System  (abst – 2009)

Central side-effects of therapies based on CB1 cannabinoid receptor agonists and antagonists: focus on anxiety and depression.  (abst – 2009)


International Union of Basic and Clinical Pharmacology. LXXIX. Cannabinoid Receptors and Their Ligands: Beyond CB1 and CB2  (full – 2010)
http://pharmrev.aspetjournals.org/content/62/4/588.full.pdf+html

Therapeutical use of the cannabinoids in psychiatry  (full – 2010)

GPR55 ligands promote receptor coupling to multiple signalling pathways.  (full – 2010)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931561/?tool=pubmed


Endocannabinoid control of gastric sensorimotor function in man.  (full - 2010)
Central and peripheral consequences of the chronic blockade of CB1 cannabinoid receptor with rimonabant or taranabant. (full – 2010)

Energetic Metabolism and Human Sperm Motility: Impact of CB1 Receptor Activation (full – 2010)
http://endo.endojournals.org/content/151/12/5882.full

The Effects of Rimonabant on Brown Adipose Tissue in Rat: Implications for Energy Expenditure (full - 2010)

The Endocannabinoid System Tonically Regulates Inhibitory Transmission and Depresses the Effect of Ethanol in Central Amygdala (full - 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2904853/

Rimonabant-induced Delta9-tetrahydrocannabinol withdrawal in rhesus monkeys: discriminative stimulus effects and other withdrawal signs. (full – 2010)

Anxiety-like effects of SR141716-precipitated delta9-tetrahydrocannabinol withdrawal in mice in the elevated plus-maze. (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3923489/

Reduced neural response to reward following 7 days treatment with the cannabinoid CB1 antagonist rimonabant in healthy volunteers (full – 2010)
http://ijnp.oxfordjournals.org/content/ijnp/13/8/1103.full.pdf

Upregulation of cannabinoid type 1 receptors in dopamine D2 receptor knockout mice is reversed by chronic forced ethanol consumption (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3004984/

Abnormal-Cannabidiol-Induced Increase in Aqueous Humor Outflow (abst – 2010)
http://iovs.arvojournals.org/article.aspx?articleid=2368788&resultClick=1

Endocannabinoid system protects against cryptogenic seizures. (full – 2011)

Intracellular Cannabinoid Type 1 (CB1) Receptors Are Activated by Anandamide (full – 2011)
http://www.jbc.org/content/286/33/29166.full

Pharmacological activation/inhibition of the cannabinoid system affects alcohol withdrawal-induced neuronal hypersensitivity to excitotoxic insults. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3158793/

CB(1) -independent mechanisms of Δ(9) -THCV, AM251 and SR141716 (rimonabant). (full – 2011)

Fatty acid amide hydrolase blockade attenuates the development of collagen-induced arthritis and related thermal hyperalgesia in mice. (full - 2011)
Sex Differences in Cannabinoid 1 vs. Cannabinoid 2 Receptor-Selective Antagonism of Antinociception Produced by Δ9-Tetrahydrocannabinol and CP55,940 in the Rat (full – 2011) http://jpet.aspetjournals.org/content/340/3/787.full


Central mediation and differential blockade by cannabinergics of the discriminative stimulus effects of the cannabinoid CB1 receptor antagonist rimonabant in rats. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3727221/

Effects of the cannabinoid-1 receptor antagonist rimonabant on psychiatric symptoms in overweight people with schizophrenia: a randomized, double-blind, pilot study. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3717343/


Bioactivation Pathways of the Cannabinoid Receptor 1 Antagonist Rimonabant (full – 2011) http://dmd.aspetjournals.org/content/39/10/1823.long


Antagonist-elicited cannabis withdrawal in humans. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3717344/

The role of the cannabinoid system in the pathogenesis and treatment of alcohol dependence (click “ICI” link for download – 2011)

The CB-1 Receptor Antagonist Rimonabant Modulates the Interaction Between Adipocytes and Pancreatic Beta-Cells in Vitro (abst – 2011)

The identification of rimonabant polymorphs, sibutramine and analogues of both in counterfeit Acomplia bought on the internet. (abst – 2011)


Disruptive effects of the prototypical cannabinoid $\Delta^2$-tetrahydrocannabinol and the fatty acid amide inhibitor URB-597 on go/no-go auditory discrimination performance and olfactory reversal learning in rats. (abst – 2011)


A role for the ventral hippocampal endocannabinoid system in fear-conditioned analgesia and fear responding in the presence of nociceptive tone in rats. (abst – 2011)

CB1 cannabinoid receptor mediates glucocorticoid effects on hormone secretion induced by volume and osmotic changes. (abst – 2011) http://www.ncbi.nlm.nih.gov/pubmed/22211674


2-Arachidonoylglycerol (2-AG) Induces Corneal Epithelial Cell Migration via Cannabinoid CB1 Receptors (abst – 2011) http://iovs.arvojournals.org/article.aspx?articleid=2352973&resultClick=1

The effects of fasting duration on gastric emptying in man, an exploration of the role of the endocannabinoid system and inter-individual responsiveness (full – 2012)
Probing the Interaction of SR141716A with the CB1 Receptor (full – 2012) http://www.jbc.org/content/287/46/38741.full.pdf+html


Relationships between glucose, energy intake and dietary composition in obese adults with type 2 diabetes receiving the cannabinoid 1 (CB1) receptor antagonist, rimonabant (full – 2012) http://www.nutritionj.com/content/11/1/50


Anandamide regulates the expression of GnRH1, GnRH2, and GnRH-Rs in frog testis (full – 2012) http://ajpendo.physiology.org/content/303/4/E475.long

GPR18 in microglia: implications for the CNS and endocannabinoid system signaling (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3525861/

Angiotensin II induces vascular endocannabinoid release, which attenuates its vasoconstrictor effect via CB1 cannabinoid receptors. (full – 2012) http://www.jbc.org/content/early/2012/07/11/jbc.M112.346296.full.pdf+html

The role of CB2 receptor ligands in human eosinophil function (full – 2012) http://www.biomedcentral.com/content/pdf/2050-6511-13-S1-A13.pdf


The cannabinoid receptor CB1 modulates the signaling properties of the lysophosphatidylinositol receptor GPR55. (full – 2012) http://www.jbc.org/content/early/2012/11/16/jbc.M112.364109.long

Rimonabant eliminates responsiveness to workload changes in a time-constrained food-reinforced progressive ratio procedure in rats. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3387812/


Extinction learning of rewards in the rat: is there a role for CB1 receptors? (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3161161/


Cannabinoid receptor 1 in the vagus nerve is dispensable for body weight homeostasis but required for normal gastrointestinal motility. (full – 2012) http://www.jneurosci.org/content/32/30/10331.long


WIN55, 212-2 promotes differentiation of oligodendrocyte precursor cells and improve remyelination through regulation of the phosphorylation level of the ERK 1/2 via cannabinoid receptor 1 after stroke-induced demyelination. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4086494/


Photoperiodic Changes in Endocannabinoid Levels and Energetic Responses to Altered Signalling at CB1 Receptors in Siberian Hamsters (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4060156/


Anti-obesity effects of the combined administration of CB1 receptor antagonist rimonabant and melanin-concentrating hormone antagonist SNAP-94847 in diet-induced obese mice. (abst – 2012) http://www.ncbi.nlm.nih.gov/pubmed/22473329


Reports of the death of CB1 antagonists have been greatly exaggerated: recent preclinical findings predict improved safety in the treatment of obesity. (abst – 2012) http://www.ncbi.nlm.nih.gov/pubmed/22743603

Fatty acid flux and oxidation are increased by rimonabant in obese women. (abst – 2012) http://www.ncbi.nlm.nih.gov/pubmed/22445512


Ghrelin-Induced Orexigenic Effect in Rats Depends on the Metabolic Status and Is Counteracted by Peripheral CB1 Receptor Antagonism. (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0060918

Novel Insights Into CB1 Cannabinoid Receptor Signaling: A Key Interaction Identified Between EC3-Loop and TMH2. (full – 2013) http://jpet.aspetjournals.org/content/early/2013/02/21/jpet.112.201046.long

Astroglial CB1 cannabinoid receptors regulate leptin signaling in mouse brain astrocytes. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3854987/

Diuretic effects of cannabinoids. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3533417/


Stimulatory and Inhibitory Roles of Brain 2-Arachidonoylglycerol in Bombesin-Induced Central Activation of Adrenomedullary Outflow in Rats. (full – 2013) https://www.jstage.jst.go.jp/article/jphs/121/2/121_12208FP/_pdf

Using the endocannabinoid system as a neuroprotective strategy in perinatal hypoxic-ischemic brain injury. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4146074/


Phencyclidine-induced social withdrawal results from deficient stimulation of cannabinoid CB1 receptors: implications for schizophrenia. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3717536/

The CB1 receptor mediates the peripheral effects of ghrelin on AMPK activity but not on growth hormone release (full – 2013) http://www.fasebj.org/content/27/12/5112.long

Activation of the sympathetic nervous system mediates hypophagic and anxiety-like effects of CB1 receptor blockade. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3607008/

Reduced Food Intake is the Major Contributor to the Protective Effect of Rimonabant on Islet in Established Obesity-Associated Type 2 Diabetes. (full – 2013) http://www.evmj.org/DOIx.php?id=10.3349/ymj.2013.54.5.1127

Endocannabinoids as markers of sperm quality: hot spots (full – 2013)
Fasting induces CART down-regulation in the zebrafish nervous system in a cannabinoid receptor 1-dependent manner. (full – 2013)

The Gastric CB1 Receptor Modulates Ghrelin Production through the mTOR Pathway to Regulate Food Intake. (full – 2013)

Rimonabant precipitates anxiety in rats withdrawn from palatable food: role of the central amygdale. (full – 2013)

Endocannabinoid Signaling in Hypothalamic-Pituitary-Adrenocortical Axis Recovery Following Stress: Effects of Indirect Agonists and Comparison of Male and Female Mice. (full – 2013)

Anandamide transport inhibition by ARN272 attenuates nausea-induced behaviour in rats, and vomiting in shrews (Suncus murinus). (full – 2013)

Tetrahydrocannabinolic acid reduces nausea-induced conditioned gaping in rats and vomiting in Suncus murinus. (full – 2013)

Biphasic effects of Δ9-tetrahydrocannabinol on brain stimulation reward and motor activity (full – 2013)

The inverse agonist of CB1 receptor SR141716 blocks compulsive eating of palatable food. (full – 2013)

Cannabis and Δ(9)-tetrahydrocannabinol (THC) for weight loss? (abst – 2013)


Additive effect of rimonaband and citalopram on extracellular serotonin levels monitored with in vivo microdialysis in rat brain. (abst – 2013)

Effect of chronic exposure to rimonabant and phytocannabinoids on anxiety-like behavior and saccharin palatability. (abst – 2013)

Effects of CB1 receptor blockade on monosodium glutamate induced hypometabolic and hypothalamic obesity in rats. (abst – 2013)

Infusion of cannabidiol into infralimbic cortex facilitates fear extinction via CB1 receptors. (abst – 2013) http://www.sciencedirect.com/science/article/pii/S0166432813002532

Effects of the cannabinoid 2 receptor-selective agonist GW405833 in assays of acute pain-stimulated and paindepressed behavior in rats (abst – 2013) http://www.fasebj.org/content/27/1_Supplement/886.9.abstract?sid=6740ccbc-1f93-4779-b975-a966a2a4ac87


Erratum to: Endocannabinoids underlie reconsolidation of hedonic memories in Wistar rats (correction to chart – 2013)

Glutamate spillover drives endocannabinoid production and inhibits GABAergic transmission in the Substantia Nigra pars compacta. (abst – 2013)


The role of Cannabinoid receptors on light-induced photoreceptor degeneration (abst – 2013) http://iovs.arvojournals.org/article.aspx?articleid=2149928[resultClick=1]

Motor effects of the non-psychotropic phytocannabinoid cannabidiol that are mediated by 5-HT1A receptors (abst – 2013) http://www.sciencedirect.com/science/article/pii/S0028390813003419

Getting high on the endocannabinoid system. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3997295/

Involvement of the cannabinoid CB1 receptor in modulation of dopamine output in the prefrontal cortex associated with food restriction in rats. (full – 2014) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0092224


2012 Division of Medicinal Chemistry Award Address: Trekking the Cannabinoid Road: A Personal Perspective. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4064474/

Oleoylethanolamide: a novel potential pharmacological alternative to cannabinoid antagonists for the control of appetite (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3996326/

Cannabidiol: Pharmacology and potential therapeutic role in epilepsy and other neuropsychiatric disorders (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4707667/

Prolonged monoacylglycerol lipase blockade causes equivalent CB1-receptor mediated adaptations in FAAH wild type and knockout mice. (full – 2014) http://jpet.aspetjournals.org/content/early/2014/05/21/jpet.114.212753.long


Combining rimonabant and fentanyl in a single entity: preparation and pharmacological results (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3934591/


Behavioral effects of the cannabinoid CB1 receptor allosteric modulator ORG27569 in rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4186448/

Antagonism of cannabinoid receptor 2 pathway suppresses IL-6-induced immunoglobulin IgM secretion (full – 2014) http://www.biomedcentral.com/2050-6511/15/30


Rimonabant's reductive effects on high densities of food reinforcement, but not palatability, in lean and obese Zucker rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4036064/

Neural Effects of Cannabinoid CB1 Neutral Antagonist Tetrahydrocannabivarin (THCv) on Food Reward and Aversion in Healthy Volunteers. (full – 2014) http://ijnp.oxfordjournals.org/content/18/6/pyu094.long

The potential of antiseizure drugs and agents that act on novel molecular targets as antiepileptogenic treatments. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3996125/

Cannabinoids inhibit cholinergic contraction in human airways through prejunctional CB1 receptors. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4243853/

Allosteric Modulation of a Cannabinoid G Protein-coupled Receptor BINDING SITE ELUCIDATION AND RELATIONSHIP TO G PROTEIN SIGNALING
Involvement of cannabinoid receptor-1 activation in mitochondrial depolarizing effect of lipopolysaccharide in human spermatozoa.  

Baseline Anandamide Levels and Body Weight Impact the Weight Loss Effect of CB1 Receptor Antagonism in Male Rats  

The CB1 Receptor as an Important Mediator of Hedonic Reward Processing  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4138748/

Ultramicronized palmitoylethanolamide normalizes intestinal motility in a murine model of post-inflammatory accelerated transit: involvement of CB1 receptors and TRPV1.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4243976/

Acute Activation of Cannabinoid Receptors by Anandamide Reduces Gastro-Intestinal Motility and Improves Postprandial Glycemia in Mice.  
http://diabetes.diabetesjournals.org/content/64/3/808.long

Increased angiotensin II contraction of the uterine artery at early gestation in a transgenic model of hypertensive pregnancy is reduced by inhibition of endocannabinoid hydrolysis.  
http://hyper.ahajournals.org/content/64/3/619.long

Endocannabinoid signaling and food addiction.  

Haloperidol and rimonabant increase delay discounting in rats fed high-fat and standard-chow diets.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4772744/

Cannabidiol fails to reverse hypothermia or locomotor suppression induced by Δ9-tetrahydrocannabinol in Sprague-Dawley rats.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4376456/

Dual inhibition of monoacylglycerol lipase and cyclooxygenases synergistically reduces neuropathic pain in mice.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4376450/

Modulation of Fear Memory by Dietary Polyunsaturated Fatty Acids via Cannabinoid Receptors  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4059893/

In vivo effects of synthetic cannabinoids JWH-018 and JWH-073 and phytocannabinoid Δ9-THC in mice: inhalation versus intraperitoneal injection.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4340656/
Programming and reprogramming neural cells by (endo-) cannabinoids: from physiological rules to emerging therapies  
[full – 2014](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4765324/)

Early increase of cannabinoid receptor density after experimental traumatic brain injury in the newborn piglet.  
[link to PDF – 2014](http://www.ncbi.nlm.nih.gov/pubmed/24993629)

CB1 blockade-induced weight loss over 48 weeks decreases liver fat in proportion to weight loss in humans  

Microinjection of 2-arachidonoyl glycerol into the rat ventral hippocampus differentially modulates contextually induced fear, depending on a persistent pain state.  

Guineensine is a novel inhibitor of endocannabinoid uptake showing cannabimimetic behavioral effects in BALB/c mice.  

Micromolar concentrations of rimonabant directly inhibits delta opioid receptor specific ligand binding and agonist-induced G-protein activity.  

Effects of cannabinoid and vanilloid drugs on positive and negative-like symptoms on an animal model of schizophrenia: The SHR strain.  

Cannabinoid receptor type 1 receptors on GABAergic vs. glutamatergic neurons differentially gate sex-dependent social interest in mice.  

Anandamide attenuates haloperidol-induced vacuous chewing movements in rats  

Inhibition of Peripheral Fatty Acid Amide Hydrolase Depresses Activities of Bladder Mechanosensitive Nerve Fibers of the Rat.  

O-2050 facilitates noradrenaline release and increases the CB1 receptor inverse agonistic effect of rimonabant in the guinea pig hippocampus.  

Cannabinoids negatively modulate striatal glutamate and dopamine release and behavioural output of acute d-amphetamine.  

The endocannabinoid anandamide regulates the peristaltic reflex by reducing neuro-neuronal and neuro-muscular neurotransmission in ascending myenteric reflex pathways in rats.  
The endocannabinoid system and appetite: relevance for food reward.  (abst – 2014)  

CB1 receptor antagonism in the granular insular cortex or somatosensory area facilitates consolidation of object recognition memory.  (abst – 2014)  

Ultralow doses of cannabinoid drugs protect the mouse brain from inflammation-induced cognitive damage  (abst – 2014)  

Functional consequences of synthetic cannabinoid metabolites and CYP2C9 polymorphisms  (abst – 2014)  
http://www.fasebj.org/content/28/1_Supplement/838.4.abstract?sid=467bb529-0ecc-4d4c-af27-3f56f520a102

The FAAH inhibitor PF-04457845 has THC-like rewarding and reinstatement effects in squirrel monkeys and increases dopamine levels in the nucleus accumbens shell in rats  (abst – 2014)  
http://www.fasebj.org/content/28/1_Supplement/838.6.abstract?sid=db987fd0-3ef0-4796-aff6-4103f0c84daf

Endocannabinoid Influence on Partner Preference in Female Rats.  (abst – 2014)  

Distinct modulation of the endocannabinoid system upon kainic acid-induced in vivo seizures and in vitro epileptiform bursting.  (abst – 2014)  

Mechanism of endocannabinoids system in glucose metabolism of rats with chronic intermittent hypoxia  (abst – 2014)  

Analysis in conditional cannabinoid 1 receptor-knockout mice reveals neuronal subpopulation-specific effects on epileptogenesis in the kindling paradigm.  (abst – 2014)  

Effect of selective inhibition of monoacylglycerol lipase (MAGL) on acute nausea, anticipatory nausea, and vomiting in rats and Suncus murinus.  (abst – 2014)  

Gene-Specific Disruption of Endocannabinoid Receptor 1 (cnr1a) by Ethanol Probably Leads to the Development of Fetal Alcohol Spectrum Disorder (FASD) Phenotypes in Japanese Rice Fish (Oryzias latipes) Embryogenesis.  (abst – 2014)  

Cannabinoid CB1 receptor signaling dichotomously modulates inhibitory and excitatory synaptic transmission in rat inner retina.  (abst – 2014)  


Role for Endogenous BDNF in Endocannabinoid-Mediated Long-Term Depression at Neocortical Inhibitory Synapses (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4415885/


Biased Agonism and Biased Allosteric Modulation at the CB1 Cannabinoid Receptor. (full – 2015) http://molpharm.aspetjournals.org/content/early/2015/06/04/mol.115.099192.long

Homer Protein-Metabotropic Glutamate Receptor Binding Regulates Endocannabinoid Signaling and Affects Hyperexcitability in a Mouse Model of Fragile X Syndrome. (full – 2015) http://www.jneurosci.org/content/35/9/3938.long

A cannabinoid receptor agonist N-arachidonoyl dopamine inhibits adipocyte differentiation in human mesenchymal stem cells. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4428713/


Homeostatic regulation of brain functions by endocannabinoid signaling (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4468750/

N-Oleoyl glycine, a lipoamino acid, stimulates adipogenesis associated with activation of CB1 receptor and Akt signaling pathway in 3T3-L1 adipocyte. (full – 2015) http://www.sciencedirect.com/science/article/pii/S0006291X15305635
Enhancing Brain Pregnenolone May Protect Cannabis Intoxication but Should Not Be Considered as an Anti-addiction Therapeutic: Hypothesizing Dopaminergic Blockade and Promoting Anti-Reward. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4545660/


Loss of Either Rac1 or Rac3 GTPase Differentially Affects the Behavior of Mutant Mice and the Development of Functional GABAergic Networks. (full – 2015) http://cercor.oxfordjournals.org/content/early/2015/11/17/cercor.bhv274.long

Cannabinoid-Induced Chemotaxis in Bovine Corneal Epithelial Cells. (full – 2015) http://iovs.arvojournals.org/article.aspx?articleid=2297919&resultClick=1

Proapoptotic effect of endocannabinoids in prostate cancer cells. (full – 2015) http://www.spandidos-publications.com/or/33/4/1599

Deletion of Monoglyceride Lipase in Astrocytes Attenuates Lipopolysaccharide-Induced Neuroinflammation. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4705409/


Cannabinoid CB1 receptors and mTORC1 signalling pathway interact to modulate glucose homeostasis. (full – 2015) http://dmm.biologists.org/content/9/1/51.long


Endocannabinoid Catabolic Enzymes Play Differential Roles in Thermal Homeostasis in Response to Environmental or Immune Challenge. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4477849/

The GPR55 agonist lysophosphatidylinositol mediates vasorelaxation of the rat mesenteric resistance artery and induces calcium release in rat mesenteric artery endothelial cells (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4459022/

Simultaneous inhibition of fatty acid amide hydrolase (FAAH) and monoacylglycerol lipase (MAGL) shares discriminative stimulus effects with Δ9-THC in mice. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4407717/
The Cannabinoid Receptor-1 is an imaging biomarker of Brown Adipose Tissue. (full – 2015)  http://jnmsnmjournals.org/content/56/12/1937.full.pdf+html


Cannabinoid Receptor–Interacting Protein 1a Modulates CB1 Receptor Signaling and Regulation. (full – 2015)  http://www.ncbi.nlm.nih.gov/pubmed/25657338

Anandamide Depresses Glycinergic and GABAergic Inhibitory Transmissions in Adult Rat Substantia Gelatinosa Neurons (full – 2015) http://file.scirp.org/Html/1-2500613_54452.htm


Targeting cannabinoid receptor-2 pathway by phenylacetylamide suppresses the proliferation of human myeloma cells through mitotic dysregulation and cytoskeleton disruption (full – 2015) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4504841/


CB1R antagonist increases hepatic insulin clearance in fat-fed dogs likely via upregulation of liver adiponectin receptors. (full – 2015) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4609878/


Modulatory effects by CB1 receptors on rat spinal locomotor networks after sustained application of agonists or antagonists. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26126926


Interference with acute nausea and anticipatory nausea in rats by fatty acid amide hydrolase (FAAH) inhibition through a PPARα and CB1 receptor mechanism, respectively: a double dissociation. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26297326


Cannabinoid Receptors Modulate Rod-Cone Gap Junctional Coupling In The Day And Night (abst – 2015) http://iovs.arvojournals.org/article.aspx?articleid=2336723&resultClick=1


The disease-modifying effects of a Sativex-like combination of phytocannabinoids in mice with experimental autoimmune encephalomyelitis are preferentially due to Δ(9)-
tetrahydrocannabinol acting through CB1 receptors. (abst – 2015)

Endocannabinoid Inhibition Of Airway Sensory Nerve Depolarisation (abst – 2015)

Interaction Between Endocannabinoid and Opioidergic Systems Regulates Food Intake in Neonatal Chicken (abst – 2015)


Cannabinoid Ligands and Alcohol Addiction: A Promising Therapeutic Tool or a Humbug? (full – 2016)

CB1 receptor blockade counters age-induced insulin resistance and metabolic dysfunction. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4783351/


Sustained Endocannabinoid Signaling Compromises Decidual Function and Promotes Inflammation-induced Preterm Birth. (full – 2016)
http://www.jbc.org/content/early/2016/02/21/jbc.M115.707836.long

Transient increase of interleukin-1β after prolonged febrile seizures promotes adult epileptogenesis through long-lasting upregulating endocannabinoid signaling. (full – 2016) http://www.nature.com/articles/srep21931

Behavioral Characterization of the Effects of Cannabis Smoke and Anandamide in Rats. (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0153327

Discriminative Stimulus Properties of the Endocannabinoid Catabolic Enzyme Inhibitor SA-57 in Mice. (full – 2016)
http://jpet.aspetjournals.org/content/early/2016/06/15/jpet.115.229492.long

Dissociating the role of endocannabinoids in the pleasurable and motivational properties of social play behaviour in rats. (full – 2016)

Controlled downregulation of the cannabinoid CB1 receptor provides a promising approach for the treatment of obesity and obesity-derived type 2 diabetes. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4679742/


Mice Expressing a "Hyper-Sensitive" Form of the Cannabinoid Receptor 1 (CB1) Are Neither Obese Nor Diabetic. (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0160462


Regional Influence of Cannabinoid CB1 Receptors in the Regulation of Ethanol Self-Administration by Wistar Rats (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5152943/

Attenuation of Cocaine-Induced Conditioned Place Preference and Motor Activity via Cannabinoid CB2 Receptor Agonism and CB1 Receptor Antagonism in Rats (full – 2016) http://ijnp.oxfordjournals.org/content/early/2016/12/19/ijnp.pyw102.long


Possible Therapeutic Doses of Cannabinoid Type 1 Receptor Antagonist Reverses Key Alterations in Fragile X Syndrome Mouse Model (full – 2016) http://www.mdpi.com/2073-4425/7/9/56/htm


Targeting the endocannabinoid/CB1 receptor system for treating obesity in Prader-Willi syndrome. (full – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5123200/
of TRPV1 in the Olfactory Bulb in Rimonabant-Induced Olfactory Discrimination Deficit. (click “Full Text Links” for PDF – 2016)

Harvesting Benefits from Cannabinoids. (article – 2016)
http://www.cell.com/cell/fulltext/S0092-8674(16)31675-0

Ketamine and MAG Lipase Inhibitor-Dependent Reversal of Evolving Depressive Behavior during Forced Abstinence from Alcohol Drinking. (abst – 2016)


Mn-SOD Upregulation by Electroacupuncture Attenuates Ischemic Oxidative Damage via CB1R-Mediated STAT3 Phosphorylation (abst – 2016)
http://link.springer.com/article/10.1007/s12035-014-8971-7

Attenuation of cue-induced reinstatement of nicotine seeking by URB597 through cannabinoid CB1 receptor in rats. (abst – 2016)


Cannabinoids Occlude the HIV-1 Tat-Induced Decrease in GABAergic Neurotransmission in Prefrontal Cortex Slices. (abst – 2016)


Adolescent social rejection alters pain processing in a CB1 receptor dependent manner. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/27157075

Reversal effect of simvastatin on the decrease in cannabinoid receptor 1 density in 6-hydroxydopamine lesioned rat brains. (abst – 2016)
Hierarchical glucocorticoid-endocannabinoid interplay regulates the activation of the nucleus accumbens by insulin. (abst – 2016)

Effect of synthetic cannabinoids on spontaneous neuronal activity: Evaluation using Ca2+ spiking and multi-electrode arrays. (abst – 2016)

CB1 Receptor Antagonism Prevents Long-Term Hyperexcitability after Head Injury by Dynorphin-KOR System and mGluR5 in Rat Hippocampus. (abst – 2016)

A High Efficacy Cannabinergic Ligand (AM4054) used as a Discriminative Stimulus: Generalization to other Adamantyl Analogs and Δ9-THC in Rats. (abst – 2016)

Inhaled delivery of Δ9-tetrahydrocannabinol (THC) to rats by e-cigarette vapor technology. (abst – 2016)

Enhanced discriminative stimulus effects of Δ9-THC in the presence of cannabidiol and 8-OH-DPAT in rhesus monkeys (abst – 2016)
http://www.drugandalcoholdependence.com/article/S0376-8716(16)30133-8/abstract

The CB1 antagonist, SR141716A, is protective in permanent photothrombotic cerebral ischemia (abst – 2016)

Cannabinoid Receptor Interacting Protein (CRIP1a) suppresses agonist-driven CB1 receptor internalization, and regulates receptor replenishment in an agonist-biased manner. (abst – 2016)

Cannabinoid type 1 receptor antagonism ameliorates harmaline-induced essential tremor in rat. (abst – 2016)

Endocannabinoid receptor blockade increases vascular endothelial growth factor and inflammatory markers in obese women with polycystic ovary syndrome. (abst – 2016)

Parabens inhibit fatty acid amide hydrolase: A potential role in paraben-enhanced 3T3-L1 adipocyte differentiation. (abst – 2016)

CB1 Cannabinoid Receptors Mediate Cognitive Deficits and Structural Plasticity Changes During Nicotine Withdrawal. (abst – 2016)

Revealing the role of the endocannabinoid system modulators, SR141716A, URB597 and VDM-11, in sleep homeostasis. (abst – 2016)
Antagonism of cannabinoid receptor 1 attenuates the anti-inflammatory effects of electroacupuncture in a rodent model of migraine.  
(abst – 2016)  

The endogenous lipid N-arachidonoyl glycine is hypotensive and nitric oxide-cGMP-dependent vasorelaxant.  
(abst – 2016)  

A dual inhibitor of FAAH and TRPV1 channels shows dose-dependent effect on depression-like behaviour in rats.  
(abst – 2016)  

Cannabinoid CB2 receptor ligand profiling reveals biased signalling and off-target activity  
(full – 2017)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5216056/

Enantio-specific Allosteric Modulation of Cannabinoid 1 Receptor.  
(abst – 2017)  

R(+)-METHANANANDAMIDE / AM-356 – a more stable anandamide analog

(R)-methanandamide: a chiral novel anandamide possessing higher potency and metabolic stability  
(abst – 1994)  

The endogenous cannabinoid anandamide is a lipid messenger activating cell growth via a cannabinoid receptor-independent pathway in hematopoietic cell lines.  
(full – 1998)  

Cannabinoids might reduce spasticity in multiple sclerosis  
(full - 2000)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1117698/?tool=pmcentrez

Cannabinoids decrease the K+ M-current in hippocampal CA1 neurons  
(link to PDF - 2000)  
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.326.2509&rank=84

Characterization of palmitoylethanolamide transport in mouse Neuro-2a neuroblastoma and rat RBL-2H3 basophilic leukaemia cells: comparison with anandamide.  
(full – 2001)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1572744/

Despite substantial degradation, 2-arachidonoylglycerol is a potent full efficacy agonist mediating CB(1) receptor-dependent G-protein activation in rat cerebellar membranes.  
(full – 2001)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1572991/


Up-Regulation of Cyclooxygenase-2 Expression Is Involved in R(_)-Methanandamide-Induced Apoptotic Death of Human Neuroglioma Cells (full - 2004) http://molpharm.aspetjournals.org/content/66/6/1643.full.pdf+html


Cannabinoid Receptor-Mediated Apoptosis Induced by R(+)-Methanandamide and Win55,212-2 Is Associated with Ceramide Accumulation and p38 Activation in Mantle Cell Lymphoma (full - 2006) http://molpharm.aspetjournals.org/content/70/5/1612.full

R(+)-methanandamide and other cannabinoids induce the expression of cyclooxygenase-2 and matrix metalloproteinases in human nonpigmented ciliary epithelial cells. (full – 2006) http://jpet.aspetjournals.org/content/316/3/1219.long


Discriminative stimulus functions of AM-1346, a CB1R selective anandamide analog in rats trained with Delta9-THC or (R)-methanandamide (AM-356). (abst – 2006)
Differential mechanisms mediating depressor and diuretic effects of anandamide (abst – 2006)

Anandamide-Mediated CB1/CB2 Cannabinoid Receptor-Independent Nitric Oxide Production in Rabbit Aortic Endothelial Cells (full – 2007)

Loss of cannabinoid receptor 1 accelerates intestinal tumor growth (full - 2008)

Expression of cannabinoid receptors type 1 and type 2 in non-Hodgkin lymphoma: growth inhibition by receptor activation. (full – 2008)

Cannabinoids enhance gastric X/A-like cells activity. (link to PDF – 2008)

Inhibition of human tumour prostate PC-3 cell growth by cannabinoids R(+) Methanandamide and JWH-015: Involvement of CB2 (full - 2009)

Potentiation of cannabinoid-induced cytotoxicity in mantle cell lymphoma through modulation of ceramide metabolism. (full - 2009)

The cannabinoid R+ methanandamide induces IL-6 secretion by prostate cancer PC3 cells. (full - 2009)

Enhancement of the hypotensive effects of intrathecally injected endocannabinoids by the entourage compound palmitoylethanolamid. (abst – 2009)


Energetic Metabolism and Human Sperm Motility: Impact of CB1 Receptor Activation (full – 2010)

Anandamide capacitates bull spermatozoa through CB1 and TRPV1 activation. (full – 2011)

Pharmacological elevation of anandamide impairs short-term memory by altering the neurophysiology in the hippocampus. (full – 2011)


Uncovering a role for endocannabinoid signaling in autophagy in preimplantation mouse embryos (full – 2012) http://molehr.oxfordjournals.org/content/19/2/93.full

Neonatal DSP-4 Treatment Modifies Antinociceptive Effects of the CB(1) Receptor Agonist Methanandamide in Adult Rats. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3526738/

GPR18 in microglia: implications for the CNS and endocannabinoid system signaling (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3525861/

Contrasting effects of different cannabinoid receptor ligands on mouse ingestive behavior (abst – 2012) http://www.unboundmedicine.com/medline/ebm/record/22772336/abstract/Contrasting_effects_of_differen_t_cannabinoid_receptor_ligands_on_mouse_ingestive_behavior..


Activation of Type 1 Cannabinoid Receptor (CB1R) Promotes Neurogenesis in Murine Subventricular Zone Cell Cultures (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0063529


Diuretic effects of cannabinoids. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3533417/


Diuretic effects of cannabinoid agonists in mice. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3872476/

Repositioning therapy for thyroid cancer: new insights on established medications. (full – 2014)  http://erc.endocrinology-journals.org/content/21/3/R183.long

Involvement of PAR-4 in Cannabinoid-Dependent Sensitization of Osteosarcoma Cells to TRAIL-Induced Apoptosis. (full – 2014)  http://www.ijbs.com/v10p0466.htm

2012 Division of Medicinal Chemistry Award Address: Trekking the Cannabinoid Road: A Personal Perspective. (full– 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4064474/


Biased Agonism and Biased Allosteric Modulation at the CB1 Cannabinoid Receptor. (full – 2015)  http://molpharm.aspetjournals.org/content/early/2015/06/04/mol.115.099192.long


Proapoptotic effect of endocannabinoids in prostate cancer cells. (full – 2015)  http://www.spandidos-publications.com/or/33/4/1599

Synthetic and endogenous cannabinoids protect retinal neurons from AMPA excitotoxicity in vivo, via activation of CB1 receptors: Involvement of PI3K/Akt and MEK/ERK signaling pathways. (abst – 2015)  http://www.sciencedirect.com/science/article/pii/S0014483515001554


Cannabinoids prevent the amyloid β-induced activation of astroglial hemichannels: A neuroprotective mechanism. (abst – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC27757991

The cannabinoid receptor CB1 contributes to the development of ectopic lesions in a mouse model of endometriosis. (abst – 2016) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC27821707

**Ro 61-8048** – blocks the THC “high”

Reducing cannabinoid abuse and preventing relapse by enhancing endogenous brain levels of kynurenic acid. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3835353/

**RQ-00202730** - strong CB2 agonist


**RWJ-400065** - CB 2 agonist

Control of spasticity in a multiple sclerosis model is mediated by CB1, not CB2, cannabinoid receptors. (full - 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2189718/?tool=pubmed
**S-444823** – CB1 & CB2 agonist

Discovery of S-444823, a potent CB1/CB2 dual agonist as an antipruritic agent.  
(abst – 2012)  

**S-777469** – CB2 agonist

Discovery of S-777469: an orally available CB2 agonist as an antipruritic agent.  
(abst – 2012)  

Non-clinical evaluation of the metabolism, pharmacokinetics and excretion of S-777469,  
a new cannabinoid receptor 2 selective agonist.  
(abst – 2014)  

S-777469, a Novel Cannabinoid Type 2 Receptor Agonist, Suppresses Itch-Associated  
Scratching Behavior in Rodents through Inhibition of Itch Signal Transmission.  
(abst – 2015)  

(full – 2016)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4927043/

Targeting Cannabinoid CB2 Receptors in the Central Nervous System. Medicinal  
Chemistry Approaches with Focus on Neurodegenerative Disorders.  
(full – 2016)  
http://journal.frontiersin.org/article/10.3389/fnins.2016.00406/full

**SA-57** - a dual FAAH-MAGL inhibitor

Delta-9 tetrahydrocannabinol (THC) and endocannabinoid degradative enzyme inhibitors  
attenuate intracranial self-stimulation (ICSS) in mice.  
(full – 2014)  
http://jpet.aspetjournals.org/content/early/2014/11/14/jpet.114.218677.long

Simultaneous inhibition of fatty acid amide hydrolase (FAAH) and monoacylglycerol  
lipase (MAGL) shares discriminative stimulus effects with Δ9-THC in mice.  
(full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4407717/
Discriminative Stimulus Properties of the Endocannabinoid Catabolic Enzyme Inhibitor SA-57 in Mice. (full – 2016)
http://jpet.aspetjournals.org/content/early/2016/06/15/jpet.115.229492.long

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4923145/


**SAB-378** – activates only peripheral CB1 and CB2 receptors, no high

CB1 receptors mediate the analgesic effects of cannabinoids on colorectal distension-induced visceral pain in rodents. (full – 2007) http://www.jneurosci.org/content/29/5/1554.long

Naphthalen-1-yl-(4-pentyloxynaphthalen-1-yl)methanone: a potent, orally bioavailable human CB1/CB2 dual agonist with antihyperalgesic properties and restricted central nervous system penetration. (abst – 2007) http://pubs.acs.org/doi/abs/10.1021/jm070317a

Naphthalen-1-yl-(4-pentyloxynaphthalen-1-yl)methanone (SAB378), a peripherally restricted cannabinoid CB1/CB2 receptor agonist, inhibits gastrointestinal motility but has no effect on experimental colitis in mice. (full – 2010) http://jpet.aspetjournals.org/content/334/3/973.long

Control of spasticity in a multiple sclerosis model using central nervous system-excluded CB1 cannabinoid receptor agonists. (full – 2013) http://www.fasebj.org/content/28/1/117.long


**SAD-448** – activates only peripheral CB1 receptors, no “high”
Control of spasticity in a multiple sclerosis model using central nervous system-excluded CB1 cannabinoid receptor agonists. (full – 2013)  
http://www.fasebj.org/content/28/1/117.long

Peripherally Restricted Cannabinoids for the Treatment of Pain. (abst – 2015)  

**SAR-127303**  - prevents the breakdown of 2-AG

Selective blockade of the hydrolysis of the endocannabinoid 2-arachidonoylglycerol impairs learning and memory performance while producing antinociceptive activity in rodents. (full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4284516/

**SBFI26**  - a Fatty Acid-Binding Protein Inhibitor

Examination of the Addictive and Behavioral Properties of Fatty Acid-Binding Protein Inhibitor SBFI26. (full – 2016)  

**SER-601**  - a CB2 agonist

Cannabinoid 2 Receptor Agonist Improves Systemic Sensitivity to Insulin in High-Fat Diet/Streptozotocin-Induced Diabetic Mice. (full – 2016)  
https://www.karger.com/Article/FullText/453171

**SGT-24 / cumyl-PINACA**

Occupational transdermal poisoning with synthetic cannabinoid cumyl-PINACA. (abst – 2016)  
SMM – 189 – a CB2 inverse agonist

Visual deficits in mice after mild traumatic brain injury produced by primary overpressure blast are alleviated by the novel CB2 drug SMM189 (abst – 2014) http://iovs.arvojournals.org/article.aspx?articleid=2271359&resultClick=1


“SPICE” - STUDIES - various synthetic cannabinoid mixtures - also see the AM, HU, JWH, and CP series


Withdrawal Phenomena and Dependence Syndrome After the Consumption of "Spice Gold" (full - 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2719097/?tool=pmcentrez


Bad Mojo: use of the new marijuana substitute leads to more and more ED visits for acute psychosis (editorial – 2010) http://www.ajemjournal.com/article/S0735-6757%2810%2900394-3/abstract


Marijuana-based Drugs: Innovative Therapeutics or Designer Drugs of Abuse? (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3139381/?tool=pubmed


CP47,497-C8 and JWH073, commonly found in 'Spice' herbal blends, are potent and efficacious CB(1) cannabinoid receptor agonists. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3094488/


Use of high-resolution accurate mass spectrometry to detect reported and previously unreported cannabinomimetics in "herbal high" products. (full – 2011) http://jat.oxfordjournals.org/content/34/5/252.long


Myocardial Infarction Associated With Use of the Synthetic Cannabinoid K2. (full – 2011) http://pediatrics.aappublications.org/content/128/6/e1622.long

High-performance sport, marijuana, and cannabimimetics. (full – 2011) http://jat.oxfordjournals.org/content/35/9/624.long

Severe toxicity following synthetic cannabinoid ingestion. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4165603/


Convulsions Associated with the Use of a Synthetic Cannabinoid Product. (full – 2011) http://www.springerlink.com/content/9651q2672027n38g/fulltext.html

Psychosis Associated With Synthetic Cannabinoid Agonists: A Case Series

The "new" marijuana. (link to download – 2011) http://journals.sagepub.com/doi/abs/10.1345/aph.1P580


Acute mental disturbance caused by synthetic cannabinoid: a potential emerging substance of abuse in Hong Kong. (full – 2012)

Monohydroxylated metabolites of the K2 synthetic cannabinoid JWH-073 retain intermediate to high cannabinoid 1 receptor (CB1R) affinity and exhibit neutral antagonist to partial agonist activity. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3288656/

AKI Associated with Synthetic Cannabinoids: A Case Series. (full – 2012)


Using dopamine research to generate rational cannabinoid drug policy. (full – 2012)

Synthetic legal intoxicating drugs: The emerging ‘incense’ and ‘bath salt’ phenomenon (full – 2012)  http://www.ccjm.org/content/79/4/258.abstract?ijkey=5c626a27db768c92b048d2d30e94a1a6421fe767&keytype2=tf_ipsecsha

Acute Intoxication Caused by a Synthetic Cannabinoid in Two Adolescents (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3470439/

Inhalation exposure to smoke from synthetic "marijuana" produces potent cannabimimetic effects in mice. (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3501554/


Spice drugs are more than harmless herbal blends: A review of the pharmacology and toxicology of synthetic cannabinoids. (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3936256/

Acute intoxication caused by a synthetic cannabinoid in two adolescents. (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3470439/

Determination of naphthalen-1-yl-(1-pentyllindol-3-yl)methanone (JWH-018) in mouse blood and tissue after inhalation exposure to ‘buzz’ smoke by HPLC/MS/MS (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3697740/


Adolescent Exposure of JWH-018 “Spice” Produces Subtle Effects on Learning and Memory Performance in Adulthood (full – 2012)
Synthetic cannabinoid and marijuana exposures reported to poison centers. (full – 2012) http://journals.sagepub.com/doi/full/10.1177/0960327111421945


Synthetic cannabis (abst – 2012) http://tidsskriftet.no/article/2896636/en_GB


Emergency Physicians' Knowledge of Cannabinoid Designer Drugs. (full – 2013) http://escholarship.org/uc/item/9mk2951f#


Fascination and Social Togetherness-Discussions about Spice Smoking on a Swedish Internet Forum. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3855086/


High Times, Low Sats: Diffuse Pulmonary Infiltrates Associated with Chronic Synthetic Cannabinoid Use. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3657026/

Human metabolites of synthetic cannabinoids JWH-018 and JWH-073 bind with high affinity and act as potent agonists at cannabinoid type-2 receptors. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3685885/

Synthetic cannabinoids and potential reproductive consequences. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3823745/
CB1 Receptor-Mediated Signaling Underlies the Hippocampal Synaptic, Learning and Memory Deficits Following Treatment with JWH-081, a New Component of Spice/K2 Preparations. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3959795/

Distinct pharmacology and metabolism of K2 synthetic cannabinoids compared to Δ9-THC: Mechanism underlying greater toxicity? (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3945037/

Ischemic stroke after use of the synthetic marijuana "spice" (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3863350/


Moving around the molecule: Relationship between chemical structure and in vivo activity of synthetic cannabinoids. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3944940/


Spice/K2 drugs - more than innocent substitutes for marijuana. (full – 2013) http://ijnp.oxfordjournals.org/content/17/3/509

Sulfaphenazole and α-Naphthoflavone Attenuate the Metabolism of the Synthetic Cannabinoids JWH-018 and AM2201 Found in K2/Spice. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4154622/


The omega and omega-1 monohydroxyl metabolites of the abused K2/Spice synthetic cannabinoids JWH-018 and JWH- 073 bind with high affinity and act as agonists at human cannabinoid 2 receptors (hCB2s) (abst – 2013) [http://www.fasebj.org/content/26/1_Supplement/660.8.abstract?sid=ad340c8c-cc99-4eda-84a0-c19d65efcdd3](http://www.fasebj.org/content/26/1_Supplement/660.8.abstract?sid=ad340c8c-cc99-4eda-84a0-c19d65efcdd3)


Characteristics of the designer drug and synthetic cannabinoid receptor agonist AM-2201 regarding its chemistry and metabolism (abst – 2013)
UR-144 in products sold via the Internet: Identification of related compounds and characterization of pyrolysis products (abst – 2013)

Stability of 11 prevalent synthetic cannabinoids in authentic neat oral fluid samples: glass versus polypropylene containers at different temperatures (abst – 2013)

Cytotoxicity of synthetic cannabinoids on primary neuronal cells of the forebrain: the involvement of cannabinoid CB1 receptors and apoptotic cell death. (abst – 2013)

‘Legal high’ associated Wallenberg syndrome (abst – 2013)
http://casereports.bmj.com/content/2013/bcr-2013-009693.abstract?sid=0550787d-e463-41b1-bac9-0d2bad5504d9

Diffuse Hemorrhagic Pulmonary Infiltrates: Unique Complication Of Synthetic Cannabinoid Abuse (abst – 2013)

Emerging Drugs of Abuse: Clinical and Legal Considerations. (full – 2014)

Effects and risks associated with novel psychoactive substances: mislabeling and sale as bath salts, spice, and research chemicals. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3965957/

A Gut Gone to Pot: A Case of Cannabinoid Hyperemesis Syndrome due to K2, a Synthetic Cannabinoid. (full – 2014)
http://www.hindawi.com/journals/criem/2014/167098/

A Unique Case of Cardiac Arrest following K2 Abuse. (full – 2014)
http://www.hindawi.com/journals/cric/2014/120607/

"SPICE II Plus" (full – 2014)

Screening for synthetic cannabinoids in hair by using LC-QTOF MS: A new and powerful approach to study the penetration of these new psychoactive substances in the population (full – 2014)
http://msl.sagepub.com/content/54/1/22.long

A survey of synthetic cannabinoid consumption by current cannabis users. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4048873/
Δ9-THC exposure attenuates aversive effects and reveals appetitive effects of K2/'Spice' constituent JWH-018 in mice. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4157458/

Subarachnoid hemorrhage from a thoracic radicular artery pseudoaneurysm after methamphetamine and synthetic cannabinoid abuse: case report. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3854594/

Smoking synthetic marijuana leads to self-mutilation requiring bilateral amputations. (full – 2014) (warning – very graphic photos)
http://www.healio.com/orthopedics/journals/ortho/2014-4-37-4/%7Be1c1de76-8467-4810-8e5f-8f18bde50169%7D/smoking-synthetic-marijuana-leads-to-self-mutilation-requiring-bilateral-amputations

Synthetic cannabinoid use among patients in residential substance use disorder treatment: Prevalence, motives, and correlates. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4161625/

Evaluation of a homogenous enzyme immunoassay for the detection of synthetic cannabinoids in urine. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4127333/

Nephrotoxic Effects of Common and Emerging Drugs of Abuse. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4220747/

Synthetic Cannabinoids: Use and predictors in a Community Sample of Young Adults (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4362955/

Quantitative urine confirmatory testing for synthetic cannabinoids in randomly collected urine specimens. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4363290/

K2-Not the Spice of Life; Synthetic Cannabinoids and ST Elevation Myocardial Infarction: A Case Report. (full – 2014)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4371021/


Delayed seizure-like activity following analytically confirmed use of previously unreported synthetic cannabinoid analogues. (full – 2014)
http://journals.sagepub.com/doi/full/10.1177/0960327114550886

New synthetic drugs in addictovigilance. (link to PDF – 2014)

A 'spicy' encephalopathy: synthetic cannabinoids as cause of encephalopathy and seizure
The rise in K2 use with varying clinical symptoms and the potential for ED crowding

Nephrotoxic effects of designer drugs: synthetic is not better!  (abst – 2014)  http://www.nature.com/nrneph/journal/v10/n6/full/nrneph.2014.44.html


Functional consequences of synthetic cannabinoid metabolites and CYP2C9 polymorphisms  (abst – 2014)  http://www.fasebj.org/content/28/1_Supplement/838.4.abstract?sid=467bb529-0ecc-4dce-af27-3f56f20a1a2


Using Web searches to track interest in synthetic cannabinoids (aka ‘herbal incense’) (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4412351/


Cardiovascular side effects related with use of synthetic cannabinoids "bonzai" : two case reports. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4462325/


Synthetic cannabinoids as a cause for black carbonaceous bronchoalveolar lavage (full – 2015) http://casereports.bmj.com/content/2015/bcr-2015-211391.full.pdf


Unintentional Pediatric Exposure to a Synthetic Cannabinoid (AB-PINACA) Resulting in Coma and Intubation (full – 2015) http://www.annemergmed.com/article/S0196-0644%2815%2900426-6/fulltext
Extraordinary cause of acute gastric dilatation and hepatic portal venous gas: Chronic use of synthetic cannabinoid. (full – 2015)

https://www.dovepress.com/emerging-drugs-of-abuse-current-perspectives-on-synthetic-cannabinoids-peer-reviewed-fulltext-article-SAR

Rhabdomyolysis and Acute Kidney Injury Requiring Dialysis as a Result of Concomitant Use of Atypical Neuroleptics and Synthetic Cannabinoids. (full – 2015)
http://www.hindawi.com/journals/crin/2015/235982/

Alcohol Versus Cannabinoids: A Review of Their Opposite Neuro-Immunomodulatory Effects and Future Therapeutic Potentials (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4607066/

The Wide and Unpredictable Scope of Synthetic Cannabinoids Toxicity. (full – 2015)
http://www.hindawi.com/journals/cricc/2015/542490/

Hyperthermia and severe rhabdomyolysis from synthetic cannabinoids (full – 2015)
http://www.ajemjournal.com/article/S0735-6757(15)00490-8/fulltext

Synthetic cannabinoids: the multi-organ failure and metabolic derangements associated with getting high. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4558292/

Synthetic cannabinoids and acute kidney injury (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4569229/

A New Differential Diagnosis: Synthetic Cannabinoids-Associated Acute Renal Failure. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4666428/

Synthetic cannabinoid use in a nationally representative sample of US high school seniors. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4361370/

K2 and Spice use among a cohort of college students in southeast region of the USA. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4526379/

K2 and Spice use among a cohort of college students in southeast region of the USA. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4526379/

The adverse health effects of synthetic cannabinoids with emphasis on psychosis-like effects. (full – 2015)
http://journals.sagepub.com/doi/full/10.1177/0269881114565142

Risk of emergency medical treatment following consumption of cannabis or synthetic cannabinoids in a large global sample. (full – 2015)
http://journals.sagepub.com/doi/full/10.1177/0269881115574493


Synthetic cannabinoids in Europe  (link to PDF - 2015)  http://www.emcdda.europa.eu/topics/pods/synthetic-cannabinoids

Notes from the Field: Increase in Reported Adverse Health Effects Related to Synthetic Cannabinoid Use - United States, January-May 2015.  (report – 2015)  http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6422a5.htm

Notes from the Field: Severe Illness Associated with Reported Use of Synthetic Cannabinoids — Mississippi, April 2015  (report – 2015)  http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6439a7.htm


Genotoxic properties of representatives of alkylindazoles and aminoalkyl-indoles which are consumed as synthetic cannabinoids.  (abst – 2015)  http://www.sciencedirect.com/science/article/pii/S0278691515000836
Withdrawal Seizures Seen In the Setting of Synthetic Cannabinoid Abuse  

Synthetic cannabinoids pharmacokinetics and detection methods in biological matrices.  

Synthetic cannabinoids: spread, addiction biology & current perspective of personal health hazard  

Case reports of synthetic cannabinoid XLR-11 associated fatalities.  

JWH-018 impairs sensorimotor functions in mice.  


"Legal Highs" - An Emerging Epidemic of Novel Psychoactive Substances.  

Synthetic Cannabinoids.  

Quantitation of Synthetic Cannabinoids in Plant Materials Using High Performance Liquid Chromatography with UV Detection (Validated Method).  

Myocardial Ischemia Secondary to Synthetic Cannabinoid (K2) Use in Pediatric Patients.  


A New Threat: Synthetic Marijuana Associated Lung Disease  

"Spice" Can Really Heat Things Up  

Acute Eosinophilic Pneumonia With Respiratory Failure Induced By 'Bonzai' (Synthetic Cannabinoid) Inhalation  

Teenage Cardiac Arrest Following Abuse of Synthetic Cannabis.  
Synthetic Cannabinoid Abuse in Adolescents: A Case Series.  

Pharmacological properties of law-evading chemical substances  

Kiken drugs: current status of abuse among youth in the nightlife areas of Tokyo  
(abst – 2015)  

Δ-9-Tetrahydrocannabinol discriminative stimulus effects of AM2201 and related aminoalkylindole analogs in rats.  

Novel case of synthetic cannabinoid hyperemesis resulting in rhabdomyolysis and acute renal failure  
(abst – 2015)  
http://www.ajemjournal.com/article/S0735-6757%2815%2900743-3/abstract

Tetrahydrocannabinol pharmacokinetics; new synthetic cannabinoids; road safety and cannabis  
(abst – 2015)  

Suspected synthetic cannabinoid toxicosis in a dog.  
(abst – 2015)  

Synthetic Cannabinoids and Their Effects on the Cardiovascular System.  

The behavioral profile of spice and synthetic cannabinoids in humans.  
(abst – 2015)  

Cannabinoids and Cytochrome P450 Interactions.  

Differential physiological and behavioral cues observed in individuals smoking botanical marijuana versus synthetic cannabinoid drugs.  
(abst – 2015)  

Native CB1 receptor affinity, intrinsic activity and accumbens shell dopamine stimulant properties of third generation SPICE/K2 cannabinoids: BB-22, 5F-PB-22, 5F-AKB-48 and STS-135.  
(abst – 2015)  

Are the last grade medical students aware of the danger of synthetic cannabinoids?  
(abst – 2015)  

Novel psychoactive substance use by US adolescents: Characteristics associated with use of synthetic cannabinoids and synthetic cathinones.  
(abst – 2015)  

Pharmacology and toxicology of the synthetic cannabinoid receptor agonists


Legal regulated markets have the potential to reduce population levels of harm associated with cannabis use (full – 2016) http://onlinelibrary.wiley.com/doi/10.1111/add.13390/full


Chest pain, troponin rise, and ST-elevation in an adolescent boy following the use of the synthetic cannabis product K2. (full – 2016) http://www.annalspc.com/article.asp?issn=0974-2069;year=2016;volume=9;issue=1;spage=79;epage=81;aulast=Zaleta

Case Series of Synthetic Cannabinoid Intoxication from One Toxicology Center. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4899060/


A Curious Case of Inhalation Fever Caused by Synthetic Cannabinoid. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4917070/

Pharmacological characterization of repeated administration of the first generation abused synthetic cannabinoid CP47,497. (full – 2016)

Synthetic Cannabinoid 'Bonzai' Intoxication: Six Case Series. (full – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4894237/

Unusual side effect of cannabis use: acute abdomen due to duodenal perforation (full – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4936980/

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4927043/

Synthetic Cannabinoid Induced acute Tubulointerstitial Nephritis and Uveitis Syndrome: A Case Report and Review of Literature. (full – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4948465/

First-Episode of Synthetic Cannabinoid-Induced Psychosis in a Young Adult, Successfully Managed with Hospitalization and Risperidone. (full – 2016)
http://www.hindawi.com/journals/crips/2016/7257489/

Pharmacological evaluation of synthetic cannabinoids identified as constituents of spice. (full – 2016)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4929166/

http://www.cdc.gov/mmwr/volumes/65/wr/mm6527a2.htm

New psychoactive substances: driving greater complexity into the drug problem (full – 2016)

Highlights of the 2011 Drug Abuse Warning Network (DAWN) Findings on Drug-Related Emergency Department Visits (full – 2016)
http://www.ncbi.nlm.nih.gov/books/NBK384680/

Increase in Adverse Reactions Associated with Use of Synthetic Cannabinoids - Anchorage, Alaska, 2015-2016. (full – 2016)
http://www.cdc.gov/mmwr/volumes/65/wr/mm6540a4.htm

"When 'Bad' is 'Good'": Identifying Personal Communication and Sentiment in Drug-Related Tweets. (full – 2016)
http://publichealth.jmir.org/2016/2/e162/

Synthetic Cannabis Overdose and Withdrawal in a Young Adult: A Case Report, Commentary on Regulation, and Review of the Literature. (full – 2016)
https://www.hindawi.com/journals/crips/2016/3640549/

Effectiveness of the synthetic cannabinoids seminar. (full – 2016)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5121273/
Adding Spice to the Porridge: The development of a synthetic cannabinoid market in an English prison  (full – 2016)

“Zombie” Outbreak Caused by the Synthetic Cannabinoid AMB-FUBINACA in New York  (full – 2016)
http://www.nejm.org/doi/full/10.1056/NEJMoa1610300#t=articleDiscussion

Acute Eosinophilic Pneumonia with Respiratory Failure Induced by Synthetic Cannabinoid Inhalation.  (full – 2016)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5156457/

Traditional marijuana, high-potency cannabis and synthetic cannabinoids: increasing risk for psychosis.  (full – 2016)  https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5032490/


Pre-hospital identification and post-recovery challenges of intoxication with synthetic cannabinoid containing legal high products such as 'Exodus Damnation'.  (full – 2016)  http://journals.sagepub.com/doi/full/10.1177/0036933016659177

Psychiatric comorbidity associated with synthetic cannabinoid use compared to cannabis.  (full – 2016)  http://journals.sagepub.com/doi/full/10.1177/0269881116658990

Acute Rhabdomyolysis Following Synthetic Cannabinoid Ingestion.  (full – 2016)  https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4960936/


Anti-N-methyl-D-aspartate receptor encephalitis and drug abuse - the probable role of molecular mimicry or the overstimulation of CB receptors in a 17-year-old adolescent - case report.  (link to download – 2016)  http://www.mppt.hu/folyoirat/1/abstract?vol=18&issue=3&elsooldal=162

Can your heart handle the spice: A case of acute myocardial infarction and left ventricular apical thrombus  
(1st page – 2016)  
http://www.internationaljournalofcardiology.com/article/S0167-5273%2816%2930735-5/abstract

Simultaneous detection of 93 synthetic cannabinoids by liquid chromatography-tandem mass spectrometry and retrospective application to real forensic samples.  
(abst – 2016)  

Drug Dependence and Cytotoxicity of Law-evading Drugs: Their Identities Explored from Basic Research.  
(abst – 2016)  

They Were Getting High on What? Evaluating Novel Psychoactive Drug Knowledge Among Practitioners.  
(abst – 2016)  

Identification and quantification of synthetic cannabinoids in “spice-like” herbal mixtures: update of the German situation for the spring of 2015  
(abst – 2016)  

Adverse effects after the use of JWH-210 - a case series from the EU Spice II plus project.  
(abst – 2016)  

Effect of JWH-250, JWH-073 and their interaction on "tetrad", sensorimotor, neurological and neurochemical responses in mice.  
(abst – 2016)  

Synthetic cannabinoid drug use as a cause or contributory cause of death  
(abst – 2016)  

Synthetic Cannabinoids and Their Effects on the Cardiovascular System  
(abst – 2016)  

From “herbal highs” to the “heroin of cannabis”: Exploring the evolving discourse on synthetic cannabinoid use in a Norwegian Internet drug forum  
(abst – 2016)  

(abst – 2016)  

Suicide attempt with a mix of synthetic cannabinoids and synthetic cathinones: Case report of non-fatall intoxication with AB-CHMINACA, AB-FUBINACA, alpha-PHP, alpha-PVP and 4-CMC.  
(abst – 2016)  

Comparison of outcome expectancies for synthetic cannabinoids and botanical marijuana.  
(abst – 2016)  
Dangerous drugs: products containing synthetic chemicals (abst – 2016)

Metabolites of synthetic cannabinoids in hair-proof of consumption or false friends for interpretation? (abst – 2016)

Do police arrestees substitute legal highs for other drugs? (abst – 2016)

Sickle Cell Crisis Complicated by Synthetic Cannabinoid Abuse: A Case Report. (abst – 2016)

Synthetic Cannabinoids-Further Evidence Supporting the Relationship Between Cannabinoıs and Psychosis. (abst – 2016)

Novel Psychoactive Substances: the pharmacology of stimulants and hallucinogens. (abst – 2016)

Dermatological Aspects of Synthetic Cannabinoid Addiction. (abst – 2016)

Acute Psychosis after Consumption of Synthetic Cannabinoids (abst – 2016)

Toxicological impact of JWH-018 and its phase I metabolite N-(3-hydroxypentyl) on human cell lines. (abst – 2016)

Epidemiology and clinical features of toxicity following recreational use of synthetic cannabinoid receptor agonists: a report from the United Kingdom national poisons information service. (abst – 2016)


LACTIC ACIDOSIS: A RARE MANIFESTATION OF SYNTHETIC MARIJUANA INTOXICATION. (abst – 2016)

Variation in commercial smoking mixtures containing third-generation synthetic cannabinoids. (abst – 2016)

Simultaneous Analysis of Cannabinoid and Synthetic Cannabinoids in Dietary Supplements Using UPLC with UV and UPLC-MS-MS. (abst – 2016)


Acute Toxicity Associated with Use of 5F-Derivations of Synthetic Cannabinoid Receptor Agonists with Analytical Confirmation. (abst – 2016)  

A preliminary evaluation of synthetic cannabinoid use among adolescent cannabis users: Characteristics and treatment outcomes. (abst – 2016)  

Correlates of new psychoactive substance use among a self-selected sample of nightclub attendees in the United States. (abst – 2016)  

Evaluation of first generation synthetic cannabinoids on binding at non-cannabinoid receptors and in a battery of in vivo assays in mice. (abst – 2016)  


Interpersonal violence and synthetic cannabinoids (abst – 2016)  
http://www.bjoms.com/article/S0266-4356(16)30219-4/abstract

Repeated Thrombosis After Synthetic Cannabinoid Use. (abst – 2016)  

The Pharmacologic and Clinical Effects of Illicit Synthetic Cannabinoids. (abst - 2016)  

Abnormal white matter integrity in synthetic cannabinoid users. (abst – 2016)  

Examination of YouTube videos related to synthetic cannabinoids. (abst – 2016)  

The Synthetic Cannabinoids Phenomenon. (abst – 2016)  

New psychoactive substances: an overview on recent publications on their toxicodynamics and toxicokinetics. (abst – 2016)  

Drug Dependence and Toxicity of Law-Evading Drugs: Their Mechanisms Explored from Basic Research (abst – 2016)  


"Just one bad high:” considering synthetic cannabinoid outcome expectancies in adolescents. (abst – 2016)  
MDMB-CHMICA: Availability, Patterns of Use, and Toxicity Associated With This Novel Psychoactive Substance. (abst – 2016)

Characteristics associated with synthetic cannabinoid use among patients treated in a public psychiatric emergency setting. (abst – 2016)

Focus on cannabinoids and synthetic cannabinoids. (abst – 2016)

Freeze-and-thaw stability and long-term-stability of 84 synthetic cannabinoids in serum. (abst – 2016)

Identification and quantification of synthetic cannabinoids in "spice-like" herbal mixtures: Update of the German situation for the spring of 2016. (abst – 2016)

Buzz Juice: Neurological sequelae of synthetic cannabinoids. (abst – 2016)

From niche to stigma-Headshops to prison: Exploring the rise and fall of synthetic cannabinoid use among young adults. (abst – 2016)
https://www.ncbi.nlm.nih.gov/pubmed/27894904

Paradoxical increase in synthetic cannabinoid emergency-related presentations after a citywide ban: Lessons from Houston, Texas. (abst – 2016)

Pharmacological and Toxicological Effects of Synthetic Cannabinoids and Their Metabolites (abst – 2016)
http://link.springer.com/chapter/10.1007%2F7854_2016_60

Synthetic cannabinoids: A new addiction matrix (abst – 2016)

Occupational transdermal poisoning with synthetic cannabinoid cumyl-PINACA. (abst – 2016)

Dried haematic microsamples and LC-MS/MS for the analysis of natural and synthetic cannabinoids. (abst – 2016)


Acute and residual effects in adolescent rats resulting from exposure to the novel synthetic cannabinoids AB-PINACA and AB-FUBINACA (full – 2017)
Thermolytic degradation of synthetic cannabinoids: chemical exposures and pharmacological consequences (link to download – 2017)
http://jpet.aspetjournals.org/content/early/2017/01/13/jpet.116.238717.long

Immonoassay screening in urine for synthetic cannabinoids - an evaluation of the diagnostic efficiency. (abst – 2017)

**SR-144528** - CB(2) receptor antagonist

SR 144528, the first potent and selective antagonist of the CB2 cannabinoid receptor (link to PDF – 1998)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.586.4155&rank=86

The endogenous cannabinoid anandamide is a lipid messenger activating cell growth via a cannabinoid receptor-independent pathway in hematopoietic cell lines. (full – 1998)

Palmitoylethanolamide inhibits the expression of fatty acid amide hydrolase and enhances the anti-proliferative effect of anandamide in human breast cancer cells (link to download - 2001)

Cannabinoid receptor agonism inhibits transient lower esophageal sphincter relaxations and reflux in dogs (full – 2002)
http://www.gastrojournal.org/article/S0016-5085%2802%2900218-4/fulltext

Enhancement of androgen receptor expression induced by (R)-methanandamide in prostate LNCaP cells. (full – 2003)

Anandamide initiates Ca2+ signaling via CB2 receptor linked to phospholipase C in calf pulmonary endothelial cells (full – 2003)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1574152/


Vasorelaxant effects of oleamide in rat small mesenteric artery indicate action at a novel cannabinoid receptor. (full – 2006)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1616976/


Cannabinoid receptors as a target for therapy of ovarian cancer (abst - 2006)  http://cancerres.aacrjournals.org/content/66/8_Supplement/1084.1


CB1 receptors mediate the analgesic effects of cannabinoids on colorectal distension-induced visceral pain in rodents. (full – 2007)  http://www.jneurosci.org/content/29/5/1554.long

Anandamide-Mediated CB1/CB2 Cannabinoid Receptor-Independent Nitric Oxide Production in Rabbit Aortic Endothelial Cells (full – 2007)  http://jpet.aspetjournals.org/content/321/3/930.long


Peripheral and central sites of action for the non-selective cannabinoid agonist WIN 55,212-2 in a rat model of post-operative pain (full – 2009)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2707976/


Abnormal-Cannabidiol-Induced Increase in Aqueous Humor Outflow (abst – 2010)  http://iovs.arvojournals.org/article.aspx?articleid=2368788&resultClick=1

CB2 Cannabinoid Receptors Promote Neural Progenitor Cell Proliferation via mTORC1 Signaling (full – 2011)  http://www.jbc.org/content/287/2/1198.full
Cannabinoid potentiation of glycine receptors contributes to cannabis-induced analgesia. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3388539/

N-arachidonoyl--serine is neuroprotective after traumatic brain injury by reducing apoptosis  (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3170948/

The effect of CBD (BDS) botanical cannabinoid extraction on MCF-7 human breast carcinoma cells  (abst – 2011)  
http://eprints.hud.ac.uk/16197/

The effects of peptide and lipid endocannabinoids on arthritic pain at the spinal level. (full – 2012)  

WIN55212-2 attenuates amyloid-beta-induced neuroinflammation in rats through activation of cannabinoid receptors and PPAR-γ pathway. (abst – 2012)  

Effect of Oleoylethanolamide on Aqueous Humor Outflow. (abst – 2012)  
http://iovs.arvojournals.org/article.aspx?articleid=2352002&resultClick=1

Stabilization of Functional Recombinant Cannabinoid Receptor CB2 in Detergent Micelles and Lipid Bilayers  (full – 2013)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0046290

Characterization of cannabinoid receptor ligands in tissues natively expressing cannabinoid CB2 receptors.  (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3687668/

Endocannabinoids as markers of sperm quality: hot spots  (full – 2013)  


Effects of the cannabinoid 2 receptor-selective agonist GW405833 in assays of acute pain-stimulated and paindepressed behavior in rats  (abst – 2013)  
http://www.fasebj.org/content/27/1_Supplement/886.9.abstract?sid=6740ccbe-1f93-4779-b975-a966a2a4ac87

Sex differences in anti-allodynic, anti-hyperalgesic and anti-edema effects of Δ9-tetrahydrocannabinol in the rat. (abst – 2013)  

The role of Cannabinoid receptors on light-induced photoreceptor degeneration (abst – 2013)  http://iovs.arvojournals.org/article.aspx?articleid=2149928&resultClick=1

Antagonism of cannabinoid receptor 2 pathway suppresses IL-6-induced immunoglobulin IgM secretion (full – 2014)  http://www.biomedcentral.com/2050-6511/15/30

Cannabinoids inhibit cholinergic contraction in human airways through prejunctional CB1 receptors. (full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4243853/

Examining the critical roles of human CB2 receptor residues Valine 3.32 (113) and Leucine 5.41 (192) in ligand recognition and downstream signaling activities. (full – 2014)  http://www.sciencedirect.com/science/article/pii/S0006291X14014636

TRPV1 mediates cellular uptake of anandamide and thus promotes endothelial cell proliferation and network-formation. (full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4265754/

Cannabinoid type 2 receptor stimulation attenuates brain edema by reducing cerebral leukocyte infiltration following subarachnoid hemorrhage in rats. (full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4067767/

Chronic activation of CB2 cannabinoid receptors in the hippocampus increases excitatory synaptic transmission. (full - 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4398527/

Dual inhibition of monoacylglycerol lipase and cyclooxygenases synergistically reduces neuropathic pain in mice. (full – 2014)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4376450/


Attenuation of serotonin-induced itch responses by inhibition of endocannabinoid degradative enzymes, fatty acid amide hydrolase and monoacylglycerol lipase.
Ultraglow doses of cannabinoid drugs protect the mouse brain from inflammation-induced cognitive damage.

Type-2 cannabinoid receptor regulates proliferation, apoptosis, differentiation, and OPG/RANKL ratio of MC3T3-E1 cells exposed to Titanium particles.

Interaction of a Cannabinoid-2 Agonist With Tramadol on Nociceptive Thresholds and Immune Responses in a Rat Model of Incisional Pain.

Attenuation of persistent pain-related behavior by fatty acid amide hydrolase (FAAH) inhibitors in a rat model of HIV sensory neuropathy.

Bi-directional CB1 receptor-mediated cardiovascular effects of cannabinoids in anaesthetized rats: role of the paraventricular nucleus.

Monoglyceride lipase deficiency modulates endocannabinoid signaling and improves plaque stability in ApoE-knockout mice.

Endocannabinoid Catabolic Enzymes Play Differential Roles in Thermal Homeostasis in Response to Environmental or Immune Challenge.

Cannabinoid CB2 receptor stimulation attenuates brain edema and neurological deficits in a germinal matrix hemorrhage rat model.

S-777469, a Novel Cannabinoid Type 2 Receptor Agonist, Suppresses Itch-Associated Scratching Behavior in Rodents through Inhibition of Itch Signal Transmission.

Spinal neuronal cannabinoid receptors mediate urodynamic effects of systemic fatty acid amide hydrolase (FAAH) inhibition in rats.

A Cannabinoid Receptor 2 Agonist Prevents Thrombin-Induced Blood-Brain Barrier Damage via the Inhibition of Microglial Activation and Matrix Metalloproteinase Expression in Rats.

Cannabinoid Receptor Type 2 Agonist Attenuates Acute Neurogenic Pulmonary Edema by Preventing Neutrophil Migration after Subarachnoid Hemorrhage in Rats.


Sustained Endocannabinoid Signaling Compromises Decidual Function and Promotes Inflammation-induced Preterm Birth. (full – 2016) http://www.jbc.org/content/early/2016/02/21/jbc.M115.707836.long


Functional selectivity of CB2 cannabinoid receptor ligands at a canonical and non-canonical pathway. (full – 2016) http://jpet.aspetjournals.org/content/early/2016/05/18/jpet.116.232561.long


Cannabinoid Receptor Type 2 Agonist Attenuates Acute Neurogenic Pulmonary Edema by Preventing Neutrophil Migration after Subarachnoid Hemorrhage in Rats (abst - 2016) http://link.springer.com/chapter/10.1007/978-3-319-18497-5_24


Thermolytic degradation of synthetic cannabinoids: chemical exposures and pharmacological consequences (link to download – 2017) http://jpet.aspetjournals.org/content/early/2017/01/13/jpet.116.238717.long


**ST-4070** - a FAAH inhibitor


**SURINABANT/ SR 147778** - CB1 antagonist

SR147778 [5-(4-Bromophenyl)-1-(2,4-dichlorophenyl)-4-ethyl-N-(1-piperidinyl)-1H-pyrazole-3-carboxamide], a New Potent and Selective Antagonist of the CB1 Cannabinoid Receptor: Biochemical and Pharmacological Characterization (full – 2004) http://jpet.aspetjournals.org/content/310/3/905.long

Suppressing effect of the cannabinoid CB1 receptor antagonist, SR147778, on alcohol intake and motivational properties of alcohol in alcohol-preferring sP rats. (full – 2005) http://alcalc.oxfordjournals.org/content/40/1/46.long


Efficacy of a dose range of surinabant, a cannabinoid receptor blocker, for smoking cessation: a randomized controlled clinical trial. (full – 2012)
Surinabant, a selective CB(1) antagonist, inhibits THC-induced central nervous system and heart rate effects in humans. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3703229/

SYNDROS - an orally administered liquid formulation of dronabinol, a synthetic THC Cannabis and Cannabinoids. (1st page – 2016) http://jamanetwork.com/journals/jama/article-abstract/2592497

TAK-875 / FASIGLIFAM - GPR-40 agonist, may harm liver

TAK-875, an orally available G protein-coupled receptor 40/free fatty acid receptor 1 agonist, enhances glucose-dependent insulin secretion and improves both postprandial and fasting hyperglycemia in type 2 diabetic rats. (full – 2011) http://jpet.aspetjournals.org/content/339/1/228.long


Optimization of (2,3-dihydro-1-benzofuran-3-yl)acetic acids: discovery of a non-free fatty acid-like, highly bioavailable G protein-coupled receptor 40/free fatty acid receptor 1 agonist as a glucose-dependent insulinotropic agent. (abst – 2012) http://pubs.acs.org/doi/abs/10.1021/jm300170m


Pharmacometric Approaches to Guide Dose Selection of the Novel GPR40 Agonist TAK-875 in Subjects With Type 2 Diabetes Mellitus. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3600727/
Randomized, double-blind, dose-ranging study of TAK-875, a novel GPR40 agonist, in Japanese patients with inadequately controlled type 2 diabetes. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3554318/

TAK-875, a GPR40/FFAR1 agonist, in combination with metformin prevents progression of diabetes and β-cell dysfunction in Zucker diabetic fatty rats.  
(full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3791995/

Fasiglifam as a new potential treatment option for patients with type 2 diabetes.  
(abst – 2013)  

The G-Protein-Coupled Long-Chain Fatty Acid Receptor GPR40 and Glucose Metabolism.  
(full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4176464/

Docosahexaenoic acid, G protein-coupled receptors, and melanoma: is G protein-coupled receptor 40 a potential therapeutic target?  
(full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4057893/

Optimization of GPR40 Agonists for Type 2 Diabetes.  
(full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4027784/

Evaluation of the pharmacokinetics and safety of a single oral dose of fasiglifam in subjects with normal or varying degrees of impaired renal function.  
(full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4269813/

High-resolution structure of the human GPR40 receptor bound to allosteric agonist TAK-875.  
(abst – 2014)  
http://www.nature.com/nature/journal/v513/n7516/full/nature13494.html

Physiology and therapeutics of the free fatty acid receptor GPR40.  
(abst – 2014)  

G-protein coupled receptor 40 agonists as novel therapeutics for type 2 diabetes.  
(abst – 2014)  

Efficacy and safety of fasiglifam (TAK-875), a G protein-coupled receptor 40 agonist, in Japanese patients with type 2 diabetes inadequately controlled by diet and exercise: a randomized, double-blind, placebo-controlled, phase III trial  
(full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4676912/

Vascular, but not luminal, activation of FFAR1 (GPR40) stimulates GLP-1 secretion from isolated perfused rat small intestine  
(full – 2015)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4600392/

Fasiglifam (TAK-875) Inhibits Hepatobiliary Transporters: A Possible Factor Contributing to Fasiglifam-Induced Liver Injury.  
(full – 2015)  
http://dmd.aspetjournals.org/content/43/11/1751.long
GPR40 agonists for the treatment of type 2 diabetes: life after "TAKing" a hit.  
(abst – 2015)  

GPR40 Agonists for the Treatment of Type 2 Diabetes Mellitus: Benefits and Challenges  
(abst – 2015)  
http://www.eurekaselect.com/137697/article

Fasiglifam/TAK-875, a Selective GPR40 Agonist, Improves Hyperglycemia in Rats Unresponsive to Sulfonylureas and Acts Additively with Sulfonylureas.  
(abst – 2016)  

Long-term safety and efficacy of fasiglifam (TAK-875), a G-protein-coupled receptor 40 agonist, as monotherapy and combination therapy in Japanese patients with type 2 diabetes: a 52-week open-label phase III study.  
(abst – 2016)  

**TAK-937** - CB1 & CB2 agonist

Contribution of Hypothermia and CB(1) Receptor Activation to Protective Effects of TAK-937, a Cannabinoid Receptor Agonist, in Rat Transient MCAO Model.  
(full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3397930/?tool=pubmed

Cerebroprotective effects of TAK-937, a cannabinoid receptor agonist, on ischemic brain damage in middle cerebral artery occluded rats and non-human primates.  
(abst – 2012)  

Cerebroprotective effects of TAK-937, a novel cannabinoid receptor agonist, in permanent and thrombotic focal cerebral ischemia in rats: Therapeutic time window, combination with t-PA and efficacy in aged rats.  
(abst – 2013)  

**TARANABANT/ MK-0364** – CB1 inverse agonist, a weight loss drug

The discovery of taranabant, a selective cannabinoid-1 receptor inverse agonist for the treatment of obesity.  
(full – 2008)  

Taranabant, a novel cannabinoid type 1 receptor inverse agonist.  
(abst – 2008)  
Cannabinoid-1 receptor inverse agonists: current understanding of mechanism of action and unanswered questions  (full – 2009)  
http://www.nature.com/ijo/journal/v33/n9/full/ijo2009132a.html

Influence of taranabant, a cannabinoid-1 receptor inverse agonist, on pharmacokinetics and pharmacodynamics of warfarin.  (abst – 2009)  

Central side-effects of therapies based on CB1 cannabinoid receptor agonists and antagonists: focus on anxiety and depression.  (abst – 2009)  

Development of a population pharmacokinetic model for taranabant, a cannabinoid-1 receptor inverse agonist.  (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2976981/

Central and peripheral consequences of the chronic blockade of CB1 cannabinoid receptor with rimonabant or taranabant.  (full – 2010)  

A one-year study to assess the safety and efficacy of the CB1R inverse agonist taranabant in overweight and obese patients with type 2 diabetes.  (full – 2010)  

A clinical trial assessing the safety and efficacy of the CB1R inverse agonist taranabant in obese and overweight patients: low-dose study  (full – 2010)  
http://www.nature.com/ijo/journal/v34/n5/full/ijo201021a.html

Randomized, controlled, double-blind trial of taranabant for smoking cessation  (abst – 2010)  

Metabolism and excretion of [14C]taranabant, a cannabinoid-1 inverse agonist, in humans.  (abst – 2010)  

Neuropsychiatric adverse effects of centrally acting antiobesity drugs.  (full – 2011)  

Human abuse potential and cognitive effects of taranabant, a cannabinoid 1 receptor inverse agonist: a randomized, double-blind, placebo- and active-controlled, crossover study in recreational polydrug users.  (abst – 2012)  

The cannabinoid-1 receptor inverse agonist taranabant reduces abdominal pain and increases intestinal transit in mice.  (full – 2013)  

A PET study comparing receptor occupancy by five selective cannabinoid 1 receptor antagonists in non-human primates. (abst – 2015)

Harvesting Benefits from Cannabinoids. (article – 2016)
http://www.cell.com/cell/fulltext/S0092-8674(16)31675-0

**THC-HS / TETRAHYDROCANNABINOL-HEMISUCCINATE +**

Preparation and characterization of inclusion complexes of a hemisuccinate ester prodrug of delta9-tetrahydrocannabinol with modified beta-cyclodextrins. (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2902337/

Effect of ion pairing on in vitro transcorneal permeability of a Δ(9) -tetrahydrocannabinol prodrug: potential in glaucoma therapy. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4194211/

**THJ-2201** – an isomer of FUBIMINA


**THL / TETRAHYDROLIPSTATIN** – a DAGL suppressor

**TM-38837** - a mostly peripherally restricted CB1 antagonist


**UCM-707** - inhibits endocannabinoid re-uptake

Anandamide inhibits Theiler’s virus induced VCAM-1 in brain endothelial cells and reduces leukocyte transmigration in a model of blood brain barrier by activation of CB1 receptors. (full – 2011)  [http://www.jneuroinflammation.com/content/pdf/1742-2094-8-102.pdf](http://www.jneuroinflammation.com/content/pdf/1742-2094-8-102.pdf)

Pharmacological manipulation of cannabinoid neurotransmission reduces neuroinflammation associated with normal aging (full – 2012)  [http://file.scirp.org/Html/1-8201656_23229.htm](http://file.scirp.org/Html/1-8201656_23229.htm)

**UR-144** – CB1 antagonist, CB2 agonist


First Metabolic Profile of XLR-11, a Novel Synthetic Cannabinoid, Obtained by Using Human Hepatocytes and High-Resolution Mass Spectrometry. (full – 2013)  [http://www.clinchem.org/content/59/11/1638.long](http://www.clinchem.org/content/59/11/1638.long)

Moving around the molecule: Relationship between chemical structure and in vivo activity of synthetic cannabinoids. (full – 2013)  [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3944940/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3944940/)


Inhibitory effect of synthetic cannabinoids on CYP1A activity in mouse liver microsomes. (link to PDF – 2014) https://www.jstage.jst.go.jp/article/jts/39/6/39_815/_article


Activation of Cannabinoid Receptor 2 Enhances Osteogenic Differentiation of Bone Marrow Derived Mesenchymal Stem Cells (full – 2015) http://www.hindawi.com/journals/bmri/2015/874982/


Genotoxic properties of representatives of alkylindazoles and aminoalkyl-indoles which are consumed as synthetic cannabinoids. (abst – 2015) http://www.sciencedirect.com/science/article/pii/S0278691515000836


Functional selectivity of CB2 cannabinoid receptor ligands at a canonical and non-canonical pathway. (full – 2016) http://jpet.aspetjournals.org/content/early/2016/05/18/jpet.116.232561.long

Thermolytic degradation of synthetic cannabinoids: chemical exposures and pharmacological consequences (link to download – 2017) http://jpet.aspetjournals.org/content/early/2017/01/13/jpet.116.238717.long

**URB – 437**- slows anandamide destruction

Peripheral FAAH inhibition causes profound antinociception and protects against indomethacin-induced gastric lesions. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3738192/

**URB-447 – CB1 antagonist**

Endocannabinoid signaling in the gut mediates preference for dietary unsaturated fats. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3659363/

**URB-532** - slows cannabinoid destruction

The postmortal accumulation of brain N-arachidonylethanolamine (anandamide) is dependent upon fatty acid amide hydrolase activity. (full – 2005) http://www.jlr.org/content/46/2/342.long
**URB-584** – inhibits FAAH, slowing cannabinoid destruction

Hemopressin, an inverse agonist of cannabinoid receptors, inhibits neuropathic pain in rats.  
(full – 2014)  
[http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4112957/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4112957/)

**URB-597 / KDS-4103** - slows cannabinoid destruction in the body, not the brain.

Antidepressant-like Activity and Modulation of Brain Monoaminergic Transmission by Blockade of Anandamide Hydrolysis.  
(full – 2005)  
[http://www.pnas.org/content/102/51/18620.long](http://www.pnas.org/content/102/51/18620.long)

Cisplatin increases brain 2-arachidonoylglycerol (2-AG) and concomitantly reduces intestinal 2-AG and anandamide levels in the least shrew.  
(abst – 2005)  

Actions of the FAAH inhibitor URB597 in neuropathic and inflammatory chronic pain models  
(full – 2006)  
[http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1751298/?tool=pmcentrez](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1751298/?tool=pmcentrez)

Endocannabinoids potently protect the newborn brain against AMPA-kainate receptor-mediated excitotoxic damage  
(full – 2006)  
[http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1751782/?tool=pmcentrez](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1751782/?tool=pmcentrez)

Pharmacological Profile of the Selective FAAH Inhibitor KDS-4103 (URB597)  
(full – 2006)  

Role of endocannabinoids in alcohol consumption and intoxication: studies of mice lacking fatty acid amide hydrolase.  
(full – 2006)  
[http://www.nature.com/npp/journal/v32/n7/full/1301274a.html](http://www.nature.com/npp/journal/v32/n7/full/1301274a.html)

Effects of endocannabinoid neurotransmission modulators on brain stimulation reward.  
(abst – 2006)  

Endocannabinoid Degradation and Oxidative Defense Mechanisms Determine Anandamide-induced Cell Death in Liver Cell Populations  
(abst – 2006)  

The Endogenous Cannabinoid Anandamide Produces δ-9-Tetrahydrocannabinol-Like Discriminative and Neurochemical Effects That Are Enhanced by Inhibition of Fatty Acid
Amide Hydrolase but Not by Inhibition of Anandamide Transport  (full - 2007)  
http://jpet.aspetjournals.org/content/321/1/370.full

Anti-dyskinetic effects of cannabinoids in a rat model of Parkinson's disease: role of CB1 and TRPV1 receptors  (full - 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2128772/?tool=pmcentrez

The CB1 Cannabinoid Receptor Mediates Excitotoxicity-induced Neural Progenitor Proliferation and Neurogenesis  (full - 2007)  
http://www.jbc.org/content/282/33/23892.full

The fatty acid amide hydrolase inhibitor URB597 (cyclohexylcarbamic acid 3’-carbamoylbiphenyl-3-yl ester) reduces neuropathic pain after oral administration in mice.  (full - 2007)  
http://jpet.aspetjournals.org/content/322/1/236.long

Antiaversive Effects of Cannabinoids: Is the Periaqueductal Gray Involved  (link to PDF - 2007)  

Antidepressant-like activity of the fatty acid amide hydrolase inhibitor URB597 in a rat model of chronic mild stress.  (abst – 2007)  

Acute hypertension reveals depressor and vasodilator effects of cannabinoids in conscious rats  (full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2697765/?tool=pmcentrez

Pharmacological enhancement of endocannabinoid signaling reduces the cholinergic toxicity of diisopropylfluorophosphate.  (full – 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2659532/

An endocannabinoid signaling system modulates anxiety-like behavior in male Syrian hamsters.  (full – 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2694060/

Inhibition of anandamide hydrolysis by URB597 reverses abuse-related behavior and neurochemical effects of nicotine in rats  (full – 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2663803/?tool=pubmed

'Entourage' effects of N-palmitoylethanolamide and N-oleoylethanolamide on vasorelaxation to anandamide occur through TRPV1 receptors.  (full – 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2597234/

The FAAH inhibitor URB-597 ameliorates cannabinoid withdrawal in mice  (abst - 2008)  
http://www.fasebj.org/cgi/content/meeting_abstract/22/1_MeetingAbstracts/711.6?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=720&resourcetype=HWCIT
Targeting endocannabinoid degradation protects against experimental colitis in mice: involvement of CB1 and CB2 receptors. (abst – 2008)

Blockade of endocannabinoid-degrading enzymes attenuates neuropathic pain. (full - 2009)
http://jpet.aspetjournals.org/content/330/3/902.full?sid=af53ea87-ab4b-426e-9c7e-8f750e9c4a17

Processing cardiovascular information in the vIPAG during electroacupuncture in rats: roles of endocannabinoids and GABA (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2692771/?tпо=4.54545

Role of endocannabinoid signaling in anxiety and depression. (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3808114/

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2670585/?tool=pubmed

Long-term consequences of URB597 administration during adolescence on cannabinoid CB1 receptor binding in brain areas. (abst – 2009)

Behavioral sequela following acute diisopropylfluorophosphate intoxication in rats: comparative effects of atropine and cannabinomimetics. (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2854260/?tool=pubmed

Preservation of Striatal Cannabinoid CB1 Receptor Function Correlates with the Antianxiety Effects of Fatty Acid Amide Hydrolase Inhibition (full – 2010)
http://molpharm.aspetjournals.org/content/78/2/260.long

Anandamide suppresses pain initiation through a peripheral endocannabinoid mechanism (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3260554/?tool=pubmed

Local application of the endocannabinoid hydrolysis inhibitor URB597 reduces nociception in spontaneous and chemically induced models of osteoarthritis. (abst – 2010)
http://www.unboundmedicine.com/medline/ebm/record/21185649/abstract/Local_application_of_the_endocannabinoid_hydrolysis_inhibitor_URB597_reduces_nociception_in_spontaneous_and_chemically_induced_models_of_osteoarthritis

Behavioural and molecular consequences of chronic cannabinoid treatment in Huntington's disease transgenic mice. (abst – 2010)
http://www.unboundmedicine.com/medline/ebm/record/20600638/abstract/Behavioural_and_molecular_consequences_of_chronic_cannabinoid_treatment_in_Huntington%27s_disease_transgenic_mice

Increasing Antiproliferative Properties of Endocannabinoids in N1E-115 Neuroblastoma Cells through Inhibition of Their Metabolism. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3203169/?tool=pubmed

Regulation of nausea and vomiting by cannabinoids (full - 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165951/

Administration of URB597, oleoylethanolamide or palmitoylethanolamide increases waking and dopamine in rats. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3136458/?tool=pubmed

Pharmacological elevation of anandamide impairs short-term memory by altering the neurophysiology in the hippocampus. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3156972/

Fatty acid amide hydrolase blockade attenuates the development of collagen-induced arthritis and related thermal hyperalgesia in mice. (full - 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3164582/

L-Type Calcium Channel Mediates Anticonvulsant Effect of Cannabinoids in Acute and Chronic Murine Models of Seizure. (abst – 2011)

Disruptive effects of the prototypical cannabinoid Δ⁹-tetrahydrocannabinol and the fatty acid amide inhibitor URB-597 on go/no-go auditory discrimination performance and olfactory reversal learning in rats. (abst – 2011)

Role of endocannabinoid and glutamatergic systems in DOI-induced head-twitch response in mice. (abst – 2011)

A role for the ventral hippocampal endocannabinoid system in fear-conditioned analgesia and fear responding in the presence of nociceptive tone in rats. (abst – 2011)

The endocannabinoid, anandamide, augments Notch-1 signaling in cultured cortical neurons exposed to amyloid-beta and in the cortex of aged rats. (full – 2012)
http://www.jbc.org/content/early/2012/08/13/jbc.M112.350678.long

Peripheral FAAH inhibition causes profound antinociception and protects against indomethacin-induced gastric lesions. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3738192/
Medial prefrontal cortex endocannabinoid system modulates baroreflex activity through CB1 receptors  (full – 2012)  http://ajpregu.physiology.org/content/302/7/R876

The fatty acid amide hydrolase inhibitor URB597 exerts anti-inflammatory effects in hippocampus of aged rats and restores an age-related deficit in long-term potentiation (full – 2012)  http://www.jneuroinflammation.com/content/9/1/79

The association of N-palmitoylethanolamine with the FAAH inhibitor URB597 impairs melanoma growth through a supra-additive action  (full – 2012)  http://www.biomedcentral.com/1471-2407/12/92

Alterations in endocannabinoid tone following chemotherapy-induced peripheral neuropathy: effects of endocannabinoid deactivation inhibitors targeting fatty-acid amide hydrolase and monoacylgllycerol lipase in comparison to reference analgesics following cisplatin treatment.  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3525790/

The fatty acid amide hydrolase inhibitor URB597 exerts anti-inflammatory effects in hippocampus of aged rats and restores an age-related deficit in long-term potentiation (full – 2012)  http://www.jneuroinflammation.com/content/9/1/79

Differences in peripheral endocannabinoid modulation of scratching behavior in facial vs. spinally-innervated skin.  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3394407/

The fatty acid amide hydrolase (FAAH) inhibitor PF-3845 acts in the nervous system to reverse LPS-induced tactile allodynia in mice  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423256/


Cannabinoid type-1 receptor reduces pain and neurotoxicity produced by chemotherapy.  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3366638/

Lack of effect of chronic pre-treatment with the FAAH inhibitor URB597 on inflammatory pain behaviour: evidence for plastic changes in the endocannabinoid system.  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3449266/

Modulation of neuropathic-pain-related behaviour by the spinal endocannabinoid/endovanilloid system  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3481534/

β−Amyloid exacerbates inflammation in astrocytes lacking fatty acid amide hydrolase through a mechanism involving PPAR-α, PPAR-γ and TRPV1, but not CB1 or CB2 receptors  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3417461/


Monounsaturated fatty acids generated via stearoyl CoA desaturase-1 are endogenous inhibitors of fatty acid amide hydrolase. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3839776/

Full Inhibition of Spinal FAAH Leads to TRPV1-Mediated Analgesic Effects in Neuropathic Rats and Possible Lipoxygenase-Mediated Remodeling of Anandamide Metabolism. (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0060040

Phencyclidine-induced social withdrawal results from deficient stimulation of cannabinoid CB1 receptors: implications for schizophrenia. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3717536/


The FAAH inhibitor URB597 efficiently reduces tyrosine hydroxylase expression through CB1- and FAAH-independent mechanisms. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3687660/
Inhibition of FAAH and activation of PPAR: New approaches to the treatment of cognitive dysfunction and drug addiction. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3662489/

The FAAH inhibitor URB597 efficiently reduces tyrosine hydroxylase expression through CB₁- and FAAH-independent mechanisms. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3687660/


The effects of anandamide signaling enhanced by the FAAH inhibitor URB597 on coping styles in rats. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3830591/

Inhibition Of Fatty Acid Amide Hydrolase Activates Nrf2 Signaling And Induces Heme Oxygenase 1 Transcription In Breast Cancer Cells. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3791989/

Endocannabinoid Signaling in Hypothalamic-Pituitary-Adrenocortical Axis Recovery Following Stress: Effects of Indirect Agonists and Comparison of Male and Female Mice. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3929302/

Long-term consequences of perinatal fatty acid amino hydrolase inhibition (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3954482/

Control of experimental spasticity by targeting the degradation of endocannabinoids using selective fatty acid amide hydrolase inhibitors. (full – 2013) http://journals.sagepub.com/doi/full/10.1177/1352458513485982

Targeting the Endocannabinoid System to Treat Sepsis (review – 2013) http://www.signavitae.com/2013/05/targeting-the-endocannabinoid-system-to-treat-sepsis/


Effects of anandamide and other CB1 ligands on cognitive function (abst – 2013) http://www.fasebj.org/content/27/1_Supplement/1097.10.abstract?sid=9823a79f-d5d0-46e6-b4b6-85d1443e01da

Effects of compounds that interfere with the endocannabinoid system on behaviors predictive of anxiolytic and panicolytic activity in the elevated T-maze (abst – 2013) http://www.sciencedirect.com/science/article/pii/S0091305713001366


Effects of the fatty acid amide hydrolase inhibitor URB597 on coping behavior under challenging conditions in mice. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/24037493

Endocannabinoids decrease neuropathic pain-related behavior in mice through the activation of one or both peripheral CB1 and CB2 receptors. (abst – 2013) http://www.sciencedirect.com/science/article/pii/S0028390813004802


Individual differences in response to positive and negative stimuli: endocannabinoid-based insight on approach and avoidance behaviors.  (full – 2014)  

Chronic stimulation of the tone of endogenous anandamide reduces cue- and stress-induced relapse in rats.  (full – 2014)  
http://ijnp.oxfordjournals.org/content/18/1/pyu025.long

http://www.nature.com/npp/journal/v40/n2/full/npp2014198a.html

Tapping into the endocannabinoid system to ameliorate acute inflammatory flares and associated pain in mouse knee joints.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4201700/

Effects of the fatty acid amide hydrolase inhibitor URB597 on pain-stimulated and pain-depressed behavior in rats.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3963812/

Increasing Endocannabinoid Levels in the Ventral Pallidum Restore Aberrant Dopamine Neuron Activity in the Subchronic PCP Rodent Model of Schizophrenia.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4332795/

Elevation of Endogenous Anandamide Impairs LTP, Learning and Memory through CB1 Receptor Signaling in Mice.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4077345/

Endogenous cannabinoid release within prefrontal-limbic pathways affects memory consolidation of emotional training.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4280626/

PET Imaging of Fatty Acid Amide Hydrolase with [18F]DOPP in Non-Human Primates.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4224570/

Increased angiotensin II contraction of the uterine artery at early gestation in a transgenic model of hypertensive pregnancy is reduced by inhibition of endocannabinoid hydrolysis.  (full – 2014)  
http://hyper.ahajournals.org/content/64/3/619.long

Endocannabinoid modulation by FAAH and MAGL within the analgesic circuitry of the periaqueductal grey.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4294036/

Activation of PPAR gamma receptors reduces levodopa-induced dyskinesias in 6-OHDA-lesioned rats.  (full – 2014)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4323744/

Inhibition of anandamide hydrolysis attenuates nociceptor sensitization in a murine model of chemotherapy-induced peripheral neuropathy. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4346731/

Prior stimulation of the endocannabinoid system prevents methamphetamine-induced dopaminergic neurotoxicity in the striatum through activation of CB2 receptors. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4939842/


Programming and reprogramming neural cells by (endo-) cannabinoids: from physiological rules to emerging therapies (full – 2014) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4765324/


The FAAH inhibitor PF-04457845 has THC-like rewarding and reinstatement effects in squirrel monkeys and increases dopamine levels in the nucleus accumbens shell in rats (abst – 2014) http://www.fasebj.org/content/28/1_Supplement/838.6.abstract?sid=db987fd0-3ef0-4796-aff6-4103f0c84daf


Cannabidiol Rescues Acute Hepatic Toxicity and Seizure Induced by Cocaine
Increased contextual fear conditioning in iNOS knockout mice: additional evidence for the involvement of nitric oxide in stress-related disorders and contribution of the endocannabinoid system.  (full – 2015)
http://ijnp.oxfordjournals.org/content/18/8/pyv005.long

Inhibition of FAAH confers increased stem cell migration via PPARα. (full - 2015)
http://www.jlr.org/content/early/2015/08/11/jlr.M061473.long

Pharmacological activation of CB2 receptors counteracts the deleterious effect of ethanol on cell proliferation in the main neurogenic zones of the adult rat brain. (full – 2015)

Enhancement of endocannabinoid signalling protects against cocaine-induced neurotoxicity. (full – 2015)

Training-Associated Emotional Arousal Shapes Endocannabinoid Modulation of Spatial Memory Retrieval in Rats. (full – 2015)
http://www.jneurosci.org/content/35/41/13962.long

Simultaneous inhibition of fatty acid amide hydrolase (FAAH) and monoacylglycerol lipase (MAGL) shares discriminative stimulus effects with ∆9-THC in mice. (full – 2015) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4407717/

Effects of Fatty Acid Amide Hydrolase (FAAH) Inhibitors in Non-Human Primate Models of Nicotine Reward and Relapse. (full – 2015)
http://www.nature.com/npp/journal/v40/n9/full/npp201562a.html


http://www.tandfonline.com/doi/full/10.1517/13543776.2015.1067683

Inhibition of anandamide hydrolysis enhances noradrenergic and GABAergic transmission in the prefrontal cortex and basolateral amygdala of rats subjected to acute swim stress. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/25581607


[16-OR]: Vasoactive lipid mediators control uterine vascular reactivity at early pregnancy in the transgenic hAGNxhREN rat. (abst – 2015)
http://www.pregnancyhypertension.org/article/S2210-7789%2814%2900121-4/abstract
For whom the endocannabinoid tolls: Modulation of innate immune function and implications for psychiatric disorders. (abst – 2015)

Cannabinoid receptor agonist WIN55,212-2 and fatty acid amide hydrolase inhibitor URB597 suppress chronic cerebral hypoperfusion-induced neuronal apoptosis by inhibiting c-Jun N-terminal kinase signaling. (abst – 2015)

A multi-target approach for pain treatment - dual inhibition of fatty acid amide hydrolase and TRPV1 in a rat model of osteoarthritis. (abst – 2015)

Effects of URB597 as an inhibitor of fatty acid amide hydrolase on WIN55, 212-2-induced learning and memory deficits in rats. (abst – 2015)

Inhibition of FAAH reduces nitroglycerin-induced migraine-like pain and trigeminal neuronal hyperactivity in mice. (abst – 2015)

Enhanced function of inhibitory presynaptic cannabinoid CB1 receptors on sympathetic nerves of DOCA-salt hypertensive rats. (abst – 2015)


Inhibition of fatty-acid amide hydrolyse (FAAH) exerts cognitive improvements in male but not female rats. (abst – 2015)

Fatty acid amide hydrolase inhibitor URB597 prevented tolerance and cognitive deficits induced by chronic morphine administration in rats. (abst – 2015)

Interference with acute nausea and anticipatory nausea in rats by fatty acid amide hydrolase (FAAH) inhibition through a PPARα and CB1 receptor mechanism, respectively: a double dissociation. (abst – 2015)

Anandamide mediates cognitive judgement bias in rats. (abst – 2015)

Inhibition of anandamide hydrolysis dampens the neuroendocrine response to stress in neonatal rats subjected to suboptimal rearing conditions. (abst – 2015)


Comparisons of Δ9-tetrahydrocannabinol and Anandamide on a Battery of Cognition-related Behavior in Nonhuman Primates. (full – 2016) http://jpet.aspetjournals.org/content/early/2016/01/29/jpet.115.228189.long

Study the Effect of Endocannabinoid System on Rat Behavior in Elevated Plus-Maze. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4656987/


Discriminative Stimulus Properties of the Endocannabinoid Catabolic Enzyme Inhibitor SA-57 in Mice. (full – 2016) http://jpet.aspetjournals.org/content/early/2016/06/15/jpet.115.229492.long


Effects of various cannabinoid ligands on choice behaviour in a rat model of gambling. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4803149/

Effect of interaction between acute administration of morphine and cannabinoid compounds on spontaneous excitatory and inhibitory postsynaptic currents of magnocellular neurons of supraoptic nucleus. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4951608/

Targeting anandamide metabolism rescues core and associated autistic-like symptoms in rats prenatally exposed to valproic acid. (full – 2016)  
http://www.nature.com/tp/journal/v6/n9/full/tp2016182a.html

The endocannabinoid anandamide causes endothelium-dependent vasorelaxation in human mesenteric arteries. (full – 2016)  

Endocannabinoid System: the Direct and Indirect Involvement in the Memory and Learning Processes—a Short Review (full – 2016)  

Effects of fatty acid amide hydrolase (FAAH) inhibitors on working memory in rats. (abst – 2016)  

The Endogenous Cannabinoid Anandamide Increases Human Airway Epithelial Cell Permeability through an Arachidonic Acid Metabolite (abst – 2016)  

Self-administration of the anandamide transport inhibitor AM404 by squirrel monkeys (abst – 2016)  

The effects anandamide signaling in the prelimbic cortex and basolateral amygdala on coping with environmental stimuli in rats (abst – 2016)  

Attenuation of cue-induced reinstatement of nicotine seeking by URB597 through cannabinoid CB1 receptor in rats. (abst – 2016)  

Involvement of M1 and CB1 receptors in the anxiogenic-like effects induced by neostigmine injected into the rat prelimbic medial prefrontal cortex. (abst – 2016)  

Sex differences in hippocampal response to endocannabinoids after exposure to severe stress. (abst – 2016)  

Encapsulation of cannabinoid drugs in nanostructured lipid carriers. (abst – 2016)  

Protective role of cannabinoid CB1 receptors and vascular effects of chronic administration of FAAH inhibitor URB597 in DOCA-salt hypertensive rats. (abst – 2016)  

Distinct neuronal activation patterns are associated with PCP-induced social withdrawal and its reversal by the endocannabinoid-enhancing drug URB597. (abst – 2016)  
Crosstalk between liver antioxidant and the endocannabinoid systems after chronic administration of the FAAH inhibitor, URB597, to hypertensive rats. (abst – 2016)  

Fatty acid amide hydrolase inhibition for the symptomatic relief of Parkinson's disease. (abst – 2016)  

Cannabinoid receptor agonist WIN55,212-2 and fatty acid amide hydrolase inhibitor URB597 may protect against cognitive impairment in rats of chronic cerebral hypoperfusion via PI3K/AKT signaling. (abst – 2016)  

Involvement of endocannabinoid neurotransmission in the bed nucleus of stria terminalis in cardiovascular responses to acute restraint stress in rats. (abst – 2016)  

Emotional arousal state influences the ability of amygdalar endocannabinoid signaling to modulate anxiety. (abst – 2016)  

Endocannabinoids inhibit neurogenic inflammation in murine joints by a non-canonical cannabinoid receptor mechanism. (abst – 2016)  
http://www.neuropeptidesjournal.com/article/S0143-4179(16)30047-6/abstract

Parabens inhibit fatty acid amide hydrolase: A potential role in paraben-enhanced 3T3-L1 adipocyte differentiation. (abst – 2016)  

Chronic stress leads to epigenetic dysregulation of neuropeptide-Y and cannabinoid CB1 receptor in the mouse cingulate cortex. (abst – 2016)  

Effects of alprazolam and cannabinoid-related compounds in an animal model of panic attack. (abst – 2016)  

Revealing the role of the endocannabinoid system modulators, SR141716A, URB597 and VDM-11, in sleep homeostasis. (abst – 2016)  

URB597 improves cognitive impairment induced by chronic cerebral hypoperfusion by inhibiting mTOR-dependent autophagy. (abst – 2016)  

URB597 and the Cannabinoid WIN55,212-2 Reduce Behavioral and Neurochemical Deficits Induced by MPTP in Mice: Possible Role of Redox Modulation and NMDA Receptors. (abst – 2017)  

**URB-602** - stops the breakdown of anandamide and 2-AG


Inhibition of COX-2 expression by endocannabinoid 2-arachidonoylglycerol is mediated via PPAR-γ (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165961/


Endocannabinoids decrease neuropathic pain-related behavior in mice through the activation of one or both peripheral CB1 and CB2 receptors. (abst – 2013) http://www.sciencedirect.com/science/article/pii/S0028390813004802

Increasing levels of the endocannabinoid 2-AG is neuroprotective in the 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine mouse model of Parkinson's disease. (full – 2015) http://www.sciencedirect.com/science/article/pii/S0014488615300583

Role of the endocannabinoid 2-arachidonoylglycerol in aversive responses mediated by the dorsolateral periaqueductal grey. (link to PDF – 2015) http://www.europeanneuropsychopharmacology.com/article/S0924-977X(15)00364-8/abstract

**URB-694** - slows cannabinoid destruction


Cardioprotective effects of fatty acid amide hydrolase inhibitor URB694, in a rodent model of trait anxiety. (full – 2015) http://www.nature.com/articles/srep18218


**URB-754** - slows cannabinoid destruction

The CB1 Cannabinoid Receptor Mediates Excitotoxicity-induced Neural Progenitor Proliferation and Neurogenesis  (full - 2007)
http://www.jbc.org/content/282/33/23892.full


**URB-937** - slows cannabinoid destruction

Anandamide suppresses pain initiation through a peripheral endocannabinoid mechanism (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3260554/

The ABC membrane transporter ABCG2 prevents access of FAAH inhibitor URB937 to the central nervous system. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3729352/

Pharmacological characterization of the peripheral FAAH inhibitor URB937 in female rodents: interaction with the Abcg2 transporter in the blood-placenta barrier (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3525865/

Alterations in endocannabinoid tone following chemotherapy-induced peripheral neuropathy: effects of endocannabinoid deactivation inhibitors targeting fatty-acid amide hydrolase and monoacylglycerol lipase in comparison to reference analgesics following cisplatin treatment. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3525790/


**V158866** – an inhibitor of FAAH


**VCE-003.2** – a cannabigerol derivative

VCE-003.2, a novel cannabigerol derivative, enhances neuronal progenitor cell survival and alleviates symptomatology in murine models of Huntington's disease. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4949444/

**VCE-004.8** – a semi-synthetic chemically stable derivative of CBD quinol

The cannabinoid quinol VCE-004.8 alleviates bleomycin-induced scleroderma and exerts potent antifibrotic effects through peroxisome proliferator-activated receptor-γ and CB2 pathways. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4757881/

**VD-60** - peripheral cannabinoid receptor 1 antagonist

The peripheral cannabinoid receptor 1 antagonist VD60 efficiently inhibits carbon tetrachloride-intoxicated hepatic fibrosis progression. (full – 2014) http://journals.sagepub.com/doi/full/10.1177/1535370213514922
WIN-55,212-2 - CB1 & CB2 agonist, stronger than THC


Cross-tolerance between delta-9-tetrahydrocannabinol and the cannabimimetic agents, CP 55,940, WIN 55,212-2 and anandamide. (full - 1993) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2175863/?tool=pmcentrez&page=1


Cannabinoid Receptor Agonists Protect Cultured Rat Hippocampal Neurons from Excitotoxicity (full - 1998) http://molpharm.aspetjournals.org/content/54/3/459.full


Cannabinoids and Neuroprotection in Global and Focal Cerebral Ischemia and in Neuronal Cultures (full - 1999) http://www.jneurosci.org/cgi/content/full/19/8/2987?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&andorexactfulltext=and&searchid=1&FIRSTINDEX=0&sortspec=relevance&resourcetype=HWCIT


Cannabinoid CB1 receptor-mediated inhibition of prolactin release and signaling mechanisms in GH4C1 cells. (full – 2000) http://press.endocrine.org/doi/full/10.1210/endo.141.5.7454

Involvement of Cannabinoid Receptors in the Intraocular Pressure-Lowering Effects of WIN55212-2 (full - 2000) http://jpet.aspetjournals.org/content/292/1/136.long

Cannabinoids might reduce spasticity in multiple sclerosis (full - 2000)
Effects of cannabinoid receptor agonists on neuronally-evoked contractions of urinary bladder tissues isolated from rat, mouse, pig, dog, monkey and human (full - 2000)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1571997/

Central and peripheral cannabinoid modulation of gastrointestinal transit in physiological states or during the diarrhoea induced by croton oil (full - 2000)

Modulation of peristalsis by cannabinoid CB1 ligands in the isolated guinea-pig ileum (full - 2000) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1571902/

Anti-tumoral action of cannabinoids: involvement of sustained ceramide accumulation and extracellular signal-regulated kinase activation. (full - 2000)

Behaviroal, pharmacological, and molecular characterization of an amphibian cannabinoid receptor. (full – 2000)

Cannabinoids decrease the K+ M-current in hippocampal CA1 neurons (link to PDF - 2000)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.326.2509&rank=84

Delta(9)-tetrahydrocannabinol and synthetic cannabinoids prevent emesis produced by the cannabinoid CB(1) receptor antagonist/inverse agonist SR 141716A. (full – 2001)
http://www.nature.com/npp/journal/v24/n2/full/1395605a.html

The synthetic cannabinoid WIN55,212-2 attenuates hyperalgesia and allodynia in a rat model of neuropathic pain (full - 2001)

The cannabinoid CB1 receptor antagonist SR 141716A reverses the antiemetic and motor depressant actions of WIN 55, 212-2 (full – 2001)
http://www.nature.com/npp/journal/v24/n2/full/1395605a.html


GABAERGIC INTERNEURONS ARE THE TARGETS OF CANNABINOID ACTIONS IN THE HUMAN HIPPOCAMPUS (link to PDF - 2000)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.578.3590&rank=49

The synthetic cannabinoid WIN55212-2 decreases the intraocular pressure in human glaucoma resistant to conventional therapies. (abst – 2001)

Increased Severity of Stroke in CB1 Cannabinoid Receptor Knock-Out Mice
Contrasting effects of WIN 55212-2 on motility of the rat bladder and uterus. (full – 2002) http://www.jneurosci.org/content/22/16/7147.long

CB1 Receptors in the Preoptic Anterior Hypothalamus Regulate WIN 55212-2 [(4,5-Dihydro-2-methyl-4(4-morpholinylmethyl)-1-(1-naphthalenyl-carbonyl)-6H-pyrrolo[3,2,1ij]quinolin-6-one]-Induced Hypothermia (full - 2002) http://jpet.aspetjournals.org/content/301/3/963.full

A Peripheral Mechanism for CB1 Cannabinoid Receptor-Dependent Modulation of Feeding (full - 2002) http://www.jneurosci.org/content/22/21/9612.full

Influence of the CB1 receptor antagonist, AM 251, on the regional haemodynamic effects of WIN-55212-2 or HU 210 in conscious rats (full - 2002) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1573379/?tool=pmcentrez

The potent emetogenic effects of the endocannabinoid, 2-AG (2-arachidonoylglycerol) are blocked by delta(9)-tetrahydrocannabinol and other cannabinoids. (full – 2002) http://jpet.aspetjournals.org/content/300/1/34.long

Evidence for functional CB1 cannabinoid receptor expressed in the rat thyroid (full – 2002) http://www.eje-online.org/content/147/2/255.full.pdf+html


The Endogenous Cannabinoid System Regulates Seizure Frequency and Duration in a Model of Temporal Lobe Epilepsy (full - 2003) http://jpet.aspetjournals.org/content/307/1/129.full


Cannabinoid receptor type 1 modulates excitatory and inhibitory neurotransmission in mouse colon (full – 2003) http://ajpgi.physiology.org/content/286/1/G110.full?
Effect of WIN 55212-2, a Cannabinoid Receptor Agonist, on Aqueous Humor Dynamics in Monkeys (link to PDF - 2003)

http://archopht.ama-assn.org/cgi/content/full/121/1/87?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=marihuana&searchid=1&FIRSTINDEX=640&resourcetype=HWCIT

Inhibition of tumor angiogenesis by cannabinoids (abst - 2003)


Cannabinoid modulation of sensitivity to time. (abst – 2003)

Cannabinoids: Defending the Epileptic Brain (full - 2004)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1176332/?tool=pmcentrez


Effects of cannabinoids on colonic muscle contractility and tension in guinea pigs. (full – 2005) https://www.jstage.jst.go.jp/article/jnms/72/1/72_1_43/_pdf

The cannabinoid receptor agonist WIN 55212-2 inhibits neurogenic inflammations in airway tissues.  
https://www.jstage.jst.go.jp/article/jphs/98/1/98_1_77/_pdf

Cannabinoid receptor ligands mediate growth inhibition and cell death in mantle cell lymphoma  

Systemic administration of WIN 55,212-2 increases norepinephrine release in the rat frontal cortex  

Cannabinoids down-regulate PI3K/Akt and Erk signalling pathways and activate proapoptotic function of Bad protein.  

Cannabinoid Receptor-Mediated Apoptosis Induced by R(+)-Methanandamide and Win55,212-2 Is Associated with Ceramide Accumulation and p38 Activation in Mantle Cell Lymphoma  
http://molpharm.aspetjournals.org/content/70/5/1612.full

Activation of G-proteins in brain by endogenous and exogenous cannabinoids.  

Effects of a Cannabinoid Agonist on Spinal Nociceptive Neurons in a Rodent Model of Neuropathic Pain  
http://jn.physiology.org/cgi/content/full/96/6/2984

The Endocannabinoid System Controls Key Epileptogenic Circuits in the Hippocampus  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1769341/?tool=pmcentrez

Antinociceptive effect of cannabinoid agonist WIN 55,212–2 in rats with a spinal cord injury  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1861843/?tool=pmcentrez

Activation of the Cannabinoid Type-1 Receptor Mediates the Anticonvulsant Properties of Cannabinoids in the Hippocampal Neuronal Culture Models of Acquired Epilepsy and Status Epilepticus  
http://jpet.aspetjournals.org/content/317/3/1072.full?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=320&resource-type=HWCIT#ref-list-1

Cannabinoid Receptor Agonist-induced Apoptosis of Human Prostate Cancer Cells LNCaP Proceeds through Sustained Activation of ERK1/2 Leading to G1 Cell Cycle Arrest  
http://www.jbc.org/content/281/51/39480.full

Sphingosine and its analog, the immunosuppressant 2-amino-2-(2-[4-octylphenyl]ethyl)-1,3-propanediol, interact with the CB1 cannabinoid receptor.  
http://molpharm.aspetjournals.org/content/70/1/41.long

http://www.nature.com/pr/journal/v60/n2/pdf/pr2006215a.pdf
Increasing cannabinoid levels by pharmacological and genetic manipulation delay disease progression in SOD1 mice (abst - 2006)  http://www.ncbi.nlm.nih.gov/pubmed/16571781


Cannabinoid receptors as a target for therapy of ovarian cancer (abst - 2006)  http://cancerres.aacrjournals.org/content/66/8_Supplement/1084.1


Continuous infusion of the cannabinoid WIN 55,212–2 to the site of a peripheral nerve injury reduces mechanical and cold hypersensitivity (full - 2007)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2013951/?tool=pmcentrez

The phytocannabinoid Δ9-tetrahydrocannabivarin modulates inhibitory neurotransmission in the cerebellum (full – 2007)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2438968/


Activation of cannabinoid CB1 and CB2 receptors suppresses neuropathic nociception evoked by the chemotherapeutic agent vincristine in rats. (full – 2007)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190028/?tool=pubmed

Cannabinoids elicit antidepressant-like behavior and activate serotonergic neurons through the medial prefrontal cortex. (full - 2007)  http://www.jneurosci.org/cgi/content/full/27/43/11700

Anti-inflammatory property of the cannabinoid agonist WIN-55212-2 in a rodent model of chronic brain inflammation (full - 2007)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1852513/?tool=pmcentrez

Antinociceptive Synergy Between the Cannabinoid Receptor Agonist WIN 55,212-2 and Bupivacaine in the Rat Formalin Test (full - 2007)  http://journals.lww.com/anesthesia-analgesia/Fulltext/2007/03000/Antinociceptive_Synergy_Between_the_Cannabinoid.50.aspx
Cardiovascular effects of cannabinoids in conscious spontaneously hypertensive rats (full - 2007)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190006/

Cross-sensitization and cross-tolerance between exogenous cannabinoid antinociception and endocannabinoid-mediated stress-induced analgesia  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2771679/?tool=pubmed

CANNABINOID-INDUCED HYPERPHAGIA: CORRELATION WITH INHIBITION OF PROOPIOMELANOCORTIN NEURONS?  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2720321/?tool=pmcentrez

Anti-dyskinetic effects of cannabinoids in a rat model of Parkinson's disease: role of CB1 and TRPV1 receptors  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2128772/?tool=pmcentrez

Cannabinoid self-administration in rats: sex differences and the influence of ovarian function  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190022/

Development of pharmacoresistance to benzodiazepines but not cannabinoids in the hippocampal neuronal culture model of status epilepticus  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2094113/?tool=pmcentrez

Control of spasticity in a multiple sclerosis model is mediated by CB1, not CB2, cannabinoid receptors.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2189718/?tool=pubmed

Anti-inflammatory property of the cannabinoid agonist WIN-55212-2 in a rodent model of chronic brain inflammation  

The Cannabinoid Agonist Win55212 Reduces Brain Damage in an In Vivo Model of Hypoxic-Ischemic Encephalopathy in Newborn Rats  
http://www.nature.com/pr/journal/v62/n3/full/pr2007213a.html

CB1 receptors mediate the analgesic effects of cannabinoids on colorectal distension-induced visceral pain in rodents.  
http://www.jneurosci.org/content/29/5/1554.long

Subchronic cannabinoid agonist (WIN 55,212-2) treatment during cocaine abstinence alters subsequent cocaine seeking behavior.  

Anandamide-Mediated CB1/CB2 Cannabinoid Receptor-Independent Nitric Oxide Production in Rabbit Aortic Endothelial Cells  
http://jpet.aspetjournals.org/content/321/3/930.long

Characterization of cannabinoid-binding sites in zebrafish brain.  
Cannabidiol, unlike synthetic cannabinoids, triggers activation of RBL-2H3 mast cells (link to PDF – 2007) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.506.3245&rank=52


Chronic cannabinoid administration in vivo compromises extinction of fear memory. (full - 2008) http://learnmem.cshlp.org/content/15/12/876.long

Endocannabinoids in the retina: from marijuana to neuroprotection. (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2584875/

Topical WIN55212-2 Alleviates Intraocular Hypertension in Rats Through a CB1 Receptor-Mediated Mechanism of Action (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2637200/?tool=pmcentrez


Attenuation of Experimental Autoimmune Hepatitis by Exogenous and Endogenous Cannabinoids: Involvement of Regulatory T Cells (full - 2008) http://molpharm.aspetjournals.org/content/74/1/20.full?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=320&res ourctype=HWCIT#content-block

Peripheral Cannabinoids Attenuate Carcinoma Induced Nociception in Mice (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2771220/
The cannabinoid receptor agonist, WIN 55, 212-2, attenuates tumor-evoked hyperalgesia through peripheral mechanisms. (full – 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2678169/

Role of activated endocannabinoid system in regulation of cellular cholesterol metabolism in macrophages (full – 2008)
http://cardiovascres.oxfordjournals.org/content/81/4/805.full?sid=7d2438c4-a727-410f-870d-4a971695b4fb

Acute hypertension reveals depressor and vasodilator effects of cannabinoids in conscious rats (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2697765/?tool=pmcentrez

The influence of mast cell mediators on migration of SW756 cervical carcinoma cells. (full – 2008)
https://www.jstage.jst.go.jp/article/jphs/106/2/106_FP0070736/_pdf

Cannabinoid 2 receptor induction by IL-12 and its potential as a therapeutic target for the treatment of anaplastic thyroid carcinoma. (full - 2008)
http://www.nature.com/cgt/journal/v15/n2/full/7701101a.html

An endocannabinoid signaling system modulates anxiety-like behavior in male Syrian hamsters. (full – 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2694060/

Cannabinoid receptor agonists inhibit growth and metastasis of breast cancer (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4128286/

Differential effects of repeated low dose treatment with the cannabinoid agonist WIN 55,212-2 in experimental models of bone cancer pain and neuropathic pain. (abst - 2008)

Cannabinoid rescue of striatal progenitor cells in chronic Borna disease viral encephalitis in rats. (abst – 2008)

New neuron production can be increased in the hippocampus of aged rats following cannabinoid treatment (abst – 2008)
http://www.nature.com/mp/journal/v14/n12/full/mp2009122a.html

WIN55,212-2, a Cannabinoid Receptor Agonist, Protects Against Nigrostriatal Cell Loss in the MPTP Mouse Model of Parkinson’s Disease (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2755595/?tool=pmcentrez

Sustained antinociceptive effect of cannabinoids in rat model of neuropathic spinal cord injury pain (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2743245/?tool=pmcentrez

Cannabinoid-1 (CB1) receptors regulate colonic propulsion by acting at motor neurons within the ascending motor pathways in mouse colon (full - 2009)
Cannabinoid Receptor Activation in the Basolateral Amygdala Blocks the Effects of Stress on the Conditioning and Extinction of Inhibitory Avoidance (full - 2009)

Effects of the cannabinoid CB1 receptor antagonist rimonabant on distinct measures of impulsive behavior in rats. (full – 2009)

Endocannabinoids in the rat basolateral amygdala enhance memory consolidation and enable glucocorticoid modulation of memory (full - 2009)

Role of endocannabinoid signaling in anxiety and depression. (full – 2009)

Synthetic cannabinoid receptor agonists inhibit tumor growth and metastasis of breast cancer (full - 2009)

Cannabinoids inhibit fibrogenesis in diffuse systemic sclerosis fibroblasts (full - 2009)

Prolonged exposure to WIN55,212-2 causes downregulation of the CB1 receptor and the development of tolerance to its anticonvulsant effects in the hippocampal neuronal culture model of acquired epilepsy. (full – 2009)

Cannabinoid agonist WIN-55,212-2 partially restores neurogenesis in the aged rat brain (full - 2009)

Cannabinoids attenuate the effects of aging upon neuroinflammation and neurogenesis. (abst – 2009)

The CB1/CB2 receptor agonist WIN-55,212-2 reduces viability of human Kaposi’s sarcoma cells in vitro (abst - 2009)

International Union of Basic and Clinical Pharmacology. LXXIX. Cannabinoid Receptors and Their Ligands: Beyond CB1 and CB2 (full – 2010)

Cannabinoid-mediated inhibition of recurrent excitatory circuitry in the dentate gyrus in a mouse model of temporal lobe epilepsy. (full – 2010)

A synthetic cannabinoid agonist promotes oligodendrogliogenesis during viral encephalitis in rats (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2981070/?tool=pubmed

Converging action of alcohol consumption and cannabinoid receptor activation on adult hippocampal neurogenesis. (full – 2010) http://ijnp.oxfordjournals.org/content/13/2/191.long

The synthetic cannabinoid WIN 55,212-2 sensitizes hepatocellular carcinoma cells to tumor necrosis factor-related apoptosis-inducing ligand (TRAIL)-induced apoptosis by activating p8/CCAAT/enhancer binding protein homologous protein (CHOP)/death receptor 5 (DR5) axis. (full – 2010) http://molpharm.aspetjournals.org/content/77/5/854.long

Antitumorigenic Effects of Cannabinoids beyond Apoptosis (full - 2010) http://jpet.aspetjournals.org/content/332/2/336.full?sid=af53ea87-ab4b-426e-9c7e-8f750e9c4a17

Sex difference in cell proliferation in developing rat amygdala mediated by endocannabinoids has implications for social behavior. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2996668/?tool=pubmed


Antiproliferative effects of cannabinoid agonists on deep infiltrating endometriosis. (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2993285/

The Endocannabinoid System Tonically Regulates Inhibitory Transmission and Depresses the Effect of Ethanol in Central Amygdala (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2904853/


The cannabinoid WIN55212-2 promotes neural repair after neonatal hypoxia-ischemia. (full - 2010) http://stroke.ahajournals.org/content/41/12/2956.long


Cannabinoid Receptors, CB1 and CB2, as Novel Targets for Inhibition of Non-Small Cell Lung Cancer Growth and Metastasis (full – 2010) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3025486/

The Role of Cannabinoid Receptors in the Descending Modulation of Pain (link to PDF - 2010) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.634.4866&rank=72


Pharmacologically induced hypothermia with cannabinoid receptor agonist WIN55, 212-2 after cardiopulmonary resuscitation (abst – 2010) http://journals.lww.com/ccmjournal/Abstract/2010/12000/Pharmacologically_induced_hypothermia_with.2.aspx


Cannabinoid Agonists Inhibit Neuropathic Pain Induced by Brachial Plexus Avulsion in Mice by Affecting Glial Cells and MAP Kinases. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3172222/?tool=pubmed

Regulatory effect of cannabinoid receptor agonist on chemokine-induced lymphocyte chemotaxis. (full – 2011) https://www.jstage.jst.go.jp/article/bpb/34/7/34_7_1090/_pdf


Cannabidiol and other cannabinoids reduce microglial activation in vitro and in vivo: relevance to Alzheimers' disease (full – 2011) http://molpharm.aspetjournals.org/content/early/2011/02/24/mol.111.071290.long

A Pilot Study into the Effects of the CB1 Cannabinoid Receptor Agonist WIN55,212-2 or the Antagonist/Inverse Agonist AM251 on Sleep in Rats (full – 2011) http://www.hindawi.com/journals/sd/2011/178469/


Cannabinoid exposure during zebra finch sensorimotor vocal learning persistently alters expression of endocannabinoid signaling elements and acute agonist responsiveness (full – 2011) http://www.biomedcentral.com/1471-2202/12/3

Cannabinoids attenuate cancer pain and proliferation in a mouse model. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3099480/

Identification of the synthetic cannabinoid R(+)WIN55,212-2 as a novel regulator of IFN regulatory factor 3 (IRF3) activation and IFN-{beta} expression: relevance to therapeutic
effects in models of multiple sclerosis. (full – 2011) [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3060486/]

Cannabinoid receptor agonist protects cultured dopaminergic neurons from the death by the proteasomal dysfunction. (full – 2011) [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3145842/?tool=pubmed]

Induction of apoptosis by cannabinoids in prostate and colon cancer cells is phosphatase dependent. (full – 2011) [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3280884/]

Cannabidiol inhibits the hyperphagia induced by cannabinoid-1 or serotonin-1A receptor agonists. (full – 2011) [http://www.sciencedirect.com/science/article/pii/S0091305711000128]


Protective effects of CB1 receptor agonist WIN 55.212-2 in seizure activity in the model of temporal lobe epilepsy (abst – 2011) [http://www.unboundmedicine.com/medline/ebm/record/21469332/abstract/
%5BProtective_effects_of_CB1_receptor_agonist_WIN_55_212_2_in_seizure_activity_in_the_model_of_temporal_lobe_epilepsy%5D_.]


Cannabinoid applications in glaucoma. (abst – 2011) [http://www.unboundmedicine.com/medline/ebm/record/21414525/abstract/Cannabinoid_applications_in_glaucoma_.]


Synthetic cannabinoid WIN 55,212-2 mesylate enhances the protective action of four classical antiepileptic drugs against maximal electroshock-induced seizures in mice. (abst – 2011) [http://www.unboundmedicine.com/medline/ebm/record/21238473/abstract/Synthetic_cannabinoid_WIN_55_212_2_mesylate_enhances_the_protective_action_of_four_classical_antiepileptic_drugs_against_maximal_electroshock_induced_seizures_in_mice_.]


Δ(9)-THC and WIN55,212-2 affect brain tissue levels of excitatory amino acids in a phenotype-, compound-, dose-, and region-specific manner (abst – 2011) http://www.unboundmedicine.com/medline/ebm/record/21645556/abstract/%CE%94_9__THC_and_WIN55212_2_affect_brain_tissue_levels_of_excitatory_amino_acids_in_a_phenotype__compound__dose__and_region_specific_manner


Tak1 Interactions With TRPV1 and CB1 Control IL-6 and IL-8 Release in Human Corneal Epithelial Cells (abst – 2011) http://iovs.arvojournals.org/article.aspx?articleid=2349956&resultClick=1

CB1 Activation Reduces TRPV1-induced Responses in Human Corneal Epithelial Cells (abst – 2011) http://iovs.arvojournals.org/article.aspx?articleid=2353114&resultClick=1

Dynamic changes to the endocannabinoid system in models of chronic pain (full – 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3300.full?sid=1569c370-cf5c-4358-89ff-857201f5e069

Reduced alcohol intake and reward associated with impaired endocannabinoid signaling in mice with a deletion of the glutamate transporter GLAST. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3372600/

The fatty acid amide hydrolase inhibitor URB597 exerts anti-inflammatory effects in hippocampus of aged rats and restores an age-related deficit in long-term potentiation (full – 2012) http://www.jneuroinflammation.com/content/9/1/79


Prolonged oral Cannabinoid Administration prevents Neuroinflammation, lowers beta-amyloid Levels and improves Cognitive Performance in Tg APP 2576 Mice. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3292807/


Cannabinoids Facilitate the Swallowing Reflex Elicited by the Superior Laryngeal Nerve Stimulation in Rats (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3507745/

The synthetic cannabinoid R(+)-WIN55,212-2 augments interferon-β expression via peroxisome proliferator-activated receptor-α (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3408184/

Angiotensin II induces vascular endocannabinoid release, which attenuates its vasoconstrictor effect via CB1 cannabinoid receptors. (full – 2012) http://www.jbc.org/content/early/2012/07/11/jbc.M112.346296.full.pdf+html

The periaqueductal gray contributes to bidirectional enhancement of antinociception between morphine and cannabinoids. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3959123/

WIN55, 212-2 promotes differentiation of oligodendrocyte precursor cells and improve remyelination through regulation of the phosphorylation level of the ERK 1/2 via cannabinoid receptor 1 after stroke-induced demyelination. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4086494/

Cannabinoid receptor activation correlates with the pro-apoptotic action of the β2-adrenergic agonist, (R,R')-4-methoxy-1-naphthylfenoterol, in HepG2 hepatocarcinoma cells. (full – 2012) http://jpet.aspetjournals.org/content/early/2012/07/09/jpet.112.195206.long

Cannabinoid receptor 1 suppresses transient receptor potential vanilloid 1-induced inflammatory responses to corneal injury. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3607947/


Epileptiform activity in the CA1 region of the hippocampus becomes refractory to attenuation by cannabinoids in part because of endogenous γ-aminobutyric acid type B receptor activity. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3350599/

Cellular and intracellular mechanisms involved in the cognitive impairment of cannabinoids (full - 2012) http://rstb.royalsocietypublishing.org/content/367/1607/3254.full?sid=1569c370-cd5c-4358-89ff-857201f5e069
Identification and quantification of a new family of peptide endocannabinoids (Pepcans) showing negative allosteric modulation at CB1 receptors. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3481297/

Cannabinoids inhibit peptidoglycan-induced phosphorylation of NF-κB and cell growth in U87MG human malignant glioma cells. (full – 2012)
http://www.spandidos-publications.com/or/28/4/1176;jsessionid=52ED17697BFDC92E6F5F848306023474?text=fulltext

Review article: The endocannabinoid system in normal and pathological brain ageing (full – 2012)
http://rstb.royalsocietypublishing.org/content/367/1607/3326.full?sid=161e7b36-5055-448b-962e-697c782e901d

The cannabinoid agonist WIN55212-2 decreases l-DOPA-induced PKA activation and dyskinetic behavior in 6-OHDA-treated rats. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3273613/

Endocannabinoid modulation of jejunal afferent responses to LPS (full – 2012)

Acetaminophen differentially enhances social behavior and cortical cannabinoid levels in inbred mice. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3389197/

The molecular connections between the cannabinoid system and endometriosis (full – 2012)
http://molehr.oxfordjournals.org/content/18/12/563.full

Tolerance to cannabinoid-induced behaviors in mice treated chronically with ethanol. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3249519/

Neural Circuit in the Dorsal Raphe Nucleus Responsible for Cannabinoid-Mediated Increases in 5-HT Efflux in the Nucleus Accumbens of the Rat Brain (full – 2012)
http://www.hindawi.com/isrn/pharmacology/2012/276902/

Cannabinoids prevent the development of behavioral and endocrine alterations in a rat model of intense stress. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3242307/

Involvement of the Endocannabinoid System in Ethanol-Induced Corticostriatal Synaptic Depression. (full – 2012)
https://www.jstage.jst.go.jp/article/jphs/120/1/120_12118FP/_pdf

Reduced infarct size and accumulation of microglia in rats treated with WIN 55,212-2 after neonatal stroke. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3446851/

Effect of ion pairing on in vitro transcorneal permeability of a Δ(9) -tetrahydrocannabinol prodrug: potential in glaucoma therapy. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4194211/
WIN55,212-2 protects oligodendrocyte precursor cells in stroke penumbra following permanent focal cerebral ischemia in rats. (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4086494/


Contrasting effects of different cannabinoid receptor ligands on mouse ingestive behavior (abst – 2012) http://www.unboundmedicine.com/medline/ebm/record/22772336/abstract/Contrasting_effects_of_different_cannabinoid_receptor_ligands_on_mouse_ingestive_behaviour

Inverse relationship of cannabimimetic (R+)WIN 55, 212 on behavior and seizure threshold during the juvenile period. (abst – 2012) http://www.sciencedirect.com/science/article/pii/S0091305711003273


WIN55212-2 attenuates amyloid-beta-induced neuroinflammation in rats through activation of cannabinoid receptors and PPAR-γ pathway. (abst – 2012)  

Analgesic effects of cannabinoids on central pain syndrome (abst – 2012)  

Characterization of cannabinoid-induced relief of neuropathic pain in rat models of type 1 and type 2 diabetes. (abst – 2012)  

Nutritional n-3 polyunsaturated fatty acids deficiency alters cannabinoid receptor signaling pathway in the brain and associated anxiety-like behavior in mice. (abst – 2012)  
http://www.springerlink.com/content/ur5784gm34782505/

Cannabinoid type 1 receptor ligands WIN 55,212-2 and AM 251 alter anxiety-like behaviors of marmoset monkeys in an open-field test. (abst – 2012)  

A CB₁/CB₂ receptor agonist, WIN 55,212-2, exerts its therapeutic effect in a viral autoimmune model of multiple sclerosis by restoring self-tolerance to myelin. (abst – 2012)  

Novel Insights Into CB1 Cannabinoid Receptor Signaling: A Key Interaction Identified Between EC3-Loop and TMH2. (full – 2013)  
http://jpet.aspetjournals.org/content/early/2013/02/21/jpet.112.201046.long

Effect of Cannabinoid Receptor Activation on Spreading Depression. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3586901/

Striatal CB1 and D2 receptors regulate expression of each other, crip1a and delta opioid systems. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3697910/

Functional activity of the cannabinoid 1 receptor is not affected by opioid antagonists in the rat brain. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3611077/

Antibodies to cannabinoid type 1 receptor co-react with stomatin-like protein 2 in mouse brain mitochondria. (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3902808/

A biophysical model of endocannabinoid-mediated short term depression in hippocampal inhibition. (full – 2013)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0058926
Inhibition of p38/Mk2 signaling pathway improves the anti-inflammatory effect of WIN55 on mouse experimental colitis. (full – 2013) http://www.nature.com/labinvest/journal/v93/n3/full/labinvest2012177a.html

Interactions between mu opioid receptor agonists and cannabinoid receptor agonists in rhesus monkeys: antinociception, drug discrimination, and drug self-administration. (full – 2013) http://jpet.aspetjournals.org/content/early/2013/03/27/jpet.113.204099.long

The Cannabinoid WIN 55,212-2 Decreases Specificity Protein (Sp) Transcription Factors and the Oncogenic Cap Protein eIF4E in Colon Cancer Cells. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4288937/


Effects of glucagon-like peptide-1 receptor stimulation and blockade on food consumption and body weight in rats treated with a cannabinoid CB1 receptor agonist WIN 55,212-2. (full - 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3638658/

CB2 Receptor Agonists Protect Human Dopaminergic Neurons against Damage from HIV-1 gp120. (full – 2013) http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0077577

Combined antiproliferative effects of the aminoalkylindole WIN55,212-2 and radiation in breast cancer cells. (full – 2013) http://jpet.aspetjournals.org/content/early/2013/11/20/jpet.113.205120.long

Diuretic effects of cannabinoids. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3533417/

A role for O-1602 and G protein-coupled receptor GPR55 in the control of colonic motility in mice. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3677091/

Cannabinoids ameliorate impairments induced by chronic stress to synaptic plasticity and short-term memory. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3682147/

Novelty-Induced Emotional Arousal Modulates Cannabinoid Effects on Recognition Memory and Adrenocortical Activity (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3656371/

Using the endocannabinoid system as a neuroprotective strategy in perinatal hypoxic-ischemic brain injury. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4146074/

Reducing cannabinoid abuse and preventing relapse by enhancing endogenous brain levels of kynurenic acid. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3835353/
Rapid Glucocorticoid-Induced Activation of TRP and CB1 Receptors Causes Biphasic Modulation of Glutamate Release in Gastric-Related Hypothalamic Preautonomic Neurons. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3560102/

Characterization of cannabinoid receptor ligands in tissues natively expressing cannabinoid CB2 receptors. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3687668/

Cannabinoid receptor activation in the nucleus tractus solitaries produces baroreflex-like responses in the rat. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3614708/

Cannabinoid Receptor Activation Prevents the Effects of Chronic Mild Stress on Emotional Learning and LTP in a Rat Model of Depression. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3924526/


Similar anxiolytic effects of agonists targeting serotonin 5-HT1A or cannabinoid CB receptors on zebrafish behavior in novel environments. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3989442/


Differential effects of the cannabinoid agonist WIN55,212-2 on delay and trace eyeblink conditioning (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3963426/

Cannabidiol attenuates catalepsy induced by distinct pharmacological mechanisms via 5-HT1A receptors activation in mice. (full – 2013) http://www.sciencedirect.com/science/article/pii/S0278584613001164

Moving around the molecule: Relationship between chemical structure and in vivo activity of synthetic cannabinoids. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3944940/

Spice/K2 drugs - more than innocent substitutes for marijuana. (full – 2013) http://ijnp.oxfordjournals.org/content/17/3/509

Cannabinoid Receptor Agonist as an Alternative Drug in 5-Fluorouracil-resistant Gastric Cancer Cells. (full – 2013) http://ar.iiarjournals.org/content/33/6/2541.long

Diuretic effects of cannabinoid agonists in mice. (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3872476/
Transdermal delivery of cannabidiol  Patent 8435556  (full – 2013)
https://www.google.com/patents/US8435556

Critical appraisal of the potential use of cannabinoids in cancer management.
(link to PDF – 2013)

Suppression of vascular endothelial growth factor expression by cannabinoids in a canine osteosarcoma cell line  (link to PDF – 2013)

Interactions between mu opioid receptor agonists and cannabinoid receptor agonists CP55940 and WIN55212-2 in rhesus monkeys: evaluation of treatment- and abuse-related effects  (abst – 2013)
http://www.fasebj.org/content/27/1_Supplement/1097.3.abstract?sid=b188b212-67f6-4544-827b-5e857c313f2e

Chronic cannabinoid exposure reduces phencyclidine-induced schizophrenia-like positive symptoms in adult rats  (abst – 2013)
http://link.springer.com/article/10.1007/s00213-012-2839-1

Cannabinoids and traumatic stress modulation of contextual fear extinction and GR expression in the amygdala-hippocampal-prefrontal circuit.  (abst – 2013)


Neuroprotective effects of topical CB1 agonist WIN 55212-2 on Retinal ganglion cells after acute rise in intraocular pressure induced ischemia in rat.  (abst – 2013)

Antinociceptive effects of the selective CB2 agonist MT178 in inflammatory and chronic rodent pain models.  (abst – 2013)

Role of intra-accumbal cannabinoid CB1 receptors in the potentiation, acquisition and expression of morphine-induced conditioned place preference.  (abst – 2013)

Effects of anandamide and other CB1 ligands on cognitive function  (abst – 2013)
http://www.fasebj.org/content/27/1_Supplement/1097.10.abstract?sid=9823a79f-d5d0-46e6-b4b6-85d1443e01da

Effects of compounds that interfere with the endocannabinoid system on behaviors predictive of anxiolytic and panicolytic activity in the elevated T-maze  (abst – 2013)
Dysregulation of Cannabinoid CB1 Receptor and Associated Signaling Networks in Brains of Cocaine Addicts and Cocaine-Treated Rodents. (abst – 2013)  

Regulation of cell proliferation by GPR55/cannabinoid receptors using (R,R')-4'-methoxy-1-naphthylfenoterol in rat C6 glioma cell line (abst – 2013)  
http://www.abstractsonline.com/Plan/ViewAbstract.aspx?sKey=695437a2-7613-4bef-8697-2294d2da859&cKey=18ba6eb0-2c5f-4004-a56f-2d1f450e2ed1&mKey=9b2d28e7-24a0-466f-a3c9-07c21f6e9be9

CB1 agonists, locally applied to the cortico-thalamic circuit of rats with genetic absence epilepsy, reduce epileptic manifestations. (abst – 2013)  

Activation of spinal cannabinoid cb2 receptors inhibits neuropathic pain in streptozotocin-induced diabetic mice. (abst – 2013)  

Exogenous Delta9-Tetrahydrocannabinol Influences Circulating Endogenous Cannabinoids in Humans. (abst – 2013)  

Continuous central infusion of cannabinoid receptor agonist WIN 55,212-2 decreases maternal care in lactating rats: Consequences for fear conditioning in adulthood males. (abst – 2013)  

PPARγ mediates the effects of WIN55,212-2, an synthetic cannabinoid, on the proliferation and apoptosis of the BEL-7402 hepatocarcinoma cells. (abst – 2013)  

Calcium regulation by temperature-sensitive transient receptor potential channels in human uveal melanoma cells (abst – 2013)  

Peripheral and Spinal Activation of Cannabinoid Receptors by Joint Mobilization Alleviates Postoperative Pain in Mice. (abst – 2013)  

Endocannabinoids decrease neuropathic pain-related behavior in mice through the activation of one or both peripheral CB1 and CB2 receptors. (abst – 2013)  

Palmitoylethanolamide is a new possible pharmacological treatment for the inflammation associated with trauma. (abst – 2013)  

Effects of WIN 55,212-2 mesylate on the anticonvulsant action of lamotrigine, oxcarbazepine, pregabalin and topiramate against maximal electroshock-induced seizures in mice. (abst – 2013)  
Antineoplastic Effect of WIN 55,212-2, a Cannabinoid Agonist, in a Murine Xenograft Model of Gastric Cancer  

Do cannabinoids exhibit a tyramine-like effect?  

Improved Cardiac and Neurologic Outcomes With Postresuscitation Infusion of Cannabinoid Receptor Agonist WIN55, 212-2 Depend on Hypothermia in a Rat Model of Cardiac Arrest.  

Concurrent pharmacological modification of cannabinoid-1 and glucagon-like peptide-1 receptor activity affects feeding behavior and body weight in rats fed a free-choice, high-carbohydrate diet.  

Actions of the dual FAAH/MAGL inhibitor JZL195 in a murine inflammatory pain model.  

Effects of WIN 55,212-2 (a non-selective cannabinoid CB1 and CB 2 receptor agonist) on the protective action of various classical antiepileptic drugs in the mouse 6 Hz psychomotor seizure model.  

The CB1 cannabinoid receptor agonist reduces L-DOPA-induced motor fluctuation and ERK1/2 phosphorylation in 6-OHDA-lesioned rats.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4226453/

The endocannabinoid/endovanilloid N-arachidonoyl dopamine (NADA) and synthetic cannabinoid WIN55,212-2 abate the inflammatory activation of human endothelial cells.  
http://www.jbc.org/content/early/2014/03/18/jbc.M113.536953.long

Involvement of the cannabinoid CB1 receptor in modulation of dopamine output in the prefrontal cortex associated with food restriction in rats.  
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0092224

Chronic ethanol alters network activity and endocannabinoid signaling in the prefrontal cortex  

Involvement of PAR-4 in Cannabinoid-Dependent Sensitization of Osteosarcoma Cells to TRAIL-Induced Apoptosis.  
http://www.ijbs.com/v10p0466.htm

Prophylactic cannabinoid administration blocks the development of paclitaxel-induced neuropathic nociception during analgesic treatment and following cessation of drug delivery.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3998744/

Cannabidiol: Pharmacology and potential therapeutic role in epilepsy and other neuropsychiatric disorders  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4707667/


Glucose concentration in culture medium affects mRNA expression of TRPV1 and CB1 receptors and changes capsaicin toxicity in PC12 cells. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4322151/


Cannabinoid Transmission in the Prefrontal Cortex Bi-Phasically Controls Emotional Memory Formation via Functional Interactions with the Ventral Tegmental Area. (full – 2014) http://www.jneurosci.org/content/34/39/13096.long

Effects of pubertal cannabinoid administration on attentional set-shifting and dopaminergic hyper-responsivity in a developmental disruption model of schizophrenia. (full – 2014) http://ijnp.oxfordjournals.org/content/ijnp/18/2/pyu018.full.pdf

Behavioral and neurochemical changes in mesostriatal dopaminergic regions of the rat after chronic administration of the cannabinoid receptor agonist WIN55,212-2. (full – 2014) http://ijnp.oxfordjournals.org/content/18/6/pyu097.long

The CB1 Receptor as an Important Mediator of Hedonic Reward Processing (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4138748/

Type 1 Cannabinoid Receptor Ligands Display Functional Selectivity in a Cell Culture Model of Striatal Medium Spiny Projection Neurons (full – 2014) http://www.jbc.org/content/289/36/24845.long

The cannabinoid receptor antagonist AM251 increases paraoxon and chlorpyrifos oxon toxicity in rats. (full – 2014) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4448943/


Modulation of Fear Memory by Dietary Polyunsaturated Fatty Acids via Cannabinoid Receptors (full – 2014) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4059893/

Programming and reprogramming neural cells by (endo-) cannabinoids: from physiological rules to emerging therapies (full – 2014) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4765324/

Nutritional omega-3 modulates neuronal morphology in the prefrontal cortex along with depression-related behaviour through corticosterone secretion (full – 2014) http://www.nature.com/tp/journal/v4/n9/full/tp201477a.html


Analgesic tolerance and cross-tolerance to the cannabinoid receptors ligands hemopressin, VD-hemopressin(α) and WIN55,212-2 at the supraspinal level in mice. (abst – 2014) http://www.sciencedirect.com/science/article/pii/S0304394014005394


Effects of opioids and cannabinoids during chronic morphine treatment in rhesus monkeys (abst – 2014) http://www.fasebj.org/content/28/1_Supplement/658.3.abstract?sid=467bb529-0ece-4dce-af27-3f56f520a102
The therapeutic efficacy of cannabinoid receptor type 1 ligands in Huntington's disease may depend on their functional selectivity (abst – 2014)
http://www.fasebj.org/content/28/1_Supplement/846.6.abstract?sid=467bb529-0ecc-4ddc-af27-3f56f520a102

Chronic cannabinoid receptor stimulation selectively prevents motor impairments in a mouse model of Huntington's disease. (abst – 2014)

The interaction between serotonergic and cannabinoidegetic modulations involved in the fear extinction (abst – 2014)

Cannabinoids reward sensitivity in a neurodevelopmental animal model of schizophrenia: A brain stimulation reward study. (abst – 2014)

Cannabinoid-induced changes in respiration of brain mitochondria. (abst – 2014)

Cannabinoid CB1 receptor signaling dichotomously modulates inhibitory and excitatory synaptic transmission in rat inner retina. (abst – 2014)

Mn-SOD Upregulation by Electroacupuncture Attenuates Ischemic Oxidative Damage via CB1R-Mediated STAT3 Phosphorylation. (abst – 2014)

Influence of WIN 55,212-2 on the anticonvulsant and acute neurotoxic potential of clobazam and lacosamide in the maximal electroshock-induced seizure model and chimney test in mice. (abst – 2014)

Role of CB2 receptors and cGMP pathway on the cannabinoid-dependent antiepileptic effects in an in vivo model of partial epilepsy. (abst – 2014)

Involvement of PPAR receptors in the anticonvulsant effects of a cannabinoid agonist, WIN 55,212-2. (abst – 2014)

The hypotensive effect of intrathecally injected (m)VD-hemopressin(α) in urethane-anesthetized rats. (abst – 2014)

Post-status epilepticus treatment with the cannabinoid agonist WIN 55,212-2 prevents chronic epileptic hippocampal damage in rats. (abst – 2014)

Cannabinoid receptor agonists reduce the short-term mitochondrial dysfunction and oxidative stress linked to excitotoxicity in the rat brain. (abst – 2014)
Augmented Inhibition from Cannabinoid-Sensitive Interneurons Diminishes CA1 Output after Traumatic Brain Injury. (full – 2015)

http://www.hindawi.com/journals/bmri/2015/872684/

Drugs of Abuse in HIV infection and neurotoxicity (full – 2015)
http://journal.frontiersin.org/article/10.3389/fmicb.2015.00217/full

WIN 55,212-2, Agonist of Cannabinoid Receptors, Prevents Amyloid β1-42 Effects on Astrocytes in Primary Culture. (full - 2015)

Promising cannabinoid-based therapies for Parkinson's disease: motor symptoms to neuroprotection. (full – 2015)
http://www.molecularneurodegeneration.com/content/pdf/s13024-015-0012-0.pdf

Biased Agonism and Biased Allosteric Modulation at the CB1 Cannabinoid Receptor. (full – 2015) http://molpharm.aspetjournals.org/content/early/2015/06/04/mol.115.099192.long

Increased contextual fear conditioning in iNOS knockout mice: additional evidence for the involvement of nitric oxide in stress-related disorders and contribution of the endocannabinoid system. (full – 2015)
http://ijnp.oxfordjournals.org/content/18/8/pyv005.long

Pathogenesis of Systemic Sclerosis. (full – 2015)


Biased Type 1 Cannabinoid Receptor Signalling Influences Neuronal Viability in a Cell Culture Model of Huntington Disease. (full – 2015)
http://molpharm.aspetjournals.org/content/early/2015/12/23/mol.115.101980.long

Cannabinoid-Induced Chemotaxis in Bovine Corneal Epithelial Cells. (full – 2015) http://iovs.arvojournals.org/article.aspx?articleid=2297919&resultClick=1

Potentiation of the antitumor activity of adriamycin against osteosarcoma by cannabinoid WIN-55,212-2. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4580018/
The role of AMP-activated protein kinase (AMPK) in the androgenic potentiation of cannabinoid-induced changes in energy homeostasis. (full – 2015)

Cannabinoid Receptor Type 2 (CB2) Dependent and Independent Effects of WIN55,212-2 on Atherosclerosis in Ldlr-null Mice. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4581537/

Anandamide Depresses Glycinergic and GABAergic Inhibitory Transmissions in Adult Rat Substantia Gelatinosa Neurons (full – 2015)
http://file.scirp.org/Html/1-2500613_54452.htm

Cannabinoid receptor interacting protein (CRIP1a) attenuates CB1R signaling in neuronal cells. (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4332989/

A pivotal role for enhanced brainstem orexin receptor 1 signaling in the central cannabinoid receptor 1-mediated pressor response in conscious rats. (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4562882/

In vitro and non-invasive in vivo effects of the cannabinoid-1 receptor agonist AM841 on gastrointestinal motor function in the rat. (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4918633/

The endocannabinoid system in renal cells: Regulation of Na+ transport by CB1 receptors through distinct cell signaling pathways. (full – 2015)

Effects of WIN 55,212-2 (a synthetic cannabinoid CB1 and CB2 receptor agonist) on the anticonvulsant activity of various novel antiepileptic drugs against 6 Hz-induced psychomotor seizures in mice. (abst – 2015)

Cannabinoid agonists rearrange synaptic vesicles at excitatory synapses and depress motoneuron activity in vivo. (abst – 2015)

For whom the endocannabinoid tolls: Modulation of innate immune function and implications for psychiatric disorders. (abst – 2015)

Cannabinoid receptor agonist WIN55,212-2 and fatty acid amide hydrolase inhibitor URB597 suppress chronic cerebral hypoperfusion-induced neuronal apoptosis by inhibiting c-Jun N-terminal kinase signaling. (abst – 2015)

Effects of URB597 as an inhibitor of fatty acid amide hydrolase on WIN55, 212-2-induced learning and memory deficits in rats. (abst – 2015)


Dopamine-dependent CB1 receptor dysfunction at corticostriatal synapses in homozygous PINK1 knockout mice. (abst – 2015) http://www.sciencedirect.com/science/article/pii/S0028390815301441


The secreted protein acidic and rich in cysteine is a critical mediator of cell death program induced by WIN/TRAIL combined treatment in osteosarcoma cells. (abst – 2015) http://www.ncbi.nlm.nih.gov/pubmed/26698404


CB1 receptor transgenic mice in the cannabinoid triad: a novel approach to assess in vivo efficacy of CB1 ligands. (abst – 2015) http://www.fasebj.org/content/29/1_Supplement/LB490.abstract?sid=edf921ac-0690-4aa6-ac81-0546314dd384

Combined Treatment with Morphine and Δ9-Tetrahydrocannabinol (THC) in Rhesus Monkeys: Antinociceptive Tolerance and Withdrawal (abst – 2015) http://www.fasebj.org/content/29/1_Supplement/616.9.abstract?sid=edf921ac-0690-4aa6-ac81-0546314dd384
Correlations between the Memory-Related Behavior and the Level of Oxidative Stress Biomarkers in the Mice Brain, Provoked by an Acute Administration of CB Receptor Ligands (full – 2016) http://www.hindawi.com/journals/np/2016/9815092/


Endogenous and Synthetic Cannabinoids as Therapeutics in Retinal Disease (full – 2016) http://www.hindawi.com/journals/np/2016/8373020/

Transient increase of interleukin-1β after prolonged febrile seizures promotes adult epileptogenesis through long-lasting upregulating endocannabinoid signaling. (full – 2016) http://www.nature.com/articles/srep21931

Study the Effect of Endocannabinoid System on Rat Behavior in Elevated Plus-Maze. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4656987/

Cannabinoids Regulate Bcl-2 and Cyclin D2 Expression in Pancreatic β Cells. (full – 2016) http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0150981

Functional selectivity of CB2 cannabinoid receptor ligands at a canonical and non-canonical pathway. (full – 2016) http://jpet.aspetjournals.org/content/early/2016/05/18/jpet.116.232561.long

Modulation of cellular redox homeostasis by the endocannabinoid system. (full – 2016) http://rsob.royalsocietypublishing.org/content/6/4/150276


p21-activated kinase 1 restricts tonic endocannabinoid signaling in the hippocampus (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4907698/

The synthetic cannabinoid WIN55,212-2 mesylate decreases the production of inflammatory mediators in rheumatoid arthritis synovial fibroblasts by activating CB2, TRPV1, TRPA1 and yet unidentified receptor targets. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4858820/


Effect of interaction between acute administration of morphine and cannabinoid compounds on spontaneous excitatory and inhibitory postsynaptic currents of magnocellular neurons of supraoptic nucleus. (full – 2016) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4951608/

Inhibition of interleukin-1β-induced endothelial tissue factor expression by the synthetic cannabinoid WIN 55,212-2. (full – 2016) http://www.impactjournals.com/oncotarget/index.php?journal=oncotarget&page=article&op=view&path%5B%5D=11367&path%5B%5D=35984


WIN 55,212-2 Inhibits the Epithelial Mesenchymal Transition of Gastric Cancer Cells via COX-2 Signals. (full – 2016) http://www.karger.com/Article/FullText/447910
Biased Agonism of Three Different Cannabinoid Receptor Agonists in Mouse Brain Cortex  (full – 2016)

Anti-inflammatory effect of cannabinoid agonist WIN55, 212 on mouse experimental colitis is related to inhibition of p38MAPK  (full – 2016)

Endocannabinoid System: the Direct and Indirect Involvement in the Memory and Learning Processes—a Short Review  (full – 2016)

Cannabinoids reverse the effects of early stress on neurocognitive performance in adulthood.  (full – 2016)  http://learnmem.cshlp.org/content/23/7/349.long

CB2 receptor activation prevents glial-derived neurotoxic mediator production, BBB leakage and peripheral immune cell infiltration and rescues dopamine neurons in the MPTP model of Parkinson's disease.  (full – 2016)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4892852/


CB1 Cannabinoid Agonist (WIN55,212-2) Within the Basolateral Amygdala Induced Sensitization to Morphine and Increased the Level of μ-Opioid Receptor and c-fos in the Nucleus Accumbens  (abst – 2016)

Mn-SOD Upregulation by Electroacupuncture Attenuates Ischemic Oxidative Damage via CB1R-Mediated STAT3 Phosphorylation  (abst – 2016)
http://link.springer.com/article/10.1007/s12035-014-8971-7
Combined treatment with morphine and Δ9-tetrahydrocannabinol (THC) in rhesus monkeys: antinoicceptive tolerance and withdrawal. (abst – 2016) 

Involvement of TRPV1 channels in the activity of the cannabinoid WIN 55,212-2 in an acute rat model of temporal lobe epilepsy. (abst – 2016) 

Cannabinoids Occlude the HIV-1 Tat-Induced Decrease in GABAergic Neurotransmission in Prefrontal Cortex Slices. (abst – 2016) 

Cannabinoid WIN55, 212-2 inhibits proliferation, invasion and migration of human SMMC-7721 hepatocellular carcinoma cells (abst – 2016) 

Interaction between paired-pulse facilitation and long-term potentiation during the stimulation of the cannabinoid and vanilloid systems in the dentate gyrus. (abst – 2016) 

Differential effects of endogenous, phyto and synthetic cannabinoids on thrombogenesis and platelet activity. (abst – 2016) 

Hierarchical glucocorticoid-endocannabinoid interplay regulates the activation of the nucleus accumbens by insulin. (abst – 2016) 

Pharmacological characterization of emerging synthetic cannabinoids in HEK293T cells and hippocampal neurons. (abst – 2016) 

Opioid and cannabinoid synergy in a mouse neuropathic pain model. (abst – 2016) 

Experimental Evidence that 3-Methylglutaric Acid Disturbs Mitochondrial Function and Induced Oxidative Stress in Rat Brain Synaptosomes: New Converging Mechanisms. (abst – 2016) 

Inhibition of autophagy and enhancement of endoplasmic reticulum stress increase sensitivity of osteosarcoma Saos-2 cells to cannabinoid receptor agonist WIN55,212-2. (abst – 2016) 

Cannabinoid receptor agonism suppresses tremor, cognition disturbances and anxiety-like behaviors in a rat model of essential tremor. (abst – 2016) 
Basolateral amygdala CB1 cannabinoid receptors are involved in cross state-dependent memory retrieval between morphine and ethanol.  
(http://www.sciencedirect.com/science/article/pii/S0091305716301083)

Changes in nociceptin/orphanin FQ levels in rat brain regions after acute and chronic cannabinoid treatment in conjunction with the development of antinociceptive tolerance.  
(abst – 2016)  

Effects of the cannabinoid 1 receptor peptide ligands hemopressin, (m)RVD-hemopressin(α) and (m)VD-hemopressin(α) on memory in novel object and object location recognition tasks in normal young and Aβ1-42-treated mice.  
(abst – 2016)  
(http://www.sciencedirect.com/science/article/pii/S107472716301307)

Cannabinoid receptor agonist WIN55,212-2 and fatty acid amide hydrolase inhibitor URB597 may protect against cognitive impairment in rats of chronic cerebral hypoperfusion via PI3K/AKT signaling.  
(abst – 2016)  
(http://www.sciencedirect.com/science/article/pii/S0166432816304375)

Behavioral evidence for the interaction between cannabinoids and Catha edulis F. (Khat) in mice.  
(abst – 2016)  
(http://www.ncbi.nlm.nih.gov/pubmed/27502029)

Cannabinoid Receptor Interacting Protein (CRIP1a) suppresses agonist-driven CB1 receptor internalization, and regulates receptor replenishment in an agonist-biased manner.  
(abst – 2016)  
(http://www.ncbi.nlm.nih.gov/pubmed/27513693)

The cannabinoid receptor agonist WIN55.212 reduces consequences of status epilepticus in rats.  
(abst – 2016)  
(http://www.ncbi.nlm.nih.gov/pubmed/27520083)

Cannabinoid type 1 receptor antagonism ameliorates harmaline-induced essential tremor in rat.  
(abst – 2016)  
(http://www.ncbi.nlm.nih.gov/pubmed/27545646)

Effects of Adolescent Cannabinoid Self-Administration in Rats on Addiction-Related Behaviors and Working Memory.  
(abstract – 2016)  
(http://www.ncbi.nlm.nih.gov/pubmed/27582345)

Cannabinoid receptor signaling induces proliferation but not neurogenesis in the mouse olfactory epithelium.  
(abst – 2016)  
(http://www.ncbi.nlm.nih.gov/pubmed/27606334)

Decreased CB receptor binding and cannabinoid signaling in three brain regions of a rat model of schizophrenia.  
(abst – 2016)  
(http://www.sciencedirect.com/science/article/pii/S0304394016306930)

Pharmacokinetic-pharmacodynamic influence of N-palmitoylethanolamine, arachidonyl-2′-chloroethylamide and WIN 55,212-2 on the anticonvulsant activity of antiepileptic drugs against audiogenic seizures in DBA/2 mice  
(abst – 2016)  
(http://www.sciencedirect.com/science/article/pii/S0014299916306161)
May cannabinoids prevent the development of chemotherapy-induced diarrhea and intestinal mucositis? Experimental study in the rat. (abst – 2016)  

Effects of alprazolam and cannabinoid-related compounds in an animal model of panic attack. (abst – 2016)  

Cannabinoids prevent the amyloid β-induced activation of astroglial hemichannels: A neuroprotective mechanism. (abst – 2016)  

Pharmacokinetic-pharmacodynamic influence of N-palmitoylethanolamine, arachidonyl-2'-chloroethylamide and WIN 55,212-2 on the anticonvulsant activity of antiepileptic drugs against audiogenic seizures in DBA/2 mice. (abst – 2016)  

Decreased CB receptor binding and cannabinoid signaling in three brain regions of a rat model of schizophrenia (abst – 2016)  

Cannabinoid receptor interacting protein suppresses agonist-driven CB1 receptor internalization and regulates receptor replenishment in an agonist-biased manner. (abst – 2016)  

Cannabinoid derivatives exert a potent anti-myeloma activity both in vitro and in vivo. (abst – 2016)  

Descending serotonergic and noradrenergic systems do not regulate the antipruritic effects of cannabinoids. (abst – 2016)  

Cannabinoid Modulation of Memory Consolidation within the Cerebellum (abst – 2016)  

The anabolic steroid nandrolone alters cannabinoid self-administration and brain CB1 receptor density and function. (abst – 2016)  

Compensatory Activation of Cannabinoid CB2 Receptor Inhibition of GABA Release in the Rostral Ventromedial Medulla in Inflammatory Pain. (abst – 2017)  

URB597 and the Cannabinoid WIN55,212-2 Reduce Behavioral and Neurochemical Deficits Induced by MPTP in Mice: Possible Role of Redox Modulation and NMDA Receptors. (abst – 2017)
Effects of cannabinoid and vanilloid receptor agonists and their interaction on learning and memory in rats. (abst – 2017)

Comparison of the discriminative stimulus and response rate effects of Δ9-tetrahydrocannabinol and synthetic cannabinoids in female and male rats. (abst – 2017)

The involvement of cannabinoids and mTOR in the reconsolidation of an emotional memory in the hippocampal-amygdala-insular circuit. (abst – 2017)

**WWL-123** - prevents the breakdown of 2-AG

ABHD6 Blockade Exerts Antiepileptic Activity in PTZ-Induced Seizures and in Spontaneous Seizures in R6/2 Mice (full – 2014)


**WWL-70** – prevents the breakdown of 2-AG

Monoacylglycerol lipase limits the duration of endocannabinoid-mediated depolarization-induced suppression of excitation in autaptic hippocampal neurons. (full – 2009)

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2784730/


http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3636589/

Implication of the anti-inflammatory bioactive lipid prostaglandin D2-glycerol ester in the control of macrophage activation and inflammation by ABHD6. (full – 2013)

http://www.pnas.org/content/110/43/17558.long

Activation of CB2 receptor is required for the therapeutic effect of ABHD6 inhibition in experimental autoimmune encephalomyelitis. (abst – 2015)

XLR-11 – potent CB1 & CB2 agonist

Simultaneous quantification of 20 synthetic cannabinoids and 21 metabolites, and semi-quantification of 12 alkyl hydroxy metabolites in human urine by liquid chromatography-tandem mass spectrometry. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3963402/

First Metabolic Profile of XLR-11, a Novel Synthetic Cannabinoid, Obtained by Using Human Hepatocytes and High-Resolution Mass Spectrometry. (full – 2013)
http://wwwclinchem.org/content/59/11/1638.long

Moving around the molecule: Relationship between chemical structure and in vivo activity of synthetic cannabinoids. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3944940/


Acute Kidney Injury Associated with Synthetic Cannabinoid Use — Multiple States, 2012 (report – 2013) http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6206a1.htm


Identification and quantification of synthetic cannabinoids in 'spice-like' herbal mixtures: A snapshot of the German situation in the autumn of 2012. (abst – 2014)

Acute kidney injury associated with smoking synthetic cannabinoid. (abst – 2014)


Disruption of hippocampal synaptic transmission and long-term potentiation by psychoactive synthetic cannabinoid 'Spice' compounds: comparison with Δ9-tetrahydrocannabinol. (abst – 2016) http://www.ncbi.nlm.nih.gov/pubmed/26732435


Effect of synthetic cannabinoids on spontaneous neuronal activity: Evaluation using Ca2+ spiking and multi-electrode arrays. (abst – 2016)


Thermolytic degradation of synthetic cannabinoids: chemical exposures and pharmacological consequences (link to download – 2017)
http://jpet.aspetjournals.org/content/early/2017/01/13/jpet.116.238717.long

**ZCZ011** – CB1 allosteric agonist (no high)

HPLC-MS-MS Determination of ZCZ-011, A Novel Pharmacological Tool for Investigation of the Cannabinoid Receptor in Mouse Brain Using Clean Screen FAST™ Column Extraction. (full – 2015)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4542657/

A Cannabinoid CB1 Receptor Positive Allosteric Modulator Reduces Neuropathic Pain in the Mouse with no Psychoactive Effects. (full – 2015)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4864630/

**Granny Storm Crow's List - January 2017**

**CONDITIONS and RELATED ARTICLES**
2000 to 2009

* = older studies in Pre-2000 List.
ACNE


ACUPUNCTURE/ ELECTROACUPUNCTURE

Processing cardiovascular information in the vlPAG during electroacupuncture in rats: roles of endocannabinoids and GABA (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2692771/#!po=4.54545

Pretreatment with electroacupuncture induces rapid tolerance to focal cerebral ischemia through regulation of endocannabinoid system. (full – 2009) http://stroke.ahajournals.org/content/40/6/2157.long


ADD/ ADHD *


Association between cannabinoid receptor gene (CNR1) and childhood attention deficit/hyperactivity disorder in Spanish male alcoholic patients (full - 2003) http://www.nature.com/mp/journal/v8/n5/full/4001278a.html


Fitness to drive in spite (because) of THC  (abst - 2007)
http://www.unboundmedicine.com/medline/ebm/record/17879702/abstract/
%5BFitness_to_drive_in_spite__because__of_THC%5D

Science: THC normalized impaired psychomotor performance and mood in a patient with hyperactivity disorder  (news - 2007)

Association of the Cannabinoid Receptor Gene (CNR1) With ADHD and Post-Traumatic Stress Disorder    (full - 2008)   http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2685476/?tool=pubmed

Cannabis Improves Symptoms of ADHD                     (full - 2008)

Cannabis use and adult ADHD symptoms.                   (abst - 2008)

Autism, ADD, ADHD and Marijuana Therapy                   (news - 2008)

Effects of the cannabinoid CB1 receptor antagonist rimonabant on distinct measures of impulsive behavior in rats.     (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1915592/?tool=pubmed

Bidirectional regulation of novelty-induced behavioral inhibition by the endocannabinoid system.         (abst – 2009)

Cannabinoid receptors in brain: pharmacogenetics, neuropharmacology, neurotoxicology, and potential therapeutic applications (abst – 2009)

ALTERED ANANDAMIDE DEGRADATION IN ATTENTION-DEFICIT/HYPERACTIVITY DISORDER           (excerpt – 2009)
http://www.neurology.org/content/72/17/1526

Doctors recommend medical marijuana for minors with ADHD in California         (news – 2009)
http://www.nydailynews.com/life-style/health/doctors-recommend-medical-marijuana-minors-adhd-california-article-1.419585#ixzz2Ui5xXtRZ

Prescribing marijuana to kids                   (news – 2009)
http://theweek.com/article/index/103325/prescribing-marijuana-to-kids

http://www.rxmarijuana.com/lee.htm
**ADDICTION**

Which drugs are the most addictive? (chart – undated)  
http://www.druglibrary.org/schaffer/Library/basicfax5.htm

Tokepure (news – undated)  
http://ukcia.org/activism/tokepure.php

Variation in youthful risks of progression from alcohol and tobacco to marijuana and to hard drugs across generations. (full – 2001)  

Prevention of Cannabinoid Withdrawal Syndrome by Lithium: Involvement of Oxytocinergic Neuronal Activation (link to PDF – 2001)  
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.321.1674&rank=104

Delta9-tetrahydrocannabinol releases and facilitates the effects of endogenous enkephalins: reduction in morphine withdrawal syndrome without change in rewarding effect. (abst – 2001)  

Chronic Morphine Modulates the Contents of the Endocannabinoid, 2-Arachidonoyl Glycerol, in Rat Brain (full - 2003)  
http://www.nature.com/npp/journal/v28/n6/full/1300117a.html

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2943839/

Behavioural and gene transcription alterations induced by spontaneous cannabinoid withdrawal in mice (full – 2003)  

Regulation of Cannabinoid CB1 Receptors in the Central Nervous System by Chronic Cannabinoids (abst – 2003)  
http://dl.begellhouse.com/journals/7b004699754c9fe6.5aa33979065f2aa3.42019b6a7dd932fb.html

Human cannabinoid receptor 1: 5' exons, candidate regulatory regions, polymorphisms, haplotypes and association with polysubstance abuse. (full – 2004)  
http://www.nature.com/mp/journal/v9/n10/full/4001560a.html

Review of the Validity and Significance of Cannabis Withdrawal Syndrome (full – 2004)  

Cannabis Abuse is Not a Risk Factor for Treatment Outcome in Methadone Maintenance Treatment: a 1-year Prospective Study in an Israeli Clinic. (abst – 2004)  
Cannabinoids and Reward: Interactions with the Opioid System  
http://dl.begellhouse.com/journals/7b004699754e9fe6,54f83f6510f9db32,479134412f4ae4d5.html

Cannabinoid/Opioid Crosstalk in the Central Nervous System  
http://dl.begellhouse.com/journals/7b004699754e9fe6,54f83f6510f9db32,25c26f6e4b594ae3.html

Delta9-tetrahydrocannabinol decreases somatic and motivational manifestations of nicotine withdrawal in mice.  
(http - 2004)  

New molecule may be basis for drugs that battle overeating and drug dependency  
(news – 2004)  
http://www.sciencedaily.com/releases/2004/05/040517072118.htm

Alcohol Consumption Moderates the Link Between Cannabis Use and Cannabis Dependence in an Internet Survey.  
(abst – 2005)  
http://psycnet.apa.org/journals/adb/19/2/212/

Confirming alcohol-moderated links between cannabis use and dependence in a national sample  
(abst – 2006)  

Long term marijuana users seeking medical cannabis in California (2001–2007): demographics, social characteristics, patterns of cannabis and other drug use of 4117 applicants  
(full - 2007)  
http://www.harmreductionjournal.com/content/4/1/16

Lack of behavioral sensitization after repeated exposure to THC in mice and comparison to methamphetamine  
(full - 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2637562/?tool=pubmed

Progression from marijuana use to daily smoking and nicotine dependence in a national sample of U.S. adolescents  
(full - 2007)  
http://www.academia.edu/15305650/Progression_from_marijuana_use_to_daily_smoking_and_nicotine_dependence_in_a_national_sample_of_U.S._adolescents

Clinical research Cannabinoids in health and disease  
(link to PDF - 2007)  

The fatty acid amide hydrolase C385A (P129T) missense variant in cannabis users: studies of drug use and dependence in Caucasians  
(abst – 2007)  

Marijuana is NOT like Tobacco. Please make a note of it. Thanks.  
(news - 2007)  
http://www.dailykos.com/story/2007/05/10/333234/-Pot-is-not-like-tobacco-Please-make-a-note-of-it-Thanks

FIGHTING DRUG DEPENDENCE BY BLOCKING CANNABINOID TYPE 1 RECEPTORS  
(link to PDF – 2007)  
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.326.8811&rank=134&q=cannabinoid&osm=&ossid=

Study of 4000 indicates marijuana discourages use of hard drugs.  
(news – 2008)
Calling B.S. on the Idea of 'Marijuana Addiction' (news – 2008)
http://www.alternet.org/drugs/80408/?page=entire

Don’t send your kid to treatment (news – 2008)

Adolescent Exposure to Chronic Delta-9-Tetrahydrocannabinol Blocks Opiate Dependence in Maternally Deprived Rats (full - 2009)
http://www.nature.com/npp/journal/v34/n11/full/npp200970a.html

Decrease in Adolescent Cannabis Use From 2002 to 2006 and Links to Evenings Out With Friends in 31 European and North American Countries and Regions (full - 2009)

The Surprising Effect Of Marijuana On Morphine Dependence (news - 2009)

Active Ingredient In Cannabis Eliminates Morphine Dependence In Rats (news - 2009)

Four percent of adults worldwide using cannabis (news – 2009)
http://phys.org/news174892348.html

For pot users, visual and audible cues set off cravings (news – 2009)

The use and misuse of alcohol and marijuana can be traced to a common set of genes (news – 2009)

Marijuana: Help or hassle? (news – 2009)
http://www.heretohelp.bc.ca/visions/cannabis-vol5/marijuana-help-or-hassle

ADOLESCENTS/ YOUNG ADULTS

Variation in youthful risks of progression from alcohol and tobacco to marijuana and to hard drugs across generations. (full – 2001)

Patterns of use, cannabis beliefs and dependence: study of 159 adolescent users (abst – 2002)
Gender and ethnic differences in smoking, drinking and illicit drug use among American 8th, 10th and 12th grade students, 1976-2000. (link to PDF – 2003)
https://deepblue.lib.umich.edu/handle/2027.42/73026

Experiences with THC-treatment in children and adolescents (abst - 2003)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=80

Aetiology - Review: current evidence does not show a strong causal relation between the use of cannabis in young people and psychosocial harm (full - 2004)
http://ebmh.bmj.com/content/7/4/119.long

Treatment with CBD in oily solution of drug-resistant paediatric epilepsies. (abst - 2005)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=173&&search_pattern=EPILEPSY


Effects of Alcohol and Combined Marijuana and Alcohol Use During Adolescence on Hippocampal Volume and Asymmetry (full - 2006)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1821342/?tool=pubmed

The Mental Health Risks of Adolescent Cannabis Use (full - 2006)


Moderate cannabis use not harmful to the brain of adolescents, M R I study finds (news - 2006)

Cannabis is a First-Line Treatment for Childhood Mental Disorders (news - 2006) http://www.counterpunch.org/2006/07/08/cannabis-is-a-first-line-treatment-for-childhood-mental-disorders/


Some go without a cigarette: characteristics of cannabis users who have never smoked tobacco. (full - 2007) http://archpedi.ama-assn.org/cgi/content/full/161/11/1042
Illicit Drug Use in Young Adults and Subsequent Decline in General Health: The Coronary Artery Risk Development in Young Adults (CARDIA) Study  (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1885466/?tool=pmcentrez

Progression from marijuana use to daily smoking and nicotine dependence in a national sample of U.S. adolescents  (full - 2007)
http://www.academia.edu/15305650/Progression_from_marijuana_use_to_daily_smoking_and_nicotine_dependence_in_a_national_sample_of_U.S._adolescents

No evidence for an involvement of variants in the cannabinoid receptor gene (CNR1) in obesity in German children and adolescents.  (abst – 2007)


Teens who use only cannabis appear to function better than those who also use tobacco  (news - 2007)  

Teens Who Smoke Marijuana But Not Tobacco Are Different From Other Teen Groups  (news - 2007)

Swiss Study Finds Marijuana Use Alone May Benefit Some Teens  (news - 2007)
http://www.foxnews.com/story/0,2933,308258,00.html

Are Cigarettes More of a Drag on Teens than Marijuana?  (news - 2007)
http://www.scientificamerican.com/article.cfm?id=are-cigarettes-more-of-a

Marijuana Use by Young People: The Impact of State Medical Marijuana Laws  (full - 2008)

The association between anxiety and alcohol versus cannabis abuse disorders among adolescents in primary care settings  (full - 2008)
http://fampra.oxfordjournals.org/cgi/content/full/25/5/321

Understanding the association between adolescent marijuana use and later serious drug use: gateway effect or developmental trajectory?  (abst – 2008)

Characteristics of Adolescents Who Use Cannabis But Not Tobacco  (news – forum repost - 2008)

Don’t send your kid to treatment  (news - repost of 2008 article)

White Matter Integrity in Adolescents with Histories of Marijuana Use and Binge Drinking. (full - 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2762024/


Cannabis and tobacco use: where are the boundaries? A qualitative study on cannabis consumption modes among adolescents. (full - 2009) http://her.oxfordjournals.org/content/25/1/74.long


Cannabis use and destructive periodontal diseases among adolescents (abst - 2009) http://www.unboundmedicine.com/medline/ebm/record/19236530/abstract/Cannabis_use_and_destructive_periodontal_diseases_among_adolescents


The use and misuse of alcohol and marijuana can be traced to a common set of genes (news – 2009) http://www.eurekalert.org/pub_releases/2009-12/ace-tua121209.php


**AGING** - also see OLDER ADULT CANNABIS USERS, MENOPAUSE


The Peripheral Cannabinoid Receptor CB2 and CD40 Are Novel Biological Markers That Predict Outcome in Diffuse Large B-Cell Lymphoma of Elderly Patients. (abst - 2004) http://abstracts.hematologylibrary.org/cgi/content/abstract/104/11/3256?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=800&resource type=HWCIT

Decreased age-related cardiac dysfunction, myocardial nitratrive stress, inflammatory gene expression, and apoptosis in mice lacking fatty acid amide hydrolase. (full – 2007) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2225473/


Cannabinoid receptor stimulation is anti-inflammatory and improves memory in old rats (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2586121/?tool=pmcentrez


Marijuana may be good for the aging brain
(http://www.news-medical.net/news/2008/11/19/43212.aspx)

Cannabinoid agonist WIN-55,212-2 partially restores neurogenesis in the aged rat brain
(full - 2009) (http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3011092/?tool=pubmed)

Cannabinoid receptor type 1 protects against age-related osteoporosis by regulating
osteoblast and adipocyte differentiation in marrow stromal cells. (full – 2009)
(http://www.sciencedirect.com/science/article/pii/S1550413109002022)

Cannabinoid receptor type 1 protects against age-related bone loss by regulating
osteoblast and adipocyte differentiation of bone marrow stromal cells
(full – 2009)
(http://www.cell.com/cell-metabolism/fulltext/S1550-4131(09)00202-2)

CANNABINOID-MEDIATED REGULATION OF THE HYPOTHALAMO-
PITUITARY-ADRENAL AXIS in rats: AGE DEPENDENT ROLE OF VASOPRESSIN
(link to PDF – 2009)

Study: Marijuana May Prevent Osteoporosis in Elderly (news – 2009)

**ALCOHOLISM / ALCOHOL** *

Which drugs are the most addictive? (chart – undated)
(http://www.druglibrary.org/schaffer/Library/basicfax5.htm)

Variation in youthful risks of progression from alcohol and tobacco to marijuana and to
hard drugs across generations. (full – 2001)
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1446541/pdf/11211630.pdf)

Alcohol and marijuana: effects on epilepsy and use by patients with epilepsy.

Effects of CB1 cannabinoid receptor blockade on ethanol preference after chronic ethanol

Association of a CB1 cannabinoid receptor gene (CNR1) polymorphism with severe

Association between cannabinoid receptor gene (CNR1) and childhood attention deficit/hyperactivity disorder in Spanish male alcoholic patients  (full - 2003)  
http://www.nature.com/mp/journal/v8/n5/full/4001278a.html

Endocannabinoid signaling via cannabinoid receptor 1 is involved in ethanol preference and its age-dependent decline in mice  (full - 2003)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC298783/?tool=pmcentrez

Cannabinoid Cb1 Receptor Knockout Mice Exhibit Markedly Reduced Voluntary Alcohol Consumption and Lack Alcohol-induced Dopamine Release in the Nucleus Accumbens.  (full – 2003)  

A Critical Role for the Cannabinoid CB1 Receptors in Alcohol Dependence and Stress-Stimulated Ethanol Drinking  (full – 2003)  
http://www.jneurosci.org/content/23/6/2453.long

Gender and ethnic differences in smoking, drinking and illicit drug use among American 8th, 10th and 12th grade students, 1976-2000.  (link to PDF – 2003)  
https://deepblue.lib.umich.edu/handle/2027.42/73026

Overeating, Alcohol and Sucrose Consumption Decrease in Cb1 Receptor Deleted Mice.  (abst – 2004)  

Decreased alcohol self-administration and increased alcohol sensitivity and withdrawal in CB1 receptor knockout mice.  (abst – 2004)  

CB1 Receptor Knockout Mice Display Reduced Ethanol-Induced Conditioned Place Preference and Increased Striatal Dopamine D2 Receptors  (full – 2005)  
http://www.nature.com/npp/journal/v30/n2/full/1300568a.html

Comparison of Cannabidiol, Antioxidants, and Diuretics in Reversing Binge Ethanol-Induced Neurotoxicity  (full - 2005)  
http://jpet.aspetjournals.org/content/314/2/780.full

Role of the endocannabinoid system in the development of tolerance to alcohol  (full – 2005)  
http://alcalc.oxfordjournals.org/content/40/1/15.long

Ethanol Induces Higher Bec in Cb1 Cannabinoid Receptor Knockout Mice While Decreasing Ethanol Preference.  (full – 2005)  
http://alcalc.oxfordjournals.org/content/40/1/54.long

Suppressing effect of the cannabinoid CB1 receptor antagonist, SR147778, on alcohol intake and motivational properties of alcohol in alcohol-prefering sP rats.  (full – 2005)  
http://alcalc.oxfordjournals.org/content/40/1/46.long
Alcohol Consumption Moderates the Link Between Cannabis Use and Cannabis Dependence in an Internet Survey. (abst – 2005)  
http://psycnet.apa.org/journals/adb/19/2/212

Role of cannabinoid receptors in alcohol abuse (news - 2005)  
http://www.medicalnewstoday.com/articles/30338.php

Effects of Alcohol and Combined Marijuana and Alcohol Use During Adolescence on Hippocampal Volume and Asymmetry (full - 2006)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1821342/?tool=pubmed

In vivo effects of CB1 receptor ligands on lipid peroxidation and antioxidant defense systems in the rat brain of healthy and ethanol-treated rats. (full – 2006)  

Role of endocannabinoids in alcohol consumption and intoxication: studies of mice lacking fatty acid amide hydrolase. (full – 2006)  
http://www.nature.com/npp/journal/v32/n7/full/1301274a.html

SR147778, a CB1 cannabinoid receptor antagonist, suppresses ethanol preference in chronically alcoholized Wistar rats (abst – 2006)  

Confirming alcohol-moderated links between cannabis use and dependence in a national sample (abst – 2006)  

Effect of chronic ethanol exposure and its withdrawal on the endocannabinoid system. (abst – 2006)  

Increased ethanol consumption and preference and decreased ethanol sensitivity in female FAAH knockout mice. (abst – 2006)  

The endocannabinoid signaling system: a potential target for next-generation therapeutics for alcoholism (full - 2007)  

Regulation of brain anandamide by acute administration of ethanol. (full – 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1868843/

Involvement of cannabinoid CB2 receptor in alcohol preference in mice and alcoholism in humans (full – 2007)  
http://www.nature.com/tpj/journal/v7/n6/full/6500431a.html

Effects of different substance misuse in genital reflexes of paradoxical sleep deprived male rats. (abst – 2007)  

Behavioral effects of CB2 cannabinoid receptor activation and its influence on food and
alcohol consumption.  (full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4219871/  

Report: Marijuana Less Harmful than Alcohol or Tobacco  (news - 2008)  
http://www.drugfree.org/news-service/report-marijuana-less-harmful-than-alcohol-or-tobacco/  

White Matter Integrity in Adolescents with Histories of Marijuana Use and Binge Drinking.  (full - 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2762024/  

Maternal tobacco, cannabis and alcohol use during pregnancy and risk of adolescent psychotic symptoms in offspring  (full – 2009)  
http://bip.rcpsych.org/content/195/4/294.full  

Cannabis as a substitute for alcohol and other drugs.  (full - 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2795734/?tool=pmcentrez  

During pregnancy, recreational drug-using women stop taking ecstasy (3,4-methylenedioxy-N-methylamphetamine) and reduce alcohol consumption, but continue to smoke tobacco and cannabis: initial findings from the Development and Infancy Study.  (full - 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3564500/  

Magnolia officinalis reverses alcoholic fatty liver by inhibiting the maturation of sterol regulatory element-binding protein-1c.  (full – 2009)  

Endocannabinoid signaling in neurotoxicity and neuroprotection.  (full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2891218/  

Daily marijuana users with past alcohol problems increase alcohol consumption during marijuana abstinence.  (abst - 2009)  
http://www.unboundmedicine.com/medline/ebm/record/19783385/full_citation/Daily_marijuana_users_with_past_alcohol_problems_increase_alcohol_consumption_during_marijuana_abstinence  

Cannabis, Tobacco and Alcohol Use in Canada  (news – 2009)  

http://www.huffingtonpost.com/paul-armentano/tobacco-related-health-co_b_362539.html  

Marijuana: Help or hassle?  (news – 2009)  
http://www.heretohelp.bc.ca/visions/cannabis-vol5/marijuana-help-or-hassle  

The use and misuse of alcohol and marijuana can be traced to a common set of genes  (news – 2009)  

Cannabis as a substitute for heavy alcohol usage?  (news - 2009)  
ALLERGIES AND CANNABIS *


Cannabis helps treat allergic reactions (news - 2007) http://www.safeaccesssnow.org/article.php?id=4768


Constituents Of Hashish And Marijuana May Help To Fight Inflammation And Allergies (news - 2007) http://www.sciencedaily.com/releases/2007/06/070607171120.htm


A saturated N-acylethanolamine other than N-palmitoyl ethanolamine with anti-inflammatory properties: a neglected story...  (full – 2008)

The endocannabinoid system of the skin in health and disease: novel perspectives and therapeutic opportunities  (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2757311/

ALLERGIES TO CANNABIS *

Cannabis (hemp) positive skin tests and respiratory symptoms  (abst - 2000)

Allergic rhinoconjunctivitis caused by Cannabis sativa pollen  (3rd article)  (full - 2007)

Generalized pruritus in a patient sensitized to tobacco and cannabis.  (abst – 2007)

Cannabaceae Pollen in the Atmosphere of Brianza, Northen Italy.  (abst – 2007)

Sensitization and Allergy to Cannabis sativa Leaves in a Population of Tomato (Lycopersicon esculentum)-Sensitized Patients.  (abst - 2008)

ALS / AMYOTROPHIC LATERAL SCLEROSIS

Marijuana in the management of amyotrophic lateral sclerosis  
(link to download - 2001)
http://journals.sagepub.com/doi/abs/10.1177/104990910101800411?
hits=80&FIRSTINDEX=1200&searchid=1&resourcetype=HWCIT&RESULTFORMAT=&maxtoshow=&fulltext=cannabis

Future of Cannabis and Cannabinoids in Therapeutics  (link to PDF - 2003)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.597.1387&rank=7

Survey of cannabis use in patients with amyotrophic lateral sclerosis.  
(link to download - 2004)
Delayed disease progression in ALS mice by treatment with a cannabinoid. (abst - 2004)  
doi=Abstract

Cannabis Relieves Lou Gehrig's Symptoms - New Study               (news - 2004)  
http://www.rense.com/general51/lou.htm

Marijuana-like compounds may aid array of debilitating conditions ranging from Parkinson's to pain  (news – 2004)  

Cannabinol delays symptom onset in SOD1 (G93A) transgenic mice without affecting survival.  (abst - 2005)  

Increasing cannabinoid levels by pharmacological and genetic manipulation delay disease progression in SOD1 mice  (abst - 2006)  

AM1241, a cannabinoid CB2 receptor selective compound, delays disease progression in a mouse model of amyotrophic lateral sclerosis.  (abst - 2006)  

The CB2 cannabinoid agonist AM-1241 prolongs survival in a transgenic mouse model of amyotrophic lateral sclerosis when initiated at symptom onset  (full - 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2819701/?tool=pmcentrez

The endocannabinoid system in targeting inflammatory neurodegenerative diseases  (full – forum repost - 2007)  

Cannabinoids and neuroprotection in motor-related disorders.  (abst - 2007)  

The (Endo)Cannabinoid System in Multiple Sclerosis and Amyotrophic Lateral Sclerosis  (abst – 2007)  

Altered presymptomatic AMPA and cannabinoid receptor trafficking in motor neurons of ALS model mice: implications for excitotoxicity.  (full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3991137/

Cannabinoids as therapeutic agents for ablating neuroinflammatory disease.  (full – 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2750822/

The endocannabinoid system in amyotrophic lateral sclerosis.  (abst – 2008)  
Role of CB2 receptors in neuroprotective effects of cannabinoids. (abst - 2008)

Emerging Role of the CB2 Cannabinoid Receptor in Immune Regulation and Therapeutic Prospects (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2768535/?tool=pmcentrez

Cannabinoids and neurodegenerative diseases. (abst - 2009)

Medical Marijuana and Amyotrophic Lateral Sclerosis (ALS) (news/ad – 2009)
https://www.marijuanadocctors.com/content/ailments/view/92?ailment=amyotrophic-lateral-sclerosis-als-

Medical Marijuana and Lou Gehrig's Disease (news/ad – 2009)
https://www.marijuanadocctors.com/content/ailments/view/91?ailment=lou-gehrig-s-disease

**ALZHEIMER'S DISEASE** *

Anandamide and noladin ether prevent neurotoxicity of the human amyloid-beta peptide. (abst – 2002)

Cannabinoid CB2 Receptors and Fatty Acid Amide Hydrolase Are Selectively Overexpressed in Neuritic Plaque-Associated Glia in Alzheimer's Disease Brains (full – 2003)
http://www.jneurosci.org/content/23/35/11136.full?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=80&resourcetype=HWCIT

US Patent 6630507 - Cannabinoids as antioxidants and neuroprotectants (full - 2003) (Assignee (owner)- the US GOVERNMENT!)
http://www.google.com/patents/US6630507

Future of Cannabis and Cannabinoids in Therapeutics (link to PDF - 2003)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.597.1387&rank=7

http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=61

http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=92
Neuroprotective effect of cannabidiol, a non-psychoactive component from Cannabis sativa, on β-amyloid-induced toxicity in PC12 cells (full - 2004) http://www3.interscience.wiley.com/cgi-bin/fulltext/118757302/HTMLSTART

Early age-related cognitive impairment in mice lacking cannabinoid CB1 receptors. (full – 2005) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1266095/?tool=pubmed

Prevention of Alzheimer's Disease Pathology by Cannabinoids: Neuroprotection Mediated by Blockade of Microglial Activation (full - 2005) http://www.jneurosci.org/cgi/content/full/25/8/1904

Stimulation of cannabinoid receptor 2 (CB2) suppresses microglial activation (full – 2005) http://www.springerlink.com/content/tq777102q4185073/fulltext.html


Pass the Doobie, pops (news - 2005) http://www.thefreelibrary.com/Pass+the+doobie+%2c+pops.-a0131273013

The Cannabinoid CB2 Receptor as a Target for Inflammation-Dependent Neurodegeneration (full - 2006) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2435344/?tool=pmcentrez
A Molecular Link between the Active Component of Marijuana and Alzheimer’s Disease Pathology  (full - 2006) http://www.ukcia.org/research/AlzheimersDiseasePathology.pdf

Delta-9-tetrahydrocannabinol for nighttime agitation in severe dementia  
(full - forum repost - 2006)  

Endocannabinoids and beta-amyloid-induced neurotoxicity in vivo: effect of pharmacological elevation of endocannabinoid levels.  
(abst – 2006)  

Cannabidiol inhibits inducible nitric oxide synthase protein expression and nitric oxide production in beta-amyloid stimulated PC12 neurons through p38 MAP kinase and NF-kappaB involvement.  
(abst – 2006)  

The marijuana component cannabidiol inhibits beta-amyloid-induced tau protein hyperphosphorylation through Wnt/beta-catenin pathway rescue in PC12 cells.  
(abst - 2006)  

CB1 receptor selective activation inhibits beta-amyloid-induced iNOS protein expression in C6 cells and subsequently blunts tau protein hyperphosphorylation in co-cultured neurons.  
(abst – 2006)  

THC inhibits primary marker of Alzheimer's disease  
(news - 2006)  

Marijuana's Active Ingredient Shown to Inhibit Primary Marker of Alzheimer's Disease  
(news – 2006)  
http://www.scripps.edu/newsandviews/e_20060828/news.html

Marijuana’s Active Ingredient May Slow Progression Of Alzheimer's Disease  
(news - 2006)  
http://www.sciencedaily.com/releases/2006/10/061009031544.htm

Marijuana may help stave off Alzheimer’s  
(news - 2006)  
http://www.msnbc.msn.com/id/15145917/

Marijuana May Slow Alzheimer's  
(news - 2006)  
http://www.webmd.com/alzheimers/news/20061006/marijuana-may-slow-alzheimers

Pot-Like Compound May Slow Alzheimer's  
(news - 2006)  

Latest Buzz: Marijuana May Slow Progression Of Alzheimer's Disease  
(news - 2006)  
http://www.sciencedaily.com/releases/2006/10/061018151055.htm

Alzheimer's disease; taking the edge off with cannabinoids?  
(full - 2007)  
Cannabidiol in vivo blunts β-amyloid induced neuroinflammation by suppressing IL-1β and iNOS expression  (full - 2007)  

Opposing control of cannabinoid receptor stimulation on amyloid-beta-induced reactive gliosis: in vitro and in vivo evidence.  (full - 2007)  
http://jpet.aspetjournals.org/content/322/3/1144.long

Anti-inflammatory property of the cannabinoid agonist WIN-55212-2 in a rodent model of chronic brain inflammation  (full - 2007)  

Clinical research Cannabinoids in health and disease  (link to PDF - 2007)  

The endocannabinoid system in targeting inflammatory neurodegenerative diseases  (full – forum repost - 2007)  

Comparison Analysis of Gene Expression Patterns between Sporadic Alzheimer's and Parkinson's Disease  (abst – 2007)  

The importance of the endocannabinoid-system  (news – 2007)  

Cannabinoid CB2 receptors in human brain inflammation  (full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219537/

Cannabinoid receptor stimulation is anti-inflammatory and improves memory in old rats  (full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2586121/?tool=pmcentrez

Inflammation and aging: can endocannabinoids help?  (full - 2008)  

Amyloid precursor protein 96-110 and beta-amyloid 1-42 elicit developmental anomalies in sea urchin embryos and larvae that are alleviated by neurotransmitter analogs for acetylcholine, serotonin and cannabinoids.  (full – 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2579926/?tool=pubmed

Cannabinoids as therapeutic agents for ablating neuroinflammatory disease.  (full – 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2750822/

Role of CB2 receptors in neuroprotective effects of cannabinoids.  (abst - 2008)  

The role of the endocannabinoid system in Alzheimer's disease: facts and hypotheses.  (abst - 2008)  
Israeli Research Shows Cannabidiol May Slow Alzheimer's Disease (news - 2008)

Marijuana may be good for the aging brain (news - 2008)

Alzheimer's sufferers may benefit from cannabis compound (news - 2008)

Marijuana reduces memory impairment (news - 2008)
http://www.healthnewstrack.com/health-news-811.html

Cannabis 'could stop dementia in its tracks' (news - 2008)
http://www.dailymail.co.uk/health/article-1087544/Cannabis-stop-dementia-tracks.html

LSUHSC research reports new method to protect brain cells from diseases like Alzheimer's (news – 2008)

Could Marijuana Substance Help Prevent Or Delay Memory Impairment In The Aging Brain? (news - 2008)

Attacking Alzheimer's with Red Wine and Marijuana (news - 2008)
http://www.alternet.org/story/110806/

Cannabis-derived medicines may help Alzheimer's (news - 2008)
http://www.news-medical.net/news/2008/03/10/36024.aspx

Pot joins the fight against Alzheimer's, memory loss (news - 2008)

Emerging Role of the CB2 Cannabinoid Receptor in Immune Regulation and Therapeutic Prospects (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2768535/?tool=pmcentrez

Cannabidiol: a promising drug for neurodegenerative disorders? (full - 2009)

The activation of cannabinoid CB2 receptors stimulates in situ and in vitro beta-amyloid removal by human macrophages. (abst - 2009)

Endocannabinoids prevent lysosomal membrane destabilisation evoked by treatment with β-amyloid in cultured rat cortical neurons (forum re-post – 2009)

Medical Marijuana and Alzheimer's Disease (news/ad – 2009)
https://www.marijuanadoctors.com/content/ailments/view/76?ailment=alzheimer-s-disease
AMOTIVATIONAL SYNDROME *

Cannabis, motivation, and life satisfaction in an internet sample  
(full – 2006)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1435998/

ANECDOTAL / PERSONAL STORIES

ANECDOTAL ARTICLES (anecdotal collection - undated)  
http://cannabislink.ca/medical/#medianecdotal

ADHD by Ryan P (anecdotal - undated)  
http://www.rxmarijuana.com/shared_comments/ADHD4.htm

Cannabis and Aspergers, My Experience by Anonymous (anecdotal - undated)  
http://rxmarijuana.com/cannabis_aspergers.htm

Medical Marijuana as a Cure for Autism (anecdotal – undated)  
http://www.autism-pdd.net/testdump/test13417.htm

Marijuana and Epilepsy (anecdotal - undated)  
http://www.rxmarihuana.com/epilepsy.htm

Bipolar Disorder and Endometriosis by Anonymous (anecdotal – undated)  
http://rxmarijuana.com/shared_comments/Endometriosis4.htm

Hiccups by Ben (anecdotal – undated)  
http://rxmarijuana.com/shared_comments/hiccups.htm

MARIJUANA AND IRRITABLE BOWEL SYNDROME (IBS) (anecdotal- undated)  
http://www.rxmarihuana.com/christine.htm

Lupus by Randi Cox (anecdotal – undated)  
http://rxmarijuana.com/shared_comments/lupus2.htm

Lyme Disease by Cynkay Morningstar (anecdotal – undated)  
http://rxmarijuana.com/shared_comments/Lyme_Disease.htm

Menière’s Syndrome by Charlie Ritchie (anecdotal - undated)  
http://www.rxmarijuana.com/shared_comments/ritchie.htm

Porphyria by Colin (anecdotal – undated)  
http://rxmarijuana.com/shared_comments/Porphyria.htm
Porphyria by Sharon Place  (anecdotal – undated)
http://rxmarijuana.com/shared_comments/Porphyria2.htm

Marihuana and Stuttering  (anecdotal – undated)
http://rxmarijuana.com/shared_comments/stuttering.htm

Chemotherapy for Testicular Cancer  (anecdotal - undated)
http://www.rxmarihuana.com/shared_comments/testicularchemo.htm

Menstrual cramps, morning sickness and labour pain  (anecdotal – 2001)

http://www.letfreedomgrow.com/articles/james_d.htm

Recipe For Trouble  (news/anecdotal - 2002)
http://www.chbsnews.com/stories/2002/03/05/48hours/main503022.shtml

'How cannabis helped me'  (news/anecdotal - 2003)
http://news.bbc.co.uk/2/hi/health/3248701.stm

Testimony of Terry Jacobs to FDA - why he prefers for medical marijuana to Marinol
(testimony – forum repost - 2005)
http://www.420magazine.com/forums/hepatitis-c/147441-testimony-terry-jacobs-fda-why-he-prefers-
medical-marijuana-marinol.html

Skin Complaint Man Grew Cannabis  (news/ anecdotal- 2004)
http://www.mapinc.org/drugnews/v04.n1222.a09.html

DEA Raids Aurora Medical Marijuana User  (news/ anecdotal – 2004)


Testimony of Mr. Rene Carlos Guevara  to FDA  (anecdotal - 2005)
http://www.fda.gov/ohrms/dockets/dockets/05n0479/05N-0479-EC4.htm

Marijuana Cured My Color-Blindness  (anecdotal – forum repost - 2005)

Cannabis Sativa (Marijuana) for Fibromyalgia  (anecdotal - 2007 - 2010)
http://www.fibromyalgia-reviews.com/drg_marijuana.cfm

Shared Comments and Observations  (anecdotal - 2009)
http://www.rxmarihuana.com/comments_and_observations.htm

Sam’s Story: Using Medical Cannabis to Treat Autism Spectrum Disorder
ANGIOGENESIS - the formation of new blood vessels

Inhibitory effects of cannabinoid CB1 receptor stimulation on tumor growth and metastatic spreading: actions on signals involved in angiogenesis and metastasis1
(abst - 2003)

http://www.jbc.org/content/278/37/35501.long

Inhibition of tumor angiogenesis by cannabinoids (abst - 2003)

A new strategy to block tumor angiogenesis by inhibiting endocannabinoid inactivation (abst – 2004)

The natural product honokiol induces caspase-dependent apoptosis in B-cell chronic lymphocytic leukemia (B-CLL) cells. (full – 2005)
http://bloodjournal.hematologylibrary.org/content/106/2/690.long

A cannabinoid quinone inhibits angiogenesis by targeting vascular endothelial cells. (full - 2006)
http://molpharm.aspetjournals.org/content/70/1/51.long

Compound found in marijuana may defend against diabetic retinopathy (news – 2006)
http://www.news-medical.net/news/2006/03/01/16284.aspx

Marijuana Compound May Help Stop Diabetic Retinopathy (news - 2006)
http://www.sciencedaily.com/releases/2006/02/060227184647.htm

Marijuana Compound Offers Hope In Diabetic Retinopathy Prevention (news – 2006)
Marijuana compound could prevent eye damage in diabetics (news - 2006)

Endocannabinoids as emerging suppressors of angiogenesis and tumor invasion (Review) (link to PDF – 2007) http://www.spandios-publications.com/or/17/4/813


Cannabidiol As a Putative Novel Therapy for Diabetic Retinopathy: A Postulated Mechanism of Action as an Entry Point for Biomarker-Guided Clinical Development. (full - 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2955420/?tool=pubmed
Hexahydrocannabinols, novel synthetic cannabinoid derivatives, suppress the tumor growth by inhibiting the VEGF secretion and angiogenesis (abst - 2009)  
http://www.fasebj.org/content/23/1_Supplement/761.3.abstract?sid=464545f2-6446-441c-8bd2-bfe13cc45124

**ANOREXIA** - also see APPETITE STIMULANT

Leptin-regulated endocannabinoids are involved in maintaining food intake  
(letter – 2001)  

Cannabinoids and Feeding: The Role of the Endogenous Cannabinoid System as a Trigger for Newborn Suckling  
(link to PDF - 2002)  

CANNABINOIDS: POTENTIAL ANTICANCER AGENTS  
(link to PDF - 2003)  
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.190.3990&rank=20

Association study of cannabinoid receptor gene (CNR1) alleles and anorexia nervosa: differences between restricting and binging/purging subtypes.  
(abst – 2004)  

Blood levels of the endocannabinoid anandamide are increased in anorexia nervosa and in binge-eating disorder, but not in bulimia nervosa.  
(full – 2005)  
http://www.nature.com/npp/journal/v30/n6/full/1300695a.html

Clinical research Cannabinoids in health and disease  
(link to PDF - 2007)  

Lack of association of genetic variants in genes of the endocannabinoid system with anorexia nervosa  
(full - 2008)  
http://www.capmh.com/content/2/1/33

Role of endocannabinoids and their analogues in obesity and eating disorders.  
(abst – 2008)  

Association of CNR1 and FAAH endocannabinoid gene polymorphisms with anorexia nervosa and bulimia nervosa: evidence for synergistic effects.  
(full – 2009)  

Leptin, ghrelin, and endocannabinoids: potential therapeutic targets in anorexia nervosa.  
(abst – 2009)  

Elevated cannabinoid 1 receptor mRNA is linked to eating disorder related behavior and attitudes in females with eating disorders.  
(abst – 2009)  
**ANTI-BACTERIAL PROPERTIES** *- also see MRSA

Antibacterial cannabinoids from Cannabis sativa: a structure-activity study.  (full - 2008)

Getting High For Your Health (news – 2008)
http://www.popsci.com/rachel-durfee/article/2008-09/getting-high-your-health

Cannabinoids kill hospital superbug MRSA (news – 2008)
http://www.worldhealth.net/news/cannabinoids_kill_hospital_superbug_mrsa/

Killing bacteria with cannabis (news – 2008)

Pot is good for you? Marijuana fights the superbugs (news - forum repost - 2008)

New biologically active compounds from cannabis (news - 2008)

A New MRSA Defense (news - 2008)
http://www.technologyreview.com/biomedicine/21366/?a=f

Chemicals in Marijuana May Fight MRSA (news - 2008)

Biologically Active Cannabinoids from High-Potency Cannabis sativa. (full - 2009)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4886613/

Characterization and antimicrobial activity of essential oils of industrial hemp varieties (Cannabis sativa L.). (abst - 2009)

Natural plant cannabinoids reduce multi-drug resistant infections (news - 2009)

Cannabis Compounds Reduce Multi-Drug Resistant Infections (news - 2009)
http://www.medicalnewstoday.com/articles/147523.php
ANTI-FUNGAL PROPERTIES

Biologically Active Cannabinoids from High-Potency Cannabis sativa.  
(full - 2009)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4886613/

ANTIOXIDANT PROPERTIES *

Cannabinoids protect cells from oxidative cell death: a receptor-independent mechanism.  
(full - 2000)  
http://jpet.aspetjournals.org/content/293/3/807.full

Neuroprotective Antioxidants from Marijuana  
(abst – 2000)  

US Patent 6630507 - Cannabinoids as antioxidants and neuroprotectants  
(Assignee (owner)- the US GOVERNMENT!)  
http://www.google.com/patents/US6630507

Ceramide sensitizes astrocytes to oxidative stress: protective role of cannabinoids  
(link to PDF – 2004)  
http://www.biochemj.org/content/380/2/435.full-text.pdf

Synergistic Interactions between Cannabinoids and Environmental Stress in the  
Activation of the Central Amygdala  
(full - 2005)  
http://www.nature.com/npp/journal/v30/n3/full/1300535a.html

Protective effects of Δ9-tetrahydrocannabinol against N-methyl-D-aspartate-induced AF5  
cell death  
(full - 2005)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1824211/

Comparison of Cannabidiol, Antioxidants, and Diuretics in Reversing Binge Ethanol-  
Induced Neurotoxicity  
(full - 2005)  
http://jpet.aspetjournals.org/content/314/2/780.full

Antioxidant properties of cold-pressed black caraway, carrot, cranberry, and hemp seed  
oils  
(abst – 2005)  

In vivo effects of CB1 receptor ligands on lipid peroxidation and antioxidant defense  
systems in the rat brain of healthy and ethanol-treated rats.  
(full – 2006)  

EFFECT OF CANNABINOID ON TESTICULAR ISCHEMIA-REPERFUSION INJURY IN RAT  
(link to PDF – 2006)  
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.557.2348


Cannabidiol Attenuates Cisplatin-Induced Nephrotoxicity by Decreasing Oxidative/Nitrosative Stress, Inflammation, and Cell Death (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2682269/

**ANTI-PROTOZOAL PROPERTIES** *


**ANXIETY/ ANXIOLYTIC EFFECTS** * (anxiety reducing)

Anxiety with Depression Research Review (full - 2000) http://www.ukcia.org/research/AnxietyWithDepressionResearchReview.pdf

Therapeutic aspects of cannabis and cannabinoids. (full - 2001) http://bip.rcpsych.org/cgi/content/full/178/2/107


Cannabinoid/Opioid Crosstalk in the Central Nervous System (abst – 2004)  http://dl.begellhouse.com/journals/7b004699754e9fe6.54f83f6510f9db32.25e26f6e4b594ae3.html


Cannabinoids promote embryonic and adult hippocampus neurogenesis and produce anxiolytic- and antidepressant-like effects (full - 2005)  http://www.jci.org/cgi/content/full/115/11/3104


Cannabidiol as an antipsychotic. A double-blind, controlled clinical trial on cannabidiol vs. amisulpride in acute schizophrenia. (full - 2005)  http://www.nature.com/tp/journal/v2/n3/full/tp201215a.html


Marijuana might cause new cell growth in the brain (news – 2005) (may need registration)  http://www.newscientist.com/article/dn8155


Cannabinoid CB1 Receptor Mediates Fear Extinction via Habituation-Like Processes (full - 2006)  http://www.jneurosci.org/cgi/content/full/26/25/6677?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=400&resourcetype=HWCIT

Cannabidiol, a Cannabis sativa constituent, as an antipsychotic drug (full - 2006)
Anxiolytic-like properties of the anandamide transport inhibitor AM404. (full – 2006)
http://www.nature.com/npp/journal/v31/n12/full/1301061a.html

Delta-9-tetrahydrocannabinol for nighttime agitation in severe dementia


Chronologically overlapping occurrences of nicotine-induced anxiety- and depression-related behavioral symptoms: effects of anxiolytic and cannabinoid drugs (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2075518/?tool=pubmed

Modulation of Fear and Anxiety by the Endogenous Cannabinoid System (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2789283/?tool=pmcentrez

Antiaversive Effects of Cannabinoids: Is the Periaqueductal Gray Involved
(link to PDF - 2007)

Clinical research Cannabinoids in health and disease (link to PDF - 2007)

Anxiolytic-like effects of oleamide in group-housed and socially isolated mice.

The endocannabinoid system and extinction learning. (abst - 2007)

Cannabinoid Modulation of Amygdala Reactivity to Social Signals of Threat in Humans
(full - 2008)
http://www.jneurosci.org/cgi/content/full/28/10/2313?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=0&resou
rcetype=HWCIT

The association between anxiety and alcohol versus cannabis abuse disorders among adolescents in primary care settings (full - 2008)
http://fampra.oxfordjournals.org/cgi/content/full/25/5/321


5-HT1A receptors are involved in the cannabidiol-induced attenuation of behavioural and cardiovascular responses to acute restraint stress in rats. (full – 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2697769/


Involvement of 5HT1A receptors in the anxiolytic-like effects of cannabidiol injected into the dorsolateral periaqueductal gray of rats. (abst – 2008) http://www.ncbi.nlm.nih.gov/pubmed/18446323


Role of endocannabinoid signaling in anxiety and depression. (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3808114/

Modulation of effective connectivity during emotional processing by Delta9-tetrahydrocannabinol and cannabidiol. (full - 2009) http://ijnp.oxfordjournals.org/content/13/4/421.long


APPETITE * - also see TASTE, OBESITY


Anandamide administration into the ventromedial hypothalamus stimulates appetite in rats (full - 2001) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1573067/

Neuroprotection by Delta 9-Tetrahydrocannabinol, the Main Active Compound in Marijuana, against Ouabain-Induced In Vivo Excitotoxicity (full - 2001) http://www.jneurosci.org/content/21/17/6475.full


A Peripheral Mechanism for CB1 Cannabinoid Receptor-Dependent Modulation of Feeding (full - 2002) http://www.jneurosci.org/content/22/21/9612.full


The endogenous cannabinoid system affects energy balance via central orexigenic drive and peripheral lipogenesis (full - 2003)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC166293/

Endogenous cannabinoid system as a modulator of food intake. (full - 2003)  
http://www.nature.com/jio/journal/v27/n3/full/0802250a.html

CANNABINOIDS: POTENTIAL ANTICANCER AGENTS (link to PDF - 2003)  
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.190.3990&rank=20

The cannabinoid system: a role in both the homeostatic and hedonic control of eating?  (abst – 2003)  
http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=910308&fileId=S000711450300179X

http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=61

Short-term fasting and prolonged semistarvation have opposite effects on 2-AG levels in mouse brain.  (abst – 2003)  

Milk intake and survival in newborn cannabinoid CB1 receptor knockout mice: evidence for a "CB3" receptor.  (abst – 2003)  

Endocannabinoids: Getting the message across  (full - 2004)  
http://www.pnas.org/content/101/23/8512.full?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabis&searchid=1&FIRSTINDEX=2880&resourcetype=HWCIT

Evidence for an Interaction between CB1 Cannabinoid and Melanocortin MCR-4 Receptors in Regulating Food Intake  (full – 2004)  

Stearoylethanolamide exerts anorexic effects in mice via down-regulation of liver stearoyl-coenzyme A desaturase-1 mRNA expression.  (abst – 2004)  

Very low doses of delta 8-THC increase food consumption and alter neurotransmitter levels following weight loss.  (abst – 2004)  

Overeating, Alcohol and Sucrose Consumption Decrease in Cb1 Receptor Deleted Mice.  (abst – 2004)  

Pathogenesis and treatment of cancer anorexia-cachexia, with special emphasis on aged patients  (abst – 2004)  

New molecule may be basis for drugs that battle overeating and drug dependency (news – 2004)  
http://www.sciencedaily.com/releases/2004/05/040517072118.htm
Food for thought: endocannabinoid modulation of lipogenesis (full - 2005)
http://www.jci.org/articles/view/25076/version/1

Survey of Australians using cannabis for medical purposes (full – 2005)
http://www.harmreductionjournal.com/content/2/1/18

Endocannabinoids and food intake: newborn suckling and appetite regulation in adulthood. (full - forum repost - 2005)

CENTRAL CANNABINOID REGULATION OF FOOD INTAKE IN CHICKENS (link to PDF - 2005)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.587.5749&rank=38

Endocannabinoids in the Regulation of Appetite and Body Weight. (abst - 2005)

Effects of cannabinoids on hypothalamic and reproductive function. (abst – 2005)

Cannabinoids augment the release of neuropeptide Y in the rat hypothalamus (abst – 2005)

Effects of the endocannabinoid noladin ether on body weight, food consumption, locomotor activity, and cognitive index in mice. (abst – 2005)

Suppression of feeding, drinking, and locomotion by a putative cannabinoid receptor ‘silent antagonist’ (abst – 2005)

THC effective in appetite and weight loss in severe lung disease (COPD) (news - 2005)

Machinery Of The 'Marijuana Munchies' (news - 2005)

Comparison of orally administered cannabis extract and delta-9-tetrahydrocannabinol in treating patients with cancer-related anorexia-cachexia syndrome: a multicenter, phase III, randomized, double-blind, placebo-controlled clinical trial from the Cannabis-In-Cachexia-Study-Group (full - 2006)
http://jco.ascopubs.org/content/24/21/3394.long

Effect of a cannabinoid agonist on gastrointestinal transit and postprandial satiation in healthy human subjects: a randomized, placebo-controlled study (full - 2006)
Postprandial increase of oleoylethanolamide mobilization in small intestine of the Burmese python (Python molurus) (full – 2006) http://ajpregu.physiology.org/content/290/5/R1407.long


Pharmacological enhancement of the endocannabinoid system in the nucleus accumbens shell stimulates food intake and increases c-Fos expression in the hypothalamus. (full – 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2042935/?tool=pubmed

Inhibition of milk ingestion and growth after administration of a neutral cannabinoid CB1 receptor antagonist on the first postnatal day in the mouse. (full - 2007) http://www.nature.com/pr/journal/v62/n5/full/pr2007273a.html


Dronabinol an effective appetite stimulant? (abst - 2007)
THC improves appetite and reverses weight loss in AIDS patients (abst - 2007)

Efficacy of dronabinol alone and in combination with ondansetron versus ondansetron alone for delayed chemotherapy-induced nausea and vomiting. (abst - 2007)

Dronabinol and marijuana in HIV-positive marijuana smokers: caloric intake, mood, and sleep. (abst - 2007)

Anorexia of aging in long term care: is dronabinol an effective appetite stimulant?--a pilot study. (abst – 2007)

The lipid messenger OEA links dietary fat intake to satiety. (full – 2008)

Gastrointestinal Regulation of Food Intake: General Aspects and Focus on Anandamide and Oleoylethanolamide (full – 2008)

Targeted enhancement of oleoylethanolamide production in proximal small intestine induces across-meal satiety in rats. (full – 2008)

Feeding induced by cannabinoids is mediated independently of the melanocortin system. (full - 2008)

Activating Parabrachial Cannabinoid CB1 Receptors Selectively Stimulates Feeding of Palatable Foods in Rats (full - 2008)

Endocannabinoids and the Control of Energy Homeostasis (full – 2008)

The role of endocannabinoids in the regulation of gastric emptying: alterations in mice fed a high-fat diet. (full – 2008)

Behavioral effects of CB2 cannabinoid receptor activation and its influence on food and alcohol consumption. (full - 2008)

SUPPORTING RESEARCH INTO THE THERAPEUTIC ROLE OF MARIJUANA (full – 2008)
Cannabinoid type-1 receptor gene polymorphisms are associated with central obesity in a Southern Brazilian population. (link to PDF – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3827795/

Cannabinoids enhance gastric X/A-like cells activity. (link to PDF – 2008) http://search.proquest.com/openview/0660941d8d9d6c05ce8277f592dafe02/1?pq-origsite=gscholar&cbl=34373


Genetic variation may influence obesity only under conditions of diet: Analysis of three candidate genes (abst – 2008) http://www.mgmjournal.com/article/S1096-7192%2808%2900201-1/abstract


Endocannabinoids selectively enhance sweet taste (full - 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2818929/?tool=pmcentrez

Synthetic and plant-derived cannabinoid receptor antagonists show hypophagic properties in fasted and non-fasted mice (full - 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2697695/?tool=pubmed

GPR119 is essential for oleoylethanolamide-induced glucagon-like peptide-1 secretion from the intestinal enteroendocrine L-cell. (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2671052/?tool=pubmed


Sex differences in the cannabinoid regulation of energy homeostasis (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3772082/

Endocannabinoid system modulation in cancer biology and therapy. (abst – 2009)  

N-acylethanolamines, anandamide and food intake. (abst – 2009)  

Cannabinoids and appetite: food craving and food pleasure. (abst – 2009)  

Effects of cannabinoid drugs on the reinforcing properties of food in gestationally undernourished rats. (abst – 2009)  

Role of cannabinoid CB1 receptors on macronutrient selection and satiety in rats. (abst – 2009)  

Cannabinoid in the nucleus accumbens enhances the intake of palatable solution. (abst – 2009)  

Natural Pot-Like Compound Could Fight Obesity (news - 2009)  
http://www.scientificamerican.com/podcast/episode.cfm?id=natural-pot-like-compound-could-fig-09-12-29

Enhanced Sweet Taste: Endocannabinoids Act Directly on Tongue Taste Receptors (news - 2009)  

Chemicals in pot stimulate tongue receptors to taste sweetness. (news - 2009)  
http://www.thefreelibrary.com/Chemicals+in+pot+stimulate+tongue+receptors+to+taste+sweetness.-a0215089160

Enhanced sweet taste: This is your tongue on pot (news – 2009)  

**ARTHRITIS**

Immuoactive cannabinoids: Therapeutic prospects for marijuana constituents (full - 2000)  

The nonpsychoactive cannabis constituent cannabidiol is an oral anti-arthritic therapeutic in murine collagen-induced arthritis (full - 2000)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC16904/?tool=pubmed

https://www.google.com/patents/US6132762
Marijuana Extract Helps Arthritis Pain (news - 2000)
http://www.prohealth.com/library/showArticle.cfm?libid=552

Anandamide activates peripheral nociceptors in normal and arthritic rat knee joints (full - 2001)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1572613/?tool=pmcentrez


Cannabis May Suppress Immune System (news - 2003)

A novel synthetic, nonpsychoactive cannabinoid acid (HU-320) with antiinflammatory properties in murine collagen-induced arthritis. (full - 2004)

Survey of Australians using cannabis for medical purposes (full – 2005)
http://www.harmreductionjournal.com/content/2/1/18

Ajulemic acid (IP-751): Synthesis, proof of principle, toxicity studies, and clinical trials (link to PDF - 2005)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2751505/

The medicinal use of cannabis in the UK: results of a nationwide survey (abst – 2005)

Rheumatoid arthritis, Cannabis based medicine eases pain and suppresses disease (news - 2005)
http://www.medicalnewstoday.com/articles/33376.php

Cannabis-Based Drug Relieves Arthritis Pain (news - 2005)
http://www.medpagetoday.com/Rheumatology/Arthritis/2097

First study to use a cannabis-based medicine for treating rheumatoid arthritis (news - 2005)

Pot-Based Drug Promising for Arthritis (news - 2005)

Cannabis-based medicine relieves the pain of rheumatoid arthritis and suppresses the disease (news – 2005)

Preliminary assessment of the efficacy, tolerability and safety of a cannabis-based medicine (Sativex) in the treatment of pain caused by rheumatoid arthritis (full - 2006)
http://rheumatology.oxfordjournals.org/cgi/content/full/45/1/50?maxtoshow=&hitseq=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=2240&resourcetype= dışında
The use of a cannabis-based medicine (Sativex) in the treatment of pain caused by rheumatoid arthritis. (letter - 2006)  
http://rheumatology.oxfordjournals.org/cgi/content/full/45/6/781


The Cannabinergic System as a Target for Anti-inflammatory Therapies (abst - 2006)  
http://www.ingentaconnect.com/content/ben/ctmc/2006/00000006/00000013/art00008

Arthritis and pain. Future targets to control osteoarthritis pain. (full - 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2206352/?tool=pubmed

Honokiol, a natural plant product, inhibits inflammatory signals and alleviates inflammatory arthritis. (full – 2007)  
http://www.jimmunol.org/content/179/2/753.long

Suppression of fibroblast metalloproteinases by ajulemic acid, a nonpsychoactive cannabinoid acid. (abst - 2007)  

The antinociceptive effect of Delta9-tetrahydrocannabinol in the arthritic rat involves the CB(2) cannabinoid receptor. (abst - 2007)  
http://www.unboundmedicine.com/medline/ebm/record/17588560/abstract/The_antinociceptive_effect_of_Delta9_tetrahydrocannabinol_in_the_arthritic_rat_involves_the_CB_2__cannabinoid_receptor

Synergy between Delta(9)-tetrahydrocannabinol and morphine in the arthritic rat (abst - 2007)  
http://www.unboundmedicine.com/medline/ebm/record/17498686/abstract/Synergy_between_Delta_9__tetrahycannabinol_and_morphine_in_the_arthritic_rat

Characterisation of the cannabinoid receptor system in synovial tissue and fluid in patients with osteoarthritis and rheumatoid arthritis. (full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2453762/?tool=pubmed

Cannabinomimetic Control of Mast Cell Mediator Release: New Perspective in Chronic Inflammation (full – 2008)  

In vivo effects of CB2 receptor-selective cannabionoids on the vasculature of normal and arthritic rat knee joints (full - 2008)  

Cannabinoid-mediated antinociception is enhanced in rat osteoarthritic knees. (full – 2008)  

CB2 cannabinoid receptor agonist JWH-015 modulates human monocyte migration through defined intracellular signaling pathways. (full – 2008)  
http://ajpheart.physiology.org/content/294/3/H1145.long
Suppression of human macrophage interleukin-6 by a nonpsychoactive cannabinoid acid.

Ajulemic acid, a synthetic cannabinoid acid, induces an antiinflammatory profile of eicosanoids in human synovial cells. (abst – 2008)


Anti-inflammatory compound from cannabis found in herbs (news - 2008)
http://www.rsc.org/chemistryworld/News/2008/June/24060801.asp

Ajulemic acid, a synthetic cannabinoid, increases formation of the endogenous proresolving and anti-inflammatory eicosanoid, lipoxin A4 (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2669421/

Cannabinoids as novel anti-inflammatory drugs. (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2828614/?tool=pubmed

The Health Effects of Medical Marijuana Project (HEMMP) (news – 2009)
http://www.heretohelp.bc.ca/visions/cannabis-vol5/the-health-effects-medical-marijuana-project-hemmp

Medical Marijuana and Reiter's Syndrome (news/ad – 2009)
https://www.marijuanadoctors.com/content/ailments/view/57?ailment=reiter-s-syndrome

Medical Marijuana and Arthritis (news/ad – 2009)
https://www.marijuanadoctors.com/content/ailments/view/72?ailment=arthritis

Medical Marijuana and Arthritis (Rheumatoid) (news/ad – 2009)
https://www.marijuanadoctors.com/content/ailments/view/105?ailment=arthritis-rheumatoid

Medical Marijuana and Post-traumatic arthritis (news/ad – 2009)
https://www.marijuanadoctors.com/content/ailments/view/85?ailment=post-traumatic-arthritis

Medical Marijuana and Degenerative Arthritis (news/ad – 2009)
https://www.marijuanadoctors.com/content/ailments/view/83?ailment=degenerative-arthritis

Medical Marijuana and Degenerative Arthropathy (news/ad – 2009)
https://www.marijuanadoctors.com/content/ailments/view/126?ailment=degenerative-arthropathy

ASTHMA * - also see LUNG FUNCTION

Bidirectional control of airway responsiveness by endogenous cannabinoids
Ganja medicine in Jamaica  (news – 2000)
http://www.cannabisculture.com/content/2000/01/16/59

Therapeutic aspects of cannabis and cannabinoids.  (full - 2001)
http://bip.rcpsych.org/cgi/content/full/178/2/107


New Synthetic Delta-9-THC Inhaler Offers Safe, Rapid Delivery  (news - 2005)
http://www.medicalnewstoday.com/articles/22937.php

The Cannabinergic System as a Target for Anti-inflammatory Therapies  (abst - 2006)
http://www.ingentaconnect.com/content/ben/ctmc/2006/00000006/00000013/art00008

Clinical research Cannabinoids in health and disease  (link to PDF - 2007)

Cannabinoid CB(2) receptor activation prevents bronchoconstriction and airway oedema in a model of gastro-oesophageal reflux.  (abst - 2007) http://www.ncbi.nlm.nih.gov/pubmed/17643417

Activation of cannabinoid receptors prevents antigen-induced asthma-like reaction in guinea pigs.  (full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4514116/

Cannabinomimetic Control of Mast Cell Mediator Release: New Perspective in Chronic Inflammation  (full – 2008)


Medical Marijuana and Asthma  (news/ad – 2009)
https://www.marijuanadoctors.com/content/ailments/view/127?ailment=asthma

ATHEROSCLEROSIS *

Cardiovascular Effects of Cannabis  (news - undated)
http://www.idmu.co.uk/canncardio.htm

Low dose oral cannabinoid therapy reduces progression of atherosclerosis in mice.  (full - 2005) http://www.nature.com/nature/journal/v434/n7034/full/nature03389.html

Cannabis compound tackles blood vessel disease  (news - 2005)
Cannabis may help keep arteries clear (news - 2005)

Medical marijuana: study shows that THC slows atherosclerosis (news - 2005)

Science: THC slows development of atherosclerosis in animal study (news - 2005)
http://www.cannabis-med.org/english/bulletin/ww_en_db_cannabis_artikel.php?id=190#1


Marijuana Chemical Fights Hardened Arteries (news - 2005)

Does Cannabis Hold the Key to Treating Cardiometabolic Disease (full - 2006)

Cannabinoid receptors in atherosclerosis. (abst – 2006)


The Cannabinergic System as a Target for Anti-inflammatory Therapies (abst - 2006)
http://www.ingentaconnect.com/content/ben/ctmc/2006/00000006/00000013/art00008

Endocannabinoids and the haematological system (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190025/?tool=pmcentrez


Decreased age-related cardiac dysfunction, myocardial nitratve stress, inflammatory gene expression, and apoptosis in mice lacking fatty acid amide hydrolase. (full – 2007) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2225473/

The endocannabinoid network: insight into the regulation of the neuroendocrine and metabolic systems. (full - 2007)


Cannabinoid receptors in acute and chronic complications of atherosclerosis (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219535/?tool=pmcentrez
Pleiotropic effects of the CB2 cannabinoid receptor activation on human monocyte migration: implications for atherosclerosis and inflammatory diseases (full – 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2267750/?tool=pubmed

Cannabinomimetic Control of Mast Cell Mediator Release: New Perspective in Chronic Inflammation (full – 2008)

Role of endocannabinoids in cardiovascular shock. (full – 2008)
http://www.jpp.krakow.pl/journal/archive/12_08_s8/pdf/91_12_08_s8_article.pdf

CB2 cannabinoid receptor agonist JWH-015 modulates human monocyte migration through defined intracellular signaling pathways. (full – 2008)
http://ajpheart.physiology.org/content/294/3/H1145.long

Cannabinoid receptors in acute and chronic complications of atherosclerosis (link to PDF - 2008)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.660.7583&rank=60


The emerging role of the endocannabinoid system in cardiovascular disease (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2791499/?tool=pmcentrez

Endocannabinoids and the Heart (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2728560/?tool=pmcentrez

CB1 and CB2 cannabinoid receptors differentially regulate the production of reactive oxygen species by macrophages (full – 2009)
http://cardiovascres.oxfordjournals.org/content/84/3/378.full?sid=7d2438c4-a727-410f-870d-4a971695b4fb

Cannabidiol-2',6'-Dimethyl Ether, a Cannabidiol Derivative, Is a Highly Potent and Selective 15-Lipoxygenase Inhibitor. (full - 2009)
http://dmd.aspetjournals.org/content/37/8/1733.long

Cannabinoids and atherosclerosis. (abst - 2009)

Medical Marijuana and Arteriosclerotic Heart Disease (news/ad – 2009)
https://www.marijuanadoctors.com/content/ailments/view/125?ailment=arteriosclerotic-heart-disease
**AUTISM** - also see FRAGILE X SYNDROME

Cannabis and Aspergers, My Experience by Anonymous  
(ancestral - undated)  
http://rxmarijuana.com/cannabis_aspergers.htm

Medical Marijuana as a Cure for Autism  
(ancestral – undated)  
http://www.autism-pdd.net/testdump/test13417.htm

THE SAM PROJECT: James D.  
(news / anecdotal - 2002)  
http://www.letfreedomgrow.com/articles/james_d.htm

Variations in the human cannabinoid receptor (CNR1) gene modulate striatal responses to happy faces.  
(abst – 2006)  

Autism, ADD, ADHD and Marijuana Therapy  
(news - 2008)  

Prescribing marijuana to kids  
(news – 2009)  
http://theweek.com/article/index/103325/prescribing-marijuana-to-kids

ABC News Lauds Marijuana for Autism  
(news – 2009)  

Sam’s Story: Using Medical Cannabis to Treat Autism Spectrum Disorder  
(news / anecdotal - 2009)  
http://www.letfreedomgrow.com/cm/SamsStory.htm

Mom: Medical pot saved life of son with autism  
(news / anecdotal - 2009)  

The ultimate herbal remedy: Can cannabis improve autism?  
(news / anecdotal - 2009)  

Why I Give My 9-year-old Pot Part 1 & 2  
(news/ anecdotal - 2009)  
http://www.rxmarijuana.com/lee.htm

**BACK PAIN** - also see PAIN, SPASTICITY, SPINAL CORD INJURY

BACK PAIN DUE TO DEGENERATED DISC – ANY THERAPEUTIC ROLE OF CANNABIS  
(abst – 2008)  
http://www.bjoprocs.boneandjoint.org.uk/content/90-B/SUPP_II/224.5

Medical Marijuana and Back Pain  
(news/ad – 2009)  
https://www.marijuanadoctors.com/content/ailments/view/110?ailment=back-pain

Medical Marijuana and Back Sprain  
(news/ad – 2009)
BILE/ BILE DUCTS

Role of the nitric oxide pathway and the endocannabinoid system in neurogenic relaxation of corpus cavernosum from biliary cirrhotic rats (full – 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2013996/

Effect of biliary cirrhosis on nonadrenergic noncholinergic-mediated relaxation of rat corpus cavernosum: Role of nitric oxide pathway and endocannabinoid system (link to download – 2008)

BIMODAL/PARADOXICAL EFFECTS (a high dose and a low dose give very different effects)


BIPOLAR DISORDER *

Bipolar Disorder and Endometriosis by Anonymous (anecdotal – undated)
http://rxmarijuana.com/shared_comments/Endometriosis4.htm

Recipe For Trouble (anecdotal/ news - 2002)
http://www.cbsnews.com/stories/2002/03/05/48hours/main503022.shtml

Cannabinoids in bipolar affective disorder: a review and discussion of their therapeutic potential. (full - 2005)
http://www.ukcia.org/research/CannabinoidsInBipolarAffectiveDisorder.pdf

Cannabis in bipolar (abst - 2005)
http://www.pendulum.org/bpnews/archive/001628.html

Cannabis Spray for Bipolar (news - 2005)
http://www.prohealth.com/mecfs/blog/boardDetail.cfm?id=565511

Marijuana Could Provide Mental Health Treatments (news - 2005)
Chemicals in Cannabis may help mentally ill (news - 2005)

Clinical research Cannabinoids in health and disease (link to PDF - 2007)

The effect of extreme marijuana use on the long-term course of bipolar I illness: a single case study. (abst - 2007)

Opposite relationships between cannabis use and neurocognitive functioning in bipolar disorder and schizophrenia. (abst - 2009)

Medical Marijuana and Bipolar Disorder (news/ad – 2009)

BLADDER / URINARY FUNCTIONS *

Effects of cannabinoid receptor agonists on neuronally-evoked contractions of urinary bladder tissues isolated from rat, mouse, pig, dog, monkey and human (full - 2000)

Administration of Endocannabinoids Prevents a Referred Hyperalgesia Associated With Inflammation of the Urinary Bladder (full – 2001)

Clinical investigation of delta-9-tetrahydrocannabinol (THC) as an alternative therapy for overactive bladders in spinal cord injury (SCI) patients. (abst - 2001)

Contrasting effects of WIN 55212-2 on motility of the rat bladder and uterus. (full – 2002)

Therapeutic potential of cannabis (full – 2003)

Therapy Insight: Bladder Dysfunction Associated With Multiple Sclerosis

Marijuana-Derived Drug Suppresses Bladder Overactivity And Irritation In Animal Models  (news - 2005)

Differential mechanisms mediating depressor and diuretic effects of anandamide

Marijuana-Derived Drug Suppresses Bladder Pain In Animal Models  (news - 2006)
http://www.sciencedaily.com/releases/2006/05/060521103039.htm


Cannabinoid receptor 2 is increased in acutely and chronically inflamed bladder of rats
(full - 2008)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2592089/?tool=pmcentrez


Overactive Bladder: Can Marijuana Potentially Treat It?  (news – 2009)
http://www.empowher.com/urinary-incontinence/content/overactive-bladder-can-marijuana-potentially-treat-it

BLEPHAROSPASM * - also see MEIGE'S SYNDROME in PRE-2000 section

Cannabinoid agonists in the treatment of blepharospasm--a case report study.
(link to PDF - 2004)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.505.5231&rank=11

BLOOD-BRAIN BARRIER

Cannabinoids spell relief in colon inflammation  (news – 2004)
http://www.mpg.de/496761/pressRelease20040506?filter_order=1

The endocannabinoid 2-AG protects the blood-brain barrier after closed head injury and inhibits mRNA expression of proinflammatory cytokines.  (abst – 2006)
Endocannabinoid enhancement protects against kainic acid-induced seizures and associated brain damage.  
(full – 2007)  
http://jpet.aspetjournals.org/content/322/3/1059.long

The Endocannabinoids: Functional Roles and Therapeutic Opportunities  
(news – 2007)  

CB2 receptor activation attenuates microcirculatory dysfunction during cerebral ischemic/reperfusion injury.  
(full - 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3319431/

Endocannabinoid signaling in neurotoxicity and neuroprotection.  
(full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2891218/

**BLOOD/ PLATELETS/ PLASMA  *  

Estrogen stimulates arachidonoylethanolamide release from human endothelial cells and platelet activation  
(full – 2002)  
http://bloodjournal.hematologylibrary.org/content/100/12/4040.full

The Procoagulatory Effects of Delta-9-Tetrahydrocannabinol in Human Platelets  
(full – 2004)  

Plasma Levels of the Endocannabinoid Anandamide in Women—A Potential Role in Pregnancy Maintenance and Labor?  
(full - 2004)  

Biochemical Changes in Endocannabinoid System are Expressed in Platelets of Female but not Male Migraineurs  
(full - 2006)  

Nitric Oxide and Anandamide in OMT Research  
(letter – 2006)  
http://jaoa.org/article.aspx?articleid=2093101&resultClick=1

Release of anandamide from blood cells  
(abst – 2006)  

Anticoagulant Effects of a Cannabis Extract in an Obese Rat Model  
(abst - 2007)  

Cholesterol-induced stimulation of platelet aggregation is prevented by a hempseed-enriched diet.  
(abst - 2008)  
Fluctuation in anandamide levels from ovulation to early pregnancy in in-vitro fertilization-embryo transfer women, and its hormonal regulation (full – 2009)  
http://humrep.oxfordjournals.org/content/24/8/1989.long

Cannabinoid receptor 2 mediates the retention of immature B cells in bone marrow sinusoids. (full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2768754/

Circulating endocannabinoid concentrations during orthostatic stress (abst – 2009)  
www.ncbi.nlm.nih.gov/pubmed/19756829

BLOOD PRESSURE *

Endocannabinoids and Vascular Function (full - 2000)  
http://jpet.aspetjournals.org/content/294/1/27.long

Endogenous cannabinoids mediate hypotension after experimental myocardial infarction (full - 2001)  
http://content.onlinejacc.org/cgi/content/full/38/7/2048?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=560&resourcetype=HWCIT

Anandamide-induced relaxation of sheep coronary arteries: the role of the vascular endothelium, arachidonic acid metabolites and potassium channels. (full - 2001)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1573033/

The quest for a vascular endothelial cannabinoid receptor. (abst – 2002)  

http://molpharm.aspetjournals.org/content/63/3/699.long

Cardiovascular Effects of Cannabis (news - 2003)  
http://www.idmu.co.uk/cannocardio.htm

Endocannabinoids Acting at Cannabinoid-1 Receptors Regulate Cardiovascular Function in Hypertension (full - 2004)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2756479/?tool=pmcentrez

Heterogeneity in the mechanisms of vasorelaxation to anandamide in resistance and conduit rat mesenteric arteries (full – 2004)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1574972/
Atypical cannabinoid stimulates endothelial cell migration via a Gi/Go-coupled receptor distinct from CB1, CB2 or EDG-1  (abst – 2004)  

Blood pressure regulation by endocannabinoids and their receptors  (full - 2005)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2225528/?tool=pmcentrez

Cardiovascular Pharmacology of Cannabinoids  (full - 2005)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2228270/?tool=pmcentrez

Influence of Anandamide, the Endogenous Agonist of Cannabinoid Receptors on the Circulatory System  (abst - 2005)  

Further Characterization of the Time-Dependent Vascular Effects of Δ9-Tetrahydrocannabinol  (full - 2006)  
http://jpet.aspetjournals.org/content/317/1/428.full

The Cannabinoid Cb1 Receptor Antagonist Rimonabant Attenuates the Hypotensive Effect of Smoked Marijuana in Male Smokers.  (full – 2006)  
http://www.ahjonline.com/article/S0002-8703%2805%2901013-6/fulltext

Vasorelaxant effects of oleamide in rat small mesenteric artery indicate action at a novel cannabinoid receptor.  (full – 2006)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1616976/

Differential mechanisms mediating depressor and diuretic effects of anandamide  (abst – 2006)  

Lowering Of Blood Pressure Achieved Through Use Of Hashish-Like Drug  (news - 2006)  
http://www.sciencedaily.com/releases/2006/06/060620083025.htm

Cannabis to lower blood pressure!  (news - 2006)  
http://www.news-medical.net/news/2006/06/19/18517.aspx

Marijuana may be Helpful in Lowering Blood Pressure  (news – 2006)  

The in vitro and in vivo cardiovascular effects of Δ9-tetrahydrocannabinol (THC) in rats made hypertensive by chronic inhibition of nitric oxide synthase.  (full - 2007)  
http://jpet.aspetjournals.org/content/321/2/663.full

Oleamide: a fatty acid amide signaling molecule in the cardiovascular system?  (full – 2007)  

Characterization of the vasorelaxant mechanisms of the endocannabinoid anandamide in rat aorta  (full – 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190007/?tool=pubmed
Cardiovascular effects of cannabinoids in conscious spontaneously hypertensive rats (full - 2007) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190006/


Modulation of the Endocannabinoid System in Cardiovascular Disease (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2568884/?tool=pmcentrez

'Entourage' effects of N-palmitoylethanolamide and N-oleoylethanolamide on vasorelaxation to anandamide occur through TRPV1 receptors. (full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2597234/?tool=pubmed

Acute hypertension reveals depressor and vasodilator effects of cannabinoids in conscious rats (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2697765/?tool=pmcentrez


Vasoactive and Neuroprotective Actions of a Non-Pyschotropic Atypical Cannabinoid in the Retina (abst – 2009) http://iovs.arvojournals.org/article.aspx?articleid=2363001&resultClick=1


BONE MARROW

Cannabinoid receptor 2 mediates the retention of immature B cells in bone marrow sinusoids. (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2768754/

**BORNA DISEASE** - a viral encephalitic disease of warm blooded animals, no known human cases


**BOWEL DISORDERS** * - also see GERD, COLITIS, IBS, CROHN’S

Central and peripheral cannabinoid modulation of gastrointestinal transit in physiological states or during the diarrhoea induced by croton oil (full - 2000) http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=1572019&tool=pmcentrez

Modulation of peristalsis by cannabinoid CB1 ligands in the isolated guinea-pig ileum (full - 2000) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1571902/

Inhibition of small intestinal secretion by cannabinoids is CB1 receptor-mediated in rats (abst – 2000) http://www.sciencedirect.com/science/article/pii/S00142999990008438

Cannabinoid CB1-mediated inhibition of stress-induced gastric ulcers in rats (abst – 2000) http://www.springerlink.com/content/w3jc8rk16k9p92fl/

Cannabinoid CB1-receptor mediated regulation of gastrointestinal motility in mice in a model of intestinal inflammation (full - 2001) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1572987/?tool=pmcentrez

Cannabinoids and the gastrointestinal tract (full - 2001) http://gut.bmj.com/content/48/6/859.full


Cannabinoid receptor type 1 modulates excitatory and inhibitory neurotransmission in mouse colon (full – 2003) http://ajpgi.physiology.org/content/286/1/G110.full?sid=fc6948f0-78cf-405c-981b-afaa05ee417c


Inflammation and cancer IV. Colorectal cancer in inflammatory bowel disease: the role of inflammation. (full - 2004) http://ajpgi.physiology.org/cgi/content/full/287/1/G7

Cannabinoids and intestinal motility: welcome to CB2 receptors (full - 2004) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1575197/

Involvement of cannabinoid receptors in gut motility and visceral perception. (full – 2004) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1574910/?tool=pubmed


The endogenous cannabinoid system protects against colonic inflammation (full - 2004) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC385396/

Cannabinoids cool the intestine (full - 2004) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2516444/?tool=pmcentrez

Effects of cannabinoid receptor-2 activation on accelerated gastrointestinal transit in lipopolysaccharide-treated rats (full - 2004) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1575196/?tool=pmcentrez

Involvement of cannabinoid receptors in gut motility and visceral perception (full - 2004) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1574910/?tool=pmcentrez


The gastrointestinal pharmacology of cannabinoids: an update. (abst – 2004)
Cannabinoids spell relief in colon inflammation (news – 2004)

The effects of Δ9-tetrahydrocannabinol in rat mesenteric vasculature, and its interactions with the endocannabinoid anandamide (full - 2005)

Effects of cannabinoids on colonic muscle contractility and tension in guinea pigs. (full – 2005)

Differential Expression of Cannabinoid Receptors in the Human Colon: Cannabinoids Promote Epithelial Wound Healing (link through Elsevier for full - 2005)

Peripheral, but not central effects of cannabidiol derivatives: Mediation by CB 1 and unidentified receptors (full - 2005)

The endocannabinoid system in the physiology and pathophysiology of the gastrointestinal tract. (abst – 2005)

Cannabinoids and the digestive tract. (abst – 2005)

Cisplatin increases brain 2-arachidonoylglycerol (2-AG) and concomitantly reduces intestinal 2-AG and anandamide levels in the least shrew. (abst – 2005)

Cannabis drugs may benefit those with bowel disease (news - 2005)

Cannabis may soothe inflamed bowels (news - 2005)

Bowel Study Backs Cannabis Drugs (news - 2005)

Cannabinoid 1 (CB1) receptors coupled to cholinergic motorneurones inhibit neurogenic circular muscle contractility in the human colon. (full – 2006)
Neural contractions in colonic strips from patients with diverticular disease: role of endocannabinoids and substance P (full – 2006)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1856307/

Endocannabinoid overactivity and intestinal inflammation (full - 2006)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1856409/?tool=pmcentrez

Effect of a cannabinoid agonist on gastrointestinal transit and postprandial satiation in healthy human subjects: a randomized, placebo-controlled study (full - 2006)

Agonists of cannabinoid receptor 1 and 2 inhibit experimental colitis induced by oil of mustard and by dextran sulfate sodium (full – 2006)
http://ajpgi.physiology.org/content/291/2/G364

Up-regulation of anandamide levels as an endogenous mechanism and a pharmacological strategy to limit colon inflammation. (abst – 2006)

Endocannabinoids and the gastrointestinal tract. (abst – 2006)

Cannabinoids promote survival of normal human colonic epithelial cells (abst – forum re-post - 2006)


Science: Cannabinoids reduce inflammation of the bowel in animal model (news - 2006)
http://www.cannabis-med.org/english/bulletin/ww_en_db_cannabis_artikel.php?id=216#1

Synthetic THC Eases Stomach Cramping, Study Says (news - 2006)

ACG: Cannabinoid Activator Mellows Out Colon (news - 2006)
http://www.medpagetoday.com/MeetingCoverage/ACG/4410

Cannabis Helps Ulcers And Crohn's Disease (news - 2006)

Cannabis Drugs "May control Symptoms of Gut Disease" (news - 2006)

Cannabis Chemicals May Alleviate Post-Eating Stomach Cramps (news – 2006)
Increased endocannabinoid levels reduce the development of precancerous lesions in the mouse colon. (full – 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2755791/?tool=pubmed

The endogenous cannabinoid system: a new player in the brain-gut-adipose axis  
(full - 2007)  

Effects of a cannabinoid receptor agonist on colonic motor and sensory functions in humans: a randomized, placebo-controlled study  
(full - 2007)  
http://ajpgi.physiology.org/cgi/content/full/293/1/G137

Endocannabinoids and the gastrointestinal tract: what are the key questions?  
(full - 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190011/

Cannabinoid CB2 receptors in the gastrointestinal tract: a regulatory system in states of inflammation  
(full - 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219529/?tool=pmcentrez

CB1 receptors mediate the analgesic effects of cannabinoids on colorectal distension-induced visceral pain in rodents.  
(full – 2007)  
http://www.jneurosci.org/content/29/5/1554.long

The cannabinoid CB(2) receptor: a good friend in the gut.  
(full – 2007)  

Lactobacillus acidophilus modulates intestinal pain and induces opioid and cannabinoid receptors.  
(abst – 2007)  

Overactivity of the intestinal endocannabinoid system in celiac disease and in methotrexate-treated rats.  
(abst – 2007)  

The endocannabinoids anandamide and 2-arachidonoylglycerol inhibit cholinergic contractility in the human colon.  
(abst – 2007)  

Pharmacological analysis of cannabinoid-induced inhibition of gastric mucosal damage and gastric motility  
(abst – 2007)  

Cannabinoid CB2 receptors in the enteric nervous system modulate gastrointestinal contractility in lipopolysaccharide-treated rats  
(full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2494728/?tool=pubmed

Cannabidiol, extracted from Cannabis sativa, selectively inhibits inflammatory hypermotility in mice (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2451037/?tool=pmcentrez

Cannabinoid CB1 Receptors Are Expressed by Parietal Cells of the Human Gastric Mucosa (full – 2008) http://jhc.sagepub.com/content/56/5/511.full


Genetic variation in endocannabinoid metabolism, gastrointestinal motility, and sensation. (full – 2008) http://ajpgi.physiology.org/content/294/1/G13.long


Anti-inflammatory cannabinoids in diet (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2633791/?tool=pmcentrez

Cannabinoids and gastrointestinal motility: animal and human studies. (link to PDF - 2008) http://www.europeanreview.org/article/519


Anti-inflammatory compound from cannabis found in herbs (news - 2008) http://www.rsc.org/chemistryworld/News/2008/June/24060801.asp


Cannabinoid-1 (CB1) receptors regulate colonic propulsion by acting at motor neurons within the ascending motor pathways in mouse colon (full - 2009)
Interaction between cannabinoid CB1 receptors and endogenous ATP in the control of spontaneous mechanical activity in mouse ileum. (full – 2009)

Effect of Δ9-tetrahydrocannabinol, a cannabinoid receptor agonist, on the triggering of transient lower oesophageal sphincter relaxations in dogs and humans (full - 2009)

Modulation of motor and sensory pathways of the peristaltic reflex by cannabinoids. (full – 2009)

Evaluation of prevalent phytocannabinoids in the acetic acid model of visceral nociception (full - 2009)

Cannabinoids as novel anti-inflammatory drugs. (full - 2009)

Involvement of nitric oxide in the gastroprotective effect of ACEA, a selective cannabinoid CB1 receptor agonist, on aspirin-induced gastric ulceration. (abst – 2009)

Cannabinoids in intestinal inflammation and cancer. (abst - 2009)

Effects of central endocannabinoid system on visceral hyposensitivity induced by rapid eye movement sleep deprivation: experiment with rats (abst – 2009)

Cannabis for Ulcerative Colitis and Crohn's Disease treatment (news - 2009)

Medical Marijuana and Diverticulitis (news/ad – 2009)

Gastrointestinal Disorders (news - 2009)

Medical Marijuana and Constipation (news/ad – 2009)

Medical Marijuana and Gastritis (news/ad – 2009)
Alternatives: Miracle Marijuana (anecdotal/news - 2009)  
http://www.heretohelp.bc.ca/visions/cannabis-vol5/alternatives

**BRAIN**

GABAERIC INTERNEURONS ARE THE TARGETS OF CANNABINOID ACTIONS IN THE HUMAN HIPPOCAMPUS (link to PDF - 2000)  
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.578.3590&rank=49

Cannabinoids decrease the K+ M-current in hippocampal CA1 neurons (link to PDF - 2000)  
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.326.2509&rank=84

Cannabinoid Receptor Messenger Rna Levels Decrease in a Subset of Neurons of the Lateral Striatum, Cortex and Hippocampus of Transgenic Huntington’s Disease Mice. (abst – 2000)  

Frequent Marijuana Use May Affect Brain Function But Not Structure (news – 2000)  
http://www.sciencedaily.com/releases/2000/03/000331090541.htm

Reversibility of n-3 fatty acid deficiency-induced alterations of learning behavior in the rat: level of n-6 fatty acids as another critical factor (full – 2001)  
http://www.jlr.org/content/42/10/1655.full

Anandamide administration into the ventromedial hypothalamus stimulates appetite in rats (full - 2001)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1573067/

Anandamide uptake by synaptosomes from human, mouse and rat brain: inhibition by glutamine and glutamate (full – 2002)  
http://www.lipidworld.com/content/1/1/1

Cannabinoids and Feeding: The Role of the Endogenous Cannabinoid System as a Trigger for Newborn Suckling (link to PDF - 2002)  

Cannabis and the brain. (full – 2003)  
http://brain.oxfordjournals.org/cgi/content/full/126/6/1252

Non-acute (residual) neurocognitive effects of cannabis use: A meta-analytic study (full – 2003)  

Therapeutic potential of cannabinoids in CNS disease. (abst – 2003)  

Study: Brain Not Permanently Damaged by Marijuana (news - 2003)


Effects of Alcohol and Combined Marijuana and Alcohol Use During Adolescence on Hippocampal Volume and Asymmetry (full – 2006) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1821342/?tool=pubmed


The hytocannabinoids Δ9-tetrahydrocannabivarin modulates inhibitory neurotransmission in the cerebellum (full – 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2438968/

Subcellular Arrangement of Molecules for 2-Arachidonoyl-Glycerol-Mediated Retrograde Signaling and Its Physiological Contribution to Synaptic Modulation in the Striatum (full – 2007) http://www.jneurosci.org/content/27/14/3663.long


Volumetric MRI Study of Brain in Children With Intrauterine Exposure to Cocaine, Alcohol, Tobacco, and Marijuana (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2562785/


White Matter Integrity in Adolescents with Histories of Marijuana Use and Binge Drinking. (full - 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2762024/


BRAIN TRAUMA *- also see CHRONIC TRAUMATIC ENCEPHALOPATHY

Exogenous anandamide protects rat brain against acute neuronal injury in vivo. (full – 2001) http://www.jneurosci.org/content/21/22/8765.long


Future of Cannabis and Cannabinoids in Therapeutics (link to PDF - 2003)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.597.1387&rank=7


Cannabinoids As Neuroprotective Agents in Traumatic Brain Injury. (abst - 2004)

The Cannabinoid CB2 Receptor as a Target for Inflammation-Dependent Neurodegeneration (full – 2006)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2435344/?tool=pmcentrez

The endocannabinoid 2-AG protects the blood-brain barrier after closed head injury and inhibits mRNA expression of proinflammatory cytokines. (abst – 2006)

The CB1 Cannabinoid Receptor Mediates Excitotoxicity-induced Neural Progenitor Proliferation and Neurogenesis (full – 2007)
http://www.jbc.org/content/282/33/23892.full

Endocannabinoids and traumatic brain injury. (abst – 2007)

The Endocannabinoids: Functional Roles and Therapeutic Opportunities (news – 2007)

Cannabinoids as therapeutic agents for ablating neuroinflammatory disease. (full – 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2750822/

The cannabinoid CB1 receptor regulates bone formation by modulating adrenergic signaling. (abst – 2008)

LSUHSC research reports new method to protect brain cells from diseases like Alzheimer’s (news – 2008)

Endocannabinoid signaling in neurotoxicity and neuroprotection. (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2891218/

Breakthrough in treatment of Traumatic Brain Injury: KeyNeurotek’s clinical study reaches primary endpoint and shows significant increase in survival (news – 2009)
BREASTFEEDING/ LACTATION/ INFANT APPETITE *

Born with the munchies (news - 2000) (may need registration)

Critical role of the endogenous cannabinoid system in mouse pup suckling and growth (abst - 2001)

Cannabinoids and Feeding: The Role of the Endogenous Cannabinoid System as a Trigger for Newborn Suckling (link to PDF - 2002)

The endocannabinoid system: function in survival of the embryo, the newborn and the neuron. (abst - 2002)

Endocannabinoids in the central nervous system--an overview. (abst – 2002)

Milk intake and survival in newborn cannabinoid CB1 receptor knockout mice: evidence for a "CB3" receptor. (abst – 2003)

Effect of maternal under-nutrition on pup body weight and hypothalamic endocannabinoid levels. (abst – 2003)

The endocannabinoid-CB(1) receptor system in pre- and postnatal life. (abst - 2004)

The endocannabinoid-CB receptor system: Importance for development and in pediatric disease. (abst - 2004)

Endocannabinoids and food intake: newborn suckling and appetite regulation in adulthood. (full - forum repost - 2005)

The cannabinoid system and its importance in the perinatal period (abst – 2005)

Endocannabinoids, feeding and suckling – from our perspective (full – 2006)
http://www.nature.com/jio/journal/v30/n1s/full/0803274a.html
Inhibition of milk ingestion and growth after administration of a neutral cannabinoid CB1 receptor antagonist on the first postnatal day in the mouse. (full - 2007)
http://www.nature.com/pr/journal/v62/n5/full/pr2007273a.html

Classical Values: Mothers Drugging Newborns (news – 2009)

**BULIMIA**

Association study of cannabinoid receptor gene (CNR1) alleles and anorexia nervosa: differences between restricting and binging/purging subtypes. (abst – 2004)

Blood levels of the endocannabinoid anandamide are increased in anorexia nervosa and in binge-eating disorder, but not in bulimia nervosa. (full – 2005)
http://www.nature.com/npp/journal/v30/n6/full/1300695a.html


Association of CNR1 and FAAH endocannabinoid gene polymorphisms with anorexia nervosa and bulimia nervosa: evidence for synergistic effects. (full – 2009)

Elevated cannabinoid 1 receptor mRNA is linked to eating disorder related behavior and attitudes in females with eating disorders. (abst – 2009)

Medical Marijuana and Bulimia (news/ad – 2009)
https://www.marijuanadoctors.com/content/ailments/view/18?ailment=bulimia

**BURN INJURY**


Burns from illegal drug manufacture: case series and management. (abst – 2004)
**CACHEXIA** – weight loss from toxic cytokines deranging carbohydrate, lipid and protein metabolism


Comparison of orally administered cannabis extract and delta-9-tetrahydrocannabinol in treating patients with cancer-related anorexia-cachexia syndrome: a multicenter, phase III, randomized, double-blind, placebo-controlled clinical trial from the Cannabis-In-Cachexia-Study-Group. (full - 2006) [http://jco.ascopubs.org/content/24/21/3394.long](http://jco.ascopubs.org/content/24/21/3394.long)


**CAFFEINE and the ENDOCANNABINOID SYSTEM**


**CANCER – ADRENAL CORTICAL**


**CANCER – BLADDER / URETHRAL**
CANCER – BONE

Acute and chronic administration of the cannabinoid receptor agonist CP 55,940 attenuates tumor-evoked hyperalgesia. (full – 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1995024/

Anandamide-induced Ca2+ elevation leading to p38 MAPK phosphorylation and subsequent cell death via apoptosis in human osteosarcoma cells. (abst – 2007)

A decrease in anandamide signaling contributes to the maintenance of cutaneous mechanical hyperalgesia in a model of bone cancer pain. (full – 2008)
http://www.jneurosci.org/content/28/44/11141.long

The cannabinoid receptor agonist, WIN 55, 212-2, attenuates tumor-evoked hyperalgesia through peripheral mechanisms. (full – 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2678169/


Reduction of bone cancer pain by activation of spinal cannabinoid receptor 1 and its expression in the superficial dorsal horn of the spinal cord in a murine model of bone cancer pain. (full - 2009)
http://anesthesiology.pubs.asahq.org/article.aspx?articleid=1924121&resultClick=3

CANCER – BREAST *

Suppression of Nerve Growth Factor Trk Receptors and Prolactin Receptors by Endocannabinoids Leads to Inhibition of Human Breast and Prostate Cancer Cell Proliferation (full - 2000)

Palmitoylethanolamide inhibits the expression of fatty acid amide hydrolase and enhances the anti-proliferative effect of anandamide in human breast cancer cells (link to download - 2001)
Control of the cell survival/death decision by cannabinoids. (abst – 2001)

Effect on cancer cell proliferation of palmitoylethanolamide, a fatty acid amide interacting with both the cannabinoid and vanilloid signalling systems. (abst – 2002)

CANNABINOIDS: POTENTIAL ANTICANCER AGENTS (link to PDF - 2003)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.190.3990&rank=20


Antitumor Activity of Plant Cannabinoids with Emphasis on the Effect of Cannabidiol on Human Breast Carcinoma (full - 2006)
http://jpet.aspetjournals.org/content/318/3/1375.full

9-Tetrahydrocannabinol Inhibits Cell Cycle Progression in Human Breast Cancer through Cdc2 Regulation (full - 2006) http://cancerres.aacrjournals.org/cgi/content/full/66/13/6615

Cannabinoids As Cancer Hope (article - 2006)
http://norml.org/component/zoo/category/cannabinoids-as-cancer-hope

Anandamide inhibits adhesion and migration of breast cancer cells. (abst - 2006)

Cannabidiol inhibits tumour growth in leukaemia and breast cancer in animal studies (news - 2006)

A combination of THC and prochlorperazine effective in reducing vomiting in women following breast surgery (news - 2006)
http://www.cannabis-med.org/english/bulletin/ww_en_db_cannabis_artikel.php?id=219#1

Cannabidiol Dramatically Inhibits Breast Cancer Cell Growth (news - 2006)

Cannabidiol as a novel inhibitor of Id-1 gene expression in aggressive breast cancer cells. (full - 2007) http://mct.aacrjournals.org/content/6/11/2921.long

Cannabis compound 'halts cancer' (news - 2007)
http://news.bbc.co.uk/2/hi/health/7098340.stm

Cannabis compound stops spread of breast cancer: researchers (news - 2007)

Cannabidiol may be helpful in reducing the aggressiveness of breast cancer cells (news - 2007) http://www.cannabis-med.org/english/bulletin/ww_en_db_cannabis_artikel.php?id=258


The anandamide analog, Met-F-AEA, controls human breast cancer cell migration via the RHOA/RHO kinase signaling pathway. (full – 2008) http://erc.endocrinology-journals.org/cgi/content/full/15/4/965


Delta(9)-tetrahydrocannabinol inhibits 17beta-estradiol-induced proliferation and fails to activate androgen and estrogen receptors in MCF7 human breast cancer cells. (full – 2008) http://ar.iiarjournals.org/content/28/1A/85.long

Cannabinoids for cancer treatment: progress and promise. (full – 2008) http://cancerres.aacrjournals.org/content/68/2/339.long

Cannabinoid receptor agonists inhibit growth and metastasis of breast cancer (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4128286/


Synthetic cannabinoceptor agonists inhibit tumor growth and metastasis of breast cancer (full - 2009) http://mct.aacrjournals.org/content/8/11/3117.full

Phantom breast syndrome. (full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2902108/?tool=pubmed


CXCR4-chemokine receptor and Cannabinoid Receptor 2 (CB2) heterodimerization suggests a mechanism for breast metastasis regulation (abst – 2009)  
http://cancerres.aacrjournals.org/content/69/9_Supplement/4280.abstract?sid=c9a858f0-ee89-4846-b560-ecd97a615b26

CANCER - CERVICAL

Arachidonyl ethanolamide induces apoptosis of uterine cervix cancer cells via aberrantly expressed vanilloid receptor-1 (abst - 2004)  

Marijuana Ingredients Slow Invasion by Cervical and Lung Cancer Cells (news - 2007)  

The influence of mast cell mediators on migration of SW756 cervical carcinoma cells. (full – 2008)  
https://www.jstage.jst.go.jp/article/jphs/106/2/106_FP0070736/_pdf

Inhibition of Cancer Cell Invasion by Cannabinoids via Increased Expression of Tissue Inhibitor of Matrix Metalloproteinases-1 (full - 2008)  
http://jnci.oxfordjournals.org/cgi/content/full/100/1/59

Effects of honokiol on proliferation and apoptosis of human cervical carcinoma cell line Hela in vitro (abst – 2008)  

Marijuana use and cervical HPV/neoplasia (abst - 2008)  
http://www.infectagentscancer.com/content/4/S2/P15

Anti-tumor effect of honokiol alone and in combination with other anti-cancer agents in breast cancer. (abst – 2008)  

**CANCER – CHOLANGIOCARCINOMA**

Opposing Actions of Endocannabinoids on Cholangiocarcinoma Growth  
(full - 2007)  
http://www.jbc.org/content/282/17/13098.full

The endocannabinoid anandamide inhibits cholangiocarcinoma growth via activation of  
the noncanonical Wnt signaling pathway  
(full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2604798/?tool=pmcentrez

Emerging role of cannabinoids in gastrointestinal and liver diseases: basic and clinical  
aspects  
(abst - 2008)  

**CANCER – COLON /COLORECTAL**

Possible endocannabinoid control of colorectal cancer growth.  
(full - 2003)  
http://www.gastrojournal.org/article/S0016-5085%2803%2900881-3/fulltext

Inflammation and cancer IV. Colorectal cancer in inflammatory bowel disease: the role of  
inflammation.  
Inflammation and Cancer IV. Colorectal cancer in inflammatory bowel disease: the role of inflammation

Anandamide is an endogenous inhibitor for the migration of tumor cells and T  
lymphocytes.  
(full - 2004)  
http://ajpgi.physiology.org/content/291/2/G364

Honokiol: a potent chemotherapy candidate for human colorectal carcinoma.  
(full – 2004)  

Honokiol induces apoptosis through p53-independent pathway in human colorectal cell  
line RKO  
(full – 2004)  

The gastrointestinal pharmacology of cannabinoids: an update.  
(abst – 2004)  

The endogenous cannabinoid, anandamide, induces cell death in colorectal carcinoma  
cells: a possible role for cyclooxygenase 2  
(full - 2005)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1774787/?tool=pmcentrez

A new class of inhibitors of 2-arachidonoylglycerol hydrolysis and invasion of prostate  
cancer cells  
(full – 2005)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1450257/

Cannabinoids and cancer: potential for colorectal cancer therapy.  
(full - 2005)  
http://www.biochemsoctrans.org/bst/033/0712/bst0330712.htm

Cannabinoids and the digestive tract.  
(abst – 2005)  
A cannabinoid quinone inhibits angiogenesis by targeting vascular endothelial cells.  
(http://molpharm.aspetjournals.org/content/70/1/51.long)

Opposing Actions of Endocannabinoids on Cholangiocarcinoma Growth:  
RECRUITMENT OF Fas AND Fas LIGAND TO LIPID RAFTS  
(http://www.jbc.org/content/282/17/13098.full)

The cannabinoid delta(9)-tetrahydrocannabinol inhibits RAS-MAPK and PI3K-AKT survival signalling and induces BAD-mediated apoptosis in colorectal cancer cells.  

The cannabinoid CB(2) receptor: a good friend in the gut.  

Increased endocannabinoid levels reduce the development of precancerous lesions in the mouse colon.  
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2755791/?tool=pubmed)

Cannabinoid receptor activation induces apoptosis through tumor necrosis factor alpha-mediated ceramide de novo synthesis in colon cancer cells.  
(http://clincancerres.aacrjournals.org/content/14/23/7691.long)

Loss of cannabinoid receptor 1 accelerates intestinal tumor growth  
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2561258/)

Emerging role of cannabinoids in gastrointestinal and liver diseases: basic and clinical aspects  

Estrogenic induction of cannabinoid CB1 receptor in human colon cancer cell lines.  
(http://www.ncbi.nlm.nih.gov/pubmed/18938775)

Turned-Off Cannabinoid Receptor Turns On Colorectal Tumor Growth  
(http://www.sciencedaily.com/releases/2008/08/080801074056.htm)

Marijuana takes on colon cancer  

Cannabinoid cell surface receptor plays a tumor-suppressing role in human colorectal cancer  
(http://www.news-medical.net/news/2008/08/03/40485.aspx)

Induction of the antitumorigenic NSAID-activated gene (NAG-1) in synthetic hexahydrocannabinol-induced apoptosis of human colorectal cancer cells  
(http://www.fasebj.org/content/23/1_Supplement/761.5.short)
Cannabinoid receptor-independent cytotoxic effects of cannabinoids in human colorectal carcinoma cells: synergism with 5-fluorouracil. (abst – 2009) http://www.springerlink.com/content/45008p9643k139l4/


CANCER - ENDOMETRIAL


CANCER – EWING TUMORS - also see CANCER – PNET


CANCER – GASTRIC *


CANCER – GLIOMA/ BRAIN CANCERS *

Anandamide Induces Apoptosis in Human Cells via Vanilloid Receptors (full - 2000) http://www.jbc.org/content/275/41/31938.full
Anti-tumoral action of cannabinoids: involvement of sustained ceramide accumulation and extracellular signal-regulated kinase activation. (full - 2000)  

Marijuana's Active Ingredient Targets Deadly Brain Cancer (news - 2000)  

Pot Shrinks Tumors; Government Knew in '74 (news - 2000)  
http://www.alternet.org/story/9257/?page=entire

Inhibition of Glioma Growth in Vivo by Selective Activation of the CB2 Cannabinoid Receptor (full - 2001)  
http://cancerres.aacrjournals.org/cgi/reprint/61/15/5784.pdf

Inhibition of Rat C6 Glioma Cell Proliferation by Endogenous and Synthetic Cannabinoids. Relative Involvement of Cannabinoid and Vanilloid Receptors (full - 2001)  
http://jpet.aspetjournals.org/content/299/3/951.full

Control of the cell survival/death decision by cannabinoids. (abst – 2001)  

Anti-Tumor Effects (news - 2001)  
http://www.ukcia.org/research/AntiTumorEffects.htm

Cannabinoids protect astrocytes from ceramide-induced apoptosis through the phosphatidylinositol 3-kinase/protein kinase B pathway. (full – 2002)  
http://www.jbc.org/content/277/39/36527.long

De novo-synthesized ceramide is involved in cannabinoid-induced apoptosis. (full - 2002)  

Binding, degradation and apoptotic activity of stearoylethanolamide in rat C6 glioma cells. (link to PDF – 2002)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1222758/

Cannabinoids and cell fate. (abst – 2002)  

http://americanmarijuana.org/Guzman-Cancer.pdf

CANNABINOIDS: POTENTIAL ANTICANCER AGENTS (link to PDF - 2003)  
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.190.3990&rank=20

Inhibition of tumor angiogenesis by cannabinoids (abst - 2003)  

Inhibition of C6 glioma cell proliferation by anandamide, 1-arachidonoylglycerol, and by a water soluble phosphate ester of anandamide: variability in response and involvement of arachidonic acid. (abst – 2003)  
Up-Regulation of Cyclooxygenase-2 Expression Is Involved in R(\_)-Methanandamide-Induced Apoptotic Death of Human Neuroglioma Cells  (full - 2004)  
http://molpharm.aspetjournals.org/content/66/6/1643.full.pdf+html

Cannabinoids Inhibit the Vascular Endothelial Growth Factor Pathway in Gliomas  
(full – 2004)  
http://cancerres.aacrjournals.org/cgi/content/full/64/16/5617

Antitumor effects of cannabidiol, a nonpsychoactive cannabinoid, on human glioma cell lines.  
(full - 2004)  
http://jpet.aspetjournals.org/content/308/3/838.long

(full - 2004)  
http://www.nature.com/cdd/journal/v11/n8/full/4401428a.html

Arachidonylethanolamide induces apoptosis of human glioma cells through vanilloid receptor-1.  
(full – 2004)  
http://jnen.oxfordjournals.org/content/63/9/956.long

Ceramide sensitizes astrocytes to oxidative stress: protective role of cannabinoids  
(link to PDF – 2004)  
http://www.biochemj.org/content/380/2/435.full-text.pdf

Hypothesis: Cannabinoid Therapy for the Treatment of Gliomas?  
(abst - 2004)  

Cannabis extract shrinks brain tumours  
(news – 2004)  
(may need registration)  
http://www.newscientist.com/article/dn6283

'Cannabis' brain tumour drug hope  
(news - 2004)  
http://news.bbc.co.uk/2/hi/health/3561686.stm

Marijuana May Stall Brain Tumor Growth  
(news - 2004)  

Marijuana Extract Fights Brain Cancer in Mice  
(news - 2004)  
http://www.scientificamerican.com/article.cfm?id=marijuana-extract-fights

Cancer Killer  
(news - 2004)  

Marijuana Ingredient Inhibits VEGF Pathway Required For Brain Tumor Blood Vessels  
(news - 2004)  

Cannabis extract makes brain tumors shrink, halts growth of blood vessels  
(news - 2004)  
http://www.medicalnewstoday.com/articles/12088.php

Cannabidiol inhibits human glioma cell migration through a cannabinoid receptor-independent mechanism  
(full - 2005)  
Endocannabinoid metabolism in human glioblastomas and meningiomas compared to human non-tumour brain tissue. (full - 2005)  
http://www.ukcia.org/research/EndocannabinoidMetabolismInHumanGlioblastomasAndMeningiomas.pdf

Cannabinoids selectively inhibit proliferation and induce death of cultured human glioblastoma multiforme cells. (abst - 2005)  

Effects on cell viability. (abst – 2005)  

Cannabinoids down-regulate PI3K/Akt and Erk signalling pathways and activate proapoptotic function of Bad protein. (abst – 2005)  

A pilot clinical study of Delta(9)-tetrahydrocannabinol in patients with recurrent glioblastoma multiforme. (full - 2006)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2360617/

Cannabinoid receptors in human astroglial tumors. (full – 2006)  

Acyl-based anandamide uptake inhibitors cause rapid toxicity to C6 glioma cells at pharmacologically relevant concentrations. (full – 2006)  

The non-psychoactive Cannabidiol triggers caspase activation and oxidative stress in human glioma cells. (abst - 2006)  

http://www.springerlink.com/content/l40343111728x733/

Enhanced radiosensitization of p53 mutant cells by oleamide. (abst - 2006)  

Safety and efficacy of a novel cannabinoid chemotherapeutic, KM-233, for the treatment of high-grade glioma. (abst – 2006)  
http://www.springerlink.com/content/75pu360830261968/

Preclinical studies of KM-233, a safe and effective classical cannabinoid chemotherapeutic for the treatment of high-grade glioma (news – 2006)  
http://www.aans.org/Media/Article.aspx?ArticleId=36969

Cannabinoids Curb Brain Tumor Growth, First-Ever Patient Trial Shows (news – 2006)  

THC tested against brain tumour in pilot clinical study (news - 2006)  
http://www.cannabis-med.org/english/bulletin/ww_en_db_cannabis_artikel.php?id=222#1
Cannabinoids Induce Glioma Stem-like Cell Differentiation and Inhibit Gliomagenesis (full - 2007) http://www.jbc.org/content/282/9/6854.long


Cannabinoids for Cancer Treatment: Progress and Promise (full – 2008) http://cancerres.aacrjournals.org/content/68/2/339.long


Cannabinoids Inhibit Glioma Cell Invasion by Down-regulating Matrix Metalloproteinase-2 Expression (full - 2008) http://cancerres.aacrjournals.org/cgi/content/full/68/6/1945


Delta 9-tetrahydrocannabinol inhibits cell cycle progression by downregulation of E2F1 in human glioblastoma multiforme cells. (full - 2008) http://www.tandfonline.com/doi/full/10.1080/02841860701678787


Marijuana Kills Brain Cancer Cells (news - 2008)
Cannabinoid action induces autophagy-mediated cell death through stimulation of ER stress in human glioma cells.  (full - 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2673842/?tool=pmcentrez

TRB3 links ER stress to autophagy in cannabinoid anti-tumoral action.  (full – 2009)  
https://www.researchgate.net/publication/26714808_TRB3_links_ER_stress_to_autophagy_in_cannabinoid_antitumoral_action

Honokiol-mediated inhibition of PI3K/mTOR pathway: a potential strategy to overcome immunoresistance in glioma, breast, and prostate carcinoma without impacting T cell function.  (full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3795513/

Amphiregulin is a factor for resistance of glioma cells to cannabinoid-induced apoptosis  
(abst – 2009)  

Predominant CB2 receptor expression in endothelial cells of glioblastoma in humans.  
(abst – 2009)  

THC initiates brain cancer cells to destroy themselves  
(news - 2009)  
http://www.worldhealth.net/news/thc_initiates_brain_cancer_cells_to_dest/

Active Ingredient in Marijuana Kills Brain Cancer Cells  
(news - 2009)  

Marijuana Chemical May Fight Brain Cancer  
(news - 2009)  

Active Component Of Marijuana Has Anti-Cancer Effects, Study Suggests  
(news - 2009)  

Anti-Cancer Effects In Active Component Of Marijuana  
(news – 2009)  
http://www.medicalnewstoday.com/releases/144770.php

Medical Marijuana and Brain Tumor, Malignant  
(news/ad – 2009)  
https://www.marijuanadoctors.com/content/ailments/view/16?ailment=brain-tumor-malignant

CANCER - HEAD AND NECK

Marijuana Unlikely to Cause Head, Neck, or Lung Cancer  
(news - 2000)  

Marijuana use and Risk of Oral Squamous Cell Carcinoma  
(full - 2004)  
http://cancerres.aacrjournals.org/content/64/11/4049.full
Cannabis use and cancer of the head and neck: Case-control study (full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2277494/

http://mct.aacrjournals.org/content/7/8/2528.long

A population-based case-control study of marijuana use and head and neck squamous cell carcinoma.  (full – 2009)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2812803/

The presence of aberrant DNA methylation in noncancerous esophageal mucosae in association with smoking history: a target for risk diagnosis and prevention of esophageal cancers.  (full – 2009)  

Marijuana May Reduce Risk of Certain Cancers, Study Says  (news - 2009)  
http://www.drugfree.org/uncategorized/marijuana-may-reduce-risk-of

**CANCER - KAPOSI'S SARCOMA**

THC inhibits lytic replication of gamma oncogenic herpes viruses in vitro  
(full - 2004)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC521080/

Recreational Drug Use and Risk of Kaposi's Sarcoma in HIV- and HHV-8-Coinfected Homosexual Men  
(full - 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2981355/?tool=pubmed

The CB1/CB2 receptor agonist WIN-55,212-2 reduces viability of human Kaposi’s sarcoma cells in vitro  
(abst - 2009)  

**CANCER – LEUKEMIA * **

Anandamide Induces Apoptosis in Human Cells via Vanilloid Receptors  
(full - 2000)  
http://www.jbc.org/content/275/41/31938.full

Characterization of palmitoylethanolamide transport in mouse Neuro-2a neuroblastoma and rat RBL-2H3 basophilic leukaemia cells: comparison with anandamide.  
(full – 2001)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1572744/
Targeting CB2 cannabinoid receptors as a novel therapy to treat malignant lymphoblastic disease (full - 2002) http://bloodjournal.hematologylibrary.org/cgi/reprint/100/2/627.pdf


Cannabis-induced cytotoxicity in leukemic cell lines: the role of the cannabinoid receptors and the MAPK pathway (full - 2004) http://bloodjournal.hematologylibrary.org/cgi/content/full/105/3/1214


The natural product honokiol induces caspase-dependent apoptosis in B-cell chronic lymphocytic leukemia (B-CLL) cells. (full – 2005) http://bloodjournal.hematologylibrary.org/content/106/2/690.long


Cannabidiol-Induced Apoptosis in Human Leukemia Cells : A Novel Role of Cannabidiol in the Regulation of p22phox and Nox4 Expression (full - 2006) http://molpharm.aspetjournals.org/cgi/content/full/70/3/897

{Delta}9-Tetrahydrocannabinol-Induced Apoptosis in Jurkat Leukemia T Cells Is Regulated by Translocation of Bad to Mitochondria (full - 2006) http://mcr.aacrjournals.org/content/4/8/549.full


Cannabidiol inhibits tumour growth in leukaemia and breast cancer in animal studies (news - 2006)
HU-331, a novel cannabinoid-based anticancer topoisomerase II inhibitor (full - 2007)  
http://mct.aacrjournals.org/content/6/1/173.long

Cannabinoid receptors expression in bone marrow trephine biopsy of chronic lymphocytic leukaemia patients treated with purine analogues. (abst – 2007)  

Medical Marijuana Use and Research Leukemia & Lymphoma Society Statement (full – 2008)  

Enhancing the in vitro cytotoxic activity of Δ9-tetrahydrocannabinol in leukemic cells through a combinatorial approach (abst - 2008)  

**CANCER – LIVER**

Overexpression of cannabinoid receptors CB1 and CB2 correlates with improved prognosis of patients with hepatocellular carcinoma. (abst – 2006)  

Dronabinol for supportive therapy in patients with malignant melanoma and liver metastases (abst - 2006)  

Emerging role of cannabinoids in gastrointestinal and liver diseases: basic and clinical aspects (abst - 2008)  

Involvement of p38 mitogen-activated protein kinase pathway in honokiol-induced apoptosis in a human hepatoma cell line (hepG2). (abst – 2008)  

Apoptosis induced in HepG2 cells by the synthetic cannabinoid WIN: involvement of the transcription factor PPARgamma. (abst – 2009)  

**CANCER – LUNG** *

Marijuana Unlikely to Cause Head, Neck, or Lung Cancer (news - 2000)  
Anti-Tumor Effects (news - 2001) http://www.ukcia.org/research/AntiTumorEffects.htm

Cannabis and tobacco smoke are not equally carcinogenic. (full - 2005) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1277837/?tool=pubmed


Smoking Cannabis Does Not Cause Cancer of Lung or Upper Airways (news - 2005) http://www.alternet.org/drugs/142271/smoking_marijuana_does_not_cause_lung_cancer/?page=entire


Marijuana Use and the Risk of Lung and Upper Aerodigestive Tract Cancers: Results of a Population-Based Case-Control Study (full - 2006) http://cebp.aacrjournals.org/content/15/10/1829.full

Marijuana Use and Lung Cancer: Results of a Case-Control Study (abst - 2006) http://www.ukcia.org/research/MjUseAndLungCancer.php


Study Finds No Link Between Marijuana Use And Lung Cancer (news - 2006) http://www.scientificamerican.com/article/large-study-finds-no-link/


Large Study Finds No Link between Marijuana and Lung Cancer (news - 2006) http://www.sciencedaily.com/releases/2006/05/060526083353.htm


Marijuana is NOT like Tobacco. Please make a note of it. Thanks. (news - 2007)  http://www.dailykos.com/story/2007/05/10/333234/-Pot-is-not-like-tobacco-Please-make-a-note-of-it-Thanks


Inhibition of Cancer Cell Invasion by Cannabinoids via Increased Expression of Tissue Inhibitor of Matrix Metalloproteinases-1 (full - 2008)  http://jnci.oxfordjournals.org/cgi/content/full/100/1/59

Cannabinoids for Cancer Treatment: Progress and Promise (full – 2008)  http://cancerres.aacrjournals.org/content/68/2/339.long

Adenoviral endoplasmic reticulum-targeted mda-7/interleukin-24 vector enhances human cancer cell killing. (full – 2008)  http://mct.aacrjournals.org/content/7/8/2528.long


Doubts about the role of cannabis in causing lung cancer. (letter - 2008)  http://erj.ersjournals.com/cgi/content/full/32/3/815

CANCER – LYMPHOMA *

Anandamide Induces Apoptosis in Human Cells via Vanilloid Receptors (full - 2000)  http://www.jbc.org/content/275/41/31938.full


Targeting CB2 cannabinoid receptors as a novel therapy to treat malignant lymphoblastic disease (full - 2002) http://bloodjournal.hematologylibrary.org/cgi/content/full/100/2/627


Cannabinoid Receptor-Mediated Apoptosis Induced by R(+)-Methanandamide and Win55,212-2 Is Associated with Ceramide Accumulation and p38 Activation in Mantle Cell Lymphoma (full - 2006) http://molpharm.aspetjournals.org/content/70/5/1612.full


Cannabinoids for Cancer Treatment: Progress and Promise (full – 2008) http://cancerres.aacrjournals.org/content/68/2/339.long


Potentiation of cannabinoid-induced cytotoxicity in mantle cell lymphoma through modulation of ceramide metabolism. (full - 2009) http://mcr.aacrjournals.org/content/7/7/1086.long

Medical Marijuana and Lymphoma (news/ad – 2009)
CANCER – MELANOMA *

Cannabinoid receptors as novel targets for the treatment of melanoma       (abst - 2006)


CANCER – NEUROBLASTOMA *

Anandamide Induces Apoptosis in Human Cells via Vanilloid Receptors  
(full - 2000)         http://www.jbc.org/content/275/41/31938.full

Characterization of palmitoylethanolamide transport in mouse Neuro-2a neuroblastoma and rat RBL-2H3 basophilic leukaemia cells: comparison with anandamide.  
(full – 2001)         http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1572744/

Anandamide-induced neuroblastoma cell rounding via the CB1 cannabinoid receptors.  

A predominant role for inhibition of the adenylate cyclase/protein kinase A pathway in ERK activation by cannabinoid receptor 1 in N1E-115 neuroblastoma cells.  
(full – 2003)         http://www.jbc.org/content/278/49/48973.long

The involvement of VEGF receptors and MAPK in the cannabinoid potentiation of Ca2+ flux into N18TG2 neuroblastoma cells.  

Characterization of the Endocannabinoid System in Human Neuronal Cells and Proteomic Analysis of Anandamide-induced Apoptosis  
(full – 2009)        http://www.jbc.org/content/284/43/29413.full

Cannabinoid CB1 receptor elevation of intracellular calcium in neuroblastoma SH-SY5Y cells: interactions with muscarinic and delta-opioid receptors.  

Cannabidiol targets mitochondria to regulate intracellular Ca2+ levels.  
(full – 2009)        http://www.jneurosci.org/content/29/7/2053.long
**CANCER – ORAL**

Marijuana use and Risk of Oral Squamous Cell Carcinoma  
(http://cancerres.aacrjournals.org/content/64/11/4049.full)

Study Finds No Association Between Marijuana Use And Incidence Of Oral Cancer  
(news - 2004)  
(http://www.sciencedaily.com/releases/2004/06/040602063428.htm)

Smoking of cannabis does not increase risk for oral cancer  
(news - 2004)  
(http://www.cannabis-med.org/english/bulletin/ww_en_db_cannabis_artikel.php?id=175#1)

Marijuana Use and the Risk of Lung and Upper Aerodigestive Tract Cancers: Results of a Population-Based Case-Control Study  
(http://cebp.aacrjournals.org/content/15/10/1829.full)

Peripheral Cannabinoids Attenuate Carcinoma Induced Nociception in Mice  
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2771220/)

A population-based case-control study of marijuana use and head and neck squamous cell carcinoma.  
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2812803/)

**CANCER – OVARIAN**

Cannabinoid receptors as a target for therapy of ovarian cancer  
(http://cancerres.aacrjournals.org/content/66/8_Supplement/1084.1)

**CANCER – PANCREATIC**

Cannabinoids Induce Apoptosis of Pancreatic Tumor Cells via Endoplasmic Reticulum Stress–Related Genes  
(http://cancerres.aacrjournals.org/cgi/content/full/66/13/6748)

Cannabinoid derivatives induce cell death in pancreatic MIA PaCa-2 cells via a receptor-independent mechanism.  
(http://www.sciencedirect.com/science/article/pii/S00145799306002110)
Cannabinoids Halt Pancreatic Cancer, Breast Cancer Growth, Studies Say (news - 2006)

Cannabinoids for Cancer Treatment: Progress and Promise (full – 2008)
http://cancerres.aacrjournals.org/content/68/2/339.long

Cannabinoids in pancreatic cancer: Correlation with survival and pain (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2225529/?tool=pmcentrez


CANCER - PITUITARY ADENOMA

Cannabinoid CB1 receptor-mediated inhibition of prolactin release and signaling mechanisms in GH4C1 cells. (full – 2000)
http://press.endocrine.org/doi/full/10.1210/endo.141.5.7454

Normal Human Pituitary Gland and Pituitary Adenomas Express Cannabinoid Receptor Type 1 and Synthesize Endogenous Cannabinoids: First Evidence for a Direct Role of Cannabinoids on Hormone Modulation at the Human Pituitary Level (full - 2001)


CANCER – PNET / PRIMITIVE NEUROECTODERMAL TUMOR


High expression of the evolutionarily conserved alpha/beta hydrolase domain containing 6 (ABHD6) in Ewing tumors. (full – 2009)
CANCER – PROSTATE


2-Arachidonoylglycerol A Novel Inhibitor of Androgen-Independent Prostate Cancer Cell Invasion (full - 2004) http://cancerres.aacrjournals.org/cgi/content/full/64/24/8826?ijkey=951f5f9d238bd059cf30ee2be3a5a31aa2b094


Cannabinoid Receptor as a Novel Target for the Treatment of Prostate Cancer (full - 2005) http://cancerres.aacrjournals.org/cgi/reprint/65/5/1635.pdf

Cannabinoid Receptor Agonist-induced Apoptosis of Human Prostate Cancer Cells LNCaP Proceeds through Sustained Activation of ERK1/2 Leading to G1 Cell Cycle Arrest (full - 2006) http://www.jbc.org/content/281/51/39480.full

Diverse roles of 2-arachidonoylglycerol in invasion of prostate carcinoma cells: Location, hydrolysis and 12-lipoxygenase metabolism (full – 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2565646/?tool=pubmed


Cannabinoids for Cancer Treatment: Progress and Promise (full – 2008) http://cancerres.aacrjournals.org/content/68/2/339.long


Cannabis is linked to a 'cancer cure'. (news – 2009) http://www.thefreelibrary.com/Cannabis+is+linked+to+a+%27cancer+cure%27+HEALTH.-a0206081618

Cannabis chemicals may help fight prostate cancer (news - 2009) http://www.reuters.com/article/healthNews/idUSTRE57I02Z20090819


CANCER - RHABDOMYOSARCOMA

Cannabinoid receptor 1 is a potential drug target for treatment of translocation-positive rhabdomyosarcoma (full - 2009) http://mct.aacrjournals.org/content/8/7/1838.full

**CANCER – SKIN**

Inhibition of skin tumor growth and angiogenesis in vivo by activation of cannabinoid receptors (full - 2003) http://www.jci.org/cgi/content/full/111/1/43?ijkey=MpUgiDbqHybAU


Starting Point Of Sun-Induced Skin Cancer Discovered: Molecular 'Hooks' Also Pull Compounds From Marijuana From Bloodstream (news - 2008) http://www.sciencedaily.com/releases/2008/05/080515072642.htm


**CANCER – SQUAMOUS CELL CARCINOMA**

Inhibition of skin tumor growth and angiogenesis in vivo by activation of cannabinoid receptors (full – 2003) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC151833/

Marijuana use and Risk of Oral Squamous Cell Carcinoma (full - 2004) http://cancerres.aacrjournals.org/content/64/11/4049.full

Peripheral Cannabinoids Attenuate Carcinoma Induced Nociception in Mice (full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2771220/


**CANCER – TESTICULAR** *

Chemotherapy for Testicular Cancer  (anecdotal - undated)  http://www.rxmarihuana.com/shared_comments/testicularchemo.htm

**CANCER - THYMOMA**

A comparative study on cannabidiol-induced apoptosis in murine thymocytes and EL-4 thymoma cell  (abst - 2008)  http://www.greenmedinfo.com/article/cannabinoids-may-have-therapeutic-role-play-treating-thyoma

**CANCER - THYROID**


Cannabinoid 2 receptor induction by IL-12 and its potential as a therapeutic target for the treatment of anaplastic thyroid carcinoma. (full - 2008) http://www.nature.com/cgt/journal/v15/n2/full/7701101a.html


CANCER - VARIOUS/ UNNAMED


Anandamide Induces Apoptosis in Human Cells via Vanilloid Receptors (full - 2000) http://www.jbc.org/content/275/41/31938.full


Anti-Tumor Effects (news - 2001) http://www.ukcia.org/research/AntiTumorEffects.htm


Honokiol, a small molecular weight natural product, inhibits angiogenesis in vitro and tumor growth in vivo. (full – 2003) http://www.jbc.org/content/278/37/35501.long

Inhibition of tumor angiogenesis by cannabinoids (abst - 2003)

Established and potential therapeutic applications of cannabinoids in oncology  
(abst - 2003)  
http://www.springerlink.com/content/py9cunbm343und5v/

The effects of smoked cannabis in painful peripheral neuropathy  
(abst - 2003)  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=96

Therapeutic potential of cannabinoids in CNS disease.  
(abst - 2003)  

Cannabinoid receptor systems: therapeutic targets for tumour intervention  
(abst - 2003)  
http://informahealthcare.com/doi/abs/10.1517/14728222.7.6.749

The endocannabinoid system as a target for the development of new drugs for cancer 
therapy.  
(abst – 2003)  

The endocannabinoid anandamide neither impairs in vitro T-cell function nor induces 
regulatory T-cell generation.  
(link to download – 2004)  
http://ar.iiarjournals.org/content/28/6A/3743.long

A new strategy to block tumor angiogenesis by inhibiting endocannabinoid inactivation  
(abst – 2004)  

Pathogenesis and treatment of cancer anorexia-cachexia, with special emphasis on aged 
patients  
(abst – 2004)  

Cannabis May Help Combat Cancer-causing Herpes Viruses  
(news - 2004)  

THC in marijuana may block the spread of forms of cancer causing herpes viruses  
(news - 2004)  

Cancer Killer  
(news - 2004)  

Medicinal Cannabis in Oncology Practice: Still a Bridge Too Far?  
(full – 2005)  
http://jco.ascopubs.org/content/23/13/2886.full.pdf+html

Involvement of Cannabinoids in Cellular Proliferation  
(link to download - 2005)  
http://www.eurekaselect.com/78984/article/involvement-cannabinoids-cellular-proliferation

Cannabinoids and cancer.  
(abst – 2005)  

Isolation and analysis of candidate myeloid tumor suppressor genes from a commonly 
deleted segment of 7q22.  
(abst – 2005)  
Marijuana Use and the Risk of Lung and Upper Aerodigestive Tract Cancers: Results of a Population-Based Case-Control Study (full - 2006)  
http://cebp.aacrjournals.org/content/15/10/1829.full

The stress-regulated protein p8 mediates cannabinoid-induced apoptosis of tumor cells. (full - 2006)  

Comparison of orally administered cannabis extract and delta-9-tetrahydrocannabinol in treating patients with cancer-related anorexia-cachexia syndrome: a multicenter, phase III, randomized, double-blind, placebo-controlled clinical trial from the Cannabis-In-Cachexia-Study-Group. (full - 2006)  
http://jco.ascopubs.org/content/24/21/3394.long

Cannabinoids and cancer: pros and cons of an antitumour strategy (full - 2006)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1617062/?tool=pmcentrez

Cannabinoids As Cancer Hope (article - 2006)  
http://norml.org/component/zoo/category/cannabinoids-as-cancer-hope

The synthetic cannabinoid nabilone improves pain and symptom management in cancer patients (abst - 2006)  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=177

Different views on the association between cannabinoids and cancer (abst - 2006)  

Cannabinoids Halt Pancreatic Cancer, Breast Cancer Growth, Studies Say (news - 2006)  

Inhibition of Cancer Cell Invasion by Cannabinoids via Increased Expression of Tissue Inhibitor of Matrix Metalloproteinases-1 (full - 2007)  
http://jnci.oxfordjournals.org/cgi/content/full/100/1/59

A Cannabinoid Anticancer Quinone, HU-331, Is More Potent and Less Cardiotoxic Than Doxorubicin: A Comparative in Vivo Study (full - 2007)  
http://ijpet.aspetjournals.org/content/322/2/646.full

Sativex: Fact Sheet (full - 2007)  
http://www.bayer.ca/files/sativex_fs_fd_109461_e%20_GW_.pdf

Sativex: Health Care Professional letter (letter - 2007)  
http://www.bayer.ca/files/sativex_dhcpl_lapds_109461_e%20_GW_-2.pdf

Endocannabinoids as emerging suppressors of angiogenesis and tumor invasion (Review) (link to PDF – 2007)  
http://www.spandidos-publications.com/or/17/4/813

Clinical research Cannabinoids in health and disease (link to PDF - 2007)  
A cannabinoid agonist differentially attenuates deep tissue hyperalgesia in animal models of cancer and inflammatory muscle pain. (abst – 2007)

Endocannabinoid system in cancer cachexia. (abst – 2007)


Potentiating effect of beta-caryophyllene on anticancer activity of alpha-humulene, isocaryophyllene and paclitaxel. (abst – 2007)


Cannabinoids May Inhibit Cancer Cell Invasion (news - 2007)

Hypothesizing that marijuana smokers are at a significantly lower risk of carcinogenicity relative to tobacco-non-marijuana smokers: evidenced based on statistical reevaluation of current literature. (full - 2008)
http://www.thefreelibrary.com/Hypothesizing+that+marijuana+smokers+are+at+a+significantly+lower...-a0196052086

Endocannabinoids in endocrine and related tumours (full - 2008)
http://erc.endocrinology-journals.org/cgi/reprint/15/2/391.pdf

Cannabinoids for Cancer Treatment: Progress and Promise (full – 2008)
http://cancerres.aacrjournals.org/content/68/2/339.long


What Your Government Knows About Cannabis And Cancer—And Isn’t Telling You! (news – 2008)
http://www.huffingtonpost.com/paul-armentano/what-your-government-know_b_108712.html

Science: Nabilone effective in the treatment of night sweats of four patients with advanced cancer (news – 2008)

Cannabis Smoke and Cancer: Assessing the Risk (news - 2008)
Marijuana May Prevent Cancer, Not Cause It  (news - 2008)
http://entheology.com/research/marijuana-may-prevent-cancer-not-cause-it/

Honokiol, a multifunctional antiangiogenic and antitumor agent  (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2842137/

Changes in the Endocannabinoid System May Give Insight into new and Effective Treatments for Cancer  (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2791688/?tool=pmcentrez

Cannabinoids as novel anti-inflammatory drugs.  (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2828614/?tool=pubmed

Cannabinoid receptor ligands as potential anticancer agents--high hopes for new therapies?  (full - 2009)


TRB3 links ER stress to autophagy in cannabinoid anti-tumoral action.  (full – 2009)
https://www.researchgate.net/publication/26714808_TRB3_links_ER_stress_to_autophagy_in_cannabinoid_antitumoral_action

Cannabinoids in the treatment of cancer  (abst - 2009)


Hexahydrocannabinols, novel synthetic cannabinoid derivatives, suppress the tumor growth by inhibiting the VEGF secretion and angiogenesis  (abst - 2009)
http://www.fasebj.org/content/23/1_Supplement/761.3.abstract?sid=464545f2-6446-441c-8bd2-bfe13ce45124

Endocannabinoid system modulation in cancer biology and therapy.  (abst – 2009)

Could smoking pot cut risk of head, neck cancer?  (news - 2009)

Medical Marijuana and Cancer  (news/ad – 2009)
https://www.marijuanadoctors.com/content/ailments/view/19?ailment=cancer
CANNABINOID HYPEREMESIS SYNDROME – vomiting due to cannabinoid overdose

Cannabinoid hyperemesis: cyclical hyperemesis in association with chronic cannabis abuse (full – 2004) http://gut.bmj.com/content/53/11/1566.full

Cannabinoid hyperemesis: not just a problem in Adelaide Hills (letter – 2005) http://gut.bmj.com/content/54/5/731.1.full


Cannabinoid hyperemesis: marijuana puts patients in hot water. (full – 2007) http://journals.sagepub.com/doi/full/10.1080/10398560701196778

Cannabinoid hyperemesis relieved by compulsive bathing. (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2664574/?tool=pubmed


CARPAL TUNNEL SYNDROME


CELIAC DISEASE


CEREBRAL PALSY *

Endocannabinoids potently protect the newborn brain against AMPA-kainate receptor-mediated excitotoxic damage. (full – 2006)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1751782/?tool=pubmed


CHAGAS DISEASE/ AMERICAN TRYPANOSOMIASIS  – spread by kissing bug bites

Effects of cannabinoid treatment on Chagas disease pathogenesis: balancing inhibition of parasite invasion and immunosuppression (full – 2005)

CHEMICAL COMPOSITION *

Compounds found in Cannabis Sativa (list - undated)
http://www.ukcia.org/research/cannabis-compounds.htm

Advantages of polypharmaceutical herbal cannabis compared to single ingredient, synthetic tetrahydrocannabinol (full - 2000)

GC-MS analysis of the total delta9-THC content of both drug- and fiber-type cannabis seeds. (full – 2000) http://jat.oxfordjournals.org/content/24/8/715.long


Differential effects of medical marijuana based on strain and route of administration: A three-year observational study (full - 2001)
http://www.ukcia.org/research/DifferentialEffects/

Cannabis and Cannabis Extracts: Greater Than the Sum of Their Parts? (full - 2001)

The inheritance of chemical phenotype in Cannabis sativa L. (full - 2002)

Cannabis / Marijuana (Δ9-Tetrahydrocannabinol, THC) (full - 2002)

Biochemical differences in Cannabis sativa L. depending on sexual phenotype (full - 2002)

Chemotaxonomic features associated with flavonoids of cannabinoid-free cannabis (Cannabis sativa subsp. sativa L.) in relation to hops (Humulus lupulus L.). (abst – 2002)

Composition of the essential oils and extracts of two populations of Cannabis sativa L. ssp. spontanea from Austria (full - forum repost - 2003)

A chemotaxonomic analysis of cannabinoid variation in Cannabis (Cannabaceae) (full - 2004)
http://www.amjbot.org/cgi/content/full/91/6/966

http://www.jbc.org/content/279/38/39767.long

Comparative Proteomics of Cannabis sativa Plant Tissues (full - 2004)

(+)-Cannabidiol analogues which bind cannabinoid receptors but exert peripheral activity only. (abst – 2004)

NMR assignments of the major cannabinoids and cannabiflavonoids isolated from flowers of Cannabis sativa (abst - 2004)

Oil content, tocopherol composition and fatty acid patterns of the seeds of 51 Cannabis sativa L. genotypes (abst – 2004)
http://link.springer.com/article/10.1023/B:EUPH.0000040473.23941.76

Plant cannabinoids: a neglected pharmacological treasure trove (full - 2005)
Tetrahydrocannabinolic acid synthase, the enzyme controlling marijuana psychoactivity, is secreted into the storage cavity of the glandular trichomes. (full – 2005) http://pcp.oxfordjournals.org/content/46/9/1578.long


Evaluation of herbal cannabis characteristics by medical users: a randomized trial (full - 2006) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1654142/


Identification and Characterization of Cannabinoids That Induce Cell Death through Mitochondrial Permeability Transition in Cannabis Leaf Cells (full – 2007)
http://www.jbc.org/content/282/28/20739.full?sid=a5db98db-ff96-4187-8790-57097bbe15c1

Cannabidiolic-acid synthase, the chemotype-determining enzyme in the fiber-type Cannabis sativa (full – 2007)

Letter: The herbal way - a response to Ethan Russo (letter – 2007)

Phytochemical and genetic analyses of ancient cannabis from Central Asia (full - 2008) http://jxb.oxfordjournals.org/cgi/content/full/59/15/4171

PKS activities and biosynthesis of cannabinoids and flavonoids in Cannabis sativa L. plants (full - 2008) http://pcp.oxfordjournals.org/content/49/12/1767.long

Non-cannabinoid constituents from a high potency Cannabis sativa variety. (full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4888767/

Characterization of Medicinal Properties of Cannabis sativa L. Roots (link to PDF- 2008)
Characterization of Medicinal Properties of Cannabis Sativa L. Roots

http://www.dldocs.stir.ac.uk/documents/potency.pdf

EFFECT OF GERMINATION ON HEMP (CANNABIS SATIVA L.) SEED COMPOSITION (link to PDF – 2008) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.568.1907

Photosynthetic response of Cannabis sativa L. to variations in photosynthetic photon flux densities, temperature and CO2 conditions. (link to PDF– 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3550641/


The Benefits of Organic Hemp Milk (news - 2008)


Hydroxylation and Further Oxidation of Δ9-Tetrahydrocannabinol by Alkane-Degrading Bacteria (full - 2009)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2786519/

The Effect of Ultraviolet Radiation on the Accumulation of Medicinal Compounds in Plants (link to download – 2009)  READ MORE


CHEMOTHERAPY *


Cannabinoids for control of chemotherapy induced nausea and vomiting: quantitative systematic review (full - 2001)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC34325/?tool=pubmed
The cannabinoids: an overview. Therapeutic implications in vomiting and nausea after cancer chemotherapy, in appetite promotion, in multiple sclerosis and in neuroprotection. (abst - 2001) 

Cannabinoids may prevent chemotherapy related sickness (news - 2001) 

CANNABINOIDS: POTENTIAL ANTICANCER AGENTS (link to PDF - 2003) 
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.190.3990&rank=20

Cisplatin increases brain 2-arachidonoylglycerol (2-AG) and concomitantly reduces intestinal 2-AG and anandamide levels in the least shrew. (abst – 2005) 


Different views on the association between cannabinoids and cancer (abst - 2006) 

Dronabinol for supportive therapy in patients with malignant melanoma and liver metastases (abst - 2006) 

2nd synthetic marijuana drug OK’d for chemo effects (news – 2006) 

Cesamet, THC and chemotherapy (news – 2006) 

Activation of cannabinoid CB1 and CB2 receptors suppresses neuropathic nociception evoked by the chemotherapeutic agent vincristine in rats. (full – 2007) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190028/?tool=pubmed


Efficacy of dronabinol alone and in combination with ondansetron versus ondansetron alone for delayed chemotherapy-induced nausea and vomiting. (abst - 2007) 

Pot Compound May Offer “Non-Toxic” Alternative To Chemotherapy (news – 2007) 

Pharmacological Inhibition of CB1 Cannabinoid Receptor Protects Against Doxorubicin-Induced Cardiotoxicity (full - 2008) 
http://content.onlinejacc.org/cgi/content/full/50/6/528

Oral nabilone capsules in the treatment of chemotherapy-induced nausea and vomiting and pain. (abst - 2008) 
Cannabinoids in the control of pain (abst – 2008)  

Pharmacological synergism between cannabinoids and paclitaxel in gastric cancer cell lines. (abst – 2009)  

Efficacy of Crude Marijuana and Synthetic Delta-9-Tetrahydrocannabinol as Treatment for Chemotherapy-Induced Nausea and Vomiting: A Systematic Literature Review. (abst - 2009)

http://www.unboundmedicine.com/medline/ebm/record/19596652/abstract/Efficacy_of_Crude_Marijuana_and_Synthetic_Delta_9_Tetrahydrocannabinol_as_Treatment_for_Chemotherapy_Induced_Nausea_and_Vomiting_A_Systematic_Literature_Review

Endocannabinoid system modulation in cancer biology and therapy. (abst – 2009)  

Medical Marijuana and Chemotherapy (news/ad – 2009)  
https://www.marijuanadoctors.com/content/ailments/view/20?ailment=chemotherapy

Medical Marijuana and Radiation Therapy (news/ad – 2009)  
https://www.marijuanadoctors.com/content/ailments/view/56?ailment=radiation-therapy

CHILDREN (12 and under) *

Cannabis use falls among Dutch youth (article - 2000)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1118548/?tool=pubmed

Maternal use of cannabis and pregnancy outcome. (full – 2002)  

Cannabinoids and Feeding: The Role of the Endogenous Cannabinoid System as a Trigger for Newborn Suckling (link to PDF - 2002)  

Endocannabinoids in the central nervous system--an overview. (abst – 2002)  

The endocannabinoid system: function in survival of the embryo, the newborn and the neuron. (abst - 2002)  

Recipe For Trouble (news/anecdotal - 2002)  
http://www.cbsnews.com/stories/2002/03/05/48hours/main503022.shtml
Comparison of meconium and neonatal hair analysis for detection of gestational exposure to drugs of abuse (full - 2003)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1721515/pdf/v088p00F98.pdf

Future of Cannabis and Cannabinoids in Therapeutics (link to PDF - 2003)  
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.597.1387&rank=7

On the application of cannabis in paediatrics and epileptology. (abst - 2003)  

Experiences with THC-treatment in children and adolescents (abst - 2003)  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=80

Effect of maternal under-nutrition on pup body weight and hypothalamic endocannabinoid levels. (abst – 2003)  

Medical marijuana: a surprising solution to severe morning sickness (news - 2004)  
http://www.mothering.com/community/a/medical-marijuana-a-surprising-solution-to-severe-morning-sickness

Endocannabinoids and food intake: newborn suckling and appetite regulation in adulthood. (full - forum repost - 2005)  

The cannabinoid system and its importance in the perinatal period (abst – 2005)  

Treatment with CBD in oily solution of drug-resistant paediatric epilepsies. (abst - 2005)  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=173&&search_pattern=EPILEPSY

Endocannabinoids potently protect the newborn brain against AMPA-kainate receptor-mediated excitotoxic damage (full - 2006)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1751782/?tool=pmcentrez

Determination of the prevalence of drug misuse by meconium analysis (full - 2006)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2672735/?tool=pubmed

Oily fish makes 'babies brainier' (news - 2006) (hemp seed- at the very end)  
http://news.bbc.co.uk/2/hi/health/4631006.stm

Cannabis is a First-Line Treatment for Childhood Mental Disorders (news - 2006)  
http://www.counterpunch.org/2006/07/08/cannabis-is-a-first-line-treatment-for-childhood-mental-disorders/
Dreher's Jamaican Pregnancy Study (news - 2006)
http://www.november.org/stayinfo/breaking06/DreherStudy.html


http://norml.org/about/item/breathe-push-puff-pot-use-and-pregnancy-a-review-of-the-literature

Volumetric MRI Study of Brain in Children With Intrauterine Exposure to Cocaine, Alcohol, Tobacco, and Marijuana (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2562785/

Maternal tobacco, cannabis and alcohol use during pregnancy and risk of adolescent psychotic symptoms in offspring. (full - 2009)
http://bjp.rcpsych.org/cgi/content/full/195/4/294

Urinary toxicological screening: Analytical interference between niflumic acid and cannabis. (abst - 2009)
http://www.unboundmedicine.com/medline/ebm/record/19716686/abstract/%5BUrinary_toxicological_screening:_Analytical_interference_between_niflumic_acid_and_cannabis_%5D


Doctors recommend medical marijuana for minors with ADHD in California (news – 2009)
http://www.nydailynews.com/life-style/health/doctors-recommend-medical-marijuana-minors-adhd-california-article-1.419585#ixzz2Ui5xXtRZ

Prescribing marijuana to kids (news – 2009)
http://theweek.com/article/index/103325/prescribing-marijuana-to-kids

http://www.rxmarijuana.com/lee.htm
**CHOLERA**

An endogenous cannabinoid tone attenuates cholera toxin-induced fluid accumulation in mice.  
(full – 2003)  
http://www.gastrojournal.org/article/S0016-5085%2803%2900892-8/fulltext

Cannabinoids and the digestive tract.  
(abst – 2005)  

Marijuana for cholera therapy  
(abst – 2005)  

**CHOLESTEROL**

Effect of Cannabis sativa L. Seed (Hempseed) on Serum Lipid and Protein Profiles of Rat  
(full – 2006)  

Role of activated endocannabinoid system in regulation of cellular cholesterol metabolism in macrophages  
(full – 2008)  
http://cardiovascres.oxfordjournals.org/content/81/4/805.full?sid=7d2438c4-a727-410f-870d-4a971695b4fb

Cholesterol-induced stimulation of platelet aggregation is prevented by a hempseed-enriched diet.  
(abst – 2008)  

Lipid rafts regulate 2-arachidonoylglycerol metabolism and physiological activity in the striatum  
(full – 2009)  

Cannabis plant extracts could potentially form the basic ingredients for a market-leading diabetes drug  
(news – 2009)  
http://www.thefreelibrary.com/Cannabis+plant+extracts+could+potentially+form+the+basic+ingredients...-a0202701009

**CNS / CENTRAL NERVOUS SYSTEM DISORDERS**

Endocannabinoids in the central nervous system--an overview.  
(abst – 2002)  
Cannabimimetic activity, binding, and degradation of stearoylethanolamide within the mouse central nervous system. (abst – 2002)

Activation of CB2 cannabinoid receptors by AM1241 inhibits experimental neuropathic pain: Pain inhibition by receptors not present in the CNS (full - 2003)
http://www.pnas.org/content/100/18/10529.full

Regulation of Cannabinoid CB1 Receptors in the Central Nervous System by Chronic Cannabinoids (abst – 2003)
http://dl.begellhouse.com/journals/7b004699754c9fe6,5aa33979065f2aa3.42019b6a7dd932fb.html

Therapeutic potential of cannabinoids in CNS disease. (abst - 2003)

Minimal Long-Term Effects Of Marijuana Use Found In Central Nervous System By UCSD Researchers (news - 2003)
http://www.sciencedaily.com/releases/2003/06/030630112652.htm

Cannabinoid/Opioid Crosstalk in the Central Nervous System (abst – 2004)
http://dl.begellhouse.com/journals/7b004699754c9fe6,54f83f6510f9db32.25c26fe4b594ae3.html

Cannabinoid receptors in microglia of the central nervous system: immune functional relevance. (full - forum repost - 2005)

Cannabinoids and neuroprotection in CNS inflammatory disease. (abst - 2005)

The endocannabinoid anandamide protects neurons during CNS inflammation by induction of MKP-1 in microglial cells. (full – 2006)
http://www.cell.com/neuron/fulltext/S0896-6273(05)01008-1

Naphthalen-1-yl-(4-pentyloxynaphthalen-1-yl)methanone: a potent, orally bioavailable human CB1/CB2 dual agonist with antihyperalgesic properties and restricted central nervous system penetration. (abst – 2007) http://pubs.acs.org/doi/abs/10.1021/jm070317a

Cannabidiol in medicine: a review of its therapeutic potential in CNS disorders. (abst - 2008)
http://www.unboundmedicine.com/medline/ebm/record/18844286/abstract/Cannabidiol_in_medicine:_a_review_of_its_therapeutic_potential_in_CNS_disorders

COHORT STUDIES
Cannabis use and traffic accidents in a birth cohort of young adults. (abst – 2001)

Progression from marijuana use to daily smoking and nicotine dependence in a national sample of U.S. adolescents (full - 2007)
http://www.academia.edu/15305650/Progression_from_marijuana_use_to_daily_smoking_and_nicotine_dependence_in_a_national_sample_of_U.S._adolescents

**COLIC** – infantile stomach cramps and pain

Future of Cannabis and Cannabinoids in Therapeutics (link to PDF - 2003)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.597.1387&rank=7

**COLITIS** *- also see BOWEL DISORDERS

Cannabinoids spell relief in colon inflammation (news – 2004)

Cannabinoids and the digestive tract. (abst – 2005)

Agonists of cannabinoid receptor 1 and 2 inhibit experimental colitis induced by oil of mustard and by dextran sulfate sodium. (full – 2006)
http://ajpgi.physiology.org/content/291/2/G364.long

The cannabinoid CB(2) receptor: a good friend in the gut. (full – 2007)

Ulcerative colitis in AKR mice is attenuated by intraperitoneally administered anandamide. (full – 2008)
http://www.jpp.krakow.pl/journal/archive/12_08/pdf/673_12_08_article.pdf

Targeting endocannabinoid degradation protects against experimental colitis in mice: involvement of CB1 and CB2 receptors. (abst – 2008)

Ulcerative Colitis Induces Changes on the Expression of the Endocannabinoid System in the Human Colonic Tissue (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2731878/?tool=pmcentrez

Activation of the cannabinoid 2 receptor (CB2) protects against experimental colitis.
Cannabidiol, a safe and non-psychotropic ingredient of the marijuana plant Cannabis sativa, is protective in a murine model of colitis.  

Cannabis for Ulcerative Colitis and Crohn's Disease treatment  

Medical Marijuana and Colitis  

COMPASSIONATE INVESTIGATIONAL NEW DRUG PROGRAM - The US government’s federal Medical Marijuana Program. Also see 2010-2015 articles, and the pre-2000 List 

Chronic Cannabis Use in the Compassionate Investigational New Drug Program: An Examination of Benefits and Adverse Effects of Legal Clinical Cannabis 

The legal status of medical marijuana.  

Weed control  

COPD/ CHRONIC OBSTRUCTIVE PUMONARY DISEASE * 

The cannabinoid receptor agonist WIN 55212-2 inhibits neurogenic inflammations in airway tissues.  

THC effective in appetite and weight loss in severe lung disease (COPD)
Researchers to test if cannabis ingredient can help COPD patients  (news - 2005)
http://www.thehempire.com/index.php/cannabis/news/researchers_to_test_if_cannabis_ingredient_can_help_copd_patients

Effects of Marijuana Smoking on Pulmonary Function and Respiratory Complications: A Systematic Review  (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2720277/?tool=pmcentrez

Marijuana and chronic obstructive lung disease: a population-based study  (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2665947/?tool=pmcentrez

http://www.google.com/patents/US20090197941

Pharmaceutical Compositions For The Treatment Of Chronic Obstructive Disease IS2009/0197941 A1 Aug. 6, 2009  (full – 2009)
http://www.cannabisinternational.org/info/COPD-Compositions.pdf

Does smoking marijuana increase the risk of chronic obstructive pulmonary disease?  (article - 2009)

Smoking Pot, Cigarettes Ups COPD Risk  (news - 2009)

COUGH

Bidirectional control of airway responsiveness by endogenous cannabinoids  (abst – 2000)

Inhibition of guinea-pig and human sensory nerve activity and the cough reflex in guinea-pigs by cannabinoid (CB2) receptor activation.  (full - 2003)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1574031/?tool=pubmed

US Patent 6974568 - Treatment for cough  (full - 2005)
http://www.archpatent.com/patents/6974568

Drugs to suppress cough.  (abst – 2005)

Effect of N-arachidonoyl-(2-methyl-4-hydroxyphenyl) amine (VDM11), an anandamide transporter inhibitor, on capsaicin-induced cough in mice  (full - 2006)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1448189/?tool=pmcentrez

Cannabis Cough Cure (news - 2006)

Inhibitory activity of the novel CB2 receptor agonist, GW833972A, on guinea-pig and human sensory nerve function in the airways. (full – 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2579660/


**CROHN’S DISEASE** * - also see BOWEL DISORDERS

Cannabinoids spell relief in colon inflammation (news – 2004)


Crohn's Patients Report Symptomatic Relief From Cannabis (news - 2005)


Cannabis Helps Ulcers And Crohn's Disease (news - 2006)

Anti-inflammatory cannabinoids in diet (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2633791/?tool=pmcentrez

Cannabis for Ulcerative Colitis and Crohn's Disease treatment (news - 2009)

Medical Marijuana and Crohn's Disease (news/ad – 2009)
https://www.marijuanadoctors.com/content/ailments/view/7?ailment=crohn-s-disease
Alternatives: Miracle Marijuana (anecdotal/news - 2009)  
http://www.heretohelp.bc.ca/visions/cannabis-vol5/alternatives

CRPS/ RSD - COMPLEX REGIONAL PAIN SYNDROME/ REFLEX SYMPATHETIC DYSTROPHY/ CAUSALGIA


CYSTIC FIBROSIS *

Cannabinoids and cystic fibrosis: a novel approach to etiology and therapy. (full - 2002)  

The endocannabinoid-CB receptor system: Importance for development and in pediatric disease. (abst - 2004)  

The endocannabinoid-CB(1) receptor system in pre- and postnatal life. (abst - 2004)  

Peripheral, but not central effects of cannabidiol derivatives: Mediation by CB 1 and unidentified receptors (full - 2005)  

Appetite stimulants in cystic fibrosis: a systematic review. (summary – 2007)  

Vaporized marijuana effect on CF. NOT smoking (forum post - 2007)  
http://www.topix.com/forum/health/cystic-fibrosis/TBQ56B1VNGGAODTKA

CYSTITIS

Cannabinoid rotation in a young woman with chronic cystitis (abst - 2003)  
Marijuana-Derived Drug Suppresses Bladder Overactivity And Irritation In Animal Models (news - 2005)  

Marijuana-Derived Drug Promises Hope In Treating Bladder Infection (news – 2005)  

Marijuana-Derived Drug Suppresses Bladder Pain In Animal Models (news - 2006)  
http://www.sciencedaily.com/releases/2006/05/060521103039.htm

**DEPRESSION** *

Anxiety with Depression Research Review (full - 2000)  
http://www.ukcia.org/research/AnxietyWithDepressionResearchReview.pdf

Therapeutic Aspects of Cannabis and Cannabinoids (full - 2001)  

Association between cannabis use and depression may not be causal, study says (news - 2004)  
http://www.cannabis-med.org/english/bulletin/ww_en_db_cannabis_artikel.php?id=177#4

Cannabinoids promote hippocampus neurogenesis and produce anxiolytic- and antidepressant-like effects (full - 2005)  
http://www.jci.org/cgi/content/full/115/11/3104

Antidepressant-like activity by blockade of anandamide hydrolysis (full - 2005)  

Depression in Parkinson's disease is related to a genetic polymorphism of the cannabinoid receptor gene (CNR1) (full - 2005)  
http://www.nature.com/tpj/journal/v5/n2/full/6500301a.html

Antidepressant-like Activity and Modulation of Brain Monoaminergic Transmission by Blockade of Anandamide Hydrolysis. (full – 2005)  
http://www.pnas.org/content/102/51/18620.long

Decreased Depression in Marijuana Users (full – 2005)  

Survey of Australians using cannabis for medical purposes (full – 2005)  
http://www.harmreductionjournal.com/content/2/1/18

The medicinal use of cannabis in the UK: results of a nationwide survey
Is cannabis good for your brain? (news – 2005)  

New Antidepressant Drug Increases 'Brain's Own Cannabis'  (news - 2005)  
http://www.sciencedaily.com/releases/2005/12/051213172852.htm

Cannabis' Acts as Antidepressant  (news - 2005)  

Cannabis And Depression Research  (news - 2005)  
http://www.thehempire.com/index.php/cannabis/news/cannabis and depression research

High-dose cannabis stimulates growth of brain cells in rats  (news – 2005)  

Good News For The Medical Marijuana Movement: Pot Proliferates Brain Cells And Boosts Mood  (news - 2005)  
http://www.sciencedaily.com/releases/2005/10/051014073523.htm

Marijuana might cause new cell growth in the brain  (news – 2005)  
(may need registration)  
http://www.newscientist.com/article/dn8155

Surprising Brain Effects From Pot-Like Drug  (news – 2005)  

The synthetic cannabinoid nabilone improves pain and symptom management in cancer patients  (abst - 2006)  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=177

Marijuana use and depression among adults: Testing for causal associations.  (abst - 2006)  

Do patients use marijuana as an antidepressant?  (abst - 2006)  

A possible role for the endocannabinoid system in the neurobiology of depression  (full - 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2169225/?tool=pubmed

Chronologically overlapping occurrences of nicotine-induced anxiety- and depression-related behavioral symptoms: effects of anxiolytic and cannabinoid drugs  (full - 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2075518/?tool=pubmed

Cannabinoids elicit antidepressant-like behavior and activate serotonergic neurons through the medial prefrontal cortex.  (full - 2007)  
http://www.jneurosci.org/cgi/content/full/27/43/11700
Clinical research Cannabinoids in health and disease (link to PDF - 2007)

Antidepressant-like activity of the fatty acid amide hydrolase inhibitor URB597 in a rat model of chronic mild stress. (abst – 2007)

Neuropharmacological effects of oleamide in male and female mice. (abst – 2007)


Marijuana-Like Brain Chemicals Work As Antidepressant (news - 2007)

Marijuana chemical may treat depression (news - 2007)
http://uk.reuters.com/article/2007/11/05/health-depression-marijuana-dc-idUKN0528602320071105


Synthetic form of THC is an effective anti-depressant at low doses (news - 2007)

Treating depression with cannabinoids (full - 2008)

Nicotine (NC)-induced "depressive" behavioral symptoms and effects of antidepressants including cannabinoids (CBs).  (full – 2008)
https://www.jstage.jst.go.jp/article/jts/33/5/33_5_555/_pdf


Cannabinoid receptor 1 (CNR1) gene: impact on antidepressant treatment response and emotion processing in major depression. (abst – 2008)

Evaluation of Delta9 -Tetrahydrocannabinoland other Cannabinoids for Antidepressant-like Actions in the Mouse Forced Swim Test (abst – 2008)

Circulating endocannabinoids and N-acyl ethanolamines are differentially regulated in major depression and following exposure to social stress.  (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2716432/?tool=pubmed

Role of endocannabinoid signaling in anxiety and depression.  (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3808114/
Protracted cannabinoid administration elicits antidepressant behavioral responses in rats: role of gender and noradrenergic transmission. (full - 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931555/

Cannabis and suicide: longitudinal study. (full - 2009)  
http://bjp.rcpsych.org/content/195/6/492.long

Antidepressant-like effects of cannabidiol in mice: possible involvement of 5-HT1A receptors  (full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2823358/

Impairments in Endocannabinoid Signaling and Depressive Illness  
(1st page – 2009)  

Medical Marijuana and Major Depression  
(news/ad – 2009)  
https://www.marijuanadoctors.com/content/ailments/view/41?ailment=major-depression

DERMATITIS *

The Endocannabinoid System in Human Keratinocytes  (full – 2003)  
http://www.jbc.org/content/278/36/33896.full

Histamine induced responses are attenuated by a cannabinoid receptor agonist in human skin.  (abst – 2003)  

Efficacy of dietary hempseed oil in patients with atopic dermatitis.  (abst - 2005)  

Hemp-seed and olive oils: their stability against oxidation and use in O/W emulsions.  
(abst – 2005)  

Involvement of the Cannabinoid CB2 Receptor and Its Endogenous Ligand 2-Arachidonoylglycerol in Oxazolone-Induced Contact Dermatitis in Mice  (full – 2006)  
http://www.jimmunol.org/content/177/12/8796.full

Anandamide Regulates Keratinocyte Differentiation by Inducing DNA Methylation in a CB1 Receptor-dependent Manner  (full – 2007)  
http://www.jbc.org/content/283/10/6005.full?sid=931583b1-e797-43e0-8296-7fd75bb49403#sec-4

Attenuation of allergic contact dermatitis through the endocannabinoid system.  
(abst – 2007)  

Topical adelmidrol 2% emulsion, a novel aliamide, in the treatment of mild atopic dermatitis in pediatric subjects: a pilot study  
(abst – 2007)  
Attenuation of allergic contact dermatitis through the endocannabinoid system.  

Hippies vindicated: Human-produced cannabinoids have anti-inflammatory powers  

Role seen for cannabis in helping to alleviate allergic skin disease  

Allergic Skin Disease Could Be Treated With Substance Found In Cannabis  

Hashing Out Allergic Contact Dermatitis — Another Medical Use for Marijuana?  
(news - 2007)  http://dermatology.jwatch.org/cgi/content/full/2007/622/1?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=1920&resource_type=HWCIT

Cannabis May Help Alleviate Allergic Skin Disease  

Constituents Of Hashish And Marijuana May Help To Fight Inflammation And Allergies  

Cannabis compound reduces skin allergies in mice  

Marijuana Might Help Cure Allergic Contact Dermatitis (a.k.a. Poison Ivy)  

Marijuana Skin Cream?  

Cannabis for allergic contact dermatitis  

Want Nice Skin? Then Smoke Cannabis!  

Cannabinomimetic Control of Mast Cell Mediator Release: New Perspective in Chronic Inflammation  
A saturated N-acylethanolamine other than N-palmitoyl ethanolamine with anti-inflammatory properties: a neglected story... (full – 2008)

Endocannabinoids enhance lipid synthesis and apoptosis of human sebocytes via cannabinoid receptor-2-mediated signaling. (link to PDF – 2008)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.328.8372

Body's Own 'Cannabis (Marijuana)' Is Good For The Skin, Scientists Find (news - 2008) http://www.sciencedaily.com/releases/2008/07/080702160944.htm

Substances Similar To The Body's Own 'Cannabis (Marijuana) Are Necessary For Healthy Skin And May Lead To New Skin Disease Treatments (news - 2008)
http://www.medicalnewstoday.com/articles/113812.php

The endocannabinoid system of the skin in health and disease: novel perspectives and therapeutic opportunities (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2757311/?tool=pmcentrez

The cannabinoid receptor CB2 exerts antifibrotic effects in experimental dermal fibrosis (full - 2009)

Cannabinoid system in the skin - a possible target for future therapies in dermatology. (full - 2009)

Granny's cannabis skin ointment really did work, new study shows (news - forum repost - 2009)

**DIABETES**

The effect of WIN 55,212-2, a cannabinoid agonist, on tactile allodynia in diabetic rats. (abst – 2004)

Cannabidiol Preserves Retinal Neurons and Reduces Vascular Permeability in Experimental Diabetes (abst – forum repost - 2004)

Cannabidiol lowers incidence of diabetes in non-obese diabetic mice (full - 2005)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2270485/?tool=pmcentrez

Activation of the Peripheral Endocannabinoid System in Human Obesity
The Ffa Receptor Gpr40 Links Hyperinsulinemia, Hepatic Steatosis, and Impaired Glucose Homeostasis in Mouse. (full – 2005)
http://www.cell.com/cell-metabolism/fulltext/S1550-4131(05)00086-0

Gpr40 Gene Expression in Human Pancreas and Insulinoma. (abst – 2005)

Neuroprotective and Blood-Retinal Barrier-Preserving Effects of Cannabidiol in Experimental Diabetes (full - 2006)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1592672/?tool=pubmed

Regulation, Function, and Dysregulation of Endocannabinoids in Models of Adipose and β-Pancreatic Cells and in Obesity and Hyperglycemia (full - 2006)

Weight Control in Individuals With Diabetes (full - 2006)
http://care.diabetesjournals.org/content/29/12/2749.full?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabis&searchid=1&FIRSTINDEX=2000&resourcetype=HWCIT

Expression of the Gene for a Membrane-bound Fatty Acid Receptor in the Pancreas and Islet Cell Tumours in Humans: Evidence for Gpr40 Expression in Pancreatic Beta Cells and Implications for Insulin Secretion. (full – 2006)
http://link.springer.com/article/10.1007/s00125-006-0193-8

Changes in endocannabinoid and palmitoylethanolamide levels in eye tissues of patients with diabetic retinopathy and age-related macular degeneration. (abst – 2006)

The Cannabinergic System as a Target for Anti-inflammatory Therapies (abst - 2006) http://www.ingentaconnect.com/content/ben/citmc/2006/00000006/00000013/art00008

Non-Psychoactive Cannabinoid Reduces Incidence Of Diabetes, Study Says (news - 2006)

Marijuana Compound May Help Stop Diabetic Retinopathy (news - 2006)
http://www.sciencedaily.com/releases/2006/02/060227184647.htm

Marijuana Compound Offers Hope In Diabetic Retinopathy Prevention (news – 2006)
http://www.bio-medicine.org/medicine-news/Marijuana-Compound-Offers-Hope-In-Diabetic-Retinopathy-Prevention-8121-1/

Cannabidiol reduces the development of diabetes in an animal study (news - 2006)

Getting Eye On Cannabinoids (news - 2006)
Marijuana compound could prevent eye damage in diabetics  

Compound found in marijuana may defend against diabetic retinopathy  
http://www.news-medical.net/news/2006/03/01/16284.aspx

Cannabidiol arrests onset of autoimmune diabetes in NOD mice  

Expression of Cannabinoid CB1 Receptors in Models of Diabetic Neuropathy  
http://jpet.aspetjournals.org/content/323/2/508.full?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=320&res
ourcetype=HWCIT

Cannabidiol attenuates high-induced endothelial cell inflammatory response and barrier disruption  
http://www.pubmedcentral.nih.gov/articlerender.fcgi?
artid=2228254&tool=pmcentrez

US Patent 8071641 B2 - Treating or preventing diabetes with cannabidiol  
http://www.google.com/patents/US8071641

Role of cannabinoid CB2 receptors in glucose homeostasis in rats  

The synthetic cannabinoid HU-210 attenuates neural damage in diabetic mice and hyperglycemic pheochromocytoma PC12 cells  

Anticoagulant Effects of a Cannabis Extract in an Obese Rat Model  

Mediation of Cannabidiol anti-inflammation in the Retina by Equilibrative Nucleoside Transporter and A2A Adenosine Receptor  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2588644/?tool=pmcentrez

The Role of Adipocyte Insulin Resistance in the Pathogenesis of Obesity-Related Elevations in Endocannabinoids  
http://diabetes.diabetesjournals.org/content/57/5/1262.full?sid=00769f3d-54ab-451b-b69e-4650931c5e25

GPR119, a novel G protein-coupled receptor target for the treatment of type 2 diabetes and obesity  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2268073/?
tool=pmcentrez

Endogenous and synthetic agonists of GPR119 differ in signalling pathways and their effects on insulin secretion in MIN6c4 insulinoma cells.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2528830/?tool=pubmed

Endocannabinoids and the Control of Energy Homeostasis (full – 2008) http://www.jbc.org/content/283/48/33021.full?sid=931583b1-e797-43e0-8296-7fd75bb49403

Mediation of Cannabidiol Anti-inflammation in the Retina by Equilibrative Nucleoside Transporter and A2A Adenosine Receptor (full – 2008) http://www.iovs.org/content/49/12/5526.full


Common polymorphisms in the cannabinoid CB2 receptor gene (CNR2) are not associated with myocardial infarction and cardiovascular risk factors (link to PDF - 2008) http://www.spandios-publications.com/ijmm/22/2/165


Scientist Discovers New Molecule to Treat Chronic Pain (news - 2008) http://www.northeastern.edu/news/2008/08/makryannisnewmolecule/

Cannabidiol As a Putative Novel Therapy for Diabetic Retinopathy: A Postulated Mechanism of Action as an Entry Point for Biomarker-Guided Clinical Development. (full - 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2955420/?tool=pubmed

Cannabidiol Attenuates Myocardial Dysfunction, Fibrosis, Inflammation, Cell Death and Interrelated Signaling Pathways Associated With Diabetic Cardiomyopathy (full - 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3026637/


Cannabinoid CB2 Receptor Potentiates Obesity-Associated Inflammation, Insulin Resistance and Hepatic Steatosis (full - 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2688760/?tool=pubmed

The endocannabinoid system and diabetes - critical analyses of studies conducted with rimonabant (full - 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2770455/?tool=pmcentrez
Anti-inflammatory effect of palmitoylethanolamide on human adipocytes.  

Biological effects of THC and a lipophilic cannabis extract on normal and insulin resistant 3T3-L1 adipocytes  
(abst - 2009)  http://www.unboundmedicine.com/medline/ebm/record/19345076/abstract/Biological_effects_of_THC_and_a_lipophilic_cannabis_extract_on_normal_and_insulin_resistant_3T3_L1_adipocytes

Beneficial effects of a Cannabis sativa extract on diabetes induced neuropathy and oxidative stress.  

Cannabis plant extracts could potentially form the basic ingredients for a market-leading diabetes drug  
(news – 2009)  http://www.thefreelibrary.com/Cannabis+plant+extracts+could+potentially+form+the+basic+ingredients...-a0202701009

Medical Marijuana and Diabetes, Adult Onset  

**DOWN SYNDROME**

Glial expression of cannabinoid CB(2) receptors and fatty acid amide hydrolase are beta amyloid-linked events in Down's syndrome.  

**DRIVING AND CANNABIS** *

The influence of cannabis on driving  

Cannabis use and traffic accidents in a birth cohort of young adults.  

Prevalence of drug use in commercial tractor-trailer drivers.  

Use of high-performance liquid chromatography with diode-array detection after a primary drug screening in patients admitted to the emergency department.
Psychoactive substance use and the risk of motor vehicle accidents. (full – 2004)

Research Note: Cannabis and Driving — Research Needs and Issues for Transportation Policy
(link to download – 2004)
http://journals.sagepub.com/doi/abs/10.1177/002204260403400413

Drivers With THC in their Blood Have Only a Small Increased Risk to Cause an Accident
(news - 2005)

Roadside sobriety tests and attitudes toward a regulated cannabis market. (full – 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1796871/?tool=pubmed

Developing limits for driving under cannabis. (abst - 2007)

Fitness to drive in spite (because) of THC (abst - 2007)
http://www.unboundmedicine.com/medline/ebm/record/17879702/abstract/
%5BFitness_to_drive_in_spite__because__of_THC%5D

Effects of THC on driving performance, physiological state and subjective feelings relative to alcohol. (abst - 2008)

Driving under the influence of cannabis: a 10-year study of age and gender differences in the concentrations of tetrahydrocannabinol in blood. (abst - 2008)

Cannabis and Driving: A Scientific and Rational Review (news - 2008)
http://norml.org/library/item/cannabis-and-driving-a-scientific-and-rational-review

Marijuana and Driving Not So Dangerous After All (news - 2008)

The effect of cannabis compared with alcohol on driving. (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2722956/?tool=pubmed

**DRUG TESTING** *

Effects of pyridinium chlorochromate adulterant (urine luck) on testing for drugs of abuse and a method for quantitative detection of chromium (VI) in urine. (full – 2000)
http://jat.oxfordjournals.org/content/24/4/233.long
GC-MS analysis of the total delta9-THC content of both drug- and fiber-type cannabis seeds. (full – 2000) http://jat.oxfordjournals.org/content/24/8/715.long

Consumption and quantitation of delta9-tetrahydrocannabinol in commercially available hemp seed oil products. (full – 2000) http://jat.oxfordjournals.org/content/24/7/562.long


Effects of Stealth adulterant on immunoassay testing for drugs of abuse. (full – 2002) http://jat.oxfordjournals.org/content/25/6/466.long


Effects of oxidizing adulterants on detection of 11-nor-delta9-THC-9-carboxylic acid in urine. (full – 2002) http://jat.oxfordjournals.org/content/26/7/460.long


Practical Challenges to Positive Drug Tests for Marijuana (editorial - 2003) http://www.clinchem.org/cgi/content/full/49/7/1037


Drugs of Abuse: Analyses and Ingested Agents That Can Induce Interference or Cross-Reactivity (link to PDF - 2006) http://labmed.ascpjournals.org/content/37/6/358.full.pdf+html?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=2400&resourcetype=HWCIT

Human Cannabinoid Pharmacokinetics (full - 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2689518/?tool=pmcentrez

Roadside sobriety tests and attitudes toward a regulated cannabis market. (full – 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1796871/?tool=pubmed

The Effects of Adulterants and Selected Ingested Compounds on Drugs-of-Abuse Testing in Urine (link to PDF - 2007) http://ajcp.ascpjournals.org/content/128/3/491.full.pdf+html


Biomarkers for the effects of cannabis and THC in healthy volunteers (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2668079/?tool=pmcentrez


Reintoxication: the release of fat-stored Delta-tetrahydrocannabinol (THC) into blood is enhanced by food deprivation or ACTH exposure. (full - 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2782342/?tool=pubmed


**DRUG TESTING – BLOOD/ PLASMA **

Serum cannabinoid levels 24 to 48 hours after cannabis smoking  

Prevalence of Illicit Drug Use in Plasmapheresis Donors.  

Use of high-performance liquid chromatography with diode-array detection after a primary drug screening in patients admitted to the emergency department.  

Estimating the Time of Last Cannabis Use from Plasma {Delta}{9}-Tetrahydrocannabinol and 11-nor-9-Carboxy-{Delta}{9}-Tetrahydrocannabinol Concentrations  
http://www.clinchem.org/cgi/content/full/51/12/2289  

Cannabinoid concentrations in hair from documented cannabis users.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2274831/  

Cannabinoid concentrations in spot serum samples 24-48 hours after discontinuation of cannabis smoking.  
http://jat.oxfordjournals.org/content/32/2/160.long  

Driving under the influence of cannabis: a 10-year study of age and gender differences in the concentrations of tetrahydrocannabinol in blood.  


Do Delta(9)-tetrahydrocannabinol concentrations indicate recent use in chronic cannabis users?  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2784185/?tool=pmcentrez  

A semi-automated solid-phase extraction liquid chromatography/tandem mass spectrometry method for the analysis of tetrahydrocannabinol and metabolites in whole blood.  

**DRUG TESTING – HAIR **

Stability of Cannabinoids in Hair Samples Exposed to Sunlight  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2274831/
Does ADAM Need a Haircut? A Pilot Study of Self-Reported Drug Use and Hair Analysis in an Arrestee Sample  
(abst – 2002)  

Comparison of meconium and neonatal hair analysis for detection of gestational exposure to drugs of abuse  
(full - 2003)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1721515/pdf/v088p00F98.pdf?tool=pmcentrez

Weather-induced changes in cannabinoid content of hair  
(abst - 2003)  

Assessing the potential of a "color effect" for hair analysis of 11-nor-9-carboxy-delta(9)-tetrahydrocannabinol: analysis of a large sample of hair specimens.  
(abst – 2003)  

In Vitro Contamination of Hair by Marijuana Smoke  
(full – 2004)  
http://www.clinchem.org/content/50/3/596.long

Cannabinoids in hair: strategy to prove marijuana/hashish consumption  
(abst - 2004)  

Deposition of cannabinoids in hair after long-term use of cannabis  
(abst - 2006)  

Cannabinoid concentrations in hair from documented cannabis users.  
(full - 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2274831/

Differentiation between drug use and environmental contamination when testing for drugs in hair  
(abst - 2007)  

Evaluation of the IDS One-Step™ ELISA kits for the detection of illicit drugs in hair  
(abst - 2007)  

**DRUG TESTING - FINGERNAILS**

Simultaneous determination of amphetamine-type stimulants and cannabinoids in fingernails by gas chromatography-mass spectrometry.  
(abst – 2008)  
DRUG TESTING - OTHER *

Wiping Up the Evidence               (news - 2000) 

Comparison of meconium and neonatal hair analysis for detection of gestational exposure to drugs of abuse      (full - 2003) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1721515/pdf/v088p00F98.pdf


Usefulness of Sweat Testing for the Detection of Cannabis Smoke     (full - 2004) 
http://www.clinchem.org/cgi/content/full/50/11/1961

Entomotoxicology for the forensic toxicologist: much ado about nothing?  (abst – 2004) 

Determination of the prevalence of drug misuse by meconium analysis    (full - 2006) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2672735/?tool=pubmed


Excretion of Δ9-tetrahydrocannabinol in sweat            (full - 2008) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2277330/?tool=pubmed

Imaging of Latent Fingerprints through the Detection of Drugs and Metabolites (abst – 2008) 

CSI: fingerprinting and drug detection in one              (news – 2008) 

DRUG TESTING - ORAL

Passive cannabis smoke exposure and oral fluid testing. II. Two studies of extreme cannabis smoke exposure in a motor vehicle.      (full – 2005) 
http://jat.oxfordjournals.org/content/29/7/607.long

Drug Testing in Oral Fluid            (full - 2006) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1579288/?tool=pmcentrez


Method For Detecting 23 Drugs And Medicines In Saliva Developed (news - 2009) http://www.sciencedaily.com/releases/2009/02/090211122532.htm

**DRUG TESTING – QUALITY CONTROL**


**DRUG TESTING – URINE** *

Effects of pyridinium chlorochromate adulterant (urine luck) on testing for drugs of abuse and a method for quantitative detection of chromium (VI) in urine. (full – 2000) http://jat.oxfordjournals.org/content/24/4/233.long
Cannabinoid mimics in chocolate utilized as an argument in court (abst – 2000)  


Evaluating the impact of hemp food consumption on workplace drug tests. (full – 2001)  
http://jat.oxfordjournals.org/content/25/8/691.long

Delta9-tetrahydrocannabivarin as a marker for the ingestion of marijuana versus Marinol: results of a clinical study (full - 2001)  
http://jat.oxfordjournals.org/content/25/7/565.long

Effects of Stealth adulterant on immunoassay testing for drugs of abuse. (full – 2002)  
http://jat.oxfordjournals.org/content/25/6/466.long

Effects of oxidizing adulterants on detection of 11-nor-delta9-THC-9-carboxylic acid in urine. (full – 2002)  
http://jat.oxfordjournals.org/content/26/7/460.long

Toxicological screening for drugs of abuse in samples adulterated with household chemicals. (abst – 2002)  


A procedure for the detection of Stealth adulterant in urine samples. (abst – 2002)  

Nursing Home Residents Test Positive For Marijuana (news – 2002)  

Urinary Cannabinoid Detection Times after Controlled Oral Administration of {Delta}9-Tetrahydrocannabinol to Humans (full - 2003)  
http://www.clinchem.org/cgi/content/full/49/7/1114


The marijuana detection window: determining the length of time cannabinoids will remain detectable in urine following smoking: a critical review of relevant research and cannabinoid detection guidance for drug courts (full – 2005) http://dn2vfhynkm.cloudfront.net/sites/default/files/thc_detection_window_1.pdf


The Effects of Adulterants and Selected Ingested Compounds on Drugs-of-Abuse Testing in Urine (link to PDF - 2007) http://ajcp.ascpjournals.org/content/128/3/491.full.pdf+html


Urinary elimination of 11-nor-9-carboxy-delta9-tetrahydrocannabinol in cannabis users during continuously monitored abstinence.  
(full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2587336/?tool=pubmed

Substance Users Get Creative to Fool Drug Tests  
(news - 2008)  
http://psychnews.psychiatryonline.org/doi/full/10.1176%2Fpn.43.17.0008

Do Delta(9)-tetrahydrocannabinol concentrations indicate recent use in chronic cannabis users?  
(full - 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2784185/?tool=pmcentrez

Extended urinary Delta9-tetrahydrocannabinol excretion in chronic cannabis users precludes use as a biomarker of new drug exposure.  
(full - 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2763020/?tool=pubmed

Identifying New Cannabis Use with Urine Creatinine-Normalized THCCOOH Concentrations and Time Intervals Between Specimen Collections.  
(full - 2009)  

Short communication: Urinary excretion of 11-nor-9-carboxy-Delta(9)-tetrahydrocannabinol in a pregnant woman following heavy, chronic cannabis use.  
(letter - 2009)  
http://jat.oxfordjournals.org/content/33/9/610.long

Urinary toxicological screening: Analytical interference between niflumic acid and cannabis.  
(abst - 2009)  
http://www.unboundmedicine.com/medline/ebm/record/19716686/abstract/%5BUrinary_toxicological_screening:_Analytical_interference_between_niflumic_acid_and_cannabis_%5D

Evaluation of a Human On-site Urine Multidrug Test for Emergency Use With Dogs  
(abst - 2009)  

Passive inhalation of cannabis smoke--is it detectable?  
(abst - 2009)  

**DYSKINESIA** *

Cannabinoids reduce levodopa-induced dyskinesia in Parkinson's disease: a pilot study.  
(abst - 2001)  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=54

Effects of pharmacological manipulations of cannabinoid receptors on severity of dystonia in a genetic model of paroxysmal dyskinesia.  
(abst – 2002)  

The endocannabinoid system as a target for the treatment of motor dysfunction. (full - 2009)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2697699/


DYSTONIA *

A Dramatic Response to Inhaled Cannabis in a Woman with Central Thalamic Pain and Dystonia  (full - 2002)  http://www.jpsmjournal.com/article/PIIS0885392402004268/fulltext


**ECZEMA**

Skin Complaint Man Grew Cannabis  
(news/ anecdotal- 2004)  
http://www.mapinc.org/drugnews/v04.n1222.a09.html

Want Nice Skin? Then Smoke Cannabis!  
(news - forum repost – 2007)  

Cannabis helps treat allergic reactions  
(news - 2007)  
http://www.safeaccesssnow.org/article.php?id=4768

Cannabis compound reduces skin allergies in mice  
(news – 2007)  
(may need registration)  

Cannabinoids Reduce Skin Inflammation  
(news - 2007)  

Marijuana Skin Cream?  
(news - 2007)  
http://www.drugfree.org/news-service/marijuana-skin-cream/

(abst – 2008)  

Medical Marijuana and Eczema  
(news/ad – 2009)  
https://www.marijuanadoctors.com/content/ailments/view/131?ailment=eczema

**EDEMA**

Neuroprotective and brain edema-reducing efficacy of the novel cannabinoid receptor agonist BAY 38-7271.  
(abst – 2003)  

Cannabinoid CB(2) receptor activation prevents bronchoconstriction and airway oedema in a model of gastro-oesophageal reflux.  
(abst - 2007)  

The Endocannabinoids: Functional Roles and Therapeutic Opportunities  
(news – 2007)  

Evaluation of fatty acid amides in the carrageenan-induced paw edema model.  
(full – 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2200792/
**EHLERS-DANLOS SYNDROME**

Ehlers Danlos Syndrome - Cannabis Symptom Relief (news – undated)

Ehlers-Danlos syndrome (full – 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1962838/

**EMBRYOS/ FETAL DEVELOPMENT**

Dysregulated Cannabinoid Signaling Disrupts Uterine Receptivity for Embryo Implantation (full - 2001) http://www.jbc.org/content/276/23/20523.full

Low fatty acid amide hydrolase and high anandamide levels are associated with failure to achieve an ongoing pregnancy after IVF and embryo transfer (full – 2002)
http://molehr.oxfordjournals.org/content/8/2/188.full


Cannabinoid CB1 receptor activation does not prevent the toxicity of glutamate towards embryonic chick telencephalon primary cultures. (abst – 2003)


Cannabinoids promote embryonic and adult hippocampus neurogenesis and produce anxiolytic- and antidepressant-like effects (full - 2005)
http://www.jci.org/cgi/content/full/115/11/3104

Expression and function of cannabinoid receptors CB1 and CB2 and their cognate cannabinoid ligands in murine embryonic stem cells. (full – 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1919431/?tool=pubmed

Amyloid precursor protein 96-110 and beta-amyloid 1-42 elicit developmental anomalies in sea urchin embryos and larvae that are alleviated by neurotransmitter analogs for acetylcholine, serotonin and cannabinoids. (full – 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2579926/?tool=pubmed

Volumetric MRI Study of Brain in Children With Intrauterine Exposure to Cocaine, Alcohol, Tobacco, and Marijuana (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2562785/

Fluctuation in anandamide levels from ovulation to early pregnancy in in-vitro fertilization-embryo transfer women, and its hormonal regulation (full – 2009)
http://humrep.oxfordjournals.org/content/24/8/1989.long

**ENCEPHALITIS**

CB2 receptors in the brain: role in central immune function (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219530/?tool=pmcentrez

Cannabinoid CB2 receptors in human brain inflammation (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219537/


**ENCEPHALOMYELITIS/ EAE** * - a mouse model for multiple sclerosis


Cannabinoid-receptor 1 null mice are susceptible to neurofilament damage and caspase 3 activation. (abst – 2005) http://www.ncbi.nlm.nih.gov/pubmed/15953683
Experimental autoimmune encephalomyelitis disrupts endocannabinoid-mediated neuroprotection  
(full - 2006)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1458883/?tool=pmcentrez

Control of Spasticity in a Multiple Sclerosis Model is mediated by CB1, not CB2, Cannabinoid Receptors  
(full - 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2189718/?tool=pmcentrez

CB2 cannabinoid receptors as an emerging target for demyelinating diseases: from neuroimmune interactions to cell replacement strategies  
(full - 2007)  

The endocannabinoid system is dysregulated in multiple sclerosis and in experimental autoimmune encephalomyelitis  
(full - 2007)  
http://brain.oxfordjournals.org/content/130/10/2543.long

A Cannabinoid CB2 receptor agonist attenuates experimental autoimmune encephalomyelitis (EAE) and reduces MOG-specific T cell proliferation  
(abst - 2007)  
http://www.fasebj.org/cgi/content/meeting_abstract/21/6/A1393-c?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=800&resourcetype=HWCIT

The CB(2) cannabinoid receptor controls myeloid progenitor trafficking: involvement in the pathogenesis of an animal model of multiple sclerosis.  
(full - 2008)  
http://www.jbc.org/content/283/19/13320.long

Cannabinoids in the management of spasticity associated with multiple sclerosis  
(full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2626929/?tool=pmcentrez

Genetic deletion of Fatty Acid Amide Hydrolase results in improved long-term outcome in chronic autoimmune encephalitis.  
(abst – 2008)  

Modulation of cannabinoid receptor activation as a neuroprotective strategy for EAE and stroke.  
(full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2855650/?tool=pubmed

ENDOMETRIOSIS

Bipolar Disorder and Endometriosis by Anonymous  
(anecdotal – undated)  
http://rxmarijuana.com/shared_comments/Endometriosis4.htm

Endometriosis by Kim  
(anecdotal – undated)  
http://rxmarijuana.com/shared_comments/Endometriosis.htm
Selective CB2 up-regulation in women affected by endometrial inflammation (full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3822551/

EPIDIDYMITIS


EPILEPSY / SEIZURES * also see EPIDIOLEX in the “PHYTOCANNABINOIDs” section

Marijuana and Epilepsy (anecdotal- undated) http://www.rxmarihuana.com/epilepsy.htm


Keeping the Brain's Activity under Control (news – 2003)


Cannabinoids: Defending the Epileptic Brain (full - 2004) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1176332/?tool=pmcentrez


Epilepsy patients are smoking pot (news - forum repost - 2004) http://www.420magazine.com/forums/epilepsy/154906-epilepsy-patients-smoking-pot.html


Forebrain-Specific Inactivation of Gq/G11 Family G Proteins Results in Age-Dependent Epilepsy and Impaired Endocannabinoid Formation (full - 2006)
The Endocannabinoid System Controls Key Epileptogenic Circuits in the Hippocampus (full - 2006)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1769341/?tool=pmcentrez

Cannabinoid CB1 receptor antagonists cause status epilepticus-like activity in the hippocampal neuronal culture model of acquired epilepsy (full - 2006)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1808496/?tool=pmcentrez

Activation of the Cannabinoid Type-1 Receptor Mediates the Anticonvulsant Properties of Cannabinoids in the Hippocampal Neuronal Culture Models of Acquired Epilepsy and Status Epilepticus (full - 2006)
http://jpet.aspetjournals.org/content/317/3/1072.full?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=320&resourcetype=HWCIT#ref-list-1


Arachidonyl-2'-chloroethylamide, a highly selective cannabinoid CB1 receptor agonist, enhances the anticonvulsant action of valproate in the mouse maximal electroshock-induced seizure model. (abst – 2006)

Brain's Cannabinoid System 'Mellows' Seizures (news - 2006)
http://www.sciencedaily.com/releases/2006/08/060817103710.htm

Brain's cannabinoid system fights seizures (news – 2006)

Development of pharmacoresistance to benzodiazepines but not cannabinoids in the hippocampal neuronal culture model of status epilepticus (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2094113/?tool=pmcentrez

Endocannabinoids block status epilepticus in cultured hippocampal neurons (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2617750/?tool=pmcentrez

Downregulation of the CB1 Cannabinoid Receptor and Related Molecular Elements of the Endocannabinoid System in Epileptic Human Hippocampus (full - 2007)
http://www.jneurosci.org/cgi/content/full/28/12/2976?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&andorexactfulltext=and&searchid=1&FIRSTINDEX=0&sortspec=relevance&resourcetype=HWCIT

Endocannabinoid enhancement protects against kainic acid-induced seizures and associated brain damage. (full – 2007) http://jpet.aspetjournals.org/content/322/3/1059.long

Clinical research Cannabinoids in health and disease (link to PDF - 2007) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.288.5352&rank=23
In Vitro Anticonvulsant Action of 2-Arachidonyl Glycerol
(link to download – 2007)
https://www.semanticscholar.org/paper/In-Vitro-Anticonvulsant-Action-of-2-arachidonyl-Al-Hayani-Dipfms/83b70f2df30835226ebb91289d1a1bf3427c1ecb

Marijuana: an effective antiepileptic treatment in partial epilepsy? (abst - 2007)

Ultra-low dose cannabinoid antagonist AM251 enhances cannabinoid anticonvulsant effects in the pentylenetetrazole-induced seizure in mice. (abst – 2007)

The phytocannabinoid Delta(9)-tetrahydrocannabivarin modulates inhibitory neurotransmission in the cerebellum. (full – 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2438968/?tool=pubmed

SUPPORTING RESEARCH INTO THE THERAPEUTIC ROLE OF MARIJUANA (full – 2008)
https://www.acponline.org/acp_policy/policies/supporting_medmarijuana_2008.pdf

The cannabinoid anticonvulsant effect on pentylenetetrazole-induced seizure is potentiated by ultra-low dose naltrexone in mice (abst – 2008)

Effect of oleamide on pentylenetetrazole-induced seizures in rats. (abst – 2008)


Prolonged exposure to WIN55,212-2 causes downregulation of the CB1 receptor and the development of tolerance to its anticonvulsant effects in the hippocampal neuronal culture model of acquired epilepsy. (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2757117/?tool=pubmed

Febrile seizures: mechanisms and relationship to epilepsy. (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2698702/

Cannabinoid receptor activation reverses kainate-induced synchronized population burst firing in rat hippocampus (full – 2009)

Effect of arachidonyl-2'-chloroethylamide, a selective cannabinoid CB1 receptor agonist, on the protective action of the various antiepileptic drugs in the mouse maximal electroshock-induced seizure model. (abst – 2009)
Involvement of nitrergic system in the anticonvulsant effect of the cannabinoid CB(1) agonist ACEA in the pentylenetetrazole-induced seizure in mice. (abst – 2009)

Medical Marijuana and Epilepsy (news/ad – 2009)
https://www.marijuanadocs.com/content/ailments/view/79?ailment=epilepsy

**EPSTEIN-BARR**


**EXERCISE and the ENDOCANNABINOID SYSTEM** *

Exercise activates the endocannabinoid system. (abst – 2003)

Endocannabinoids and exercise. (full – 2004)
http://bjsm.bmj.com/content/38/5/536.long

Study links marijuana buzz to 'runner's high' (news – 2004)

Study: Exercise Produces Cannabinoids (news – 2004)
http://www.drugfree.org/news-service/study-exercise-produces-cannabinoids/

Voluntary Exercise and Sucrose Consumption Enhance Cannabinoid CB1 Receptor Sensitivity in the Striatum (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3055381/?tool=pubmed

**FASTING and the ENDOCANNABINOID SYSTEM**

Endocannabinoid levels in rat limbic forebrain and hypothalamus in relation to fasting, feeding and satiation: stimulation of eating by 2-arachidonoyl glycerol. (full – 2002)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1573386/?tool=pubmed


Postprandial increase of oleoylethanolamide mobilization in small intestine of the Burmese python (Python molurus) (full – 2006) http://ajpregu.physiology.org/content/290/5/R1407.long

Synthetic and plant-derived cannabinoid receptor antagonists show hypophagic properties in fasted and non-fasted mice (full - 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2697695/?tool=pubmed

**FERTILITY/ SEXUAL FUNCTION** *


Dysregulated Cannabinoid Signaling Disrupts Uterine Receptivity for Embryo Implantation (full - 2001) http://www.jbc.org/content/276/23/20523.full


Contrasting effects of WIN 55212-2 on motility of the rat bladder and uterus. (full – 2002) http://www.jneurosci.org/content/22/16/7147.long

Low fatty acid amide hydrolase and high anandamide levels are associated with failure to achieve an ongoing pregnancy after IVF and embryo transfer (full – 2002) http://molehr.oxfordjournals.org/content/8/2/188.full


Idiopathic infertility: susceptibility of spermatozoa to in-vitro capacitation, in the presence and the absence of palmitylethanolamide (a homologue of anandamide), is strongly correlated with membrane polarity studied by Laurdan fluorescence (full – 2003) http://molehr.oxfordjournals.org/content/9/7/381.full


Mouse blastocysts release a lipid which activates anandamide hydrolase in intact uterus (full – 2004) http://molehr.oxfordjournals.org/content/10/4/215.full


Stage-variations of anandamide hydrolase activity in the mouse uterus during the natural oestrus cycle (full - 2006) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1440866/?tool=pubmed


Synthetic Cannabinoid May Aid Fertility In Smokers (news - 2006) http://www.medicalnewstoday.com/articles/58063.php

Cannabis-based boost for smokers' suffering sperm (may need registration) http://www.newscientist.com/article/dn10362-cannabisbased-boost-for-smokers-suffering-sperm.html


The role of the endocannabinoid system in gametogenesis, implantation and early pregnancy (full - 2007)
Role of the nitric oxide pathway and the endocannabinoid system in neurogenic relaxation of corpus cavernosum from biliary cirrhotic rats (full – 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2013996/


Effect of Endocannabinoid System on the Neurogenic Function of Rat Corpus Cavernosum (abst – 2007)

Loss of Cannabinoid Receptor CB1 Induces Preterm Birth (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2553193/?tool=pmcentrez

Genetic Loss of Faah Compromises Male Fertility in Mice (full - 2008)
http://www.biolreprod.org/content/80/2/235.long

Expression of the Endocannabinoid System in Human First Trimester Placenta and Its Role in Trophoblast Proliferation (full – 2008)
http://endo.endojournals.org/content/149/10/5052.full?sid=f5b14012-9fbe-4f10-890c-386313060cf8

CB2 receptors in reproduction (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219526/

Interplay between endocannabinoids, steroids and cytokines in the control of human reproduction. (full - 2008)


Opioids and cannabinoids influence mobility of spermatozoids (news - 2008)
https://www.sciencedaily.com/releases/2008/06/080620115953.htm


Spatio-temporal expression patterns of anandamide-binding receptors in rat implantation sites: evidence for a role of the endocannabinoid system during the period of placental development (full – 2009) http://www.rbej.com/content/7/1/121

The endocannabinoid system in bull sperm and bovine oviductal epithelium: role of anandamide in sperm-oviduct interaction. (full - 2009)
The endocannabinoid 2-arachidonoylglycerol promotes sperm development through activation of cannabinoid-2 receptors (full – 2009)

Fluctuation in anandamide levels from ovulation to early pregnancy in in-vitro fertilization-embryo transfer women, and its hormonal regulation (full – 2009)
http://humrep.oxfordjournals.org/content/24/8/1989.long

The endocannabinoid 2-arachidonoylglycerol promotes sperm development through activation of cannabinoid-2 receptors (link to PDF - 2009)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.505.7026&rank=36

Endocannabinoids and reproductive biology. (letter - 2009)
http://humrep.oxfordjournals.org/content/24/7/1771.full.pdf+html


Medical Marijuana and Prostatitis (news/ad – 2009)
https://www.marijuanadoctors.com/content/ailments/view/157?ailment=prostatitis

FEVER/ TEMPERATURE CONTROL *

CB1 Receptors in the Preoptic Anterior Hypothalamus Regulate WIN 55212-2 [(4,5-Dihydro-2-methyl-4(4-morpholinylmethyl)-1-(1-naphthalenyl-carbonyl)-6H-pyrrolo[3,2,1ij]quinolin-6-one]-Induced Hypothermia (full - 2002)
http://jpet.aspetjournals.org/content/301/3/963.full

Drug-Induced Hypothermia Reduces Ischemic Damage (full - 2003)


A Novel Role of Cannabinoids: Implication in the Fever Induced by Bacterial Lipopolysaccharide (full - 2007) http://jpet.aspetjournals.org/cgi/content/full/320/3/1127

Effects of a Selective Cannabinoid Agonist and Antagonist on Body Temperature in Rats (abst - 2007) http://www.fasebj.org/cgi/content/meeting_abstract/21/5/A409?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=80&resourcetype=HWCIT


Endogenous cannabinoids induce fever through the activation of CB1 receptors. (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2765314/?tool=pubmed


FIBROMYALGIA

Cannabis for Chronic Pain: Case Series and Implications for Clinicians

Future of Cannabis and Cannabinoids in Therapeutics (link to PDF - 2003)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.597.1387&rank=7

Clinical Endocannabinoid Deficiency (link to PDF - 2004)
Clinical Endocannabinoid Deficiency

Fibromyalgia, IBS, and the Endocannabinoid-CB-Receptor (ECBR) system
(editorial - 2004)
http://www.prohealth.com/library/showArticle.cfm?libid=10562

Chronic Pain and Cannabinoids (full – 2005)
http://www.drkoprp.com/pdfs/fibromyalgia/CannabinoidsPPM.pdf

Delta-9-THC based monotherapy in fibromyalgia patients on experimentally induced pain, axon reflex flare, and pain relief (abst - 2006)

Study of analgesic effects of oral THC in Germany ... (abst - 2007)
http://www.prohealth.com/me-cfs/blog/boardDetail.cfm?id=1134112

Fibromyalgia: Effective Treatment with Medical Marijuana (news - 2007)

Synthetic Cannabis for Fibromyalgia Pain? (news - 2007)
http://www.healthcentral.com/chronic-pain/c/5949/16104/fm-pain

Clinical endocannabinoid deficiency (CECD): can this concept explain therapeutic benefits of cannabis in migraine, fibromyalgia, irritable bowel syndrome and other treatment-resistant conditions? (full – 2008)

Are cannabinoids a new treatment option for pain in patients with fibromyalgia? (abst - 2008)

Anandamide and neutrophil function in patients with fibromyalgia. (abst - 2008)

Nabilone for the treatment of pain in fibromyalgia. (abst - 2008)

Expression of the endocannabinoid system in fibroblasts and myofascial tissues. (abst – 2008)

Marijuana-Based Drug Reduces Fibromyalgia Pain, Study Suggests (news - 2008)
http://www.sciencedaily.com/releases/2008/02/080217214547.htm
**FLU / INFLUENZA**

Modulation of airway responses to influenza A/PR/8/34 by Delta9-tetrahydrocannabinol in C57BL/6 mice.  
(full – 2007)  
http://jpet.aspetjournals.org/content/323/2/675.long

Targeted deletion of cannabinoid receptors CB1 and CB2 produced enhanced inflammatory responses to influenza A/PR/8/34 in the absence and presence of Delta9-tetrahydrocannabinol.  
(full – 2008)  

Can cannabis cure swine flu?  
(news – 2009)  
http://blogs.westword.com/latestword/2009/08/can_cannabis_cure_swine_flu.php#more

Cannabis shows promise as treatment for swine flu  
(news - forum repost – 2009)  

Phytocannabinoid scientists unveils lozenge to treat H1N1 swine flu and H5N1 bird flu  
(news – forum re-post - 2009)  
https://www.420magazine.com/forums/flu-influenza/155098-phytocannabinoid-scientists-unveils-lozenge-treat-h1n1-swine-flu-h5n1-bird-flu.html#post1385302
GASTRIC ULCERS

http://www.springerlink.com/content/w3jc8rk16k9p92f/  

Cannabinoids and the digestive tract. (abst – 2005)  

Cannabinoids in acute gastric damage and pancreatitis. (full – 2006)  
http://www.jpp.krakow.pl/journal/archive/11_06_s5/pdf/137_11_06_s5_article.pdf  

ACEA (arachidonyl-2-chloroethylamide), the selective cannabinoid CB1 receptor agonist, protects against aspirin-induced gastric ulceration. (abst – 2006)  

Cannabis Helps Ulcers And Crohn's Disease (news - 2006)  

Involvement of nitric oxide in the gastroprotective effect of ACEA, a selective cannabinoid CB1 receptor agonist, on aspirin-induced gastric ulceration. (abst – 2009)  

GATEWAY THEORY *

The Myth of Marijuana's Gateway Effect (news - undated)  
http://www.marijuanalibrary.org/gateway.html  

Variation in youthful risks of progression from alcohol and tobacco to marijuana and to hard drugs across generations. (full – 2001)  

Delta9-tetrahydrocannabinol releases and facilitates the effects of endogenous enkephalins: reduction in morphine withdrawal syndrome without change in rewarding effect. (abst – 2001)  

Reassessing the gateway effect (full - 2002)  
http://www.ukcia.org/research/ReassessingGatewayEffect.pdf  

Twin study fails to prove 'gateway' hypothesis (letter - 2003)  
http://www.ukcia.org/research/EscalationOfDrugUse/TwinStudyFailsToProveGateway.html

Endogenous cannabinoids are not involved in cocaine reinforcement and development of cocaine-induced behavioural sensitization. (abst - 2005)  

Predictors of Marijuana Use in Adolescents Before and After Licit Drug Use: Examination of the Gateway Hypothesis (full – 2006)  

Study Questions Marijuana As Gateway Drug (news - 2006)  

No 'Smoking' Gun: Research Indicates Teen Marijuana Use Does Not Predict Drug, Alcohol Abuse (news - 2006)  
http://www.sciencedaily.com/releases/2006/12/061204123422.htm

Gateway To Nowhere? The Evidence That Pot Doesn't Lead To Heroin (news - 2006)  

Understanding the association between adolescent marijuana use and later serious drug use: gateway effect or developmental trajectory? (abst – 2008)  

Study of 4000 indicates marijuana discourages use of hard drugs. (news – 2008)  
http://www.csdp.org/publicservice/medicalmj08.htm

Cannabidiol, a Nonpsychotropic Component of Cannabis, Inhibits Cue-Induced Heroin Seeking and Normalizes Discrete Mesolimbic Neuronal Disturbances (full - 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2829756/?tool=pmcentrez

Adolescent Exposure to Chronic Delta-9-Tetrahydrocannabinol Blocks Opiate Dependence in Maternally Deprived Rats (full - 2009)  
http://www.nature.com/npp/journal/v34/n11/full/npp200970a.html

CLAIM #13: MARIJUANA IS A "GATEWAY" TO THE USE OF OTHER DRUGS (news - 2009)  

The Surprising Effect Of Marijuana On Morphine Dependence (news - 2009)  

Active Ingredient In Cannabis Eliminates Morphine Dependence In Rats (news - 2009)  
GENDER-BASED DIFFERENCES *

Hemp = Hormonal Balance (ad/article - undated)
http://www.nonamenutrition.com/promo/featuredarticle.asp?
storeID=EXMVRHM35QFW8N06361K08Q58P2679H3&ID=402&RedirShopperID=


How might cannabinoids influence sexual behavior? (full - 2001)
http://www.pnas.org/content/98/3/793.full?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=880&res
eourcetype=HWCIT


Gender and ethnic differences in smoking, drinking and illicit drug use among American 8th, 10th and 12th grade students, 1976-2000. (link to PDF – 2003)
https://deepblue.lib.umich.edu/handle/2027.42/73026


Sex differences in the cannabinoid modulation of an A-type K+ current in neurons of the mammalian hypothalamus. (full – 2005)  http://jn.physiology.org/content/94/4/2983.long


Biochemical Changes in Endocannabinoid System are Expressed in Platelets of Female but not Male Migraineurs (full - 2006)


Cannabis reward: biased towards the fairer sex? (full - 2007)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190004/

Cannabinoid self-administration in rats: sex differences and the influence of ovarian function (full - 2007)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190022/

Endocannabinoids Mediate the Effects of Acute Stress and Corticosterone on Sex Behavior (full – 2007)  http://endo.endojournals.org/content/148/2/493.full
Novel epidemiology in lung cancer - non-smokers, women and cannabis  (abst – 2007)

Neuronal and glial alterations in the cerebellar cortex of maternally deprived rats: gender differences and modulatory effects of two inhibitors of endocannabinoid inactivation.  

Gender-dependent cellular and biochemical effects of maternal deprivation on the hippocampus of neonatal rats: a possible role for the endocannabinoid system.  

Driving under the influence of cannabis: a 10-year study of age and gender differences in the concentrations of tetrahydrocannabinol in blood.  (abst - 2008)  

Gender-dependent increases with healthy aging of the human cerebral cannabinoid-type 1 receptor binding using [(18)F]MK-9470 PET.  (abst – 2008)  

Differential response to a selective cannabinoid receptor antagonist (SR141716: rimonabant) in female mice from lines selectively bred for high voluntary wheel-running behaviour.  (abst – 2008)  

Protracted cannabinoid administration elicits antidepressant behavioral responses in rats: role of gender and noradrenergic transmission.  (full - 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931555/

Sex differences in the cannabinoid regulation of energy homeostasis   (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3772082/

Male-female differences in the effects of cannabinoids on sexual behavior and gonadal hormone function.  (abst - 2009)  

Female sex, but not male sex, better with cannabis  (news – forum repost – 2009)  

GERD/GASTRO-ESOPHAGEAL REFLUX -  also see BOWEL DISORDERS

Cannabinoid receptor agonism inhibits transient lower esophageal sphincter relaxations and reflux in dogs  (full – 2002)  
http://www.gastrojournal.org/article/S0016-5085%2802%2900218-4/fulltext
Cannabinoid1 receptor in the dorsal vagal complex modulates lower oesophageal sphincter relaxation in ferrets (full – 2003) http://jp.physoc.org/content/550/1/149.full


Involvement of cannabinoid receptors in gut motility and visceral perception (full - 2004) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1574910/?tool=pmcentrez


Endocannabinoids and the gastrointestinal tract: what are the key questions? (full - 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190011/

Cannabinoid CB(2) receptor activation prevents bronchoconstriction and airway oedema in a model of gastro-oesophageal reflux. (abst - 2007) http://www.ncbi.nlm.nih.gov/pubmed/17643417


Effect of Δ9-tetrahydrocannabinol, a cannabinoid receptor agonist, on the triggering of transient lower oesophageal sphincter relaxations in dogs and humans (full - 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2697772/?tool=pmcentrez

GLAUCOMA * - also see VISION

Involvement of Cannabinoid Receptors in the Intraocular Pressure-Lowering Effects of WIN55212-2 (full - 2000) http://jpet.aspetjournals.org/content/292/1/136.long


Therapeutic aspects of cannabis and cannabinoids. (full - 2001) http://bip.rcpsych.org/cgi/content/full/178/2/107

tool=pmcentrez

Comparison of the enzymatic stability and intraocular pressure effects of 2-
arachidonoylglycerol and noladin ether, a novel putative endocannabinoid. (full – 2002)
http://www.iovs.org/content/43/10/3216.full

Chronic Cannabis Use in the Compassionate Investigational New Drug Program:
An Examination of Benefits and Adverse Effects of Legal Clinical Cannabis

Chronic Cannabis Use in the Compassionate Investigational New Drug Program:
An Examination of Benefits and Adverse Effects of Legal Clinical Cannabis
(summary - 2002)
http://www.letfreedomgrow.com/cmu/chronic_cannabis_use.htm

Effect of WIN 55212-2, a Cannabinoid Receptor Agonist, on Aqueous Humor Dynamics
in Monkeys (full - 2003)
http://archopht.ama-assn.org/cgi/content/full/121/1/87?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=marihuana&searchid=1&FIRSTINDEX=640&resourcetype=HWCIT

Cannabinoids and glaucoma (full - 2004)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1772142/?tool=pmcentrez

CB2 cannabinoid receptors in trabecular meshwork cells mediate JWH015-induced
enhancement of aqueous humor outflow facility. (full - 2005)
http://www.iovs.org/content/46/6/1988.long

Finding of endocannabinoids in human eye tissues: implications for glaucoma.

Noladin Ether Acts on Trabecular Meshwork Cannabinoid (CB1) Receptors to Enhance
Aqueous Humor Outflow Facility (full – 2006)
http://iovs.arvojournals.org/article.aspx?articleid=2124902&resultClick=1

R(+)-methanandamide and other cannabinoids induce the expression of cyclooxygenase-
2 and matrix metalloproteinases in human nonpigmented ciliary epithelial cells.
(full – 2006) http://jpet.aspetjournals.org/content/316/3/1219.long

Cannabinoids In Medicine: A Review Of Their Therapeutic Potential

Effect of Sublingual Application of Cannabinoids on Intraocular Pressure (abst - 2006)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=201
Involvement of the Endocannabinoid System in Retinal Damage after High Intraocular Pressure–Induced Ischemia in Rats (full - 2007)
http://www.iovs.org/cgi/content/full/48/7/2997?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabis&andorexactfulltext=and&searchid=1&F1RSTINDEX=0&sortspec=relevance&resourcetype=HWCIT

Clinical research Cannabinoids in health and disease (link to PDF - 2007)

Neuroprotective and Intraocular Pressure-Lowering Effects of (-)Delta-Tetrahydrocannabinol in a Rat Model of Glaucoma. (abst - 2007)

Dronabinol and retinal hemodynamics in humans. (abst - 2007)

Additive Effects of Timolol and Cannabinoids on Intraocular Pressure in a Rat Glaucoma Model (abst – forum repost - 2007)

N-arachidonylethanolamide-Induced Increase in Aqueous Humor Outflow Facility (full - 2008) http://www.iovs.org/cgi/content/full/49/10/4528

Mediation of Cannabidiol Anti-inflammation in the Retina by Equilibrative Nucleoside Transporter and A2A Adenosine Receptor (full – 2008)
http://www.iovs.org/content/49/12/5526.full

Topical WIN55212-2 Alleviates Intraocular Hypertension in Rats Through a CB1 Receptor-Mediated Mechanism of Action (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2637200/?tool=pmcentrez

Endocannabinoids in the retina: from marijuana to neuroprotection. (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2584875/

Potential roles of (endo)cannabinoids in the treatment of glaucoma: from intraocular pressure control to neuroprotection. (full – 2008)
http://www.nature.com/cgt/journal/v15/n2/pdf/7701101a.pdf

SUPPORTING RESEARCH INTO THE THERAPEUTIC ROLE OF MARIJUANA (full – 2008)
https://www.acponline.org/acp_policy/policies/supporting_medmarijuana_2008.pdf

The role of endocannabinoid system in physiological and pathological processes in the eye (abst - 2008)
http://www.unboundmedicine.com/medline/ebm/record/19195174/abstract/
%5BThe_role_of_endocannabinoid_system_in_physiological_and_pathological_processes_in_the_eye
%5D
Role of the cannabinoids in glaucoma  (article – 2009)

Medical Marijuana and Glaucoma  (news/ad – 2009)
https://www.marijuanadoc.com/content/ailments/view/31?ailment=glaucoma

GOUT

A Novel Intervention for the Treatment of Gout in an Elderly Rehabilitation Patient in Whom Conventional Treatment was Ineffective  (full – 2004)
https://med.virginia.edu/pmr/gout-poster/

Medical Marijuana and Arthropathy, gout  (news/ad – 2009)
https://www.marijuanadoc.com/content/ailments/view/12?ailment=arthropathy-gout

GRANULOMA - a noncancerous inflammation in tissue

Clinical and histological evaluation of an analogue of palmitoylethanolamide, PLR 120 (comirnized Palmidrol INN) in cats with eosinophilic granuloma and eosinophilic plaque: a pilot study.  (abst – 2001)

Local administration of WIN 55,212-2 reduces chronic granuloma-associated angiogenesis in rat by inhibiting NF-kappaB activation.  (abst – 2007)

Cannabinoids reduce granuloma-associated angiogenesis in rats by controlling transcription and expression of mast cell protease-5.  (full – 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2518473/?tool=pubmed

Cannabinomimetic Control of Mast Cell Mediator Release: New Perspective in Chronic Inflammation  (full – 2008)
GRAVE'S DISEASE - overactive thyroid

Acute effects of endocannabinoid anandamide and CB1 receptor antagonist, AM251 in the regulation of thyrotropin secretion. (full – 2008)
http://joe.endocrinology-journals.org/content/199/2/235.long

Medical Marijuana and Graves Disease (news/ad – 2009)
https://www.marijuanadocutors.com/content/ailments/view/33?ailment=graves-disease

GYNECOLOGY / FEMALE SEXUAL FUNCTION *

Post-Menopausal Hot Flashes by Anonymous (anecdotal – undated)
http://www.rxmarijuana.com/shared_comments/menopause.htm

Hemp = Hormonal Balance (ad/article - undated)
http://www.nonamenutrition.com/promog/featuredarticle.asp?
storeID=EXMVRHM35QFW8N06361K08Q58P2679H3&ID=402&RedirShopperID=

Menstrual cramps, morning sickness and labour pain (anecdotal – 2001)

Cannabis Treatments in Obstetrics and Gynecology: A Historical Review (full - 2002)
http://www.cannabis-med.org/data/pdf/2002-03-04-1_0.pdf

Low fatty acid amide hydrolase and high anandamide levels are associated with failure to achieve an ongoing pregnancy after IVF and embryo transfer (full – 2002)
http://molehr.oxfordjournals.org/content/8/2/188.full

The endocannabinoid system: function in survival of the embryo, the newborn and the neuron. (abst - 2002)

N-Acylethanolamines in human reproductive fluids. (abst – 2002)

Mouse blastocysts release a lipid which activates anandamide hydrolase in intact uterus (full – 2004)
http://molehr.oxfordjournals.org/content/10/4/215.full

The endocrinological basis of recurrent miscarriages. (abst – 2005)

The impact of obesity on reproduction in women with polycystic ovary syndrome. (full – 2006)
Jekyll and Hyde: Two Faces of Cannabinoid Signaling in Male and Female Fertility (full - 2006)  

Expression of the Endocannabinoid System in Human First Trimester Placenta and Its Role in Trophoblast Proliferation  
(full – 2008)  
http://endo.endojournals.org/content/149/10/5052.full?sid=f5b14012-9fbe-4f10-890c-386313060cf8

Interplay between endocannabinoids, steroids and cytokines in the control of human reproduction.  
(full - 2008)  

Spatio-temporal expression patterns of anandamide-binding receptors in rat implantation sites: evidence for a role of the endocannabinoid system during the period of placental development  
(full – 2009)  
http://www.rbej.com/content/7/1/121

Fluctuation in anandamide levels from ovulation to early pregnancy in in-vitro fertilization-embryo transfer women, and its hormonal regulation  
(full – 2009)  
http://humrep.oxfordjournals.org/content/24/8/1989.long

Endocannabinoids and reproductive biology.  
(letter - 2009)  
http://humrep.oxfordjournals.org/content/24/7/1771.full.pdf+html

Endocannabinoids: friends and foes of reproduction.  
(abst – 2009)  

Endocannabinoids, sperm biology and human fertility.  
(abst – 2009)  

Female sex, but not male sex, better with cannabis  
(news – forum repost – 2009)  

Medical Marijuana and Endometriosis  
(news/ad – 2009)  
https://www.marijuanadoctors.com/content/ailments/view/136?ailment=endometriosis

Medical Marijuana and Premenstrual Syndrome (PMS)  
(news/ad – 2009)  
https://www.marijuanadoctors.com/content/ailments/view/156?ailment=premenstrual-syndrome-pms-

HAIR

Distribution of cannabinoid receptor 1 (CB1) and 2 (CB2) on sensory nerve fibers and adnexal structures in human skin.  
(abst – 2005)  
Inhibition of human hair follicle growth by endo and exocannabinoids  

Endocannabinoids enhance lipid synthesis and apoptosis of human sebocytes via cannabinoid receptor-2-mediated signaling.  
(link to PDF – 2008)  http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.328.8372

The endocannabinoid system of the skin in health and disease: novel perspectives and therapeutic opportunities  
(full – 2009)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2757311/

HEARING  * – also see TINNITUS; also see AM-111 in SYNTHE蒂CITIES SECTION

The acute effects of tetrahydrocannabinol on auditory threshold and frequency resolution in human subjects.  

A peptide inhibitor of c-Jun N-terminal kinase protects against both aminoglycoside and acoustic trauma-induced auditory hair cell death and hearing loss.  
(full – 2003)  http://www.jneurosci.org/content/23/24/8596.long

Doctor's diary: cannabis as medicine - the dilemma  

Cochlear implantation trauma and noise-induced hearing loss: Apoptosis and therapeutic strategies.  

AM-111 reduces hearing loss in a guinea pig model of acute labyrinthitis.  

Intratympanic treatment of acute acoustic trauma with a cell-permeable JNK ligand: a prospective randomized phase I/II study  

Cannabinoid receptor down-regulation in the ventral cochlear nucleus in a salicylate model of tinnitus.  

AM-111 protects against permanent hearing loss from impulse noise trauma.  

Cannabinoid CB2 receptor expression in the rat brainstem cochlear and vestibular nuclei.  

AM-111 prevents hearing loss from semicircular canal injury in otitis media.  
HEART DISEASE/CARDIOVASCULAR *

Cardiovascular effects of endocannabinoids--the plot thickens. (abst - 2000)

Involvement of central and peripheral cannabinoid receptors in the regulation of heart resistance to arrhythmogenic effects of epinephrine. (abst - 2000)

Endogenous cannabinoids mediate hypotension after experimental myocardial infarction (full - 2001)
http://content.onlinejacc.org/cgi/content/full/38/7/2048?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=560&res
ourcetype=HWCIT

Mechanisms of anandamide-induced vasorelaxation in rat isolated coronary arteries (full - 2001)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1573021/?tool=pmcentrez

Endocannabinoids are implicated in the infarct size-reducing effect conferred by heat stress preconditioning in isolated rat hearts (full – 2001)
http://cardiovascres.oxfordjournals.org/content/55/3/619.long

Anandamide-induced relaxation of sheep coronary arteries: the role of the vascular endothelium, arachidonic acid metabolites and potassium channels. (full - 2001)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1573033/

Endogenous cannabinoid anandamide increases heart resistance to arrhythmogenic effects of epinephrine: role of CB(1) and CB(2) receptors. (abst - 2001)
https://www.ncbi.nlm.nih.gov/pubmed/11427912

Influence of the CB1 receptor antagonist, AM 251, on the regional haemodynamic effects of WIN-55212-2 or HU 210 in conscious rats (full - 2002)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1573379/?tool=pmcentrez

Endocannabinoids are implicated in the infarct size-reducing effect conferred by heat stress preconditioning in isolated rat hearts. (full – 2002)
http://cardiovascres.oxfordjournals.org/content/55/3/619.long

Estrogen stimulates arachidonylethanolamide release from human endothelial cells and platelet activation (full – 2002)
http://bloodjournal.hematologylibrary.org/content/100/12/4040.full
Activation of cannabinoid receptors decreases the area of ischemic myocardial necrosis. (abst - 2002) https://www.ncbi.nlm.nih.gov/pubmed/12428278


Increase of the heart arrhythmogenic resistance and decrease of the myocardial necrosis zone during activation of cannabinoid receptors (abst – 2002) http://www.ncbi.nlm.nih.gov/pubmed/12136723


Endocannabinoids protect the rat isolated heart against ischaemia (full - 2003) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1573907/?tool=pmcentrez


CB1 cannabinoid receptor antagonism promotes remodeling and cannabinoid treatment prevents endothelial dysfunction and hypotension in rats with myocardial infarction (full - 2003) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1573770/?tool=pmcentrez

A new endothelial target for cannabinoids. (full - 2003) http://molpharm.aspetjournals.org/content/63/3/469.long


Cardiovascular Effects of Cannabis (news - 2003) http://www.idmu.co.uk/canncardio.htm
Marijuana Smoking Doesn't Kill (news - 2003)

Endocannabinoids Acting at Cannabinoid-1 Receptors Regulate Cardiovascular Function in Hypertension (full - 2004) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2756479/?tool=pmcentrez

The complexities of the cardiovascular actions of cannabinoids (full - 2004) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1574918/?tool=pmcentrez


Heterogeneity in the mechanisms of vasorelaxation to anandamide in resistance and conduit rat mesenteric arteries (full – 2004) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1574972/


Cardiovascular Pharmacology of Cannabinoids (full - 2005) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2228270/?tool=pmcentrez

Anandamide reduces infarct size in rat isolated hearts subjected to ischaemia–reperfusion by a novel cannabinoid mechanism (full - 2005) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1751211/?tool=pmcentrez


The cardiovascular actions of anandamide: more targets? (full - 2005) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1576182/?tool=pmcentrez

Increased anandamide induced relaxation in mesenteric arteries of cirrhotic rats: role of cannabinoid and vanilloid receptors (full – 2005) http://gut.bmj.com/content/54/4/522.full?sid=0731f0e5-2071-4549-be57-57f444307138

Direct cerebrovascular effects of CB1 receptor activation by the synthetic endocannabinoid HU-210 in vivo (full - 2005) http://jcb.sagepub.com/content/25/1_suppl/S581.full


Marijuana Chemical Fights Hardened Arteries (news - 2005)

Medical marijuana: study shows that THC slows atherosclerosis (news - 2005)

Cannabis chemical 'helps heart' (news - 2005)
http://news.bbc.co.uk/2/hi/health/4417261.stm

Further Characterization of the Time-Dependent Vascular Effects of Δ9-Tetrahydrocannabinol (full - 2006) http://jpet.aspetjournals.org/content/317/1/428.full


Does Cannabis Hold the Key to Treating Cardiometabolic Disease (full - 2006)


Vasorelaxant effects of oleamide in rat small mesenteric artery indicate action at a novel cannabinoid receptor. (full – 2006) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1616976/

Marijuana use, diet, body mass index, and cardiovascular risk factors (full - 2006) http://www.ajconline.org/article/S0002-9149%2806%2900817-4/fulltext


Delta-9-tetrahydrocannabinol protects cardiac cells from hypoxia via CB2 receptor activation and nitric oxide production (abst - 2006) http://www.ncbi.nlm.nih.gov/pubmed/16444588


Cannabinoid Offers Cardioprotection  
http://norml.org/news/2006/02/16/cannabinoid-offers-cardioprotection-study-says

Heavy Cannabis Use Not Independently Associated With Cardiovascular Risks  

The in vitro and in vivo cardiovascular effects of Δ9-tetrahydrocannabinol (THC) in rats made hypertensive by chronic inhibition of nitric oxide synthase.  
http://jpet.aspetjournals.org/content/321/2/663.full

Illicit Drug Use in Young Adults and Subsequent Decline in General Health: The Coronary Artery Risk Development in Young Adults (CARDIA) Study  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1885466/?tool=pmcentrez

Characterization of the vasorelaxant mechanisms of the endocannabinoid anandamide in rat aorta  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190007/

Oleamide: a fatty acid amide signaling molecule in the cardiovascular system?  

The novel endocannabinoid receptor GPR55 is activated by atypical cannabinoids but does not mediate their vasodilator effects.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190033/?tool=pubmed

Endocannabinoids acting at CB1 receptors mediate the cardiac contractile dysfunction in vivo in cirrhotic rats  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2225474/?tool=pmcentrez

Endocannabinoids and the haematological system  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190025/?tool=pmcentrez

Cannabinoids and cardiovascular disease: a tale of passions and illusions.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2013961/?tool=pubmed

Cannabinoids as therapeutic agents in cardiovascular disease: a tale of passions and illusions.  

Decreased age-related cardiac dysfunction, myocardial nitrate stress, inflammatory gene expression, and apoptosis in mice lacking fatty acid amide hydrolase.  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2225473/

GPR55 and the vascular receptors for cannabinoids.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190021/?tool=pubmed
Cannabidiol, a nonpsychoactive Cannabis constituent, protects against myocardial ischemic reperfusion injury. (full - 2007) http://ajpheart.physiology.org/cgi/content/full/293/6/H3602

Cardiovascular effects of cannabinoids in conscious spontaneously hypertensive rats (full - 2007) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190006/

Effect of dietary hempseed intake on cardiac ischemia-reperfusion injury. (full – 2007) http://ajpregu.physiology.org/content/292/3/R1198.long

Anandamide-Mediated CB1/CB2 Cannabinoid Receptor-Independent Nitric Oxide Production in Rabbit Aortic Endothelial Cells (full – 2007) http://jpet.aspetjournals.org/content/321/3/930.long


Clinical research Cannabinoids in health and disease (link to PDF - 2007) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.288.5352&rank=23


The diverse CB1 and CB2 receptor pharmacology of three plant cannabinoids: Δ9-tetrahydrocannabinol, cannabidiol and Δ9-tetrahydrocannabivarin (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219532/

Cannabinoid receptors in acute and chronic complications of atherosclerosis (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219535/?tool=pmcentrez


CB1 Cannabinoid Receptor Inhibition: Promising Approach for Heart Failure? (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2669829/?tool=pmcentrez
Entourage' effects of N-palmitoylethanolamide and N-oleoylethanolamide on vasorelaxation to anandamide occur through TRPV1 receptors. (full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2597234/?tool=pubmed

Modulation of the Endocannabinoid System in Cardiovascular Disease (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2568884/?tool=pmcentrez

Acute hypertension reveals depressor and vasodilator effects of cannabinoids in conscious rats (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2697765/?tool=pmcentrez

Endocannabinoids and cannabinoid receptors in ischaemia–reperfusion injury and preconditioning (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219536/?tool=pmcentrez

Virodhamine relaxes the human pulmonary artery through the endothelial cannabinoid receptor and indirectly through a COX product. (full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2597267/


The endocannabinoid system: an osteopathic perspective. (full - 2008) http://jaoa.org/article.aspx?articleid=2093607&resultClick=1

5-HT1A receptors are involved in the cannabidiol-induced attenuation of behavioural and cardiovascular responses to acute restraint stress in rats. (full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2697769/

Function of cannabinoids in heart failure (link to full - 2008) http://www.unboundmedicine.com/medline/citation/18464680/abstract/%5BFunction_of_cannabinoids_in_heart_failure%5D

Common polymorphisms in the cannabinoid CB2 receptor gene (CNR2) are not associated with myocardial infarction and cardiovascular risk factors (link to PDF - 2008) http://www.spandidos-publications.com/ijmm/22/2/165

Cannabinoid receptors in acute and chronic complications of atherosclerosis (link to PDF - 2008) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.660.7583&rank=60


Endocannabinoids and cannabinoid analogues block cardiac hKv1.5 channels in a cannabinoid receptor-independent manner (full – 2009) http://cardiovascres.oxfordjournals.org/content/85/1/56.full?sid=7d2438c4-a727-410f-870d-4a971695b4fb

Endocannabinoids and the Heart (full - 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2728560/?tool=pmcentrez

The emerging role of the endocannabinoid system in cardiovascular disease (full - 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2791499/?tool=pmcentrez


CB1 and CB2 cannabinoid receptors differentially regulate the production of reactive oxygen species by macrophages (full – 2009) http://cardiovascres.oxfordjournals.org/content/84/3/378.full?sid=7d2438c4-a727-410f-870d-4a971695b4fb

Cannabidiol Attenuates Myocardial Dysfunction, Fibrosis, Inflammation, Cell Death and Interrelated Signaling Pathways Associated With Diabetic Cardiomyopathy (full - 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3026637/

Processing cardiovascular information in the vlPAG during electroacupuncture in rats: roles of endocannabinoids and GABA (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2692771/#!po=4.54545

Processing cardiovascular information in the vlPAG during electroacupuncture in rats: roles of endocannabinoids and GABA (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2692771/#!po=4.54545


HEMOPHILIA


HEMORRHAGIC SHOCK *


HEMP


GC-MS analysis of the total delta9-THC content of both drug- and fiber-type cannabis seeds. (full – 2000)  http://jat.oxfordjournals.org/content/24/8/715.long

Consumption and quantitation of delta9-tetrahydrocannabinol in commercially available hemp seed oil products. (full – 2000)  http://jat.oxfordjournals.org/content/24/7/562.long


Evaluating the impact of hemp food consumption on workplace drug tests. (full – 2001)  http://jat.oxfordjournals.org/content/25/8/691.long


This Bud's Not For You (news – 2002) http://content.time.com/time/magazine/article/0,9171,201911,00.html


Comparing Hemp Seed Yields (Cannabis sativa L.) of an On-Farm Scientific Field Experiment to an On-Farm Agronomic Evaluation Under Organic Growing Conditions in Lower Austria (abst – 2004) http://www.tandfonline.com/doi/abs/10.1300/J237v09n01_05


Ford And Deisel Never Intended Cars To Use Gasoline (news – 2005) http://www.rense.com/general67/FORD.HTM

Genetic Variation in Hemp and Marijuana (Cannabis sativa L.) According to Amplified Fragment Length Polymorphisms (full – 2006)
Seeding rate and row spacing effect on weed competition, yield and quality of hemp in the Parkland region of Saskatchewan (link to PDF – 2006)
http://www.nrcresearchpress.com/doi/abs/10.4141/P05-177#.V3ILRqIA76h

DNA poly morphisms in the tetrahydrocannabinolic acid (THCA) synthase gene in "drug-type" and "fiber-type" Cannabis sativa L. (abst – 2006)


Analytical characterization of hemp (Cannabis sativa ) seed oil from different agro-ecological zones of Pakistan (abst – 2006)

Apparent increase in biomass and see productivity in hemp (Cannabis sativa) resulting from branch proliferation caused by the European corn borer (Ostrinia nubilalis). (abst – 2007) http://www.agr.gc.ca/eng/abstract/?id=9561000000564

Cosmetic Manufacturers Harness the Power of Hemp (news – 2007)


Photosynthetic response of Cannabis sativa L. to variations in photosynthetic photon flux densities, temperature and CO2 conditions. (link to PDF– 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3550641/

EFFECT OF GERMINATION ON HEMP (CANNABIS SATIVA L.) SEED COMPOSITION (link to PDF – 2008) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.568.1907

Characterization of Medicinal Properties of Cannabis sativa L. Roots (link to PDF- 2008)
Characterization of Medicinal Properties of Cannabis Sativa L. Roots

Hemp Ethanol Saves the World (1) – The Economics of Hemp Fuels (article – 2008)
Hemp Ethanol Saves the World (2) - The History of Hemp Fuels  
(article – 2008)

Hemp Ethanol Saves the World (3) – The Politics of Hemp Fuels  
(article – 2008)

Essential fatty acids, nutritive value and oxidative stability of cold pressed hempseed (Cannabis sativa L.) oil from different varieties  
(1st page – 2008)

Virgin hemp seed oil: An interesting niche product  
(1st page – 2008)

Seawater-retting treatment of hemp and characterization of bacterial strains involved in the retting process  
(abst – 2008)

The cultivation and utilisation of hemp in Scotland  
(abst – 2008)

Hemp (Cannabis) Cultivation and Use in the Republic of Korea  
http://www.tandfonline.com/doi/abs/10.1300/J237v11n01_07?src=reevs  
(abst – 2008)

Influence of the Growth Stage of Hemp (Cannabis sativa L.) on Fatty Acid Content, Chemical Composition and Gross Energy  
http://www.medwelljournals.com/fulltext/?doi=aj.2009.27.31  
(full – 2009)

The Big Bhang  
http://www.cannabisculture.com/content/2009/06/01/big-bhang  
(article – 2009)

Characterization and antimicrobial activity of essential oils of industrial hemp varieties (Cannabis sativa L.).  
(abst - 2009)

Hemp: A replacement for common food allergens?  
http://thefoodallergycoach.blogspot.com/2009/05/hemp-replacement-for-common-food.html  
(news - 2009)

Hemp Cleans Up in Chernobyl  
(news – 2009)

Did George Washington and Thomas Jefferson grow marijuana?  
(news – 2009)
HEPATITIS

A Novel Synthetic Cannabinoid Derivative Inhibits Inflammatory Liver Damage via Negative Cytokine Regulation  (full - 2003)
http://molpharm.aspetjournals.org/content/64/6/1334.long

The endocannabinoid system in chronic liver disease  (full - 2005)

(Marijuana/Hash) Endocannabinoids and liver disease - review  (full - 2005)

Antifibrogenic role of the cannabinoid receptor CB2 in the liver.  (full – 2005)
http://www.gastrojournal.org/article/S0016-5085(04)00235-4/fulltext

Cannabis use improves retention and virological outcomes in patients treated for hepatitis C  (full - 2006)
http://www.natap.org/2006/HCV/091506_02.htm

Study: Pot Helps Hepatitis Treatment  (news - 2006)

Endocannabinoids and Liver Disease. III. Endocannabinoid effects on immune cells: implications for inflammatory liver diseases  (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2376822/?tool=pmcentrez

Attenuation of Experimental Autoimmune Hepatitis by Exogenous and Endogenous Cannabinoids : Involvement of Regulatory T Cells  (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2828293/?tool=pmcentrez

Evaluation of oral cannabinoid-containing medications for the management of interferon and ribavirin-induced anorexia, nausea and weight loss in patients treated for chronic hepatitis C virus.  (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2662895/?tool=pmcentrez

Regression of Fibrosis after Chronic Stimulation of Cannabinoid CB2 Receptor in Cirrhotic Rats  (full - 2008)
http://ipet.aspetjournals.org/content/324/2/475.full?
maxtoshow=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=320&res
ourcetype=HWCIT#content-block

Emerging role of cannabinoids in gastrointestinal and liver diseases: basic and clinical aspects  (abst - 2008)

Endocannabinoids in liver disease and hepatic encephalopathy.  (abst – 2008)

Should Hepatitis C Patients Who Smoke Marijuana Be Eligible For Liver Transplants?  (news - 2008)
http://www.sciencedaily.com/releases/2008/10/081022211032.htm
Cannabinoids as novel anti-inflammatory drugs. (full - 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2828614/?tool=pubmed

Use of Cannabinoids as a Novel Therapeutic Modality Against Autoimmune Hepatitis (full - 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4139007/

http://www.google.com/patents/US20120302646

Medical Marijuana and Hepatitis C (news/ad – 2009)  
https://www.marijuanadoctors.com/content/ailments/view/75?ailment=hepatitis-c-

Medical Marijuana and Viral Hepatitis (news/ad – 2009)  
https://www.marijuanadoctors.com/content/ailments/view/70?ailment=viral-hepatitis

**HEREDITARY MULTIPLE EXOTOSES**

Chronic Cannabis Use in the Compassionate Investigational New Drug Program: An Examination of Benefits and Adverse Effects of Legal Clinical Cannabis (full - 2002)  

Chronic Cannabis Use in the Compassionate Investigational New Drug Program: An Examination of Benefits and Adverse Effects of Legal Clinical Cannabis (summary - 2002)  
http://www.letfreedomgrow.com/cmu/chronic_cannabis_use.htm

**HERPES VIRUS** *

THC inhibits lytic replication of gamma oncogenic herpes viruses in vitro (full - 2004)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC521080/

Cannabis May Help Combat Cancer-causing Herpes Viruses (news - 2004)  

THC in marijuana may block the spread of forms of cancer causing herpes viruses (news - 2004)  
**HICCUPS**

Hiccups by Ben  (anecdotal – undated)  
http://rxmarijuana.com/shared_comments/hiccups.htm

Cannabinoids suppress synaptic input to neurones of the rat dorsal motor nucleus of the vagus nerve  (full – 2004)  
http://jp.physoc.org/content/559/3/923.full#sec-19

**THE HIGH / PSYCHOMIMETIC EFFECTS**


**HIP REPLACEMENT**

Endogenous cannabinoids are candidates for lipid mediators of bone cement implantation syndrome.  (abst – 2004)  

**HIV / AIDS**

Therapeutic Aspects of Cannabis and Cannabinoids  (full - 2001)  

Short-term effects of cannabinoids in patients with HIV-1 infection  (full - 2003)  

Cannabis and the brain.  (full - 2003)  
http://brain.oxfordjournals.org/cgi/content/full/126/6/1252

US Patent 6630507 - Cannabinoids as antioxidants and neuroprotectants  
(full - 2003)  (Assignee (owner)- the US GOVERNMENT!)  
http://www.google.com/patents/US6630507
CANNABINOIDS: POTENTIAL ANTICANCER AGENTS
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.190.3990&rank=20

Therapeutic potential of cannabinoids in CNS disease. (abst - 2003)

Cannabis Use in HIV for Pain and Other Medical Symptoms (full - 2004)
http://www.jspsjournal.com/article/S0885-3924(05)00063-1/fulltext

Marijuana Use Does Not Accelerate HIV Infection (news –forum repost - 2004)

Mechanisms of HIV-1 inhibition by the lipid mediator N-arachidonoyldopamine. (full – 2005) http://www.jimmunol.org/content/175/6/3990.long

Cannabis: Use in HIV for Pain and Other Medical Symptoms (full - 2005)
http://www.jspsjournal.com/article/S0885-3924%2805%2900063-1/fulltext

Stimulation of cannabinoid receptor 2 (CB2) suppresses microglial activation (full – 2005) http://www.springerlink.com/content/tq77102q4185073/fulltext.html

Smoked cannabis therapy for HIV-related painful peripheral neuropathy (abst - 2005)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=172

Cannabis in painful HIV-associated sensory neuropathy (full - 2007)

The endocannabinoid system in targeting inflammatory neurodegenerative diseases (full – forum repost - 2007)

THC improves appetite and reverses weight loss in AIDS patients (abst - 2007)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=189


Marijuana as therapy for people living with HIV/AIDS: Social and health aspects (abst - 2007)
http://www.unboundmedicine.com/medline/ebm/record/17364413/abstract/Marijuana_as_therapy_for_people_living_with_HIV/AIDS:_Social_and_health_aspects

Cannabis may be safe and effective for HIV-related neuropathic pain (news - 2007)

Marijuana gives relief from chronic pain for AIDS sufferers (news - 2007)


Smoked Medicinal Cannabis for Neuropathic Pain in HIV: A Randomized, Crossover Clinical Trial (full - 2008)
http://www.nature.com/npp/journal/v34/n3/full/npp2008120a.html

Cannabinoid CB2 receptors in human brain inflammation (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219537/

Cannabinoids Inhibit HIV-1 Gp120-Mediated Insults in Brain Microvascular Endothelial Cells (full - 2008)
http://www.jimmunol.org/cgi/content/full/181/9/6406?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=160&resourcetype=HWCIT

SUPPORTING RESEARCH INTO THE THERAPEUTIC ROLE OF MARIJUANA (full – 2008)
https://www.acponline.org/acp_policy/policies/supporting_medmarijuana_2008.pdf

Denbinobin, a naturally occurring 1,4-phenanthrenequinone, inhibits HIV-1 replication through an NF-kappaB-dependent pathway. (abst - 2008)

Cannabinoids in the control of pain (abst – 2008)

Weeding out the highs of medical marijuana (news – 2008)
https://www.sciencedaily.com/releases/2008/07/080714192555.htm

Marijuana Effectiveness as an HIV Self-Care Strategy (link to PDF - 2009)

Marijuana Effectiveness as an HIV Self-Care Strategy (news - 2009)

Recreational Drug Use and Risk of Kaposi's Sarcoma in HIV- and HHV-8-Coinfected Homosexual Men (abst - 2009)

HOMEOSTASIS - keeping your body running like it should run.

Cannabinoids and Feeding: The Role of the Endogenous Cannabinoid System as a Trigger for Newborn Suckling (link to PDF - 2002)  

The endogenous cannabinoid system affects energy balance via central orexigenic drive and peripheral lipogenesis (full - 2003)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC166293/

The cannabinoid system: a role in both the homeostatic and hedonic control of eating? (abst – 2003)  
http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=910308&fileId=S000711450300179X

Stearoylethanolamide exerts anorexic effects in mice via down-regulation of liver stearoyl-coenzyme A desaturase-1 mRNA expression. (abst – 2004)  

The Ffa Receptor Gpr40 Links Hyperinsulinemia, Hepatic Steatosis, and Impaired Glucose Homeostasis in Mouse. (full – 2005)  
http://www.cell.com/cell-metabolism/fulltext/S1550-4131(05)00086-0

Endocannabinoids: Multi-scaled, Global Homeostatic Regulators of Cells and Society (full - 2006)  
http://www.necesi.edu/events/icc6/papers/0f3785aa40623a5a781701618e4e.pdf

The emerging role of the endocannabinoid system in endocrine regulation and energy balance. (full - 2006)  

Role of cannabinoid CB2 receptors in glucose homeostasis in rats (abst – 2007)  

Endocannabinoids and the Control of Energy Homeostasis (full – 2008)  
http://www.ibc.org/content/283/48/33021.full?sid=931583b1-e797-43e0-8296-76d75bb49403

Gender-dependent increases with healthy aging of the human cerebral cannabinoid-type 1 receptor binding using [(18)F]MK-9470 PET. (abst – 2008)  

The endocannabinoid system as a link between homoeostatic and hedonic pathways involved in energy balance regulation (full – 2009)  
http://www.nature.com/ijo/journal/v33/n2s/full/ijo200967a.html
Sex differences in the cannabinoid regulation of energy homeostasis (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3772082/

**HORMONES**

Hemp = Hormonal Balance (ad/ article - undated)
http://www.nonamenutrition.com/promog/featuredarticle.asp?
storeID=EXMVRHM35QFW8N06361K08Q58P2679H3&ID=402&RedirShopperID=


Normal Human Pituitary Gland and Pituitary Adenomas Express Cannabinoid Receptor Type 1 and Synthesize Endogenous Cannabinoids: First Evidence for a Direct Role of Cannabinoids on Hormone Modulation at the Human Pituitary Level (full - 2001)

How might cannabinoids influence sexual behavior? (full - 2001)
http://www.pnas.org/content/98/3/793.full?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=880&resourcectype=HWCIT

Dysregulated Cannabinoid Signaling Disrupts Uterine Receptivity for Embryo Implantation (full - 2001)
http://www.jbc.org/content/276/23/20523.full?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid+estrogen&searchid=1&FIRSTINDEX=0&resourcectype=HWCIT


Estrogen stimulates arachidonylethanolamide release from human endothelial cells and platelet activation (full – 2002)
http://bloodjournal.hematologylibrary.org/content/100/12/4040.full
Behavioural and gene transcription alterations induced by spontaneous cannabinoid withdrawal in mice  

The endogenous cannabinoid, anandamide, activates the hypothalamo-pituitary-adrenal axis in CB1 cannabinoid receptor knockout mice.  

Cannabinoid receptor type 1 (CB1) affects hypothalamic-pituitary-adrenal (HPA) axis activity at cerebral and pituitary level  

Endogenous Cannabinoids Take the Edge off Neuroendocrine Responses to Stress  

The role of endogenous cannabinoids in the hypothalamo-pituitary-adrenal axis regulation: in vivo and in vitro studies in CB1 receptor knockout mice.  
(http://www.ncbi.nlm.nih.gov/pubmed/15454346)

Regulation of Gonadotropin-Releasing Hormone Secretion by Cannabinoids  
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1237039/?tool=pmcentrez)

Effects of cannabinoids on hypothalamic and reproductive function.  

Jekyll and Hyde: Two Faces of Cannabinoid Signaling in Male and Female Fertility  

The emerging role of the endocannabinoid system in endocrine regulation and energy balance.  

Cannabinoids attenuate norepinephrine-induced melatonin biosynthesis in the rat pineal gland by reducing aryalkylamine N-acetyltransferase activity without involvement of cannabinoid receptors.  

The impact of obesity on reproduction in women with polycystic ovary syndrome.  

Cannabis reward: biased towards the fairer sex?  
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190004/)

Cannabinoid self-administration in rats: sex differences and the influence of ovarian function  
(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190022/)

Interplay between endocannabinoids, steroids and cytokines in the control of human reproduction.  
Cannabinoids enhance gastric X/A-like cells activity. (link to PDF – 2008)
http://search.proquest.com/openview/0660941d8d9d2c05ce8277f592dafb02/1?pq-origsite=gscholar&cbl=34373

The rat pineal gland comprises an endocannabinoid system. (abst – 2008)

Estrogenic induction of cannabinoid CB1 receptor in human colon cancer cell lines. (abst - 2008)

Gender-dependent increases with healthy aging of the human cerebral cannabinoid-type 1 receptor binding using [(18)F]MK-9470 PET. (abst – 2008)

Localisation and Function of the Endocannabinoid System in the Human Ovary (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2640464/?tool=pmcentrez

Fluctuation in anandamide levels from ovulation to early pregnancy in in-vitro fertilization-embryo transfer women, and its hormonal regulation (full – 2009)
http://humrep.oxfordjournals.org/content/24/8/1989.long

The endocannabinoid system of the skin in health and disease: novel perspectives and therapeutic opportunities (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2757311/

Type 1 Cannabinoid Receptor-Containing Axons Innervate Hypophysiotropic Thyrotropin-Releasing Hormone-Synthesizing Neurons (full – 2009)
http://endo.endojournals.org/content/150/1/98.full?sid=f5b14012-9fbd-4f10-890c-386313060cf8

CANNABINOID-MEDIATED REGULATION OF THE HYPOTHALAMO-PITUITARY-ADRENAL AXIS in rats: AGE DEPENDENT ROLE OF VASOPRESSIN (link to PDF – 2009)

Male-female differences in the effects of cannabinoids on sexual behavior and gonadal hormone function. (abst - 2009)

Modulation of the endocannabinoid-degrading enzyme fatty acid amide hydrolase by follicle-stimulating hormone. (abst – 2009)

Medical Marijuana and Premenstrual Syndrome (PMS) (news/ad – 2009)
https://www.marijuanadoctors.com/content/ailments/view/156?ailment=prenenstrual-syndrome-pms-
HPV/ HUMAN PAPILLOMA VIRUS

Marijuana use and cervical HPV/neoplasia (link to download - 2008)
http://www.infectagentscancer.com/content/4/S2/P15

Bogarting that joint might decrease oral hpv among cannabis users. (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2794675/?tool=pubmed

HUNTINGTON'S DISEASE


Altered Lipid Metabolism in Brain Injury and Disorders (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2293298/?tool=pmcentrez


The endocannabinoid system as a target for the treatment of motor dysfunction. (full - 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2697699/

Microglial CB2 cannabinoid receptors are neuroprotective in Huntington's disease excitotoxicity (full - 2009) http://brain.oxfordjournals.org/content/132/11/3152.long
Cannabinoid CB2 receptor agonists protect the striatum against malonate toxicity: relevance for Huntington's disease. (full - 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2706932/


**IBS/ IBD** - also see BOWEL DISORDERS

MARIJUANA AND IRRITABLE BOWEL SYNDROME (IBS) (anecdotal- undated) http://www.rxmarihuana.com/christine.htm

Endometriosis by Kim (anecdotal – undated) http://rxmarijuana.com/shared_comments/Endometriosis.htm


Inflammation and cancer IV. Colorectal cancer in inflammatory bowel disease: the role of inflammation. (full - 2004) http://ajpgi.physiology.org/cgi/content/full/287/1/G7

Involvement of cannabinoid receptors in gut motility and visceral perception. (full – 2004) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1574910/


Cannabinoids and the digestive tract. (abst – 2005)

The pathophysiologic rationale for biological therapies in inflammatory bowel disease. (abst – 2005)

Cannabis-based drugs could offer new hope for inflammatory bowel disease patients (news - 2005)
http://www.medicalnewstoday.com/articles/28584.php

Potential new target for cannabis-derived drugs as a treatment of inflammatory bowel disease (news - 2005)

Inflammatory Bowel Disease May Respond To Cannabis-Derived Drugs (news - 2005)
http://www.medpagetoday.com/Gastroenterology/InflammatoryBowelDisease/1548

Endocannabinoids and the gastrointestinal tract. (abst – 2006)

The role of the endocannabinoid system in the pathophysiology and treatment of irritable bowel syndrome. (full – 2008)

Cannabinomimetic Control of Mast Cell Mediator Release: New Perspective in Chronic Inflammation (full – 2008)

Clinical endocannabinoid deficiency (CECD): can this concept explain therapeutic benefits of cannabis in migraine, fibromyalgia, irritable bowel syndrome and other treatment-resistant conditions? (full – 2008)

Cannabinoids and gastrointestinal motility: animal and human studies. (link to PDF - 2008)
http://www.europeanreview.org/article/519

The role of fatty acid hydrolase gene variants in inflammatory bowel disease. (full – 2009)

Cannabis Hope for Inflammatory Bowel Disease (news - 2009)

Alternatives: Miracle Marijuana (anecdotal/news - 2009)
http://www.here-to-help.bc.ca/visions/cannabis-vol5/alternatives
**IBUPROFEN** – blocks the breakdown of anandamide (which is what actually relieves your pain)


Effects of pH on the inhibition of fatty acid amidohydrolase by ibuprofen.  (full – 2001)  [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1572815/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1572815/)


**IDIOPATHIC INTRACRANIAL HYPERTENSION**


**IMMUNE SYSTEM**

Immunomodulation by Cannabinoids is Absent in Mice Deficient for the Cannabinoid Cb(2) Receptor. (abst – 2000)

Activation of PAF receptors results in enhanced synthesis of 2-arachidonoylglycerol (2-AG) in immune cells (full – forum repost - 2002)

The endocannabinoid system in invertebrates (link to PDF – 2002)

Endocannabinoids in the immune system and cancer. (abst - 2002)

Differential Roles of CB1 and CB2 Cannabinoid Receptors in Mast Cells (full – 2003)
http://www.jimmunol.org/content/170/10/4953.full?sid=590f7819-f39b-4214-abca-07231b51da55

The cannabinoid system and immune modulation (abst – 2003)

Cannabis May Suppress Immune System (news - 2003)

The endocannabinoid anandamide neither impairs in vitro T-cell function nor induces regulatory T-cell generation. (link to download – 2004)
http://ar.iiarjournals.org/content/28/6A/3743.long


Cannabinoids and the immune system. Of men, mice and cells (abst – 2004)

http://www.academia.edu/6468139/Reduced_endocannabinoid_IMMUNE_modulation_by_a_common_cannabinoid_2_CB2_receptor_gene_polymorphism_possible_risk_for_autoimmune_disorders

Cannabinoid receptors in microglia of the central nervous system: immune functional relevance. (full - forum repost - 2005)
CB2 cannabinoid receptor agonist, JWH-015 triggers apoptosis in immune cells:
Potential role for CB2 selective ligands as immunosuppressive agents

Sphingosine and its analog, the immunosuppressant 2-amino-2-(2-[4-octylphenyl]ethyl)-1,3-propanediol, interact with the CB1 cannabinoid receptor.
http://molpharm.aspetjournals.org/content/70/1/41.long  (full – 2006)

Nitric Oxide and Anandamide in OMT Research

Cannabinoids, immune system and cytokine network.

Formation of B and T cell subsets require the cannabinoid receptor CB2.

Cannabinoid-Induced Immune Suppression and Modulation of Antigen-Presenting Cells

CB2 receptors in the brain: role in central immune function
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219530/?tool=pmcentrez  (full - 2007)

Anandamide and Delta9-tetrahydrocannabinol directly inhibit cells of the immune system via CB2 receptors.
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2083705/?tool=pubmed  (full - 2007)

Targeting astrocytomas and invading immune cells with cannabinoids: a promising therapeutic avenue.

The Endocannabinoids: Functional Roles and Therapeutic Opportunities

Crucial Role of CB2 Cannabinoid Receptor in the Regulation of Central Immune Responses during Neuropathic Pain
http://www.jneurosci.org/cgi/content/full/28/46/12125  (full - 2008)

Endocannabinoids and Liver Disease. III. Endocannabinoid effects on immune cells: implications for inflammatory liver diseases
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2376822/?tool=pmcentrez  (full - 2008)

The cannabinoid delta-9-tetrahydrocannabinol mediates inhibition of macrophage chemotaxis to RANTES/CCL5: linkage to the CB2 receptor.

Cannabinoid-mediated neuroprotection, not immunosuppression, may be more relevant to multiple sclerosis
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2568822/?tool=pmcentrez  (full – 2008)
Cannabinoid-mediated neuroprotection not immunosuppression may be more relevant to multiple sclerosis


Emerging Role of the CB2 Cannabinoid Receptor in Immune Regulation and Therapeutic Prospects (full - 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2768535/?tool=pmcentrez


Cannabidiol-induced lymphopenia does not involve NKT and NK cells. (full – 2009) http://www.jpp.krakow.pl/journal/archive/10_09_s3/pdf/99_10_09_s3_article.pdf

Endocannabinoids may mediate the ability of (n-3) fatty acids to reduce ectopic fat and inflammatory mediators in obese Zucker rats. (full – 2009) http://jn.nutrition.org/content/139/8/1495.long

Cannabinoid receptor 2 mediates the retention of immature B cells in bone marrow sinusoids. (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2768754/


CB(1) and CB(2) cannabinoid receptors mediate different aspects of delta-9-tetrahydrocannabinol (THC)-induced T helper cell shift following immune activation by Legionella pneumophila infection. (abst – 2009) http://www.ncbi.nlm.nih.gov/pubmed/18792785

The morphology of the immune system in opiomania, cannabism, and polynarcotism (abst - 2009) http://www.unboundmedicine.com/medline/ebm(record/19938701/full_citation/ %5BThe_morphology_of_the_immune_system_in_opiomania_cannabism_and_polynarcotism%5D

Cannabinoid Receptors and Corneal Epithelium Repair (abst – 2009)
INFLAMMATION*


Cannabinoids and neuroinflammation (full - 2004) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1574256/?tool=pmcentrez

Inflammation and cancer IV. Colorectal cancer in inflammatory bowel disease: the role of inflammation. (full - 2004) http://ajpgi.physiology.org/cgi/content/full/287/1/G7


Stimulation of cannabinoid receptor 2 (CB2) suppresses microglial activation (full – 2005) http://www.springerlink.com/content/tq777102q4185073/fulltext.html
Ajulemic acid (IP-751): Synthesis, proof of principle, toxicity studies, and clinical trials (link to PDF - 2005)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2751505/

Cannabinoids provide neuroprotection against 6-hydroxydopamine toxicity in vivo and in vitro: relevance to Parkinson's disease. (abst - 2005)  

Endogenous cannabinoid receptor agonists inhibit neurogenic inflammations in guinea pig airways. (abst – 2005)  

Role of the Cannabinoid System in Pain Control and Therapeutic Implications for the Management of Acute and Chronic Pain Episodes (full - 2006)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2430692/?tool=pubmed

Involvement of the Cannabinoid CB2 Receptor and Its Endogenous Ligand 2-Arachidonoylglycerol in Oxazolone-Induced Contact Dermatitis in Mice (full – 2006)  
http://www.jimmunol.org/content/177/12/8796.full

The endocannabinoid anandamide protects neurons during CNS inflammation by induction of MKP-1 in microglial cells. (full – 2006)  
http://www.cell.com/neuron/fulltext/S0896-6273(05)01008-1

Agonists of cannabinoid receptor 1 and 2 inhibit experimental colitis induced by oil of mustard and by dextran sulfate sodium (full – 2006)  
http://ajpgi.physiology.org/content/291/2/G364

Endocannabinoids and the gastrointestinal tract. (abst – 2006)  

Cannabinoid-Induced Immune Suppression and Modulation of Antigen-Presenting Cells (abst – 2006)  
http://link.springer.com/article/10.1007%2Fs11481-005-9007-x

Endocannabinoid metabolism and uptake: novel targets for neuropathic and inflammatory pain (full - 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190014/?tool=pubmed

Pivotal Advance: Cannabinoid-2 receptor agonist HU-308 protects against hepatic ischemia/reperfusion injury by attenuating oxidative stress, inflammatory response, and apoptosis (full - 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2225476/?tool=pmcentrez

Cannabidiol in vivo blunts β-amyloid induced neuroinflammation by suppressing IL-1β and iNOS expression (Alzheimer's) (full - 2007)  

Opposing control of cannabinoid receptor stimulation on amyloid-beta-induced reactive gliosis: in vitro and in vivo evidence. (full - 2007)  
http://jpet.aspetjournals.org/content/322/3/1144.long
Cannabidiol displays unexpectedly high potency as an antagonist of CB1 and CB2 receptor agonists in vitro (full - 2007)

Honokiol, a natural plant product, inhibits inflammatory signals and alleviates inflammatory arthritis. (full – 2007)
http://www.jimmunol.org/content/179/2/753.long

Anti-inflammatory property of the cannabinoid agonist WIN-55212-2 in a rodent model of chronic brain inflammation (full - 2007)

Actions of N-arachidonyl-glycine in a rat inflammatory pain model. (full – 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2042976/

Cannabinoid CB2 receptors: a therapeutic target for the treatment of inflammatory and neuropathic pain (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219541/?tool=pmcentrez

The endocannabinoid system in targeting inflammatory neurodegenerative diseases (full – forum repost - 2007)

Endocannabinoids, cannabinoid receptors and inflammatory stress: an interview with Dr. Pál Pacher (link to PDF - interview - 2007)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.510.3426

Clinical research Cannabinoids in health and disease (link to PDF - 2007)

Anti-inflammatory property of the cannabinoid receptor-2-selective agonist JWH-133 in a rodent model of autoimmune uveoretinitis (abst - 2007)

Cannabinoids and neuroprotection in motor-related disorders. (abst - 2007)

Cannabis tinctures and extracts – in vitro profiling for cytotoxic and anti-inflammatory effects (abst – 2007)

Cannabinoids for the treatment of inflammation. (abst - 2007)

A cannabinoid agonist differentially attenuates deep tissue hyperalgesia in animal models of cancer and inflammatory muscle pain. (abst – 2007)
Constituents Of Hashish And Marijuana May Help To Fight Inflammation And Allergies

Pot Chemical May Curb Inflammation (news – 2007)

Endocannabinoids appear to play important role in regulating inflammation

Hippies vindicated: Human-produced cannabinoids have anti-inflammatory powers

Anti-inflammatory cannabinoids in diet (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2633791/?tool=pmcentrez

Cannabinoid receptors in acute and chronic complications of atherosclerosis
(full - 2008) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219535/

Cannabinoid receptor stimulation is anti-inflammatory and improves memory in old rats.
(full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2586121/?tool=pubmed

Inflammation and aging: can endocannabinoids help? (full - 2008)

Cannabinomimetic Control of Mast Cell Mediator Release: New Perspective in Chronic Inflammation (full – 2008)

Cannabinoid CB2 receptors in human brain inflammation (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219537/

Evaluation of fatty acid amides in the carrageenan-induced paw edema model.

Cannabinoid Modulation of Cutaneous A{delta} Nociceptors During Inflammation (full - 2008)
http://jn.physiology.org/cgi/reprint/100/5/2794

Cannabinoid modulation of cutaneous Adelta nociceptors during inflammation.
(full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2585399/?tool=pubmed

Inhibition of human neutrophil chemotaxis by endogenous cannabinoids and phytocannabinoids: evidence for a site distinct from CB1 and CB2.
(full – 2008) http://molpharm.aspetjournals.org/content/73/2/441.long

Cannabinoids as therapeutic agents for ablating neuroinflammatory disease.
(full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2750822/


Cannabinoid receptors in acute and chronic complications of atherosclerosis (link to PDF - 2008) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.660.7583&rank=60


Emerging Role of the CB2 Cannabinoid Receptor in Immune Regulation and Therapeutic Prospects (full - 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2768535/?tool=pmcentrez


Cannabinoid CB2 Receptor Potentiates Obesity-Associated Inflammation, Insulin Resistance and Hepatic Steatosis (full - 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2688760/?tool=pubmed


Ajulemic acid, a synthetic cannabinoid, increases formation of the endogenous proresolving and anti-inflammatory eicosanoid, lipoxin A4 (full - 2009)
Endocannabinoids may mediate the ability of (n-3) fatty acids to reduce ectopic fat and inflammatory mediators in obese Zucker rats. (full – 2009)

Cannabidiol Attenuates Cisplatin-Induced Nephrotoxicity by Decreasing Oxidative/Nitrosative Stress, Inflammation, and Cell Death (full – 2009)

Cannabinoids as novel anti-inflammatory drugs. (full - 2009)

Cannabinoids, Endocannabinoids, and Related Analogs in Inflammation (full - 2009)

Endocannabinoid signalling as an anti-inflammatory therapeutic target in atherosclerosis: does it work? (full – 2009)

Opposite effects of anandamide and n-arachidonoyl dopamine in the regulation of prostaglandin E2 and 8-iso-PGF2α formation in primary glial cells (full – 2009)

Pretreatment with electroacupuncture induces rapid tolerance to focal cerebral ischemia through regulation of endocannabinoid system. (full – 2009)

The nonpsychotropic cannabinoid cannabidiol modulates and directly activates alpha-1 and alpha-1-Beta glycine receptor function (abst – 2009)

Cannabidiol decreases bone resorption by inhibiting RANK/RANKL expression and pro-inflammatory cytokines during experimental periodontitis in rats. (abst - 2009)

Cannabinoids attenuate the effects of aging upon neuroinflammation and neurogenesis. (abst – 2009)

Endogenous anandamide and cannabinoid receptor-2 contribute to electroacupuncture analgesia in rats. (abst – 2009)

Biochemical and biological properties of 4-(3-phenyl-[1,2,4] thiazadol-5-yl)-piperazine-1-carboxylic acid phenylamide, a mechanism-based inhibitor of fatty acid amide hydrolase. (abst – 2009)
INTERACTIONS WITH OTHER DRUGS *


Decrease in efficacy and potency of nonsteroidal anti-inflammatory drugs by chronic delta(9)-tetrahydrocannabinol administration. (full – 2002)  http://jpet.aspetjournals.org/content/303/1/340.long


Manipulation of the endocannabinoid system by a general anaesthetic. (full – 2003)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1573927/?tool=pubmed

Modulation of oral morphine antinociceptive tolerance and naloxone-precipitated withdrawal signs by oral Delta 9-tetrahydrocannabinol. (full – 2003)  http://jpet.aspetjournals.org/content/305/3/812.long


Cannabis Abuse is Not a Risk Factor for Treatment Outcome in Methadone Maintenance Treatment: a 1-year Prospective Study in an Israeli Clinic. (abst – 2004)  http://www.ncbi.nlm.nih.gov/pubmed/14731193

CENTRAL CANNABINOID REGULATION OF FOOD INTAKE IN CHICKENS (link to PDF - 2005)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.587.5749&rank=38

Influence of medicinal cannabis (MC) on the pharmacokinetics (PK) of docetaxel (DOC) and irinotecan (CPT-11) (abst - 2005)
http://cancerres.aacrjournals.org/content/65/9_Supplement/938.4.abstract?sid=805428cd-9b15-4066-9646-02943c1444f6

Enhancement of transdermal fentanyl and buprenorphine antinociception by transdermal delta9-tetrahydrocannabinol. (abst - 2005)

Effects of general anesthesia on anandamide blood levels in humans. (full – 2006)
http://anesthesiology.pubs.asahq.org/article.aspx?articleid=1923152&resultClick=3

Modulation of paraoxon toxicity by the cannabinoid receptor agonist WIN 55,212-2. (abst – 2006)

Local interactions between anandamide, an endocannabinoid, and ibuprofen, a nonsteroidal anti-inflammatory drug, in acute and inflammatory pain (abst - 2006)

Benefits of an add-on treatment with the synthetic cannabinomimetic nabilone on patients with chronic pain - a randomized controlled trial. (abst - 2006)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=197

Cannabinoid–improgan cross-tolerance: Improgan is a cannabinomimetic analgesic lacking affinity at the cannabinoid CB1 receptor (abst – 2006)

Arachidonyl-2'-chloroethylamide, a highly selective cannabinoid CB1 receptor agonist, enhances the anticonvulsant action of valproate in the mouse maximal electroshock-induced seizure model. (abst – 2006)

Cannabinoids Enhance Analgesic Effects Of Anti-Inflammatory Drugs, Study Says (news - 2006)

Opioid Antagonism of Cannabinoid Effects: Differences between Marijuana Smokers and Nonmarijuana Smokers (full - 2007)
http://www.nature.com/npp/journal/v32/n6/full/1301243a.html

Low dose combination of morphine and Δ9-tetrahydrocannabinol circumvents antinociceptive tolerance and apparent desensitization of receptors (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2040345/
Medicinal cannabis does not influence the clinical pharmacokinetics of irinotecan and docetaxel. (full - 2007)  
http://theoncologist.alphamedpress.org/cgi/content/full/12/3/291

Antinociceptive Synergy Between the Cannabinoid Receptor Agonist WIN 55,212-2 and Bupivacaine in the Rat Formalin Test (full - 2007)  
http://journals.lww.com/anesthesia-analgesia/Fulltext/2007/03000/Antinociceptive_Synergy_Between_the_Cannabinoid.50.aspx

The multidrug transporter ABCG2 (BCRP) is inhibited by plant-derived cannabinoids. (full - 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190019/?tool=pubmed

Activation of cannabinoid CB1 and CB2 receptors suppresses neuropathic nociception evoked by the chemotherapeutic agent vincristine in rats. (full – 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190028/?tool=pubmed

Cannabis and Ecstasy/MDMA (3,4-methylenedioxymethamphetamine): an analysis of their neuropsychobiological interactions in recreational users. (abst – 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190028/?tool=pubmed

Efficacy of dronabinol alone and in combination with ondansetron versus ondansetron alone for delayed chemotherapy-induced nausea and vomiting. (abst - 2007)  

Synergy between Delta(9)-tetrahydrocannabinol and morphine in the arthritic rat (abst - 2007)  
http://www.unboundmedicine.com/medline/ebm/record/17498686/abstract/Synergy_between_Delta_9_tetrahydrocannabinol_and_morphine_in_the_arthritic_rat

Additive Effects of Timolol and Cannabinoids on Intraocular Pressure in a Rat Glaucoma Model (abst – forum repost - 2007)  

Science: The use of cannabis does not influence the efficacy of two anti-cancer drugs, a clinical study finds (news - 2007)  

Repeated Cannabinoid Injections into the Rat Periaqueductal Gray Enhances Subsequent Morphine Antinociception (full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2743428/?tool=pmcentrez

Priapism, ecstasy, and marijuana: is there a connection? (full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2441841/?tool=pubmed

Additive Interaction of the Cannabinoid Receptor I Agonist Arachidonyl-2-chloroethylamide with Etomidate in a Sedation Model in Mice (full – 2008)  
http://anesthesiology.pubs.asahq.org/article.aspx?articleid=1932072&resultClick=3
Propofol Sedation Is Reduced by \{Delta\}9-Tetrahydrocannabinol in Mice  

Interaction of plant cannabinoids with the multidrug transporter ABCC1 (MRP1).  

Enhancing the in vitro cytotoxic activity of \Delta9\texttext{-tetrahydrocannabinol} in leukemic cells through a combinatorial approach  

Latest cannabis contamination – homosildenafil and thiohomosildenafil (AKA Viagra)  
(news - 2008)  http://ukcia.org/wordpress/?p=39

Effects of Cannabinoids on Caffeine Contractures in Slow and Fast Skeletal Muscle Fibers of the Frog  
(full - 2009)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2697372/?tool=pmcentrez

Minocycline treatment inhibits microglial activation and alters spinal levels of endocannabinoids in a rat model of neuropathic pain  
(full – 2009)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2719614/

Dose Dependent effects of Celecoxib on CB-1 Agonist Induced Antinociception in mice  

Delayed onset of seizures and toxicity associated with recreational use of BromodragonFLY.  

Effects of cannabidiol on amphetamine-induced oxidative stress generation in an animal model of mania  

Cannabinoid receptor-independent cytotoxic effects of cannabinoids in human colorectal carcinoma cells: synergism with 5-fluorouracil.  
(abst – 2009)  http://www.springerlink.com/content/45008p9643k139l4/

Pharmacological synergism between cannabinoids and paclitaxel in gastric cancer cell lines.  

Cannabis Coadministration Potentiates the Effects of "Ecstasy" on Heart Rate and Temperature in Humans.  
(abst - 2009)  http://www.unboundmedicine.com/medline/ebm/record/19440186/abstract/Cannabis_Coadministration_Potentiates_the_Effects_of_%22Ecstasy%22_on_Heart_Rate_and_Temperature_in_Humans

Influence of taranabant, a cannabinoid-1 receptor inverse agonist, on pharmacokinetics and pharmacodynamics of warfarin.  

Influence of taranabant, a cannabinoid-1 receptor inverse agonist, on pharmacokinetics and pharmacodynamics of warfarin.  

Influence of taranabant, a cannabinoid-1 receptor inverse agonist, on pharmacokinetics and pharmacodynamics of warfarin.  

Influence of taranabant, a cannabinoid-1 receptor inverse agonist, on pharmacokinetics and pharmacodynamics of warfarin.  
Induction dose of propofol in patients using cannabis. (abst - 2009)

Cannabinoids, Opioids and MDMA: Neuropsychological Interactions Related to Addiction. (abst - 2009)

Caffeine drinking potentiates cannabinoid transmission in the striatum: interaction with stress effects (abst – 2009)

An unusual cause of syncope (abst - 2009)

Interaction of the cannabinoid and opioid systems in the modulation of nociception. (abst - 2009)


Smoking Pot, Cigarettes Ups COPD Risk (news - 2009)

ISAACS’ SYNDROME/ ACQUIRED NEUROMYOTONIA

Cannabinoids affect dendritic cell (DC) potassium channel function and modulate DC T cell stimulatory capacity. (full – 2008)
http://www.jimmunol.org/content/181/5/3057.long

IQ/ MEMORY/ COGNITIVE EFFECTS *

GABAERGIC INTERNEURONS ARE THE TARGETS OF CANNABINOID ACTIONS IN THE HUMAN HIPPOCAMPUS (link to PDF - 2000)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.578.3590&rank=49
Low dose anandamide affects food intake, cognitive function, neurotransmitter and corticosterone levels in diet-restricted mice. (abst – 2000)

Reversibility of n-3 fatty acid deficiency-induced alterations of learning behavior in the rat: level of n-6 fatty acids as another critical factor (full – 2001)
http://www.jlr.org/content/42/10/1655.full

Neuropsychological Performance in Long-term Cannabis Users (full - 2001)
http://archpsyc.ama-assn.org/cgi/content/full/58/10/909?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=2880&re
sourcetype=HWCIT

Current and former marijuana use: preliminary findings of a longitudinal study of effects on IQ in young adults (full - 2002)
http://www.cmaj.ca/cgi/content/full/166/7/887


Heavy cannabis use without long-term effect on global intelligence (news - 2002)

Marijuana does not dent IQ permanently (news - 2002) (may need registration)

CANNABINOIDS ALTER RECOGNITION MEMORY IN RATS (full – 2003)


Study: Brain Not Permanently Damaged by Marijuana (news - 2003)
http://www.drugfree.org/?s=Study%3A+Brain+Not+Permanently+Damaged+by+Marijuana

Minimal Long-Term Effects Of Marijuana Use Found In Central Nervous System By UCSD Researchers (news - 2003)
http://www.sciencedaily.com/releases/2003/06/030630112652.htm

Differential Effects of THC or CBD-rich Cannabis Extracts on Working Memory in Rats (full - 2004)
http://www.ukcia.org/research/THCCBDWorkingMemory.pdf

Marijuana Effects On Human Forgetting Functions (full - 2005)

Early age-related cognitive impairment in mice lacking cannabinoid CB1 receptors. (full – 2005)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1266095/?tool=pubmed

Drug-related decrease in neuropsychological functions of abstinent drug users (link to PDF- 2005) http://www.eurekaselect.com/94427/article


Amnestic effect of intrahippocampal AM251, a CB1-selective blocker, in the inhibitory avoidance, but not in the open field habituation task, in rats (abst – 2005) http://www.sciencedirect.com/science/article/pii/S1074742704001182

'Info-mania' dents IQ more than marijuana (news – 2005) http://www.newscientist.com/article/dn7298-infomania-dents-iq-more-than-marijuana.html#.VZBFD0ZwtB8


The synthetic cannabinoid HU210 induces spatial memory deficits and suppresses hippocampal firing rate in rats (full – 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2013991/


Cerebellar-Dependent Learning as a Neurobehavioral Index of the Cannabinoid System (abst – 2007) http://dl.begellhouse.com/journals/7b004699754e9fe6.64eccdd6045552415.684ee6ee63101f0f.html

Acute effects of smoked marijuana on decision making, as assessed by a modified gambling task, in experienced marijuana users (abst - 2007) http://www.informaworld.com/smpp/content~content=a778611568~db=all
Neuropharmacological effects of oleamide in male and female mice. (abst – 2007)

The cannabinoid CB1 receptor antagonist CE prolongs spatial memory duration in a rat
delayed radial arm maze memory task (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2577903/?tool=pmcentrez

Blunted Psychotomimetic and Amnestic Effects of Δ-9-Tetrahydrocannabinol in Frequent
Users of Cannabis (full – 2008)
http://www.nature.com/npp/journal/v33/n10/full/1301643a.html

Multiple sclerosis, cannabinoids, and cognition. (full - 2008)

Neurocognitive performance during acute THC intoxication in heavy and occasional
cannabis users. (link to download - 2009)

Review: executive functioning and cannabis use. (abst - 2008)
http://www.unboundmedicine.com/medline/ebm/record/18373021/abstract/
%5BReview:_executive_functioning_and_cannabis_use_%5D

Fat-induced satiety factor oleoylethanolamide enhances memory consolidation

Marijuana Primes, Marijuana Expectancies, and Arithmetic Efficiency (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2670744/?tool=pmcentrez

Endocannabinoids in the rat basolateral amygdala enhance memory consolidation and
enable glucocorticoid modulation of memory (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2660732/?tool=pmcentrez

Opposite Effects of Delta-9-Tetrahydrocannabinol and Cannabidiol on Human Brain
Function and Psychopathology. (full - 2009)

Is moderate substance use associated with altered executive functioning in a population-based sample of young adults? (abst - 2009)

Roles of the endocannabinoid system in learning and memory. (abst - 2009)
KIDNEYS

'Entourage' effects of N-acyl ethanolamines at human vanilloid receptors. Comparison of effects upon anandamide-induced vanilloid receptor activation and upon anandamide metabolism. (full – 2002) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1573364/


Sphingosine and its analog, the immunosuppressant 2-amino-2-(2-[4-octylphenyl]ethyl)-1,3-propanediol, interact with the CB1 cannabinoid receptor. (full – 2006) http://molpharm.aspetjournals.org/content/70/1/41.long


Regulation of Bone Mass, Osteoclast Function, and Ovariectomy-Induced Bone Loss by the Type 2 Cannabinoid Receptor (full - 2008) http://press.endocrine.org/doi/full/10.1210/en.2008-0150


Ajulemic acid, a synthetic cannabinoid, increases formation of the endogenous proresolving and anti-inflammatory eicosanoid, lipoxin A4 (full - 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2669421/


LEGIONAIRES DISEASE (the news is not good)

Delta 9-tetrahydrocannabinol treatment suppresses immunity and early IFN-gamma, IL-12, and IL-12 receptor beta 2 responses to Legionella pneumophila infection. (full – 2000) http://www.jimmunol.org/content/164/12/6461.long

CB(1) and CB(2) cannabinoid receptors mediate different aspects of delta-9-tetrahydrocannabinol (THC)-induced T helper cell shift following immune activation by Legionella pneumophila infection. (abst – 2009) http://www.ncbi.nlm.nih.gov/pubmed/18792785

**LEISHMANIASIS** - a disease caused by protozoan parasites that are spread by sandflies


**LIVER DISEASE - NON HEPATITIS** * - also see HEPATITIS


A Novel Synthetic Cannabinoid Derivative Inhibits Inflammatory Liver Damage via Negative Cytokine Regulation (full - 2003) http://molpharm.aspetjournals.org/content/64/6/1334.long


Endocannabinoid activation at hepatic CB1 receptors stimulates fatty acid synthesis and contributes to diet-induced obesity (full - 2005)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1087161/?tool=pmcentrez

Roles of anandamide in the hepatic microcirculation in cirrhotic rats (full – 2005)
http://ajpgi.physiology.org/content/290/2/G328.full?sid=c16d770d-cd17-48c9-bbde-26f38f5eeb67

Antifibrogenic role of the cannabinoid receptor CB2 in the liver. (full – 2005)
http://www.gastrojournal.org/article/S0016-5085%2804%2902353-4/fulltext

The Ffa Receptor Gpr40 Links Hyperinsulinemia, Hepatic Steatosis, and Impaired Glucose Homeostasis in Mouse. (full – 2005)
http://www.cell.com/cell-metabolism/fulltext/S1550-4131(05)00086-0

Effect of Cannabis sativa L. Seed (Hempseed) on Serum Lipid and Protein Profiles of Rat (full – 2006)


CB2 receptors as new therapeutic targets for liver diseases (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219531/?tool=pubmed

Endocannabinoids acting at CB1 receptors mediate the cardiac contractile dysfunction in vivo in cirrhotic rats (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2225474/?tool=pmcentrez

Pivotal Advance: Cannabinoid-2 receptor agonist HU-308 protects against hepatic ischemia/reperfusion injury by attenuating oxidative stress, inflammatory response, and apoptosis (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2225476/?tool=pmcentrez

Anandamide inhibits cholangiocyte hyperplastic proliferation via activation of thioredoxin 1/redox factor 1 and AP-1 activation (full – 2007)
http://ajpgi.physiology.org/content/294/2/G506.full

Cannabinoid-2 receptor mediates protection against hepatic ischemia/reperfusion injury (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2228252/?tool=pmcentrez

Cannabinoid receptors as new targets of antifibrosing strategies during chronic liver diseases. (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219531/


CB2 receptors as new therapeutic targets for liver diseases.  (full - 2008)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219531/?tool=pubmed


Endocannabinoids and Liver Disease. I. Endocannabinoids and their receptors in the liver  (full – 2008)  http://ajpgi.physiology.org/content/294/1/G9.full?sid=872637e5-97b2-4103-aaa0-b3e8f6f0eb64

Endocannabinoids and Liver Disease. II. Endocannabinoids in the pathogenesis and treatment of liver fibrosis  (full – 2008)  http://ajpgi.physiology.org/content/294/2/G357.full?sid=872637e5-97b2-4103-aaa0-b3e8f6f0eb64

Endocannabinoids and Liver Disease. III. Endocannabinoid effects on immune cells: implications for inflammatory liver diseases  (full - 2008)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2376822/?tool=pmcentrez

Endocannabinoids and Liver Disease. IV. Endocannabinoid involvement in obesity and hepatic steatosis  (full - 2008)  http://ajpgi.physiology.org/cgi/content/full/294/5/G1101


Regression of Fibrosis after Chronic Stimulation of Cannabinoid CB2 Receptor in Cirrhotic Rats  (full - 2008)  http://jpet.aspetjournals.org/content/324/2/475.full?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=320&resourcetype=HWCIT#content-block

Endocannabinoids and the Control of Energy Homeostasis  (full – 2008)  http://www.jbc.org/content/283/48/33021.full?sid=931583b1-e797-43e0-8296-7fd75bb49403

Endocannabinoids and cannabinoid receptors in ischaemia–reperfusion injury and preconditioning  (full - 2008)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219536/?tool=pmcentrez


Cannabinoid CB2 Receptor Potentiates Obesity-Associated Inflammation, Insulin Resistance and Hepatic Steatosis. (full - 2009) [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2688760/?tool=pubmed](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2688760/?tool=pubmed)

Systematic review and meta-analysis on the adverse events of rimonabant treatment: Considerations for its potential use in hepatology. (full - 2009) [http://www.biomedcentral.com/1471-230X/9/75](http://www.biomedcentral.com/1471-230X/9/75)


**LONG TERM/ HEAVY USE EFFECTS** *

Neuropsychological Performance in Long-term Cannabis Users (full - 2001) http://archpsyc.ama-assn.org/cgi/content/full/58/10/909?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=2880&resource&type=HWCIT


Regulation of Cannabinoid CB1 Receptors in the Central Nervous System by Chronic Cannabinoids (abst – 2003) http://dl.begellhouse.com/journals/7b004699754c9fe6,5aa33979065f2aa3.42019b6a7dd932fb.html


http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2175501/?tool=pubmed

Is your patient in marijuana withdrawal? (article – 2008)  

Protracted cannabinoid administration elicits antidepressant behavioral responses in rats: role of gender and noradrenergic transmission. (full - 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931555/

Extended urinary Delta9-tetrahydrocannabinol excretion in chronic cannabis users precludes use as a biomarker of new drug exposure. (full - 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2763020/?tool=pubmed

Neurocognitive performance during acute THC intoxication in heavy and occasional cannabis users. (link to download - 2009)  

Short communication: Urinary excretion of 11-nor-9-carboxy-Delta(9)-tetrahydrocannabinol in a pregnant woman following heavy, chronic cannabis use. (letter - 2009)  
http://jat.oxfordjournals.org/content/33/9/610.long

The morphology of the immune system in opiomania, cannabism, and polynarcotism (abst - 2009)  
http://www.unboundmedicine.com/medline/ebm/record/19938701/full_citation/

**LUNG FUNCTION** *

Exogenous lipid pneumonia related to smoking weed oil following cadaveric renal transplantation (link to PDF - 2000)  
http://www.hindawi.com/journals/cri/2000/248915/abs/

Anandamide initiates Ca2+ signaling via CB2 receptor linked to phospholipase C in calf pulmonary endothelial cells (full – 2003)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1574152/
Cannabinoid Receptor Agonists Inhibit Sensory Nerve Activation in Guinea Pig Airways

Cannabinoids and the immune system. Of men, mice and cells (abst – 2004)


Long-term effects of exposure to cannabis. (abst – 2005)

Bullous disease of the lung and cannabis smoking: insufficient evidence for a causative link (full - 2006) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1360494/?tool=pmcentrez


Virodhamine and CP55,940 modulate cAMP production and IL-8 release in human bronchial epithelial cells. (full – 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2042924/?tool=pubmed

“Usual" cannabis abuse producing an unusual incident (abst – 2007) (The Valsalva maneuver is performed by attempting to forcibly exhale while keeping the mouth and nose closed. Don’t do it! It won’t get you higher, but it will damage your lungs!) http://www.ncbi.nlm.nih.gov/pubmed/17342632

Cannabinoid CB(2) receptor activation prevents bronchoconstriction and airway oedema in a model of gastro-oesophageal reflux. (abst - 2007) http://www.ncbi.nlm.nih.gov/pubmed/17643417

LUPUS ERYTHEMATOSUS


Lupus by Randi Cox (anecdotal – undated) http://rxmarijuana.com/shared_comments/lupus2.htm

Systemic Lupus by Dawn (anecdotal - 2005)


**MACROPHAGES** – your body’s “clean up crew” cells


2-Arachidonoylglycerol, an endogenous cannabinoid receptor ligand, induces rapid actin polymerization in HL-60 cells differentiated into macrophage-like cells (full – 2005) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1134878/


The cannabinoid delta-9-tetrahydrocannabinol mediates inhibition of macrophage chemotaxis to RANTES/CCL5: linkage to the CB2 receptor. (full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2677557/


CB1 and CB2 cannabinoid receptors differentially regulate the production of reactive oxygen species by macrophages (full – 2009) http://cardiovascres.oxfordjournals.org/content/84/3/378.full?sid=7d2438c4-a727-410f-870d-4a971695b4fb


**MACULAR DEGENERATION**

Mediation of Cannabidiol Anti-inflammation in the Retina by Equilibrative Nucleoside Transporter and A2A Adenosine Receptor (full – 2008) http://www.iovs.org/content/49/12/5526.full


**MAD COW/ CRUETZFELDT-JACOB DISEASE** - also see PRIONS

Nonpsychoactive Cannabidiol Prevents Prion Accumulation and Protects Neurons against Prion Toxicity (full - 2007) http://www.jneurosci.org/cgi/content/full/27/36/9537


Cannabidiol May be Effective in Preventing Bovine Spongiforme Enzephalopathy (Mad Cow Disease) (news - 2007) http://www.letfreedomgrow.com/articles/fr070916.htm


Pot smoking could stop Mad Cow Disease? (news - 2008) http://chattahbox.com/curiosity/2008/12/06/pot-smoking-could-stop-mad-cow-disease/

**MALARIA**

Non-cannabinoid constituents from a high potency Cannabis sativa variety. (full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4888767/

**MAGNETIC STIMULATION**
A transcranial magnetic stimulation study of the effects of cannabis use on motor cortical inhibition and excitability. (full – 2009)  
http://www.nature.com/npp/journal/v34/n11/full/npp200971a.html

Cannabis-based treatment induces polarity-reversing plasticity assessed by theta burst stimulation in humans. (abst – 2009)  

**MALE SEXUAL FUNCTION** *

Cannabis-induced Koro in Americans. (abst – 2001)  

N-Acylethanolamines in human reproductive fluids. (abst – 2002)  

Idiopathic infertility: susceptibility of spermatozoa to in-vitro capacitation, in the presence and the absence of palmitylethanolamide (a homologue of anandamide), is strongly correlated with membrane polarity studied by Laurdan fluorescence (full – 2003)  
http://molehr.oxfordjournals.org/content/9/7/381.full

EFFECT OF CANNABINOIDS ON TESTICULAR ISCHEMIA-REPERFUSION INJURY IN RAT (link to PDF – 2006)  
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.557.2348

Jekyll and Hyde: Two Faces of Cannabinoid Signaling in Male and Female Fertility (full - 2006)  

Marijuana-like Chemical Can Restore Sperm Function Lost to Tobacco Abuse (news - 2006)  
http://www.rxpgnews.com/specialtopics/article_5093.shtml

Cannabis-based boost for smokers' suffering sperm (news - 2006)  
(may need registration)  

Role of the nitric oxide pathway and the endocannabinoid system in neurogenic relaxation of corpus cavernosum from biliary cirrhotic rats (full – 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2013996/

Effects of different substance misuse in genital reflexes of paradoxical sleep deprived male rats. (abst – 2007)  
Effect of Endocannabinoid System on the Neurogenic Function of Rat Corpus Cavernosum (abst – 2007)

Genetic Loss of Faah Compromises Male Fertility in Mice (full - 2008)
http://www.biolreprod.org/content/80/2/235.long

Interplay between endocannabinoids, steroids and cytokines in the control of human reproduction. (full - 2008)

Effect of biliary cirrhosis on nonadrenergic noncholinergic-mediated relaxation of rat corpus cavernosum: Role of nitric oxide pathway and endocannabinoid system (abst – 2008)

Effect of anandamide in improving of the non-adrenergic non-cholinergic relaxation of the corpus cavernosum from diabetic rats (abst – 2008)

Opioids and cannabinoids influence mobility of spermatozoids (news - 2008)
https://www.sciencedaily.com/releases/2008/06/080620115953.htm

The endocannabinoid 2-arachidonoylglycerol promotes sperm development through activation of cannabinoid-2 receptors (full – 2009)

The endocannabinoid 2-arachidonoylglycerol promotes sperm development through activation of cannabinoid-2 receptors (link to PDF - 2009)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.505.7026&rank=36


Endocannabinoids: friends and foes of reproduction. (abst – 2009)

MAST CELLS - immune cells involved with allergies, wound healing, and fighting germs

Mast cell morphometry and densitometry in experimental skin wounds treated with a gel containing adelmidrol: a placebo controlled study. (abst – 2008)

MEDICAL MARIJUANA - NEWS *

Outline for a Marijuana Medical Handbook - Tod Mikuriya (undated)
http://www.ukcia.org/medical/marijuanamedicalhandbook.php

Medical Marijuana Users Dying for Transplants (news/ad – undated)

Ganja medicine in Jamaica (news – 2000)
http://www.cannabisculture.com/content/2000/01/16/59

Marijuana in the management of amyotrophic lateral sclerosis
(link to download - 2001)
http://journals.sagepub.com/doi/abs/10.1177/104990910101800411?
hits=80&FIRSTINDEX=1200&searchid=1&resourcetype=HWCIT&RESULTFORMAT=&fulltext=cannabis

Medical marijuana to sell for $5 per gram (article – 2003)
http://www.cmaj.ca/content/169/3/222.1.full

Medical Marijuana Movement Notches Several Victories (news – 2003)

Marinol Death Sentence: Oregon Man Denied Liver Transplant Because of Prescription -- He's Not the Only One (news – 2003)
http://stopthedrugwar.org/chronicle-old/299/notransplant.shtml

California and U.S. Officials Conspired to Block Prop 215 (article – 2004)
The Disimplementation of Prop 215

Scientific American: Current restrictions on marijuana research are absurd (news – 2004)
http://www.chanvre-info.ch/info/it/Scientific-American-Current.html

DEA Raids Aurora Medical Marijuana User (news/ anecdotal – 2004)

Medical Marijuana and the Supreme Court (article – 2005)
As Voters Pass Pot Measures, Grass Grows Under Plans' Feet (article – 2005)

Dronabinol can't replace medical marijuana (article – 2005)

Testimony of Terry Jacobs to FDA - why he prefers for medical marijuana to Marinol (testimony – forum repost - 2005)

UK: Cannabis drug Sativex available to MS patients (news – 2005)
http://www.chanvre-info.ch/info/it/UK-Cannabis-drug-Sativex-available.html

Medical Marijuana, American Federalism, and the Supreme Court (news – 2005)
http://www.maps.org/mmj/jama-federalism.pdf

The Thin Green Line: Employers and Medical Marijuana (news – 2005)
http://www.safeaccessnow.org/asanews1623

STUDENT POT USE DECLINES IN CALIFORNIA FOLLOWING APPROVAL OF PROPOSITION 215 (news – 2005)
http://www.canorml.org/prop/studentMJuse.html

The legal status of medical marijuana. (link to download - 2006)

Dispensing Medical Marijuana: Some Halachic Parameters (article – 2006)

Weed control (news – 2006)
http://www.boston.com/news/globe/ideas/articles/2006/05/28/weed_control

Medi-Cal pays pot-related expenses (news – 2007)
http://www.mapinc.org/norml/v07/n809/a08.htm

SUPPORTING RESEARCH INTO THE THERAPEUTIC ROLE OF MARIJUANA (full – 2008)
https://www.acponline.org/acp_policy/policies/supporting_medmarijuana_2008.pdf

Characterization of Medicinal Properties of Cannabis sativa L. Roots (link to PDF- 2008)
Characterization of Medicinal Properties of Cannabis Sativa L. Roots

Medical Marijuana Users Denied Organ Transplants (news – 2008)
(may need registration)
http://blogs.wsj.com/health/2008/05/19/medical-marijuana-users-denied-organ-transplants/

Is medical-marijuana use reason to deny someone an organ transplant?
Should Hepatitis C Patients Who Smoke Marijuana Be Eligible For Liver Transplants?  
(http://seattletimes.nwsource.com/html/health/2004389825_liver03m.html)

Cannabis Yields and Dosage (full – 2009)  
(http://www.chrisconrad.com/pdf/cannayieldsdosage10.pdf)

A Brief History of Medical Marijuana (news – 2009)  
(http://content.time.com/time/health/article/0,8599,1931247,00.html)

Let’s Discuss - Medical Use of Cannabis (marijuana) (news – 2009)  
(http://heretohelp.bc.ca/sites/default/files/images/medicincalcannabis.pdf)

Woman Dies After Being Denied Organ Transplant (news – 2009)  

Medical Marijuana Verdict Elusive Despite Study, Debate (news – 2009)  
(http://psychnews.psychiatryonline.org/doi/full/10.1176%2Fpn.44.6.0010)

Medical Use of Marijuana Divides AMA Delegates (news – 2009)  
(http://psychnews.psychiatryonline.org/doi/full/10.1176%2Fpn.44.1.0018)

Doctors recommend medical marijuana for minors with ADHD in California (news – 2009)  
(http://www.nydailynews.com/life-style/health/doctors-recommend-medical-marijuana-minors-adhd-california-article-1.419585#ixzz2Ui5xXtRZ)

Why People Use Cannabis (news – 2009)  
(http://www.heretohelp.bc.ca/visions/cannabis-vol5/why-people-use-cannabis)

Marijuana: Help or hassle? (news – 2009)  
(http://www.heretohelp.bc.ca/visions/cannabis-vol5/marijuana-help-or-hassle)

Senior Citizens and Medical Marijuana- Cannabis- Orange County Seniors demand Medical Marijuana (news – 2009)  
(http://patients4medicalmarijuana.wordpress.com/2009/08/12/senior-citizens-and-medical-marijuanacannabis/)

The Health Effects of Medical Marijuana Project (HEMMP) (news – 2009)  
(http://www.heretohelp.bc.ca/visions/cannabis-vol5/the-health-effects-medical-marijuana-project-hemmp)

Alternatives: Miracle Marijuana (anecdotal/news - 2009)  
(http://www.heretohelp.bc.ca/visions/cannabis-vol5/alternatives)
MEDICAL MARIJUANA – STUDIES *


The legalisation of Cannabis for medical use       (1st page – 2001)
http://www.scienceandjusticejournal.com/article/S1355-0306%2802%2971798-X/abstract

Crack heads and roots daughters: The therapeutic use of cannabis in Jamaica

CANNABINOIDS: POTENTIAL ANTICANCER AGENTS        (link to PDF - 2003)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.190.3990&rank=20

Future of Cannabis and Cannabinoids in Therapeutics       (link to PDF - 2003)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.597.1387&rank=7

Using Cannabis Therapeutically in the UK: A Qualitative Analysis
(link to download – 2003)
http://journals.sagepub.com/doi/abs/10.1177/002204260303300204

A peek into Pandora's box: the medical excuse marijuana controversy.

US Supreme Court says no to medical marijuana       (full – 2005)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC558405/

Survey of Australians using cannabis for medical purposes       (full – 2005)
http://www.harmreductionjournal.com/content/2/1/18

It Is Time for Marijuana to Be Reclassified as Something Other Than a Schedule I Drug!

Dronabinol can't replace medical marijuana        (article – 2005)

The medicinal use of cannabis in the UK: results of a nationwide survey


script=sci_arttext&pid=S1516-44462006000200015&lng=en&nrm=iso&tlng=en

Despite Research, FDA Says Marijuana Has No Benefit   (full – 2006)
http://jnci.oxfordjournals.org/content/98/13/888.full
Dispensing Medical Marijuana: Some Halachic Parameters (article – 2006)

Dosing Medical Marijuana: Rational Guidelines on Trial in Washington State
(full – 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2100129/

New dosage limits for medical marijuana: But where's the science? (full – 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1963373/

In the Matter of Lyle E Craker, Ph.D. Docket No. 05-16 (full – 2007)
http://www.maps.org/research-archive/mmj/ALJfindings.PDF

Clinical research Cannabinoids in health and disease (link to PDF - 2007)

Letter: The herbal way - a response to Ethan Russo (letter – 2007)

Medical marijuana and the developing role of the pharmacist. (abst – 2007)

SUPPORTING RESEARCH INTO THE THERAPEUTIC ROLE OF MARIJUANA
(full – 2008)
https://www.acponline.org/acp_policy/policies/supporting_medmarijuana_2008.pdf

Marijuana Use by Young People: The Impact of State Medical Marijuana Laws

The Significance of US Govt Cannabinoid Patent 6,630,507 (news – 2008)
http://stopthedrugwar.org/speakeasy/2008/jul/23/significance_us_govt_cannabinoid

Medical Marijuana: are we ready? (article – 2009)
https://sciencebasedmedicine.org/medical-marijuana-are-we-ready/

Characteristics of patients with chronic pain accessing treatment with medical cannabis in

MENIERE'S SYNDROME

Menière’s Syndrome by Charlie Ritchie (anecdotal - undated)
http://www.rxmarijuana.com/shared_comments/ritchie.htm

Menière's Syndrome By Martin Martinez (anecdotal - undated)
http://www.rxmarijuana.com/martinez2.htm
Doctors say cannabis treats Meniere’s disease  (news - 2006)

MENOPAUSE  * - also see AGING, GYNOCOLOGY

Post-Menopausal Hot Flashes by Anonymous  (anecdotal – undated)
http://www.rxmarijuana.com/shared_comments/menopause.htm

Estrogen stimulates arachidonylethanolamide release from human endothelial cells and platelet activation  (full – 2002)
http://bloodjournal.hematologylibrary.org/content/100/12/4040.full

Regulation of Gonadotropin-Releasing Hormone Secretion by Cannabinoids  (full - 2005)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1237039/?tool=pmcentrez

Regulation of Bone Mass, Osteoclast Function, and Ovariectomy-Induced Bone Loss by the Type 2 Cannabinoid Receptor  (full - 2008)

Study: Marijuana & The Fountain of Youth  (news/ad - 2008)

METHODS OF USE – BREATH STRIPS

https://www.google.com/patents/US20060039959

THE GREAT CALIFORNIA WEED RUSH  (news - 2007)
http://www.mapinc.org/norml/v07/n150/a04.htm

THC Breath Strips Are Here, And They Are Amazing!  (news – forum repost – 2008)

Your breath smells minty marijuana fresh  (news – 2009)
http://www.inquisitr.com/14068/your-breath-smells-minty-marijuana-fresh/

Recipe for Breath Strips  (forum post- #3 – 2009)
http://boards.cannabis.com/concentrates/174379-re-creating-the-strips-home.html
**METHODS OF USE – CAPSULES** *

Comparison of smoked marijuana and oral Delta(9)-tetrahydrocannabinol in humans.  
(abst – 2002)  

**METHODS OF USE – DECARBOXYLATION** – a method to increase potency

Why should cannabis products be heated before eating?  
(news – 2001)  
[http://www.cannabis-med.org/english/faq/12-heating.htm](http://www.cannabis-med.org/english/faq/12-heating.htm)

Decarboxylation  
(news - 2003)  
[http://www.cannabisculture.com/content/2003/07/22/3037](http://www.cannabisculture.com/content/2003/07/22/3037)

Cooking with Cannabis  
(news – 2008)  

**METHODS OF USE – EDIBLES – General** *

GC-MS analysis of the total delta9-THC content of both drug- and fiber-type cannabis seeds.  
(full – 2000)  
[http://jat.oxfordjournals.org/content/24/8/715.long](http://jat.oxfordjournals.org/content/24/8/715.long)

High-performance liquid chromatographic determination of delta9-tetrahydrocannabinol and the corresponding acid in hemp containing foods with special regard to the fluorescence properties of delta9-tetrahydrocannabinol.  
(abst – 2000)  

Cannabis Use As Described by People with Multiple Sclerosis.  
(full – 2003)  
Cannabis Use As Described By People With Multiple Sclerosis

Pharmacokinetics and pharmacodynamics of cannabinoids.  
(abst – 2003)  

Determination of cannabinoids in hemp food products by use of headspace solid-phase microextraction and gas chromatography-mass spectrometry.  
(abst – 2004)  
Delirium following ingestion of marijuana present in chocolate cookies  
(full – forum repost - 2006)  

Anti-inflammatory cannabinoids in diet  
(full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2633791/?tool=pmcentrez

Inadvertent ingestion of marijuana - Los Angeles, California, 2009  
(full - 2009)  
http://www.gov/mmwr/preview/mmwrhtml/mm5834a2.htm

Intestinal lymphatic transport enhances the post-prandial oral bioavailability of a novel cannabinoid receptor agonist via avoidance of first-pass metabolism.  
(abst - 2009)  

Accidental cannabis poisoning in children: experience of the Marseille poison center  
(abst – 2009)  

Science: Oral intake of a cannabinoid together with a meal improved bioavailability by avoiding first-pass metabolism  
(news - 2009)  

METHODS – EDIBLES - BEVERAGES - OTHER*

How to Make Hemp Milk  
(article – undated)  
http://www.ehow.com/how_5609776_make-hemp-milk.html

Marijuana Tea  
(article- undated)  
http://www.how-to-marijuana.com/marijuana-tea.html

Milking your options-- Rice, hemp, cow, soy, almond or goat milk -- which one is better for you?  
(news – 2009)  
http://www.mnn.com/health/fitness-well-being/stories/milking-your-options

METHODS - EDIBLES- BEVERAGES - CANNABIS TEA*  
(Note - THC does NOT dissolve in water. Tea is not a good way to get “high”, but it can ease pain.)

How to Brew Marijuana Tea  
(news – undated)  
http://www.mahalo.com/how-to-brew-marijuana-tea/
METHODS – EDIBLES – FOODS *


Cannabis butter to spread across Europe (news - 2004)

METHODS - EDIBLES - RAW UNHEATED CANNABIS JUICE

Unheated Cannabis sativa extracts and its major compound THC-acid have potential immuno-modulating properties not mediated by CB1 and CB2 receptor coupled pathways. (full - 2006)
https://openaccess.leidenuniv.nl/bitstream/handle/1887/3744/07.pdf?sequence=6

Influence of the Growth Stage of Hemp (Cannabis sativa L.) on Fatty Acid Content, Chemical Composition and Gross Energy (full – 2009)
http://www.medwelljournals.com/fulltext/?doi=aj.2009.27.31

METHODS OF USE – HASHISH

Making hash is easier than you think! (news - undated)

http://www.dldocs.stir.ac.uk/documents/potency.pdf
METHODS OF USE - INHALE

Pharmacological evaluation of aerosolized cannabinoids in mice. (abst – 2000)

Physiochemical and pharmacological characterization of a Delta(9)-THC aerosol generated by a metered dose inhaler. (abst – 2002)


Development and pharmacokinetic characterization of pulmonal and intravenous delta-9-tetrahydrocannabinol (THC) in humans. (abst – 2004)

http://www.420magazine.com/forums/methods-use-inhaler/173789-aerosol-formulations-delta-tetrahydrocannabinol.html

METHODS OF USE – INJECTION -*- DO NOT TRY A DIY! (see PRE-2000 studies!)

Development and pharmacokinetic characterization of pulmonal and intravenous delta-9-tetrahydrocannabinol (THC) in humans. (abst – 2004)

Pharmacological Characterization of Novel Water-Soluble Cannabinoids (full – 2006)
http://jpet.aspetjournals.org/content/318/3/1230.full

The urinary disposition of intravenously administered 11-nor-9-carboxy-delta-9-tetrahydrocannabinol in humans (abst – 2007)

METHODS OF USE - NASAL SPRAYS


METHODS OF USE - OROMUCOSAL SPRAY - also see Sativex


METHODS OF USE – RSO / RICK SIMPSON’S OIL/ HEMP OIL/ PHOENIX OIL

“Run From the Cure” Transcript (forum post - 2009) http://archive.org/stream/RunFromTheCure-Transcript_26/Run-From-the-Cure-Transcript#page/n0/mode/2up


METHODS OF USE – SECOND-HAND SMOKE

In Vitro Contamination of Hair by Marijuana Smoke (full – 2004) http://www.clinchem.org/content/50/3/596.long
Passive Inhalation of Cannabis Smoke.  (abst – 2004)  

Passive inhalation of cannabis smoke--is it detectable?  (abst - 2009)  

**METHODS OF USE - SMOKING** * - also see SMOKED CANNABIS AS MEDICINE

Tokepure  (news – undated)  http://ukcia.org/activism/tokepure.php

How to Smoke Cannabis  (news – undated)  http://ukcia.org/culture/smoking.php

Rolling a Joint - Basic joint rolling tips  (article – undated)  http://www.weedfarmer.com/joint_rolling/rolling/rolling.htm


A primer for patients’ use of medicinal marijuana  (full - 2001)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC81348/pdf/20010807s00037p329.pdf


Cannabis Use As Described by People with Multiple Sclerosis.  (full – 2003)  
Cannabis Use As Described By People With Multiple Sclerosis

Pharmacokinetics and pharmacodynamics of cannabinoids.  (abst – 2003)  


Cannabis improves night vision: a case study of dark adaptometry and scotopic sensitivity in kif smokers of the Rif mountains of northern Morocco.  (full – 2004)  PDF
Cannabinoids and the immune system. Of men, mice and cells  
(abort – 2004)  

Bongs and Blunts: Notes from a Suburban Marijuana Subculture.  
(abort – 2005)  

DISTINGUISHING BLUNTS USERS FROM JOINTS USERS: A COMPARISON OF 
MARIJUANA USE SUBCULTURES  
(full – 2006)  

Letter: The herbal way - a response to Ethan Russo  
(letter – 2007)  

“Usual” cannabis abuse producing an unusual incident  
(abort – 2007)  
(The Valsalva maneuver is performed by attempting to forcibly exhale while keeping the mouth and nose 
closed. Don’t do it! It won’t get you higher, but it will damage your lungs!)  

Differential responses to cannabis potency: a typology of users based on self-reported 
consumption behaviour.  
(abort – 2007)  

Home Office cannabis potency study 2008.  
(full – 2008)  
http://www.dldocs.stir.ac.uk/documents/potency.pdf

Cannabis smoke condensate I: the effect of different preparation methods on 
tetrahydrocannabinol levels.  
(abort - 2008)  

Cannabinoid Receptor 1 Binding Activity and Quantitative Analysis of Cannabis sativa L. 
Smoke and Vapor  
(full – 2009)  
https://www.jstage.jst.go.jp/article/cpb/58/2/58_2_201/_pdf

Comparison of subjective, pharmacokinetic, and physiological effects of marijuana 
smoked as joints and blunts.  
(full - 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2776770/

A comparison of drug use and dependence between blunt smokers and other cannabis 
users  
(abort - 2009)  
http://www.unboundmedicine.com/medline/ebm/record/19212929/abstract/A_comparison_of_drug_use_an 
d_dependence_between_blunt_smokers_and_other_cannabis_users

**METHODS OF USE – TINCTURES**

Tincture - by Dr. Jay R. Cavanaugh, Ph.D.  
(undated)  
http://www.letfreedomgrow.com/recipes/tincture.htm

Timeless tinctures  (news - 2003)  http://www.cannabisculture.com/content/2003/10/02/3005


Unheated Cannabis sativa extracts and its major compound THC-acid have potential immuno-modulating properties not mediated by CB1 and CB2 receptor coupled pathways.  (full - 2006)  https://openaccess.leidenuniv.nl/bitstream/handle/1887/3744/07.pdf?sequence=6


METHODS OF USE - TOPICAL OINTMENTS


Marijuana Skin Cream? (news - 2007)
http://www.drugfree.org/news-service/marijuana-skin-cream/

Glysabis (forum thread - 2007) (glycerin tincture)

Getting High For Your Health (news – 2008)
http://www.popsci.com/rachel-durfee/article/2008-09/getting-high-your-health

WR's Cannabalm (forum thread - 2008)

**METHODS OF USE - TRANSDERMAL PATCH**

https://www.google.com/patents/US6132762


**METHODS OF USE – VAPORIZERS** *

ACCESSING 0.5 to 2.0 GRAMS CBD FRACTIONATING THE PHYTOCANNABINOIDS BY THEIR VAPORIZATION POINTS
How to Smoke Cannabis  (news – undated)  
http://ukcia.org/culture/smoking.php

Marijuana Water Pipe and Vaporizer Study  (news - 2000)  
http://www.maps.org/news-letters/v06n3/06359mj1.html

NORML-MAPS Study Shows Vaporizers Reduce Toxins in Marijuana Smoke  (news - 2001)  


http://www.maps.org/mmj/vaporizerstudy4.15.03.pdf

Vaporizing cannabis is safer than smoking  (letter - 2003)  
http://www.cmaj.ca/content/169/3/222.1/reply#cmaj_el_405?sid=06da3330-be42-4e66-98ac-c8ff0ebbfaf5

Cal NORML/MAPS study shows vaporizer can drastically reduce toxins in marijuana smoke  (news - 2003)  

Use of vaporizers reduces toxins from cannabis smoke  (news - 2003)  
http://www.cannabis-med.org/english/bulletin/ww_en_db_cannabis_artikel.php?id=146#2

Cannabis Vaporizer Combines Efficient Delivery of THC with Effective Suppression of Pyrolytic Compounds  (full - 2004)  
http://www.canorml.org/healthfacts/jcantgieringervapor.pdf

'Smokeless' medicinal pot has its advocates  (news - 2005)  
http://www.sfgate.com/cgi-bin/article.cgi?file=/n/2005/06/20/MNG9GDBBLK1.DTL

US Patent 7088914 - Device, method and resistive element for vaporizing a medicament (full - 2006)  
http://www.google.com.br/patents/US7088914

Evaluation of a vaporizing device (Volcano) for the pulmonary administration of tetrahydrocannabinol.  (abst – 2006)  

Decreased respiratory symptoms in cannabis users who vaporize.  (full - 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1853086/?tool=pmcentrez
METHODS OF USE - VARIOUS *

Tokepure (news – undated)  http://ukcia.org/activism/tokepure.php


Human Cannabinoid Pharmacokinetics (full - 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2689518/?tool=pmcentrez


MIGRAINE/ HEADACHE *

CANNABIS AND MARINOL IN THE TREATMENT OF MIGRAINE HEADACHE (abst - undated) http://www.druglibrary.net/schaffer/hemp/migrn2.htm


Clinical Endocannabinoid Deficiency (link to PDF - 2004)

Clinical Endocannabinoid Deficiency

Anandamide Is Able to Inhibit Trigeminal Neurons Using an in Vivo Model of Trigeminovascular-Mediated Nociception (full - 2004) http://jpet.aspetjournals.org/content/309/1/56.full

Cannabinoid (CB1) Receptor Activation Inhibits Trigeminovascular Neurons (full - 2006) http://jpet.aspetjournals.org/content/320/1/64.full?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabis&searchid=1&FIRSTINDEX=3680&resourcetype=HWCIT


Clinical endocannabinoid deficiency (CECD): can this concept explain therapeutic benefits of cannabis in migraine, fibromyalgia, irritable bowel syndrome and other treatment-resistant conditions? (full – 2008)

Degradation of endocannabinoids in chronic migraine and medication overuse headache. (link to PDF - 2008)

Cluster attacks responsive to recreational cannabis and dronabinol. (abst - 2009)

Variations in the cannabinoid receptor 1 gene predispose to migraine. (abst – 2009)

Inhaled Cannabis Aborts Cluster Headaches, Journal Reports “Marijuana use at onset of his headaches consistently brought complete relief within five minutes of inhalation for each attack (news - 2009)

Medical Marijuana and Headaches, Cluster (news/ad – 2009)
https://www.marijuanadoctors.com/content/ailments/view/133?ailment=headaches-cluster

Medical Marijuana and Headaches, Migraine (news/ad – 2009)
https://www.marijuanadoctors.com/content/ailments/view/44?ailment=headaches-migraine

Medical Marijuana and Headaches, Tension (news/ad – 2009)
https://www.marijuanadoctors.com/content/ailments/view/106?ailment=headaches-tension

MITOCHONDRIA

Anandamide initiates Ca2+ signaling via CB2 receptor linked to phospholipase C in calf pulmonary endothelial cells (full – 2003)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1574152/

Δ9-Tetrahydrocannabinol-Induced Apoptosis in Jurkat Leukemia T Cells Is Regulated by Translocation of Bad to Mitochondria (full - 2006)
http://mcr.aacrjournals.org/content/4/8/549.full

The CB2 cannabinoid receptor signals apoptosis via ceramide-dependent activation of the mitochondrial intrinsic pathway. (abst – 2006)
http://www.springerlink.com/content/l40343111728x733/

Identification and Characterization of Cannabinoids That Induce Cell Death through Mitochondrial Permeability Transition in Cannabis Leaf Cells (full – 2007)  
http://www.jbc.org/content/282/28/20739.full?sid=a5db98db-ff96-4187-8790-57097bce15c1

Cannabinoid receptor agonists are mitochondrial inhibitors: a unified hypothesis of how cannabinoids modulate mitochondrial function and induce cell death. (abst – 2007)  

Cannabidiol targets mitochondria to regulate intracellular Ca2+ levels. (full – 2009)  
http://www.jneurosci.org/content/29/7/2053.long

**MORNING SICKNESS** - also see NAUSEA

Menstrual cramps, morning sickness and labour pain (anecdotal – 2001)  

Hyperemesis Gravidarum and Clinical Cannabis: To Eat or Not to Eat? (full - 2002)  

Medical marijuana: a surprising solution to severe morning sickness (news - 2004)  
http://www.mothering.com/community/a/medical-marijuana-a-surprising-solution-to-severe-morning-sickness

US Patent Application 20050165088 - Compositions comprising cannabinoids for treatment of nausea, vomiting, emesis, motion sickness or like conditions (full - 2005)  
http://www.google.it/patents/US20050165088

Marijuana Effective Against Morning Sickness: Study (news – 2005)  
http://mercycenters.org/library/info_Mothers.doc (slow loading)

http://safeaccess.ca/research/cannabis_nausea2006.pdf

Cannabis Provides Subjective Relief For Morning Sickness, Study Says (news – 2006)  
http://norml.org/news/2006/01/26/cannabis-provides-subjective-relief-for-morning-sickness-study-says

Breathe, Push, Puff? Pot Use and Pregnancy: A Review of the Literature
MORTALITY RATES *

Annual Causes of Death in America (news - undated)


Comparing cannabis with tobacco—again Link between cannabis and mortality is still not established (full - 2003) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC196384/?tool=pmcentrez


Illicit Drug Use in Young Adults and Subsequent Decline in General Health: The Coronary Artery Risk Development in Young Adults (CARDIA) Study (full - 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1885466/?tool=pmcentrez


Deaths from Marijuana v. 17 FDA-Approved Drugs  (report - 2009)

The FDA has written documentation that patients can overdose on Marinol and that it can be lethal  (news – forum repost - 2009)

MOTION SICKNESS


MRSA/ METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS  *


Marijuana Ingredients Show Promise In Battling Superbugs  (news - 2008)
A New MRSA Defense   (news - 2008)
http://www.technologyreview.com/biomedicine/21366/?a=f

Pot is good for you? Marijuana fights the superbugs   (news - forum repost - 2008)

Natural plant cannabinoids reduce multi-drug resistant infections   (news - 2009)
http://www.news-medical.net/?id=48757

Another Reason To Legalize Marijuana: It Kills MRSA Like The Antibiotic Vancomycin! 
(news – forum repost - 2009)

MULTIPLE SCLEROSIS/ MS *

The use of cannabinoids in MS: is it evidence based?   (abst - undated)
http://www.ukcia.org/research/UseOfCannabinoidsInMSEvidenceBased.pdf

Endocannabinoids control spasticity in a multiple sclerosis model   (full - 2000)

Cannabinoids might reduce spasticity in multiple sclerosis   (full - 2000)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1117698/?tool=pmcentrez

Cannabinoids control spasticity and tremor in a multiple sclerosis model   (full - 2000)
http://www.ukcia.org/research/CannabinoidsControlSpasticityAndTremorInAMultipleSclerosisModel.php

Cannabinoids reduce tremor in animal model of multiple sclerosis   (news - 2000)

Therapeutic aspects of cannabis and cannabinoids.   (full - 2001)
http://bjp.rcpsych.org/cgi/content/full/178/2/107


Acute and chronic effects of cannabis based medicinal extract on refractory lower urinary tract dysfunction in patients with advanced multiple sclerosis – early results   (abst - 2001)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=103
Control of the cell survival/death decision by cannabinoids. (abst – 2001)  

Chronic Cannabis Use in the Compassionate Investigational New Drug Program:  
An Examination of Benefits and Adverse Effects of Legal Clinical Cannabis  
(full - 2002)  

Chronic Cannabis Use in the Compassionate Investigational New Drug Program:  
An Examination of Benefits and Adverse Effects of Legal Clinical Cannabis  
(summary - 2002)  
http://www.letfreedomgrow.com/cmu/chronic_cannabis_use.htm

(abst - 2002)  

Cannabinoids and multiple sclerosis.  
(abst - 2002)  

Marijuana Helps MS Patients Alleviate Pain, Spasms  
(news - 2002)  

MS SUFFERER DEFENDS DRUG; CANNABIS HELPED ME WALK.  
(news - 2002)  
http://www.thefreelibrary.com/MS+SUFFERER+DEFENDS+DRUG%3b+CANNABIS+HELPED+ME+WALK.-a082609025

Cannabis Use As Described by People with Multiple Sclerosis.  
(full – 2003)  
Cannabis Use As Described By People With Multiple Sclerosis

Therapeutic Action of Cannabinoids in a Murine Model of Multiple Sclerosis  
(full - 2003)  
http://www.jneurosci.org/cgi/content/full/23/7/2511?maxtoshow=&hits=10&RESULTFORMAT=&fulltext=cannabinoids&andorexactfulltext=and&searchid=1&FIRSTINDEX=20&sortspec=relevance&resourcetype=HWCIT

Cannabinoids inhibit neurodegeneration in models of multiple sclerosis  
(full - 2003)  
http://brain.oxfordjournals.org/cgi/content/full/126/10/2191?ijkey=c7c6bf1d58b85c98cb1a190d5ca2614552989ba0

Whether whole plant Cannabis extracts can improve intractable neurogenic symptoms?  
(full - 2003)  
http://www.ukcia.org/research/WholePlantExtractsImproveNeurogenicSymptoms.pdf

Immunoregulation of a viral model of multiple sclerosis using the synthetic cannabinoid  
R(+)-WIN55,212  
(full - 2003)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC152941/?tool=pmcentrez

Cannabinoids inhibit neurodegeneration in models of multiple sclerosis  
(full - 2003)  
http://brain.oxfordjournals.org/cgi/content/full/126/10/2191

Therapeutic potential of cannabis  
(full – 2003)
Future of Cannabis and Cannabinoids in Therapeutics  (link to PDF - 2003)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.597.1387&rank=7

Randomised controlled trial of cannabis based medicinal extracts (CBME) in central neuropathic pain due to multiple sclerosis.  (abst - 2003)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=82


Therapeutic potential of cannabinoids in CNS disease.  (abst - 2003)

Cannabis May Help Multiple Sclerosis  (news - 2003)

Cannabis can help MS sufferers  (news - 2003) (may need registration)

'How cannabis helped me'  (news/anecdotal - 2003)
http://news.bbc.co.uk/2/hi/health/3248701.stm

Initial experiences with medicinal extracts of cannabis for chronic pain: Results from 34 ‘N of 1’ studies  (full - 2004)  http://www.ukcia.org/research/InitialExperiencesChronicPain.pdf

Does the cannabinoid dronabinol reduce central pain in multiple sclerosis? Randomised double blind placebo controlled crossover trial  (full - 2004)
http://www.bmj.com/cgi/content/full/329/7460/253

Cannabinoids and neuroinflammation  (full - 2004)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1574256/?tool=pmcentrez

Do cannabis-based medicinal extracts have general or specific effects on symptoms in multiple sclerosis? A double-blind, randomized, placebo-controlled study on 160 patients. (full - 2004)

http://www.ukcia.org/research/EfficacySafetyTolerabilityInMSSpasticityTreatment.pdf

http://www.ukcia.org/research/CBEForMSBladderDysfunction.pdf


Cannabis can help MS sufferers (news – 2004) http://www.safecccessnow.org/asanews777


The synthetic cannabinoid R(+)WIN 55,212-2 inhibits the interleukin-1 signaling pathway in human astrocytes in a cannabinoid receptor-independent manner. (full – 2005) http://www.jbc.org/content/280/43/35797.long


Stimulation of cannabinoid receptor 2 (CB2) suppresses microglial activation (full – 2005) http://www.springerlink.com/content/tq777102q4185073/fulltext.html

Randomized, controlled trial of cannabis-based medicine in central pain in multiple sclerosis (full - 2005) http://www.academia.edu/1025643/Randomized_controlled_trial_of_cannabis-based_medicine_in_central_pain_in_multiple_sclerosis


The medicinal use of cannabis in the UK: results of a nationwide survey

Cannabinoid control of motor function at the basal ganglia.  (abst – 2005)

Decreased endocannabinoid levels in the brain and beneficial effects of agents activating cannabinoid and/or vanilloid receptors in a rat model of multiple sclerosis.  (abst – 2005)

Cannabis-based medicine in central pain in multiple sclerosis  (abst - 2005)
http://www.neurology.org/cgi/content/abstract/65/6/812?etoc

Cannabinoids and neuroprotection in CNS inflammatory disease.  (abst - 2005)

Therapeutic action of cannabinoid on axonal injury induced by peroxynitrite  (abst - 2005)

Cannabis-based medicinal extract (Sativex) produced significant improvements in a subjective measure of spasticity which were maintained on long-term treatment with no evidence of tolerance.  (abst - 2005)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=170

UK: Cannabis drug Sativex available to MS patients  (news – 2005)
http://www.chanvre-info.ch/info/it/UK-Cannabis-drug-Sativex-available.html

Marijuana derivatives may provide MS treatment  (news - 2005)
http://www.health.am/ab/more/marijuana_derivatives_may_provide_ms_treatment/

Medicinal marijuana use Experiences of people with multiple sclerosis  (full - 2006)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1479734/?tool=pmcentrez

Experimental autoimmune encephalomyelitis disrupts endocannabinoid-mediated neuroprotection  (full - 2006)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1458883/?tool=pmcentrez

Role of the Cannabinoid System in Pain Control and Therapeutic Implications for the Management of Acute and Chronic Pain Episodes  (full - 2006)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2430692/?tool=pubmed

Multiple sclerosis may disrupt endocannabinoid brain protection mechanism  (full - 2006)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1458835/?tool=pmcentrez
http://www.google.it/patents/US20060167084

Cannabinoids In Medicine: A Review Of Their Therapeutic Potential


UCM707, an inhibitor of the anandamide uptake, behaves as a symptom control agent in models of Huntington's disease and multiple sclerosis, but fails to delay/arrest the progression of different motor-related disorders.  (abst – 2006)


Cuppa Gives A Better 'ooh'  (news - 2006)


Cannabinoid CB1 and CB2 Receptors and Fatty Acid Amide Hydrolase Are Specific Markers of Plaque Cell Subtypes in Human Multiple Sclerosis  (full - 2007)  http://www.jneurosci.org/cgi/content/full/27/9/2396?maxtoshow=&hits=10&RESULTFORMAT=&fulltext=cannabinoid&andorexactfulltext=and&searchid=1&FIRSTINDEX=0&sortspec=relevance&resourcetype=HWCTT
Control of Spasticity in a Multiple Sclerosis Model is mediated by CB1, not CB2, Cannabinoid Receptors  
(full - 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2189718/?tool=pmcentrez

The endocannabinoid system is dysregulated in multiple sclerosis and in experimental autoimmune encephalomyelitis  
(full - 2007)  
http://brain.oxfordjournals.org/content/130/10/2543.long

The endocannabinoid system in targeting inflammatory neurodegenerative diseases  
(full – forum repost - 2007)  

Clinical research Cannabinoids in health and disease  
(link to PDF - 2007)  

The endocannabinoid system and neurogenesis in health and disease.  
(link to download - 2007)  
http://journals.sagepub.com/doi/abs/10.1177/1073858406296407

Meta-analysis of cannabis based treatments for neuropathic and multiple sclerosis-related pain.  
(salary – 2007)  

Randomized controlled trial of cannabis-based medicine in spasticity caused by multiple sclerosis  
(abst - 2007)  

Oromucosal delta9-tetrahydrocannabinol/cannabidiol for neuropathic pain associated with multiple sclerosis: an uncontrolled, open-label, 2-year extension trial.  
(abst – 2007)  

The (Endo)Cannabinoid System in Multiple Sclerosis and Amyotrophic Lateral Sclerosis  
(abst – 2007)  

Cannabinoids and neuroprotection in motor-related disorders.  
(abst - 2007)  

Cannabinoids-based medicine in spasticity caused by multiple sclerosis.  
(abst - 2007)  
http://www.unboundmedicine.com/medline/ebm/record/17355549/abstract/Randomized_controlled_trial_of_cannabis_based_medicine_in_spasticity_caused_by_multiple_sclerosis

Excitotoxicity in a chronic model of multiple sclerosis: Neuroprotective effects of cannabinoids through CB1 and CB2 receptor activation.  
(abst – 2007)  

Cannabis based treatments for neuropathic and multiple sclerosis-related pain.  
(abst - 2007)  
http://www.unboundmedicine.com/medline/ebm/record/17257464/abstract/Meta_analysis_of_cannabis_based_treatments_for_neuropathic_and_multiple_sclerosis_related_pain

Cannabis could hold the key to ending multiple sclerosis misery (news - 2007)  http://www.physorg.com/news94743932.html


Cannabinoids in the management of difficult to treat pain  (full - 2008)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2503660/?tool=pmcentrez

Cannabinoid CB2 receptors in human brain inflammation  (full - 2008)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219537/

Cannabinoids in the management of spasticity associated with multiple sclerosis (full - 2008)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2626929/?tool=pmcentrez

The CB(2) cannabinoid receptor controls myeloid progenitor trafficking: involvement in the pathogenesis of an animal model of multiple sclerosis.  (full - 2008)  http://www.jbc.org/content/283/19/13320.long

Cannabinoid-mediated neuroprotection, not immunosuppression, may be more relevant to multiple sclerosis  (full – 2008)  http://www.academia.edu/14321693/Cannabinoid-mediated_neuroprotection_not_immunosuppression_may_be_more_relevant_to_multiple_sclerosis


Emerging Role of the CB2 Cannabinoid Receptor in Immune Regulation and Therapeutic Prospects (full - 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2768535/?tool=pmcentrez


Do cannabinoids reduce multiple sclerosis-related spasticity? (abst - 2009)
http://www.unboundmedicine.com/medline/ebm/record/19901724/full_citation/Do_cannabinoids_reduce_multiple_sclerosis_related_spasticity

Cannabinoids and neurodegenerative diseases. (abst - 2009)

Clinical phase III study with the cannabis extract Cannador successful in multiple sclerosis (news - 2009)

Marijuana Eases Spasticity in MS Patients (news – 2009)

Pot shows promise for reducing multiple sclerosis patients' symptoms (news - 2009)

Study Confirms That Cannabis Is Beneficial for Multiple Sclerosis (news - 2009)

Marijuana Chemicals Ease MS Symptoms, Review Confirms (news - 2009)
http://www.drugfree.org/uncategorized/marijuana-chemicals-ease-ms

Cannabis can reduce spasticity in MS patients (news - 2009)

14 of 15 MS patients show clinical improvement with cannabis consumption (news – forum repost - 2009)

Medical Marijuana and Multiple Sclerosis (MS) (news/ad – 2009)
https://www.marijuanadoctors.com/content/ailments/view/80?ailment=multiple-sclerosis-ms-

MUSCLES/MUSCLE RELAXANT

Effects of cannabinoids on colonic muscle contractility and tension in guinea pigs. (full – 2005) https://www.jstage.jst.go.jp/article/jnms/72/1/72_1_43/_pdf

A cannabinoid agonist differentially attenuates deep tissue hyperalgesia in animal models of cancer and inflammatory muscle pain. (abst – 2007)

Cannabinoid CB(1) receptor activation modulates spontaneous contractile activity in mouse ileal longitudinal muscle. (abst – 2008)
http://www.ncbi.nlm.nih.gov/pubmed/18234188


Reposition of a dislocated shoulder under use of cannabis. (abst – 2009)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=408

Medical Marijuana and Skeletal Muscular Spasticity (news/ad – 2009)
https://www.marijuanadocctors.com/content/ailments/view/120?ailment=skeletal-muscular-spasticity

**MUSCULAR DYSTROPHY/ MD** *

Medical Marijuana use for Muscular Dystrophy (photo & caption – 2009)

Medical Marijuana and Muscular Dystrophy (news/ad – 2009)
https://www.marijuanadocctors.com/content/ailments/view/114?ailment=muscular-dystrophy

**NAIL-PATELLA SYNDROME**

Nail Patella Syndrome-Cannabinoids Relieve Symptoms (news – undated)

Michigan Medical Cannabis Card for Nail Patella (news/ad – undated)
http://drbobcertifications.com/tag/nail-patella-syndrome/


Chronic Cannabis Use in the Compassionate Investigational New Drug Program: An Examination of Benefits and Adverse Effects of Legal Clinical Cannabis
NAUSEA * - also see MORNING SICKNESS, MOTION SICKNESS, RADIATION-INDUCED NAUSEA

Cannabinoids for control of chemotherapy induced nausea and vomiting: quantitative systematic review (full - 2001) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC34325/?tool=pmcentrez


The cannabinoid CB1 receptor antagonist SR 141716A reverses the antiemetic and motor depressant actions of WIN 55, 212-2 (full – 2001) http://www.nature.com/npp/journal/v24/n2/full/1395605a.html


Delta9-tetrahydrocannabinol selectively acts on CB1 receptors in specific regions of dorsal vagal complex to inhibit emesis in ferrets. (full – 2003)
http://ajpgi.physiology.org/content/285/3/G566.long

http://www.cannabisinternational.org/info/CBD-Nausea.pdf

CANNABINOIDS: POTENTIAL ANTICANCER AGENTS (link to PDF - 2003)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.190.3990&rank=20

Cannabinoids suppress synaptic input to neurones of the rat dorsal motor nucleus of the vagus nerve (full – 2004) http://jp.physoc.org/content/559/3/923.full#sec-19


The gastrointestinal pharmacology of cannabinoids: an update. (abst – 2004)

Medical marijuana: a surprising solution to severe morning sickness (news - 2004)
http://www.mothering.com/community/a/medical-marijuana-a-surprising-solution-to-severe-morning-sickness

Survey of Australians using cannabis for medical purposes (full – 2005)
http://www.harmreductionjournal.com/content/2/1/18


Cannabinoids and the digestive tract. (abst – 2005)

Cisplatin increases brain 2-arachidonoylglycerol (2-AG) and concomitantly reduces intestinal 2-AG and anandamide levels in the least shrew. (abst – 2005)


Delta-9-tetrahydrocannabinol and cannabidiol, but not ondansetron, interfere with conditioned retching reactions elicited by a lithium-paired context in Suncus murinus: An animal model of anticipatory nausea and vomiting. (abst – 2006) 

Prevention of nausea and vomiting following breast surgery. (abst – 2006) 

The synthetic cannabinoid nabilone improves pain and symptom management in cancer patients (abst - 2006) 
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s id=177

Experience with the Synthetic Cannabinoid Nabilone in Chronic Noncancer Pain (abst – 2006) 
http://onlinelibrary.wiley.com/doi/10.1111/j.1526-4637.2006.00085.x/abstract;jsessionid=E64762ABC5DA541547D051CCC8EE2DFC.d03t01

Methods evaluating cannabinoid and endocannabinoid effects on gastrointestinal functions. (abst – 2006) 

Dronabinol for supportive therapy in patients with malignant melanoma and liver metastases (abst - 2006) 

Endocannabinoids and the gastrointestinal tract: what are the key questions? (full - 2007) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190011/

Receptor mechanism and antiemetic activity of structurally-diverse cannabinoids against radiation-induced emesis in the least shrew. (full - 2007) 

http://www.google.com/patents/US8119697

Clinical research Cannabinoids in health and disease (link to PDF - 2007) 

THC improves appetite and reverses weight loss in AIDS patients (abst - 2007) 
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s id=189


Efficacy of dronabinol alone and in combination with ondansetron versus ondansetron alone for delayed chemotherapy-induced nausea and vomiting. (abst - 2007) 


NEUROGENESIS - the formation of new neurons

Defective adult neurogenesis in CB1 cannabinoid receptor knockout mice.  (full - 2004)  http://molpharm.aspetjournals.org/content/66/2/204.long

Cannabinoids promote embryonic and adult hippocampus neurogenesis and produce anxiolytic- and antidepressant-like effects  (full - 2005)  http://www.jci.org/cgi/content/full/115/11/3104


The CB1 Cannabinoid Receptor Mediates Excitotoxicity-induced Neural Progenitor Proliferation and Neurogenesis  (full – 2007)  http://www.jbc.org/content/282/33/23892.full

The endocannabinoid system and neurogenesis in health and disease.  (link to download - 2007)  http://journals.sagepub.com/doi/abs/10.1177/1073858406296407


New neuron production can be increased in the hippocampus of aged rats following cannabinoid treatment  (abst – 2008)
http://www.nature.com/mp/journal/v14/n12/full/mp2009122a.html

Cannabinoid agonist WIN-55,212-2 partially restores neurogenesis in the aged rat brain (full - 2009)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3011092/?tool=pubmed

**NEURONS/ BRAIN CELLS **

GABAERGIC INTERNEURONS ARE THE TARGETS OF CANNABINOID ACTIONS IN THE HUMAN HIPPOCAMPUS (link to PDF - 2000)  
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.578.3590&rank=49

Cannabinoids decrease the K+ M-current in hippocampal CA1 neurons (link to PDF - 2000)  
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.326.2509&rank=84

Neuroprotective Antioxidants from Marijuana (abst – 2000)  

Cannabinoids protect astrocytes from ceramide-induced apoptosis through the phosphatidylinositol 3-kinase/protein kinase B pathway. (full - 2002)  
http://www.jbc.org/content/277/39/36527.long

Endocannabinoids in the central nervous system--an overview. (abst - 2002)  

The endocannabinoid system: function in survival of the embryo, the newborn and the neuron. (abst - 2002)  

Cannabinoids and cell fate. (abst – 2002)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC12182964

Neurons on cannabinoids: dead or alive? (full - 2003)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1574056/?tool=pmcentrez
Role of Endogenous Cannabinoids in Synaptic Signaling  (full - 2003)
http://physrev.physiology.org/cgi/content/full/83/3/1017?
mctoshow=&hits=80&RESULTFORMATransmission=fulltext=cannabinoid&searchid=1&FIRSTINDEX=160&resource=c=HWCIT


Cannabinoid receptor type 1 modulates excitatory and inhibitory neurotransmission in mouse colon  (full – 2003)
http://ajpgi.physiology.org/content/286/1/G110.full?sid=fe6948f0-78ef-405c-981b-afaa05ee417c

5-HT1A receptors increase excitability of spinal motoneurons by inhibiting a TASK-1-like K+ current in the adult turtle  (full – 2003)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2342869/

Post-ischemic Treatment with Cannabidiol Preemts Electroencephalographic Flattening, Hyperlocomotion and Neuronal Injury in Gerbils.  (abst – 2003)


Keeping the Brain's Activity under Control  (news – 2003)
http://www.mpg.de/481862/pressRelease20031022?filter_order=L

Cannabinoids and neuroinflammation  (full - 2004)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1574256/?tool=pmcentrez

Defective adult neurogenesis in CB1 cannabinoid receptor knockout mice.  (full - 2004)
http://molpharm.aspetjournals.org/content/66/2/204.long

Ceramide sensitizes astrocytes to oxidative stress: protective role of cannabinoids  (link to PDF – 2004)  http://www.biochemj.org/content/380/2/435.full-text.pdf

The gastrointestinal pharmacology of cannabinoids: an update.  (abst – 2004)

Marijuana-Like Chemicals in the Brain Calm Neurons  (news - forum repost - 2004)

Cannabinoids promote embryonic and adult hippocampus neurogenesis and produce anxiolytic- and antidepressant-like effects  (full - 2005)
http://www.jci.org/cgi/content/full/115/11/3104
Sex differences in the cannabinoid modulation of an A-type K+ current in neurons of the mammalian hypothalamus.  (full – 2005)  http://jn.physiology.org/content/94/4/2983.long


Marijuana May Grow Neurons in the Brain  (news - 2005)  http://www.medpagetoday.com/Psychiatry/AnxietyStress/1934


The endocannabinoid anandamide protects neurons during CNS inflammation by induction of MKP-1 in microglial cells.  (full – 2006)  http://www.cell.com/neuron/fulltext/S0896-6273(05)01008-1


The Cannabinoid Agonist Win55212 Reduces Brain Damage in an In Vivo Model of
Hypoxic-Ischemic Encephalopathy in Newborn Rats (full – 2007)
http://www.nature.com/pr/journal/v62/n3/full/pr2007213a.html

The synthetic cannabinoid HU210 induces spatial memory deficits and suppresses
hippocampal firing rate in rats (full – 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2013991/

STUDIES OF ANANDAMIDE ACCUMULATION INHIBITORS IN CEREBELLAR
GRANULE NEURONS (full – 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2248273/

Subcellular Arrangement of Molecules for 2-Arachidonoyl-Glycerol-Mediated
Retrograde Signaling and Its Physiological Contribution to Synaptic Modulation in the
Striatum (full – 2007) http://www.jneurosci.org/content/27/14/3663.long

Cannabinoids Excite Hypothalamic Melanin-Concentrating Hormone But Inhibit
Hypocretin/Orexin Neurons: Implications for Cannabinoid Actions on Food Intake and
Cognitive Arousal (link to PDF - 2007)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.325.4131&rank=145

The endocannabinoid system and neurogenesis in health and disease.
(link to download - 2007) http://journals.sagepub.com/doi/abs/10.1177/1073858406296407

CB2 cannabinoid receptors promote mouse neural stem cell proliferation. (abst – 2007)

The CB(2) cannabinoid receptor controls myeloid progenitor trafficking: involvement in
the pathogenesis of an animal model of multiple sclerosis. (full - 2008)
http://www.jbc.org/content/283/19/13320.long

Design Logic of a Cannabinoid Receptor Signaling Network That Triggers Neurite

N-arachidonoyl L-serine, a putative endocannabinoid, alters the activation of N-type
Ca2+ channels in sympathetic neurons. (full – 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2652135/

Altered presymptomatic AMPA and cannabinoid receptor trafficking in motor neurons of
ALS model mice: implications for excitotoxicity. (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3991137/

Endocannabinoids in the retina: from marijuana to neuroprotection. (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2584875/

Endocannabinoids and the brain immune system: new neurones at the horizon?
Potential roles of (endo)cannabinoids in the treatment of glaucoma: from intraocular pressure control to neuroprotection.  (full – 2008)
http://www.nature.com/cgt/journal/v15/n2/pdf/7701101a.pdf


New neuron production can be increased in the hippocampus of aged rats following cannabinoid treatment  (abst – 2008)
http://www.nature.com/mp/journal/v14/n12/full/mp2009122a.html

The cannabinoid CB1 receptor is expressed on serotonergic and dopaminergic neurons.  (abst – 2008)  http://www.sciencedirect.com/science/article/pii/S0014299907010497

New brain cells implicated in machinery of cannabinoid signaling  (news - 2008)

Unconventional neurotransmitters, neurodegeneration and neuroprotection  (full – 2009)


Cannabinoid agonist WIN-55,212-2 partially restores neurogenesis in the aged rat brain  (full - 2009)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3011092/?tool=pubmed

Endocannabinoid-mediated control of synaptic transmission.  (full – 2009)
http://physrev.physiology.org/content/89/1/309.long

Deficit in prepulse inhibition in mice caused by dietary n-3 fatty acid deficiency.  (full – 2009)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2852869/

Type 1 Cannabinoid Receptor-Containing Axons Innervate Hypophysiotropic Thyrotropin-Releasing Hormone-Synthesizing Neurons  (full – 2009)
http://endo.endojournals.org/content/150/1/98.full?sid=f5b14012-9fbe-4f10-890c-386313060ef8

Monoacylglycerol lipase limits the duration of endocannabinoid-mediated depolarization-induced suppression of excitation in autaptic hippocampal neurons.  (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2784730/


Endocannabinoid signaling in neurotoxicity and neuroprotection.  (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2891218/
Effects of cannabidiol on amphetamine-induced oxidative stress generation in an animal model of mania (full – 2009)  

Cannabinoids attenuate the effects of aging upon neuroinflammation and neurogenesis. (abst – 2009)  

Endocannabinoid signaling in neurotoxicity and neuroprotection.  (full - 2009)  
The cannabinoid CB1 receptor is expressed on serotonergic and dopaminergic neurons. (abst – 2008)  

Oleylethanolamide exerts partial and dose-dependent neuroprotection of substantia nigra dopamine neurons. (abst – 2009)  

Cannabinoid receptors in brain: pharmacogenetics, neuropharmacology, neurotoxicology, and potential therapeutic applications. (abst - 2009)  

Mode of action of cannabinoids on nociceptive nerve endings. (abst – 2009)  
http://link.springer.com/article/10.1007%2Fs00221-009-1762-0

NEUROPATHIC PAIN *

Cannabinoid Receptor Messenger Rna Levels Decrease in a Subset of Neurons of the Lateral Striatum, Cortex and Hippocampus of Transgenic Huntington's Disease Mice. (abst - 2000)  

The synthetic cannabinoid WIN55,212-2 attenuates hyperalgesia and allodynia in a rat model of neuropathic pain (full - 2001)  

The potent emetogenic effects of the endocannabinoid, 2-AG (2-arachidonoylglycerol) are blocked by delta(9)-tetrahydrocannabinol and other cannabinoids. (full – 2002)  
http://jpet.aspetjournals.org/content/300/1/34.long

Whether whole plant Cannabis extracts can improve intractable neurogenic symptoms? (full - 2003)  
http://www.ukcia.org/research/WholePlantExtractsImproveNeurogenicSymptoms.pdf

Activation of CB2 cannabinoid receptors by AM1241 inhibits experimental neuropathic pain: Pain inhibition by receptors not present in the CNS (full - 2003)  
http://www.pnas.org/content/100/18/10529.full
Analgesic effect of the synthetic cannabinoid CT-3 on chronic neuropathic pain: a randomized controlled trial. (full - 2003)
http://jama.ama-assn.org/cgi/content/full/290/13/1757?ijkey=b86f3fe6d2018d53522ffca8e365fc2ff7aaf2f

Therapeutic potential of cannabis (full – 2003)

Randomised controlled trial of cannabis based medicinal extracts (CBME) in central neuropathic pain due to multiple sclerosis. (abst - 2003)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=82

The effects of smoked cannabis in painful peripheral neuropathy and cancer pain refractory to opioids. (abst - 2003)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=96


Initial experiences with medicinal extracts of cannabis for chronic pain: Results from 34 ‘N of 1’ studies (full - 2004) http://www.ukcia.org/research/InitialExperiencesChronicPain.pdf

Efficacy of two cannabis based medicinal extracts for relief of central neuropathic pain from brachial plexus avulsion: results of a randomised controlled trial (full - 2004)
http://www.ukcia.org/research/CentralNeuropathicPainEfficacy.pdf

Marijuana-like compounds may aid array of debilitating conditions ranging from Parkinson's to pain (news – 2004)

New molecule may be basis for drugs that battle overeating and drug dependency (news – 2004) http://www.sciencedaily.com/releases/2004/05/040517072118.htm

Randomized, controlled trial of cannabis-based medicine in central pain in multiple sclerosis (full - 2005)
http://www.academia.edu/1025643/Randomized_controlled_trial_of_cannabis-based_medicine_in_central_pain_in_multiple_sclerosis


Smoked cannabis therapy for HIV-related painful peripheral neuropathy: results of a randomized, placebo-controlled clinical trial. (abst - 2005)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=172
Effects of a Cannabinoid Agonist on Spinal Nociceptive Neurons in a Rodent Model of Neuropathic Pain (full - 2006)  http://jn.physiology.org/cgi/content/full/96/6/2984

Actions of the FAAH inhibitor URB597 in neuropathic and inflammatory chronic pain models (full - 2006)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1751298/?tool=pmcentrez


Endocannabinoid metabolism and uptake: novel targets for neuropathic and inflammatory pain (full - 2007)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190014/?tool=pubmed

The fatty acid amide hydrolase inhibitor URB597 (cyclohexylcarbamic acid 3'-carbamoylbiphenyl-3-yl ester) reduces neuropathic pain after oral administration in mice. (full - 2007)  http://jpet.aspetjournals.org/content/322/1/236.long

Cannabinoid CB2 receptors: a therapeutic target for the treatment of inflammatory and neuropathic pain (full - 2007)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219541/?tool=pmcentrez


Oromucosal delta9-tetrahydrocannabinol/cannabidiol for neuropathic pain associated with multiple sclerosis: an uncontrolled, open-label, 2-year extension trial.  

The synthetic cannabinoids attenuate allodynia and hyperalgesia in a rat model of trigeminal neuropathic pain.  

The local antinociceptive effects of paracetamol in neuropathic pain are mediated by cannabinoid receptors  

Study Supports Medical Marijuana Use  

Smoked Cannabis Reduces Foot Pain Associated With HIV In Placebo Trial  

Marijuana gives relief from chronic pain for AIDS sufferers  

Cannabis may be safe and effective for HIV-related neuropathic pain  

Smoked Cannabis Proven Effective In Treating Neuropathic Pain  

Selective Activation of Cannabinoid CB2 Receptors Suppresses Neuropathic Nociception Induced by Treatment with the Chemotherapeutic Agent Paclitaxel in Rats  
(full - 2008)  http://jpet.aspetjournals.org/content/327/2/584.full#content-block

Crucial Role of CB2 Cannabinoid Receptor in the Regulation of Central Immune Responses during Neuropathic Pain  
(full - 2008)  http://www.jneurosci.org/cgi/content/full/28/46/12125

MDA7: a novel selective agonist for CB2 receptors that prevents allodynia in rat neuropathic pain models.  
(full – 2008)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2597252/

Double Blind, Placebo Controlled Trial of Smoked Marijuana on Neuropathic Pain  

Comparison of analgesic effects and patient tolerability of nabilone and dihydrocodeine for chronic neuropathic pain: randomised, crossover, double blind study.  
(full – 2008)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2213874/?tool=pubmed

Smoked Medicinal Cannabis for Neuropathic Pain in HIV: A Randomized, Crossover Clinical Trial  


Sustained antinociceptive effect of cannabinoid receptor agonist WIN 55,212-2 over time in rat model of neuropathic spinal cord injury pain (full - 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2743245/?tool=pmcentrez

Peripheral and central sites of action for the non-selective cannabinoid agonist WIN 55,212-2 in a rat model of post-operative pain (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2707976/

Blockade of endocannabinoid-degrading enzymes attenuates neuropathic pain. (full - 2009) http://jpet.aspetjournals.org/content/330/3/902.full?sid=af53ea87-ab4b-426e-9c7e-8f750e9e4a17
Minocycline treatment inhibits microglial activation and alters spinal levels of endocannabinoids in a rat model of neuropathic pain (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2719614/

Cannabinoids as pharmacotherapies for neuropathic pain: from the bench to the bedside. (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2755639/

Neuropathic Pain and Endocannabinoid-Degradation Blockade (link to PDF – 2009) http://jpet.aspetjournals.org/content/330/3/669.1.full?sid=af53ea87-ab4b-426e-9c7e-8f750e9e4a17


NEUROPROTECTION *

Marijuana Protects Your Brain (news - undated) http://www.roninpub.com/art-mjbrain.html

Age dependent accumulation of N-acyl-ethanolamine phospholipids in ischemic rat brain. A (31)P NMR and enzyme activity study. (full – 2000) http://www.jlr.org/content/41/6/985.long


Neuroprotection by Delta 9-Tetrahydrocannabinol, the Main Active Compound in Marijuana, against Ouabain-Induced In Vivo Excitotoxicity (full - 2001) http://www.jneurosci.org/content/21/17/6475.full

Cannabinoid receptor activation and elevated cyclic AMP reduce glutamate neurotoxicity (full – 2001) https://www.researchgate.net/publication/12008661_Cannabinoid_receptor_activation_and_elevated_cyclic_AMP_reduce_glutamate_neurotoxicity


Cannabinoids and Brain Injury: Therapeutic Implications (full - 2002)
Characterization of the diarylether sulfonylester (-)-(R)-3-(2-hydroxymethylindanyl-4-oxy)phenyl-4,4,4-trifluoro-1-sulfonate (BAY 38-7271) as a potent cannabinoid receptor agonist with neuroprotective properties. (full – 2002)

Cannabinoids protect astrocytes from ceramide-induced apoptosis through the phosphatidylinositol 3-kinase/protein kinase B pathway. (full - 2002)

The endocannabinoid system: function in survival of the embryo, the newborn and the neuron. (abst - 2002)

Cannabinoids and cell fate. (abst – 2002)

Neurons on Cannabinoids: Dead or Alive? (full - 2003)

Neuroprotective Effect of (−)Δ9-Tetrahydrocannabinol and Cannabidiol in N-Methyl-d-Aspartate-Induced Retinal Neurotoxicity (full – 2003)

Therapeutic potential of cannabis (full – 2003)


Cannabinoid CB1 receptor activation does not prevent the toxicity of glutamate towards embryonic chick telencephalon primary cultures. (abst – 2003)

Keeping the Brain's Activity under Control (news – 2003)

Cardiovascular Effects of Cannabis (news - 2003)

Neuroprotective effect of cannabidiol, a non-psychoactive component from Cannabis sativa, on β-amyloid-induced toxicity in PC12 cells (full - 2004)

Ceramide sensitizes astrocytes to oxidative stress: protective role of cannabinoids (link to PDF – 2004)

Cannabinoids As Neuroprotective Agents in Traumatic Brain Injury. (abst - 2004)
Marijuana-like compounds may aid array of debilitating conditions ranging from Parkinson's to pain
(news – 2004)

Protective effects of Δ9-tetrahydrocannabinol against N-methyl-D-aspartate-induced AF5 cell death
(full - 2005) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1824211/

Dual modulation of endocannabinoid transport and fatty acid amide hydrolase protects against excitotoxicity
(full – 2005) http://www.jneurosci.org/content/25/34/7813.long


Cannabinoids provide neuroprotection against 6-hydroxydopamine toxicity in vivo and in vitro: relevance to Parkinson's disease. (abst - 2005)

Cannabinoid-receptor 1 null mice are susceptible to neurofilament damage and caspase 3 activation. (abst – 2005) http://www.ncbi.nlm.nih.gov/pubmed/15953683

The use of cannabinoids in MS: is it evidence based? (abst - 2005)
http://www.ukcia.org/research/UseOfCannabinoidsInMSEvidenceBased.pdf

Marijuana might cause new cell growth in the brain (news – 2005)
(may need registration) http://www.newscientist.com/article/dn8155

Experimental autoimmune encephalomyelitis disrupts endocannabinoid-mediated neuroprotection (full - 2006)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1458883/?tool=pmcentrez

Endocannabinoids potently protect the newborn brain against AMPA-kainate receptor-mediated excitotoxic damage (full - 2006)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1751782/?tool=pmcentrez

The Cannabinoid CB2 Receptor as a Target for Inflammation-Dependent Neurodegeneration (full - 2006)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2435344/?tool=pmcentrez

The endocannabinoid anandamide protects neurons during CNS inflammation by induction of MKP-1 in microglial cells. (full – 2006)
http://www.cell.com/neuron/fulltext/S0896-6273(05)01008-1

http://www.nature.com/pr/journal/v60/n2/pdf/pr2006215a.pdf

Opposing control of cannabinoid receptor stimulation on amyloid-beta-induced reactive gliosis: in vitro and in vivo evidence. (full - 2007)  
http://jpet.aspetjournals.org/content/322/3/1144.long

Increases in expression of 14-3-3 eta and 14-3-3 zeta transcripts during neuroprotection induced by Delta(9)-tetrahydrocannabinol in AF5 cells (full - 2007)  

The Cannabinoid Agonist Win55212 Reduces Brain Damage in an In Vivo Model of Hypoxic-Ischemic Encephalopathy in Newborn Rats (full – 2007)  
http://www.nature.com/pr/journal/v62/n3/full/pr2007213a.html

Endocannabinoid enhancement protects against kainic acid-induced seizures and associated brain damage. (full – 2007)  
http://jpet.aspetjournals.org/content/322/3/1059.long

The endocannabinoid system in targeting inflammatory neurodegenerative diseases (full – forum repost - 2007)  

Clinical research Cannabinoids in health and disease (link to PDF - 2007)  

The endocannabinoid system and neurogenesis in health and disease. (link to download - 2007)  
http://journals.sagepub.com/doi/abs/10.1177/1073858406296407

Evaluation of the neuroprotective effect of cannabinoids in a rat model of Parkinson's disease: importance of antioxidant and cannabinoid receptor-independent properties. (abst - 2007)  

Delta(9)-Tetrahydrocannabinol protects hippocampal neurons from excitotoxicity (abst - 2007)  
http://www.unboundmedicine.com/medline/ebm/record/17140550/abstract/Delta_9__Tetrahydrocannabinol_protects_hippocampal_neurons_from_excitotoxicity

Cannabinoid CB1 receptor stimulation affords neuroprotection in MPTP-induced neurotoxicity by attenuating S100B up-regulation in vitro. (abst – 2007)  

Delta(9)-tetrahydrocannabinol (Delta(9)-THC) prevents cerebral infarction via hypothalamic-independent hypothermia. (abst - 2007)  
http://www.unboundmedicine.com/medline/ebm/record/17289082/abstract/Delta_9__tetrahydrocannabinol__Delta_9__THC__prevents_cerebral_infarction_via_hypothalamic_independent_hypothermia

Repeated Treatment with Cannabidiol but Not Delta9-tetrahydrocannabinol Has a Neuroprotective Effect Without the Development of Tolerance (abst - 2007)  


Endocannabinoids in the retina: From marijuana to neuroprotection. (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2584875/?tool=pmcentrez

Endocannabinoid 2-Arachidonoylglycerol Protects Neurons by Limiting COX-2 Elevation (full – 2008) http://www.jbc.org/content/283/33/22601.full

Cannabinoid-mediated neuroprotection, not immunosuppression, may be more relevant to multiple sclerosis (full – 2008) http://www.academia.edu/14321693/Cannabinoid-mediated_neuroprotection_not_immunosuppression_may_be_more_relevant_to_multiple_sclerosis

Endocannabinoids in the retina: from marijuana to neuroprotection. (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2584875/


Cannabidiol targets mitochondria to regulate intracellular Ca2+ levels. (full – 2009) http://www.jneurosci.org/content/29/7/2053.long

Pretreatment with electroacupuncture induces rapid tolerance to focal cerebral ischemia through regulation of endocannabinoid system. (full – 2009) http://stroke.ahajournals.org/content/40/6/2157.long


Vasoactive and Neuroprotective Actions of a Non-Pyschotropic Atypical Cannabinoid in the Retina (abst – 2009) http://iovs.arvojournals.org/article.aspx?articleid=2363001&resultClick=1


**NIGHT SWEATS**

Nabilone for the treatment of paraneoplastic night sweats: a report of four cases

Science: Nabilone effective in the treatment of night sweats of four patients with advanced cancer (news – 2008)

NUTRITION – GENERAL * - also see OMEGA3/ CB 1 CONNECTION, METHODS OF USE- EDIBLES


Reversibility of n-3 fatty acid deficiency-induced alterations of learning behavior in the rat: level of n-6 fatty acids as another critical factor (full – 2001)
http://www.jlr.org/content/42/10/1655.full

Dietary intake and nutritional status of US adult marijuana users: results from the Third National Health and Nutrition Examination Survey. (link to PDF – 2001)
http://journals.cambridge.org/action/displayFulltext?type=6&fid=626876&jid=PHN&volumeId=4&issueId=03&aid=562676&bodyId=&membershipNumber=&societyETOCSession=&fulltextType=RA&fileId=S1368980001000738


Beta-caryophyllene is a dietary cannabinoid (full - 2008)
http://www.pubmedcentral.nih.gov/pmc/articles/PMC2633791/?tool=pmcentrez

Anti-inflammatory cannabinoids in diet (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2633791/?tool=pmcentrez

Anti-inflammatory compound from cannabis found in herbs (news - 2008)
http://www.rsc.org/chemistryworld/News/2008/June/24060801.asp

NUTRITION – HEMP SEED *

Evaluating the impact of hemp food consumption on workplace drug tests. (full – 2001) http://jat.oxfordjournals.org/content/25/8/691.long
Nutritional Profile and Benefits of Hemp Seed, Nut, and Oil  (article - 2003)

Hempseed as a nutritional resource: An overview  (abst – 2004)

Oil content, tocopherol composition and fatty acid patterns of the seeds of 51 Cannabis sativa L. genotypes  (abst – 2004)
http://link.springer.com/article/10.1023/B:EUPH.0000040473.23941.76

Cannabis butter to spread across Europe  (news - 2004)

I Know Why the Caged Bird Sings- he’s Stoned!  (news – 2004)

Analysis of Heavy Metal Content in Canabis Leaf and Seed Cultivated in Southern Part of Nigeria  (full – 2005)
doi=pjn.2005.349.351&linkid=pdf

The effect of feeding hemp seed meal to laying hens.  (abst – 2005)

Hemp-seed and olive oils: their stability against oxidation and use in O/W emulsions.  (abst – 2005)

Effect of Cannabis sativa L. Seed (Hempseed) on Serum Lipid and Protein Profiles of Rat  (full – 2006)

Alpha-linolenic acid content of commonly available nuts in Hangzhou.  (abst – 2006)

Oily fish makes 'babies brainier'  (news - 2006)
http://news.bbc.co.uk/2/hi/health/4631006.stm

Effect of dietary hempseed intake on cardiac ischemia-reperfusion injury.  (full – 2007)
http://ajpregu.physiology.org/content/292/3/R1198.long

Δ9-Tetrahydrocannabinol Content of Commercially Available Hemp Products  (full - 2008)
www.mcssl.com/content/147111/thc_study_jat_2008.pdf

EFFECT OF GERMINATION ON HEMP (CANNABIS SATIVA L.) SEED COMPOSITION  (link to PDF – 2008)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.568.1907

Characterization, amino acid composition and in vitro digestibility of hemp (Cannabis) proteins  (abst - 2008)
http://cat.inist.fr/?aModele=afficheN&cpsidt=20168114


NUTRITION – HEMP SEED OIL * - also see OMEGA 3/ CB1 CONNECTION


Hemp Oil Vs. Flax Oil (1) (article – undated)  http://www.ehow.com/facts_5949889_hemp-oil-vs-flax-oil.html

Consumption and quantitation of delta9-tetrahydrocannabinol in commercially available hemp seed oil products. (full – 2000) http://jat.oxfordjournals.org/content/24/7/562.long


Efficacy of dietary hempseed oil in patients with atopic dermatitis. (abst - 2005)


OBESITY *


Dietary intake and nutritional status of US adult marijuana users: results from the Third National Health and Nutrition Examination Survey. (link to PDF – 2001)
Marijuana "Munchies" May Hold a Key to Obesity (news - 2001)
http://www.webmd.com/news/20010411/marijuana-munchies-may-hold-key-to-obesity

The endogenous cannabinoid system affects energy balance via central orexigenic drive and peripheral lipogenesis (full - 2003)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC166293 /

Endocannabinoids and the regulation of body fat: the smoke is clearing (full - 2003)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC166302/?tool=pmcentrez


CB1 cannabinoid receptor knockout in mice leads to leanness, resistance to diet-induced obesity and enhanced leptin sensitivity (full - 2004)
http://www.nature.com/ijo/journal/v28/n4/full/0802583a.html


Activation of the Peripheral Endocannabinoid System in Human Obesity (full - 2005)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2228268/?tool=pmcentrez

Endocannabinoid activation at hepatic CB1 receptors stimulates fatty acid synthesis and contributes to diet-induced obesity (full - 2005)
http://www.jci.org/articles/view/23057/version/1

Food for thought: endocannabinoid modulation of lipogenesis (full - 2005)
http://www.jci.org/articles/view/25076/version/1

Endocannabinoid activation at hepatic CB1 receptors stimulates fatty acid synthesis and contributes to diet-induced obesity (full - 2005)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1087161/?tool=pmcentrez

Endocannabinoids and food intake: newborn suckling and appetite regulation in adulthood. (full - forum repost - 2005)

Endocannabinoids in the Regulation of Appetite and Body Weight. (abst - 2005)

Cannabis joins battle of the bulge (news – 2005)
http://tetrahydrocannabinvarin.com/
Dysregulation of the Peripheral and Adipose Tissue Endocannabinoid System in Human Abdominal Obesity (full – 2006) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2228260/?tool=pmcentrez


AM 251 produces sustained reductions in food intake and body weight that are resistant to tolerance and conditioned taste aversion (full - 2006) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1615836/?tool=pmcentrez

Weight Control in Individuals With Diabetes (full - 2006) http://care.diabetesjournals.org/content/29/12/2749.full?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabis&searchid=1&FIRSTINDEX=2000&resourcetype=HWCIT


Does Cannabis Hold the Key to Treating Cardiometabolic Disease (full - 2006) http://www.nature.com/nrcardio/journal/v3/n3/full/ncpcardio0504.html


Marijuana use, diet, body mass index, and cardiovascular risk factors (full - 2006) http://www.ajconline.org/article/S0002-9149%2806%2900817-4/fulltext


Genetic variations at the endocannabinoid type 1 receptor gene (CNR1) are associated with obesity phenotypes in men. (full – 2007) http://jcem.endojournals.org/content/92/6/2382.long


Clinical research Cannabinoids in health and disease (link to PDF - 2007) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.288.5352&rank=23
No evidence for an involvement of variants in the cannabinoid receptor gene (CNR1) in obesity in German children and adolescents. (abst – 2007)

Immune-mediated Activation of the Endocannabinoid System in Visceral Adipose Tissue in Obesity (abst – 2007)

Endocannabinoid receptor 1 gene variations increase risk for obesity and modulate body mass index in European populations (full – 2008)
http://hmg.oxfordjournals.org/content/17/13/1916.long


Activating Parabrachial Cannabinoid CB1 Receptors Selectively Stimulates Feeding of Palatable Foods in Rats (full - 2008)
http://www.jneurosci.org/cgi/content/full/28/39/9702?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=0&resou rctype=HWCIT

Targeted enhancement of oleoylethanolamide production in proximal small intestine induces across-meal satiety in rats. (full – 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2494809/?tool=pubmed

Endocannabinoids and the Control of Energy Homeostasis (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2586261/?tool=pmcentrez

The lipid messenger OEA links dietary fat intake to satiety. (full – 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2572640/?tool=pubmed

The Role of Adipocyte Insulin Resistance in the Pathogenesis of Obesity-Related Elevations in Endocannabinoids (full – 2008)
http://diabetes.diabetesjournals.org/content/57/5/1262.full?sid=00769f3d-54ab-451b-b69e-4650931c5e25


Endocannabinoids and the Control of Energy Homeostasis (full – 2008)
http://www.jbc.org/content/283/48/33021.full?sid=931583b1-e797-43e0-8296-7fd75bb49403
The discovery of taranabant, a selective cannabinoid-1 receptor inverse agonist for the treatment of obesity. (full – 2008)

Dysregulation of the endocannabinoid system in obesity. (full – 2008)

Cannabinoid type-1 receptor gene polymorphisms are associated with central obesity in a Southern Brazilian population. (link to PDF – 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3827795/

Common polymorphisms in the cannabinoid CB2 receptor gene (CNR2) are not associated with myocardial infarction and cardiovascular risk factors (link to PDF - 2008) http://www.spandidos-publications.com/ijmm/22/2/165


Genetic variation may influence obesity only under conditions of diet: Analysis of three candidate genes (abst – 2008)
http://www.mgmjournal.com/article/S1096-7192%2808%2900201-1/abstract

Weeding out the highs of medical marijuana (news – 2008)
https://www.sciencedaily.com/releases/2008/07/080714192555.htm

Endocannabinoids may mediate the ability of (n-3) fatty acids to reduce ectopic fat and inflammatory mediators in obese Zucker rats. (full – 2009)
http://jn.nutrition.org/content/139/8/1495.long

Synthetic and plant-derived cannabinoid receptor antagonists show hypophagic properties in fasted and non-fasted mice (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2697695/?tool=pubmed
Peripheral endocannabinoid dysregulation in obesity: relation to intestinal motility and energy processing induced by food deprivation and re-feeding.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2757684/?tool=pubmed

Cannabinoid CB2 Receptor Potentiates Obesity-Associated Inflammation, Insulin Resistance and Hepatic Steatosis  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2688760/?tool=pubmed

Biomarkers of Endocannabinoid System Activation in Severe Obesity  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2808340/?tool=pubmed

The endocannabinoid system and diabetes - critical analyses of studies conducted with rimonabant  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2770455/?tool=pmcentrez

Cannabinoids for clinicians: the rise and fall of the cannabinoid antagonists  
http://www.eje-online.org/cgi/content/full/161/5/655?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=160&resourcetype=HWCIT

Endocannabinoids and Their Receptors as Targets for Obesity Therapy  

The endocannabinoid system as a link between homoeostatic and hedonic pathways involved in energy balance regulation  
http://www.nature.com/ijo/journal/v33/n2s/full/ijo200967a.html

Anti-inflammatory effect of palmitoylethanolamide on human adipocytes.  

Endocannabinoids and cardiovascular prevention: real progress?  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3184683/

N-acyl ethanolamines, anandamide and food intake.  

Effects of cannabinoid drugs on the reinforcing properties of food in gestationally undernourished rats.  

Altered pattern of cannabinoid type 1 receptor expression in adipose tissue of dysmetabolic and overweight patients  

Natural Pot-Like Compound Could Fight Obesity  
OBSESSIVE COMPULSIVE DISORDER/ OCD


Science: THC effective in obsessive compulsive disorder according to case reports (news - 2008) http://www.cannabis-med.org/english/bulletin/ww_en_db_cannabis_artikel.php?id=268#2

Cannabinoids for Tourette's Syndrome. (abst - 2009) http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD006565.pub2/abstract;jsessionid=B1022CE8CC4E95B78078F0B77F113D34.f04t02


OLDER ADULT CANNABIS USERS


72% in AARP Favor Legal Medical Marijuana (news – 2004) http://txfx.net/2004/12/19/72-percent-aarp-favor-marijuana/


Pass the Doobie, pops (news - 2005) http://www.thefreelibrary.com/Pass+the+doobie%2c+pops.-a0131273013


CN BC: Expert Testifies Cannabis Helps Slow Aging (news - 2008)


Cannabinoid receptor type 1 protects against age-related osteoporosis by regulating osteoblast and adipocyte differentiation in marrow stromal cells. (full – 2009) http://www.sciencedirect.com/science/article/pii/S1550413109002022


**OMEGA-3/ CB1 CONNECTION** - without Omega 3, new CB1 receptors are made imperfectly - also see NUTRITION – HEMP SEED OIL, CBR- CB1 RECEPTORS

Omega-3 and Omega-6 Essential fatty Acids (EFA)  (infomercial/ad – undated) http://www.advance-health.com/efa.html

Reversibility of n-3 fatty acid deficiency-induced alterations of learning behavior in the rat: level of n-6 fatty acids as another critical factor (full – 2001) http://www.jlr.org/content/42/10/1655.full


Oily fish makes 'babies brainier'  (news - 2006) (hemp seed - at the end) http://news.bbc.co.uk/2/hi/health/4631006.stm

Effect of dietary hempseed intake on cardiac ischemia-reperfusion injury.  (full – 2007) http://ajpregu.physiology.org/content/292/3/R1198.long

n-3 Fatty acids and the endocannabinoid system.  (letter – 2007) http://ajcn.nutrition.org/content/85/3/919.1.long
**Endocannabinoids and nutrition.** (full – 2008)  

**King’s College Review of Nutritional Attributes of GOOD OIL (Cold Pressed Hemp Seed Oil)** (full – 2008)  

**Endocannabinoids in the retina: from marijuana to neuroprotection.** (full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2584875/

**Essential fatty acids, nutritive value and oxidative stability of cold pressed hempseed (Cannabis sativa L.) oil from different varieties** (1st page – 2008)  

**Virgin hemp seed oil: An interesting niche product** (1st page – 2008)  

**Cannabinoids in the control of pain** (abst – 2008)  

**The Benefits of Organic Hemp Milk** (news - 2008)  

**Deficit in prepulse inhibition in mice caused by dietary n-3 fatty acid deficiency.** (full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2852869/

**Endocannabinoids may mediate the ability of (n-3) fatty acids to reduce ectopic fat and inflammatory mediators in obese Zucker rats.** (full – 2009)  
http://jn.nutrition.org/content/139/8/1495.long

**Influence of the Growth Stage of Hemp (Cannabis sativa L.) on Fatty Acid Content, Chemical Composition and Gross Energy** (full – 2009)  
http://www.medwelljournals.com/fulltext/?doi=aj.2009.27.31

**Benefits of Hemp Oil** (news – 2009)  
http://www.livestrong.com/article/31903-hemp-seed-oil-benefits/

---

**OMEGA-6 /ENDOCANNABINOID CONNECTION** - endocannabinoids are made from Omega 6, you need it, but it is also pro-inflammatory, so too much is not good for you.

**Reversibility of n-3 fatty acid deficiency-induced alterations of learning behavior in the rat: level of n-6 fatty acids as another critical factor** (full – 2001)  
http://www.jlr.org/content/42/10/1655.full
Hempseed as a nutritional resource: An overview  (abst – 2004)  

Oil content, tocopherol composition and fatty acid patterns of the seeds of 51 Cannabis sativa L. genotypes  (abst – 2004)  
http://link.springer.com/article/10.1023/B:EUPH.0000040473.23941.76

Endocannabinoids in the retina: from marijuana to neuroprotection.  (full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2584875/

Essential fatty acids, nutritive value and oxidative stability of cold pressed hempseed ( Cannabis sativa L.) oil from different varieties  (1st page – 2008)  

Cannabinoids in the control of pain  (abst – 2008)  

Virgin hemp seed oil: An interesting niche product  (1st page – 2008)  

The Benefits of Organic Hemp Milk  (news - 2008)  

Influence of the Growth Stage of Hemp (Cannabis sativa L.) on Fatty Acid Content, Chemical Composition and Gross Energy  (full – 2009)  
http://www.medwelljournals.com/fulltext/?doi=aj.2009.27.31

ORGAN TRANSPLANTS *

Exogenous lipid pneumonia related to smoking weed oil following cadaveric renal transplantation  (link to PDF - 2000)  
http://www.hindawi.com/journals/crj/2000/248915/abs/

Marinol Death Sentence: Oregon Man Denied Liver Transplant Because of Prescription -- He's Not the Only One  (news – 2003)  
http://stopthedrugwar.org/chronicle-old/299/notransplant.shtml

Sphingosine and its analog, the immunosuppressant 2-amino-2-(2-[4-octylphenyl]ethyl)-1,3-propanediol, interact with the CB1 cannabinoid receptor.  (full – 2006)  
http://molpharm.aspetjournals.org/content/70/1/41.long

Endocannabinoids and cannabinoid receptors in ischaemia–reperfusion injury and preconditioning  (full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219536/?tool=pmcentrez
The debate about marijuana usage in transplant candidates: recent medical evidence on marijuana health effects.  

(abstract - 2008)  

Medical Marijuana Users Denied Organ Transplants  
(news – 2008)  
(may need registration)  
http://blogs.wsj.com/health/2008/05/19/medical-marijuana-users-denied-organ-transplants/

Is medical-marijuana use reason to deny someone an organ transplant?  
(news – 2008)  
http://seattletimes.nwsource.com/html/health/2004389825_liver03m.html

Should Hepatitis C Patients Who Smoke Marijuana Be Eligible For Liver Transplants?  
(news - 2008)  
http://www.sciencedaily.com/releases/2008/10/081022211032.htm

Marijuana Use in Potential Liver Transplant Candidates.  
(full - 2009)  

Rimonabant affects cyclosporine a, but not tacrolimus pharmacokinetics in renal transplant recipients.  
(abstract – 2009)  

Woman Dies After Being Denied Organ Transplant  
(news – 2009)  

**OSTEOPOROSIS/ BONES and CARTILAGE**

Cannabinoid receptor type 2 gene is associated with human osteoporosis  
(full - 2005)  
http://hmg.oxfordjournals.org/cgi/content/full/14/22/3389?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=400&resource-type=HWCIT

Regulation of bone mass, bone loss and osteoclast activity by cannabinoid receptors  
(full - 2005)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1430341/?tool=pmcentrez

Peripheral cannabinoid receptor, CB2, regulates bone mass  
(full - 2006)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1334629/?tool=pmcentrez

Involvement of Neuronal Cannabinoid Receptor CB1 in Regulation of Bone Mass and Bone Remodeling  
(full - 2006)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2238031/?tool=pmcentrez

New hope for osteoporosis sufferers  
(news - 2006)  

Prototype drug to prevent osteoporosis based on cannabinoids found in the body  
(news - 2006)  
http://www.news-medical.net?id=15220
Hebrew U. Researchers Find Cannabis Can Strengthen Bones  (news - 2006)
http://safeaccess.ca/research/potbones.htm

Scientists Develop Prototype Drug To Prevent Osteoporosis Based On Cannabinoids Produced By Body  (news - 2006)
http://www.sciencedaily.com/releases/2006/01/060104232013.htm

New Weapon In Battle Against Osteoporosis  (news - 2006)
http://www.medicalnewstoday.com/articles/35621.php

Activation of CB2 receptor attenuates bone loss in osteoporosis  (news - 2006)

Cannabis-like compound prevents bone loss  (news - 2006)

Regulation of skeletal remodeling by the endocannabinoid system.  (abst - 2007)

Cannabinoids stimulate fibroblastic colony formation by bone marrow cells indirectly via CB2 receptors.  (abst – 2007)

Cannabinoid receptors and the regulation of bone mass  (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219540/?tool=pmcentrez

Regulation of Bone Mass, Osteoclast Function, and Ovariectomy-Induced Bone Loss by the Type 2 Cannabinoid Receptor  (full - 2008)

The cannabinoid CB1 receptor regulates bone formation by modulating adrenergic signaling.  (abst – 2008)

Role of cannabinoid receptors in bone disorders: alternatives for treatment  (abst - 2008)

Ajulemic acid, a nonpsychoactive cannabinoid acid, suppresses osteoclastogenesis in mononuclear precursor cells and induces apoptosis in mature osteoclast-like cells.  (abst - 2008)

Cannabinoid receptor type 1 protects against age-related osteoporosis by regulating osteoblast and adipocyte differentiation in marrow stromal cells.  (full – 2009)
The putative cannabinoid receptor GPR55 affects osteoclast function in vitro and bone mass in vivo (full - 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2737440/?tool=pubmed


Cannabinoid receptor type 1 protects against age-related bone loss by regulating osteoblast and adipocyte differentiation of bone marrow stromal cells (full – 2009) http://www.cell.com/cell-metabolism/fulltext/S1550-4131(09)00202-2


Cannabis may prevent osteoporosis (news - 2009) http://news.bbc.co.uk/2/hi/uk_news/scotland/edinburgh_and_east/8199007.stm

**OVARIAN CYSTS**

N-Acylethanolamines in human reproductive fluids. (abst – 2002)  

The endocrinological basis of recurrent miscarriages. (abst – 2005)  

The impact of obesity on reproduction in women with polycystic ovary syndrome. (full – 2006)  

**OVERDOSES on CANNABINOIDS** *Natural cannabinoid overdoses are NEVER fatal. Overdoses on SYNTHETIC cannabinoids CAN be fatal. - also see CANNABINOID HYPEREMESIS*

Delirium following ingestion of marijuana present in chocolate cookies  
(full – forum repost - 2006)  

Inadvertent ingestion of marijuana - Los Angeles, California, 2009  
(full - 2009)  
http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5834a2.htm

Accidental cannabis poisoning in children: experience of the Marseille poison center  
(abst – 2009)  

The FDA has written documentation that patients can overdose on Marinol and that it can be lethal  
(news – forum repost - 2009)  

**OVERVIEWS** *

The Science of Marijuana  
(book – 2000)  

The Emperor Wears No Clothes  
(book - 2007)  

Cannabis; extracting the medicine  
(book – 2007)
Cannabinoids: A New Group of Agonists of PPARs (full – 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2220031/?tool=pubmed

Cannabis and Endocannabinoids: The Old Man and the Teenagers (full – 2007)

Cannabinoids in health and disease. (full – 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3202504/


Medicinal Use of Cannabis in the United States: Historical Perspectives, Current Trends and future Directions (full - 2009)
http://www.letfreedomgrow.com/cmu/JOM_5-3-03-Carter.pdf

Let’s Discuss - Medical Use of Cannabis (marijuana) (news – 2009)
http://heretohelp.bc.ca/sites/default/files/images/medicinalcannabis.pdf

**PAIN**

Most pain patients gain benefit from cannabis in a British study (news - 2000)
http://www.cannabis-med.org/english/bulletin/ww_en_db_cannabis_artikel.php?id=84#1

Therapeutic aspects of cannabis and cannabinoids. (full - 2001)
http://bip.rcpsych.org/cgi/content/full/178/2/107

Are cannabinoids an effective and safe treatment option in the management of pain? A qualitative systematic review (full - 2001)
http://www.ukcia.org/research/EffectiveTreatmentOptionForPain.pdf

Identification of a new class of molecules, the arachidonyl amino acids, and characterization of one member that inhibits pain. (full – 2001)
http://www.jbc.org/content/276/46/42639.long

Therapeutic Aspects of Cannabis and Cannabinoids (full - 2001)

Administration of Endocannabinoids Prevents a Referred Hyperalgesia Associated With Inflammation of the Urinary Bladder (full – 2001)
http://anesthesiology.pubs.asahq.org/article.aspx?articleid=1945092&resultClick=3

Tetrahydrocannabinol for treatment of chronic pain (abst - 2001)
The Role of Cannabis and Cannabinoids in Pain Management (full – 2002)
Russo-Hohmann-Role-of-Cannabinoids-in-Pain-Management-from-Deer-2013

A Dramatic Response to Inhaled Cannabis in a Woman with Central Thalamic Pain and Dystonia (full - 2002) http://www.jpsmjournal.com/article/PIIS0885392402004268/fulltext


A preliminary controlled study to determine whether whole-plant cannabis extracts can improve intractable neurogenic symptoms (full - 2003) http://www.ukcia.org/research/WholePlantExtractsImproveNeurogenicSymptoms.pdf


Cannabis and Pain Management (article - 2003) http://www.letfreedomgrow.com/articles/can030828.htm


Cannabis Use in HIV for Pain and Other Medical Symptoms (full - 2004) http://www.jpsmjournal.com/article/S0885-3924(05)00063-1/fulltext
3-[2-cyano-3-(trifluoromethyl)phenoxy]phenyl-4,4,4-trifluoro-1-butanesulphonate (BAY 59-3074): a novel cannabinoid Cb1/Cb2 receptor partial agonist with antihyperalgesic and antiallodynic effects. (full – 2004) http://jpet.aspetjournals.org/content/310/2/620.long


Cannabinoid/Opioid Crosstalk in the Central Nervous System (abst – 2004) http://dl.begellhouse.com/journals/7b004699754e9fe6.54f83f6510f9d32.25c26f6e4b594ae3.html


Cannabinoids called equivalent to codeine for killing pain (news - 2004) http://www.thefreelibrary.com/Cannabinoids+called+equivalent+to+codeine+for+killing+pain.-a0120185689

High hopes for cannabinoid analgesia (news - 2004) http://www.bmj.com/cgi/content/full/329/7460/257?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabis&searchid=1&FIRSTINDEX=2880&resourcetype=HWCIT


Cannabis can help MS sufferers (news – 2004) http://www.safeaccessnow.org/asanews777


CB2 cannabinoid receptor activation produces antinociception by stimulating peripheral release of endogenous opioids (full - 2005) http://www.pnas.org/content/102/8/3093.full

Survey of Australians using cannabis for medical purposes (full – 2005) http://www.harmreductionjournal.com/content/2/1/18

Cannabis: Use in HIV for Pain and Other Medical Symptoms (full - 2005) http://www.jpsmjournal.com/article/S0885-3924%2805%2900063-1/fulltext
Ajulemic acid (IP-751): Synthesis, proof of principle, toxicity studies, and clinical trials  
(link to PDF - 2005)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2751505/

Analgesia through endogenous cannabinoids  
(link to PDF - 2005)  
http://www.cmaj.ca/cgi/content/full/173/4/357?maxtoshow=&hits=10&RESULTFORMAT=&fulltext=endocannabinoid&andorexactfulltext=and&searchid=1&FIRSTINDEX=0&sortspec=date&resourcetype=HWCIT

The medicinal use of cannabis in the UK: results of a nationwide survey  
(abst – 2005)  

The analgesic activity of paracetamol is prevented by the blockade of cannabinoid CB1 receptors  
(abst – 2005)  

Targeted lipidomics: fatty acid amides and pain modulation.  
(abst – 2005)  

Enhancement of transdermal fentanyl and buprenorphine antinociception by transdermal delta9-tetrahydrocannabinol.  
(abst - 2005)  

Activation of CB1 and CB2 receptors attenuates the induction and maintenance of inflammatory pain in the rat.  
(abst – 2005)  

Interaction between gamma-aminobutyric acid GABAB and cannabinoid CB1 receptors in spinal pain pathways in rat  
(abst – 2005)  

Body's Pot-Like Chemicals May Help Curb Pain  
(news - 2005)  

Product of the day: Cannabis-derived cannabinoid analgesic, Orumelucine  
(http - 2006)  

A multicenter dose-escalation study of the analgesic and adverse effects of an oral cannabis extract (Cannador) for postoperative pain management.  
(full - 2006)  
http://anesthesiology.pubs.asahq.org/article.aspx?articleid=1922969&resultClick=3

Actions of the FAAH inhibitor URB597 in neuropathic and inflammatory chronic pain models  
(full - 2006)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1751298/?tool=pmcentrez

Role of the Cannabinoid System in Pain Control and Therapeutic Implications for the Management of Acute and Chronic Pain Episodes  
(full - 2006)  

Cannabinoids and pain management.  
(full - 2006)


Benefits of an add-on treatment with the synthetic cannabimimetic nabilone on patients with chronic pain - a randomized controlled trial. (abst - 2006) http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=197

Synergistic affective analgesic interaction between delta-9-tetrahydrocannabinol and morphine. (abst - 2006) http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=178


In MedPanel Summit, Leading Pain Experts Name Cannabinoids Among Most Promising Approaches to Treating Neuropathic Pain, Assert That Sociopolitical Climate Will Hamper Drug Approvals (news - 2006)
Cannabis effective at relieving pain after major surgery (news - 2006)

Cross-sensitization and cross-tolerance between exogenous cannabinoid antinociception and endocannabinoid-mediated stress-induced analgesia (full - 2007)

Low dose combination of morphine and Δ9-tetrahydrocannabinol circumvents antinociceptive tolerance and apparent desensitization of receptors (full - 2007)

Actions of N-arachidonyl-glycine in a rat inflammatory pain model. (full – 2007)

Antinociceptive Synergy Between the Cannabinoid Receptor Agonist WIN 55,212-2 and Bupivacaine in the Rat Formalin Test (full - 2007)

Dose-dependent effects of smoked cannabis on capsaicin-induced pain and hyperalgesia in healthy volunteers. (full - 2007)

Endocannabinoid metabolism and uptake: novel targets for neuropathic and inflammatory pain (full - 2007)

Cannabinoids mediate analgesia largely via peripheral type 1 cannabinoid receptors in nociceptors (full - 2007)

Continuous infusion of the cannabinoid WIN 55,212–2 to the site of a peripheral nerve injury reduces mechanical and cold hypersensitivity (full - 2007)

CB1 receptors mediate the analgesic effects of cannabinoids on colorectal distension-induced visceral pain in rodents. (full – 2007)

Endocannabinoids and the gastrointestinal tract: what are the key questions? (full - 2007)

Acute and chronic administration of the cannabinoid receptor agonist CP 55,940 attenuates tumor-evoked hyperalgesia. (full – 2007)

Cannabis in painful HIV-associated sensory neuropathy (full - 2007)
Clinical research Cannabinoids in health and disease  (link to PDF - 2007)  

Cannabinoids for postoperative pain.  (letter - 2007)  
http://anesthesiology.pubs.asahq.org/article.aspx?articleid=1931347&resultClick=3

A cannabinoid agonist differentially attenuates deep tissue hyperalgesia in animal models of cancer and inflammatory muscle pain. (abst – 2007)  

Cannabis, pain, and sleep: lessons from trials of Sativex, a cannabis-based medicine. (abst - 2007)  

Lactobacillus acidophilus modulates intestinal pain and induces opioid and cannabinoid receptors. (abst – 2007)  

Pain relief from cannabis depends on how much you smoke  (news - 2007)  

Therapeutic potential of cannabis in pain medicine  (full - 2008)  
http://bja.oxfordjournals.org/content/101/1/59.full.pdf+html

Cannabinoids in the management of difficult to treat pain  (full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2503660/?tool=pmcentrez

Repeated Cannabinoid Injections into the Rat Periaqueductal Gray Enhances Subsequent Morphine Antinociception  (full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2743428/?tool=pmcentrez

Cannabinoids in chronic pain and palliative care.  (full - 2008)  

NOVEL SYNERGISTIC OPIOID-CANNABINOID CODRUG FOR PAIN MANAGEMENT  (full - 2008)  

Cannabinoid Modulation of Cutaneous A{delta} Nociceptors During Inflammation (full - 2008)  
http://jn.physiology.org/cgi/reprint/100/5/2794

A Randomized, Placebo Controlled Cross-Over Trial of Cannabis Cigarettes in Neuropathic Pain  (full - 2008)  
https://www.researchgate.net/publication/5449991_A_Randomized_Placebo-Controlled_Crossover_Trial_of_Cannabis_Cigarettes_in_Neuropathic_Pain

The cannabinoid receptor agonist, WIN 55, 212-2, attenuates tumor-evoked hyperalgesia through peripheral mechanisms.  (full – 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2678169/
A decrease in anandamide signaling contributes to the maintenance of cutaneous mechanical hyperalgesia in a model of bone cancer pain. (full – 2008) http://www.jneurosci.org/content/28/44/11141.long

Sensitivity to delta9-tetrahydrocannabinol is selectively enhanced in beta-arrestin2 -/- mice. (full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2751575/


Marijuana-Based Drug Reduces Fibromyalgia Pain, Study Suggests (news - 2008) http://www.sciencedaily.com/releases/2008/02/080217214547.htm

Scientist Discovers New Molecule to Treat Chronic Pain (news - 2008) http://www.northeastern.edu/news/2008/08/makryannisnewmolecule/


Cannabislike Drugs May Hold Key to Treating Pain While Bypassing the Brain (news – 2008) http://jama.jamanetwork.com/article.aspx?articleid=182826
Weeding out the highs of medical marijuana  
https://www.sciencedaily.com/releases/2008/07/080714192555.htm

Cannabis suggests treatment for chronic pain  

Dynamic regulation of the endocannabinoid system: implications for analgesia  
(full - 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2770047/

The endocannabinoid system and pain.  
(full - 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2834283/?tool=pmcentrez

The endocannabinoid system of the skin in health and disease: novel perspectives and therapeutic opportunities  
(full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2757311/

Cannabinoids: An emerging role in pain management?  
(full - 2009)  
https://www.researchgate.net/publication/26245948_Cannabinoids_An_emerging_role_in_pain_management

Peripheral and central sites of action for the non-selective cannabinoid agonist WIN 55,212-2 in a rat model of post-operative pain  
(full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2707976/

Standardized natural product cannabis in pain management and observations at a Canadian compassion society: a case report  
(full - 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2740265/?tool=pmcentrez

Dose Dependent effects of Celecoxib on CB-1 Agonist Induced Antinociception in mice  
(full – 2009)  

Reduction of bone cancer pain by activation of spinal cannabinoid receptor 1 and its expression in the superficial dorsal horn of the spinal cord in a murine model of bone cancer pain.  
(full - 2009)  
http://anesthesiology.pubs.asahq.org/article.aspx?articleid=1924121&resultClick=3

The analgesic potential of cannabinoids.  
(full - 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3728280/

Systematic Review and Meta-analysis of Cannabis Treatment for Chronic Pain.  
(summary - 2009)  

Endocannabinoid system modulation in cancer biology and therapy.  
(abst – 2009)  

(abst – 2009)


---

**PANCREAS/ PANCREATITIS**

The cannabinoid 1 receptor antagonist, AM251, prolongs the survival of rats with severe acute pancreatitis. (full - 2005) https://www.jstage.jst.go.jp/article/tjem/207/2/207_2_99/_pdf


Cannabinoids in acute gastric damage and pancreatitis. (full – 2006)

Cannabinoids ameliorate pain and reduce disease pathology in cerulein-induced acute pancreatitis (full - 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2268094/?tool=pubmed


**PARKINSON'S DISEASE** *


Experimental parkinsonism alters endocannabinoid degradation: implications for striatal glutamatergic transmission. (full – 2002) http://www.jneurosci.org/content/22/16/6900.long

(Assignee (owner)- the US GOVERNMENT!) http://www.google.com/patents/US6630507
Future of Cannabis and Cannabinoids in Therapeutics  (link to PDF - 2003)  
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.597.1387&rank=7

Therapeutic potential of cannabinoids in CNS disease.  (abst - 2003)  

Cannabis trial on Parkinson's  (news - 2003)  
http://news.bbc.co.uk/2/hi/uk_news/england/devon/2956273.stm

http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=33

Marijuana Compounds May Aid Parkinson's Disease  (news - 2004)  

Depression in Parkinson's disease is related to a genetic polymorphism of the cannabinoid receptor gene (CNR1)  (full - 2005)  
http://www.nature.com/tpj/journal/v5/n2/full/6500301a.html

Cannabinoids provide neuroprotection against 6-hydroxydopamine toxicity in vivo and in vitro: relevance to Parkinson's disease.  (abst - 2005)  

Cannabinoid control of motor function at the basal ganglia.  (abst – 2005)  

Cannabinoids In Medicine: A Review Of Their Therapeutic Potential  (link to download – 2006)  

Anti-dyskinetic effects of cannabinoids in a rat model of Parkinson's disease: role of CB1 and TRPV1 receptors  (full - 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2128772/?tool=pmcentrez

The endocannabinoid system in targeting inflammatory neurodegenerative diseases  (full – forum repost - 2007)  

Clinical research Cannabinoids in health and disease  (link to PDF - 2007)  

Evaluation of the neuroprotective effect of cannabinoids in a rat model of Parkinson's disease: importance of antioxidant and cannabinoid receptor-independent properties.  (abst - 2007)  

Endocannabinoid-mediated rescue of striatal LTD and motor deficits in Parkinson's disease models.  (abst - 2007)  
Cannabinoids and neuroprotection in motor-related disorders. (abst - 2007)  

Comparison Analysis of Gene Expression Patterns between Sporadic Alzheimer's and Parkinson's Disease (abst – 2007)  

Marijuana-Like Chemicals Helps Treat Parkinson's (news - 2007)  

Parkinsons' Helped By Marijuana-Like Chemicals In Brain (news – 2007)  
http://www.medicalnewstoday.com/releases/62616.php

Enhancing Activity Of Marijuana-Like Chemicals In Brain Helps Treat Parkinson's Symptoms In Mice (news - 2007)  

The importance of the endocannabinoid-system (news – 2007)  

Paraquat induces apoptosis in human lymphocytes: protective and rescue effects of glucose, cannabinoids and insulin-like growth factor-1. (abst – 2008)  

The cannabinoid CP55,940 prolongs survival and improves locomotor activity in Drosophila melanogaster against paraquat: implications in Parkinson's disease. (abst - 2008)  

LSUHSC research reports new method to protect brain cells from diseases like Alzheimer's (news – 2008)  

WIN55,212-2, a Cannabinoid Receptor Agonist, Protects Against Nigrostriatal Cell Loss in the MPTP Mouse Model of Parkinson’s Disease (full - 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2755595/?tool=pubmed

Cannabidiol: a promising drug for neurodegenerative disorders? (full - 2009)  

The endocannabinoid system as a target for the treatment of motor dysfunction. (full - 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2697699/

Cannabidiol for the treatment of psychosis in Parkinson’s disease (link to download - 2009)  

Medical Marijuana and Parkinson's Disease (news/ad – 2009)  
https://www.marijuanadoctors.com/content/ailments/view/158?ailment=parkinson-s-disease
PATENTS RELATED TO CANNABIS *

https://www.google.com/patents/US6132762

http://www.google.com/patents/US6113940

US Patent 6328992 - Cannabinoid patch and method for cannabis transdermal delivery (full - 2001)
http://www.google.com/patents/US6328992

http://www.google.co.in/patents/US6383513


Patent 6410588 Use of cannabinoids as anti-inflammatory agents (full – 2002)
http://www.google.com/patents/US6410588

(Assignee (owner)- the US GOVERNMENT!)
http://www.google.com/patents/US6630507

http://www.cannabisinternational.org/info/CBD-Nausea.pdf

Patent 6503492 - Antiperspirant or deodorant compositions (full – 2003)
http://www.google.com/patents/US6503492

US Patent Application 20070151149 - Methods for altering the level of phytochemicals in plant cells by applying wave lengths of light from 400 nm to 700 nm and apparatus therefore. (full - 2004)

US Patent 6713048 - Δ9 tetrahydrocannabinol (Δ9 THC) solution metered dose inhalers and methods of use  
(full - 2004)  
http://www.google.com/patents/US6713048

US Patent 6974568 - Treatment for cough  
(full - 2005)  
http://www.archpatent.com/patents/6974568

US Patent Application 20050266108 - Methods of purifying cannabinoids from plant material  
(full - 2005)  
http://www.google.com/patents/US20050266108

US Patent 6949582 - Method of relieving analgesia and reducing inflammation using a cannabinoid delivery topical liniment  
(full - 2005)  
http://www.freepatentsonline.com/6949582.html

Pharmaceutical Formulation. US Patent 6946150 B27  
(full – 2005)  

WO 2004100893 A2 - Methods for treatment of inflammatory diseases using CT-3 or analogs thereof  
(full - 2005)  
http://www.google.nl/patents/WO2004100893A2?cl=en

US Patent Application 20050079136 - Aerosol formulations of delta tetrahydrocannabinol  
(full - forum repost – 2005)  
http://www.420magazine.com/forums/methods-use-inhaler/173789-aerosol-formulations-delta-tetrahydrocannabinol.html

WO 2006063109 A2 - Room-temperature stable dronabinol formulations  
(full – 2006)  

US Patent 7088914 - Device, method and resistive element for vaporizing a medicament  
(full - 2006)  
http://www.google.com.br/patents/US7088914

(full - 2006)  
http://www.google.it/patents/US20060167084

Pharmaceutical formulations - United States Patent 7025992  
(full – 2006)  
http://www.freepatentsonline.com/7025992.html

US Patent Application 20060039959 - Film-Shaped Mucoadhesive Administration Forms For Administering Cannabis Agents  
(full – 2006)  
https://www.google.com/patents/US20060039959

(full - 2006)  

US Patent 7109245 - Vasoconstrictor cannabinoid analogs  
(full - 2006)  
http://www.freepatentsonline.com/7109245.html


PERINATAL HYPOXIC-ISCHEMIC INJURY – (stroke in infants) - also see STROKES

http://www.jlr.org/content/41/6/985.long

http://www.nature.com/pr/journal/v60/n2/pdf/pr2006215a.pdf

The Cannabinoid Agonist Win55212 Reduces Brain Damage in an In Vivo Model of Hypoxic-Ischemic Encephalopathy in Newborn Rats (full – 2007)
http://www.nature.com/pr/journal/v62/n3/full/pr2007213a.html

PHANTOM LIMP SYNDROME - also see NEUROPATHIC PAIN

Phantom breast syndrome. (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2902108/?tool=pubmed
POISONING – HEAVY METAL *

Waterborne lead exposure affects brain endocannabinoid content in male but not female fathead minnows (Pimephales promelas). (abst – 2005)

POISONING - ORGANOPHOSPHATE


Organophosphate-Sensitive Lipases Modulate Brain Lysosphospholipids, Ether Lipids and Endocannabinoids (full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2582404/


Activation of the endocannabinoid system by organophosphorus nerve agents (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2597283/

POISONING – PARAQUAT *


POLLS and SURVEYS


PORPHYRIA

Porphyria by Colin (anecdotal – undated) http://rxmarijuana.com/shared_comments/Porphyria.htm

Porphyria by Sharon Place (anecdotal – undated) http://rxmarijuana.com/shared_comments/Porphyria2.htm


POST-OPERATIVE PAIN
Cannabinoid CB2 receptor agonist activity in the hindpaw incision model of postoperative pain. (abst - 2005) [link]

A multicenter dose-escalation study of the analgesic and adverse effects of an oral cannabis extract (Cannador) for postoperative pain management. (full - 2006) [link]

Cannabinoids and pain management. (full - 2006) [link]

Effects of nabilone, a synthetic cannabinoid, on postoperative pain (link to download – 2006) [link]

Analgesic and adverse effects of an oral cannabis extract (Cannador) for postoperative pain (abst - 2006) [link]

Delta(9)-tetrahydrocannabinol and the opioid receptor agonist piritramide do not act synergistically in postoperative pain (abst – 2006) [link]

Cannabis effective at relieving pain after major surgery (news - 2006) [link]

Spinal cannabinoid receptor type 2 activation reduces hypersensitivity and spinal cord glial activation after paw incision. (full - 2007) [link]

Cannabinoids for postoperative pain. (letter - 2007) [link]

Cannabinoid Receptor Agonist Significantly Reduces Post-Operative Pain, Study Says (news – 2007) [link]

Peripheral and central sites of action for the non-selective cannabinoid agonist WIN 55,212-2 in a rat model of post-operative pain. (full – 2009) [link]

POST TRAUMATIC STRESS DISORDER/ PTSD *

Never fear, cannabinoids are here (article - 2002) [link]
The endogenous cannabinoid system controls extinction of aversive memories. (abst - 2002)  

'Natural' cannabis manages memory (news - 2002)  
http://news.bbc.co.uk/2/hi/health/2163405.stm

Study: Marijuana Eases Traumatic Memories (news - 2002)  

Natural High Erases Bad Memories (news - 2002)  

Cannabis-like Brain Chemical Blocks Out Bad Memories (news - 2002)  
http://www.scientificamerican.com/article.cfm?id=cannabis-like-brain-chemi

Endocannabinoids extinguish bad memories in the brain (news - 2002)  
http://www.cannabis-med.org/english/bulletin/ww_en_db_cannabis_artikel.php?id=123#1

Marijuana-Like Compound Banishes Fear (news - 2002)  

Natural high helps banish bad memories (news - 2002) (may need registration)  

Israel to soothe soldiers with marijuana (news - 2004)  

Enhancing Cannabinoid Neurotransmission Augments the Extinction of Conditioned Fear (full - 2005)  
http://www.nature.com/npp/journal/v30/n3/full/1300655a.html

Cannabinoid CB1 Receptor Mediates Fear Extinction via Habituation-Like Processes (full - 2006)  
http://www.jneurosci.org/cgi/content/full/26/25/6677?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=400&resourcetype=HWCIT

Aversive memory reactivation engages in the amygdala only some neurotransmitters involved in consolidation. (full – 2006)  
http://learnmem.cshlp.org/content/13/4/426.long

PTSD and Cannabis: A Clinician Ponders Mechanism of Action (news - 2006)  
http://www.letfreedomgrow.com/cmu/ptsd_and_cannabis.htm

Cannabis Eases Post Traumatic Stress (news/ forum repost - 2006)  

Modulation of Fear and Anxiety by the Endogenous Cannabinoid System (full - 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2789283/?tool=pmcentrez
Inhibition of fatty-acid amide hydrolase accelerates acquisition and extinction rates in a spatial memory task. (full – 2007)  

Clinical research Cannabinoids in health and disease (link to PDF - 2007)  

Posttraumatic stress symptom severity predicts marijuana use coping motives among traumatic event-exposed marijuana users (abst - 2007)  

Medical Marijuana: PTSD Medical Malpractice (news - 2007)  

Cannabis for the Wounded - Another Walter Reed Scandal (news - 2007)  
http://www.libertypost.org/cgi-bin/readart.cgi?ArtNum=179973&Disp=11

Association of the Cannabinoid Receptor Gene (CNR1) With ADHD and Post-Traumatic Stress Disorder (full – 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2685476/?tool=pubmed

Marijuana Therapy for Veterans with PTSD (article – forum repost – 2008)  

Cannabinoid Receptor Activation in the Basolateral Amygdala Blocks the Effects of Stress on the Conditioning and Extinction of Inhibitory Avoidance (full - 2009)  
http://www.jneurosci.org/cgi/content/full/29/36/11078?maxtoshow=&hits=10&RESULTFORMAT=&fulltext=Dr.+Irit+Akirav+&andorexactfulltext=and&searchid=1&FIRSTINDEX=0&resourcetype=HWCIT

The use of a synthetic cannabinoid in the management of treatment-resistant nightmares in posttraumatic stress disorder (PTSD). (abst - 2009)  

Cannabinoid receptors in brain: pharmacogenetics, neuropharmacology, neurotoxicology, and potential therapeutic applications (abst – 2009)  

Marijuana could alleviate symptoms of PTSD (news - 2009)  
http://israel21c.org/health/marijuana-could-alleviate-symptoms-of-ptsd

Marijuana could prove helpful for post-traumatic stress disorder patients. (news - 2009)  
http://www.thefreelibrary.com/Marijuana+could+prove+helpful+for+post-traumatic+stress+disorder...a0211332139

'Pot' may help combat PTSD U. of Haifa study shows (news - 2009)  
POTENCY/ THE “HIGH” *

The potency of cannabis in New Zealand from 1976 to 1996. (1st page – 2000)
http://www.scienceandjusticejournal.com/article/S1355-0306(00)71972-1/abstract


http://www.dldocs.stir.ac.uk/documents/potency.pdf

Sensitivity to delta9-tetrahydrocannabinol is selectively enhanced in beta-arrestin2 -/- mice. (full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2751575/

Non-cannabinoid constituents from a high potency Cannabis sativa variety. (full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4888767/


Dysregulated Cannabinoid Signaling Disrupts Uterine Receptivity for Embryo Implantation (full - 2001) http://www.jbc.org/content/276/23/20523.full


Contrasting effects of WIN 55212-2 on motility of the rat bladder and uterus. (full – 2002) http://www.jneurosci.org/content/22/16/7147.long


Low fatty acid amide hydrolase and high anandamide levels are associated with failure to achieve an ongoing pregnancy after IVF and embryo transfer (full – 2002) http://molehr.oxfordjournals.org/content/8/2/188.full


Comparison of meconium and neonatal hair analysis for detection of gestational exposure to drugs of abuse (full - 2003) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1721515/pdf/v088p00F98.pdf


Mouse blastocysts release a lipid which activates anandamide hydrolase in intact uterus (full – 2004) http://molehr.oxfordjournals.org/content/10/4/215.full


Determination of the prevalence of drug misuse by meconium analysis (full - 2006) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2672735/?tool=pubmed


More Pregnancy Highs Than Lows (news - 2006)

Oily fish makes 'babies brainier' (news - 2006) (hemp seed - at the end)
http://news.bbc.co.uk/2/hi/health/4631006.stm

Dreher's Jamaican Pregnancy Study (news - 2006)
http://www.november.org/stayinfo/breaking06/DreherStudy.html

Cannabis Relieves Morning Sickness (news - forum repost - 2006)

The role of the endocannabinoid system in gametogenesis, implantation and early pregnancy (full - 2007)
http://humupd.oxfordjournals.org/cgi/content/full/13/5/501?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=960&resourceType=HWCIT


Breathe, Push, Puff? Pot Use and Pregnancy: A Review of the Literature
(news – 2007)
http://norml.org/about/item/breathe-push-puff-pot-use-and-pregnancy-a-review-of-the-literature

CB2 receptors in reproduction (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219526/

Volumetric MRI Study of Brain in Children With Intrauterine Exposure to Cocaine, Alcohol, Tobacco, and Marijuana (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2562785/

Loss of Cannabinoid Receptor CB1 Induces Preterm Birth (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2553193/?tool=pmcentrez

Expression of the Endocannabinoid System in Human First Trimester Placenta and Its Role in Trophoblast Proliferation (full – 2008)
http://endo.endojournals.org/content/149/10/5052.full?sid=f5b14012-9fbc-4f10-890c-386313060cf8

Maternal tobacco, cannabis and alcohol use during pregnancy and risk of adolescent psychotic symptoms in offspring. (full - 2009)
http://bip.rcpsych.org/cgi/content/full/195/4/294

During pregnancy, recreational drug-using women stop taking ecstasy (3,4-methylenedioxy-N-methylamphetamine) and reduce alcohol consumption, but continue to smoke tobacco and cannabis: initial findings from the Development and Infancy Study. (full - 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3564500/


Short communication: Urinary excretion of 11-nor-9-carboxy-Delta(9)-tetrahydrocannabinol in a pregnant woman following heavy, chronic cannabis use. (letter - 2009) http://jat.oxfordjournals.org/content/33/9/610.long

Endocannabinoids and reproductive biology. (letter - 2009) http://humrep.oxfordjournals.org/content/24/7/1771.full.pdf+html


PROMM/ PROXIMAL MYOTONIC MYOPATHY


PRIONS

Nonpsychoactive cannabidiol Prevents Prion Accumulation and Protects Neurons against Prion Toxicity (full - 2007) http://www.jneurosci.org/cgi/content/full/27/36/9537

Cannabidiol May be Effective in Preventing Bovine Spongiforme Enzephalopathy (Mad Cow Disease)  (news - 2007)  http://www.letfreedomgrow.com/articles/fr070916.htm


Pot smoking could stop Mad Cow Disease?  (news - 2008)  http://chattahbox.com/curiosity/2008/12/06/pot-smoking-could-stop-mad-cow-disease/

**PROSTATIC HYPERPLASIA/ BPH/ ENLARGED PROSTATE GLAND**


**PRURITIS**  - chronic itch


Old drugs in new role: relieving chronic pruritus; Cannabinoid agonists, opioid receptor antagonists have attracted the attention of dermatologists (news - 2005)  http://www.thefreelibrary.com/Old+drugs+in+new+role%3a+relieving+chronic+pruritus%3b+Cannabinoid...-a0149197152


Neurophysiological, Neuroimmunological, and Neuroendocrine Basis of Pruritus (full - 2006)  http://www.jidonline.org/article/S0022-202X(15)33013-X/fulltext

Frontiers in pruritus research: scratching the brain for more effective itch therapy (full – 2006)  http://www.jci.org/articles/view/28553?


The endocannabinoid system of the skin in health and disease: novel perspectives and therapeutic opportunities (full - 2009)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2757311/?tool=pmcentrez


**PSORIASIS**

The Endocannabinoid System in Human Keratinocytes (full – 2003)
[http://www.jbc.org/content/278/36/33896.full](http://www.jbc.org/content/278/36/33896.full)


Anandamide Regulates Keratinocyte Differentiation by Inducing DNA Methylation in a CB1 Receptor-dependent Manner (full – 2007) [http://www.jbc.org/content/283/10/6005.full?sid=931583b1-e797-43e0-8296-7fd75bb49403#sec-4](http://www.jbc.org/content/283/10/6005.full?sid=931583b1-e797-43e0-8296-7fd75bb49403#sec-4)


The endocannabinoid system of the skin in health and disease: novel perspectives and therapeutic opportunities (full - 2009) [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2757311/?tool=pmcentrez](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2757311/?tool=pmcentrez)


**QUITTING CANNABIS** *- also see ADDICTION, WITHDRAWAL*


Marijuana withdrawal and craving: influence of the cannabinoid receptor 1 (CNR1) and fatty acid amide hydrolase (FAAH) genes. (full - 2008) [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2873690/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2873690/)

Tips for Cutting Back (news – 2009)
QUITTING OTHER DRUGS *

Go clean with spliffs (news - 2001) (may need registration)

Crack heads and roots daughters: The therapeutic use of cannabis in Jamaica (cocaine) (full - 2002)
Crack heads and roots daughters - International Association for ...
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2943839/

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2943839/

Modulation of oral morphine antinociceptive tolerance and naloxone-precipitated withdrawal signs by oral Delta 9-tetrahydrocannabinol. (full – 2003)
http://jpet.aspetjournals.org/content/305/3/812.long

Cannabis Abuse is Not a Risk Factor for Treatment Outcome in Methadone Maintenance Treatment: a 1-year Prospective Study in an Israeli Clinic. (abst – 2004)

Delta9-tetrahydrocannabinol decreases somatic and motivational manifestations of nicotine withdrawal in mice. (abst - 2004)

Comparison of Cannabidiol, Antioxidants, and Diuretics in Reversing Binge Ethanol-Induced Neurotoxicity (full - 2005)
http://jpet.aspetjournals.org/content/314/2/780.full

Role of cannabinoid receptors in alcohol abuse (news - 2005)
http://www.medicalnewstoday.com/articles/30338.php

Chronologically overlapping occurrences of nicotine-induced anxiety- and depression-related behavioral symptoms: effects of anxiolytic and cannabinoid drugs (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2075518/?tool=pubmed

Modulation of the endocannabinoid system: therapeutic potential against cocaine dependence. (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2134985/?tool=pubmed
Subchronic cannabinoid agonist (WIN 55,212-2) treatment during cocaine abstinence alters subsequent cocaine seeking behavior. (full - 2007)

Inhibition of anandamide hydrolysis by URB597 reverses abuse-related behavior and neurochemical effects of nicotine in rats (full – 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2663803/?tool=pubmed

Curing Addiction With Cannabis Medicines? (news - 2008)
http://www.sciencedaily.com/releases/2008/03/080307110348.htm

Cannabidiol, a Nonpsychotropic Component of Cannabis, Inhibits Cue-Induced Heroin Seeking and Normalizes Discrete Mesolimbic Neuronal Disturbances (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2829756/?tool=pmcentrez

Intermittent marijuana use is associated with improved retention in naltrexone treatment for opiate-dependence. (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2753886/?tool=pubmed

Cannabis as a substitute for alcohol and other drugs. (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2795734/?tool=pmcentrez

Effects of the cannabinoid CB1 receptor antagonist AM 251 on the reinstatement of nicotine-conditioned place preference by drug priming in rats. (full - 2009)

Interaction of the cannabinoid and opioid systems in the modulation of nociception. (abst - 2009)
tool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum&ordinalpos=34

Marijuana: Help or hassle? (news – 2009)
http://www.heretohelp.bc.ca/visions/cannabis-vol5/marijuana-help-or-hassle

Cannabis as a substitute for heavy alcohol usage? (news - 2009)

Is Cannabis the Answer to Booze Britain's Problems? (news - 2009)

Medical Marijuana and Opiate Dependence (news/ad – 2009)
https://www.marijuanadoctors.com/content/ailments/view/50?ailment=opiate-dependence

Medical Marijuana and Cocaine Dependence (news/ad – 2009)
https://www.marijuanadoctors.com/content/ailments/view/21?ailment=cocaine-dependence

Medical Marijuana and Tobacco Dependence (news/ad – 2009)
https://www.marijuanadoctors.com/content/ailments/view/67?ailment=tobacco-dependence
**RACE / ETHNICITY and CANNABIS**

Gender and ethnic differences in smoking, drinking and illicit drug use among American 8th, 10th and 12th grade students, 1976-2000. (link to PDF – 2003)
https://deepblue.lib.umich.edu/handle/2027.42/73026

http://www.schres-journal.com/article/S0920-9964%2804%2900035-0/abstract

http://www.nature.com/tpj/journal/v6/n2/full/6500352a.html

THE RACE/ETHNICITY DISPARITY IN MISDEMEANOR MARIJUANA ARRESTS IN NEW YORK CITY (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2561263/?tool=pubmed

The fatty acid amide hydrolase C385A (P129T) missense variant in cannabis users: studies of drug use and dependence in Caucasians (abst – 2007)

False Positives Equal False Justice (news - link to PDF – 2008)
https://www.mpp.org/issues/criminal-justice/false-positives/

**RADIATION THERAPY**

http://www.nature.com/cdd/journal/v11/n8/full/4401428a.html

Enhanced radiosensitization of p53 mutant cells by oleamide. (abst - 2006)

Receptor mechanism and antiemetic activity of structurally-diverse cannabinoids against radiation-induced emesis in the least shrew. (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1949344/?tool=pmcentrez

Medical Marijuana and Radiation Therapy (news/ad – 2009)
https://www.marijuanadoctors.com/content/ailments/view/56?ailment=radiation-therapy
REFLEX SYMPATHETIC DYSTROPHY

DEA Raids Aurora Medical Marijuana User (news/ anecdotal – 2004)

Medi-Cal pays pot-related expenses (news – 2007)
http://www.mapinc.org/norml/v07/n809/a08.htm


RSD Patient Gets Relief Through Medical Marijuana (news - 2009)
http://crpsitdoesexistdoc.blogspot.com/2012/05/medical-marijuana-for-rsd-patient.html

An Opiate Controlled Population by Ryan Harshbarger (news/ anecdotal- 2009)

RELIGION and CANNABIS

Marijuana in the Bible with cognate study of KNH, BSM & MKNH in the literal Word with Genesis 4:1; 14:19,22; 1st Kings 14:15, Ezekiel 31:9, Matthew 11:7, Luke 7:24 for the revelatory Word (article – undated)

Spiritual Use Of Cannabis (article – undated)
http://www.sparcsf.org/learning-center/spiritual-use-canabis

The Ganja Complex: Rastafari and Marijuana (download – 2002)
The Ganja Complex: Rastafari and Marijuana.

Cannabis linked to Biblical healing (news – 2003)
http://news.bbc.co.uk/2/hi/health/2633187.stm

Jesus Healed Using Cannabis (news - 2003)

Cannabis in India: ancient lore and modern medicine (full - 2005)
God forbid! Substance use among religious and non-religious youth.  (full – 2005)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3043382/

A new insight into Cannabis sativa (Cannabaceae) utilization from 2500-year-old Yanghai Tombs, Xinjiang, China  (full – 2006)
https://www.researchgate.net/publication/6906615_A_New_Insight_into_Cannabis_sativa_Cannabaceae_U tilization_from_2500-year-old_Yanghai_Tombs_Xinjiang

Dispensing Medical Marijuana: Some Halachic Parameters  (article – 2006)

The Material Roots of Rastafarian Marijuana Symbolism  (abst – 2007)
http://www.tandfonline.com/doi/abs/10.1080/02757200701234764

The Great Keneh Bosem Debate - Part 1  (article – 2009)

Part 2 of the Great Keneh Bosem Debate:  (article – 2009)

The Big Bhang  (article – 2009)
http://www.cannabisculture.com/content/2009/06/01/big-bhang

Rastafari- Worship and customs  (news – 2009)
http://www.bbc.co.uk/religion/religions/rastafari/customs/customs_1.shtml

RESTLESS LEG SYNDROME

Restless Leg Syndrome: Medical Marijuana Patients’ Say it Works  (news - 2007)

Medical Marijuana and Wittmaack-Ekbom's Syndrome  (news/ad – 2009)
https://www.marijuanadoctors.com/content/ailments/view/170?ailment=wittmaack-ekbom-s-syndrome

RETINITIS PIGMENTOSA *

Future of Cannabis and Cannabinoids in Therapeutics  (link to PDF - 2003)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.597.1387&rank=7

Cannabis improves night vision: a case study of dark adaptometry and scotopic sensitivity in kif smokers of the Rif mountains of northern Morocco.  (full – 2004)
SAFETY AS A MEDICINE *


Adverse effects of medical cannabinoids: a systematic review (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2413308/


Medical use of cannabinoids does not cause an increase in serious adverse health effects (news - 2008) http://www.cannabis-med.org/english/bulletin/ww_en_db_cannabis_artikel.php?id=272


Claims Linking Health Problems And The Strength Of Cannabis May Be Exaggerated (news - 2008) http://www.sciencedaily.com/releases/2008/06/080617125751.htm
Alcohol and cannabis use as risk factors for injury - a case-crossover analysis in a Swiss hospital emergency department  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2654886/?tool=pubmed

Deaths from Marijuana v. 17 FDA-Approved Drugs (Jan. 1, 1997 to June 30, 2005)  

Harms associated with psychoactive substances: findings of the UK National Drug Survey  
http://journals.sagepub.com/doi/abs/10.1177/0269881109106915?rss=1

Health Risks of Marijuana Still Not Nailed Down  
http://www.medpagetoday.com/Psychiatry/Addictions/16456

Cannabis, Tobacco and Alcohol Use in Canada  

Four percent of adults worldwide using cannabis  
http://phys.org/news174892348.html

Tobacco-Related Health Costs: $800; Booze-Related Health Costs: $165; Pot-Related Health Costs: $20 – Any Questions?  
http://www.huffingtonpost.com/paul-armentano/tobacco-related-health-co_b_362539.html

Marijuana-Related Health Costs Minimal Compared To Those Of Alcohol, Tobacco  

The FDA has written documentation that patients can overdose on Marinol and that it can be lethal  

**SAFETY-ADULTERANTS/ CONTAMINANTS** *

Dust in the wind: the growing use of embalming fluid among youth in Hartford, CT.  
(abst – 2005)  

When the drug of choice is a drug of confusion: embalming fluid use in inner city Hartford, CT.  
(abst – 2005)  

Beliefs and social norms about cigarettes or marijuana sticks laced with embalming fluid and phencyclidine (PCP): why youth use "fry".  
(abst – 2005)  


Invasive Pulmonary Aspergillosis Associated With Marijuana Use in a Man With Colorectal Cancer (full - 2008) http://jco.ascopubs.org/cgi/content/full/26/13/2214?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabis&searchid=1&FIRSTINDEX=3520&resourcetype=HWCIT

Lead poisoning due to adulterated marijuana in Leipzig. (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2696942/?tool=pmcentrez

The use of fry (embalming fluid and PCP-laced cigarettes or marijuana sticks) among crack cocaine smokers (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2873769/pdf/nihms195654.pdf

Ammonia release from heated 'street' cannabis leaf and its potential toxic effects on cannabis users. (abst - 2008) http://www.unboundmedicine.com/medline/ebm/record/18705690/abstract/Ammonia_release_from_heated_%27street%27_cannabis_leaf_and_its_potential_toxic_effects_on_cannabis_users


Sildenafil analogs used for adultering marihuana (1st page – 2008) http://www.fsjournal.org/article/S0379-0738%2808%2900363-0/abstract


SCHIZOPHRENIA/ MENTAL DISORDERS *


Endocannabinoid signalling in the blood of patients with schizophrenia  (full – 2003)  http://www.lipidworld.com/content/2/1/5

Aetiology - Review: current evidence does not show a strong causal relation between the use of cannabis in young people and psychosocial harm  (full - 2004)  http://ebmh.bmj.com/content/7/4/119.long

Cannabis as a psychotropic medication  (letter - 2004)  http://bjp.rcpsych.org/cgi/content/full/185/1/78
http://www.schres-journal.com/article/S0920-9964%2804%2900035-0/abstract

How our brains fend off madness, we produce a cannabis like substance (news – 2004) http://www.medicalnewstoday.com/releases/12516.php

Cannabis does not induce schizophrenia, Dutch scientists say (news - 2004)
http://www.medicalnewstoday.com/articles/12283.php

Symptoms of schizotypy precede cannabis use. (full - 2005)
http://socialsciences.people.hawaii.edu/publications_lib/Cannabis%20and%20SPD.pdf

On the Cannabinoid Receptor: A Study in Molecular Psychiatry (full – 2005) (needs free registration)
http://www.psychiatrichorizons.com/articles/cannabinoid-receptor-study-molecular-psychiatry

Cannabis and schizophrenia link blurs further (news – forum repost - 2005)
http://www.420magazine.com/forums/international-cannabis-news/53212-cannabis-schizophrenia-link-blurs-further.html

Chemicals in Cannabis may help mentally ill (news - 2005)

Cannabidiol, a Cannabis sativa constituent, as an antipsychotic drug. (full - 2006)


The Mental Health Risks of Adolescent Cannabis Use (full - 2006)


Cannabis and psychosis (letter - 2006)

Increased cannabinoid receptor density in the posterior cingulate cortex in schizophrenia. (abst - 2006) http://www.ncbi.nlm.nih.gov/pubmed/16710682

Cannabis use does not cause schizophrenia (news - 2006)
http://www.health.am/psy/more/cannabis_use_does_not_cause_schizophrenia/
No Increased Schizophrenia Risk With Use Of Cannabis (news - 2006)

Cannabis is a First-Line Treatment for Childhood Mental Disorders (news - 2006)
http://www.counterpunch.org/2006/07/08/cannabis-is-a-first-line-treatment-for-childhood-mental-disorders/

Genotype effects of CHRNA7, CNR1 and COMT in schizophrenia: interactions with tobacco and cannabis use. (full – 2007) http://bip.rcpsych.org/content/191/5/402.long

Clinical research Cannabinoids in health and disease (link to PDF - 2007) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.288.5352&rank=23


Cannabinoid receptor 1 gene (CNR1) and susceptibility to a quantitative phenotype for hebephrenic schizophrenia. (abst – 2008) 

Maternal tobacco, cannabis and alcohol use during pregnancy and risk of adolescent psychotic symptoms in offspring. (full - 2009) 
http://bjp.rcpsych.org/cgi/content/full/195/4/294

Cannabis and suicide: longitudinal study. (full - 2009) 
http://bjp.rcpsych.org/content/195/6/492.long

Effects of cannabidiol on amphetamine-induced oxidative stress generation in an animal model of mania (full – 2009) 

Cannabidiol for the treatment of psychosis in Parkinson’s disease (link to download - 2009) 

THC can improve symptoms of schizophrenia (article– 2009) 

Parasitic brain infection, endocannabinoids, and schizophrenia. (abst - 2009) 
http://www.unboundmedicine.com/medline/ebm/record/18995970/abstract/Parasitic_brain_infection_endocannabinoids_and_schizophrenia

The role of cannabis in cognitive functioning of patients with schizophrenia. (abst - 2009) 
http://www.unboundmedicine.com/medline/ebm/record/19326102/abstract/The_role_of_cannabis_in_cognitive_functioning_of_patients_with_schizophrenia


Opposite relationships between cannabis use and neurocognitive functioning in bipolar disorder and schizophrenia. (abst - 2009) 
http://www.unboundmedicine.com/medline/ebm/record/19891810/full_citation/Opposite_relationships_between_cannabis_use_and_neurocognitive_functioning_in_bipolar_disorder_and_schizophrenia

Synthetic delta-9-tetrahydrocannabinol (dronabinol) can improve the symptoms of schizophrenia. (abst - 2009) 
http://www.unboundmedicine.com/medline/ebm/record/19440079/abstract/Synthetic_delta_9_tetrahydrocannabinol__dronabinol__can_improve_the_symptoms_of_schizophrenia
Can recreational doses of THC produce significant dopamine release in the human striatum? (abst - 2009)
http://www.unboundmedicine.com/medline/ebm/record/19539765/full_citation/Can_recreational_doses_of_THC_produce_significant_dopamine_release_in_the_human_striatum


If cannabis caused schizophrenia-how many cannabis users may need to be prevented in order to prevent one case of schizophrenia? England and Wales calculations. (abst - 2009)
http://www.unboundmedicine.com/medline/ebm/record/19832786/full_citation/If_cannabis_caused_schizophrenia_how_many_cannabis_users_may_need_to_be_prevented_in_order_to_prevent_one_case_of_schizophrenia_England_and_Wales_calculations

Cannabinoids and psychosis. (2) (abst – 2009)

Marijuana: Help or hassle? (news – 2009)
http://www.heretohelp.bc.ca/visions/cannabis-vol5/marijuana-help-or-hassle

Schizophrenia link to cannabis denied (news - 2009)

Cannabis and smoking gene links to schizophrenia ‘unfounded’ (news – 2009)

New study suggests minimal relationship between cannabis and schizophrenia or psychosis (news – 2009) http://www.physorg.com/news175425054.html

Science: The development of the number of new schizophrenia cases in the UK does not support the hypothesis that cannabis use increases schizophrenia risk (news – 2009) http://www.cannabis-med.org/english/bulletin/ww_en_db_cannabis_artikel.php?id=299

SCLERODERMA

The endocannabinoid system of the skin in health and disease: novel perspectives and therapeutic opportunities (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2757311/?tool=pmcentrez

The cannabinoid receptor CB2 exerts antifibrotic effects in experimental dermal fibrosis (full - 2009)
**SEBACEOUS GLANDS** – produce skin oils

Distribution of cannabinoid receptor 1 (CB1) and 2 (CB2) on sensory nerve fibers and adnexal structures in human skin. (abst – 2005)

Endocannabinoids enhance lipid synthesis and apoptosis of human sebocytes via cannabinoid receptor-2-mediated signaling. (link to PDF – 2008)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.328.8372

The endocannabinoid system of the skin in health and disease: novel perspectives and therapeutic opportunities (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2757311/

Sebaceous gland receptors. (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2835895/

**SEPTIC SHOCK/ SEPSIS** *

Endocannabinoid Degradation, Endotoxic Shock and Inflammation (link to download – 2002)
http://www.eurekaselect.com/91915/article

Presynaptic cannabinoid CB1 receptors are involved in the inhibition of the neurogenic vasopressor response during septic shock in pithed rats (full - 2004)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1575049/?tool=pmcsearch

Effects of AM281, a cannabinoid antagonist, on systemic haemodynamics, internal carotid artery blood flow and mortality in septic shock in rats (full – 2005)
http://bja.oxfordjournals.org/content/94/5/563.full

Cannabinoid antagonist AM 281 reduces mortality rate and neurologic dysfunction after cecal ligation and puncture in rats. (abst – 2005)

Effects of AM281, a cannabinoid antagonist, on circulatory deterioration and cytokine production in an endotoxin shock model: comparison with norepinephrine. (abst – 2006)
Effect of cannabidiol on sepsis-induced motility disturbances in mice: involvement of CB1 receptors and fatty acid amide hydrolase (full – 2008)  


Endocannabinoids and cardiac contractile function: pathophysiological implications. (full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2768548/?tool=pubmed

The cannabinoid receptor 2 is critical for the host response to sepsis. (full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2763235/?tool=pubmed

SHINGLES

Scientist Discovers New Molecule to Treat Chronic Pain (news - 2008)  
http://www.northeastern.edu/news/2008/08/makryannisnewmolecule/

SICKLE CELL DISEASE

Cannabis use in sickle cell disease: a questionnaire study. (full - 2005)  

Medical use of cannabis in sickle cell disease (news - 2005)  
http://www.chanvre-info.ch/info/it/Medical-use-of-cannabis-in-sickle.html

The prevalence of marijuana smoking in young adults with sickle cell disease: a longitudinal study (full - 2006)  

Marijuana Use Prevalent Among Sickle Cell Patients (news - 2007)  

Marijuana Use and Sickle Cell Disease (abst – forum repost - 2008)  

Cannabinoids as Analgesics for Pain in Sickle Cell Disease.
**SINUSITIS**

Medical Marijuana and Sinusitis  (news/ad – 2009)
https://www.marijuanadoctors.com/content/ailments/view/87?ailment=sinusitis

**SLEEP APNEA**

Functional role for cannabinoids in respiratory stability during sleep.

THC reduces sleep apnoea in animal research  (news - 2002)
http://www.cannabis-med.org/english/bulletin/ww_en_db_cannabis_artikel.php?id=120#1

Medical Marijuana and Sleep Apnea  (news/ad – 2009)
https://www.marijuanadoctors.com/content/ailments/view/103?ailment=sleep-apnea

**SLEEP MODULATION**

Therapeutic aspects of cannabis and cannabinoids.  (full - 2001)
http://bjp.rcpsych.org/cgi/content/full/178/2/107

Functional role for cannabinoids in respiratory stability during sleep.

The cannabinoids R(-)-7-hydroxy-delta-6-tetra-hydrocannabinol-dimethylheptyl (HU-210), 2-O-arachidonoyl-glycercylether (HU-310) and arachidonyl-2-chloroethylamide (ACEA) increase isoflurane provoked sleep duration by activation of cannabinoids 1 (CB1)-receptors in mice.  (abst – 2002)  http://www.ncbi.nlm.nih.gov/pubmed/12095655

http://adsabs.harvard.edu/abs/2002cond.mat..8590K


Randomized, controlled trial of cannabis-based medicine in central pain in multiple sclerosis (full - 2005) http://www.academia.edu/1025643/Randomized_controlled_trial_of_cannabis-based_medicine_in_central_pain_in_multiple_sclerosis


Clinical research Cannabinoids in health and disease (link to PDF - 2007) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.288.5352&rank=23


The nonpsychoactive cannabis constituent cannabidiol is a wake-inducing agent.  

Effect of illicit recreational drugs upon sleep: Cocaine, ecstasy and marijuana.  

The modulatory role of endocannabinoids in sleep  

The role of the CB1 receptor in the regulation of sleep.  

Sleep deprivation increases oleoylethanolamide in human cerebrospinal fluid.  
(full – 2009)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2757605/?tool=pubmed

The use of a synthetic cannabinoid in the management of treatment-resistant nightmares in posttraumatic stress disorder (PTSD).  

Effects of central endocannabinoid system on visceral hyposensitivity induced by rapid eye movement sleep deprivation: experiment with rats  

Sleep-inducing factors.  

Medical Marijuana and Nightmares  
https://www.marijuanadoctors.com/content/ailments/view/47?ailment=nightmares

Medical Marijuana and Persistent Insomnia  
https://www.marijuanadoctors.com/content/ailments/view/52?ailment=persistent-insomnia

Medical Marijuana and Sleep Disorders  
https://www.marijuanadoctors.com/content/ailments/view/177?ailment=sleep-disorders

**SMALLPOX** - also see COW POX  (not good news)

"Recreational" drug abuse associated with failure to mount a proper antibody response after a generalised orthopoxvirus infection  
SMELL / ODOR DETECTION

Marijuana Odor Perception (full – 2004)

Cannabinoid action in the olfactory epithelium (full – 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1815290/?tool=pubmed

SMOKED CANNABIS AS A MEDICATION * – also see METHODS OF USE- SMOKING

CANNABIS AND MARINOL IN THE TREATMENT OF MIGRAINE HEADACHE
(abst - undated) http://www.druglibrary.net/schaffer/hemp/migrn2.htm

Bidirectional control of airway responsiveness by endogenous cannabinoids

Effects of smoked cannabis and oral d9-tetrahydrocannabinol on nausea and emesis after

Antiemetic efficacy of smoked marijuana: subjective and behavioral effects on nausea
induced by syrup of ipecac. (abst - 2001)

The Role of Cannabis and Cannabinoids in Pain Management (full – 2002)
Russo-Hohmann-Role-of-Cannabinoids-in-Pain-Management-from-Deer-2013

A Dramatic Response to Inhaled Cannabis in a Woman with Central Thalamic Pain and
Dystonia (full - 2002) http://www.jpsmjournal.com/article/PIIS0885392402004268/fulltext

Chronic Cannabis Use in the Compassionate Investigational New Drug Program:
An Examination of Benefits and Adverse Effects of Legal Clinical Cannabis

Chronic Cannabis Use in the Compassionate Investigational New Drug Program:
An Examination of Benefits and Adverse Effects of Legal Clinical Cannabis

The effects of smoked cannabis in painful peripheral neuropathy and cancer pain
refractory to opioids. (abst - 2003)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=96
Study: Brain Not Permanently Damaged by Marijuana (news - 2003)
http://www.drugfree.org/?s=Study%3A+Brain+Not+Permanently+Damaged+by+Marijuana

Marijuana Smoking Doesn't Kill (news - 2003)

Marijuana Smoking Doesn't Lead to Higher Death Rate (news - forum repost - 2003)

Marijuana Research (news – 2004)
http://www.scientificamerican.com/article/marijuana-research/

Epilepsy patients are smoking pot (news - forum repost - 2004)

Marinol vs Natural Cannabis (full - 2005)

Smoked cannabis therapy for HIV-related painful peripheral neuropathy: results of a randomized, placebo-controlled clinical trial. (abst - 2005)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=172

Medical use of cannabis in sickle cell disease (news - 2005)
http://www.chanvre-info.ch/info/it/Medical-use-of-cannabis-in-sickle.html

Evaluation of herbal cannabis characteristics by medical users: a randomized trial (full - 2006)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1654142/

The Cannabinoid Cb1 Receptor Antagonist Rimonabant Attenuates the Hypotensive Effect of Smoked Marijuana in Male Smokers. (full – 2006)
http://www.ahjonline.com/article/S0002-8703%2805%2901013-6/fulltext

Despite Research, FDA Says Marijuana Has No Benefit (full – 2006)
http://jnci.oxfordjournals.org/content/98/13/888.full

Single and multiple doses of rimonabant antagonize acute effects of smoked cannabis in male cannabis users. (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2689519/?tool=pubmed

Dose-dependent effects of smoked cannabis on capsaicin-induced pain and hyperalgesia in healthy volunteers. (full - 2007)
http://anesthesiology.pubs.asahq.org/article.aspx?articleid=1931753&resultClick=3

Cannabis in painful HIV-associated sensory neuropathy (full - 2007)

Dronabinol and marijuana in HIV-positive marijuana smokers: caloric intake, mood, and sleep. (abst - 2007)
Fitness to drive in spite (because) of THC (abst - 2007)
http://www.unboundmedicine.com/medline/ehbm/record/17879702/abstract/
%5BFitness to drive in spite because of THC%5D

Study Supports Medical Marijuana Use (news - 2007)
http://www.drugfree.org/news-service/study-supports-medical-marijuana-use/

Smoked Cannabis Proven Effective In Treating Neuropathic Pain (news - 2007)

Marijuana gives relief from chronic pain for AIDS sufferers (news - 2007)

Smoked Cannabis Reduces Foot Pain Associated With HIV In Placebo Trial (news - 2007)

Hypothesizing that marijuana smokers are at a significantly lower risk of carcinogenicity relative to tobacco-non-marijuana smokers: evidenced based on statistical reevaluation of current literature. (full - 2008)
http://www.thefreelibrary.com/Hypothesizing+that+marijuana+smokers+are+at+a+significantly+lower---a0196052086

A Randomized, Placebo Controlled Cross-Over Trial of Cannabis Cigarettes in Neuropathic Pain (full - 2008)
https://www.researchgate.net/publication/5449991_A_Randomized_Placebo-Controlled_Crossover_Trial_of_Cannabis_Cigarettes_in_Neuropathic_Pain

Smoked Medicinal Cannabis for Neuropathic Pain in HIV: A Randomized, Crossover Clinical Trial (full - 2008)
http://www.nature.com/npp/journal/v34/n3/full/npp2008120a.html

Reduction of Congenital Nystagmus in a Patient after Smoking Cannabis. (abst - 2008)

Medicinal Marijuana Effective For Neuropathic Pain In HIV, Study Finds (news - 2008)
http://www.sciencedaily.com/releases/2008/08/080806113135.htm

Marijuana May Be Effective For Neuropathic Pain (news - 2008)
http://www.sciencedaily.com/releases/2008/06/080626150628.htm

Cannabinoid Receptor 1 Binding Activity and Quantitative Analysis of Cannabis sativa L. Smoke and Vapor (full – 2009)
https://www.jstage.jst.go.jp/article/cpb/58/2/58_2_201/_pdf

Marijuana Effectiveness as an HIV Self-Care Strategy (link to PDF - 2009)
Role of the cannabinoids in glaucoma  (article – 2009)

Marijuana Effectiveness as an HIV Self-Care Strategy  (news - 2009)

Cluster attacks responsive to recreational cannabis and dronabinol.  (abst - 2009)

http://www.huffingtonpost.com/paul-armentano/tobacco-related-health-costs-b-362539.html

Cannabis, Tobacco and Alcohol Use in Canada  (news – 2009)

SOCIAL ADJUSTMENT/ BEHAVIOR *

The Ganja Complex: Rastafari and Marijuana  (download – 2002)
The Ganja Complex: Rastafari and Marijuana.

Effects of THC on Behavioral Measures of Impulsivity in Humans  (full - 2003)
http://www.nature.com/npp/journal/v28/n7/full/1300176a.html

Regulation of Cannabinoid CB1 Receptors in the Central Nervous System by Chronic Cannabinoids  (abst – 2003)
http://dl.begellhouse.com/journals/7b004699754c9fe6,5aa33979065f2aa3,42019b6a7dd932f.html

Cannabis Use Not Linked with Psychosocial Harm  (news - 2004)
http://entheology.com/research/cannabis-use-not-linked-with-psychosocial-harm/


Cannabis, motivation, and life satisfaction in an internet sample  (full - 2006)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1435998/?tool=pmcentrez

Negative consequences associated with dependence in daily cannabis users  (full - 2007)
http://www.substanceabusepolicy.com/content/2/1/3

Some go without a cigarette: characteristics of cannabis users who have never smoked tobacco.  (full - 2007)
http://archpedi.ama-assn.org/cgi/content/full/161/11/1042
Marijuana use motives and social anxiety among marijuana-using young adults. (full - 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1986747/

Teens who use only cannabis appear to function better than those who also use tobacco (news - 2007) http://www.news-medical.net/news/2007/11/06/32262.aspx

Are Cigarettes More of a Drag on Teens than Marijuana? (news - 2007) http://www.scientificamerican.com/article.cfm?id=are-cigarettes-more-of-a


Cannabinoid Modulation of Amygdala Reactivity to Social Signals of Threat in Humans (full - 2008) http://www.inneurosci.org/cgi/content/full/28/10/2313?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=0&resourcetype=HWCIT


Relationship of type 1 cannabinoid receptor availability in the human brain to novelty-seeking temperament. (full – 2009) http://archpsyc.ama-assn.org/cgi/content/full/66/2/196


'Info-mania' dents IQ more than marijuana (news – 2005)
http://www.newscientist.com/article/dn7298-infomania-dents-iq-more-than-marijuana.html#.VZBFD0ZwtB8

SPASTICITY *

Endocannabinoids control spasticity in a multiple sclerosis model (full - 2000)


Therapeutic potential of cannabis (full – 2003)

Future of Cannabis and Cannabinoids in Therapeutics (link to PDF - 2003)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.597.1387&rank=7

Experiences with THC-treatment in children and adolescents (abst - 2003)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=80

http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=79

Do cannabis-based medicinal extracts have general or specific effects on symptoms in multiple sclerosis? A double-blind, randomized, placebo-controlled study on 160 patients. (abst - 2004)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=56

Are oral cannabinoids safe and effective in refractory neuropathic pain? (abst - 2004)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=143

http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=63


CB1 cannabinoid receptor-mediated modulation of food intake in mice (full - 2005)
Cannabinoids in multiple sclerosis (CAMS) study: safety and efficacy data for 12 months follow up. (abst - 2005)

Cannabis-based medicinal extract (Sativex) produced significant improvements in a subjective measure of spasticity which were maintained on long-term treatment with no evidence of tolerance. (abst - 2005)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=170

The treatment of spasticity with Delta(9)-tetrahydrocannabinol in persons with spinal cord injury. (abst - 2006)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=166

Low dose treatment with the synthetic cannabinoid Nabilone significantly reduces spasticity-related pain: A double-blind placebo-controlled cross-over trial. (abst - 2006)
http://www.unboundmedicine.com/medline/ebm/record/16988792/abstract/Low_dose_treatment_with_the_synthetic_cannabinoid_Nabilone_significantly_reduces_spasticity_related_pain:_A_double_blind_placebo_controlled_cross_over_trial


Control of Spasticity in a Multiple Sclerosis Model is mediated by CB1, not CB2, Cannabinoid Receptors (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2189718/?tool=pmcentrez

Randomized controlled trial of cannabis-based medicine in spasticity caused by multiple sclerosis (abst - 2007)

Motor effects of delta 9 THC in cerebellar Lurcher mutant mice. (abst - 2007)
http://www.unboundmedicine.com/medline/ebm/record/17531329/abstract/Motor_effects_of_delta_9_THC_in_cerebellar_Lurcher_mutant_mice

Cannabinoids in the management of spasticity associated with multiple sclerosis (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2626929/?tool=pmcentrez

Whole plant cannabis extracts in the treatment of spasticity in multiple sclerosis: a systematic review (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2793241/

Minocycline treatment inhibits microglial activation and alters spinal levels of endocannabinoids in a rat model of neuropathic pain (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2719614/

Marijuana Eases Spasticity in MS Patients (news – 2009)
Marijuana Chemicals Ease MS Symptoms, Review Confirms  (news - 2009)
http://www.drugfree.org/uncategorized/marijuana-chemicals-ease-ms

Cannabis can reduce spasticity in MS patients  (news - 2009)

Medical Marijuana and Spasticity  (news/ad – 2009)
https://www.marijuanadoctors.com/content/ailments/view/119?ailment=spasticity

Medical Marijuana and Skeletal Muscular Spasticity  (news/ad – 2009)
https://www.marijuanadoctors.com/content/ailments/view/120?ailment=skeletal-muscular-spasticity

SPINAL CORD INJURY *

Selective cannabinoid CB1 receptor activation inhibits spinal nociceptive transmission in vivo.   (full – 2001)  http://jn.physiology.org/content/86/6/3061.long


Antinociceptive effect of cannabinoid agonist WIN 55,212–2 in rats with a spinal cord injury  (full - 2006)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1861843/?tool=pmcentrez
Effects of a Cannabinoid Agonist on Spinal Nociceptive Neurons in a Rodent Model of Neuropathic Pain  
http://jn.physiology.org/cgi/content/full/96/6/2984  
Cannabinoids In Medicine: A Review Of Their Therapeutic Potential  
(link to download – 2006)  
The treatment of spasticity with Delta(9)-tetrahydrocannabinol in persons with spinal cord injury.  
(abst - 2006)  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=166  
Effects of palmitoylethanolamide on signaling pathways implicated in the development of spinal cord injury.  
(full – 2008)  
http://jpet.aspetjournals.org/content/326/1/12.long  
SUPPORTING RESEARCH INTO THE THERAPEUTIC ROLE OF MARIJUANA  
(full – 2008)  
https://www.acponline.org/acp_policy/policies/supporting_medmarijuana_2008.pdf  
Sustained antinociceptive effect of cannabinoid receptor agonist WIN 55,212-2 over time in rat model of neuropathic spinal cord injury pain  
(full - 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2743245/?tool=pmcentrez  
The nonpsychotropic cannabinoid cannabidiol modulates and directly activates alpha-1 and alpha-1-Beta glycine receptor function  
(abst – 2009)  
Medical Marijuana and Whiplash  
(news/ad – 2009)  
https://www.marijuanadoctors.com/content/ailments/view/97?ailment=whiplash-  

**SPLEEN**  

Delta(9)-tetrahydrocannabinol-induced apoptosis in the thymus and spleen as a mechanism of immunosuppression in vitro and in vivo.  
(full – 2002)  
http://jpet.aspetjournals.org/content/302/2/451.long  
A Cyclooxygenase Metabolite of Anandamide Causes Inhibition of Interleukin-2 Secretion in Murine Splenocytes  
(full – 2004)  
http://jpet.aspetjournals.org/content/311/2/683.full  
Pharmacokinetics of cannabinoids.  
(abst – 2005)  
**STEM CELLS**

Expression and function of cannabinoid receptors CB1 and CB2 and their cognate cannabinoid ligands in murine embryonic stem cells. (full – 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1919431/?tool=pubmed

CB2 cannabinoid receptors promote mouse neural stem cell proliferation.

**STIFF-PERSON SYNDROME**

Cures, Not Wars, Chant Supporters of Legalizing Marijuana (news/ anecdotal – 2004)

**STRESS** - also see ANXIETY, POST TRAUMATIC STRESS DISORDER

Cannabinoid CB1-mediated inhibition of stress-induced gastric ulcers in rats
(abst – 2000) http://www.springerlink.com/content/w3jc8rk16k9p92fl/

A Critical Role for the Cannabinoid CB1 Receptors in Alcohol Dependence and Stress-Stimulated Ethanol Drinking (full – 2003)
http://www.jneurosci.org/content/23/6/2453.long


Synergistic Interactions between Cannabinoids and Environmental Stress in the Activation of the Central Amygdala (full - 2005)
http://www.nature.com/npp/journal/v30/n3/full/1300535a.html

Body's Own Marijuana-Like Compounds Are Crucial For Stress-Induced Pain Relief (news - 2005) http://www.sciencedaily.com/releases/2005/06/050628064435.htm


Regulation of adult neurogenesis by cannabinoids (abst – 2006)
http://cat.inist.fr/?aModele=afficheN&cpsidt=18227851
Endocannabinoids Mediate the Effects of Acute Stress and Corticosterone on Sex Behavior (full – 2007) http://endo.endojournals.org/content/148/2/493.full

Association of the Cannabinoid Receptor Gene (CNR1) With ADHD and Post-Traumatic Stress Disorder (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2685476/?tool=pubmed

5-HT1A receptors are involved in the cannabidiol-induced attenuation of behavioural and cardiovascular responses to acute restraint stress in rats. (full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2697769/


Circulating endocannabinoids and N-acyl ethanolamines are differentially regulated in major depression and following exposure to social stress. (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2716432/?tool=pubmed

Cannabinoid Receptor Activation in the Basolateral Amygdala Blocks the Effects of Stress on the Conditioning and Extinction of Inhibitory Avoidance (full - 2009) http://www.jneurosci.org/cgi/content/full/29/36/11078?maxtoshow=&hits=10&RESULTFORMAT=&fulltext=Dr.+Irit+Akirav+&andorexactfulltext=and&searchid=1&FIRSTINDEX=0&resourcetype=HWCIT

Voluntary Exercise and Sucrose Consumption Enhance Cannabinoid CB1 Receptor Sensitivity in the Striatum (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3055381/?tool=pubmed

Chronic stress differentially regulates cannabinoid CB1 receptor binding in distinct hippocampal subfields. (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2746437/


STORAGE of CANNABIS (I know most of these are old, but questions on storage come up often!)


STROKE * - also see PERINATAL HYPOXIC-ISCHEMIC INJURY

 Age dependent accumulation of N-acyl-ethanolamine phospholipids in ischemic rat brain. A (31)P NMR and enzyme activity study. (full – 2000) http://www.jlr.org/content/41/6/985.long

Cannabinoid receptor activation and elevated cyclic AMP reduce glutamate neurotoxicity (full – 2001) https://www.researchgate.net/publication/12008661_Cannabinoid_receptor_activation_and_elevated_cyclic_AMP_reduce_glutamate_neurotoxicity


Cannabinoid receptor activation and elevated cyclic AMP reduce glutamate neurotoxicity (full – 2001) https://www.researchgate.net/publication/12008661_Cannabinoid_receptor_activation_and_elevated_cyclic_AMP_reduce_glutamate_neurotoxicity

Increased Severity of Stroke in CB1 Cannabinoid Receptor Knock-Out Mice (full - 2002) http://www.jneurosci.org/cgi/content/full/22/22/9771?
maxtoshow=&hit=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=80&resourcetype=HWCIT#Top


Cannabidiol Prevents Cerebral Infarction Via a Serotonergic 5-Hydroxytryptamine1A Receptor–Dependent Mechanism (full - 2005) http://stroke.ahajournals.org/cgi/content/full/36/5/1071


The CB1 Cannabinoid Receptor Mediates Excitotoxicity-induced Neural Progenitor Proliferation and Neurogenesis (full - 2007) http://www.jbc.org/content/282/33/23892.full

Cannabinoid CB2 receptor activation decreases cerebral infarction in a mouse focal ischemia/reperfusion model (full - 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2637559/?tool=pmcentrez

Δ9-Tetrahydrocannabinol (THC) and AM 404 protect against cerebral ischaemia in gerbils through a mechanism involving cannabinoid and opioid receptors (full - 2007) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2189998/

Delayed treatment with cannabidiol has a cerebroprotective action via a cannabinoid receptor-independent myeloperoxidase-inhibiting mechanism. (full - 2007) http://www3.interscience.wiley.com/cgi-bin/fulltext/118484119/HTMLSTART

The endocannabinoid system and neurogenesis in health and disease. (link to download - 2007) http://journals.sagepub.com/doi/abs/10.1177/1073858406296407

Delta(9)-tetrahydrocannabinol (Delta(9)-THC) prevents cerebral infarction via hypothalamic-independent hypothermia. (abst - 2007)
Role of cannabinoids and endocannabinoids in cerebral ischemia (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2581413/?tool=pmcentrez

Modulation of the balance between cannabinoid CB(1) and CB(2) receptor activation during cerebral ischemic/reperfusion injury (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2577828/

Cannabinoid receptors in acute and chronic complications of atherosclerosis (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219535/?tool=pmcentrez

Endocannabinoids and cannabinoid receptors in ischaemia–reperfusion injury and preconditioning (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219536/?tool=pmcentrez

Cannabinoid receptors in acute and chronic complications of atherosclerosis (link to PDF - 2008)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.660.7583&rank=60

Cannabidiol prevents a post-ischemic injury progressively induced by cerebral ischemia via a high-mobility group box1-inhibiting mechanism. (abst - 2008)

Endocannabinoids mediate neuroprotection after transient focal cerebral ischemia. (abst – 2008)

Modulation of cannabinoid receptor activation as a neuroprotective strategy for EAE and stroke. (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2855650/?tool=pubmed

Therapeutic time window of cannabidiol treatment on delayed ischemic damage via high-mobility group box1-inhibiting mechanism. (full – 2009)
https://www.jstage.jst.go.jp/article/bpb/32/9/32_9_1538/_pdf

Pretreatment with electroacupuncture induces rapid tolerance to focal cerebral ischemia through regulation of endocannabinoid system. (full – 2009)
http://stroke.ahajournals.org/content/40/6/2157.long

Post-ischemic brain damage: the endocannabinoid system in the mechanisms of neuronal death. (full - 2009)

CB2 receptor activation attenuates microcirculatory dysfunction during cerebral ischemic/reperfusion injury. (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3319431/
**STUTTERING**

Marihuana and Stuttering (anecdotal – undated)
http://rxmarijuana.com/shared_comments/stuttering.htm

Medical Marijuana and Stuttering (news/ad – 2009)
https://www.marijuanadoctors.com/content/ailments/view/63?ailment=stuttering

**SUICIDE**

Cannabis and suicide: longitudinal study. (full - 2009)
http://bjp.rcpsych.org/content/195/6/492.long


**TASTE** * - also see APPETITE

Overeating, Alcohol and Sucrose Consumption Decrease in Cb1 Receptor Deleted Mice. (abst – 2004)

AM 251 produces sustained reductions in food intake and body weight that are resistant to tolerance and conditioned taste aversion (full - 2006)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1615836/?tool=pmcentrez

Endocannabinoid hedonic hotspot for sensory pleasure: anandamide in nucleus accumbens shell enhances 'liking' of a sweet reward. (full – 2007)
http://www.nature.com/npp/journal/v32/n11/full/1301376a.html

Role of systemic endocannabinoid CB-1 receptor antagonism in the acquisition and expression of fructose-conditioned flavor-flavor preferences in rats. (full – 2008)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4560860/

Endocannabinoids selectively enhance sweet taste (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2818929/?tool=pmcentrez

Cannabinoid in the nucleus accumbens enhances the intake of palatable solution.
**TAXONOMY/ GENETICS OF CANNABIS** *

Boys and Girls Come Out to Play: The Molecular Biology of Dioecious Plants (full - 2000)  

Variations of D9-THC content in single plants of hemp varieties (full - 2000)  
http://www.ukcia.org/research/VariationOfTHCContent.pdf

Characterisation of cannabis plants phenotypes from illegal cultivations in Crete (abst - 2000)  

THC (TETRAHYDROCANNABINOL) ACCUMULATION IN GLANDS OF CANNABIS (CANNABACEAE) (full - 2001)  
http://www.hempreport.com/issues/17/malbody17.html

The inheritance of chemical phenotype in Cannabis sativa L. (full - 2003)  


http://www.nrcresearchpress.com/doi/abs/10.4141/P02-021#.V3IMUqJA76h

The Gene Controlling Marijuana Psychoactivity : MOLECULAR CLONING AND HETEROLOGOUS EXPRESSION OF Δ1-TETRAHYDROCANNABINOLIC ACID SYNTHASE FROM CANNABIS SATIVA L. (full - 2004)  
http://www.jbc.org/content/279/38/39767.full

A chemotaxonomic analysis of cannabinoid variation in Cannabis (Cannabaceae)
http://www.jbc.org/content/279/38/39767.long

The sexual differentiation of Cannabis sativa L.: A morphological and molecular study (full – 2004) 

Oil content, tocopherol composition and fatty acid patterns of the seeds of 51 Cannabis sativa L. genotypes (abst – 2004) 
http://link.springer.com/article/10.1023/B:EUPH.0000040473.23941.76

Tetrahydrocannabinolic acid synthase, the enzyme controlling marijuana psychoactivity, is secreted into the storage cavity of the glandular trichomes. (full – 2005) 
http://pcp.oxfordjournals.org/content/46/9/1578.long

RAPD markers encoding retrotransposable elements are linked to the male sex in Cannabis sativa L. (abst – 2005) 

Genetic evidence for speciation in Cannabis (Cannabaceae) (abst – 2005) 
http://link.springer.com/article/10.1007%2Fs10722-003-4452-y

Genetic Variation in Hemp and Marijuana (Cannabis sativa L.) According to Amplified Fragment Length Polymorphisms (full – 2006) 

DNA polymorphisms in the tetrahydrocannabinolic acid (THCA) synthase gene in “drug-type” and “fiber-type” Cannabis sativa L. (abst - 2006) 

Cannabidiolic-acid synthase, the chemotype-determining enzyme in the fiber-type Cannabis sativa (full – 2007) 

History of Cannabis and Its Preparations in Saga, Science and Sobriquet (abst - 2007) 

Phytochemical and genetic analyses of ancient cannabis from Central Asia (full - 2008) 
http://jxb.oxfordjournals.org/cgi/content/full/59/15/4171

DNA polymorphism detection of Cannabis using amplified fragment length polymorphism (abst - 2008) 
http://www.unboundmedicine.com/medline/ebm/record/18979914/abstract/

%5BDNA_polymorphism_detection_of_Cannabis_using_amplified_fragment_length_polymorphism%5D
Genetic individualization of Cannabis sativa by a short tandem repeat multiplex system
(abst - 2008)

Results of molecular analysis of an archaeological hemp (Cannabis sativa L.) DNA sample from North West China
(full – forum repost - 2008)

Identification of candidate genes affecting Δ9-tetrahydrocannabinol biosynthesis in Cannabis sativa
(full - 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2736886/?tool=pmcentrez

US Patent Application 20090324797 - MODULATING PLANT OIL LEVELS
(full – 2009) http://www.faqs.org/patents/app/20090324797

Assessment of Cannabinoids Content in Micropropagated Plants of Cannabis sativa and Their Comparison with Conventionally Propagated Plants and Mother Plant during Developmental Stages of Growth.
(abst - 2009)

Hemp And Marijuana: Genes Producing THC, Active Ingredient In Cannabis Plant, Identified

Genes producing tetrahydrocannabinol in marijuana identified

Average Marijuana Potency by Year, 1975-2003

TEETH /DENTISTRY *

Illicit drugs for toothache
(letter - 2002)
http://www.nature.com/bdj/journal/v192/n3/full/4801311a.html

Endocannabinoid, anandamide in gingival tissue regulates the periodontal inflammation through NF-kappaB pathway inhibition.
(full – 2006)

Inhibition of Salivary Secretion by Activation of Cannabinoid Receptors
(full - forum repost - 2006)
Comments on a home remedy for Abcessed Tooth. (forum post - 2007)
http://www.myhomeremedies.com/remedy.cgi?remedyid=4638

Anandamide injected into the lateral ventricle of the brain inhibits submandibular salivary secretion by attenuating parasympathetic neurotransmission (full – 2009)

Activation of CB2 cannabinoid receptors: a novel therapeutic strategy to accelerate osseointegration of dental implants. (abst - 2009)

Cannabis use and destructive periodontal diseases among adolescents (abst - 2009)
http://www.unboundmedicine.com/medline/ebm/record/19236530/abstract/Cannabis_use_and_destructive_periodontal_diseases_among_adolescents


THYROID FUNCTION – also see GRAVES DISEASE

Evidence for functional CB1 cannabinoid receptor expressed in the rat thyroid (full – 2002)  http://www.eje-online.org/content/147/2/255.full.pdf+html


Implication of the Endocannabinoid System in the Locomotor Hyperactivity Associated with Congenital Hypothyroidism (full – 2008)  http://endo.endojournals.org/content/149/5/2657.abstract?sid=f5b14012-9fba-4f10-890c-386313060cf8

Acute effects of endocannabinoid anandamide and CB1 receptor antagonist, AM251 in the regulation of thyrotropin secretion. (full – 2008)  http://joe.endocrinology-journals.org/content/199/2/235.long

Type 1 cannabinoid receptor-containing axons innervate hypophysiotropic thyrotropin-releasing hormone-synthesizing neurons. (full – 2009)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2630898/

TIC DOULOUREUX/ TRIGEMINAL NEUROPATHIC PAIN
Tic Douloureux – Cannabis  (news – undated)
http://medicalmarijuana.com/medical-uses/condition.cfm?conID=56

Anandamide Is Able to Inhibit Trigeminal Neurons Using an in Vivo Model of Trigeminovascular-Mediated Nociception  (full - 2004)
http://jpet.aspetjournals.org/content/309/1/56.full

Therapeutic potential of cannabinoids in trigeminal neuralgia.  (abst – 2004)

The synthetic cannabinoids attenuate allodynia and hyperalgesia in a rat model of trigeminal neuropathic pain.  (abst – 2007)

Medical Marijuana and Tic Douloureux  (news/ad – 2009)
https://www.marijuanadoctors.com/content/ailments/view/139?ailment=tic-douloureux

TIME PERCEPTION *

Cannabinoid Modulation of Time Estimation in the Rat.  (abst – 2001)

Marijuana Alters the Human Cerebellar Clock.  (abst – 2003)

Cannabinoid modulation of sensitivity to time.  (abst – 2003)

Effects of marijuana on temporal discriminations in humans.  (abst – 2006)

TINNITUS - also see HEARING


TOBACCO and CANNABIS *

Which drugs are the most addictive? (chart – undated) http://www.druglibrary.org/schaffer/Library/basicfax5.htm

Tokepure (news – undated) http://ukcia.org/activism/tokepure.php

So, you thought it was the tar that caused cancer... (news - undated) http://www.ukcia.org/research/cancer2.php


Behavioural and biochemical evidence for interactions between Δ9-tetrahydrocannabinol and nicotine (full - 2002) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1573143/?tool=pmcentrez


Comparing cannabis with tobacco—again Link between cannabis and mortality is still not established (full – 2003) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC196384/?tool=pmcentrez

Gender and ethnic differences in smoking, drinking and illicit drug use among American 8th, 10th and 12th grade students, 1976-2000. (link to PDF – 2003) https://deepblue.lib.umich.edu/handle/2027.42/73026

‘You can’t go without a fag . . . you need it for your hash’—a qualitative exploration of smoking, cannabis and young people (full - 2004) http://www.ukcia.org/research/YouCantGoWithoutAFag.pdf
Delta9-tetrahydrocannabinol decreases somatic and motivational manifestations of nicotine withdrawal in mice. (abst - 2004)

Cannabis and tobacco smoke are not equally carcinogenic (full - 2005)

Cigars-for-blunts: choice of tobacco products by blunt smokers. (abst – 2005)

Smoking Marijuana Does Not Cause Lung Cancer (news - 2005)
http://www.mapinc.org/drugnews/v05/n1065/a03.html

Cancer Risk from Tobacco Greater than Marijuana Smoking, Researcher Says (news - 2005)

Cannabis Smoke Is Less Likely To Cause Cancer Than Tobacco Smoke (news - 2005)
http://www.sciencedaily.com/releases/2005/10/051019003339.htm

DISTINGUISHING BLUNTS USERS FROM JOINTS USERS: A COMPARISON OF MARIJUANA USE SUBCULTURES (full – 2006)

Aluminum in Tobacco and Cannabis and Smoking-Related Disease (full - 2006)
http://www.amjmed.com/article/S0002-9343%2805%2900710-2/fulltext

Explicit and Implicit Effects of Anti-marijuana and Anti-tobacco Tv Advertisements. (abst – 2006)

Marijuana-like Chemical Can Restore Sperm Function Lost to Tobacco Abuse (news - 2006)
http://www.rxpgnews.com/specialtopics/article_5093.shtml

Some go without a cigarette: characteristics of cannabis users who have never smoked tobacco. (full - 2007)
http://archpedi.ama-assn.org/cgi/content/full/161/11/1042

Chronologically overlapping occurrences of nicotine-induced anxiety- and depression-related behavioral symptoms: effects of anxiolytic and cannabinoid drugs (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2075518/?tool=pubmed

A Comparison of Mainstream and Sidestream Marijuana and Tobacco Cigarette Smoke Produced under Two Machine Smoking Conditions (full - 2007)
http://www.ukcia.org/research/ComparisonOfSmoke.pdf

Genotype effects of CHRNA7, CNR1 and COMT in schizophrenia: interactions with tobacco and cannabis use. (full – 2007)
http://bip.rcpsych.org/content/191/5/402.long
Progression from marijuana use to daily smoking and nicotine dependence in a national sample of U.S. adolescents (full - 2007)
http://www.academia.edu/15305650/Progression_from_marijuana_use_to_daily_smoking_and_nicotine_dependence_in_a_national_sample_of_U.S._adolescents

Cannabis use when it's legal (link to PDF - 2007)


Marijuana is NOT like Tobacco. Please make a note of it. Thanks. (news - 2007) http://www.dailykos.com/story/2007/05/10/333234/-Pot-is-not-like-tobacco-Please-make-a-note-of-it-Thanks

Are Cigarettes More of a Drag on Teens than Marijuana? (news - 2007) http://www.scientificamerican.com/article.cfm?id=are-cigarettes-more-of-a

Cannabinoid Receptor 1 Gene Association With Nicotine Dependence (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2733353/

Nicotine (NC)-induced "depressive" behavioral symptoms and effects of antidepressants including cannabinoids (CBs). (full – 2008) https://www.jstage.jst.go.jp/article/jts/33/5/33_5_555/_pdf

Hypothesizing that marijuana smokers are at a significantly lower risk of carcinogenicity relative to tobacco-non-marijuana smokers: evidenced based on statistical reevaluation of current literature. (full - 2008) http://www.thefreelibrary.com/Hypothesizing+that+marijuana+smokers+are+at+a+significantly+lower...-a0196052086

Inhibition of anandamide hydrolysis by URB597 reverses abuse-related behavior and neurochemical effects of nicotine in rats (full – 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2663803/?tool=pubmed

Effects of adolescent nicotine and SR 147778 (Surinabant) administration on food intake, somatic growth and metabolic parameters in rats. (abst – 2008)


Characteristics of Adolescents Who Use Cannabis But Not Tobacco
Maternal tobacco, cannabis and alcohol use during pregnancy and risk of adolescent psychotic symptoms in offspring

Cannabis and tobacco use: where are the boundaries? A qualitative study on cannabis consumption modes among adolescents.

Effects of the cannabinoid CB1 receptor antagonist AM 251 on the reinstatement of nicotine-conditioned place preference by drug priming in rats.

During pregnancy, recreational drug-using women stop taking ecstasy (3,4-methylenedioxy-N-methylamphetamine) and reduce alcohol consumption, but continue to smoke tobacco and cannabis: initial findings from the Development and Infancy Study.

Comparison of subjective, pharmacokinetic, and physiological effects of marijuana smoked as joints and blunts.

The presence of aberrant DNA methylation in noncancerous esophageal mucosae in association with smoking history: a target for risk diagnosis and prevention of esophageal cancers.

A comparison of drug use and dependence between blunt smokers and other cannabis users

Cannabis and cars--does regular cannabis use increase the risk of caries in cigarette smokers?

Cannabis, Tobacco and Alcohol Use in Canada

Smoking Pot, Cigarettes Ups COPD Risk

Medical Marijuana and Tobacco Dependence
TOLERANCE

Which drugs are the most addictive? (chart – undated)
http://www.druglibrary.org/schaffer/Library/basicfax5.htm

Regulation of Cannabinoid CB1 Receptors in the Central Nervous System by Chronic Cannabinoids (abst – 2003)
http://dl.begellhouse.com/journals/7b004699754c9fe6,5aa33979065f2aa3,42019b6a7dd932fb.html


A Molecular Basis of Analgesic Tolerance to Cannabinoids (full - 2007)
http://www.jneurosci.org/cgi/content/full/27/15/4165?
maxtoshow=&hits=10&RESULTFORMAT=&fulltext=cannabinis&andorexactfulltext=and&searchid=1&F1
RSTINDEX=20&sortspec=relevance&resourcetype=HWCIT

Repeated Treatment with Cannabidiol but Not Delta9-tetrahydrocannabinol Has a Neuroprotective Effect Without the Development of Tolerance (abst - 2007)

Blunted Psychotomimetic and Amnestic Effects of Δ-9-Tetrahydrocannabinol in Frequent Users of Cannabis (full – 2008)
http://www.nature.com/npp/journal/v33/n10/full/1301643a.html

Prolonged exposure to WIN55,212-2 causes downregulation of the CB1 receptor and the development of tolerance to its anti convulsant effects in the hippocampal neuronal culture model of acquired epilepsy. (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2757117/?tool=pubmed

How to: Lower Marijuana Tolerance (news – 2009)
http://michiganweed.org/lower-marijuana-tolerance/

TOURETTE'S SYNDROME *

Science/Germany: Clinical study on THC in TOURETTE's syndrome (news – 2000)
http://www.cannabis-med.org/english/bulletin/ww en db cannabis artikel.php?id=70&search_pattern=tourette#1

Treatment of Tourette's syndrome with Delta 9-tetrahydrocannabinol (THC): a randomized crossover trial. (abst - 2002)  

Science: THC effective in TOURETTE-Syndrome (news - 2002)  
http://www.cannabis-med.org/english/bulletin/ww_en_db_cannabis_artikel.php?id=114&search_pattern=tourette#1

http://www.nature.com/npp/journal/v28/n2/full/1300047a.html

Delta 9-tetrahydrocannabinol (THC) is effective in the treatment of tics in Tourette syndrome: a 6-week randomized trial. (abst - 2003)  

Cannabinoids reduce symptoms of Tourette's syndrome. (abst - 2003)  
http://www.ncbi.nlm.nih.gov/pubmed/14521482?dopt=Abstract&holding=f1000,f1000m,issctn

Science: THC effective in TOURETTE syndrome in a 6-week trial (news - 2003)  
http://www.cannabis-med.org/english/bulletin/ww_en_db_cannabis_artikel.php?id=146&search_pattern=tourette#1

Tourette syndrome is not caused by mutations in the central cannabinoid receptor (CNR1) gene. (abst - 2004)  

[123I]AM281 single-photon emission computed tomography imaging of central cannabinoid CB1 receptors before and after Delta9-tetrahydrocannabinol therapy and whole-body scanning for assessment of radiation dose in tourette patients. (abst – 2004)  

Treatment of Tourette-syndrome with cannabinoids: results from clinical and neuroimaging studies (abst – 2005)  

Cannabinoids In Medicine: A Review Of Their Therapeutic Potential (link to download – 2006)  

Clinical research Cannabinoids in health and disease (link to PDF - 2007)  

Cannabinoids for Tourette's Syndrome. (abst - 2009)  
http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD006565.pub2/abstract;jsessionid=B1022CE8CC4E95B78078F0B77F113D34.f04t02

Tourette's syndrome. (abst – 2009)  

Medical Marijuana and Tourette's Syndrome (news/ad – 2009)
TRICHOTILLOMANIA - compulsive hair pulling – also see OBSESSIVE-COMPULSIVE DISORDER

Medical Marijuana and Trichotillomania (news/ad – 2009)
https://www.marijuanadoctors.com/content/ailments/view/138?ailment=trichotillomania

TUBERCULOSIS *

A cluster of tuberculosis associated with use of a marijuana water pipe.
(link to PDF - 2003)
http://www.ingentaconnect.com/content/iuatld/ijtld/2003/00000007/00000009/art00009?
token=00511897161b4e3a6720297d7634737b554a45243f636f356b6d3f6a4b6e4e395e4e6b6331b0898f;

Tuberculosis Outbreak in Marijuana Users, Seattle, Washington, 2004 (full - 2004)
http://wwwnc.cdc.gov/eid/article/12/7/pdfs/05-1436.pdf

Pot is good for you? Marijuana fights the superbugs (news – forum repost - 2008)

ULTRAVIOLET RADIATION

Endogenous phospholipid metabolite containing topical product inhibits ultraviolet light-induced inflammation and DNA damage in human skin. (abst – 2007)


UVEITIS - an infection of the middle layer of the eye

Anti-inflammatory property of the cannabinoid receptor-2-selective agonist JWH-133 in a rodent model of autoimmune uveoretinitis (abst - 2007)

VETERINARY USE/ ANIMALS *

Differences in the pharmacological properties of rat and chicken brain fatty acid amidohydrolase. (full – 2000)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1572338/

Behaviroal, pharmacological, and molecular characterization of an amphibian cannabinoid receptor. (full – 2000)


Cannabinoid receptors are absent in insects. (full - 2001)
http://www.flygxe.ua.edu/labmeeting_papers/ruth.pdf

http://www.biolbull.org/content/202/2/104.long

Two hundred and thirteen cases of marijuana toxicoses in dogs. (full – 2002)

The endocannabinoid system in invertebrates (link to PDF – 2002)

5-HT1A receptors increase excitability of spinal motoneurons by inhibiting a TASK-1-like K+ current in the adult turtle (full – 2003)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2342869/

I Know Why the Caged Bird Sings- he’s Stoned! (news – 2004)

CENTRAL CANNABINOID REGULATION OF FOOD INTAKE IN CHICKENS (link to PDF - 2005)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.587.5749&rank=38
The effect of feeding hemp seed meal to laying hens. (abst – 2005)

Cannabinoid receptors in invertebrates (full – 2006)

Postprandial increase of oleoylethanolamide mobilization in small intestine of the Burmese python (Python molurus) (full – 2006)
http://ajpregu.physiology.org/content/290/5/R1407.long

Characterization of cannabinoid-binding sites in zebrafish brain. (full – 2007)

BfCBR: a cannabinoid receptor ortholog in the cephalochordate Branchiostoma floridae (Amphioxus). (abst – 2007)

Evaluation of a Human On-site Urine Multidrug Test for Emergency Use With Dogs (abst - 2009)

**VIRUSES**

Cannabinoids and Viral Infections (link to PDF - 2001)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.429.6250&rank=10

**VISION/EYES** *- also see GLAUCOMA, RETINITIS PIGMENTOSA

Different effects of nabilone and cannabidiol on binocular depth inversion in Man. (abst – 2000)

Ganja medicine in Jamaica (news – 2000)
http://www.cannabisculture.com/content/2000/01/16/59

Neuroprotective Effect of (−)Δ9-Tetrahydrocannabinol and Cannabidiol in N-Methyl-d-Aspartate-Induced Retinal Neurotoxicity - Involvement of Peroxynitrite (full - 2003)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1892413/?tool=pmcentrez
Dexanabinol (HU-211) has a beneficial effect on axonal sprouting and survival after rat optic nerve crush injury. (full – 2003)

Future of Cannabis and Cannabinoids in Therapeutics (link to PDF - 2003)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.597.1387&rank=7

Cannabis improves night vision: a case study of dark adaptometry and scotopic sensitivity in kif smokers of the Rif mountains of northern Morocco. (full – 2004)
PDF

Cannabidiol Preserves Retinal Neurons and Reduces Vascular Permeability in Experimental Diabetes (abst – forum repost - 2004)

When spliff gets in your eyes... (news – 2004)
http://www.guardian.co.uk/science/2004/jul/07/sciencenews.research


Marijuana Cured My Color-Blindness (anecdotal – forum repost - 2005)

Neuroprotective and Blood-Retinal Barrier-Preserving Effects of Cannabidiol in Experimental Diabetes (full - 2006)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1592672/?tool=pubmed

R(+)-methanandamide and other cannabinoids induce the expression of cyclooxygenase-2 and matrix metalloproteinases in human nonpigmented ciliary epithelial cells. (full – 2006) http://jpet.aspetjournals.org/content/316/3/1219.long

Noladin Ether Acts on Trabecular Meshwork Cannabinoid (CB1) Receptors to Enhance Aqueous Humor Outflow Facility (full – 2006)
http://iovs.arvojournals.org/article.aspx?articleid=2124902&resultClick=1

Changes in endocannabinoid and palmitoylethanolamide levels in eye tissues of patients with diabetic retinopathy and age-related macular degeneration. (abst – 2006)

Marijuana Compound May Help Stop Diabetic Retinopathy (news - 2006)
http://www.sciencedaily.com/releases/2006/02/060227184647.htm

Getting Eye On Cannabinoids (news - 2006)

Marijuana compound could prevent eye damage in diabetics (news - 2006)
Endocannabinoids in the retina: From marijuana to neuroprotection. (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2584875/?tool=pmcentrez

Topical WIN55212-2 alleviates intraocular hypertension in rats through a CB1 receptor mediated mechanism of action. (full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2637200/?tool=pubmed

Endocannabinoids in the retina: from marijuana to neuroprotection. (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2584875/

Mediation of Cannabidiol anti-inflammation in the Retina by Equilibrative Nucleoside Transporter and A2A Adenosine Receptor (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2588644/?tool=pmcentrez


The role of endocannabinoid system in physiological and pathological processes in the eye (abst - 2008) http://www.unboundmedicine.com/medline/ebm/record/19195174/abstract/

Cannabidiol As a Putative Novel Therapy for Diabetic Retinopathy: A Postulated Mechanism of Action as an Entry Point for Biomarker-Guided Clinical Development. (full - 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2955420/?tool=pubmed


Vasoactive and Neuroprotective Actions of a Non-Pyschotropic Atypical Cannabinoid in the Retina (abst – 2009) http://iovs.arvojournals.org/article.aspx?articleid=2363001&resultClick=1

Cannabinoid Receptors and Corneal Epithelium Repair (abst – 2009)
WAR ON DRUGS / LEGALIZATION

Bush: War On Drugs Aids War On Terror                  (news – 2001)  
http://www.cbsnews.com/news/bush-war-on-drugs-aids-war-on-terror/

The economics of cannabis-cultivation in Europe             (full - 2002)  
http://www.cedro-uva.org/lib/jansen.economics.html

The Ganja Complex: Rastafari and Marijuana                 (download – 2002)  
The Ganja Complex: Rastafari and Marijuana.

This Bud's Not For                                         (news – 2002)  
http://content.time.com/time/magazine/article/0,9171,201911,00.html

Presidential Commission Shocks White House: Recommends Marijuana Should Be  "Decriminalized"       (news – 2002)  
http://www.csdp.org/publicservice/shafer.htm

http://www.alternet.org/story/12666/once-secret_%22nixon_tapes%22_show_why_the_u.s._outlawed_pot

California and U.S. Officials Conspired to Block Prop 215       (article – 2004)  
The Disimplementation of Prop 215.

Scientific American: Current restrictions on marijuana research are absurd          (news – 2004)  
http://www.chanvre-info.ch/info/it/Scientific-American-Current.html

It Is Time for Marijuana to Be Reclassified as Something Other Than a Schedule I Drug!  (article - 2005)  

Pot, Dogs, and the Constitution                            (news – 2005)  

Despite Research, FDA Says Marijuana Has No Benefit               (full – 2006)  
http://jnci.oxfordjournals.org/content/98/13/888.full

The legal status of medical marijuana.                        (link to download - 2006)  

Weed control                                              (news – 2006)  
http://www.boston.com/news/globe/ideas/articles/2006/05/28/weed_control
**WILSON'S DISEASE**

Cannabis sativa and dystonia secondary to Wilson's disease. (needs free registration)  
(abst - 2005)  

---

**WITHDRAWAL SYNDROME** *

Which drugs are the most addictive? (chart – undated)  
[http://www.druglibrary.org/schaffer/Library/basicfax5.htm](http://www.druglibrary.org/schaffer/Library/basicfax5.htm)

Abstinence symptoms during withdrawal from chronic marijuana use.  
(abst – 2000)  

Marijuana abstinence effects in marijuana smokers maintained in their home environment.  
(full – 2001)  
[http://archpsyc.ama-assn.org/cgi/content/full/58/10/917](http://archpsyc.ama-assn.org/cgi/content/full/58/10/917)

Prevention of Cannabinoid Withdrawal Syndrome by Lithium: Involvement of Oxytocinergic Neuronal Activation  
(link to PDF – 2001)  

Delta9-tetrahydrocannabinol releases and facilitates the effects of endogenous enkephalins: reduction in morphine withdrawal syndrome without change in rewarding effect.  
(abst – 2001)  

Marijuana withdrawal among adults seeking treatment for marijuana dependence  
(abst – 2002)  

Tobacco and Cannabis Smoking Cessation Can Lead to Intoxication with Clozapine or Olanzapine.  
(abst – 2002)  

Behavioural and gene transcription alterations induced by spontaneous cannabinoid withdrawal in mice  
(full – 2003)  
The Time Course and Significance of Cannabis Withdrawal.  

Nefazodone decreases anxiety during marijuana withdrawal in humans.  
(abst – 2003)  

Review of the Validity and Significance of Cannabis Withdrawal Syndrome  
(full – 2004)  

Delta9-tetrahydrocannabinol decreases somatic and motivational manifestations of nicotine withdrawal in mice.  
(abort - 2004)  

Decrease in prostaglandin level is a prerequisite for the expression of cannabinoid withdrawal: a quasi abstinence approach.  
(abst – 2005)  

A Within-Subject Comparison of Withdrawal Symptoms During Abstinence From Cannabis, Tobacco, and Both Substances  
(full - 2008)  

Marijuana withdrawal and craving: influence of the cannabinoid receptor 1 (CNR1) and fatty acid amide hydrolase (FAAH) genes.  
(full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2873690/

Cannabis withdrawal in the United States: results from NESARC.  
(full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2777674/?tool=pubmed

Is your patient in marijuana withdrawal?  
(article – 2008)  

The FAAH inhibitor URB-597 ameliorates cannabinoid withdrawal in mice  
(abst - 2008)  
http://www.fasebj.org/cgi/content/meeting_abstract/22/1_MeetingAbstracts/711.6?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=720&resourcetype=HWCIT

Pot, Tobacco Withdrawal Equally Rough  
(news - 2008)  

Withdrawal Phenomena and Dependence Syndrome After the Consumption of "Spice Gold"  
(full - 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2719097/?tool=pmcentrez

Actions of delta-9-tetrahydrocannabinol in cannabis  
(full - 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2731700/?tool=pmcentrez


WOUNDS/ INJURIES


A multicenter dose-escalation study of the analgesic and adverse effects of an oral cannabis extract (Cannador) for postoperative pain management. (full - 2006) http://anesthesiology.pubs.asahq.org/article.aspx?articleid=1922969&resultClick=3


Cannabinoid Receptors and Corneal Epithelium Repair (abst – 2009) http://iovs.arvojournals.org/article.aspx?articleid=2368655&resultClick=1
Granny Storm Crow's List - January 2017

THE ENDOCANNABINOID SYSTEM
2000 - 2009

**ABHD6/ α/β-hydrolase domain 6** - breaks down 2-AG

2-AG + 2 new players = forecast for therapeutic advances. (full – 2007)

Activation of the endocannabinoid system by organophosphorus nerve agents (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2597283/

Monoacylglycerol lipase limits the duration of endocannabinoid-mediated depolarization-induced suppression of excitation in autaptic hippocampal neurons. (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2784730/


---

**2-AG / 2-ARACHIDONOYLGLYCEROL** - CB 1 agonist

Phytocannabinoids (news – undated) http://www.news-medical.net/health/Phytocannabinoids.aspx

Endocannabinoids control spasticity in a multiple sclerosis model (full - 2000)

Endocannabinoid 2-arachidonyl glycerol is a full agonist through human type 2 cannabinoid receptor: antagonism by anandamide. (full – 2000)
http://molpharm.aspetjournals.org/content/57/5/1045.long

Endocannabinoids and Vascular Function (full - 2000)
http://jpet.aspetjournals.org/content/294/1/27.long

Endogenous cannabinoids and appetite. (full – 2000)
http://journals.cambridge.org/download.php?file=%2FNRR%2FNRR14_01%2FS095442240100004Xa.pdf&code=840ac1e121b1a8563a840b894cced959

2-Arachidonoylglycerol and the cannabinoid receptors. (abst – 2000)

Cardiovascular effects of endocannabinoids--the plot thickens. (abst - 2000)


2-Arachidonoylglycerol, an endogenous cannabinoid, inhibits tumor necrosis factor-alpha production in murine macrophages, and in mice. (abst – 2000)

Despite substantial degradation, 2-arachidonoylglycerol is a potent full efficacy agonist mediating CB(1) receptor-dependent G-protein activation in rat cerebellar membranes. (full – 2001) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1572991/?tool=pubmed

Endocannabinoids mediate hypotension after experimental myocardial infarction (full - 2001)
http://content.onlinejacc.org/cgi/content/full/38/7/2048?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=560&resourcetype=HWCIT

Inhibition of Rat C6 Glioma Cell Proliferation by Endogenous and Synthetic Cannabinoids. Relative Involvement of Cannabinoid and Vanilloid Receptors (full - 2001) http://jpet.aspetjournals.org/content/299/3/951.full

Cannabinoid CB1-receptor mediated regulation of gastrointestinal motility in mice in a model of intestinal inflammation (full - 2001) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1572987/?tool=pmcentrez

2-Arachidonyl glyceryl ether, an endogenous agonist of the cannabinoid CB1 receptor (full - 2001) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC31108/

Endocannabinoids are implicated in the infarct size-reducing effect conferred by heat stress preconditioning in isolated rat hearts (full – 2001) http://cardiovascres.oxfordjournals.org/content/55/3/619.full?sid=750eba66-d3d1-484d-96e8-04978ba34325

The neurobiology and evolution of cannabinoid signalling (full - 2001) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1088434/

Despite substantial degradation, 2-arachidonoylglycerol is a potent full efficacy agonist mediating CB(1) receptor-dependent G-protein activation in rat cerebellar membranes. (full – 2001) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1572991/


The potent emetogenic effects of the endocannabinoid, 2-AG (2-arachidonoylglycerol) are blocked by delta(9)-tetrahydrocannabinol and other cannabinoids. (full – 2002) http://jpet.aspetjournals.org/content/300/1/34.long

Comparison of the enzymatic stability and intraocular pressure effects of 2-arachidonoylglycerol and noladin ether, a novel putative endocannabinoid. (full – 2002) http://www.iovs.org/content/43/10/3216.full


Endocannabinoids and related fatty acid derivatives in pain modulation.

Endocannabinoids in the central nervous system--an overview.

The endocannabinoid system: function in survival of the embryo, the newborn and the neuron.

Endocannabinoids in the immune system and cancer.

The quest for a vascular endothelial cannabinoid receptor.

Endocannabinoids protect the rat isolated heart against ischaemia
(full - 2003) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1573907/?tool=pmcentrez

Chronic Morphine Modulates the Contents of the Endocannabinoid, 2-Arachidonoyl Glycerol, in Rat Brain

Role of Endogenous Cannabinoids in Synaptic Signaling
(full - 2003)
http://physrev.physiology.org/cgi/content/full/83/3/1017?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=160&res
ourcetype=HWCIT

The Endogenous Cannabinoid System Regulates Seizure Frequency and Duration in a Model of Temporal Lobe Epilepsy
(full - 2003)
http://jpet.aspetjournals.org/content/307/1/129.full?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=160&res
ourcetype=HWCIT

Manipulation of the endocannabinoid system by a general anaesthetic.

Cannabinoid influences on palatability: microstructural analysis of sucrose drinking after
delta(9)-tetrahydrocannabinol, anandamide, 2-arachidonoyl glycerol and SR141716.

Short-term fasting and prolonged semistarvation have opposite effects on 2-AG levels in mouse brain.

The endocannabinoid system: a general view and latest additions
(full - 2004) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1574255/?tool=pmcentrez

The endocannabinoid system: physiology and pharmacology.
(full - 2004) http://alkalc.oxfordjournals.org/cgi/content/full/40/1/2
New perspectives in the studies on endocannabinoid and cannabis: 2-arachidonoylglycerol as a possible novel mediator of inflammation (full - 2004)  
https://www.jstage.jst.go.jp/article/jphs/96/4/96_4_367/_pdf

2-Arachidonoylglycerol A Novel Inhibitor of Androgen-Independent Prostate Cancer Cell Invasion (full - 2004)  
http://cancerres.aacrjournals.org/cgi/content/full/64/24/8826?ijkey=951f59d238bd0f59c6f30ee2be3a5a31aaf2b94

Endogenous Cannabinoids Take the Edge off Neuroendocrine Responses to Stress (full – 2004)  

The endocannabinoid-CB receptor system: Importance for development and in pediatric disease. (abst - 2004)  

A new strategy to block tumor angiogenesis by inhibiting endocannabinoid inactivation (abst – 2004)  

Endogenous cannabinoids are candidates for lipid mediators of bone cement implantation syndrome. (abst – 2004)  

A new class of inhibitors of 2-arachidonoylglycerol hydrolysis and invasion of prostate cancer cells (full – 2005)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1450257/

Role of the endocannabinoid system in the development of tolerance to alcohol (full – 2005)  
http://alcalc.oxfordjournals.org/content/40/1/15.long

2-Arachidonoylglycerol, an endogenous cannabinoid receptor ligand, induces rapid actin polymerization in HL-60 cells differentiated into macrophage-like cells (full – 2005)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1134878/

Cannabinoids and cancer: potential for colorectal cancer therapy. (full - 2005)  
http://www.biochemsoctrans.org/bst/033/0712/bst0330712.htm

CB1 cannabinoid receptor-mediated modulation of food intake in mice (full - 2005)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1576140/?tool=pmcentrez

Effects of cannabinoids on colonic muscle contractility and tension in guinea pigs. (full – 2005)  
https://www.jstage.jst.go.jp/article/jnms/72/1/72_1_43/_pdf

http://www.academia.edu/6468139/Reduced_endocannabinoid-immune_modulation_by_a_common_cannabinoid_2_CB2_receptor_gene_polymorphism_possible_risk_for_autoimmune_disorders
Up-regulation of the endocannabinoid system in the uterus of leptin knockout (ob/ob) mice and implications for fertility  (full – 2005)  
http://molehr.oxfordjournals.org/content/11/1/21.full

Analgesia through endogenous cannabinoids  (link to PDF - 2005)  
http://www.cmaj.ca/cgi/content/full/173/4/357?
maxtoshow=&hitst=10&RESULTFORMAT=&fulltext=endocannabinoid&andorexactfulltext=and&searchi
d=1&FIRSTINDEX=0&sortspec=date&resourcetype=HWCIT


Cannabinoids and the digestive tract.  (abst – 2005)  


Binding affinity and agonist activity of putative endogenous cannabinoids at the human neocortical CB1 receptor  (abst – 2005)  

Waterborne lead exposure affects brain endocannabinoid content in male but not female fathead minnows (Pimephales promelas).  (abst – 2005)  

Cisplatin increases brain 2-arachidonoylglycerol (2-AG) and concomitantly reduces intestinal 2-AG and anandamide levels in the least shrew.  (abst – 2005)  

Body's Own Marijuana-Like Compounds Are Crucial For Stress-Induced Pain Relief  (news - 2005)  
http://www.sciencedaily.com/releases/2005/06/050628064435.htm

Natural Cannabinoids Blunt Pain  (news - 2005)  

Regulation, Function, and Dysregulation of Endocannabinoids in Models of Adipose and β-Pancreatic Cells and in Obesity and Hyperglycemia  (full - 2006)  

Endocannabinoids, feeding and suckling – from our perspective  (full – 2006)  
http://www.nature.com/ijo/journal/v30/n1s/full/0803274a.html

Not Too Excited? Thank Your Endocannabinoids  (full - 2006)  

Experimental autoimmune encephalomyelitis disrupts endocannabinoid-mediated neuroprotection  (full - 2006)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1458883/?tool=pmcentrez
Weight Control in Individuals With Diabetes (full - 2006)
http://care.diabetesjournals.org/content/29/12/2749.full
maxtoshow=&hit=80&RESULTFORMAT=&fulltext=cannabis&searchid=1&FIRSTINDEX=2000&resourcetype=HWCIT

Involvement of the Cannabinoid CB2 Receptor and Its Endogenous Ligand 2-Arachidonoylglycerol in Oxazolone-Induced Contact Dermatitis in Mice (full – 2006) http://www.jimmunol.org/content/177/12/8796.full

CENTRAL CANNABINOID REGULATION OF FOOD INTAKE IN CHICKENS (link to PDF - 2005) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.587.5749&rank=38


The CB1 Cannabinoid Receptor Mediates Excitotoxicity-induced Neural Progenitor Proliferation and Neurogenesis (full - 2007) http://www.jbc.org/content/282/33/23892.full

A Comprehensive Profile of Brain Enzymes that Hydrolyze the Endocannabinoid 2-Arachidonoylglycerol (full – 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2692834/

Endocannabinoids and the haematological system (full - 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190025/?tool=pmcentrez
Increased endocannabinoid levels reduce the development of precancerous lesions in the mouse colon (full - 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2755791/?tool=pmcentrez

Diverse roles of 2-arachidonoylglycerol in invasion of prostate carcinoma cells: Location, hydrolysis and 12-lipoxygenase metabolism (full – 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2565646/?tool=pubmed

Opposing Actions of Endocannabinoids on Cholangiocarcinoma Growth: RECRUITMENT OF Fas AND Fas LIGAND TO LIPID RAFTS (full – 2007) http://www.jbc.org/content/282/17/13098.full

Pharmacological enhancement of the endocannabinoid system in the nucleus accumbens shell stimulates food intake and increases c-Fos expression in the hypothalamus. (full – 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2042935/?tool=pubmed

Cannabinoid-2 receptor mediates protection against hepatic ischemia/reperfusion injury (full - 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2228252/?tool=pmcentrez

Endocannabinoids block status epilepticus in cultured hippocampal neurons (full - 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2617750/?tool=pmcentrez

Chronologically overlapping occurrences of nicotine-induced anxiety- and depression-related behavioral symptoms: effects of anxiolytic and cannabinoid drugs (full - 2007) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2075518/


CB2 receptors in the brain: role in central immune function (full - 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219530/?tool=pmcentrez

Opposing Actions of Endocannabinoids on Cholangiocarcinoma Growth (full - 2007) http://www.jbc.org/content/282/17/13098.full

Subcellular Arrangement of Molecules for 2-Arachidonoyl-Glycerol-Mediated Retrograde Signaling and Its Physiological Contribution to Synaptic Modulation in the Striatum (full – 2007) http://www.jneurosci.org/content/27/14/3663.long

n-3 Fatty acids and the endocannabinoid system. (letter – 2007) http://ajcn.nutrition.org/content/85/3/919.1.long

Endocannabinoids, cannabinoid receptors and inflammatory stress: an interview with Dr. Pál Pacher (link to PDF - interview - 2007) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.510.3426

In Vitro Anticonvulsant Action of 2-Arachidonyl Glycerol
Interactions of cannabidiol with endocannabinoid signalling in hippocampal tissue. (abst – 2007)  

The endocannabinoids anandamide and 2-arachidonoylglycerol inhibit cholinergic contractility in the human colon. (abst – 2007)  

The Endocannabinoids: Functional Roles and Therapeutic Opportunities (news – 2007)  

The importance of the endocannabinoid-system (news – 2007)  

Cannabinoids Inhibit HIV-1 Gp120-Mediated Insults in Brain Microvascular Endothelial Cells (full - 2008)  
http://www.jimmunol.org/cgi/content/full/181/9/6406?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=160&resourcetype=HWCIT

Activation of the endocannabinoid system by organophosphorus nerve agents (full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2597283/

Role of activated endocannabinoid system in regulation of cellular cholesterol metabolism in macrophages (full – 2008)  
http://cardiovascres.oxfordjournals.org/content/81/4/805.full?sid=7d2438c4-a727-410f-870d-4a971695b4fb

Endocannabinoid 2-Arachidonoylglycerol Protects Neurons by Limiting COX-2 Elevation (full – 2008)  
http://www.jbc.org/content/283/33/22601.full

Endocannabinoids and nutrition. (full – 2008)  

Activating Parabrachial Cannabinoid CB1 Receptors Selectively Stimulates Feeding of Palatable Foods in Rats (full - 2008)  
http://www.jneurosci.org/cgi/content/full/28/39/9702?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=0&resourcetype=HWCIT

Cannabinoid receptors and the regulation of bone mass (full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219540/?tool=pmcentrez

Role of endocannabinoids in cardiovascular shock. (full – 2008)  
http://www.jpp.krakow.pl/journal/archive/12_08_s8/pdf/91_12_08_s8_article.pdf
Pharmacological Inhibition of CB1 Cannabinoid Receptor Protects Against Doxorubicin-Induced Cardiotoxicity (full - 2008) http://content.onlinejacc.org/cgi/content/full/50/6/528


Endocannabinoids and the Control of Energy Homeostasis (full – 2008) http://www.jbc.org/content/283/48/33021.full?sid=931583b1-e797-43e0-8296-7fd75bb49403


Increased endocannabinoid levels reduce the development of precancerous lesions in the mouse colon. (full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2755791/?tool=pubmed


Endocannabinoids in the retina: from marijuana to neuroprotection. (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2584875/


The role of the CB1 receptor in the regulation of sleep. (abst – 2008)

Cat odour-induced anxiety--a study of the involvement of the endocannabinoid system.

Abnormalities in the cerebrospinal fluid levels of endocannabinoids in multiple sclerosis.

Anandamide inhibits metabolism and physiological actions of 2-arachidonoylglycerol in

Overview of the chemical families of fatty acid amide hydrolase and monoacylglycerol

Cox–2 contributes to the selective induction of cell death by the endocannabinoid 2-
arachidonoyl glycerol in hepatic stellate cells through generation of prostaglandin-
glycerol esters (abst – 2008)

Understanding the effects of endogenous cannabinoids (news - 2008)

Marijuana-Inspired Painkiller? New Chemical Pathway Discovered (news - 2008)

LSUHSC research reports new method to protect brain cells from diseases like Alzheimer's
(news – 2008)

Endocannabinoids and cannabinoid analogues block cardiac hKv1.5 channels in a
cannabinoid receptor-independent manner (full – 2009)
http://cardiovascres.oxfordjournals.org/content/85/1/56.full?sid=7d2438c4-a727-410f-870d-4a971695b4fb

Changes in the Endocannabinoid System May Give Insight into new and Effective
Treatments for Cancer (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2791688/?tool=pmcentrez

Endocannabinoids and Their Receptors as Targets for Obesity Therapy (full - 2009)

Endocannabinoid-mediated control of synaptic transmission. (full – 2009)
http://physrev.physiology.org/content/89/1/309.long

Lipid rafts regulate 2-arachidonoylglycerol metabolism and physiological activity in the
striatum (full – 2009)
Role of endocannabinoid signaling in anxiety and depression. (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3808114/


Selective blockade of 2-arachidonoylglycerol hydrolysis produces cannabinoid behavioral effects (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2605181/

Endocannabinoids may mediate the ability of (n-3) fatty acids to reduce ectopic fat and inflammatory mediators in obese Zucker rats. (full – 2009)
http://jn.nutrition.org/content/139/8/1495.long

Blockade of endocannabinoid-degrading enzymes attenuates neuropathic pain. (full - 2009)
http://jpet.aspetjournals.org/content/330/3/902.full?sid=af53ea87-ab4b-426e-9c7e-8f750e9c4a17

Pretreatment with electroacupuncture induces rapid tolerance to focal cerebral ischemia through regulation of endocannabinoid system. (full – 2009)
http://stroke.ahajournals.org/content/40/6/2157.long

Circulating endocannabinoids and N-acyl ethanolamines are differentially regulated in major depression and following exposure to social stress. (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2716432/?tool=pubmed

Minocycline treatment inhibits microglial activation and alters spinal levels of endocannabinoids in a rat model of neuropathic pain (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2719614/

Blockade of 2-arachidonoylglycerol hydrolysis by selective monoacylglycerol lipase inhibitor 4-nitrophenyl 4-((dibenzo[d][1,3]dioxol-5-yl(hydroxy)methyl)piperidine-1-carboxylate (JZL184) Enhances retrograde endocannabinoid signaling. (full – 2009) http://jpet.aspetjournals.org/content/331/2/591.long

Unconventional neurotransmitters, neurodegeneration and neuroprotection (full – 2009)

The endocannabinoid 2-arachidonoylglycerol promotes sperm development through activation of cannabinoid-2 receptors (full – 2009)

Dual blockade of FAAH and MAGL identifies behavioral processes regulated by endocannabinoid crosstalk in vivo. (full – 2009)
http://www.pnas.org/content/106/48/20270.long
The endocannabinoid system as a link between homoeostatic and hedonic pathways involved in energy balance regulation  (full – 2009)  
http://www.nature.com/ijo/journal/v33/n2s/full/ijo200967a.html

Monoacylglycerol lipase limits the duration of endocannabinoid-mediated depolarization-induced suppression of excitation in autaptic hippocampal neurons.  (full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2784730/

Cannabinoid receptor 2 mediates the retention of immature B cells in bone marrow sinusoids.  (full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2768754/

Endocannabinoid signaling in neurotoxicity and neuroprotection.  (full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2891218/

Neuropathic Pain and Endocannabinoid-Degradation Blockade  (link to PDF – 2009)  
http://jpet.aspetjournals.org/content/330/3/669.1.full?sid=af53ea87-ab4b-426e-9c7e-8f750e9e4a17

The endocannabinoid 2-arachidonoylglycerol promotes sperm development through activation of cannabinoid-2 receptors  (link to PDF - 2009)  
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.505.7026&rank=36

From endocannabinoid profiling to 'endocannabinoid therapeutics'.  (abst – 2009)  

Circulating endocannabinoid concentrations during orthostatic stress  (abst – 2009)  

Effects of cannabinoid drugs on the reinforcing properties of food in gestationally undernourished rats.  (abst – 2009)  

Modulation of the endocannabinoid-degrading enzyme fatty acid amide hydrolase by follicle-stimulating hormone.  (abst – 2009)  

Endocannabinoids: friends and foes of reproduction.  (abst – 2009)  

Skeletal anabolic activity of cannabinoid receptor agonists  (abst - 2009)  
https://www.deepdyve.com/lp/elsevier/skeletal-anabolic-activity-of-cannabinoid-receptor-agonists-IHk6Sm07R0

**2-AGE/ 2-ARACHIDONYL GLYCERYL ETHER/ NOLADIN ETHER** - CB 1 antagonist & 2 agonist

Phytocannabinoids  (news – undated)
2-Arachidonyl glyceryl ether, an endogenous agonist of the cannabinoid CB1 receptor (full - 2001)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC31108/

Anandamide degradation and N-acylethanolamines level in wild-type and CB1 cannabinoid receptor knockout mice of different ages (full – 2001)

Comparison of the enzymatic stability and intraocular pressure effects of 2-arachidonylglycerol and noladin ether, a novel putative endocannabinoid. (full – 2002)
http://www.iovs.org/content/43/10/3216.full

Cannabionoids and Feeding: The Role of the Endogenous Cannabinoid System as a Trigger for Newborn Suckling (link to PDF - 2002)


Ether-linked analogue of 2-arachidonoylglycerol (noladin ether) was not detected in the brains of various mammalian species (full – 2003)

http://pubs.acs.org/doi/abs/10.1021/jm030877j


The endocannabinoid noladin ether acts as a full agonist at human CB2 cannabinoid receptors. (full – 2005) http://jpet.aspetjournals.org/content/314/2/868.long

Role of the endocannabinoid system in the development of tolerance to alcohol
Anandamide / AEA / N-ARACHIDONYLETHANOLAMINE / NAE 22:4 * – CB 1 & 2 agonist

Phytocannabinoids (news – undated)
http://www.news-medical.net/health/Phytocannabinoids.aspx

Anandamide Induces Apoptosis in Human Cells via Vanilloid Receptors (full - 2000)
http://www.jbc.org/content/275/41/31938.full

Endocannabinoids and Vascular Function (full - 2000)
http://jpet.aspetjournals.org/content/294/1/27.long

Suppression of Nerve Growth Factor Trk Receptors and Prolactin Receptors by Endocannabinoids Leads to Inhibition of Human Breast and Prostate Cancer Cell
Proliferation (full - 2000)

Effects of cannabinoid receptor agonists on neuronally-evoked contractions of urinary bladder tissues isolated from rat, mouse, pig, dog, monkey and human (full - 2000)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1571997/

http://www.jbc.org/content/275/41/31938.long

Differences in the pharmacological properties of rat and chicken brain fatty acid amidohydrolase. (full – 2000)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1572338/

Behavioral, pharmacological, and molecular characterization of an amphibian cannabinoid receptor. (full – 2000)

Endogenous cannabinoids and appetite. (full – 2000)
http://journals.cambridge.org/download.php?file=%2FNRR%2FNRR14_01%2FS095442240100004X.pdf&code=840ae1e121b1a8563a840b894ced959

Cardiovascular effects of endocannabinoids--the plot thickens. (abst - 2000)

Bidirectional control of airway responsiveness by endogenous cannabinoids (abst – 2000)

Low dose anandamide affects food intake, cognitive function, neurotransmitter and corticosterone levels in diet-restricted mice. (abst – 2000)

Endocannabinoids and fatty acid amides in cancer, inflammation and related disorders. (abst – 2000)

Anandamide and diet: inclusion of dietary arachidonate and docosahexaenoate leads to increased brain levels of the corresponding N-acylethanolamines in piglets. (full – 2001)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC33480/?tool=pubmed

Cannabinoid CB1-receptor mediated regulation of gastrointestinal motility in mice in a model of intestinal inflammation (full - 2001)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1572987/?tool=pmcentrez

Endocannabinoids are implicated in the infarct size-reducing effect conferred by heat stress preconditioning in isolated rat hearts (full – 2001)
http://cardiovascres.oxfordjournals.org/content/55/3/619.full?sid=750eba66-d3d1-484d-96e8-04975ba34325
Inhibition of Rat C6 Glioma Cell Proliferation by Endogenous and Synthetic Cannabinoids. Relative Involvement of Cannabinoid and Vanilloid Receptors (full - 2001) http://jpet.aspetjournals.org/content/299/3/951.full

Exogenous anandamide protects rat brain against acute neuronal injury in vivo. (full – 2001) http://www.jneurosci.org/content/21/22/8765.long

Anandamide administration into the ventromedial hypothalamus stimulates appetite in rats (full - 2001) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1573067/

Palmitoylethanolamide inhibits the expression of fatty acid amide hydrolase and enhances the anti-proliferative effect of anandamide in human breast cancer cells (full - 2001) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1222054/pdf/11485574.pdf?tool=pmcentrez


Endogenous cannabinoids mediate hypotension after experimental myocardial infarction (full - 2001) http://content.onlinejaceg.org/cgi/content/full/38/7/2048;maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=560&resourcetype=HWCIT


Anandamide activates peripheral nociceptors in normal and arthritic rat knee joints (full - 2001) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1572613/?tool=pmcentrez

Supersensitivity to anandamide and enhanced endogenous cannabinoid signaling in mice lacking fatty acid amide hydrolase (full - 2001) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC55427/?tool=pubmed


Anandamide degradation and N-acylethanolamines level in wild-type and CB1 cannabinoid receptor knockout mice of different ages (full – 2001) http://onlinelibrary.wiley.com/doi/10.1046/j.1471-4159.2001.00413.x/full

The neurobiology and evolution of cannabinoid signalling (full - 2001) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1088434/

Effects of pH on the inhibition of fatty acid amidohydrolase by ibuprofen.
Effects of homologues and analogues of palmitoylethanolamidamide upon the inactivation of the endocannabinoid anandamide. (full – 2001) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1572815/

Despite substantial degradation, 2-arachidonoylglycerol is a potent full efficacy agonist mediating CB(1) receptor-dependent G-protein activation in rat cerebellar membranes. (full – 2001) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1621151/

Palmitoylethanolamide inhibits the expression of fatty acid amide hydrolase and enhances the anti-proliferative effect of anandamide in human breast cancer cells (link to download - 2001) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1572991/


Endogenous cannabinoid anandamide increases heart resistance to arrhythmogenic effects of epinephrine: role of CB(1) and CB(2) receptors. (abst - 2001) https://www.ncbi.nlm.nih.gov/pubmed/11427912


Quantification of anandamide content in animal cells and tissues: the normalization makes the difference (full - 2002) http://www.lipidworld.com/content/1/1/4

Low fatty acid amide hydrolase and high anandamide levels are associated with failure to achieve an ongoing pregnancy after IVF and embryo transfer (full – 2002) http://molehr.oxfordjournals.org/content/8/2/188.full


Estrogen stimulates arachidonoylethanolamide release from human endothelial cells and platelet activation (full – 2002) http://bloodjournal.hematologylibrary.org/content/100/12/4040.full

Targeting CB2 cannabinoid receptors as a novel therapy to treat malignant lymphoblastic disease (full - 2002)
A Peripheral Mechanism for CB1 Cannabinoid Receptor-Dependent Modulation of Feeding

'Entourage' effects of N-acyl ethanolamines at human vanilloid receptors. Comparison of effects upon anandamide-induced vanilloid receptor activation and upon anandamide metabolism.

Experimental parkinsonism alters endocannabinoid degradation: implications for striatal glutamatergic transmission.

Anandamide uptake by synaptosomes from human, mouse and rat brain: inhibition by glutamine and glutamate

Cannabinoids and Feeding: The Role of the Endogenous Cannabinoid System as a Trigger for Newborn Suckling

The endocannabinoid system in invertebrates

Endocannabinoid Degradation, Endotoxic Shock and Inflammation

Endogenous cannabinoids improve myocardial resistance to arrhythmogenic effects of coronary occlusion and reperfusion: a possible mechanism.

Endocannabinoids in the central nervous system--an overview.

Regulation of anandamide tissue levels by N-arachidonyleglicine.

The endocannabinoid system: function in survival of the embryo, the newborn and the neuron.

Endocannabinoids and related fatty acid derivatives in pain modulation.

Anandamide and R-(-)-methanandamide prevent development of ischemic and reperfusion arrhythmia in rats by stimulation of CB2-receptors


Effect on cancer cell proliferation of palmitoylethanolamide, a fatty acid amide interacting with both the cannabinoid and vanilloid signalling systems. (abst – 2002)  http://www.ncbi.nlm.nih.gov/pubmed/12570018

Role of Endogenous Cannabinoids in Synaptic Signaling (full - 2003)  http://physrev.physiology.org/cgi/content/full/83/3/1017?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=160&res
ourcetype=HWCIT

Cannabinoid receptor type 1 modulates excitatory and inhibitory neurotransmission in mouse colon (full – 2003)  http://ajpgi.physiology.org/content/286/1/G110.full?sid=fe6948f0-78cf-405c-981b-afaa05ee417c

CB1 cannabinoid receptor antagonism promotes remodeling and cannabinoid treatment prevents endothelial dysfunction and hypotension in rats with myocardial infarction (full - 2003)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1573770/?tool=pmcentrez

Endocannabinoid signalling in the blood of patients with schizophrenia (full – 2003)  http://www.lipidworld.com/content/2/1/5

A new endothelial target for cannabinoids. (full - 2003)  http://molpharm.aspetjournals.org/content/63/3/469.long


The endogenous cannabinoid system affects energy balance via central orexigenic drive and peripheral lipogenesis (full - 2003)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC166293/
Endocannabinoids protect the rat isolated heart against ischaemia (full - 2003)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1573907/?tool=pmcentrez

Cannabis and the brain. (full - 2003)
http://brain.oxfordjournals.org/cgi/content/full/126/6/1252

Chronic Morphine Modulates the Contents of the Endocannabinoid, 2-Arachidonoyl Glycerol, in Rat Brain (full - 2003)
http://www.nature.com/npp/journal/v28/n6/full/1300117a.html

Manipulation of the endocannabinoid system by a general anaesthetic. (full – 2003)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1573927/?tool=pubmed

Cannabinoids inhibit neurodegeneration in models of multiple sclerosis (full - 2003)
http://brain.oxfordjournals.org/cgi/content/full/126/10/2191?
ijkey=c7e6bf158b85e98cb1a1905c2614552989ba0

http://molpharm.aspetjournals.org/content/63/3/699.long

Anandamide initiates Ca2+ signaling via CB2 receptor linked to phospholipase C in calf pulmonary endothelial cells (full – 2003)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1574152/

5-HT1A receptors increase excitability of spinal motoneurons by inhibiting a TASK-1-like K+ current in the adult turtle (full – 2003)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2342869/

Therapeutic potential of cannabinoids in CNS disease. (abst - 2003)

Anandamide enhances extracellular levels of adenosine and induces sleep: an in vivo microdialysis study. (abst - 2003)

Acidic nonsteroidal anti-inflammatory drugs inhibit rat brain fatty acid amide hydrolase in a pH-dependent manner. (abst – 2003)

Anandamide metabolism by fatty acid amide hydrolase in intact C6 glioma cells. Increased sensitivity to inhibition by ibuprofen and flurbiprofen upon reduction of extracellular but not intracellular pH. (abst – 2003)

The endogenous cannabinoid, anandamide, activates the hypothalamo-pituitary-adrenal axis in CB1 cannabinoid receptor knockout mice. (abst – 2003)


Cannabinoid CB1 receptor activation does not prevent the toxicity of glutamate towards embryonic chick telencephalon primary cultures. (abst – 2003) http://www.ncbi.nlm.nih.gov/pubmed/14659458


Anandamide Is Able to Inhibit Trigeminal Neurons Using an in Vivo Model of Trigeminovascular-Mediated Nociception (full - 2004) http://jpet.aspetjournals.org/content/309/1/56.full


The complexities of the cardiovascular actions of cannabinoids (full - 2004) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1574918/?tool=pmcentrez

The endocannabinoid system: physiology and pharmacology. (full - 2004) http://alcalc.oxfordjournals.org/cgi/content/full/40/1/2

Up-Regulation of Cyclooxygenase-2 Expression Is Involved in \(R\)-Methanandamide-Induced Apoptotic Death of Human Neuroglioma Cells (full - 2004)
Involvement of cannabinoid receptors in gut motility and visceral perception
(full - 2004)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1574910/?tool=pmcentrez

Plasma Levels of the Endocannabinoid Anandamide in Women—A Potential Role in
Pregnancy Maintenance and Labor? (full - 2004)

A Cyclooxygenase Metabolite of Anandamide Causes Inhibition of Interleukin-2
Secretion in Murine Splenocytes (full – 2004)
http://ipet.aspetjournals.org/content/311/2/683.full

Anandamide is an endogenous inhibitor for the migration of tumor cells and T
lymphocytes. (full - 2004)
http://ajpgi.physiology.org/content/291/2/G364

Anandamide transport is independent of fatty-acid amide hydrolase activity and is
blocked by the hydrolysis-resistant inhibitor AM1172. (full – 2004)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC423268/

The endocannabinoid anandamide neither impairs in vitro T-cell function nor induces
regulatory T-cell generation. (link to download – 2004)
http://ar.iiarjournals.org/content/28/6A/3743.long

Mouse blastocysts release a lipid which activates anandamide hydrolase in intact uterus
(full – 2004)
http://molehr.oxfordjournals.org/content/10/4/215.full

Heterogeneity in the mechanisms of vasorelaxation to anandamide in resistance and
conduit rat mesenteric arteries (full – 2004)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1574972/

Arachidonyl ethanolamide induces apoptosis of uterine cervix cancer cells via aberrantly
expressed vanilloid receptor-1 (abst - 2004)

In vivo pharmacological actions of two novel inhibitors of anandamide cellular uptake.
(abst – 2004)

A new strategy to block tumor angiogenesis by inhibiting endocannabinoid inactivation
(abst – 2004)

A structure-activity relationship study on N-arachidonoyl-amino acids as possible
endogenous inhibitors of fatty acid amide hydrolase (abst – 2004)

Behavioral effects of inhibition of cannabinoid metabolism: The amidase inhibitor
AM374 enhances the suppression of lever pressing produced by exogenously
administered anandamide.  

Endogenous cannabinoids are candidates for lipid mediators of bone cement implantation syndrome.  

Exercise activates the endocannabinoid system.  

The endocannabinoid-CB(1) receptor system in pre- and postnatal life.  

How our brains fend off madness, we produce a cannabis like substance  

Easing anxiety with anandamide  

Study links marijuana buzz to 'runner's high'  

Study: Exercise Produces Cannabinoids  

Cardiovascular Pharmacology of Cannabinoids  
(full - 2005)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2228270/?tool=pmcentrez

The cardiovascular actions of anandamide: more targets?  
(full - 2005)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1576182/?tool=pmcentrez

Role of the endocannabinoid system in the development of tolerance to alcohol  
(full – 2005)  http://alcalc.oxfordjournals.org/content/40/1/15.long

Cannabinoids promote hippocampus neurogenesis and produce anxiolytic- and antidepressant-like effects  
(full - 2005)  http://www.jci.org/cgi/content/full/115/11/3104

Cannabinoids and cancer: potential for colorectal cancer therapy.  

Antidepressant-like Activity and Modulation of Brain Monoaminergic Transmission by Blockade of Anandamide Hydrolysis.  
(full – 2005)  http://www.pnas.org/content/102/51/18620.long

Blood pressure regulation by endocannabinoids and their receptors  
(full - 2005)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2225528/?tool=pmcentrez

The endogenous cannabinoid, anandamide, induces cell death in colorectal carcinoma cells: a possible role for cyclooxygenase 2  
(full - 2005)
The effects of Δ9-tetrahydrocannabinol in rat mesenteric vasculature, and its interactions with the endocannabinoid anandamide (full - 2005)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1774787/?tool=pmcentrez

Anandamide reduces infarct size in rat isolated hearts subjected to ischaemia–reperfusion by a novel cannabinoid mechanism (full - 2005)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1751211/?tool=pmcentrez

Endocannabinoid activation at hepatic CB1 receptors stimulates fatty acid synthesis and contributes to diet-induced obesity (full - 2005)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1087161/?tool=pmcentrez

Antidepressant-like activity by blockade of anandamide hydrolysis (full - 2005)

Blood levels of the endocannabinoid anandamide are increased in anorexia nervosa and in binge-eating disorder, but not in bulimia nervosa. (full – 2005)
http://www.nature.com/npp/journal/v30/n6/full/1300695a.html

Increased anandamide induced relaxation in mesenteric arteries of cirrhotic rats: role of cannabinoid and vanilloid receptors (full – 2005)
http://gut.bmj.com/content/54/4/522.full?sid=0731f0e5-2071-4549-be57-57f444307138

The postmortal accumulation of brain N-arachidonylethanolamine (anandamide) is dependent upon fatty acid amide hydrolase activity. (full – 2005)
http://www.jlr.org/content/46/2/342.long

Cannabinoid receptor ligands mediate growth inhibition and cell death in mantle cell lymphoma (full – 2005)

Up-regulation of the endocannabinoid system in the uterus of leptin knockout (ob/ob) mice and implications for fertility (full – 2005)
http://molehr.oxfordjournals.org/content/11/1/21.full

Dual modulation of endocannabinoid transport and fatty acid amide hydrolase protects against excitotoxicity (full – 2005)
http://www.jneurosci.org/content/25/34/7813.long

Analgesia through endogenous cannabinoids (link to PDF - 2005)
http://www.cmaj.ca/cgi/content/full/173/4/357?maxtoshow=&hits=10&RESULTFORMAT=&fulltext=endocannabinoid&andorexactfulltext=and&searchid=1&FIRSTINDEX=0&sortspec=date&resourcetype=HWCIT

Chocolate and cannabis (article – 2005)
http://www.cannabisculture.com/content/2005/05/09/4337
Cannabinoids and the digestive tract. (abst – 2005)  

Vascular effects of delta 9-tetrahydrocannabinol (THC), anandamide and N-arachidonoyldopamine (NADA) in the rat isolated aorta. (abst – 2005)  

Targeted lipidomics: fatty acid amides and pain modulation. (abst – 2005)  

Cannabinoids augment the release of neuropeptide Y in the rat hypothalamus (abst – 2005)  


Binding affinity and agonist activity of putative endogenous cannabinoids at the human neocortical CB1 receptor (abst – 2005)  

Influence of Anandamide, the Endogenous Agonist of Cannabinoid Receptors on the Circulatory System (abst - 2005)  


A role for endocannabinoids in viral-induced dyskinetic and convulsive phenomena. (abst – 2005)  

Waterborne lead exposure affects brain endocannabinoid content in male but not female fathead minnows (Pimephales promelas). (abst – 2005)  

Anandamide in Chocolate (news – 2005)  
http://www.herbmuseum.ca/content/anandamide-chocolate

A biosynthetic pathway for anandamide (full - 2006)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1557387/

Activation of G-proteins in brain by endogenous and exogenous cannabinoids. (full – 2006)  

Regulation, Function, and Dysregulation of Endocannabinoids in Models of Adipose and β-Pancreatic Cells and in Obesity and Hyperglycemia (full - 2006)
Neural contractions in colonic strips from patients with diverticular disease: role of endocannabinoids and substance P  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1856307/

Endocannabinoids, feeding and suckling – from our perspective  
http://www.nature.com/ijo/journal/v30/n1s/full/0803274a.html

Stage-variations of anandamide hydrolase activity in the mouse uterus during the natural oestrus cycle  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1440866/?tool=pubmed

Experimental autoimmune encephalomyelitis disrupts endocannabinoid-mediated neuroprotection  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1458883/?tool=pmcentrez

Endocannabinoids potently protect the newborn brain against AMPA-kainate receptor-mediated excitotoxic damage  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1751782/?tool=pmcentrez

Not Too Excited? Thank Your Endocannabinoids  

Effect of N-arachidonoyl-(2-methyl-4-hydroxyphenyl) amine (VDM11), an anandamide transporter inhibitor, on capsaicin-induced cough in mice  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1448189/?tool=pmcentrez

Effects of general anesthesia on anandamide blood levels in humans.  
http://anesthesiology.pubs.asahq.org/article.aspx?articleid=1923152&resultClick=3

Endocannabinoids potently protect the newborn brain against AMPA-kainate receptor-mediated excitotoxic damage  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1751782/?tool=pmcentrez

Cannabinoids and the Endocannabinoid System  

Is there a temperature-dependent uptake of anandamide into cells?  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1629410/

Cannabinoids in acute gastric damage and pancreatitis.  
http://www.jpp.krakow.pl/journal/archive/11_06_s5/pdf/137_11_06_s5_article.pdf

Anxiolytic-like properties of the anandamide transport inhibitor AM404.  
http://www.nature.com/npp/journal/v31/n12/full/1301061a.html

The endocannabinoid anandamide protects neurons during CNS inflammation by induction of MKP-1 in microglial cells.  

Endocannabinoid, anandamide in gingival tissue regulates the periodontal inflammation through NF-kappaB pathway inhibition. (full – 2006)

Acyl-based anandamide uptake inhibitors cause rapid toxicity to C6 glioma cells at pharmacologically relevant concentrations. (full – 2006)

Role of endocannabinoids in alcohol consumption and intoxication: studies of mice lacking fatty acid amide hydrolase. (full – 2006)
http://www.nature.com/npp/journal/v32/n7/full/1301274a.html

EFFECT OF CANNABINOIDS ON TESTICULAR ISCHEMIA-REPERFUSION INJURY IN RAT (link to PDF – 2006)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.557.2348

Inhibition of Salivary Secretion by Activation of Cannabinoid Receptors
(full - forum repost - 2006)

Nitric Oxide and Anandamide in OMT Research (letter – 2006)
http://jaoa.org/article.aspx?articleid=2093101&resultClick=1

Development of the first potential covalent inhibitors of anandamide cellular uptake. (abst – 2006)
http://pubs.acs.org/doi/abs/10.1021/jm051226l

Up-regulation of anandamide levels as an endogenous mechanism and a pharmacological strategy to limit colon inflammation. (abst – 2006)

Increasing cannabinoid levels by pharmacological and genetic manipulation delay disease progression in SOD1 mice (abst - 2006)

Methods evaluating cannabinoid and endocannabinoid effects on gastrointestinal functions. (abst – 2006)

Human adipose tissue binds and metabolizes the endocannabinoids anandamide and 2-arachidonoylglycerol. (abst – 2006)

Role of cannabinoid receptor agonists in mechanisms of suppression of central pain syndrome. (abst - 2006)

Anandamide inhibits adhesion and migration of breast cancer cells. (abst - 2006)


Cannabinoid-2 receptor mediates protection against hepatic ischemia/reperfusion injury (full - 2007)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2228252/?tool=pmcentrez

Endocannabinoid metabolism and uptake: novel targets for neuropathic and inflammatory pain (full - 2007)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190014/?tool=pubmed

The Endogenous Cannabinoid Anandamide Produces δ-9-Tetrahydrocannabinol-Like Discriminative and Neurochemical Effects That Are Enhanced by Inhibition of Fatty Acid Amide Hydrolase but Not by Inhibition of Anandamide Transport (full - 2007)  http://jpet.aspetjournals.org/content/321/1/370.full

Anandamide and Delta9-tetrahydrocannabinol directly inhibit cells of the immune system via CB2 receptors. (full - 2007)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2083705/?tool=pubmed

Anandamide Regulates Keratinocyte Differentiation by Inducing DNA Methylation in a CB1 Receptor-dependent Manner (full – 2007)  http://www.jbc.org/content/283/10/6005.full?sid=931583b1-e797-43e0-8296-7fd75bb49403#sec-4

Anti-dyskinetic effects of cannabinoids in a rat model of Parkinson's disease: role of CB1 and TRPV1 receptors (full - 2007)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2128772/?tool=pmcentrez

Regulation of brain anandamide by acute administration of ethanol. (full – 2007)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1868843/


Endocannabinoid enhancement protects against kainic acid-induced seizures and associated brain damage. (full – 2007)  http://jpet.aspetjournals.org/content/322/3/1059.long


Cardiovascular effects of cannabinoids in conscious spontaneously hypertensive rats (full - 2007)  https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190006/

Endocannabinoids and the haematological system (full - 2007)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190025/?tool=pmcentrez

Characterization of the vasorelaxant mechanisms of the endocannabinoid anandamide in rat aorta (full – 2007)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190007/?tool=pubmed

GPR55 and the vascular receptors for cannabinoids. (full – 2007)
The CB1 Cannabinoid Receptor Mediates Excitotoxicity-induced Neural Progenitor Proliferation and Neurogenesis  (full - 2007)
http://www.jbc.org/content/282/33/23892.full

The orphan receptor GPR55 is a novel cannabinoid receptor.  (full – 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2095107/?tool=pubmed

Chronologically overlapping occurrences of nicotine-induced anxiety- and depression-related behavioral symptoms: effects of anxiolytic and cannabinoid drugs (full - 2007)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2075518/?tool=pubmed

Involvement of the Endocannabinoid System in Retinal Damage after High Intraocular Pressure–Induced Ischemia in Rats  (full - 2007)
http://www.iovs.org/cgi/content/full/48/7/2997;
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabis&andorexactfulltext=and&searchid=1&F1 RSTINDEX=0&sortspec=relevance&resourcetype=HWCIT

Anandamide inhibits cholangiocyte hyperplastic proliferation via activation of thioredoxin 1/redox factor 1 and AP-1 activation  (full – 2007)
http://ajpgi.physiology.org/content/294/2/G506.full

Opposing Actions of Endocannabinoids on Cholangiocarcinoma Growth (full - 2007)  http://www.jbc.org/content/282/17/13098.full

The fatty acid amide hydrolase inhibitor URB597 (cyclohexylcarbamic acid 3′-carbamoylbiphenyl-3-yl ester) reduces neuropathic pain after oral administration in mice. (full – 2007)  http://jpet.aspetjournals.org/content/322/1/236.long

Decreased age-related cardiac dysfunction, myocardial nitrate-stress, inflammatory gene expression, and apoptosis in mice lacking fatty acid amide hydrolase. (full – 2007)  https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2225473/

STUDIES OF ANANDAMIDE ACCUMULATION INHIBITORS IN CEREBELLAR GRANULE NEURONS  (full – 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2248273/

Anandamide-Mediated CB1/CB2 Cannabinoid Receptor-Independent Nitric Oxide Production in Rabbit Aortic Endothelial Cells (full – 2007)
http://jpet.aspetjournals.org/content/321/3/930.long

Characterization of cannabinoid-binding sites in zebrafish brain.  (full – 2007)

n-3 Fatty acids and the endocannabinoid system.  (letter – 2007)
http://ajcn.nutrition.org/content/85/3/919.1.long
Antiaversive Effects of Cannabinoids: Is the Periaqueductal Gray Involved
(link to PDF - 2007)

Endocannabinoids, cannabinoid receptors and inflammatory stress: an interview with Dr. Pál Pacher
(link to PDF - interview - 2007)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.510.3426

Cardiovascular Abnormalities in Cirrhosis: the Possible Mechanisms
(abst - 2007)
http://jthc.tums.ac.ir/index.php/jthc/article/view/64/64

Identification of the vasodilatory endothelial cannabinoid receptor in the human pulmonary artery.

Fatty acid amide hydrolase: from characterization to therapeutics.

The endocannabinoids anandamide and 2-arachidonoylglycerol inhibit cholinergic contractility in the human colon.

Effect of Endocannabinoid System on the Neurogenic Function of Rat Corpus Cavernosum

Anandamide levels in cerebrospinal fluid of first-episode schizophrenic patients

Antiangiogenic activity of the endocannabinoid anandamide: correlation to its tumor-suppressor efficacy.

Anandamide-induced Ca2+ elevation leading to p38 MAPK phosphorylation and subsequent cell death via apoptosis in human osteosarcoma cells.

Attenuation of allergic contact dermatitis through the endocannabinoid system.

Antidepressant-like activity of the fatty acid amide hydrolase inhibitor URB597 in a rat model of chronic mild stress.

Arvanil, anandamide and N-arachidonoyl-dopamine (NADA) inhibit emesis through cannabinoid CB1 and vanilloid TRPV1 receptors in the ferret.
Endocannabinoid system in cancer cachexia.  (abst – 2007)

Cannabinoid receptor agonists are mitochondrial inhibitors: a unified hypothesis of how cannabinoids modulate mitochondrial function and induce cell death.  (abst – 2007)

Marijuana-Like Brain Chemicals Work As Antidepressant  (news - 2007)

Role seen for cannabis in helping to alleviate allergic skin disease  (news - 2007)

The Endocannabinoids: Functional Roles and Therapeutic Opportunities  (news – 2007)

CB1 Cannabinoid Receptor Inhibition: Promising Approach for Heart Failure?  (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2669829/?tool=pmcentrez

A decrease in anandamide signaling contributes to the maintenance of cutaneous mechanical hyperalgesia in a model of bone cancer pain.  (full – 2008)
http://www.jneurosci.org/content/28/44/11141.long

N-arachidonylethanolamide-Induced Increase in Aqueous Humor Outflow Facility  (full - 2008)
http://www.iovs.org/cgi/content/full/49/10/4528

Expression of the Endocannabinoid System in Human First Trimester Placenta and Its Role in Trophoblast Proliferation  (full – 2008)
http://endo.endojournals.org/content/149/10/5052.full?sid=f5b14012-9fbe-4f10-890c-386313060cf8

'Entourage' effects of N-palmitoylethanolamide and N-oleoylethanolamide on vasorelaxation to anandamide occur through TRPV1 receptors.  (full – 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2597234/

Pharmacological Inhibition of CB1 Cannabinoid Receptor Protects Against Doxorubicin-Induced Cardiotoxicity  (full - 2008)
http://content.onlinejacc.org/cgi/content/full/50/6/528

Role of endocannabinoids in cardiovascular shock.  (full – 2008)
http://www.jpp.krakow.pl/journal/archive/12_08_s8/pdf/91_12_08_s8_article.pdf

Modulation of the Endocannabinoid System in Cardiovascular Disease  (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2568884/?tool=pmcentrez

Cannabinoid receptors and the regulation of bone mass  (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219540/?tool=pmcentrez
Cannabinomimetic Control of Mast Cell Mediator Release: New Perspective in Chronic Inflammation (full – 2008)

Acute hypertension reveals depressor and vasodilator effects of cannabinoids in conscious rats (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2697765/?tool=pmcentrez

Attenuation of Experimental Autoimmune Hepatitis by Exogenous and Endogenous Cannabinoids: Involvement of Regulatory T Cells (full - 2008)
http://molpharm.aspetjournals.org/content/74/1/20.full?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=320&resourcectype=HWCIT#content-block

Ulcerative colitis in AKR mice is attenuated by intraperitoneally administered anandamide. (full – 2008)
http://www.jpp.krakow.pl/journal/archive/12_08/pdf/673_12_08_article.pdf

Role of activated endocannabinoid system in regulation of cellular cholesterol metabolism in macrophages (full – 2008)
http://cardiovascres.oxfordjournals.org/content/81/4/805.full?sid=7d2438c4-a727-410f-870d-4a971695b4fb

Gastrointestinal Regulation of Food Intake: General Aspects and Focus on Anandamide and Oleoylethanolamide (full – 2008)

Endocannabinoids in the retina: from marijuana to neuroprotection. (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2584875/

Endocannabinoids and the Control of Energy Homeostasis (full – 2008)
http://www.jbc.org/content/283/48/33021.full?sid=931583b1-e797-43e0-8296-7fd75bb49403

Acute effects of endocannabinoid anandamide and CB1 receptor antagonist, AM251 in the regulation of thyrotropin secretion. (full – 2008)
http://joe.endocrinology-journals.org/content/199/2/235.long

The endocannabinoid anandamide inhibits cholangiocarcinoma growth via activation of the noncanonical Wnt signaling pathway (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2604798/?tool=pmcentrez

The anandamide analog, Met-F-AEA, controls human breast cancer cell migration via the RHOA/RH0 kinase signaling pathway. (full – 2008)
http://erc.endocrinology-journals.org/cgi/content/full/15/4/965

Role of cannabinoids and endocannabinoids in cerebral ischemia (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2581413/?tool=pmcentrez
Inhibition of human neutrophil chemotaxis by endogenous cannabinoids and phytocannabinoids: evidence for a site distinct from CB1 and CB2.  
(full – 2008)  
http://molpharm.aspetjournals.org/content/73/2/441.long

Endocannabinoid Dysregulation in the Pancreas and Adipose Tissue of Mice Fed With a High-fat Diet  
(full - 2008)  

Activation of the endocannabinoid system by organophosphorus nerve agents  
(full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2597283/

Mechanisms for Recycling and Biosynthesis of Endogenous Cannabinoids Anandamide and 2-Arachidonylglycerol  
(full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2581634/?tool=pmcentrez

Inhibition of anandamide hydrolysis by URB597 reverses abuse-related behavior and neurochemical effects of nicotine in rats  
(full – 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2663803/?tool=pubmed

Endocannabinoids and nutrition.  
(full – 2008)  

Interplay between endocannabinoids, steroids and cytokines in the control of human reproduction.  
(full - 2008)  

Clinical endocannabinoid deficiency (CECD): can this concept explain therapeutic benefits of cannabis in migraine, fibromyalgia, irritable bowel syndrome and other treatment-resistant conditions?  
(full – 2008)  

Endogenous cannabinoids: structure and metabolism.  
(full - 2008)  

Cannabinoid Receptors in Conjunctival Epithelium: Identification and Functional Properties  
(full – 2008)  
http://iovs.arvojournals.org/article.aspx?articleid=2125015&resultClick=1

Degradation of endocannabinoids in chronic migraine and medication overuse headache.  
(link to PDF - 2008)  

Endocannabinoids enhance lipid synthesis and apoptosis of human sebocytes via cannabinoid receptor-2-mediated signaling.  
(link to PDF – 2008)  
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.328.8372

Evidence for the intracellular accumulation of anandamide in adiposmes.  
(abst – 2008)  


The endogenous fatty acid amide, palmitoylethanolamide, has anti-allodynic and anti-hyperalgesic effects in a murine model of neuropathic pain: involvement of CB(1), TRPV1 and PPARgamma receptors and neurotrophic factors. (abst – 2008)

Cannabinoids in the control of pain (abst – 2008)

Understanding the effects of endogenous cannabinoids (news - 2008)

Marijuana-Inspired Painkiller? New Chemical Pathway Discovered (news - 2008)

Endocannabinoids and the Heart (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2728560/?tool=pmcentrez

Cannabinoids, Endocannabinoids, and Related Analogs in Inflammation (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2664885/?tool=pmcentrez

Circulating endocannabinoids and N-acyl ethanolamines are differentially regulated in major depression and following exposure to social stress. (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2716432/?tool=pubmed

Localisation and Function of the Endocannabinoid System in the Human Ovary (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2640464/?tool=pmcentrez

Changes in the Endocannabinoid System May Give Insight into new and Effective Treatments for Cancer (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2791688/?tool=pmcentrez

The biosynthesis of N-arachidonoyl dopamine (NADA), a putative endocannabinoid and endovanilloid, via conjugation of arachidonic acid with dopamine (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2757501/

Post-ischemic brain damage: the endocannabinoid system in the mechanisms of neuronal death. (full - 2009)

Endogenous cannabinoids induce fever through the activation of CB1 receptors. (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2765314/?tool=pubmed

Dual blockade of FAAH and MAGL identifies behavioral processes regulated by endocannabinoid crosstalk in vivo. (full – 2009)
http://www.pnas.org/content/106/48/20270.long

Biomarkers of Endocannabinoid System Activation in Severe Obesity (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2808340/?tool=pubmed
Endocannabinoids and Their Receptors as Targets for Obesity Therapy  (full - 2009)

The endocannabinoid system in bull sperm and bovine oviductal epithelium: role of anandamide in sperm-oviduct interaction.  (full - 2009)
http://www.reproduction-online.org/cgi/content/full/137/3/403

Fluctuation in anandamide levels from ovulation to early pregnancy in in-vitro fertilization-embryo transfer women, and its hormonal regulation  (full – 2009)
http://humrep.oxfordjournals.org/content/24/8/1989.long

Association of CNR1 and FAAH endocannabinoid gene polymorphisms with anorexia nervosa and bulimia nervosa: evidence for synergistic effects.  (full – 2009)

Role of endocannabinoid signaling in anxiety and depression.  (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3808114/

Spatio-temporal expression patterns of anandamide-binding receptors in rat implantation sites: evidence for a role of the endocannabinoid system during the period of placental development  (full – 2009)
http://www.rbej.com/content/7/1/121

Modulation of motor and sensory pathways of the peristaltic reflex by cannabinoids. (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2739820/?tool=pubmed

Lipid rafts regulate 2-arachidonoylgllycerol metabolism and physiological activity in the striatum  (full – 2009)

The endocannabinoid anandamide is a precursor for the signaling lipid N-arachidonoyl glycine by two distinct pathways  (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2689249/?tool=pubmed

Characterization of the Endocannabinoid System in Human Neuronal Cells and Proteomic Analysis of Anandamide-induced Apoptosis  (full – 2009)
http://www.jbc.org/content/284/43/29413.full

Endocannabinoids and cannabinoid analogues block cardiac hKv1.5 channels in a cannabinoid receptor-independent manner  (full – 2009)
http://cardiovascres.oxfordjournals.org/content/85/1/56.full?sid=7d2438e4-a727-410f-870d-4a971695b4fb

Endocannabinoids may mediate the ability of (n-3) fatty acids to reduce ectopic fat and inflammatory mediators in obese Zucker rats.  (full – 2009)
http://jn.nutrition.org/content/139/8/1495.long

Endocannabinoid-mediated control of synaptic transmission.  (full – 2009)
http://physrev.physiology.org/content/89/1/309.long
The endocannabinoid system of the skin in health and disease: novel perspectives and therapeutic opportunities (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2757311/

Sleep deprivation increases oleoylethanolamide in human cerebrospinal fluid. (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2757605/?tool=pubmed

Blockade of endocannabinoid-degrading enzymes attenuates neuropathic pain. (full - 2009)
http://jpet.aspetjournals.org/content/330/3/669.1.full?sid=af53ea87-ab4b-426e-9c7e-8f750e9c4a17

Minocycline treatment inhibits microglial activation and alters spinal levels of endocannabinoids in a rat model of neuropathic pain (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2719614/

Receptors for acylethanolamides-GPR55 and GPR119. (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2751869/?tool=pubmed

Anandamide injected into the lateral ventricle of the brain inhibits submandibular salivary secretion by attenuating parasympathetic neurotransmission (full – 2009)

Unconventional neurotransmitters, neurodegeneration and neuroprotection (full – 2009)

The endocannabinoid system as a link between homoeostatic and hedonic pathways involved in energy balance regulation (full – 2009)
http://www.nature.com/ijo/journal/v33/n2s/full/ijo200967a.html

Pretreatment with electroacupuncture induces rapid tolerance to focal cerebral ischemia through regulation of endocannabinoid system. (full – 2009)
http://stroke.ahajournals.org/content/40/6/2157.long

Opposite effects of anandamide and n-arachidonoyl dopamine in the regulation of prostaglandin E2 and 8-iso-PGF2α formation in primary glial cells (full – 2009)

Endocannabinoid signaling in neurotoxicity and neuroprotection. (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2891218/

Neuropathic Pain and Endocannabinoid-Degradation Blockade (link to PDF – 2009)
http://jpet.aspetjournals.org/content/330/3/669.1.full?sid=af53ea87-ab4b-426e-9c7e-8f750e9c4a17

The endocannabinoid 2-arachidonoylglycerol promotes sperm development through activation of cannabinoid-2 receptors (link to PDF - 2009)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.505.7026&rank=36
Endocannabinoids and reproductive biology.  (letter - 2009)
http://humrep.oxfordjournals.org/content/24/7/1771.full.pdf+html

ALTERED ANANDAMIDE DEGRADATION IN ATTENTION-DEFICIT/HYPERACTIVITY DISORDER (excerpt – 2009)
http://www.neurology.org/content/72/17/1526

The Endocannabinoid Anandamide: From Immunomodulation to Neuroprotection. Implications for Multiple Sclerosis (abst - 2009)

From endocannabinoid profiling to 'endocannabinoid therapeutics'. (abst – 2009)

Plasma endocannabinoid levels in multiple sclerosis. (abst – 2009)

Modulation of the endocannabinoid-degrading enzyme fatty acid amide hydrolase by follicle-stimulating hormone. (abst – 2009)


Endocannabinoids mediate anxiolytic-like effect of acetaminophen via CB1 receptors. (abst – 2009)

Pharmacological synergism between cannabinoids and paclitaxel in gastric cancer cell lines. (abst – 2009)

Endocannabinoids anandamide and its cannabinoid receptors in liver fibrosis after murine schistosomiasis. (abst – 2009)

Circulating endocannabinoid concentrations during orthostatic stress (abst – 2009)

A metabolically stable analogue of anandamide, Met-F-AEA, inhibits human thyroid carcinoma cell lines by activation of apoptosis (abst - 2009)

Endogenous anandamide and cannabinoid receptor-2 contribute to electroacupuncture analgesia in rats. (abst – 2009)

Is GPR55 an anandamide receptor? (abst - 2009)
Inhibition of fatty acid amide hydrolase, a key endocannabinoid metabolizing enzyme, by analogues of ibuprofen and indomethacin. (abst – 2009)  

Endocannabinoids: friends and foes of reproduction. (abst – 2009)  

Cannabinoid in the nucleus accumbens enhances the intake of palatable solution. (abst – 2009)  

N-acylethanolamines, anandamide and food intake. (abst – 2009)  

Biochemical and biological properties of 4-(3-phenyl-[1,2,4] thiadiazol-5-yl)-piperazine-1-carboxylic acid phenylamide, a mechanism-based inhibitor of fatty acid amide hydrolase. (abst – 2009)  

Sleep-inducing factors. (abst – 2009)  

Skeletal anabolic activity of cannabinoid receptor agonists (abst - 2009)  
https://www.deepdyve.com/lp/elsevier/skeletal-anabolic-activity-of-cannabinoid-receptor-agonists-IHk6Sm07R0

Pharmacological synergism between cannabinoids and paclitaxel in gastric cancer cell lines. (abst – 2009)  

Endocannabinoids prevent lysosomal membrane destabilisation evoked by treatment with β-amyloid in cultured rat cortical neurons (abst - forum repost – 2009)  

**CBR - CB1 CANNABINOID RECEPTOR** * - activated by THC, Anandamide, synthetics, activating CB1 receptors in the brain causes the “high”

Cannabinoid Receptor Ligands (full - undated)  
http://www.tocris.com/pdfs/cannabinoid_receptor_review/page_001.html


Cannabinoid CB1 receptor-mediated inhibition of prolactin release and signaling mechanisms in GH4C1 cells. (full – 2000)  
http://press.endocrine.org/doi/full/10.1210/endo.141.5.7454
Endocannabinoids and Vascular Function (full - 2000)
http://jpet.aspetjournals.org/content/294/1/27.long


Modulation of peristalsis by cannabinoid CB1 ligands in the isolated guinea-pig ileum (full - 2000) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1571902/


Cannabinoids decrease the K+ M-current in hippocampal CA1 neurons (link to PDF - 2000) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.326.2509&rank=84


Cannabinoid CB1-mediated inhibition of stress-induced gastric ulcers in rats (abst – 2000) http://www.springerlink.com/content/w3jc8tk16k9p92fl/

Inhibition of small intestinal secretion by cannabinoids is CB1 receptor-mediated in rats (abst – 2000) http://www.sciencedirect.com/science/article/pii/S0014299900008438


The cannabinoid CB1 receptor antagonist SR 141716A reverses the antiemetic and motor depressant actions of WIN 55, 212-2 (full – 2001) http://www.nature.com/npp/journal/v24/n2/full/1395605a.html

Cannabinoid CB1-receptor mediated regulation of gastrointestinal motility in mice in a model of intestinal inflammation (full - 2001) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1572987/?tool=pmcentrez

Endogenous cannabionoids mediate hypotension after experimental myocardial infarction (full - 2001) http://content.onlinejacc.org/cgi/content/full/38/7/2048?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=560&resourcetype=HWCIT

2-Arachidonoyl glyceryl ether, an endogenous agonist of the cannabinoid CB1 receptor (full - 2001) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC31108/

Supersensitivity to anandamide and enhanced endogenous cannabinoid signaling in mice lacking fatty acid amide hydrolase (full - 2001) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC55427/?tool=pubmed

Despite substantial degradation, 2-arachidonoylglycerol is a potent full efficacy agonist mediating CB(1) receptor-dependent G-protein activation in rat cerebellar membranes. (full – 2001) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1572991/?tool=pubmed

The neurobiology and evolution of cannabinoid signalling (full - 2001) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1088434/

Despite substantial degradation, 2-arachidonoylglycerol is a potent full efficacy agonist mediating CB(1) receptor-dependent G-protein activation in rat cerebellar membranes. (full – 2001) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1572991/

Cannabinoid receptor activation and elevated cyclic AMP reduce glutamate neurotoxicity (full – 2001) https://www.researchgate.net/publication/12008661_Cannabinoid_receptor_activation_and_elevated_cyclic_AMP_reduce_glutamate_neurotoxicity

Palmitoylethanolamide inhibits the expression of fatty acid amide hydrolase and enhances the anti-proliferative effect of anandamide in human breast cancer cells (link to download - 2001) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1222054/pdf/11485574.pdf?tool=pmcentrez

The synthetic cannabinoid WIN55212-2 decreases the intraocular pressure in human glaucoma resistant to conventional therapies.  (abst – 2001)  

Effects of CB1 cannabinoid receptor blockade on ethanol preference after chronic ethanol administration.  (abst – 2001)  

Evidence for functional CB1 cannabinoid receptor expressed in the rat thyroid  
(full – 2002)  
http://www.eje-online.org/content/147/2/255.full.pdf+html

Sourcing the Code: Searching for the Evolutionary Origins of Cannabinoid Receptors, Vanilloid Receptors, and Anandamide  
(full – 2002)  

A Peripheral Mechanism for CB1 Cannabinoid Receptor-Dependent Modulation of Feeding  
(full - 2002)  
http://www.jneurosci.org/content/22/21/9612.full

Influence of the CB1 receptor antagonist, AM 251, on the regional haemodynamic effects of WIN-55212-2 or HU 210 in conscious rats  
(full - 2002)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1573379/?tool=pmcentrez

Increased Severity of Stroke in CB1 Cannabinoid Receptor Knock-Out Mice  
(full - 2002)  
http://www.jneurosci.org/cgi/content/full/22/22/9771?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=80&resourcetype=HWCIT#Top

Cannabinoid receptor agonism inhibits transient lower esophageal sphincter relaxations and reflux in dogs  
(full – 2002)  
http://www.gastrojournal.org/article/S0016-5085%2802%2900218-4/fulltext

Cannabinoids and Feeding: The Role of the Endogenous Cannabinoid System as a Trigger for Newborn Suckling  
(link to PDF - 2002)  

The endocannabinoid system in invertebrates  
(link to PDF – 2002)  

Cannabinoid CB1 receptor as a target for chlorpyrifos oxon and other organophosphorus pesticides.  
(abst – 2002)  

Loss of cannabinoid CB(1) receptors in the basal ganglia in the late akinetic phase of rats with experimental Huntington's disease.  
(abst – 2002)  


Effect on cancer cell proliferation of palmitoylethanolamide, a fatty acid amide interacting with both the cannabinoid and vanilloid signalling systems. (abst – 2002) http://www.ncbi.nlm.nih.gov/pubmed/12570018


Differential Roles of CB1 and CB2 Cannabinoid Receptors in Mast Cells (full – 2003) http://www.jimmunol.org/content/170/10/4953.full?sid=590f7819-f39b-4214-abca-07231b51da55

CB1 cannabinoid receptor antagonism promotes remodeling and cannabinoid treatment prevents endothelial dysfunction and hypotension in rats with myocardial infarction (full - 2003) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1573770/?tool=pmcentrez

Endocannabinoid signalling in the blood of patients with schizophrenia (full – 2003) http://www.lipidworld.com/content/2/1/5


The Endogenous Cannabinoid System Regulates Seizure Frequency and Duration in a Model of Temporal Lobe Epilepsy (full - 2003) http://jpet.aspetjournals.org/content/307/1/129.full?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=160&resourcetype=HWCIT
The endogenous cannabinoid system affects energy balance via central orexigenic drive and peripheral lipogenesis  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC166293/

Cannabinoid1 receptor in the dorsal vagal complex modulates lower oesophageal sphincter relaxation in ferrets  
http://jp.physoc.org/content/550/1/149.full

Cannabinoid receptor type 1 modulates excitatory and inhibitory neurotransmission in mouse colon  
http://ajpgi.physiology.org/content/286/1/G110.full?sid=fc6948f0-78cf-405c-981b-afaa05ee417c

Association between cannabinoid receptor gene (CNR1) and childhood attention deficit/hyperactivity disorder in Spanish male alcoholic patients  
http://www.nature.com/mp/journal/v8/n5/full/4001278a.html

High level of cannabinoid receptor 1, absence of regulator of G protein signalling 13 and differential expression of Cyclin D1 in mantle cell lymphoma  
http://www.nature.com/leu/journal/v17/n9/full/2403057a.html

Cannabinoid Cb1 Receptor Knockout Mice Exhibit Markedly Reduced Voluntary Alcohol Consumption and Lack Alcohol-induced Dopamine Release in the Nucleus Accumbens.  

5-HT1A receptors increase excitability of spinal motoneurons by inhibiting a TASK-1-like K+ current in the adult turtle  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2342869/

A Critical Role for the Cannabinoid CB1 Receptors in Alcohol Dependence and Stress-Stimulated Ethanol Drinking  
http://www.jneurosci.org/content/23/6/2453.long

Inhibitory effects of cannabinoid CB1 receptor stimulation on tumor growth and metastatic spreading: actions on signals involved in angiogenesis and metastasis1  

Cannabinoid receptor type 1 (CB1) affects hypothalamic-pituitary-adrenal (HPA) axis activity at cerebral and pituitary level  

Differential distribution of functional cannabinoid CB1 receptors in the mouse gastrointestinal tract.  

Milk intake and survival in newborn cannabinoid CB1 receptor knockout mice: evidence for a "CB3" receptor.  

Expression of functionally active cannabinoid receptor CB1 in the human prostate gland
Regulation of Cannabinoid CB1 Receptors in the Central Nervous System by Chronic Cannabinoids
http://dl.begellhouse.com/journals/7b004699754e9fe6,5aa33979065f2aa3,42019b6a7dd932fb.html

Anandamide enhances extracellular levels of adenosine and induces sleep: an in vivo microdialysis study.

Neuroprotective and brain edema-reducing efficacy of the novel cannabinoid receptor agonist BAY 38-7271.

Cannabinoid CB1 receptor activation does not prevent the toxicity of glutamate towards embryonic chick telencephalon primary cultures.

Structure, expression and regulation of the cannabinoid receptor gene (CB1) in Huntington's disease transgenic mice.

Presynaptic cannabinoid CB1 receptors are involved in the inhibition of the neurogenic vasopressor response during septic shock in pithed rats
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1575049/?tool=pmcentrez

Defective adult neurogenesis in CB1 cannabinoid receptor knockout mice.
http://molpharm.aspetjournals.org/content/66/2/204.long

CB1 cannabinoid receptor knockout in mice leads to leanness, resistance to diet-induced obesity and enhanced leptin sensitivity
http://www.nature.com/jo/journal/v28/n4/full/0802583a.html

Human cannabinoid receptor 1: 5' exons, candidate regulatory regions, polymorphisms, haplotypes and association with polysubstance abuse.
http://www.nature.com/mp/journal/v9/n10/full/4001560a.html

Endogenous Cannabinoids Take the Edge off Neuroendocrine Responses to Stress

Evidence for an Interaction between CB1 Cannabinoid and Melanocortin MCR-4 Receptors in Regulating Food Intake

Oleamide is a selective endogenous agonist of rat and human CB1 cannabinoid receptors.
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1574194/

The endocannabinoid system: physiology and pharmacology.
http://alcalc.oxfordjournals.org/cgi/content/full/40/1/2
Heterogeneity in the mechanisms of vasorelaxation to anandamide in resistance and conduit rat mesenteric arteries  
(full – 2004)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1574972/  

SR147778 [5-(4-Bromophenyl)-1-(2,4-dichlorophenyl)-4-ethyl-N-(1-piperidinyl)-1H-pyrazole-3-carboxamide], a New Potent and Selective Antagonist of the CB1 Cannabinoid Receptor: Biochemical and Pharmacological Characterization  
(full – 2004)  
http://jpet.aspetjournals.org/content/310/3/905.long  

3-[2-cyano-3-(trifluoromethyl)phenoxy]phenyl-4,4,4-trifluoro-1-butanesulfonate (BAY 59-3074): a novel cannabinoid Cb1/Cb2 receptor partial agonist with antihyperalgesic and antiallodynic effects.  
(full – 2004)  
http://jpet.aspetjournals.org/content/310/2/620.long  

Ceramide sensitizes astrocytes to oxidative stress: protective role of cannabinoids  
(link to PDF – 2004)  
http://www.biochemj.org/content/380/2/435.full-text.pdf  

The THC-induced suppression of Th1 polarization in response to Legionella pneumophila infection is not mediated by increases in corticosterone and PGE2.  
(abst – 2004)  

Delayed onset of Huntington's disease in mice in an enriched environment correlates with delayed loss of cannabinoid CB1 receptors.  
(abst – 2004)  

Activation of peripheral cannabinoid receptors attenuates cutaneous hyperalgesia produced by a heat injury.  
(abst – 2004)  

Influence of cannabinoids on immunoreactivity of regulatory peptides, produced in rat thyroid C cells; preliminary investigations.  
(abst – 2004)  

Tourette syndrome is not caused by mutations in the central cannabinoid receptor (CNR1) gene.  
(abst - 2004)  

The gastrointestinal pharmacology of cannabinoids: an update.  
(abst – 2004)  

Potential involvement of cannabinoid receptors in 3-nitropropionic acid toxicity in vivo.  
(abst – 2004)  

[123I]AM281 single-photon emission computed tomography imaging of central cannabinoid CB1 receptors before and after Delta9-tetrahydrocannabinol therapy and whole-body scanning for assessment of radiation dose in tourette patients.  
(abst – 2004)  


(-)-7'-Isothiocyanato-11-hydroxy-1',1'-dimethylheptylhexahydrocannabinol (AM841), a high-affinity electrophilic ligand, interacts covalently with a cysteine in helix six and activates the CB1 cannabinoid receptor. (full – 2005) http://molpharm.aspetjournals.org/content/68/6/1623.long


Role of the endocannabinoid system in the development of tolerance to alcohol
Synergistic Interactions between Cannabinoids and Environmental Stress in the Activation of the Central Amygdala (full - 2005)
http://www.nature.com/npp/journal/v30/n3/full/1300535a.html

Endocannabinoid activation at hepatic CB1 receptors stimulates fatty acid synthesis and contributes to diet-induced obesity (full - 2005)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1087161/?tool=pmcentrez

The cannabinoid 1 receptor antagonist, AM251, prolongs the survival of rats with severe acute pancreatitis. (full - 2005)
https://www.jstage.jst.go.jp/article/tjem/207/2/207_2_99/_pdf

CB1 cannabinoid receptor-mediated modulation of food intake in mice (full - 2005)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1576140/?tool=pmcentrez

Evidence that the plant cannabinoid Δ9-tetrahydrocannabivarin is a cannabinoid CB1 and CB2 receptor antagonist (full - 2005)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1751228/?tool=pubmed

Early age-related cognitive impairment in mice lacking cannabinoid CB1 receptors. (full – 2005)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1266095/?tool=pubmed

Antidepressant-like Activity and Modulation of Brain Monoaminergic Transmission by Blockade of Anandamide Hydrolysis. (full – 2005)
http://www.pnas.org/content/102/51/18620.long

Ethanol Induces Higher Bec in Cb1 Cannabinoid Receptor Knockout Mice While Decreasing Ethanol Preference. (full – 2005)
http://alcalc.oxfordjournals.org/content/40/1/54.long

CB1 Receptor Knockout Mice Display Reduced Ethanol-Induced Conditioned Place Preference and Increased Striatal Dopamine D2 Receptors (full – 2005)
http://www.nature.com/npp/journal/v30/n2/full/1300568a.html

Increased anandamide induced relaxation in mesenteric arteries of cirrhotic rats: role of cannabinoid and vanilloid receptors (full – 2005)
http://gut.bmj.com/content/54/4/522.full?sid=0731f0e5-2071-4549-be57-57f444307138

Direct cerebrovascular effects of CB1 receptor activation by the synthetic endocannabinoid HU-210 in vivo (full - 2005)
http://jcb.sagepub.com/content/25/1_suppl/S581.full

Peripheral, but not central effects of cannabidiol derivatives: Mediation by CB 1 and unidentified receptors (full - 2005)

Analgesia through endogenous cannabinoids (link to PDF - 2005)
The endocannabinoid system drives neural progenitor proliferation. (abst – 2005)

Interaction between gamma-aminobutyric acid GABAB and cannabinoid CB1 receptors in spinal pain pathways in rat (abst – 2005)

The analgesic activity of paracetamol is prevented by the blockade of cannabinoid CB1 receptors (abst – 2005)

The Endogenous Cannabinoid System. Therapeutic Implications for Neurologic and Psychiatric Disorders (abst – 2005)

Distribution of cannabinoid receptor 1 (CB1) and 2 (CB2) on sensory nerve fibers and adnexal structures in human skin. (abst – 2005)

Activation of CB1 and CB2 receptors attenuates the induction and maintenance of inflammatory pain in the rat. (abst - 2005)

Cannabinoid-receptor 1 null mice are susceptible to neurofilament damage and caspase 3 activation. (abst – 2005)

Binding affinity and agonist activity of putative endogenous cannabinoids at the human neocortical CB1 receptor (abst – 2005)


Treatment of Tourette-syndrome with cannabinoids: results from clinical and neuroimaging studies (abst – 2005)

Cannabinoids and the digestive tract. (abst – 2005)

Marijuana May Grow Neurons in the Brain (news - 2005)
The Endocannabinoid System Controls Key Epileptogenic Circuits in the Hippocampus (full - 2006)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1769341/?tool=pmcentrez

AM 251 produces sustained reductions in food intake and body weight that are resistant to tolerance and conditioned taste aversion (full - 2006)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1615836/?tool=pmcentrez

Activation of the Cannabinoid Type-1 Receptor Mediates the Anticonvulsant Properties of Cannabinoids in the Hippocampal Neuronal Culture Models of Acquired Epilepsy and Status Epilepticus (full - 2006)  
http://jpet.aspetjournals.org/content/317/3/1072.full?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=320&resourcetype=HWCIT#ref-list-1

Activation of G-proteins in brain by endogenous and exogenous cannabinoids. (full – 2006)  

The Cannabinoid Cb1 Receptor Antagonist Rimonabant Attenuates the Hypotensive Effect of Smoked Marijuana in Male Smokers. (full – 2006)  
http://www.ahjonline.com/article/S0002-8703(05)01013-6/fulltext

Cannabinoid (CB1) Receptor Activation Inhibits Trigeminovascular Neurons (full - 2006)  
http://jpet.aspetjournals.org/content/320/1/64.full?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=3680&resourcetype=HWCIT

Cannabinoid CB1 receptor antagonists cause status epilepticus-like activity in the hippocampal neuronal culture model of acquired epilepsy (full - 2006)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1808496/?tool=pmcentrez

Antinociceptive effect of cannabinoid agonist WIN 55,212–2 in rats with a spinal cord injury (full - 2006)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1861843/?tool=pmcentrez

Sphingosine and its analog, the immunosuppressant 2-amino-2-(2-[4-octylphenyl]ethyl)-1,3-propanediol, interact with the CB1 cannabinoid receptor. (full – 2006)  
http://molpharm.aspetjournals.org/content/70/1/41.long

Involvement of Neuronal Cannabinoid Receptor CB1 in Regulation of Bone Mass and Bone Remodeling (full - 2006)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2238031/?tool=pmcentrez

Noladin Ether Acts on Trabecular Meshwork Cannabinoid (CB1) Receptors to Enhance Aqueous Humor Outflow Facility (full – 2006)  
http://iovs.arvojournals.org/article.aspx?articleid=2124902&resultClick=1

Endocannabinoids potently protect the newborn brain against AMPA-kainate receptor-mediated excitotoxic damage (full - 2006)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1751782/?tool=pmcentrez
Cannabinoid CB1 Receptor Mediates Fear Extinction via Habituation-Like Processes (full - 2006)
http://www.jneurosci.org/cgi/content/full/26/25/6677
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=400&res
courcetype=HWCIT

Cannabinoid receptors in human astroglial tumors. (full – 2006)

http://www.nature.com/tpj/journal/v6/n2/full/6500352a.html

Agonists of cannabinoid receptor 1 and 2 inhibit experimental colitis induced by oil of mustard and by dextran sulfate sodium (full – 2006)
http://ajpgi.physiology.org/content/291/2/G364

Cannabinoid receptors in invertebrates (full – 2006)

Cannabinoid receptors as a target for therapy of ovarian cancer (abst - 2006)
http://cancerres.aacrjournals.org/content/66/8_Supplement/1084.1

Evol ACEA (arachidonyl-2-chloroethylamide), the selective cannabinoid CB1 receptor agonist, protects against aspirin-induced gastric ulceration. (abst – 2006)


Neuromodulatory functions of the endocannabinoid system. (abst – 2006)

Effects of endocannabinoid neurotransmission modulators on brain stimulation reward. (abst – 2006)


Effect of chronic ethanol exposure and its withdrawal on the endocannabinoid system. (abst – 2006)

Increased ethanol consumption and preference and decreased ethanol sensitivity in female FAAH knockout mice. (abst – 2006)

Science: Cannabinoids reduce inflammation of the bowel in animal model (news - 2006)
http://www.cannabis-med.org/english/bulletin/ww_en_db_cannabis_artikel.php?id=216#1
PET imaging of cerebral cannabinoid CB1 receptors with [11C]JHU75528

The Endogenous Cannabinoid Anandamide Produces δ-9-Tetrahydrocannabinol-Like Discriminative and Neurochemical Effects That Are Enhanced by Inhibition of Fatty Acid Amide Hydrolase but Not by Inhibition of Anandamide Transport (full - 2007)
http://jpet.aspetjournals.org/content/321/1/370.full

Anandamide Regulates Keratinocyte Differentiation by Inducing DNA Methylation in a CB1 Receptor-dependent Manner (full – 2007)
http://www.jbc.org/content/283/10/6005.full?sid=931583b1-e797-43e0-8296-7fd75bb49403#sec-4

CANNABINOID-INDUCED HYPERPHAGIA: CORRELATION WITH INHIBITION OF PROOPIOMELANOCORTIN NEURONS? (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2720321/?tool=pmcentrez

Genetic variations at the endocannabinoid type 1 receptor gene (CNR1) are associated with obesity phenotypes in men. (full – 2007)
http://jcem.endojournals.org/content/92/6/2382.long

Cannabinoids mediate analgesia largely via peripheral type 1 cannabinoid receptors in nociceptors (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2234438/

The CB1 Cannabinoid Receptor Mediates Excitotoxicity-induced Neural Progenitor Proliferation and Neurogenesis (full - 2007)
http://www.jbc.org/content/282/33/23892.full

Expression of Cannabinoid CB1 Receptors in Models of Diabetic Neuropathy (full - 2007)
http://jpet.aspetjournals.org/content/323/2/508.full

Cannabinoid CB1 and CB2 Receptors and Fatty Acid Amide Hydrolase Are Specific Markers of Subtypes in Human Multiple Sclerosis (full - 2007)
http://www.jneurosci.org/cgi/content/full/27/9/2396?

Cannabinoid action in the olfactory epithelium (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1815290/?tool=pmcentrez

Anti-dyskinetic effects of cannabinoids in a rat model of Parkinson's disease: role of CB1 and TRPV1 receptors (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2128772/?tool=pmcentrez

Control of spasticity in a multiple sclerosis model is mediated by CB1, not CB2, cannabinoid receptors. (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2189718/?tool=pubmed
Cardiovascular effects of cannabinoids in conscious spontaneously hypertensive rats (full - 2007) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190006/

Cannabidiol displays unexpectedly high potency as an antagonist of CB1 and CB2 receptor agonists in vitro (full - 2007)

Virodhamine and CP55,940 modulate cAMP production and IL-8 release in human bronchial epithelial cells. (full – 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2042924/?tool=pubmed

CB1 receptors mediate the analgesic effects of cannabinoids on colorectal distension-induced visceral pain in rodents. (full – 2007)
http://www.jneurosci.org/content/29/5/1554.long

Hemopressin is an inverse agonist of CB1 cannabinoid receptors (full – 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2154475/

Acute and chronic administration of the cannabinoid receptor agonist CP 55,940 attenuates tumor-evoked hyperalgesia. (full – 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1995024/


Role of the nitric oxide pathway and the endocannabinoid system in neurogenic relaxation of corpus cavernosum from biliary cirrhotic rats (full – 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2013996/

Anandamide-Mediated CB1/CB2 Cannabinoid Receptor-Independent Nitric Oxide Production in Rabbit Aortic Endothelial Cells (full – 2007)
http://jpet.aspetjournals.org/content/321/3/930.long

Subcellular Arrangement of Molecules for 2-Arachidonoyl-Glycerol-Mediated Retrograde Signaling and Its Physiological Contribution to Synaptic Modulation in the Striatum (full – 2007) http://www.jneurosci.org/content/27/14/3663.long

Inhibition of milk ingestion and growth after administration of a neutral cannabinoid CB1 receptor antagonist on the first postnatal day in the mouse. (full - 2007)
http://www.nature.com/pr/journal/v62/n5/full/pr2007273a.html

Antiaversive Effects of Cannabinoids: Is the Periaqueductal Gray Involved (link to PDF - 2007)

In Vitro Anticonvulsant Action of 2-Arachidonyl Glycerol (link to download – 2007)
 EFFECT OF ENDOCANNABINOID SYSTEM ON THE NEUROGENIC FUNCTION OF RAT CORPUS Cavernosum (abst – 2007) 

The endocannabinoid system and extinction learning. (abst - 2007) 

Cerebellar-Dependent Learning as a Neurobehavioral Index of the Cannabinoid System (abst – 2007) 
http://dl.begellhouse.com/journals/7b004699754c9fe6,64ecdd6d045552415,684ce6ce63101f0f.html

Endocannabinoid system in cancer cachexia. (abst – 2007) 

Repeated Treatment with Cannabidiol but Not Delta9-tetrahydrocannabinol Has a Neuroprotective Effect Without the Development of Tolerance (abst - 2007) 

The local antinociceptive effects of paracetamol in neuropathic pain are mediated by cannabinoid receptors (abst – 2007) 

Immune-mediated Activation of the Endocannabinoid System in Visceral Adipose Tissue in Obesity (abst – 2007) 

Cannabinoid CB1 receptors in the paraventricular nucleus and central control of penile erection: immunocytochemistry, autoradiography and behavioral studies (abst – 2007) 
The endocannabinoid system and neurogenesis in health and disease.  
(link to download - 2007)  
http://journals.sagepub.com/doi/abs/10.1177/1073858406296407

Arvanil, anandamide and N-arachidonoyl-dopamine (NADA) inhibit emesis through cannabinoid CB1 and vanilloid TRPV1 receptors in the ferret.  (abst – 2007)  

Cannabinoid receptors expression in bone marrow trephine biopsy of chronic lymphocytic leukaemia patients treated with purine analogues.  (abst – 2007)  

No evidence for an involvement of variants in the cannabinoid receptor gene (CNR1) in obesity in German children and adolescents.  (abst – 2007)  

Hippies vindicated: Human-produced cannabinoids have anti-inflammatory powers  
(news – 2007)  
http://www.science20.com/news/marijuana_benefit_also_human_produced_cannabinoids_have_anti_inflammatory_powers

The Endocannabinoids: Functional Roles and Therapeutic Opportunities  
(news – 2007)  

The importance of the endocannabinoid-system  
(news – 2007)  

Whole-Body Biodistribution and Radiation Dosimetry of the Human Cannabinoid Type-1 Receptor Ligand $^{18}$F-MK-9470 in Healthy Subjects  
(full - 2008)  
http://jnm.snmjournals.org/content/49/3/439.long

Endocannabinoid receptor 1 gene variations increase risk for obesity and modulate body mass index in European populations  
(full – 2008)  
http://hmg.oxfordjournals.org/content/17/13/1916.long

Cannabinoid Receptor 1 Gene Association With Nicotine Dependence  
(full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2733353/

Role of endocannabinoids in cardiovascular shock.  
(full – 2008)  
http://www.jpp.krakow.pl/journal/archive/12_08_s8/pdf/91_12_08_s8_article.pdf

Association of the Cannabinoid Receptor Gene (CNR1) With ADHD and Post-Traumatic Stress Disorder  
(full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2685476/?tool=pubmed

Modulation of the balance between cannabinoid CB(1) and CB(2) receptor activation during cerebral ischemic/reperfusion injury  
(full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2577828/
The cannabinoid CB1 receptor antagonist CE prolongs spatial memory duration in a rat delayed radial arm maze memory task (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2577903/?tool=pmcentrez

Cannabinoid Modulation of Cutaneous A{delta} Nociceptors During Inflammation (full - 2008) http://jn.physiology.org/cgi/reprint/100/5/2794

The cannabinoid receptor agonist, WIN 55, 212-2, attenuates tumor-evoked hyperalgesia through peripheral mechanisms. (full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2678169/

Topical WIN55212-2 Alleviates Intraocular Hypertension in Rats Through a CB1 Receptor-Mediated Mechanism of Action (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2637200/?tool=pmcentrez

The diverse CB1 and CB2 receptor pharmacology of three plant cannabinoids: Δ9-tetrahydrocannabinol, cannabidiol and Δ9-tetrahydrocannabivarin (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219532/

Loss of Cannabinoid Receptor CB1 Induces Preterm Birth (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2553193/?tool=pmcentrez

Endocannabinoids and cannabinoid receptors in ischaemia–reperfusion injury and preconditioning (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219536/?tool=pmcentrez


Altered presymptomatic AMPA and cannabinoid receptor trafficking in motor neurons of ALS model mice: implications for excitotoxicity. (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3991137/

Pharmacological Inhibition of CB1 Cannabinoid Receptor Protects Against Doxorubicin-Induced Cardiotoxicity (full - 2008) http://content.onlinejacc.org/cgi/content/full/50/6/528

Cannabinoid receptors and the regulation of bone mass (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219540/?tool=pmcentrez

Loss of cannabinoid receptor 1 accelerates intestinal tumor growth (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2561258/?tool=pubmed

Cannabinoid CB1 Receptors Are Expressed by Parietal Cells of the Human Gastric Mucosa (full – 2008) http://jhc.sagepub.com/content/56/5/511.full

Role of activated endocannabinoid system in regulation of cellular cholesterol metabolism in macrophages (full – 2008)
Expression of the Endocannabinoid System in Human First Trimester Placenta and Its Role in Trophoblast Proliferation (full – 2008)

Pharmacological enhancement of endocannabinoid signaling reduces the cholinergic toxicity of diisopropylfluorophosphate. (full – 2008)

Feeding induced by cannabinoids is mediated independently of the melanocortin system. (full - 2008)

Design Logic of a Cannabinoid Receptor Signaling Network That Triggers Neurite Outgrowth (full – 2008)

Loss of cannabinoid receptor 1 accelerates intestinal tumor growth (full – 2008)

An endocannabinoid signaling system modulates anxiety-like behavior in male Syrian hamsters. (full – 2008)

Activation of cannabinoid receptors prevents antigen-induced asthma-like reaction in guinea pigs. (full – 2008)

Endocannabinoids in the retina: from marijuana to neuroprotection. (full - 2008)


Dysregulation of the endocannabinoid system in obesity. (full – 2008)

Endogenous cannabinoids: structure and metabolism. (full - 2008)

Cannabinoid receptors: where they are and what they do. (full - 2008)

Cannabinoid Receptors in Conjunctival Epithelium: Identification and Functional Properties (full – 2008)

Effect of cannabidiol on sepsis-induced motility disturbances in mice: involvement of CB1 receptors and fatty acid amide hydrolase (full – 2008)


Cannabinoid type-1 receptor gene polymorphisms are associated with central obesity in a Southern Brazilian population. (link to PDF – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3827795/

Cannabinoids and gastrointestinal motility: animal and human studies. (link to PDF - 2008) http://www.europeanreview.org/article/519

Cannabinoids enhance gastric X/A-like cells activity. (link to PDF – 2008) http://search.proquest.com/openview/0660941d8d9dce05ce8277f592dafb02/1?pq-origsite=gscholar&cbl=34373


The cannabinoid CB1 receptor is expressed on serotonergic and dopaminergic neurons. (abst – 2008) http://www.sciencedirect.com/science/article/pii/S0014299907010497
The endogenous fatty acid amide, palmitoylethanolamide, has anti-allodynic and anti-hyperalgesic effects in a murine model of neuropathic pain: involvement of CB(1), TRPV1 and PPARgamma receptors and neurotrophic factors.  (abst – 2008)  

Effect of anandamide in improving of the non-adrenergic non-cholinergic relaxation of the corpus cavernosum from diabetic rats  (abst – 2008)  

High concentrations of cannabinoids activate apoptosis in human U373MG glioma cells.  (abst - 2008)  

Estrogenic induction of cannabinoid CB1 receptor in human colon cancer cell lines.  (abst - 2008)  

Cannabinoid receptor 1 (CNR1) gene: impact on antidepressant treatment response and emotion processing in major depression.  (abst – 2008)  

Cannabinoid receptor 1 gene (CNR1) and susceptibility to a quantitative phenotype for hebephrenic schizophrenia.  (abst – 2008)  

Evaluation of Delta9 -Tetrahydrocannabinol and other Cannabinoids for Antidepressant-like Actions in the Mouse Forced Swim Test  (abst – 2008)  

Endocannabinoid and serotonergic systems are needed for acetaminophen-induced analgesia.  (abst – 2008)  

Cannabinoids in the control of pain  (abst – 2008)  

Turned-Off Cannabinoid Receptor Turns On Colorectal Tumor Growth  
(news - 2008)  
http://www.sciencedaily.com/releases/2008/08/08081074056.htm

Cannabinoid cell surface receptor plays a tumor-suppressing role in human colorectal cancer  (news – 2008)  
http://www.news-medical.net/news/2008/08/03/40485.aspx

Marijuana takes on colon cancer  (news - 2008)  

Opioids and cannabinoids influence mobility of spermatozoids  (news - 2008)  
https://www.sciencedaily.com/releases/2008/06/080620115953.htm

Understanding the Effects of Endogenous Cannabinoids  (news – 2008)  
Actions of delta-9-tetrahydrocannabinol in cannabis  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2731700/?tool=pmcentrez

Peripheral and central sites of action for the non-selective cannabinoid agonist WIN 55,212-2 in a rat model of post-operative pain  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2707976/

Role of endocannabinoid signaling in anxiety and depression.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3808114/

Cannabinoid Receptor 1 Binding Activity and Quantitative Analysis of Cannabis sativa L. Smoke and Vapor  
https://www.jstage.jst.go.jp/article/cpb/58/2/58_2_201/_pdf

Endocannabinoids in the rat basolateral amygdala enhance memory consolidation and enable glucocorticoid modulation of memory  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2660732/?tool=pmcentrez

The biosynthesis of N-arachidonoyl dopamine (NADA), a putative endocannabinoid and endovanilloid, via conjugation of arachidonic acid with dopamine  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2757501/

Mechanisms involved in oleamide-induced vasorelaxation in rat mesenteric resistance arteries.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2664517/

Endocannabinoid-mediated control of synaptic transmission.  
http://physrev.physiology.org/content/89/1/309.long

Cannabinoid CB2 Receptor Potentiates Obesity-Associated Inflammation, Insulin Resistance and Hepatic Steatosis  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2688760/?tool=pubmed

Cannabinoid-1 (CB1) receptors regulate colonic propulsion by acting at motor neurons within the ascending motor pathways in mouse colon  
http://ajpgi.physiology.org/cgi/content/full/296/1/G119?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=160&resourcetype=HWCIT

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2670585/?tool=pubmed

Characterization of the Endocannabinoid System in Human Neuronal Cells and Proteomic Analysis of Anandamide-induced Apoptosis  
http://www.jbc.org/content/284/43/29413.full

Cannabinoid receptor 1 is a potential drug target for treatment of translocation-positive rhabdomyosarcoma  
http://mct.aacrjournals.org/content/8/7/1838.full
Microglial CB2 cannabinoid receptors are neuroprotective in Huntington's disease excitotoxicity. (full – 2009) http://brain.oxfordjournals.org/content/132/11/3152.long

Type 1 Cannabinoid Receptor-Containing Axons Innervate Hypophysiotropic Thyrotropin-Releasing Hormone-Synthesizing Neurons (full – 2009) http://endo.endojournals.org/content/150/1/98.full?sid=f5b14012-9fbc-4f10-890c-386313060cf8


Voluntary Exercise and Sucrose Consumption Enhance Cannabinoid CB1 Receptor Sensitivity in the Striatum (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3055381/?tool=pubmed

Relationship of type 1 cannabinoid receptor availability in the human brain to novelty-seeking temperament. (full – 2009) http://archpsyc.ama-assn.org/cgi/content/full/66/2/196

Dose Dependent effects of Celecoxib on CB-1 Agonist Induced Antinociception in mice (full – 2009) www.sird.ir/En/VEWSSID/J_pdf/109520090204.pdf

CB1 and CB2 cannabinoid receptors differentially regulate the production of reactive oxygen species by macrophages (full – 2009) http://cardiovascres.oxfordjournals.org/content/84/3/378.full?sid=7d2438c4-a727-410f-870d-4a971695b4f8


Spatio-temporal expression patterns of anandamide-binding receptors in rat implantation sites: evidence for a role of the endocannabinoid system during the period of placental development (full – 2009) http://www.rbej.com/content/7/1/121


Novel endogenous peptide agonists of cannabinoid receptors (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2735371/

The endocannabinoid system as a link between homoeostatic and hedonic pathways involved in energy balance regulation (full – 2009) http://www.nature.com/ijo/journal/v33/n2s/full/ijo200967a.html

Monoacylglycerol lipase limits the duration of endocannabinoid-mediated depolarization-induced suppression of excitation in autaptic hippocampal neurons. (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2784730/

Chronic stress differentially regulates cannabinoid CB1 receptor binding in distinct hippocampal subfields. (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2746437/

The endocannabinoid system as a target for the treatment of motor dysfunction. (full - 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2697699/

Processing cardiovascular information in the vlPAG during electroacupuncture in rats: roles of endocannabinoids and GABA (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2692771/#1po=4.54545

Discriminative stimulus functions in rats of AM1346, a high-affinity CB1R selective anandamide analog. (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3727224/


Cannabinoid receptor type 1 protects against age-related osteoporosis by regulating osteoblast and adipocyte differentiation in marrow stromal cells. (full – 2009) http://www.sciencedirect.com/science/article/pii/S1550413109002022

Use of Cannabinoids as a Novel Therapeutic Modality Against Autoimmune Hepatitis (full - 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4139007/

Cannabinoid receptor type 1 protects against age-related bone loss by regulating osteoblast and adipocyte differentiation of bone marrow stromal cells (full – 2009) http://www.cell.com/cell-metabolism/fulltext/S1550-4131(09)00202-2

The endocannabinoid 2-arachidonoylglycerol promotes sperm development through activation of cannabinoid-2 receptors (link to PDF - 2009) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.505.7026&rank=36
Impairments in Endocannabinoid Signaling and Depressive Illness

Cannabinoid receptors in brain: pharmacogenetics, neuropharmacology, neurotoxicology, and potential therapeutic applications. (abst - 2009)

Endocannabinoid system modulation in cancer biology and therapy. (abst – 2009)

Long-term consequences of URB597 administration during adolescence on cannabinoid CB1 receptor binding in brain areas. (abst – 2009)

Variations in the cannabinoid receptor 1 gene predispose to migraine. (abst – 2009)

Altered pattern of cannabinoid type 1 receptor expression in adipose tissue of dysmetabolic and overweight patients (abst – 2009)
http://www.metabolismjournal.com/article/S0026-0495%2808%2900398-3/abstract

The CB1/CB2 receptor agonist WIN-55,212-2 reduces viability of human Kaposi’s sarcoma cells in vitro (abst - 2009)

Increased expressions of cannabinoid receptor-1 and transient receptor potential vanilloid-1 in human prostate carcinoma. (abst – 2009)

Endocannabinoids anandamide and its cannabinoid receptors in liver fibrosis after murine schistosomiasis. (abst – 2009)

Altered CB1 receptor and endocannabinoid levels precede motor symptom onset in a transgenic mouse model of Huntington's disease. (abst – 2009)

Endocannabinoids mediate anxiolytic-like effect of acetaminophen via CB1 receptors. (abst – 2009)

Caffeine drinking potentiates cannabinoid transmission in the striatum: interaction with stress effects (abst – 2009)

Enhancement of the hypotensive effects of intrathecally injected endocannabinoids by the entourage compound palmitoylethanolamide. (abst – 2009)


Cannabinoid Receptors and Corneal Epithelium Repair  (abst – 2009)  http://iovs.arvojournals.org/article.aspx?articleid=2368655&resultClick=1


CBR - CB1b CANNABINOID RECEPTOR – a slightly different isoform of a CB 1 receptor


CBR - CB2 CANNABINOID RECEPTOR * - no "high", activated by THC, Anandamide, 2-AG, THC

Cannabinoid Receptor Ligands (full - undated)
http://www.tocris.com/pdfs/cannabinoid_receptor_review/page_001.html

2-Arachidonoylglycerol and the cannabinoid receptors. (abst – 2000)

Immunomodulation by Cannabinoids is Absent in Mice Deficient for the Cannabinoid Cb(2) Receptor (abst – 2000)

Involvement of central and peripheral cannabinoid receptors in the regulation of heart resistance to arrhythmogenic effects of epinephrine. (abst - 2000)

Inhibition of Glioma Growth in Vivo by Selective Activation of the CB2 Cannabinoid Receptor (full - 2001)
http://cancerres.aacrjournals.org/cgi/reprint/61/15/5784.pdf

Cannabinoid receptor activation and elevated cyclic AMP reduce glutamate neurotoxicity (full – 2001)
https://www.researchgate.net/publication/12008661_Cannabinoid_receptor_activation_and_elevated_cyclic
_AMP_reduce_glutamate_neurotoxicity

Palmitoylethanolamide inhibits the expression of fatty acid amide hydrolase and enhances the anti-proliferative effect of anandamide in human breast cancer cells (link to download - 2001)

Sourcing the Code: Searching for the Evolutionary Origins of Cannabinoid Receptors, Vanilloid Receptors, and Anandamide (full – 2002)

Targeting CB2 cannabinoid receptors as a novel therapy to treat malignant lymphoblastic disease (full - 2002)
http://bloodjournal.hematologylibrary.org/cgi/content/full/100/2/627?
ijkey=eb71d6d7a06f311440761cfa6a7d081bcb2771d


The endocannabinoid system in invertebrates (link to PDF – 2002)
http://citeseerx.ist.psu.edu/viewdoc/summary?
doi=10.1.1.724.8151&rank=69&q=cannabinoid&osm=&ossid=

Anandamide and R-(+)-methanandamide prevent development of ischemic and reperfusion arrhythmia in rats by stimulation of CB2-receptors  (abst – 2002)  

Lymphoma may be slowed by cannabis  (news – forum repost - 2002)  

Differential Roles of CB1 and CB2 Cannabinoid Receptors in Mast Cells  (full – 2003)  
http://www.jimmunol.org/content/170/10/4953.full?sid=590f7819-f39b-4214-abca-07231b51da55

Cannabinoid CB2 Receptors and Fatty Acid Amide Hydrolase Are Selectively Overexpressed in Neuritic Plaque-Associated Glia in Alzheimer's Disease Brains  (full – 2003)  
http://www.jneurosci.org/content/23/35/11136.full?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=80&resourcetype=HWCIT

Endocannabinoid signalling in the blood of patients with schizophrenia  (full – 2003)  
http://www.lipidworld.com/content/2/1/5

Activation of CB2 cannabinoid receptors by AM1241 inhibits experimental neuropathic pain: Pain inhibition by receptors not present in the CNS  (full - 2003)  
http://www.pnas.org/content/100/18/10529.full

Inhibition of guinea-pig and human sensory nerve activity and the cough reflex in guinea-pigs by cannabinoid (CB2) receptor activation.  (full - 2003)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1574031/?tool=pubmed

Inhibition of Inflammatory Hyperalgesia by Activation of Peripheral CB2 Cannabinoid Receptors  (full – 2003)  

Anandamide initiates Ca2+ signaling via CB2 receptor linked to phospholipase C in calf pulmonary endothelial cells  (full – 2003)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1574152/

Cannabinoid CB2 receptor activation reduces mouse myocardial ischemia-reperfusion injury: involvement of cytokine/chemokines and PMN  (abst - 2003)  

Arachidonylecyclopropylamide increases microglial cell migration through cannabinoid CB2 and abnormal-cannabidiol-sensitive receptors.  (abst – 2003)  

Effects of cannabinoid receptor-2 activation on accelerated gastrointestinal transit in lipopolysaccharide-treated rats  (full - 2004)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1575196/?tool=pmcentrez
http://jpet.aspetjournals.org/content/310/2/620.long

Cannabinoids and intestinal motility: welcome to CB2 receptors (full - 2004)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1575197/

Echinacea alkylamides modulate TNF-α gene expression via cannabinoid receptor CB2 and multiple signal transduction pathways (full – 2004)  

Cannabinoid Receptor Agonists Inhibit Sensory Nerve Activation in Guinea Pig Airways (full – 2004)  
http://www.atsjournals.org/doi/full/10.1164/rccm.200306-775OC#.V4wekKJA76h

Influence of cannabinoids on immunoreactivity of regulatory peptides, produced in rat thyroid C cells; preliminary investigations. (abst – 2004)  

Species comparison and pharmacological characterization of rat and human CB2 cannabinoid receptors. (abst - 2004)  

The gastrointestinal pharmacology of cannabinoids: an update. (abst – 2004)  

Cannabinoid receptor type 2 gene is associated with human osteoporosis (full - 2005)  
http://hmg.oxfordjournals.org/cgi/content/full/14/22/3389?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=400&resourcetype=HWCIT

http://www.academia.edu/6468139/Reduced_endocannabinoid Immune_modulation_by_a_common_cannabinoid_2_CB2_receptor_gene_polymorphism_possible_risk_for_autoimmune_disorders

Evidence that the plant cannabinoid Δ9-tetrahydrocannabivarin is a cannabinoid CB1 and CB2 receptor antagonist (full - 2005)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1751228/?tool=pubmed

Cannabidiol inhibits human glioma cell migration through a cannabinoid receptor-independent mechanism (full - 2005)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1576089/?tool=pmcentrez

CB2 cannabinoid receptors in trabecular meshwork cells mediate JWH015-induced enhancement of aqueous humor outflow facility. (full - 2005)  
http://www.iovs.org/content/46/6/1988.long

Low dose oral cannabinoid therapy reduces progression of atherosclerosis in mice (full - 2005)  
http://www.nature.com/nature/journal/v434/n7034/full/nature03389.html

Antifibrogenic role of the cannabinoid receptor CB2 in the liver. (full – 2005)  http://www.gastrojournal.org/article/S0016-5085(04)02353-4/fulltext

Stimulation of cannabinoid receptor 2 (CB2) suppresses microglial activation (full – 2005)  http://www.springerlink.com/content/tq777102q4185073/fulltext.html


Activation of CB1 and CB2 receptors attenuates the induction and maintenance of inflammatory pain in the rat. (abst - 2005)  http://www.ncbi.nlm.nih.gov/pubmed/16289798


Marijuana May Grow Neurons in the Brain (news - 2005)  http://www.medpagetoday.com/Psychiatry/AnxietyStress/1934

The Cannabinoid CB2 Receptor as a Target for Inflammation-Dependent Neurodegeneration (full - 2006)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2435344/?tool=pmcentrez

Alkylamides from Echinacea Are a New Class of Cannabinomimetics (full – 2006)  http://www.jbc.org/content/281/20/14192.full

Cannabidiol-Induced Apoptosis in Human Leukemia Cells: A Novel Role of Cannabidiol in the Regulation of p22phox and Nox4 Expression (full - 2006)  http://molpharm.aspetjournals.org/content/70/3/897.long

In vitro pharmacological characterization of AM1241: a protean agonist at the cannabinoid CB2 receptor? (full - 2006)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2013801/?tool=pubmed

Peripheral cannabinoid receptor, CB2, regulates bone mass (full - 2006)  http://www.pnas.org/content/103/3/696.full
Signaling pathways involved in the cardioprotective effects of cannabinoids. (full - 2006) [https://www.jstage.jst.go.jp/article/jphs/102/2/102_2_155/_pdf]

Alkylamides from Echinacea are a new class of cannabinomimetics. Cannabinoid type 2 receptor-dependent and -independent immunomodulatory effects. (full – 2006) [http://www.jbc.org/content/281/20/14192.long]

Involvement of the Cannabinoid CB2 Receptor and Its Endogenous Ligand 2-Arachidonoylglycerol in Oxazolone-Induced Contact Dermatitis in Mice (full – 2006) [http://www.jimmunol.org/content/177/12/8796.full]


Delta-9-tetrahydrocannabinol protects cardiac cells from hypoxia via CB2 receptor activation and nitric oxide production (abst - 2006) [http://www.ncbi.nlm.nih.gov/pubmed/16444588]


Cannabinoid receptors as a target for therapy of ovarian cancer (abst - 2006) [http://cancerres.aacrjournals.org/content/66/8_Supplement/1084.1]


Cannabinoid CB1 and CB2 Receptors and Fatty Acid Amide Hydrolase Are Specific Markers of Plaque Cell Subtypes in Human Multiple Sclerosis (full - 2007) [http://www.jneurosci.org/cgi/content/full/27/9/2396?maxtoshow=&hits=10&RESULTFORMAT=&fulltext=cannabinoid&andorexactfulltext=and&searchid=1&FIRSTINDEX=0&sortspec=relevance&resourcetype=HWCIT]
CB2 cannabinoid receptors as an emerging target for demyelinating diseases: from neuroimmune interactions to cell replacement strategies (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219542/?tool=pmcentrez

Spinal cannabinoid receptor type 2 activation reduces hypersensitivity and spinal cord glial activation after paw incision. (full - 2007)
http://anesthesiology.pubs.asahq.org/article.aspx?articleid=1922987&resultClick=3

Endocannabinoids and the gastrointestinal tract: what are the key questions? (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190011/

Cannabinoid CB2 receptors in the gastrointestinal tract: a regulatory system in states of inflammation (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219529/?tool=pmcentrez

Cannabinoid-2 receptor mediates protection against hepatic ischemia/reperfusion injury (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2228252/?tool=pmcentrez

Virodhamine and CP55,940 modulate cAMP production and IL-8 release in human bronchial epithelial cells. (full – 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2042924/?tool=pubmed

Cannabinoid CB2 receptor activation decreases cerebral infarction in a mouse focal ischemia/reperfusion model (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2637559/?tool=pmcentrez

The CB2 cannabinoid agonist AM-1241 prolongs survival in a transgenic mouse model of amyotrophic lateral sclerosis when initiated at symptom onset (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2819701/?tool=pmcentrez

CB2 receptors in the brain: role in central immune function (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219530/?tool=pmcentrez

Cannabinoid CB2 receptors in the gastrointestinal tract: a regulatory system in states of inflammation (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219529/?tool=pmcentrez

Potential role for CB2 selective ligands as immunosuppressive agents (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1864948/?tool=pmcentrez

Cannabinoid CB2 receptors: a therapeutic target for the treatment of inflammatory and neuropathic pain (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219541/?tool=pmcentrez

Cannabidiol displays unexpectedly high potency as an antagonist of CB1 and CB2 receptor agonists in vitro (full - 2007)
CB1 receptors mediate the analgesic effects of cannabinoids on colorectal distension-induced visceral pain in rodents.  (full – 2007) http://www.jneurosci.org/content/29/5/1554.long

Involvement of cannabinoid CB2 receptor in alcohol preference in mice and alcoholism in humans  (full – 2007) http://www.nature.com/tpj/journal/v7/n6/full/6500431a.html

Cannabinoid receptors as new targets of antifibrosing strategies during chronic liver diseases.  (full - 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219531/


Anandamide-Mediated CB1/CB2 Cannabinoid Receptor-Independent Nitric Oxide Production in Rabbit Aortic Endothelial Cells  (full – 2007) http://jpet.aspetjournals.org/content/321/3/930.long

Endocannabinoids, just a gut feeling.  (1st page - 2007) http://link.springer.com/article/10.1007%2Fs00109-007-0201-6#page-1


Cannabinoid CB2 receptor activation prevents bronchoconstriction and airway oedema in a model of gastro-oesophageal reflux  (abst - 2007) http://www.ncbi.nlm.nih.gov/pubmed/17643417
The local antinociceptive effects of paracetamol in neuropathic pain are mediated by cannabinoid receptors (abst – 2007)

Role of cannabinoid CB2 receptors in glucose homeostasis in rats (abst – 2007)

Cannabinoids stimulate fibroblastic colony formation by bone marrow cells indirectly via CB2 receptors. (abst – 2007)

Hippies vindicated: Human-produced cannabinoids have anti-inflammatory powers (news – 2007)
http://www.science20.com/news/marijuana_benefit_also_human_produced_cannabinoids_have_anti_inflammatory_powers

The Endocannabinoids: Functional Roles and Therapeutic Opportunities (news – 2007)

The importance of the endocannabinoid-system (news – 2007)

CB2 receptors in reproduction (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219526/

Cannabinoid CB2 receptors in human brain inflammation (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219537/

Selective CB2 up-regulation in women affected by endometrial inflammation (full – 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3822551/

In vivo effects of CB2 receptor-selective cannabinoids on the vasculature of normal and arthritic rat knee joints (full - 2008)

Cannabinoid receptor 2 is increased in acutely and chronically inflamed bladder of rats (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2592089/?tool=pmcentrez

Cannabinomimetic Control of Mast Cell Mediator Release: New Perspective in Chronic Inflammation (full – 2008)

Regulation of Bone Mass, Osteoclast Function, and Ovariectomy-Induced Bone Loss by the Type 2 Cannabinoid Receptor (full - 2008)

The diverse CB1 and CB2 receptor pharmacology of three plant cannabinoids: Δ9-tetrahydrocannabinol, cannabidiol and Δ9-tetrahydrocannabivarin (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219532/
Cannabinoid receptors and the regulation of bone mass (full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219540/?tool=pmcentrez

Selective Activation of Cannabinoid CB2 Receptors Suppresses Neuropathic Nociception Induced by Treatment with the Chemotherapeutic Agent Paclitaxel in Rats (full - 2008)  
http://jpet.aspetjournals.org/content/327/2/584.full#content-block

Pleiotropic effects of the CB2 cannabinoid receptor activation on human monocyte migration: implications for atherosclerosis and inflammatory diseases (full – 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2267750/?tool=pubmed

Crucial Role of CB2 Cannabinoid Receptor in the Regulation of Central Immune Responses during Neuropathic Pain (full - 2008)  
http://www.jneurosci.org/cgi/content/full/28/46/12125

Expression of the Endocannabinoid System in Human First Trimester Placenta and Its Role in Trophoblast Proliferation (full – 2008)  
http://endo.endojournals.org/content/149/10/5052.full?sid=f5b14012-9fbd-4f10-890c-386313060cf8

The cannabinoid delta-9-tetrahydrocannabinol mediates inhibition of macrophage chemotaxis to RANTES/CCL5: linkage to the CB2 receptor. (full – 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2677557/

Endocannabinoids in the retina: from marijuana to neuroprotection. (full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2584875/

Cannabinoid CB2 receptors in the enteric nervous system modulate gastrointestinal contractility in lipopolysaccharide-treated rats (full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2494728/?tool=pubmed

Cannabinoid CB2 receptors in the gastrointestinal tract: a regulatory system in states of inflammation. (full – 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219529/?tool=pubmed

Endocannabinoids and Liver Disease. III. Endocannabinoid effects on immune cells: implications for inflammatory liver diseases (full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2376822/?tool=pmcentrez

Regression of Fibrosis after Chronic Stimulation of Cannabinoid CB2 Receptor in Cirrhotic Rats (full - 2008)  
http://jpet.aspetjournals.org/content/324/2/475.full?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=320&resourcetype=HWCIT#content-block

Endocannabinoids and cannabinoid receptors in ischaemia–reperfusion injury and preconditioning (full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219536/?tool=pmcentrez
Virodhamine relaxes the human pulmonary artery through the endothelial cannabinoid receptor and indirectly through a COX product. (full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2597267/

Modulation of the balance between cannabinoid CB(1) and CB(2) receptor activation during cerebral ischemic/reperfusion injury (full - 2008) _
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2577828/

CB2 receptors as new therapeutic targets for liver diseases. (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219531/?tool=pubmed

The CB(2) cannabinoid receptor controls myeloid progenitor trafficking: involvement in the pathogenesis of an animal model of multiple sclerosis. (full - 2008)
http://www.jbc.org/content/283/19/13320.long

Crucial role of CB(2) cannabinoid receptor in the regulation of central immune responses during neuropathic pain. (full - 2008)
http://www.jneurosci.org/cgi/content/full/28/46/12125

Role of activated endocannabinoid system in regulation of cellular cholesterol metabolism in macrophages (full – 2008)
http://cardiovascres.oxfordjournals.org/content/81/4/805.full?sid=7d2438c4-a727-410f-870d-4a971695b4fb

Expression of cannabinoid receptors type 1 and type 2 in non-Hodgkin lymphoma: growth inhibition by receptor activation. (full – 2008)

Activation of cannabinoid receptors prevents antigen-induced asthma-like reaction in guinea pigs. (full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4514116/

MDA7: a novel selective agonist for CB2 receptors that prevents allodynia in rat neuropathic pain models. (full – 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2597252/


Interplay between endocannabinoids, steroids and cytokines in the control of human reproduction. (full - 2008)

Behavioral effects of CB2 cannabinoid receptor activation and its influence on food and alcohol consumption. (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4219871/

Endogenous cannabinoids: structure and metabolism. (full - 2008)
Cannabinoid receptors: where they are and what they do. (full - 2008)  

Cannabinoid Receptors in Conjunctival Epithelium: Identification and Functional Properties (full – 2008)  
http://iovs.arvojournals.org/article.aspx?articleid=2125015&resultClick=1

Endocannabinoids enhance lipid synthesis and apoptosis of human sebocytes via cannabinoid receptor-2-mediated signaling. (link to PDF – 2008)  
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.328.8372

Involvement of central cannabinoid CB2 receptor in reducing mechanical allodynia in a mouse model of neuropathic pain (abst – 2008)  

Role of CB2 receptors in neuroprotective effects of cannabinoids. (abst - 2008)  

Noladin ether, a putative endocannabinoid, inhibits mu-opioid receptor activation via CB2 cannabinoid receptors. (abst – 2008)  

Discovery of a novel cannabinoid in food (abst – 2008)  

Glial expression of cannabinoid CB(2) receptors and fatty acid amide hydrolase are beta amyloid-linked events in Down's syndrome. (abst – 2008)  

Immunomodulatory Lipids in Plants: Plant Fatty Acid Amides and the Human Endocannabinoid System (abst – 2008)  

Cannabinoid CB2 receptor expression in the rat brainstem cochlear and vestibular nuclei. (abst – 2008)  

Analgesic and neuropsychological effects of Echinacea N-alkylamides (abst – 2008)  


New Cannabis-Like Drugs Could Block Pain Without Affecting Brain, Says Study (news - 2008)  

Cannabislike Drugs May Hold Key to Treating Pain While Bypassing the Brain (news – 2008)  
Salutary pizza spice          (news – 2008)

Opioids and cannabinoids influence mobility of spermatozoids             (news - 2008)
https://www.sciencedaily.com/releases/2008/06/080620115953.htm

Understanding the Effects of Endogenous Cannabinoids                        (news – 2008)

Ulcerative Colitis Induces Changes on the Expression of the Endocannabinoid System in
the Human Colonic Tissue                    (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2731878/?tool=pmcentrez

The cannabinoid receptor CB2 exerts antifibrotic effects in experimental dermal fibrosis
(full - 2009)

Modulation of cannabinoid receptor activation as a neuroprotective strategy for EAE and

Emerging Role of the CB2 Cannabinoid Receptor in Immune Regulation and Therapeutic
Prospects                  (full - 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2768535/?
tool=pmcentrez

Spatio-temporal expression patterns of anandamide-binding receptors in rat implantation
sites: evidence for a role of the endocannabinoid system during the period of placental
development                (full – 2009) http://www.rbej.com/content/7/1/121

Peripheral and central sites of action for the non-selective cannabinoid agonist WIN
55,212-2 in a rat model of post-operative pain               (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2707976/

The cannabinoid receptor 2 is critical for the host response to sepsis.      (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2763235/?tool=pubmed

CB1 and CB2 cannabinoid receptors differentially regulate the production of reactive
oxygen species by macrophages                     (full – 2009)
http://cardiovascres.oxfordjournals.org/content/84/3/378.full?sid=7d2438c4-a727-410f-870d-
4a971695b4f

Cannabinoid receptor ligands as potential anticancer agents--high hopes for new
therapies?                     (full – 2009)

Endocannabinoid signalling as an anti-inflammatory therapeutic target in atherosclerosis:
does it work?        (full – 2009) http://cardiovascres.oxfordjournals.org/content/84/3/341.full?
sid=7d2438c4-a727-410f-870d-4a971695b4f
Endocannabinoids and Their Receptors as Targets for Obesity Therapy (full - 2009)

Inhibition of human tumour prostate PC-3 cell growth by cannabinoids R(+-)Methanandamide and JWH-015: Involvement of CB2 (full - 2009)
http://www.nature.com/bjc/journal/v101/n6/full/6605248a.html

Endocannabinoid-mediated control of synaptic transmission. (full – 2009)
http://physrev.physiology.org/content/89/1/309.long

Microglial CB2 cannabinoid receptors are neuroprotective in Huntington's disease excitotoxicity (full - 2009)
http://brain.oxfordjournals.org/content/132/11/3152.long

Unconventional neurotransmitters, neurodegeneration and neuroprotection (full – 2009)

The endocannabinoid 2-arachidonoylglycerol promotes sperm development through activation of cannabinoid-2 receptors (full – 2009)

CB2 receptor activation attenuates microcirculatory dysfunction during cerebral ischemic/reperfusion injury. (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3319431/

Cannabinoid receptor 2 mediates the retention of immature B cells in bone marrow sinusoids. (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2768754/

Protracted cannabinoid administration elicits antidepressant behavioral responses in rats: role of gender and noradrenergic transmission. (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931555/

Use of Cannabinoids as a Novel Therapeutic Modality Against Autoimmune Hepatitis (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4139007/

Cannabinoid CB2 receptor agonists protect the striatum against malonate toxicity: relevance for Huntington's disease. (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2706932/

The cannabinoid R+ methanandamide induces IL-6 secretion by prostate cancer PC3 cells. (full - 2009)
http://www.tandfonline.com/doi/full/10.3109/15476910903241696

The endocannabinoid 2-arachidonoylglycerol promotes sperm development through activation of cannabinoid-2 receptors (link to PDF - 2009)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.505.7026&rank=36
The endocannabinoid 2-arachidonoylglycerol promotes sperm development through
activation of cannabinoid-2 receptors (link to PDF - 2009)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.505.7026&rank=36

Activation of the cannabinoid 2 receptor (CB2) promotes against experimental colitis.


Cannabinoid receptors in brain: pharmacogenetics, neuropharmacology, neurotoxicology, and potential therapeutic applications. (abst - 2009)

Endocannabinoid system modulation in cancer biology and therapy. (abst – 2009)

The CB1/CB2 receptor agonist WIN-55,212-2 reduces viability of human Kaposi’s sarcoma cells in vitro (abst - 2009)


CXCR4-chemokine receptor and Cannabinoid Receptor 2 (CB2) heterodimerization suggests a mechanism for breast metastasis regulation (abst – 2009)
http://cancerres.aacrjournals.org/content/69/9_Supplement/4280.abstract?sid=c9a858f0-ee89-4846-b560-ecd97a615b26

The activation of cannabinoid CB2 receptors stimulates in situ and in vitro beta-amyloid removal by human macrophages. (abst - 2009)


Synergistic immunopharmacological effects of N-alkylamides in Echinacea purpurea herbal extracts (abst – 2009)


Cannabinoid Receptors and Corneal Epithelium Repair (abst – 2009)  http://iovs.arvojournals.org/article.aspx?articleid=2368655&resultClick=1


**CB2A** - a slightly different type of CB 2 receptor found in the testes and the reward center of the brain


**CBR- CBe** – endothelial cannabinoid receptor


G Protein-coupled Endothelial Receptor for Atypical Cannabinoid Ligands Modulates a Ca2+-dependent K+ Current (full – 2003)  http://www.jbc.org/content/278/46/46188.full

The complexities of the cardiovascular actions of cannabinoids (full - 2004)
Heterogeneity in the mechanisms of vasorelaxation to anandamide in resistance and conduit rat mesenteric arteries (full – 2004)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1574972/

Atypical cannabinoid stimulates endothelial cell migration via a Gi/Go-coupled receptor distinct from CB1, CB2 or EDG-1 (abst – 2004)

Vasorelaxant effects of oleamide in rat small mesenteric artery indicate action at a novel cannabinoid receptor. (full – 2006)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1616976/

Endothelial vasodilatory cannabinoid receptor in the human pulmonary artery: a future option in the therapy of pulmonary hypertension? (link to PDF – 2007)


Virodhamine relaxes the human pulmonary artery through the endothelial cannabinoid receptor and indirectly through a COX product. (full – 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2597267/

Vasoactive and Neuroprotective Actions of a Non-Pyschotropic Atypical Cannabinoid in the Retina (abst – 2009) http://iovs.arvojournals.org/article.aspx?articleid=2363001&resultClick=1

**CBR – GPR-18 CANNABINOID RECEPTOR** - activated by ABN-CBD, NAGly, O-1602, THC, Anandamide

Identification of N-arachidonylglycine as the endogenous ligand for orphan G-protein-coupled receptor GPR18. (abst – 2006)

Orphan endogenous lipids and orphan GPCRs: a good match. (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2740803/

**CBR – GPR-40 CANNABINOID RECEPTOR/ FFAR1** - activated by GW1100, TAK-875
The Ffa Receptor Gpr40 Links Hyperinsulinemia, Hepatic Steatosis, and Impaired Glucose Homeostasis in Mouse. (full – 2005)
http://www.cell.com/cell-metabolism/fulltext/S1550-4131(05)00086-0

Gpr40 Gene Expression in Human Pancreas and Insulinoma. (abst – 2005)

Pharmacological regulation of insulin secretion in MIN6 cells through the fatty acid receptor GPR40: identification of agonist and antagonist small molecules. (full - 2006)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1751878/?tool=pubmed

Expression of the Gene for a Membrane-bound Fatty Acid Receptor in the Pancreas and Islet Cell Tumours in Humans: Evidence for Gpr40 Expression in Pancreatic Beta Cells and Implications for Insulin Secretion. (full – 2006)
http://link.springer.com/article/10.1007/s00125-006-0193-8

Selective small-molecule agonists of G protein-coupled receptor 40 promote glucose-dependent insulin secretion and reduce blood glucose in mice. (full – 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2494688/?tool=pubmed

Overexpression of GPR40 in pancreatic beta-cells augments glucose-stimulated insulin secretion and improves glucose tolerance in normal and diabetic mice. (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2671040/?tool=pubmed

Acute administration of GPR40 receptor agonist potentiates glucose-stimulated insulin secretion in vivo in the rat. (abst – 2009)

**CBR - GPR55/ CB3 CANNABINOID RECEPTOR** *
Activated by l-α-lysoosphatidylinositol (LPI), and to a lesser extent possibly by THC, CBD, O-1602, PEA, 2-AG, Anandamide, Virodhamine

Cannabinoid Receptor Ligands (full - undated)
http://www.tocris.com/pdfs/cannabinoid_receptor_review/page_001.html


GPR55: a new member of the cannabinoid receptor clan? (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2095104/?tool=pubmed

The orphan receptor GPR55 is a novel cannabinoid receptor. (full – 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2095107/?tool=pubmed

GPR55 and the vascular receptors for cannabinoids. (full – 2007)
The novel endocannabinoid receptor GPR55 is activated by atypical cannabinoids but does not mediate their vasodilator effects. (full - 2007)

GPR55 and the vascular receptors for cannabinoids. (full - 2007)

GPR55 is a novel cannabinoid receptor (full - 2007)

Novel cannabinoid receptors (full - 2007)

CB1 receptors mediate the analgesic effects of cannabinoids on colorectal distension-induced visceral pain in rodents. (full – 2007)

GPR55: signaling pathways and functions (full - 2007)

GPR55 is a cannabinoid receptor that increases intracellular calcium and inhibits M current (full - 2008)

Endocannabinoids in the retina: from marijuana to neuroprotection. (full - 2008)

Interactions of the G protein-coupled receptor-associated sorting proteins (GASP) 1 and 2 with the novel cannabinoid receptor GPR55 (full – 2008)

Cannabinoid receptors: where they are and what they do. (full - 2008)

The putative cannabinoid receptor GPR55 affects osteoclast function in vitro and bone mass in vivo (full - 2009)

Receptors for acylethanolamides-GPR55 and GPR119. (full – 2009)

Cannabinoid receptor ligands as potential anticancer agents--high hopes for new therapies? (full - 2009)

Endocannabinoid-mediated control of synaptic transmission. (full – 2009)
Atypical responsiveness of the orphan receptor GPR55 to cannabinoid ligands. (full - 2009)  
http://www.jbc.org/content/284/43/29817.full?sid=ec54c280-2526-4d1b-ab9f-73a1ca683a5e

Receptors for acylethanolamides—GPR55 and GPR119. (full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2751869/?tool=pubmed

GPR55: A novel cannabinoid receptor involved in the regulation of osteoclast function and bone mass (full – 2009)  
https://www.researchgate.net/publication/238221492_GPR55_A_novel_cannabinoid_receptor_involved_in_the_regulation_of_osteoclast_function_and_bone_mass

The GPR55 ligand L-alpha-lysophosphatidylinositol promotes RhoA-dependent Ca2+ signaling and NFAT activation. (abst – 2009)  

Is GPR55 an anandamide receptor? (abst - 2009)  

The enigmatic pharmacology of GPR55. (abst - 2009)  

Mode of action of cannabinoids on nociceptive nerve endings. (abst – 2009)  
http://link.springer.com/article/10.1007%2Fs00221-009-1762-0

**CBR - GPR119 CANNABINOID RECEPTOR** - activated by PEA, OEA

A role for beta-cell-expressed G protein-coupled receptor 119 in glycemic control by enhancing glucose-dependent insulin release. (full – 2007)  
http://endo.endojournals.org/content/148/6/2601.long

Endogenous and synthetic agonists of GPR119 differ in signalling pathways and their effects on insulin secretion in MIN6c4 insulinoma cells. (full – 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2528830/?tool=pubmed

Endocannabinoids and nutrition. (full – 2008)  

GPR119, a novel G protein-coupled receptor target for the treatment of type 2 diabetes and obesity (full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2268073/?tool=pmcentrez

Receptors for acylethanolamides—GPR55 and GPR119. (full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2751869/?tool=pubmed
GPR119 is essential for oleoyl ethanolamide-induced glucagon-like peptide-1 secretion from the intestinal enteroendocrine L-cell. (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2671052/?tool=pubmed


**CBR - GPR158 CANNABINOID RECEPTOR**


**CBR - TRPV1 / TRANSIENT RECEPTOR POTENTIAL VANILLOID TYPE 1 CHANNEL**


Anti-dyskinetic effects of cannabinoids in a rat model of Parkinson's disease: role of CB1 and TRPV1 receptors (full - 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2128772/?tool=pmcentrez


'Entourage' effects of N-palmitoylethanolamide and N-oleoyl ethanolamide on vasorelaxation to anandamide occur through TRPV1 receptors. (full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2597234/
A saturated N-acylethanolamine other than N-palmitoyl ethanolamine with anti-inflammatory properties: a neglected story... (full – 2008)

The endogenous fatty acid amide, palmitoylethanolamide, has anti-allodynic and anti-hyperalgesic effects in a murine model of neuropathic pain: involvement of CB(1), TRPV1 and PPARgamma receptors and neurotrophic factors. (abst – 2008)

Endocannabinoid signaling in neurotoxicity and neuroprotection. (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2891218/

**DAGL/ DIACYLGLYCEROL LIPASE** – an enzyme involved in making endocannabinoids

Subcellular Arrangement of Molecules for 2-Arachidonoyl-Glycerol-Mediated Retrograde Signaling and Its Physiological Contribution to Synaptic Modulation in the Striatum (full – 2007) http://www.jneurosci.org/content/27/14/3663.long

Endocannabinoids in the retina: from marijuana to neuroprotection. (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2584875/

Endogenous cannabinoids: structure and metabolism. (full - 2008)

Presence of functional cannabinoid receptors in human endocrine pancreas.

Skeletal anabolic activity of cannabinoid receptor agonists (abst - 2009)
https://www.deepdyve.com/lp/elsevier/skeletal-anabolic-activity-of-cannabinoid-receptor-agonists-IHk6Sm07R0

**ENOCATNABINOIDS** *-  also see ANANDAMIDE, 2-AG, NADA, NAGly, OEA, PEA, VIRODHAMINE

Cannabinoids (encyclopedia entry) http://www.chemie.de/lexikon/e/Cannabinoids/

Phytocannabinoids (news – undated)
http://www.news-medical.net/health/Phytocannabinoids.aspx

Endocannabinoids control spasticity in a multiple sclerosis model (full - 2000)
http://www.jlr.org/content/41/6/985.long

Enhanced levels of endogenous cannabinoids in the globus pallidus are associated with a reduction in movement in an animal model of Parkinson’s disease (abst - 2000)

Sex steroid influence on cannabinoid CB(1) receptor mRNA and endocannabinoid levels in the anterior pituitary gland. (abst – 2000)


Cannabinoid CB1-receptor mediated regulation of gastrointestinal motility in mice in a model of intestinal inflammation (full - 2001)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1572987/?tool=pmcentrez


Endocannabinoids are implicated in the infarct size-reducing effect conferred by heat stress preconditioning in isolated rat hearts. (full – 2002) http://cardiovascres.oxfordjournals.org/content/55/3/619.long

Endocannabinoid Degradation, Endotoxic Shock and Inflammation (link to PDF– 2002) http://www.eurekaselect.com/91915/article

Never fear, cannabinoids are here (article - 2002) http://mcforadhd.free.fr/naturefear.pdf

N-Acylethanolamines in human reproductive fluids. (abst – 2002)

Endocannabinoids in the central nervous system--an overview. (abst - 2002)


Endocannabinoids in the immune system and cancer. (abst – 2002)
http://adsabs.harvard.edu/abs/2002cond.mat..8590K

Therapeutic potential of cannabis (full – 2003)  

Role of Endogenous Cannabinoids in Synaptic Signaling (full - 2003)  
http://physrev.physiology.org/cgi/content/full/83/3/101?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=160&resourcetype=HWCIT

Endocannabinoids as mediators in the heart: a potential target for therapy of remodelling after myocardial infarction? (full - 2003)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1573769/?tool=pmcentrez

Endocannabinoids protect the rat isolated heart against ischaemia (full - 2003)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1573907/?tool=pmcentrez

Endocannabinoid signaling via cannabinoid receptor 1 is involved in ethanol preference and its age-dependent decline in mice (full - 2003)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC298783/?tool=pmcentrez

Cannabinoids inhibit neurodegeneration in models of multiple sclerosis (full - 2003)  
http://brain.oxfordjournals.org/cgi/content/full/126/10/2191

Endocannabinoids and the regulation of body fat: the smoke is clearing (full - 2003)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC166302/?tool=pmcentrez

Possible endocannabinoid control of colorectal cancer growth. (full - 2003)  
http://www.gastrojournal.org/article/S0016-5085%2803%2900881-3/fulltext

Effect of maternal under-nutrition on pup body weight and hypothalamic endocannabinoid levels. (abst – 2003)  

Keeping the Brain's Activity under Control (news – 2003)  
http://www.mpg.de/481862/pressRelease20031022?filter_order=L

Endocannabinoids and Their Implications for Epilepsy (full - 2004)  

Endocannabinoids: Getting the message across (full - 2004)  
http://www.pnas.org/content/101/23/8512.full?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=2880&resourcetype=HWCIT

Involvement of cannabinoid receptors in gut motility and visceral perception (full - 2004)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1574910/?tool=pmcentrez
Clinical Endocannabinoid Deficiency

The endocannabinoid system: physiology and pharmacology. (full - 2004)
http://alcalc.oxfordjournals.org/cgi/content/full/40/1/2

Endocannabinoids Acting at Cannabinoid-1 Receptors Regulate Cardiovascular Function in Hypertension (full - 2004)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2756479/?tool=pmcentrez

Endogenous Cannabinoids Take the Edge off Neuroendocrine Responses to Stress (full – 2004)

Effects of Cannabis Therapy on Endogenous Cannabinoids (abst - 2004)

The gastrointestinal pharmacology of cannabinoids: an update. (abst – 2004)

Endogenous cannabinoids are candidates for lipid mediators of bone cement implantation syndrome. (abst – 2004)

The role of endogenous cannabinoids in the hypothalamo-pituitary-adrenal axis regulation: in vivo and in vitro studies in CB1 receptor knockout mice. (abst – 2004)

A new strategy to block tumor angiogenesis by inhibiting endocannabinoid inactivation (abst – 2004)

Marijuana-Like Chemicals in the Brain Calm Neurons (news - forum repost - 2004)

Harm reduction—the cannabis paradox (full - 2005)
http://www.harmreductionjournal.com/content/2/1/17

Blood pressure regulation by endocannabinoids and their receptors (full - 2005)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2225528/?tool=pmcentrez

The endogenous cannabinoid, anandamide, induces cell death in colorectal carcinoma cells: a possible role for cyclooxygenase 2 (full - 2005)

Effects of cannabinoids on hypothalamic and reproductive function. (abst – 2005)

Waterborne lead exposure affects brain endocannabinoid content in male but not female fathead minnows (Pimephales promelas). (abst – 2005)
The endocrinological basis of recurrent miscarriages. (abst – 2005)  

A role for endocannabinoids in viral-induced dyskinetic and convulsive phenomena. (abst – 2005)  

Endocannabinoids in the Regulation of Appetite and Body Weight. (abst - 2005)  

Blocking the destruction of endocannabinoids (news – 2005)  

Body's Pot-Like Chemicals May Help Curb Pain (news - 2005)  

Body's Own Marijuana-Like Compounds Are Crucial For Stress-Induced Pain Relief (news - 2005)  
http://www.sciencedaily.com/releases/2005/06/050628064435.htm

Cream with endocannabinoids effective in the treatment of pruritus due to kidney disease (news - 2005)  

Endocannabinoids -- The Brain's Cannabis -- Demonstrate Novel Modes Of Action To Stress (news - 2005)  

Multiple sclerosis may disrupt endocannabinoid brain protection mechanism (full - 2006)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1458835/?tool=pmcentrez

Role of the Cannabinoid System in Pain Control and Therapeutic Implications for the Management of Acute and Chronic Pain Episodes (full - 2006)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2430692/?tool=pubmed

Neural contractions in colonic strips from patients with diverticular disease: role of endocannabinoids and substance P (full – 2006)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1856307/

Endocannabinoid overactivity and intestinal inflammation (full - 2006)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1856409/?tool=pmcentrez

Experimental autoimmune encephalomyelitis disrupts endocannabinoid-mediated neuroprotection (full - 2006)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1458883/?tool=pmcentrez

Endocannabinoids: Multi-scaled, Global Homeostatic Regulators of Cells and Society (full - 2006)  
http://www.necsi.edu/events/iccs6/papers/0f3785aa40623a5a781701618c4e.pdf


Endocannabinoids Mediate the Effects of Acute Stress and Corticosterone on Sex Behavior (full – 2007) http://endo.endojournals.org/content/148/2/493.full


Endocannabinoids block status epilepticus in cultured hippocampal neurons (full - 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2617750/?tool=pmcentrez

Endocannabinoids and the haematological system (full - 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190025/?tool=pmcentrez

Endocannabinoids acting at CB1 receptors mediate the cardiac contractile dysfunction in vivo in cirrhotic rats (full - 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2225474/?tool=pmcentrez

Human Cannabinoid Pharmacokinetics (full - 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2689518/?tool=pmcentrez

Endocannabinoids and the gastrointestinal tract: what are the key questions? (full - 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190011/

Endocannabinoids as emerging suppressors of angiogenesis and tumor invasion (Review) (link to PDF – 2007) http://www.spandidos-publications.com/or/17/4/813

Endocannabinoids, cannabinoid receptors and inflammatory stress: an interview with Dr. Pál Pacher (link to PDF - interview - 2007) http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.510.3426


The Endocannabinoids: Functional Roles and Therapeutic Opportunities  
(news – 2007)  

Non-redundant Functions of Cyclooxygenases: Oxygenation of Endocannabinoids  
(full – 2008)  
http://www.jbc.org/content/283/13/8065.full

Cannabinomimetic Control of Mast Cell Mediator Release: New Perspective in Chronic Inflammation  
(full – 2008)  

Endocannabinoids and Liver Disease. III. Endocannabinoid effects on immune cells: implications for inflammatory liver diseases  
(full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2376822/?tool=pmcentrez

Endocannabinoids in the retina: from marijuana to neuroprotection.  
(full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2584875/

Organophosphate-Sensitive Lipases Modulate Brain Lysophospholipids, Ether Lipids and Endocannabinoids  
(full – 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2582404/

Endocannabinoids in endocrine and related tumours  
(full - 2008)  
http://erc.endocrinology-journals.org/cgi/reprint/15/2/391.pdf

Cannabinoids in pancreatic cancer: Correlation with survival and pain  
(full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2225529/?tool=pmcentrez

Endocannabinoids, blood pressure and the human heart.  
(full - 2008).  

Inflammation and aging: can endocannabinoids help?  
(full - 2008)  

Endocannabinoids and the Control of Energy Homeostasis  
(full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2586261/?tool=pmcentrez

Organophosphate-sensitive lipases modulate brain lysophospholipids, ether lipids and endocannabinoids.  
(full – 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2582404/

Endocannabinoids in the retina: From marijuana to neuroprotection.  
(full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2584875/?tool=pmcentrez

Role of cannabinoids and endocannabinoids in cerebral ischemia  
(full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2581413/?tool=pmcentrez

Endocannabinoids and cannabinoid receptors in ischaemia–reperfusion injury and preconditioning  
(full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219536/?tool=pmcentrez
Loss of cannabinoid receptor 1 accelerates intestinal tumor growth  (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2561258/?tool=pubmed

Clinical endocannabinoid deficiency (CECD): can this concept explain therapeutic benefits of cannabis in migraine, fibromyalgia, irritable bowel syndrome and other treatment-resistant conditions?  (full – 2008)

Endocannabinoids and the brain immune system: new neurones at the horizon?  (full – 2008)

Potential roles of (endo)cannabinoids in the treatment of glaucoma: from intraocular pressure control to neuroprotection.  (full – 2008)
http://www.nature.com/cgt/journal/v15/n2/pdf/7701101a.pdf

Endogenous cannabinoids: structure and metabolism.  (full - 2008)

Cannabinoid type-1 receptor gene polymorphisms are associated with central obesity in a Southern Brazilian population.  (link to PDF – 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3827795/

Degradation of endocannabinoids in chronic migraine and medication overuse headache.  (link to PDF - 2008)

Pain relief with cannabinoids-- the importance of endocannabinoids and cannabinoids for pain therapy  (abst - 2008)

Evidence for the intracellular accumulation of anandamide in adiposomes.  (abst – 2008)

Dysregulation of peripheral endocannabinoid levels in hyperglycemia and obesity: Effect of high fat diets.  (abst – 2008)

The modulatory role of endocannabinoids in sleep  (abst – 2008)


Understanding the effects of endogenous cannabinoids  (news - 2008)

Weeding out the highs of medical marijuana  (news – 2008)
https://www.sciencedaily.com/releases/2008/07/080714192555.htm
Marijuana-Inspired Painkiller? New Chemical Pathway Discovered  (news - 2008)  

Selective blockade of 2-arachidonoylglycerol hydrolysis produces cannabinoid behavioral effects  (full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2605181/

Endocannabinoids selectively enhance sweet taste  (full - 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2818929/?tool=pmcentrez

Dynamic regulation of the endocannabinoid system: implications for analgesia  (full - 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2770047/

Endocannabinoids: Stress, Anxiety, and Fear  (full - 2009)  

Cannabinoids, Endocannabinoids, and Related Analogs in Inflammation  (full - 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2664885/?tool=pubmed

Endocannabinoids and Their Receptors as Targets for Obesity Therapy  (full - 2009)  

Lipid rafts regulate 2-arachidonoylglycerol metabolism and physiological activity in the striatum  (full – 2009)  

Minocycline treatment inhibits microglial activation and alters spinal levels of endocannabinoids in a rat model of neuropathic pain  (full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2719614/

Endocannabinoids may mediate the ability of (n-3) fatty acids to reduce ectopic fat and inflammatory mediators in obese Zucker rats.  (full – 2009)  
http://jn.nutrition.org/content/139/8/1495.long

Unconventional neurotransmitters, neurodegeneration and neuroprotection  (full – 2009)  

Endocannabinoids and cardiovascular prevention: real progress?  (full - 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3184683/

Endocannabinoids and reproductive biology.  (letter - 2009)  
http://humrep.oxfordjournals.org/content/24/7/1771.full.pdf+html

Phytocannabinoids and endocannabinoids.  (abst - 2009)  
(link to download, must agree to conditions)  http://www.eurekaselect.com/93058/article


Parasitic brain infection, endocannabinoids, and schizophrenia. (abst - 2009) http://www.unboundmedicine.com/medline/ebm/record/18995970/abstract/Parasitic_brain_infection_endocannabinoids_and_schizophrenia


**ENOCANNABINOID SYSTEM** *

Cannabinoids  (encyclopedia entry)  [http://www.chemie.de/lexikon/e/Cannabinoids/](http://www.chemie.de/lexikon/e/Cannabinoids/)

Cannabinoid Receptor Ligands  (full - undated)  [http://www.tocris.com/pdfs/cannabinoid_receptor_review/page_001.html](http://www.tocris.com/pdfs/cannabinoid_receptor_review/page_001.html)


Endocannabinoids and Vascular Function  (full - 2000)  [http://jpet.aspetjournals.org/content/294/1/27.long](http://jpet.aspetjournals.org/content/294/1/27.long)


Endogenous cannabinoids and appetite.  (full – 2000)  [http://journals.cambridge.org/download.php?file=%2FNRR%2FNRR14_01%2FS095442240100004Xa.pdf&code=840ac1e121b1a8563a840b894ceed959](http://journals.cambridge.org/download.php?file=%2FNRR%2FNRR14_01%2FS095442240100004Xa.pdf&code=840ac1e121b1a8563a840b894ceed959)

Cannabinoid CB1-receptor mediated regulation of gastrointestinal motility in mice in a model of intestinal inflammation  (full - 2001)  [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1572987/?tool=pmcentrez](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1572987/?tool=pmcentrez)

Cannabinoid receptors are absent in insects.  (full - 2001)  [http://www.flygxe.ua.edu/labmeeting_papers/ruth.pdf](http://www.flygxe.ua.edu/labmeeting_papers/ruth.pdf)


Attack of the munchies  (news - 2001)  (may need registration)
Targeting the endocannabinoid system in cancer therapy: A call for further research
(full - 2002)

International Union of Pharmacology. XXVII. Classification of Cannabinoid Receptors
(full – 2002)

Sourcing the Code: Searching for the Evolutionary Origins of Cannabinoid Receptors,
Vanilloid Receptors, and Anandamide (full – 2002)

Evolution of Cannabinoid Receptors in Vertebrates: Identification of a CB2 Gene in the
Puffer Fish Fugu rubripes (full – 2002)

The endocannabinoid system in invertebrates (link to PDF – 2002)

Cannabinoid receptors and their ligands. (abst - 2002)

Activation of cannabinoid receptors decreases the area of ischemic myocardial necrosis.
(abst - 2002)

Cannabinoids and multiple sclerosis. (abst - 2002)

The endogenous cannabinoid system controls extinction of aversive memories.
(abst - 2002)

Endocannabinoids in the central nervous system--an overview. (abst – 2002)

Manipulation of the endocannabinoid system by a general anaesthetic. (full – 2003)

The Endocannabinoid System in Human Keratinocytes (full – 2003)

The Endogenous Cannabinoid System Regulates Seizure Frequency and Duration in a
Model of Temporal Lobe Epilepsy (full - 2003)
Endogenous cannabinoid system as a modulator of food intake. (full - 2003)
http://www.nature.com/ijo/journal/v27/n3/full/0802250a.html

Cannabis and the brain. (full - 2003)
http://brain.oxfordjournals.org/cgi/content/full/126/6/1252

Endocannabinoid signalling in the blood of patients with schizophrenia (full – 2003)
http://www.lipidworld.com/content/2/1/5

The endogenous cannabinoid system affects energy balance via central orexigenic drive and peripheral lipogenesis (full - 2003)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC166293/

Vasodilator actions of abnormal-cannabidiol in rat isolated small mesenteric artery (full - 2003)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1573773/?tool=pmcentrez

Therapeutic potential of cannabis (full – 2003)

The cannabinoid system: a role in both the homeostatic and hedonic control of eating? (abst – 2003)
http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=910308&fileId=S000711450300179X

The cannabinoid system and immune modulation (abst – 2003)

Therapeutic potential of cannabinoids in CNS disease. (abst - 2003)

The endocannabinoid system and Huntington's disease. (abst – 2003)

The endocannabinoid system as a target for the development of new drugs for cancer therapy. (abst – 2003)

Effect of maternal under-nutrition on pup body weight and hypothalamic endocannabinoid levels. (abst – 2003)

Exercise activates the endocannabinoid system. (abst – 2003)

The endocannabinoid system: a general view and latest additions (full - 2004)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1574255/?tool=pmcentrez

The endogenous cannabinoid system protects against colonic inflammation (full - 2004)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC385396/

The endocannabinoid system: physiology and pharmacology. (full - 2004)
Involvement of cannabinoid receptors in gut motility and visceral perception (full - 2004)

Endocannabinoids and exercise. (full – 2004)

Clinical Endocannabinoid Deficiency (link to PDF - 2004)

Fibromyalgia, IBS, and the Endocannabinoid-CB-Receptor (ECBR) system (editorial - 2004)

Effects of Cannabis Therapy on Endogenous Cannabinoids (abst - 2004)

Cannabinoid/Opioid Crosstalk in the Central Nervous System (abst – 2004)

Cannabinoids and Reward: Interactions with the Opioid System (abst – 2004)

The endocannabinoid-CB(1) receptor system in pre- and postnatal life. (abst - 2004)

Enhancing Cannabinoid Neurotransmission Augments the Extinction of Conditioned Fear (full - 2005)

Role of the endocannabinoid system in the development of tolerance to alcohol (full – 2005)

Activation of the Peripheral Endocannabinoid System in Human Obesity (full - 2005)

Regulation of bone mass, bone loss and osteoclast activity by cannabinoid receptors (full - 2005)

Evidence that the plant cannabinoid Δ9-tetrahydrocannabivarin is a cannabinoid CB1 and CB2 receptor antagonist (full - 2005)

Blood pressure regulation by endocannabinoids and their receptors (full - 2005)
Up-regulation of the endocannabinoid system in the uterus of leptin knockout (ob/ob) mice and implications for fertility (full – 2005)
http://molehr.oxfordjournals.org/content/11/1/21.full

Analgesia through endogenous cannabinoids (link to PDF - 2005)
http://www.cmaj.ca/cgi/content/full/173/4/357?
maxtoshow=&hits=10&RESULTFORMAT=&fulltext=endocannabinoid&andorexactfulltext=and&searchid=1&FIRSTINDEX=0&sortspec=date&resourcetype=HWCIT

CENTRAL CANNABINOID REGULATION OF FOOD INTAKE IN CHICKENS (link to PDF - 2005)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.587.5749&rank=38

Endocannabinoids and food intake: newborn suckling and appetite regulation in adulthood. (full - forum repost - 2005)

The endocannabinoid system drives neural progenitor proliferation. (abst – 2005)

Decreased endocannabinoid levels in the brain and beneficial effects of agents activating cannabinoid and/or vanilloid receptors in a rat model of multiple sclerosis. (abst – 2005)

Cannabinoids and the digestive tract. (abst – 2005)

The Endogenous Cannabinoid System. Therapeutic Implications for Neurologic and Psychiatric Disorders (abst – 2005)

The endocannabinoid system as a target for alkamides from Echinacea angustifolia roots. (abst – 2005)

The cannabinoid system and its importance in the perinatal period (abst – 2005)

Role of lipids and lipid signaling in the development of cannabinoid tolerance (abst – 2005)

New Antidepressant Drug Increases 'Brain's Own Cannabis' (news - 2005)
http://www.sciencedaily.com/releases/2005/12/051213172852.htm

Role of cannabinoid receptors in alcohol abuse (news - 2005)
http://www.medpagetoday.com/Psychiatry/AnxietyStress/1934

Marijuana May Grow Neurons in the Brain (news - 2005)
http://www.medpagetoday.com/Psychiatry/AnxietyStress/1934
Agonists of cannabinoid receptor 1 and 2 inhibit experimental colitis induced by oil of mustard and by dextran sulfate sodium.  
http://ajpgi.physiology.org/content/291/2/G364.long

Experimental autoimmune encephalomyelitis disrupts endocannabinoid-mediated neuroprotection  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1458883/?tool=pmcentrez

Role of the Cannabinoid System in Pain Control and Therapeutic Implications for the Management of Acute and Chronic Pain Episodes  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2430692/?tool=pubmed

Cannabinoids and the Endocannabinoid System  

Activation of G-proteins in brain by endogenous and exogenous cannabinoids.  
(full – 2006)  

Cannabinoid receptors and endocannabinoids: evidence for new players.  
(full - 2006)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3231556/

The emerging role of the endocannabinoid system in endocrine regulation and energy balance.  
(full - 2006)  

Experimental autoimmune encephalomyelitis disrupts endocannabinoid-mediated neuroprotection  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1458883/?tool=pmcentrez

Neurophysiological, Neuroimmunological, and Neuroendocrine Basis of Pruritus  
(full - 2006)  
http://www.jidonline.org/article/S0022-202X(15)33013-X/fulltext

The Endocannabinoid System as an Emerging Target of Pharmacotherapy  
(full - 2006)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2241751/?tool=pmcentrez

Not Too Excited? Thank Your Endocannabinoids  
(full - 2006)  

Cannabinoids and the Endocannabinoid System  

Endocannabinoid overactivity and intestinal inflammation  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1856409/?tool=pmcentrez

The Endocannabinoid System Controls Key Epileptogenic Circuits in the Hippocampus  
(full - 2006)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1769341/?tool=pmcentrez

Cannabinoid receptors and endocannabinoids: evidence for new players.
Endocannabinoids in Chronic Migraine: CSF Findings Suggest a System Failure

Frontiers in pruritus research: scratching the brain for more effective itch therapy

Dysregulation of the Peripheral and Adipose Tissue Endocannabinoid System in Human Abdominal Obesity

The impact of obesity on reproduction in women with polycystic ovary syndrome.

Cannabinoid receptors in invertebrates

Biochemical Changes in Endocannabinoid System are Expressed in Platelets of Female but not Male Migraineurs

Inhibition of Salivary Secretion by Activation of Cannabinoid Receptors

Increasing cannabinoid levels by pharmacological and genetic manipulation delay disease progression in SOD1 mice

Cannabinoids, immune system and cytokine network.

Cannabinoids biology: the search for new therapeutic targets.

Endocannabinoids and the gastrointestinal tract.

Evolutionary Origins of the Endocannabinoid System.

Neuromodulatory functions of the endocannabinoid system.

Formation of B and T cell subsets require the cannabinoid receptor CB2.


Cannabidiol displays unexpectedly high potency as an antagonist of CB1 and CB2 receptor agonists in vitro (full - 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2189767/?tool=pubmed

Increased endocannabinoid levels reduce the development of precancerous lesions in the mouse colon (full - 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2755791/?tool=pmcentrez

Endocannabinoids block status epilepticus in cultured hippocampal neurons (full - 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2617750/?tool=pmcentrez

Activation of cannabinoid CB1 and CB2 receptors suppresses neuropathic nociception evoked by the chemotherapeutic agent vincristine in rats. (full – 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190028/?tool=pubmed

The psychoactive plant cannabinoid, Delta9-tetrahydrocannabinol, is antagonized by Delta8- and Delta9-tetrahydrocannabivarin in mice in vivo. (full - 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2189766/?tool=pubmed

Neuropharmacology of the endocannabinoid signaling system-molecular mechanisms, biological actions and synaptic plasticity. (full - 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2139910/?tool=pubmed

Downregulation of the CB1 Cannabinoid Receptor and Related Molecular Elements of the Endocannabinoid System in Epileptic Human Hippocampus (full - 2007) http://www.jneurosci.org/cgi/content/full/28/12/2976?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&andorexactfulltext=and&searchid=1&FIRSTINDEX=0&sortspec=relevance&resourcetype=HWCIT

Expression and function of cannabinoid receptors CB1 and CB2 and their cognate cannabinoid ligands in murine embryonic stem cells. (full – 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1919431/?tool=pubmed

Cannabinoids: A New Group of Agonists of PPARs (full – 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2220031/?tool=pubmed

Endocannabinoid metabolism and uptake: novel targets for neuropathic and inflammatory pain (full - 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190014/?tool=pubmed
Endocannabinoids and the gastrointestinal tract: what are the key questions?  
(full - 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190011/

The endocannabinoid system is dysregulated in multiple sclerosis and in experimental autoimmune encephalomyelitis  
(full - 2007)  
http://brain.oxfordjournals.org/content/130/10/2543.long

Neuropharmacology of the endocannabinoid signaling system-molecular mechanisms, biological actions and synaptic plasticity.  
(full - 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2139910/?tool=pubmed

Cannabinoid action in the olfactory epithelium  
(full - 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1815290/?tool=pmcentrez

A possible role for the endocannabinoid system in the neurobiology of depression  
(full - 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2169225/?tool=pubmed

The complications of promiscuity: endocannabinoid action and metabolism  
(full - 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190010/?tool=pmcentrez

Cannabinoids mediate analgesia largely via peripheral type 1 cannabinoid receptors in nociceptors  
(full - 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2234438/

The CB1 Cannabinoid Receptor Mediates Excitotoxicity-induced Neural Progenitor Proliferation and Neurogenesis  
(full - 2007)  
http://www.jbc.org/content/282/33/23892.full

Modulation of Fear and Anxiety by the Endogenous Cannabinoid System  
(full - 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2789283/?tool=pmcentrez

A possible role for the endocannabinoid system in the neurobiology of depression  
(full - 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2169225/?tool=pubmed

Endocannabinoid hedonic hotspot for sensory pleasure: anandamide in nucleus accumbens shell enhances 'liking' of a sweet reward.  
(full – 2007)  
http://www.nature.com/npp/journal/v32/n11/full/1301376a.html

Modulation of the endocannabinoid system: therapeutic potential against cocaine dependence.  
(full - 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2134985/?tool=pubmed

Increased endocannabinoid levels reduce the development of precancerous lesions in the mouse colon.  
(full – 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2755791/?tool=pubmed

Cannabis and Endocannabinoids: The Old Man and the Teenagers  
(full – 2007)  
The endocannabinoid network: insight into the regulation of the neuroendocrine and metabolic systems. (full - 2007)  

Characterization of cannabinoid-binding sites in zebrafish brain. (full – 2007)  

The endocannabinoid system in targeting inflammatory neurodegenerative diseases (full – forum repost - 2007)  

The endocannabinoid system and neurogenesis in health and disease. (link to download - 2007)  
http://journals.sagepub.com/doi/abs/10.1177/1073858406296407

n-3 Fatty acids and the endocannabinoid system. (letter – 2007)  
http://ajcn.nutrition.org/content/85/3/919.1.long

Endocannabinoids, just a gut feeling. (1st page - 2007)  
http://link.springer.com/article/10.1007%2Fs00109-007-0201-6#page-1

Cardiovascular Abnormalities in Cirrhosis: the Possible Mechanisms (abst - 2007)  
http://jthc.tums.ac.ir/index.php/jthc/article/view/64/64

BfCBR: a cannabinoid receptor ortholog in the cephalochordate Branchiostoma floridae (Amphioxus). (abst – 2007)  

The endocannabinoid system and extinction learning. (abst - 2007)  

Attenuation of allergic contact dermatitis through the endocannabinoid system. (abst – 2007)  

Cerebellar-Dependent Learning as a Neurobehavioral Index of the Cannabinoid System (abst – 2007)  
http://dl.begellhouse.com/journals/7b004699754c9fe6.64ecdd6045552415.684ce6ce63101f0f.html

Cannabinoids and neuroprotection in motor-related disorders. (abst - 2007)  

The (Endo)Cannabinoid System in Multiple Sclerosis and Amyotrophic Lateral Sclerosis (abst – 2007)  

The local antinociceptive effects of paracetamol in neuropathic pain are mediated by cannabinoid receptors (abst – 2007)  
Expression of cannabinoid receptors and neurotrophins in human gliomas.  
(abst - 2007)  

Overactivity of the intestinal endocannabinoid system in celiac disease and in methotrexate-treated rats.  
(abst – 2007)  

Immune-mediated Activation of the Endocannabinoid System in Visceral Adipose Tissue in Obesity  
(abst – 2007)  

Lactobacillus acidophilus modulates intestinal pain and induces opioid and cannabinoid receptors.  
(abst – 2007)  

Endocannabinoids, cannabinoid receptors and inflammatory stress: an interview with Dr. Pál Pacher  
(link to PDF - interview - 2007)  
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.510.3426

Hippies vindicated: Human-produced cannabinoids have anti-inflammatory powers  
(news – 2007)  
http://www.science20.com/news/marijuana_benefit_also_human_produced_cannabinoids_have_anti_inflammatory_powers

The importance of the endocannabinoid-system  
(news - 2007)  

The Endocannabinoids: Functional Roles and Therapeutic Opportunities  
(news – 2007)  

Endocannabinoids appear to play important role in regulating inflammation  
(news - 2007)  

The importance of the endocannabinoid-system  
(news – 2007)  

Cannabinoid receptors in acute and chronic complications of atherosclerosis  
(full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219535/?tool=pmcentrez

Gastrointestinal Regulation of Food Intake: General Aspects and Focus on Anandamide and Oleoylethanolamide  
(full – 2008)  

Endocannabinoid Dysregulation in the Pancreas and Adipose Tissue of Mice Fed With a High-fat Diet  
(full - 2008)  

Attenuation of Allergic Contact Dermatitis Through the Endocannabinoid System  
(full - 2008)
Cannabinoids Inhibit HIV-1 Gp120-Mediated Insults in Brain Microvascular Endothelial Cells (full - 2008)

Pharmacological enhancement of endocannabinoid signaling reduces the cholinergic toxicity of diisopropylfluorophosphate. (full – 2008)

Cannabinomimetic Control of Mast Cell Mediator Release: New Perspective in Chronic Inflammation (full – 2008)

The role of the endocannabinoid system in the pathophysiology and treatment of irritable bowel syndrome. (full – 2008)

Genetic variation in endocannabinoid metabolism, gastrointestinal motility, and sensation (full – 2008)

Multiple sclerosis, cannabinoids, and cognition. (full - 2008)

The diverse CB1 and CB2 receptor pharmacology of three plant cannabinoids: Δ9-tetrahydrocannabinol, cannabidiol and Δ9-tetrahydrocannabivarin (full - 2008)

Expression of the Endocannabinoid System in Human First Trimester Placenta and Its Role in Trophoblast Proliferation (full – 2008)

Cannabinoid CB2 receptors in human brain inflammation (full - 2008)

Endocannabinoids and the Control of Energy Homeostasis (full – 2008)

Endocannabinoids in the retina: from marijuana to neuroprotection. (full - 2008)

Cannabinoid receptors and the regulation of bone mass (full - 2008)

Characterisation of the cannabinoid receptor system in synovial tissue and fluid in patients with osteoarthritis and rheumatoid arthritis. (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2453762/?tool=pubmed

The endocannabinoid system: an osteopathic perspective. (full - 2008) http://jaoa.org/article.aspx?articleid=2093607&resultClick=1

Modulation of the Endocannabinoid System in Cardiovascular Disease (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2568884/?tool=pmcentrez

Endocannabinoids in the Retina: From Marijuana to Neuroprotection (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2584875/?tool=pubmed


Activation of the endocannabinoid system by organophosphorus nerve agents (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2694060/


Cannabinoid receptors: where they are and what they do.  

Role of systemic endocannabinoid CB-1 receptor antagonism in the acquisition and expression of fructose-conditioned flavor-flavor preferences in rats.  
(full – 2008)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4560860/

Function of cannabinoids in heart failure  
(link to full - 2008)  
http://www.unboundmedicine.com/medline/citation/18464680/abstract/Function_of_cannabinoids_in_heart_failure

The Medicinal Chemistry of Agents Targeting the Endogenous Cannabinoid System  
(link to PDF - 2008)  
http://www.eurekaselect.com/82224/article

Gender-dependent increases with healthy aging of the human cerebral cannabinoid-type 1 receptor binding using [(18)F]MK-9470 PET.  
(abst – 2008)  

Evidence for the intracellular accumulation of anandamide in adiposomes.  
(abst – 2008)  

The rat pineal gland comprises an endocannabinoid system.  
(abst – 2008)  

Endocannabinoid and serotonergic systems are needed for acetaminophen-induced analgesia.  
(abst – 2008)  

Cat odour-induced anxiety--a study of the involvement of the endocannabinoid system.  
(abst – 2008)  

Endocannabinoid signaling as a synaptic circuit breaker in neurological disease.  
(abst - 2008)  

The endocannabinoid system in Huntington's disease.  
(abst - 2008)  

The endocannabinoid system in amyotrophic lateral sclerosis.  
(abst - 2008)  

Expression of the endocannabinoid system in fibroblasts and myofascial tissues.  
(abst – 2008)  

The role of the endocannabinoid system in Alzheimer's disease: facts and hypotheses.  
(abst - 2008)  

The endocannabinoid system: emotion, learning and addiction.  
(abst - 2008)  
Endocannabinoids and the Neurochemistry of Gluttony

Biology of endocannabinoid synthesis system. (abst – 2008)

The endocannabinoid system and multiple sclerosis. (abst - 2008)

Immunomodulatory Lipids in Plants: Plant Fatty Acid Amides and the Human Endocannabinoid System (abst – 2008)

The role of endocannabinoid system in physiological and pathological processes in the eye (abst - 2008)
http://www.unboundmedicine.com/medline/ebm/record/19195174/full_citation/
%5BThe_role_of_endocannabinoid_system_in_physiological_and_pathological_processes_in_the_eye%5D

New brain cells implicated in machinery of cannabinoid signaling (news – 2008)

Starting Point Of Sun-Induced Skin Cancer Discovered: Molecular 'Hooks' Also Pull Compounds From Marijuana From Bloodstream (news - 2008)
http://www.sciencedaily.com/releases/2008/05/080515072642.htm

Salutary pizza spice (news – 2008)

Understanding the Effects of Endogenous Cannabinoids (news – 2008)

Cannabinoids, Endocannabinoids, and Related Analogs in Inflammation (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2664885/?tool=pubmed

Changes in the Endocannabinoid System May Give Insight into new and Effective Treatments for Cancer (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2791688/?tool=pmcentrez

Effects of Cannabinoids on Caffeine Contractures in Slow and Fast Skeletal Muscle Fibers of the Frog (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2697372/?tool=pmcentrez

Ulcerative Colitis Induces Changes on the Expression of the Endocannabinoid System in the Human Colonic Tissue (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2731878/?tool=pmcentrez

Localisation and Function of the Endocannabinoid System in the Human Ovary
Voluntary Exercise and Sucrose Consumption Enhance Cannabinoid CB1 Receptor Sensitivity in the Striatum
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2640464/?tool=pmcentrez

Cannabinoids: An emerging role in pain management?
https://www.researchgate.net/publication/26245948_Cannabinoids_An_emerging_role_in_pain_management

Dynamic regulation of the endocannabinoid system: implications for analgesia
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2770047/

Endocannabinoid signalling as an anti-inflammatory therapeutic target in atherosclerosis: does it work?
http://cardiovascres.oxfordjournals.org/content/84/3/341.full?sid=7d2438c4-a727-410f-870d-4a971695b4fb

Cannabinoids, Endocannabinoids, and Related Analogs in Inflammation
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2664885/?tool=pubmed

Biomarkers of Endocannabinoid System Activation in Severe Obesity
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2808340/?tool=pubmed

The endocannabinoid system as a link between homoeostatic and hedonic pathways involved in energy balance regulation
http://www.nature.com/ijo/journal/v33/n2s/full/ijo200967a.html

The emerging role of the endocannabinoid system in cardiovascular disease
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2791499/?tool=pmcentrez

Endocannabinoid signaling in microglial cells.
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2654419/?tool=pubmed

Endocannabinoid-mediated control of synaptic transmission.
http://physrev.physiology.org/content/89/1/309.long

Febrile seizures: mechanisms and relationship to epilepsy.
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2698702/

Endocannabinoids may mediate the ability of (n-3) fatty acids to reduce ectopic fat and inflammatory mediators in obese Zucker rats.
http://jn.nutrition.org/content/139/8/1495.long

Selective blockade of 2-arachidonoylglycerol hydrolysis produces cannabinoid behavioral effects
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2605181/
Post-ischemic brain damage: the endocannabinoid system in the mechanisms of neuronal death. (full - 2009)

The endocannabinoid system and pain. (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2834283/?tool=pmcentrez

The endocannabinoid system of the skin in health and disease: novel perspectives and therapeutic opportunities (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2757311/?tool=pmcentrez

The endocannabinoid system as a target for the treatment of motor dysfunction. (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2697699/

Role of endocannabinoid signaling in anxiety and depression. (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3808114/

Circulating endocannabinoids and N-acyl ethanolamines are differentially regulated in major depression and following exposure to social stress. (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2716432/?tool=pubmed

Unconventional neurotransmitters, neurodegeneration and neuroprotection (full – 2009)

Endocannabinoid signaling in neurotoxicity and neuroprotection. (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2891218/

The endocannabinoid 2-arachidonoylglycerol promotes sperm development through activation of cannabinoid-2 receptors (link to PDF - 2009)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.505.7026&rank=36

The Endocannabinoid System in the Brain: From Biology to Therapy (editorial - 2009)
http://www.researchgate.net/publication/233707914_Editorial_Hot_TopicThe_Endocannabinoid_System_in_the_Brain_From_Biology_to_Therapy_%28Guest_Editor_Mauro_Maccarrone%29

Endocannabinoids and reproductive biology. (letter - 2009)
http://humrep.oxfordjournals.org/content/24/7/1771.full.pdf+html

Impairments in Endocannabinoid Signaling and Depressive Illness (1st page – 2009)

The endocannabinoid system: an ancient signaling involved in the control of male fertility. (abst – 2009)

Cannabinoid receptors in brain: pharmacogenetics, neuropharmacology, neurotoxicology, and potential therapeutic applications. (abst - 2009)


Altered pattern of cannabinoid type 1 receptor expression in adipose tissue of dysmetabolic and overweight patients (abst – 2009) http://www.metabolismjournal.com/article/S0026-0495%2808%2900398-3/abstract

The endovanilloid/endocannabinoid system in human osteoclasts: possible involvement in bone formation and resorption. (abst – 2009)

Modulation of the endocannabinoid-degrading enzyme fatty acid amide hydrolase by follicle-stimulating hormone. (abst – 2009)

Effects of central endocannabinoid system on visceral hyposensitivity induced by rapid eye movement sleep deprivation: experiment with rats (abst – 2009)

Skeletal anabolic activity of cannabinoid receptor agonists (abst - 2009)
https://www.deepdyve.com/lp/elsevier/skeletal-anabolic-activity-of-cannabinoid-receptor-agonists-IHk6Sm07R0

Enhanced Sweet Taste: Endocannabinoids Act Directly on Tongue Taste Receptors (news - 2009)

Enhanced sweet taste: This is your tongue on pot (news – 2009)

ENTOURAGE EFFECT – ENDOCANNABINOIDS*

2-Arachidonylglycerol, an endogenous cannabinoid, inhibits tumor necrosis factor-alpha production in murine macrophages, and in mice. (abst – 2000)

Effects of homologues and analogues of palmitoylethanolamide upon the inactivation of the endocannabinoid anandamide. (full – 2001)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1621151/

'Entourage' effects of N-acyl ethanolamines at human vanilloid receptors. Comparison of effects upon anandamide-induced vanilloid receptor activation and upon anandamide metabolism. (full – 2002) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1573364/

Effect on cancer cell proliferation of palmitoylethanolamide, a fatty acid amide interacting with both the cannabinoid and vanilloid signalling systems. (abst – 2002) http://www.ncbi.nlm.nih.gov/pubmed/12570018
Cannabinimimetic activity, binding, and degradation of stearoylethanolamide within the mouse central nervous system. (abst – 2002)  

Differential effects of the sleep-inducing lipid oleamide and cannabinoids on the induction of long-term potentiation in the CA1 neurons of the rat hippocampus in vitro. (abst – 2004)  

'Entourage' effects of N-palmitoylethanolamide and N-oleoylethanolamide on vasorelaxation to anandamide occur through TRPV1 receptors. (full – 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2597234/

The endogenous fatty acid amide, palmitoylethanolamide, has anti-allodynic and anti-hyperalgesic effects in a murine model of neuropathic pain: involvement of CB(1), TRPV1 and PPARgamma receptors and neurotrophic factors. (abst – 2008)  

Enhancement of the hypotensive effects of intrathecally injected endocannabinoids by the entourage compound palmitoylethanolamide. (abst – 2009)  

**FAAH/ FATTY ACID AMIDE HYDROLASE** - breaks down anandamide

Differences in the pharmacological properties of rat and chicken brain fatty acid amidohydrolase. (full – 2000)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1572338/

Supersensitivity to anandamide and enhanced endogenous cannabinoid signaling in mice lacking fatty acid amide hydrolase (full - 2001)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC55427/?tool=pubmed

Characterization of palmitoylethanolamide transport in mouse Neuro-2a neuroblastoma and rat RBL-2H3 basophilic leukaemia cells: comparison with anandamide. (full – 2001)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1572744/

Effects of pH on the inhibition of fatty acid amidohydrolase by ibuprofen. (full – 2001)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1572815/

Palmitoylethanolamide inhibits the expression of fatty acid amidohydrolase and enhances the anti-proliferative effect of anandamide in human breast cancer cells (link to download - 2001)  

Fatty acid amide hydrolase inhibition by neurotoxic organophosphorus pesticides.
Low fatty acid amide hydrolase and high anandamide levels are associated with failure to achieve an ongoing pregnancy after IVF and embryo transfer.

Binding, degradation and apoptotic activity of stearoylethanolamide in rat C6 glioma cells.

Cannabinoids and Feeding: The Role of the Endogenous Cannabinoid System as a Trigger for Newborn Suckling.

The endocannabinoid system in invertebrates.

Effect on cancer cell proliferation of palmitoylethanolamide, a fatty acid amide interacting with both the cannabinoid and vanilloid signalling systems.

Endocannabinoids and related fatty acid derivatives in pain modulation.

Regulation of anandamide tissue levels by N-arachidonylglycine.

Endocannabinoids in the central nervous system--an overview.

Anandamide metabolism by fatty acid amide hydrolase in intact C6 glioma cells. Increased sensitivity to inhibition by ibuprofen and flurbiprofen upon reduction of extracellular but not intracellular pH.

A structure-activity relationship study on N-arachidonoyl-amino acids as possible endogenous inhibitors of fatty acid amide hydrolase.

The endocannabinoid-CB(1) receptor system in pre- and postnatal life.

The postmortem accumulation of brain N-arachidonylethanolamine (anandamide) is dependent upon fatty acid amide hydrolase activity.

Dual modulation of endocannabinoid transport and fatty acid amide hydrolase protects against excitotoxicity.
Fatty acid amide hydrolase deficiency limits early pregnancy events. (full – 2005)  
http://www.jci.org/articles/view/28621


Cisplatin increases brain 2-arachidonoylglycerol (2-AG) and concomitantly reduces intestinal 2-AG and anandamide levels in the least shrew. (abst – 2005)  

Actions of the FAAH inhibitor URB597 in neuropathic and inflammatory chronic pain models (full - 2006)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1751298/?tool=pmcentrez

A second fatty acid amide hydrolase with variable distribution among placental mammals. (full – 2006)  
http://www.jbc.org/content/281/48/36569.long

Role of endocannabinoids in alcohol consumption and intoxication: studies of mice lacking fatty acid amide hydrolase. (full – 2006)  
http://www.nature.com/npp/journal/v32/n7/full/1301274a.html

Local interactions between anandamide, an endocannabinoid, and ibuprofen, a nonsteroidal anti-inflammatory drug, in acute and inflammatory pain. (abst – 2006)  

Human adipose tissue binds and metabolizes the endocannabinoids anandamide and 2-arachidonoylglycerol. (abst – 2006)  

The Endogenous Cannabinoid Anandamide Produces δ-9-Tetrahydrocannabinol-Like Discriminative and Neurochemical Effects That Are Enhanced by Inhibition of Fatty Acid Amide Hydrolase but Not by Inhibition of Anandamide Transport (full - 2007)  
http://jpet.aspetjournals.org/content/321/1/370.full

The fatty acid amide hydrolase inhibitor URB597 (cyclohexylcarbamic acid 3'-carbamoylbiphenyl-3-yl ester) reduces neuropathic pain after oral administration in mice. (full – 2007)  
http://jpet.aspetjournals.org/content/322/1/236.long

Decreased age-related cardiac dysfunction, myocardial nitrosative stress, inflammatory gene expression, and apoptosis in mice lacking fatty acid amide hydrolase. (full – 2007)  
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2225473/

Oleamide: a fatty acid amide signaling molecule in the cardiovascular system? (full – 2007)  

Inhibition of fatty-acid amide hydrolase accelerates acquisition and extinction rates in a spatial memory task. (full – 2007)  
Antiaversive Effects of Cannabinoids: Is the Periaqueductal Gray Involved (link to PDF - 2007)

Fatty acid amide hydrolase: from characterization to therapeutics. (abst – 2007)


Organophosphate-Sensitive Lipases Modulate Brain Lysophospholipids, Ether Lipids and Endocannabinoids (full – 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2582404/

Activation of the endocannabinoid system by organophosphorus nerve agents (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2597283/

Genetic Loss of Faah Compromises Male Fertility in Mice (full - 2008)
http://www.biolreprod.org/content/80/2/235.long

Endocannabinoids in the retina: from marijuana to neuroprotection. (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2584875/


Endocannabinoids: structure and metabolism. (full - 2008)

5-Lipoxygenase and anandamide hydrolase (FAAH) mediate the antitumor activity of cannabidiol, a non-psychoactive cannabinoid. (full – 2008)

Effect of cannabidiol on sepsis-induced motility disturbances in mice: involvement of CB1 receptors and fatty acid amide hydrolase (full – 2008)

A saturated N-acylethanolamine other than N-palmitoyl ethanolamine with anti-inflammatory properties: a neglected story... (full – 2008)

The FAAH inhibitor URB-597 ameliorates cannabinoid withdrawal in mice (abst - 2008)
http://www.fasebj.org/cgi/content/meeting_abstract/22/1_MeetingAbstracts/711.6?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=720&res
eourcetype=HWCIT

Cat odour-induced anxiety--a study of the involvement of the endocannabinoid system.


Role of endocannabinoid signaling in anxiety and depression. (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3808114/


Endocannabinoids and reproductive biology. (letter - 2009) http://humrep.oxfordjournals.org/content/24/7/1771.full.pdf+html

Inhibition of fatty acid amide hydrolase, a key endocannabinoid metabolizing enzyme, by analogues of ibuprofen and indomethacin. (abst – 2009) http://www.ncbi.nlm.nih.gov/pubmed/17397826


Modulation of the endocannabinoid-degrading enzyme fatty acid amide hydrolase by follicle-stimulating hormone. (abst – 2009)

Skeletal anabolic activity of cannabinoid receptor agonists (abst - 2009)
https://www.deepdyve.com/lp/elsevier/skeletal-anabolic-activity-of-cannabinoid-receptor-agonists-IHk6Sm07R0

ALTERED ANANDAMIDE DEGRADATION IN ATTENTION-DEFICIT/HYPERACTIVITY DISORDER (excerpt – 2009)
http://www.neurology.org/content/72/17/1526

**HEMOPRESIN** - CB1 inverse agonist

Hemopressin is an inverse agonist of CB1 cannabinoid receptors (full – 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2154475/

Novel endogenous peptide agonists of cannabinoid receptors (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2735371/

**L-α-LYSOPHOSPHATIDYLINOSITOL** – GPR-55 agonist

The GPR55 ligand L-alpha-lysophosphatidylinositol promotes RhoA-dependent Ca2+ signaling and NFAT activation. (abst – 2009)

**MAGL/ MGL/ MONOACYLGlycerol LIPASE** - breaks down 2-AG

Natural Cannabinoids Blunt Pain (news - 2005)


A Comprehensive Profile of Brain Enzymes that Hydrolyze the Endocannabinoid 2-Arachidonoylglycerol (full – 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2692834/

Organophosphate-Sensitive Lipases Modulate Brain Lysosphospholipids, Ether Lipids and Endocannabinoids (full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2582404/

Activation of the endocannabinoid system by organophosphorus nerve agents (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2597283/

Endocannabinoids in the retina: from marijuana to neuroprotection. (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2584875/


Blockade of 2-arachidonoylglycerol hydrolysis by selective monoacylglycerol lipase inhibitor 4-nitrophenyl 4-(dibenzo[d][1,3]dioxol-5-yl(hydroxy)methyl)piperidine-1-carboxylate (JZL184) Enhances retrograde endocannabinoid signaling. (full – 2009) http://jpet.aspetjournals.org/content/331/2/591.long

Monoacylglycerol lipase limits the duration of endocannabinoid-mediated depolarization-induced suppression of excitation in autaptic hippocampal neurons. (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2784730/


Effects of central endocannabinoid system on visceral hyposensitivity induced by rapid eye movement sleep deprivation: experiment with rats  

**NADA/ N-ARACHIDONOYLDOPAMINE** - CB1 agonist

Endocannabinoids and related fatty acid derivatives in pain modulation.  

Characterisation of the vasorelaxant properties of the novel endocannabinoid N-arachidonoyl-dopamine (NADA).  

TRPV1 and CB(1) receptor-mediated effects of the endovanilloid/endocannabinoid N-arachidonoyl-dopamine on primary afferent fibre and spinal cord neuronal responses in the rat.  

Mechanisms of HIV-1 inhibition by the lipid mediator N-arachidonoyldopamine.  
(full – 2005) http://www.jimmunol.org/content/175/6/3990.long

Vascular effects of delta 9-tetrahydrocannabinol (THC), anandamide and N-arachidonoyldopamine (NADA) in the rat isolated aorta.  

Targeted lipidomics: fatty acid amides and pain modulation.  

Arvanil, anandamide and N-arachidonoyl-dopamine (NADA) inhibit emesis through cannabinoid CB1 and vanilloid TRPV1 receptors in the ferret.  

Increased depressor response to N-arachidonoyl-dopamine during high salt intake: role of the TRPV1 receptor.  

Inhibition of human neutrophil chemotaxis by endogenous cannabinoids and phytocannabinoids: evidence for a site distinct from CB1 and CB2.  
(full – 2008) http://molpharm.aspetjournals.org/content/73/2/441.long

N-arachidonoyl dopamine is a possible factor of the rate of tentacle formation in freshwater hydra  

The role of the CB1 receptor in the regulation of sleep.  
The biosynthesis of N-arachidonoyl dopamine (NADA), a putative endocannabinoid and endovanilloid, via conjugation of arachidonic acid with dopamine  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2757501/  

Opposite effects of anandamide and n-arachidonoyl dopamine in the regulation of prostaglandin E2 and 8-iso-PGF2α formation in primary glial cells  

Enhancement of the hypotensive effects of intrathecally injected endocannabinoids by the entourage compound palmitoylethanolamide.  

**NAGly/ N-ARACHIDDONOYL GLYCINE** – GPR-18 agonist  

Identification of a new class of molecules, the arachidonyl amino acids, and characterization of one member that inhibits pain.  
http://www.jbc.org/content/276/46/42639.long  

Regulation of anandamide tissue levels by N-arachidonylglycine.  

A structure-activity relationship study on N-arachidonoyl-amino acids as possible endogenous inhibitors of fatty acid amide hydrolase  

N-Arachidonoyl-glycine inhibits the glycine transporter, GLYT2a.  

Identification of N-arachidonylglycine as the endogenous ligand for orphan G-protein-coupled receptor GPR18.  

Actions of N-arachidonoyl-glycine in a rat inflammatory pain model.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2042976/  

Actions of N-arachidonoyl-glycine in a rat neuropathic pain model.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC17588618  

The endocannabinoid anandamide is a precursor for the signaling lipid N-arachidonoyl glycine by two distinct pathways  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2689249/?tool=pubmed  

N-arachidonoyl glycine  
**NAPE-PLD** - an enzyme involved in creating endocannabinoids

http://www.jlr.org/content/41/6/985.long

Fatty acid amide hydrolase deficiency limits early pregnancy events. (full – 2005)  
http://www.jci.org/articles/view/28621

Isolation and analysis of candidate myeloid tumor suppressor genes from a commonly deleted segment of 7q22. (abst – 2005)  

A biosynthetic pathway for anandamide (full - 2006)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1557387/

Postprandial increase of oleoylethanolamide mobilization in small intestine of the Burmese python (Python molurus) (full – 2006)  
http://ajpregu.physiology.org/content/290/5/R1407.long

Human adipose tissue binds and metabolizes the endocannabinoids anandamide and 2-arachidonoylglycerol. (abst – 2006)  


Regulation of brain anandamide by acute administration of ethanol. (full – 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1868843/

Endocannabinoid Dysregulation in the Pancreas and Adipose Tissue of Mice Fed With a High-fat Diet (full - 2008)  

Endogenous cannabinoids: structure and metabolism. (full - 2008)  

The endovanilloid/endocannabinoid system in human osteoclasts: possible involvement in bone formation and resorption. (abst – 2009)  

Skeletal anabolic activity of cannabinoid receptor agonists (abst - 2009)  
https://www.deepdyve.com/lp/elsevier/skeletal-anabolic-activity-of-cannabinoid-receptor-agonists-IHk6Sm07R0
NARAS / N-ARACHIDONOYL-L-SERINE - binds very weakly to cannabinoid CB₁ and CB₂


N-arachidonoyl L-serine, a putative endocannabinoid, alters the activation of N-type Ca2+ channels in sympathetic neurons. (full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2652135/

Inhibition of human neutrophil chemotaxis by endogenous cannabinoids and phytocannabinoids: evidence for a site distinct from CB1 and CB2. (full – 2008) http://molpharm.aspetjournals.org/content/73/2/441.long

OEA / OLEOYLETHANOLAMIDE - an anandamide analog, GPR 119 agonist


Anandamide degradation and N-acylethanolamines level in wild-type and CB1 cannabinoid receptor knockout mice of different ages (full – 2001) http://onlinelibrary.wiley.com/doi/10.1046/j.1471-4159.2001.00413.x/full

'Entourage' effects of N-acyl ethanolamines at human vanilloid receptors. Comparison of effects upon anandamide-induced vanilloid receptor activation and upon anandamide metabolism. (full – 2002) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1573364/


Cannabinoid CB1 receptor activation does not prevent the toxicity of glutamate towards embryonic chick telencephalon primary cultures. (abst – 2003) http://www.ncbi.nlm.nih.gov/pubmed/14659458

The postmortal accumulation of brain N-arachidonylethanolamine (anandamide) is dependent upon fatty acid amide hydrolase activity. (full – 2005)
http://www.jlr.org/content/46/2/342.long

Postprandial increase of oleoylethanolamide mobilization in small intestine of the Burmese python (Python molurus) (full – 2006)
http://ajpregu.physiology.org/content/290/5/R1407.long


'Entourage' effects of N-palmitoylethanolamide and N-oleoylethanolamide on vasorelaxation to anandamide occur through TRPV1 receptors. (full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2597234/?tool=pubmed

Evaluation of fatty acid amides in the carrageenan-induced paw edema model. (full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2200792/

Gastrointestinal Regulation of Food Intake: General Aspects and Focus on Anandamide and Oleoylethanolamide (full – 2008)

Endocannabinoids and nutrition. (full – 2008)


The lipid messenger OEA links dietary fat intake to satiety. (full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2572640/?tool=pubmed

Endogenous and synthetic agonists of GPR119 differ in signalling pathways and their effects on insulin secretion in MIN6c4 insulinoma cells. (full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2528830/?tool=pubmed


Inhibitory effect of the anorexic compound oleoylethanolamide on gastric emptying in control and overweight mice.  
(abst – 2008)  

Fat-induced satiety factor oleoylethanolamide enhances memory consolidation  
(full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2683095/?tool=pubmed

GPR119 is essential for oleoylethanolamide-induced glucagon-like peptide-1 secretion from the intestinal enteroendocrine L-cell.  
(full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2671052/?tool=pubmed

Sleep deprivation increases oleoylethanolamide in human cerebrospinal fluid.  
(full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2757605/?tool=pubmed

Circulating endocannabinoids and N-acyl ethanolamines are differentially regulated in major depression and following exposure to social stress.  
(full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2716432/?tool=pubmed

Receptors for acylethanolamides-GPR55 and GPR119.  
(full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2751869/?tool=pubmed

N-oleoyl ethanolamine (OEA)  
(article – 2009)  

Remembering dinner: OEAsy does it  
(article – 2009)  

Oleoylethanolamide exerts partial and dose-dependent neuroprotection of substantia nigra dopamine neurons.  
(abst – 2009)  

Plasma endocannabinoid levels in multiple sclerosis.  
(abst – 2009)  

N-acyl ethanolamines, anandamide and food intake.  
(abst – 2009)  

Biochemical and biological properties of 4-(3-phenyl-[1,2,4] thiadiazol-5-yl)-piperazine-1-carboxylic acid phenylamide, a mechanism-based inhibitor of fatty acid amide hydrolase.  
(abst – 2009)  

**OLEAMIDE** - CB 1 agonist
Oleamide is a selective endogenous agonist of rat and human CB1 cannabinoid receptors. (full – 2004) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1574194/

Vasorelaxant effects of oleamide in rat small mesenteric artery indicate action at a novel cannabinoid receptor. (full – 2006) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1616976/


**OMEGA-3/ CB1 CONNECTION** - without Omega 3, new CB1 receptors are made imperfectly - also see NUTRITION – HEMP SEED OIL, CBR- CB1 receptors

Omega-3 and Omega-6 Essential fatty Acids (EFA) (infomercial/ad – undated) http://www.advance-health.com/efa.html

Oily fish makes 'babies brainier'                      (news - 2006) (hemp seed - at the end)
http://news.bbc.co.uk/2/hi/health/4631006.stm

Effect of dietary hempseed intake on cardiac ischemia-reperfusion injury.  (full – 2007)
http://ajpregu.physiology.org/content/292/3/R1198.long

n-3 Fatty acids and the endocannabinoid system.  (letter – 2007)
http://ajcn.nutrition.org/content/85/3/919.1.long

Endocannabinoids and nutrition.                    (full – 2008)

Endocannabinoids in the retina: from marijuana to neuroprotection.    (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2584875/


Influence of dietary fatty acids on endocannabinoid and N-acylethanolamine levels in rat brain, liver and small intestine.  (abst – 2008)

Deficit in prepulse inhibition in mice caused by dietary n-3 fatty acid deficiency.  (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2852869/

Endocannabinoids may mediate the ability of (n-3) fatty acids to reduce ectopic fat and inflammatory mediators in obese Zucker rats.  (full – 2009)
http://jn.nutrition.org/content/139/8/1495.long

Benefits of Hemp Oil                                  (news – 2009)
http://www.livestrong.com/article/31903-hemp-seed-oil-benefits/

**OMEGA-6 /ENDOCANNABINOID CONNECTION** - endocannabinoids are made from Omega 6

Endocannabinoids in the retina: from marijuana to neuroprotection.    (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2584875/

**PEA – PALMITOYLETHANOLAMIDE** - CB 2, GPR55 & GPR119 agonist, limits FAAH
Differences in the pharmacological properties of rat and chicken brain fatty acid amidohydrolase. (full – 2000) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1572338/


Palmitoylethanolamide inhibits the expression of fatty acid amide hydrolase and enhances the anti-proliferative effect of anandamide in human breast cancer cells (full - 2001) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1222054/pdf/11485574.pdf/?tool=pmcentrez


Effects of homologues and analogues of palmitoylethanolamide upon the inactivation of the endocannabinoid anandamide. (full – 2001) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1621151/


Palmitoylethanolamide inhibits the expression of fatty acid amide hydrolase and enhances the anti-proliferative effect of anandamide in human breast cancer cells (link to download - 2001) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1222054/pdf/11485574.pdf/?tool=pmcentrez


Endocannabinoids and related fatty acid derivatives in pain modulation. (abst – 2002)  

N-Acylethanolamines in human reproductive fluids. (abst – 2002)  

Effect on cancer cell proliferation of palmitoylethanolamide, a fatty acid amide interacting with both the cannabinoid and vanilloid signalling systems. (abst – 2002)  

Endocannabinoids in the immune system and cancer. (abst - 2002)  

Idiopathic infertility: susceptibility of spermatozoa to in-vitro capacitation, in the presence and the absence of palmitylethanolamolme (a homologue of anandamide), is strongly correlated with membrane polarity studied by Laurdan fluorescence (full – 2003)  
http://molehr.oxfordjournals.org/content/9/7/381.full

Cannabinoid CB1 receptor activation does not prevent the toxicity of glutamate towards embryonic chick telencephalon primary cultures. (abst – 2003)  

The postmortem accumulation of brain N-arachidonylethanolamine (anandamide) is dependent upon fatty acid amide hydrolase activity. (full – 2005)  
http://www.jlr.org/content/46/2/342.long

Selective antiepileptic effects of N-palmitoylethanolamide, a putative endocannabinoid. (full – 2005)  

The search for the palmitoylethanolamide receptor. (abst – 2005)  


Changes in endocannabinoid and palmitoylethanolamide levels in eye tissues of patients with diabetic retinopathy and age-related macular degeneration. (abst – 2006)  

Synergistic antinociceptive effects of anandamide, an endocannabinoid, and nonsteroidal anti-inflammatory drugs in peripheral tissue: a role for endogenous fatty-acid ethanolamides? (abst – 2006)  
STUDIES OF ANANDAMIDE ACCUMULATION INHIBITORS IN CEREBELLAR GRANULE NEURONS (full – 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2248273/

Effects of palmitoylethanolamide on signaling pathways implicated in the development of spinal cord injury. (full – 2008) http://jpet.aspetjournals.org/content/326/1/12.long


'Entourage' effects of N-palmitoylethanolamide and N-oleoylethanolamide on vasorelaxation to anandamide occur through TRPV1 receptors. (full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2597234/?tool=pubmed


Evaluation of fatty acid amides in the carrageenan-induced paw edema model. (full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2200792/


Circulating endocannabinoids and N-acyl ethanolamines are differentially regulated in major depression and following exposure to social stress. (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2716432/?tool=pubmed

Minocycline treatment inhibits microglial activation and alters spinal levels of endocannabinoids in a rat model of neuropathic pain (full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2719614/

The endocannabinoid system of the skin in health and disease: novel perspectives and therapeutic opportunities (full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2757311/

Anti-inflammatory effect of palmitoylethanolamide on human adipocytes. (full – 2009)  

Plasma endocannabinoid levels in multiple sclerosis. (abst – 2009)  

N-acyl ethanolamines, anandamide and food intake. (abst – 2009)  

Enhancement of the hypotensive effects of intrathecally injected endocannabinoids by the entourage compound palmitoylethanolamide. (abst – 2009)  

Biochemical and biological properties of 4-(3-phenyl-[1,2,4] thiadiazol-5-yl)-piperazine-1-carboxylic acid phenylamide, a mechanism-based inhibitor of fatty acid amide hydrolase. (abst – 2009)  

**STEAROYLETHANOLAMIDE**

Binding, degradation and apoptotic activity of stearoylethanolamide in rat C6 glioma cells. (link to PDF – 2002)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1222758/

The endocannabinoid system in invertebrates (link to PDF – 2002)  

Cannabimimetic activity, binding, and degradation of stearoylethanolamide within the mouse central nervous system. (abst – 2002)  

Cannabinoid CB1 receptor activation does not prevent the toxicity of glutamate towards embryonic chick telencephalon primary cultures. (abst – 2003)  
Stearoylethanolamide exerts anorexic effects in mice via down-regulation of liver stearoyl-coenzyme A desaturase-1 mRNA expression. (abst – 2004)

Effects of saturated long-chain N-acylethanolamines on voltage-dependent Ca2+ fluxes in rabbit T-tubule membranes. (abst – 2005)

A saturated N-acylethanolamine other than N-palmitoyl ethanolamine with anti-inflammatory properties: a neglected story... (full – 2008)

**VIRODHAMINE** – GPR-55 & CB2 agonist; CB1 agonist/antagonist depending on dose

Phytocannabinoids (news – undated)
http://www.news-medical.net/health/Phytocannabinoids.aspx

Characterization of a novel endocannabinoid, virodhamine, with antagonist activity at the CB1 receptor. (full – 2002)
http://jpet.aspetjournals.org/content/301/3/1020.long

Endocannabinoids and related fatty acid derivatives in pain modulation. (abst – 2002)

Vasorelaxant activities of the putative endocannabinoid virodhamine in rat isolated small mesenteric artery. (abst – 2004)

Role of the endocannabinoid system in the development of tolerance to alcohol (full – 2005)
http://alcalc.oxfordjournals.org/content/40/1/15.long


Binding affinity and agonist activity of putative endogenous cannabinoids at the human neocortical CB1 receptor (abst – 2005)

GPR55: a new member of the cannabinoid receptor clan? (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2095104/?tool=pubmed

The orphan receptor GPR55 is a novel cannabinoid receptor. (full – 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2095107/?tool=pubmed

GPR55 and the vascular receptors for cannabinoids. (full – 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190021/?tool=pubmed
Virodhamine and CP55,940 modulate cAMP production and IL-8 release in human bronchial epithelial cells. (full – 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2042924/?tool=pubmed

Nicotine (NC)-induced "depressive" behavioral symptoms and effects of antidepressants including cannabinoids (CBs). (full – 2008) https://www.jstage.jst.go.jp/article/jts/33/5/33_5_555/_pdf


Inhibition of human neutrophil chemotaxis by endogenous cannabinoids and phytocannabinoids: evidence for a site distinct from CB1 and CB2. (full – 2008) http://molpharm.aspetjournals.org/content/73/2/441.long

Virodhamine relaxes the human pulmonary artery through the endothelial cannabinoid receptor and indirectly through a COX product. (full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2597267/


VITAMIN E/ D α-TOCOPHEROL – a modulator of the endocannabinoid system

Inhibition of Rat C6 Glioma Cell Proliferation by Endogenous and Synthetic Cannabinoids. Relative Involvement of Cannabinoid and Vanilloid Receptors (full - 2001) http://jpet.aspetjournals.org/content/299/3/951.full


Amyloid precursor protein 96-110 and beta-amyloid 1-42 elicit developmental anomalies in sea urchin embryos and larvae that are alleviated by neurotransmitter analogs for acetylcholine, serotonin and cannabinoids. (full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2579926/?tool=pubmed
Virgin hemp seed oil: An interesting niche product (1st page – 2008)

ENDOCANNABINOID SYSTEM GENETICS
2000 - 2009

ATT / (ATT)n GENES

http://www.nature.com/tpj/journal/v6/n2/full/6500352a.html

Lack of association of genetic variants in genes of the endocannabinoid system with anorexia nervosa (full - 2008)
http://www.capmh.com/content/2/1/33

Association of the Cannabinoid Receptor Gene (CNR1) With ADHD and Post-Traumatic Stress Disorder (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2685476/?tool=pubmed

Cannabinoid receptor 1 gene (CNR1) and susceptibility to a quantitative phenotype for hebephrenic schizophrenia. (abst – 2008)

CB 1-RELATED GENES

Association study of a cannabinoid receptor gene (CNR1) polymorphism and schizophrenia. (abst – 2000)

The endocannabinoid system in invertebrates (link to PDF – 2002)

Association of a CB1 cannabinoid receptor gene (CNR1) polymorphism with severe alcohol dependence. (abst – 2002)

Marijuana receptor gene abnormality in schizophrenia (news – 2002)
A Critical Role for the Cannabinoid CB1 Receptors in Alcohol Dependence and Stress-Stimulated Ethanol Drinking  (full – 2003)
http://www.jneurosci.org/content/23/6/2453.long

Human cannabinoid receptor 1: 5' exons, candidate regulatory regions, polymorphisms, haplotypes and association with polysubstance abuse.  (full – 2004)
http://www.nature.com/mp/journal/v9/n10/full/4001560a.html

Human cannabinoid receptor 1: 5' exons, candidate regulatory regions, polymorphisms, haplotypes and association with polysubstance abuse.  (full – 2004)
http://www.nature.com/mp/journal/v9/n10/full/4001560a.html

Association study of cannabinoid receptor gene (CNR1) alleles and anorexia nervosa: differences between restricting and binging/purging subtypes.  (abst – 2004)

Decreased alcohol self-administration and increased alcohol sensitivity and withdrawal in CB1 receptor knockout mice.  (abst – 2004)

CB1 Receptor Knockout Mice Display Reduced Ethanol-Induced Conditioned Place Preference and Increased Striatal Dopamine D2 Receptors  (full – 2005)
http://www.nature.com/npp/journal/v30/n2/full/1300568a.html

Depression in Parkinson's disease is related to a genetic polymorphism of the cannabinoid receptor gene (CNR1)  (full - 2005)
http://www.nature.com/tpj/journal/v5/n2/full/6500301a.html


Genetic variations at the endocannabinoid type 1 receptor gene (CNR1) are associated with obesity phenotypes in men.  (full – 2007)
http://jcem.endojournals.org/content/92/6/2382.long

Genotype effects of CHRNA7, CNR1 and COMT in schizophrenia: interactions with tobacco and cannabis use.  (full – 2007)  http://bip.rcpsych.org/content/191/5/402.long

No evidence for an involvement of variants in the cannabinoid receptor gene (CNR1) in obesity in German children and adolescents.  (abst – 2007)

Endocannabinoid receptor 1 gene variations increase risk for obesity and modulate body mass index in European populations  (full – 2008)
http://hmg.oxfordjournals.org/content/17/13/1916.long
Marijuana withdrawal and craving: influence of the cannabinoid receptor 1 (CNR1) and fatty acid amide hydrolase (FAAH) genes. (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2873690/

Cannabinoid type-1 receptor gene polymorphisms are associated with central obesity in a Southern Brazilian population. (link to PDF – 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3827795/

Cannabinoid receptor 1 (CNR1) gene: impact on antidepressant treatment response and emotion processing in major depression. (abst – 2008)

Genetic variation may influence obesity only under conditions of diet: Analysis of three candidate genes (abst – 2008)
http://www.mgmjournal.com/article/S1096-7192%2808%2900201-1/abstract

Association of CNR1 and FAAH endocannabinoid gene polymorphisms with anorexia nervosa and bulimia nervosa: evidence for synergistic effects. (full – 2009)

Variations in the cannabinoid receptor 1 gene predispose to migraine. (abst – 2009)

Altered pattern of cannabinoid type 1 receptor expression in adipose tissue of dysmetabolic and overweight patients (abst – 2009)
http://www.metabolismjournal.com/article/S0026-0495%2808%2900398-3/abstract

The use and misuse of alcohol and marijuana can be traced to a common set of genes (news – 2009)

Cannabis and smoking gene links to schizophrenia ‘unfounded’ (news – 2009)

CB 2-RELATED GENES

http://www.academia.edu/6468139/Reduced_endocannabinoid_immune_modulation_by_a_common_cannabinoid_2_CB2_receptor_gene_polymorphism_possible_risk_for_autoimmune_disorders

Cannabinoid receptor type 2 gene is associated with human osteoporosis (full - 2005)
http://hmg.oxfordjournals.org/cgi/content/full/14/22/3389?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=400&resourcetype=HWCIT

Common polymorphisms in the cannabinoid CB2 receptor gene (CNR2) are not associated with myocardial infarction and cardiovascular risk factors (link to PDF - 2008) http://www.spandidos-publications.com/ijmm/22/2/165


COMT-RELATED GENES

Genotype effects of CHRNA7, CNR1 and COMT in schizophrenia: interactions with tobacco and cannabis use. (full – 2007) http://bip.rcpsych.org/content/191/5/402.long


FAAH-RELATED GENES - RS324420 / C385A , RS324419 , etc

A second fatty acid amide hydrolase with variable distribution among placental mammals. (full – 2006) http://www.jbc.org/content/281/48/36569.long


Genetic variation in endocannabinoid metabolism, gastrointestinal motility, and sensation (full - 2007) http://ajpgi.physiology.org/cgi/content/full/294/1/G1?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=1120&resourcetype=HWCIT
The fatty acid amide hydrolase C385A (P129T) missense variant in cannabis users: studies of drug use and dependence in Caucasians (abst – 2007)

Genetic Loss of Faah Compromises Male Fertility in Mice (full - 2008)
http://www.biolreprod.org/content/80/2/235.long

Marijuana withdrawal and craving: influence of the cannabinoid receptor 1 (CNR1) and fatty acid amide hydrolase (FAAH) genes. (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2873690/

Genetic deletion of Fatty Acid Amide Hydrolase results in improved long-term outcome in chronic autoimmune encephalitis. (abst – 2008)


RS GENES POLYMORPHISMS – various

Cannabinoid type-1 receptor gene polymorphisms are associated with central obesity in a Southern Brazilian population. (link to PDF – 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3827795/

KNOCK-OUT MICE * – GMO mice lacking genes needed to make parts of the endocannabinoid system.


Anandamide degradation and N-acylethanolamines level in wild-type and CB1 cannabinoid receptor knockout mice of different ages (full – 2001) http://onlinelibrary.wiley.com/doi/10.1046/j.1471-4159.2001.00413.x/full

Increased Severity of Stroke in CB1 Cannabinoid Receptor Knock-Out Mice
(full - 2002)
http://www.jneurosci.org/cgi/content/full/22/22/9771?
maxtoshow=&hit=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=80&reso
urctype=HWCIT#Top

Lack of CB1 cannabinoid receptors modifies nicotine behavioural responses, but not
nicotine abstinence. (abst – 2002)

Natural High Erases Bad Memories (news - 2002)

Cannabinoid Cb1 Receptor Knockout Mice Exhibit Markedly Reduced Voluntary
Alcohol Consumption and Lack Alcohol-induced Dopamine Release in the Nucleus
Accumbens. (full – 2003)

Milk intake and survival in newborn cannabinoid CB1 receptor knockout mice: evidence

The endogenous cannabinoid, anandamide, activates the hypothalamo-pituitary-adrenal
axis in CB1 cannabionoid receptor knockout mice. (abst – 2003)

Cannabinoid receptor type 1 (CB1) affects hypothalamic-pituitary-adrenal (HPA) axis
activity at cerebral and pituitary level (abst – 2003)

Keeping the Brain's Activity under Control (news – 2003)
http://www.mpg.de/481862/pressRelease20031022?filter_order=L

Defective adult neurogenesis in CB1 cannabionoid receptor knockout mice.
(full - 2004) http://molpharm.aspetjournals.org/content/66/2/204.long

CB1 cannabionoid receptor knockout in mice leads to leanness, resistance to diet-induced
obesity and enhanced leptin sensitivity (full - 2004)
http://www.nature.com/ijo/journal/v28/n4/full/0802583a.html

The role of endogenous cannabinoids in the hypothalamo-pituitary-adrenal axis
regulation: in vivo and in vitro studies in CB1 receptor knockout mice.

Context-dependent effects of CB1 cannabinoid gene disruption on anxiety-like and social

Cannabinoids and Reward: Interactions with the Opioid System (abst – 2004)
http://dl.begellhouse.com/journals/7b004699754c9fe6,54f83f65109db32,479134412f4ae4d5.html
Cannabinoid/Opioid Crosstalk in the Central Nervous System  
(abort – 2004)  
http://dl.begellhouse.com/journals/7b004699754e9fe6.54f83f6510f9db32.25c26f6e4b594ae3.html

Overeating, Alcohol and Sucrose Consumption Decrease in Cb1 Receptor Deleted Mice.  
(abort – 2004)  

Decreased alcohol self-administration and increased alcohol sensitivity and withdrawal in CB1 receptor knockout mice.  
(abort – 2004)  

Cannabinoids spell relief in colon inflammation  
(news – 2004)  

Ethanol Induces Higher Bee in Cb1 Cannabinoid Receptor Knockout Mice While Decreasing Ethanol Preference.  
(full – 2005)  
http://alcalc.oxfordjournals.org/content/40/1/54.long

CB1 Receptor Knockout Mice Display Reduced Ethanol-Induced Conditioned Place Preference and Increased Striatal Dopamine D2 Receptors  
(full – 2005)  
http://www.nature.com/npp/journal/v30/n2/full/1300568a.html

Early age-related cognitive impairment in mice lacking cannabinoid CB1 receptors.  
(full – 2005)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1266095/?tool=pubmed

Cannabinoid-receptor 1 null mice are susceptible to neurofilament damage and caspase 3 activation.  
(abort – 2005)  

Involvement of Neuronal Cannabinoid Receptor CB1 in Regulation of Bone Mass and Bone Remodeling  
(full - 2006)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2238031/?tool=pmcentreZ

Increased ethanol consumption and preference and decreased ethanol sensitivity in female FAAH knockout mice.  
(abort – 2006)  

Inhibition of fatty-acid amide hydrolase accelerates acquisition and extinction rates in a spatial memory task.  
(full – 2007)  

The Endocannabinoids: Functional Roles and Therapeutic Opportunities  
(news – 2007)  

Loss of Cannabinoid Receptor CB1 Induces Preterm Birth  
(full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2553193/?tool=pmcentreZ

The peripheral cannabinoid receptor knockout mice: an update.  
(full – 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219525/?tool=pubmed
Involvement of central cannabinoid CB2 receptor in reducing mechanical allodynia in a mouse model of neuropathic pain (abst – 2008) 

Endocannabinoid and serotonergic systems are needed for acetaminophen-induced analgesia. (abst – 2008) 

Anandamide effects on 5-HT(3) receptors in vivo. (abst – 2008) 

Turned-Off Cannabinoid Receptor Turns On Colorectal Tumor Growth (news - 2008) 
http://www.sciencedaily.com/releases/2008/08/080801074056.htm

CB2 receptor activation attenuates microcirculatory dysfunction during cerebral ischemic/reperfusion injury. (full - 2009) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3319431/

Sex differences in the cannabinoid regulation of energy homeostasis (full – 2009) 
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3772082/

Altered CB1 receptor and endocannabinoid levels precede motor symptom onset in a transgenic mouse model of Huntington's disease. (abst – 2009) 

Bidirectional regulation of novelty-induced behavioral inhibition by the endocannabinoid system. (abst – 2009) 

MISC GENETICS

Behavioural and gene transcription alterations induced by spontaneous cannabinoid withdrawal in mice (full – 2003) 

**PHYTOCANNABINOIDS and RELATED COMPOUNDS**

**2000 - 2009**

**ASYMOSOL** – a cannabis derivative that helps relieve asthma attacks

Ganja medicine in Jamaica (news – 2000)
http://www.cannabisculture.com/content/2000/01/16/59

**AMYRINS** – phytochemicals that inhibit the breakdown of 2-AG,

Mechanisms underlying the inhibitory actions of the pentacyclic triterpene α-amyrin in the mouse skin inflammation induced by phorbol ester 12-O-tetradecanoylphorbol-13-acetate (abst – 2006)

**ANTHOCYANINS/ ANTHOCYADINS** – plant pigments, moderately activate CB1 & CB2 receptors


**BETA-CARYOPHYLLENE/ (E)-BCP** * – CB2 agonist, also see TRANS-CARYOPHYLLENE

Potentiating effect of beta-caryophyllene on anticancer activity of alpha-humulene, isocaryophyllene and paclitaxel. (abst – 2007)

Beta-caryophyllene is a dietary cannabinoid (full - 2008)
Anti-inflammatory cannabinoids in diet  (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2449371/?tool=pmcentrez

Discovery of a novel cannabinoid in food  (abst – 2008)

Salutary pizza spice  (news – 2008)

Cannabinoids, Endocannabinoids, and Related Analogs in Inflammation  (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2664885/?tool=pmcentrez

An examination of anthocyanins' and anthocyanidins' affinity for cannabinoid receptors.  (abst – 2009)

CANNABINOIDS IN OTHER PLANTS - also see MAGNOLOL, CHOCOLATE, ECHINACEA, TEA

New Bibenzyl Cannabinoid from the New Zealand Liverwort Radula marginata  (link to PDF – 2002)
https://www.jstage.jst.go.jp/article/cpb/50/10/50_10_1390/_article

CB receptor ligands from plants.  (abst – 2008)

Immunomodulatory Lipids in Plants: Plant Fatty Acid Amides and the Human Endocannabinoid System  (abst – 2008)

Towards a Better Understanding of the Psychopharmacology of Nutmeg: Activities in the Mouse Tetrad Assay  (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2783227/

CANASOL – a cannabis-based topical eye medicine

Ganja medicine in Jamaica  (news – 2000)
http://www.cannabisculture.com/content/2000/01/16/59
**CANNADOR** – a cannabis extract in pill form

Cannabis trial on Parkinson's  
(news - 2003)  
http://news.bbc.co.uk/2/hi/uk_news/england/devon/2956273.stm

A multicenter dose-escalation study of the analgesic and adverse effects of an oral cannabis extract (Cannador) for postoperative pain management.  
(full - 2006)  
http://anesthesiology.pubs.asahq.org/article.aspx?articleid=1922969&resultClick=3

Analgesic and adverse effects of an oral cannabis extract (Cannador) for postoperative pain  
(abst - 2006)  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=184

Cannabis effective at relieving pain after major surgery  
(news - 2006)  

Cannabis 'reduces surgery pain'  
(news – 2006)  
http://news.bbc.co.uk/2/hi/health/5040960.stm

Cannador: Drug from cannabis plant-extract to reduce surgery pain  
(news - forum repost - 2006)  

Cannabinoids for postoperative pain.  
(letter - 2007)  
http://anesthesiology.pubs.asahq.org/article.aspx?articleid=1931347&resultClick=3

Cannabinoids as pharmacotherapies for neuropathic pain: from the bench to the bedside.  
(full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2755639/

Clinical phase III study with the cannabis extract Cannador successful in multiple sclerosis  
(news - 2009)  

**CANNFLAVIN-A/ CANNFLAVIN-B** - non-cannabinoid compounds from cannabis; also see FLAVINOIDS

Non-cannabinoid constituents from a high potency Cannabis sativa variety.  
(full – 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4888767/

Cytotoxic and NF-κB-modulating effects of cannabis constituents  
(abst – 2008)  
**CBC/ CANNABICHROMENE** * - phytocannabinoid, unknown receptor

Phytocannabinoids (news – undated)
http://www.news-medical.net/health/Phytocannabinoids.aspx

Identification and Determination of Cannabinoids in both Commercially Available and Cannabis Oils Stored Long Term (full – 2005)

Antibacterial cannabinoids from Cannabis sativa: a structure-activity study. (full - 2008)

Plant-derived cannabinoids modulate the activity of transient receptor potential channels of ankyrin type-1 and melastatin type-8. (full - 2008)
http://jpet.aspetjournals.org/content/325/3/1007.long


TRB3 links ER stress to autophagy in cannabinoid anti-tumoral action. (full – 2009)
https://www.researchgate.net/publication/26714808_TRB3_links_ER_stress_to_autophagy_in_cannabinoid_antitumoral_action

---

**CBD/ CANNABIDIOL/ GWP- 42004** * agonist of the 5-HT, receptor, antagonist of CB1 and CB2, GPR – 55 and GPR- 18

Phytocannabinoids (news – undated)
http://www.news-medical.net/health/Phytocannabinoids.aspx

ACCESSING 0.5 to 2.0 GRAMS CBD FRACTIONATING THE PHYTOCANNABINOIDS BY THEIR VAPORIZATION POINTS (article – forum repost - undated)

Cannabinoids might reduce spasticity in multiple sclerosis (full - 2000)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1117698/?tool=pmcentrez
The nonpsychoactive cannabis constituent cannabidiol is an oral anti-arthritic therapeutic in murine collagen-induced arthritis (full - 2000)
http://www.pnas.org/cgi/content/full/97/17/9561

Advantages of polypharmaceutical herbal cannabis compared to single ingredient, synthetic tetrahydrocannabinol (full - 2000)

Variations of D9-THC content in single plants of hemp varieties (full - 2000)
http://www.ukcia.org/research/VariationOfTHCContent.pdf

Neuroprotective Antioxidants from Marijuana (abst – 2000)


Synthesis of a primary metabolite of cannabidiol. (abst – 2000)
http://pubs.acs.org/doi/abs/10.1021/ol006369a

Cannabinoids in clinical practice. (abst - 2000)


Marijuana Extract Helps Arthritis Pain (news - 2000)
http://www.prohealth.com//library/showArticle.cfm?libid=552


The endocannabinoid system in invertebrates (link to PDF – 2002)
Cannabis and the brain. (full - 2003)
http://brain.oxfordjournals.org/cgi/content/full/126/6/1252

Neuroprotective Effect of (−)Δ9-Tetrahydrocannabinol and Cannabidiol in N-Methyl-d-
Aspartate-Induced Retinal Neurotoxicity - Involvement of Peroxynitrite (full - 2003)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1892413/?tool=pmcentrez

Therapeutic potential of cannabis (full – 2003)

http://www.cannabisinternational.org/info/CBD-Nausea.pdf

Composition of the essential oils and extracts of two populations of Cannabis sativa L.
ssp. spontanea from Austria (full - forum repost - 2003)
http://www.420magazine.com/forums/chemical-composition/150878-composition-essential-oils-extracts-
two-populations-cannabis-sativa.html

Pharmacokinetics and pharmacodynamics of cannabinoids. (abst – 2003)

Post-ischemic Treatment with Cannabidiol Prevents Electroencephalographic Flattening,
Hyperlocomotion and Neuronal Injury in Gerbils. (abst – 2003)

Therapeutic potential of cannabinoids in CNS disease. (abst - 2003)

Gamma-irradiation enhances apoptosis induced by cannabidiol, a non-psychotropic
 cannabinoid, in cultured HL-60 myeloblastic leukemia cells. (abst - 2003)

Cannabidiol-transdermal delivery and anti-inflammatory effect in a murine model.

Initial experiences with medicinal extracts of cannabis for chronic pain: Results from 34
‘N of 1’ studies (full - 2004)
http://www.ukcia.org/research/InitialExperiencesChronicPain.pdf

Neuroprotective effect of cannabidiol, a non-psychoactive component from Cannabis
sativa, on β-amyloid-induced toxicity in PC12 cells (full - 2004)
http://www3.interscience.wiley.com/cgi-bin/fulltext/118757302/HTMLSTART

Antitumor effects of cannabidiol, a nonpsychoactive cannabinoid, on human glioma cell
lines. (full - 2004) http://jpet.aspetjournals.org/content/308/3/838.long

Cannabidiol prevents infarction via the non-CB1 cannabinoid receptor mechanism.
Effect of Delta-9-tetrahydrocannabinol and cannabidiol on nocturnal sleep and early-morning behavior in young adults. (abst - 2004)

Cannabidiol Preserves Retinal Neurons and Reduces Vascular Permeability in Experimental Diabetes (abst – forum repost - 2004)

Marijuana-like compounds may aid array of debilitating conditions ranging from Parkinson's to pain (news – 2004)

Epilepsy and marijuana – a review (full – 2005)

Comparison of Cannabidiol, Antioxidants, and Diuretics in Reversing Binge Ethanol-Induced Neurotoxicity (full - 2005)
http://ipet.aspetjournals.org/content/314/2/780.full

Cannabidiol inhibits human glioma cell migration through a cannabinoid receptor-independent mechanism (full - 2005)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1576089/?tool=pmcentrez

Cannabidiol Prevents Cerebral Infarction Via a Serotonergic 5-Hydroxytryptamine1A Receptor–Dependent Mechanism (full - 2005)
http://stroke.ahajournals.org/cgi/content/full/36/5/1071

Cannabidiol lowers incidence of diabetes in non-obese diabetic mice (full - 2005)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2270485/?tool=pmcentrez

Cannabidiol as an antipsychotic. A double-blind, controlled clinical trial on cannabidiol vs. amisulpride in acute schizophrenia. (full - 2005)
http://www.nature.com/tp/journal/v2/n3/full/tp201215a.html

Identification and Determination of Cannabinoids in both Commercially Available and Cannabis Oils Stored Long Term (full – 2005)


Peripheral, but not central effects of cannabidiol derivatives: Mediation by CB 1 and unidentified receptors (full - 2005)
Cannabinol delays symptom onset in SOD1 (G93A) transgenic mice without affecting survival. (abst - 2005)  

Pharmacokinetics of cannabinoids. (abst – 2005)  

Treatment with CBD in oily solution of drug-resistant paediatric epilepsies.  
(abst - 2005)  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=173&&search_pattern=EPILEPSY

Cannabinoids provide neuroprotection against 6-hydroxydopamine toxicity in vivo and in vitro: relevance to Parkinson's disease. (abst - 2005)  

Pharmacokinetics and metabolism of the plant cannabinoids, delta9-tetrahydrocannabinol, cannabidiol and cannabiol. (abst – 2005)  

Agonistic properties of cannabidiol at 5-HT1a receptors.  
(abst – 2005)  

Chemicals in Cannabis may help mentally ill  
(news - 2005)  

Neuroprotective and Blood-Retinal Barrier-Preserving Effects of Cannabidiol in Experimental Diabetes  
(full - 2006)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1592672/?tool=pubmed

Role of the Cannabinoid System in Pain Control and Therapeutic Implications for the Management of Acute and Chronic Pain Episodes  
(full - 2006)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2430692/?tool=pubmed

A tale of two cannabinoids: The therapeutic rationale for combining tetrahydrocannabinol and cannabidiol.  
(full - 2006)  

Cannabidiol, a Cannabis sativa constituent, as an antipsychotic drug  
(full - 2006)  
http://www.scielo.br/scielo.php?pid=S0100-879X2006000400001&script=sci_arttext#Text

Cannabidiol-Induced Apoptosis in Human Leukemia Cells: A Novel Role of Cannabidiol in the Regulation of p22phox and Nox4 Expression  
(full - 2006)  
http://molpharm.aspetjournals.org/content/70/3/897.long

Antitumor Activity of Plant Cannabinoids with Emphasis on the Effect of Cannabidiol on Human Breast Carcinoma  
(full - 2006)  
http://jpet.aspetjournals.org/content/318/3/1375.full

Cannabidiol, a constituent of Cannabis sativa, modulates sleep in rats.  
(full - 2006)  


Compound found in marijuana may defend against diabetic retinopathy (news – 2006) http://www.news-medical.net/news/2006/03/01/16284.aspx


Cannabidiol as a novel inhibitor of Id-1 gene expression in aggressive breast cancer cells. (full - 2007) http://mct.aacrjournals.org/content/6/11/2921.long

Cannabidiol attenuates high glucose-induced endothelial cell inflammatory response and barrier disruption (full - 2007)

Cannabidiol in vivo blunts β-amyloid induced neuroinflammation by suppressing IL-1β and iNOS expression (full - 2007)

Cannabidiol, a nonpsychoactive Cannabis constituent, protects against myocardial ischemic reperfusion injury (full - 2007)
http://ajpheart.physiology.org/cgi/content/full/293/6/H3602

Cannabidiol displays unexpectedly high potency as an antagonist of CB1 and CB2 receptor agonists in vitro (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2189767/?tool=pubmed

Delayed treatment with cannabidiol has a cerebroprotective action via a cannabinoid receptor-independent myeloperoxidase-inhibiting mechanism. (full - 2007)
http://www3.interscience.wiley.com/cgi-bin/fulltext/118484119/HTMLSTART

Nonpsychoactive Cannabidiol Prevents Prion Accumulation and Protects Neurons against Prion Toxicity (full - 2007)
http://www.jneurosci.org/cgi/content/full/27/36/9537

The multidrug transporter ABCG2 (BCRP) is inhibited by plant-derived cannabinoids. (full – 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190019/?tool=pubmed

http://www.google.com/patents/US8071641

Cannabidiol, unlike synthetic cannabinoids, triggers activation of RBL-2H3 mast cells (link to PDF - 2007)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.506.3245&rank=52

Antiaversive Effects of Cannabinoids: Is the Periaqueductal Gray Involved (link to PDF - 2007)

Repeated Treatment with Cannabidiol but Not Delta9-tetrahydrocannabinol Has a Neuroprotective Effect Without the Development of Tolerance (abst - 2007)

Interactions of cannabidiol with endocannabinoid signalling in hippocampal tissue. (abst – 2007)

Cannabidiol--recent advances. (abst - 2007)

Identification of the vasodilatory endothelial cannabinoid receptor in the human pulmonary artery. (abst – 2007)

Cannabidiol May be Effective in Preventing Bovine Spongiforme Enzephalopathy (Mad Cow Disease) (news - 2007) http://www.letfreedomgrow.com/articles/fr070916.htm


Mediation of Cannabidiol anti-inflammation in the Retina by Equilibrative Nucleoside Transporter and A2A Adenosine Receptor (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2588644/?tool=pmcentrez


Cannabidiol, extracted from Cannabis sativa, selectively inhibits inflammatory hypermotility in mice (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2451037/?tool=pmcentrez

Effects of cannabidiol on schizophrenia-like symptoms in people who use cannabis (full - 2008) http://bip.ropych.org/cgi/content/full/192/4/306?
maxtoshow=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=1200&resource=HWCIT

Plant-derived cannabinoids modulate the activity of transient receptor potential channels of ankyrin type-1 and melastatin type-8. (full - 2008)
http://jpet.aspetjournals.org/content/325/3/1007.long

Inhibition of human neutrophil chemotaxis by endogenous cannabinoids and phytocannabinoids: evidence for a site distinct from CB1 and CB2. (full – 2008)
http://molpharm.aspetjournals.org/content/73/2/441.long

5-Lipoxygenase and anandamide hydrolase (FAAH) mediate the antitumor activity of cannabidiol, a non-psychoactive cannabinoid. (full – 2008)

Effect of cannabidiol on sepsis-induced motility disturbances in mice: involvement of CB1 receptors and fatty acid amide hydrolase (full – 2008)

5-HT1A receptors are involved in the cannabidiol-induced attenuation of behavioural and cardiovascular responses to acute restraint stress in rats. (full – 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2697769/

http://www.dldocs.stir.ac.uk/documents/potency.pdf

US Patent 7399872 - Conversion of CBD to Δ-THC and Δ-THC (full - 2008)
https://www.google.com/patents/US7399872


The nonpsychoactive cannabis constituent cannabidiol is a wake-inducing agent. (abst - 2008)

The role of the endocannabinoid system in Alzheimer's disease: facts and hypotheses. (abst - 2008)

A comparative study on cannabidiol-induced apoptosis in murine thymocytes and EL-4 thymoma cell (abst - 2008)
http://www.greenmedinfo.com/article/cannabinoids-may-have-therapeutic-role-play-treating-thyoma

Cannabidiol in medicine: a review of its therapeutic potential in CNS disorders. (abst - 2008)
http://www.unboundmedicine.com/medline/ebm/record/18844286/abstract/Cannabidiol_in_medicine:_a_review_of_its_therapeutic_potential_in_CNS_disorders

Cytotoxic and NF-κB-modulating effects of cannabis constituents (abst – 2008)
Involvement of 5HT1A receptors in the anxiolytic-like effects of cannabidiol injected into the dorsolateral periaqueductal gray of rats. (abst – 2008)

Inhibition of Breast Cancer Aggressiveness by Cannabidiol (abst + - 2008)
http://www.cannabisoils.ca/inhibition-of-breast-cancer-aggressiveness-by-cannabidiol/

Scheduling process at DEA - the example of cannabidiol (abst – 2008)
http://www.fasebj.org/cgi/content/meeting_abstract/22/1_MeetingAbstracts/711.1

Weeding out the highs of medical marijuana (news – 2008)
https://www.sciencedaily.com/releases/2008/07/080714192555.htm

Therapeutic time window of cannabidiol treatment on delayed ischemic damage via high-mobility group box1-inhibiting mechanism. (full – 2009)
https://www.jstage.jst.go.jp/article/bpb/32/9/32_9_1538/_pdf

Cannabinoids Δ9-Tetrahydrocannabinol and Cannabidiol Differentially Inhibit the Lipopolysaccharide-activated NF-kB and Interferon-β/STAT Proinflammatory Pathways in BV-2 Microglial Cells (full – 2009)
http://www.jbc.org/content/285/3/1616.full?sid=43211ca4-a4aa-4182-a554-d15e2835e288

Non-psychotropic plant cannabinoids: new therapeutic opportunities from an ancient herb (full - 2009)
Non-psychotropic plant cannabinoids: new therapeutic opportunities...

Cannabinoids, Endocannabinoids, and Related Analogs in Inflammation (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2664885/?tool=pubmed


Cannabinoids as novel anti-inflammatory drugs. (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2828614/?tool=pubmed

Cannabidiol, a Nonpsychotropic Component of Cannabis, Inhibits Cue-Induced Heroin Seeking and Normalizes Discrete Mesolimbic Neuronal Disturbances (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2829756/?tool=pmcentrez

Opposite Effects of Delta-9-Tetrahydrocannabinol and Cannabidiol on Human Brain Function and Psychopathology. (full - 2009)
Cannabidiol As a Putative Novel Therapy for Diabetic Retinopathy: A Postulated Mechanism of Action as an Entry Point for Biomarker-Guided Clinical Development. (full - 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2955420/?tool=pubmed


Cannabidiol Attenuates Cisplatin-Induced Nephrotoxicity by Decreasing Oxidative/Nitrosative Stress, Inflammation, and Cell Death (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2682269/

Cannabidiol-induced lymphopenia does not involve NKT and NK cells. (full – 2009) http://www.ipp.krakow.pl/journal/archive/10_09_s3/pdf/99_10_09_s3_article.pdf

Cannabidiol-2',6'-Dimethyl Ether, a Cannabidiol Derivative, Is a Highly Potent and Selective 15-Lipoxygenase Inhibitor. (full - 2009) http://dmd.aspetjournals.org/content/37/8/1733.long

Cannabidiol targets mitochondria to regulate intracellular Ca2+ levels. (full – 2009) http://www.jneurosci.org/content/29/7/2053.long

Cannabidiol Attenuates Myocardial Dysfunction, Fibrosis, Inflammation, Cell Death and Interrelated Signaling Pathways Associated With Diabetic Cardiomyopathy (full - 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3026637/

Modulation of effective connectivity during emotional processing by Delta9-tetrahydrocannabinol and cannabidiol. (full - 2009) http://ijnp.oxfordjournals.org/content/13/4/421.long

Antidepressant-like effects of cannabidiol in mice: possible involvement of 5-HT1A receptors (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2823358/


Cannabidiol for the treatment of psychosis in Parkinson’s disease  
(link to download - 2009)  
http://journals.sagepub.com/doi/abs/10.1177/0269881108096519?  
2003&rfr_id=ori:rid:crossref.org&rfr_dat=cr_pub%3dpubmed

Cannabidiol reverses the reduction in social interaction produced by low dose Delta(9)-tetrahydrocannabinol in rats.  
(link to download – 2009)  
2003&rfr_id=ori:rid:crossref.org&rfr_dat=cr_pub%3dpubmed

Role of the cannabinoids in glaucoma  
(article – 2009)  
http://www.oftalmo.com/seo/archivos/maquetas/8/3E3FF941-D9FB-6F89-02E1-  
0007B09B2A8/articulo.pdf

The nonpsychotropic cannabinoid cannabidiol modulates and directly activates alpha-1 and alpha-1-Beta glycine receptor function  
(abst – 2009)  

Cannabidiol decreases bone resorption by inhibiting RANK/RANKL expression and pro-inflammatory cytokines during experimental periodontitis in rats.  
(abst - 2009)  

Time-dependent vascular actions of cannabidiol in the rat aorta.  
(abst – 2009)  

Beneficial effects of a Cannabis sativa extract treatment on diabetes-induced neuropathy and oxidative stress.  
(abst - 2009)  
http://www.unboundmedicine.com/medline/ebm/record/19441010/abstract/

Cannabidiol, a safe and non-psychotropic ingredient of the marijuana plant Cannabis sativa, is protective in a murine model of colitis.  
(abst - 2009)  
http://www.unboundmedicine.com/medline/ebm/record/19690824/abstract/Cannabidiol_a_safe_and_non_psycho
tropic_ingredient_of_the_marijuana_plant_Cannabis_sativa_is_protective_in_a_murine_model_of_colitis

Cannabidiol ameliorates cognitive and motor impairments in mice with bile duct ligation.  
(abst - 2009)

http://www.unboundmedicine.com/medline/ebm/record/19596476/abstract/Cannabidiol_ameliorates_cognitive_and
to_impairments_in_mice_with_bile_duct_ligation

Cannabis compound can help cells  
(news – 2009)  

Cannabis plant extracts could potentially form the basic ingredients for a market-leading diabetes drug  
(news – 2009)  
http://www.thefreelibrary.com/Cannabis+plant+extracts+could+potentially+form+the+basic+ingredients...-a0202701009
Marijuana Chemicals Ease MS Symptoms, Review Confirms
http://www.drugfree.org/uncategorized/marijuana-chemicals-ease-ms

Cannabis by product helps reduce effects of Parkinson disease medication
(news - 2009)

**CBDA/ CANNABIDIOLIC ACID** * - precursor to Cannabidiol

Membrane associated antitumor effects of crocine-, ginsenoside- and cannabinoid derivates.

Cannabidiolic-acid synthase, the chemotype-determining enzyme in the fiber-type Cannabis sativa

Cannabidiolic acid as a selective cyclooxygenase-2 inhibitory component in cannabis.
(full – 2008) http://dmd.aspetjournals.org/content/36/9/1917.long

Plant-derived cannabinoids modulate the activity of transient receptor potential channels of ankyrin type-1 and melastatin type-8.
(full - 2008) http://jpet.aspetjournals.org/content/325/3/1007.long

**CBDV/ CANNABIDIVARIN** – unknown receptor

A chemotaxonomic analysis of cannabinoid variation in Cannabis (Cannabaceae)
(full - 2004) http://www.amjbot.org/cgi/content/full/91/6/966

Flavonoid glycosides and cannabinoids from the pollen of Cannabis sativa L.

**CBN/ CANNABINOL** - CB2 agonist, weak CB1 agonist


**CHOCOLATE** - contains a tiny amount of Anandamide and compounds that block its breakdown


Chocolate and cannabis (article – 2005) http://www.cannabisculture.com/content/2005/05/09/4337

Anandamide in Chocolate (news – 2005) http://www.herbmuseum.ca/content/anandamide-chocolate


ECHINACEA - contains CB 2 agonists and inverse agonists

Echinacea alkylamides modulate TNF-α gene expression via cannabinoid receptor CB2 and multiple signal transduction pathways  (full – 2004)


Alkylamides from Echinacea Are a New Class of Cannabinomimetics  (full – 2006)
http://www.jbc.org/content/281/20/14192.full


The Role of Alkamides as an Active Principle of Echinacea  (full – 2007)


Analgesic and neuropsychological effects of Echinacea N-alkylamides  (abst – 2008)


Immunomodulatory Lipids in Plants: Plant Fatty Acid Amides and the Human Endocannabinoid System  (abst – 2008)


ENTOURAGE EFFECT – PHYTOCANNABINOIDS

Advantages of polypharmaceutical herbal cannabis compared to single ingredient, synthetic tetrahydrocannabinol  (full - 2000)
Cannabis and Cannabis Extracts: Greater Than the Sum of Their Parts? (full - 2001)  


Natural cannabis 'better than extracts' (news - 2001)  
http://news.bbc.co.uk/2/hi/health/1261737.stm

Oleamide is a selective endogenous agonist of rat and human CB1 cannabinoid receptors. (full – 2004)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1574194/

Chemical constituents of marijuana: the complex mixture of natural cannabinoids. (abst – 2005)  

A tale of two cannabinoids:The therapeutic rationale for combining tetrahydrocannabinol and cannabidiol. (full - 2006)  

'Entourage' effects of N-palmitoylethanolamide and N-oleoylethanolamide on vasorelaxation to anandamide occur through TRPV1 receptors. (full – 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2597234/?tool=pubmed

Antihyperalgesic effect of a Cannabis sativa extract in a rat model of neuropathic pain: mechanisms involved. (abst - 2008)  

**FLAVONOIDS**


Chemotaxonomic features associated with flavonoids of cannabinoid-free cannabis (Cannabis sativa subsp. sativa L.) in relation to hops (Humulus lupulus L.). (abst – 2002)  

NMR assignments of the major cannabinoids and cannabiflavonoids isolated from flowers of Cannabis sativa (abst - 2004)  

The effects of cannabinoids on P-glycoprotein transport and expression in multidrug resistant cells. (abst - 2006)  
PKS activities and biosynthesis of cannabinoids and flavonoids in Cannabis sativa L. plants (full - 2008) http://pcp.oxfordjournals.org/content/49/12/1767.long


**HONKIOL** - from magnolia trees, CB1 agonist, CB2 antagonist, also see 4’-O-METHYLHONOKIOL, MAGNOLOL

Magnolia officinalis is a Traditional Chinese Medicine (article – undated) http://examine.com/supplements/Magnolia+officinalis/

MAGNOLIA BARK (article – 2001) http://www.itmonline.org/arts/magnolia.htm

Honokiol, a small molecular weight natural product, inhibits angiogenesis in vitro and tumor growth in vivo. (full – 2003) http://www.jbc.org/content/278/37/35501.long


The natural product honokiol induces caspase-dependent apoptosis in B-cell chronic lymphocytic leukemia (B-CLL) cells. (full – 2005) http://bloodjournal.hematologylibrary.org/content/106/2/690.long

Honokiol, a natural plant product, inhibits inflammatory signals and alleviates inflammatory arthritis. (full – 2007) http://www.jimmunol.org/content/179/2/753.long


Honokiol, a multifunctional antiangiogenic and antitumor agent (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2842137/


MAGNOLOL - from magnolia trees, CB2 agonist, and GPR-55 antagonist

MAGNOLIA BARK (article – 2001)
http://www.itmonline.org/arts/magnolia.htm


NAMISOL – a THC tablet

**4’-O-METHYLHONOKIOL** - from magnolia trees, CB2 agonist, also see MAGNOLOL, HONOKIOL

Magnolia officinalis is a Traditional Chinese Medicine  
(article – undated)  
http://examine.com/supplements/Magnolia+officinalis/

**MAGNOLIA BARK**  
(article – 2001)  
http://www.itmonline.org/arts/magnolia.htm

Protective effect of the ethanol extract of Magnolia officinalis and 4-O-methylhonokiol on scopolamine-induced memory impairment and the inhibition of acetylcholinesterase activity.  
(full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2690856/

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**PHYTOCANNABINOIDS/ PLANT EXTRACTS** *

Phytocannabinoids  
(news – undated)  
http://www.news-medical.net/health/Phytocannabinoids.aspx

ACCESSING 0.5 to 2.0 GRAMS CBD FRACTIONATING THE PHYTOCANNABINOIDS BY THEIR VAPORIZATION POINTS  
(article – forum repost - undated)  

Cannabinoids  
(encyclopedia entry)  
http://www.chemie.de/lexikon/e/Cannabinoids/

The Science of Marijuana  
(book – 2000)  

Advantages of polypharmaceutical herbal cannabis compared to single ingredient, synthetic tetrahydrocannabinol  
(full - 2000)  

Immuoactive cannabinoids: Therapeutic prospects for marijuana constituents  
(full - 2000)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC34030/?tool=pubmed

Variations of D9-THC content in single plants of hemp varieties  
(full - 2000)  
http://www.ukcia.org/research/VariationOfTHCContent.pdf

Cannabinoids in clinical practice.  
(abst - 2000)  

Ganja medicine in Jamaica  
(news – 2000)  
http://www.cannabisculture.com/content/2000/01/16/59

Cannabis and Cannabis Extracts: Greater Than the Sum of Their Parts?

Natural cannabis 'better than extracts' (news - 2001)
http://news.bbc.co.uk/2/hi/health/1261737.stm

Whether whole plant Cannabis extracts can improve intractable neurogenic symptoms? (full - 2003)
http://www.ukcia.org/research/WholePlantExtractsImproveNeurogenicSymptoms.pdf

http://www.ukcia.org/research/EfficacySafetyTolerabilityInMSSpasticityTreatment.pdf

Initial experiences with medicinal extracts of cannabis for chronic pain: Results from 34 ‘N of 1’ studies (full - 2004)
http://www.ukcia.org/research/InitialExperiencesChronicPain.pdf

Efficacy of two cannabis based medicinal extracts for relief of central neuropathic pain from brachial plexus avulsion: results of a randomised controlled trial (full - 2004)
http://www.ukcia.org/research/CentralNeuropathicPainEfficacy.pdf

Cannabis can help MS sufferers (news – 2004) http://www.safeaccessnow.org/asanews777

Cannabis truly helps multiple sclerosis sufferers (news - 2004)

Plant cannabinoids: a neglected pharmacological treasure trove. (full - 2005)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1751232/?tool=pubmed

http://www.google.com/patents/US20050266108


A tale of two cannabinoids: The therapeutic rationale for combining tetrahydrocannabinol and cannabidiol. (full - 2006)

Unheated Cannabis sativa extracts and its major compound THC-acid have potential immuno-modulating properties not mediated by CB1 and CB2 receptor coupled pathways. (full - 2006)
https://openaccess.leidenuniv.nl/bitstream/handle/1887/3744/07.pdf?sequence=6
The multidrug transporter ABCG2 (BCRP) is inhibited by plant-derived cannabinoids. (full - 2007)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190019/?tool=pubmed

The psychoactive plant cannabinoid, Delta9-tetrahydrocannabinol, is antagonized by Delta8- and Delta9-tetrahydrocannabivarin in mice in vivo. (full - 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2189766/?tool=pubmed


The diverse CB1 and CB2 receptor pharmacology of three plant cannabinoids: Δ9-tetrahydrocannabinol, cannabidiol and Δ9-tetrahydrocannabivarin (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219532/


Plant-derived cannabinoids modulate the activity of transient receptor potential channels of ankyrin type-1 and melastatin type-8. (full - 2008) http://jpet.aspetjournals.org/content/325/3/1007.long

PKS activities and biosynthesis of cannabinoids and flavonoids in Cannabis sativa L. plants (full - 2008) http://pjp.oxfordjournals.org/content/49/12/1767.long

Characterization of Medicinal Properties of Cannabis sativa L. Roots (link to PDF- 2008) Characterization of Medicinal Properties of Cannabis Sativa L. Roots


Non-psychotropic plant cannabinoids: new therapeutic opportunities from an ancient herb  (full - 2009 )
Non-psychotropic plant cannabinoids: new therapeutic opportunities..

Synthetic and plant-derived cannabinoid receptor antagonists show hypophagic properties in fasted and non-fasted mice  (full - 2009)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2697695/?tool=pubmed

Evaluation of prevalent phytocannabinoids in the acetic acid model of visceral nociception  (full - 2009)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2765124/?tool=pubmed

The Effect of Ultraviolet Radiation on the Accumulation of Medicinal Compounds in Plants  (link to download – 2009)  READ MORE

(link to download, must agree to conditions)  http://www.eurekaselect.com/93058/article


**SATIVEX / NABIXIMOLS** - a THC/CBD cannabis extract oral spray, legal in the UK, but not the USA

Preliminary assessment of the efficacy, tolerability and safety of a cannabis-based medicine (Sativex) in the treatment of pain caused by rheumatoid arthritis  
(full - 2005)  http://rheumatology.oxfordjournals.org/cgi/content/full/45/1/50


Sativex produced significant improvements in a subjective measure of spasticity (abst - 2005)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=170

Cannabis-based medicinal extract (Sativex) produced significant improvements in a subjective measure of spasticity which were maintained on long-term treatment with no evidence of tolerance. (abst - 2005)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=170

UK: Cannabis drug Sativex available to MS patients (news – 2005)
http://www.chanvre-info.ch/info/it/UK-Cannabis-drug-Sativex-available.html

Conditional okay for cannabis prescription drug (news - 2005)

Cannabis-Based Drug Relieves Arthritis Pain (news - 2005)
http://www.medpagetoday.com/Rheumatology/Arthritis/2097

Cannabis-based medicine relieves the pain of rheumatoid arthritis and suppresses the disease (news – 2005)

Preliminary assessment of the efficacy, tolerability and safety of a cannabis-based medicine (Sativex) in the treatment of pain caused by rheumatoid arthritis (full - 2006)
http://rheumatology.oxfordjournals.org/cgi/content/full/45/1/50?maxtoshow=&hitqs=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=2240&resourcetype=HWCIT

Cannabinoids In Medicine: A Review Of Their Therapeutic Potential (link to download – 2006)

The use of a cannabis-based medicine (Sativex) in the treatment of pain caused by rheumatoid arthritis (letter - 2006)
http://rheumatology.oxfordjournals.org/cgi/content/full/45/6/781


Randomised controlled study of cannabis-based medicine (Sativex®) in patients suffering from multiple sclerosis associated detrusor overactivity (abst - 2006)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=168

Sativex® in patients with symptoms of spasticity due to multiple sclerosis (abst - 2006)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=169
Combined cannabinoid therapy via an oromucosal spray  (abst – 2006)
http://journals.prous.com/journals/servlet/xmlxsl/pk_journals.xml_summarn_pr?
p_Journalld=4&p_Refld=1021517

Sativex showed positive effects in 65 per cent of patients with chronic diseases  
(news - 2006)

Sativex: Fact Sheet  (full - 2007)
http://www.bayer.ca/files/sativex_fs_fd_109461_e%20_GW_.pdf

Cannabinoids as therapeutic agents in cardiovascular disease: a tale of passions and  
ilusions.  (full - 2007)

Cannabis; adverse effects from an oromucosal spray.  (full - 2007)

Sativex: Health Care Professional letter  (letter - 2007)
http://www.bayer.ca/files/sativex_dhcpl_lapds_109461_e%20_GW_2.pdf

Letter: Cannabinoid medicines and the need for the scientific method  (letter – 2007)

Letter: The herbal way - a response to Ethan Russo  (letter – 2007)

Cannabis, pain, and sleep: lessons from therapeutic clinical trials of Sativex, a cannabis-  

Symptomatic treatment of multiple sclerosis using cannabinoids: recent advances.  

Sativex successfully treats neuropathic pain characterised by allodynia: A randomised,  

Oromucosal delta9-tetrahydrocannabinol/cannabidiol for neuropathic pain associated  
with multiple sclerosis: an uncontrolled, open-label, 2-year extension trial.  

Cannabinoids in the management of difficult to treat pain  (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2503660/?tool=pmcentrez

SUPPORTING RESEARCH INTO THE THERAPEUTIC ROLE OF MARIJUANA  

Weeding out the highs of medical marijuana  (news – 2008)

Cannabinoids as pharmacotherapies for neuropathic pain: from the bench to the bedside. (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2755639/

**TEA- (Camellia sinensis (L.))** – weakly activates CB1 and CB2 receptors


**TERPINOIDS/ TERPENES** * - help cannabinoids work better, also see Beta Carophyllene

THC (TETRAHYDROCANNABINOL) ACCUMULATION IN GLANDS OF CANNABIS (CANNABACEAE) (full – undated) http://www.hempreport.com/issues/17/malbody17.html

Cannabinoid Receptor 1 Binding Activity and Quantitative Analysis of Cannabis sativa L. Smoke and Vapor (full – 2009) https://www.jstage.jst.go.jp/article/cpb/58/2/58_2_201/_pdf

**THC/ TETRAHYDROCANNABINOL** * CB1 & 2 agonist

Phytocannabinoids (news – undated) http://www.news-medical.net/health/Phytocannabinoids.aspx

Tetrahydrocannabinol- an interview with Akshat Rathi (interview - undated) http://www.rsc.org/chemistryworld/podcast/CJIEcompounds/transcripts/THC.asp
Advantages of polypharmaceutical herbal cannabis compared to single ingredient, synthetic tetrahydrocannabinol. (full - 2000)

Anti-tumoral action of cannabinoids: involvement of sustained ceramide accumulation and extracellular signal-regulated kinase activation. (full - 2000)

Cannabinoids might reduce spasticity in multiple sclerosis. (full - 2000)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1117698/?tool=pmcentrez

Variations of D9-THC content in single plants of hemp varieties. (full - 2000)
http://www.ukcia.org/research/VariationOfTHCContent.pdf

GC-MS analysis of the total delta9-THC content of both drug- and fiber-type cannabis seeds. (full – 2000)
http://jat.oxfordjournals.org/content/24/8/715.long

Endogenous cannabinoids and appetite. (full – 2000)
http://journals.cambridge.org/download.php?file=%2FNRR%2FNRR14_01%2FS095442240100004Xa.pdf&code=840ae1e121b1a8563a840b894cced959


Cannabinoids in clinical practice. (abst - 2000)

Effects of smoked cannabis and oral d9-tetrahydrocannabinol on nausea and emesis after cancer chemotherapy. (full – 2001)

Delta(9)-tetrahydrocannabinol and synthetic cannabinoids prevent emesis produced by the cannabinoid CB(1) receptor antagonist/inverse agonist SR 141716A. (full – 2001)
http://www.nature.com/npp/journal/v24/n2/full/1395605a.html

Neuroprotection by Delta 9-Tetrahydrocannabinol, the Main Active Compound in Marijuana, against Ouabain-Induced In Vivo Excitotoxicity. (full - 2001)
http://www.jneurosci.org/content/21/17/6475.full

Characterization of palmitoylethanolamide transport in mouse Neuro-2a neuroblastoma and rat RBL-2H3 basophilic leukaemia cells: comparison with anandamide. (full – 2001)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1572744/

Tetrahydrocannabinol for treatment of chronic pain. (abst - 2001)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=147

Targeting CB2 cannabinoid receptors as a novel therapy to treat malignant lymphoblastic disease (full - 2002) http://bloodjournal.hematologylibrary.org/cgi/content/full/100/2/627?ijkey=eb71d6d7a06f311440761cfac6a7d081bcc2771d

Evidence for functional CB1 cannabinoid receptor expressed in the rat thyroid (full – 2002) http://www.eje-online.org/content/147/2/255.full.pdf+html

The potent emetogenic effects of the endocannabinoid, 2-AG (2-arachidonoylglycerol) are blocked by delta(9)-tetrahydrocannabinol and other cannabinoids. (full – 2002) http://jpet.aspetjournals.org/content/300/1/34.long


The Endogenous Cannabinoid System Regulates Seizure Frequency and Duration in a Model of Temporal Lobe Epilepsy (full - 2003) http://jpet.aspetjournals.org/content/307/1/129.full?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=160&resourcetype=HWCIT

Cannabis and the brain. (full - 2003)
http://brain.oxfordjournals.org/cgi/content/full/126/6/1252

http://www.nature.com/npp/journal/v28/n2/full/1300047a.html

http://americanmarijuana.org/Guzman-Cancer.pdf

Therapeutic potential of cannabis (full – 2003)

Inhibition of tumor angiogenesis by cannabinoids (abst - 2003)

Cannabinoid CB2 receptor activation reduces mouse myocardial ischemia-reperfusion injury: involvement of cytokine/chemokines and PMN (abst - 2003)


Regulation of Cannabinoid CB1 Receptors in the Central Nervous System by Chronic Cannabinoids (abst – 2003)
http://dl.begellhouse.com/journals/7b004699754e9fe6,5aa33979065f2aa3,42019b6a7dd932fb.html

Delta 9-tetrahydrocannabinol (THC) is effective in the treatment of tics in Tourette syndrome: a 6-week randomized trial. (abst - 2003)
http://www.cannabis-med.org/english/bulletin/ww_en_db_cannabis_artikel.php?id=146#1

The endocannabinoid system as a target for the development of new drugs for cancer therapy. (abst – 2003)

Pharmacokinetics and pharmacodynamics of cannabinoids. (abst – 2003)

Keeping the Brain's Activity under Control (news – 2003)
Differential Effects of THC or CBD-rich Cannabis Extracts on Working Memory in Rats

Cannabinoids: Defending the Epileptic Brain (full - 2004)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1176332/?tool=pmcentrez

Evidence for an Interaction between CB1 Cannabinoid and Melanocortin MCR-4 Receptors in Regulating Food Intake (full – 2004)

Initial experiences with medicinal extracts of cannabis for chronic pain: Results from 34 ‘N of 1’ studies (full - 2004)
http://www.ukcia.org/research/InitialExperiencesChronicPain.pdf

The Procoagulatory Effects of Delta-9-Tetrahydrocannabinol in Human Platelets (full – 2004)

Ceramide sensitizes astrocytes to oxidative stress: protective role of cannabinoids (link to PDF – 2004)
http://www.biochemj.org/content/380/2/435.full-text.pdf

The THC-induced suppression of Th1 polarization in response to Legionella pneumophila infection is not mediated by increases in corticosterone and PGE2. (abst – 2004)

The good and the bad effects of (−) trans-delta-9-tetrahydrocannabinol (Δ9-THC) on humans (abst - 2004)

Very low doses of delta 8-THC increase food consumption and alter neurotransmitter levels following weight loss. (abst – 2004)

Effect of Delta-9-tetrahydrocannabinol and cannabidiol on nocturnal sleep and early-morning behavior in young adults. (abst - 2004)

Potential involvement of cannabinoid receptors in 3-nitropropionic acid toxicity in vivo. (abst – 2004)


Cannabis can help MS sufferers (news – 2004) http://www.safeaccessnow.org/asanews777

Low dose oral cannabinoid therapy reduces progression of atherosclerosis in mice (full - 2005) http://www.nature.com/nature/journal/v434/n7034/full/nature03389.html


Protective effects of Δ9-tetrahydrocannabinol against N-methyl-D-aspartate-induced AF5 cell death (full - 2005) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1824211/

Tetrahydrocannabinolic acid synthase, the enzyme controlling marijuana psychoactivity, is secreted into the storage cavity of the glandular trichomes. (full – 2005) http://pcp.oxfordjournals.org/content/46/9/1578.long


The effects of Δ9-tetrahydrocannabinol in rat mesenteric vasculature, and its interactions with the endocannabinoid anandamide (full - 2005) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1576168/?tool=pmcentrez


Strong increase in total delta-THC in cannabis preparations sold in Dutch coffee shops. (abst – 2005) http://www.ncbi.nlm.nih.gov/pubmed/16191670


Science: THC slows development of atherosclerosis in animal study (news - 2005) http://www.cannabis-med.org/english/bulletin/ww_en_db_cannabis_artikel.php?id=190#1

Cannabis Spray for Bipolar (news - 2005) http://www.prohealth.com/me-cfs/blog/boardDetail.cfm?id=565511
Chemicals in Cannabis may help mentally ill (news - 2005)  

THC effective in appetite and weight loss in severe lung disease (COPD) (news - 2005)  

New Synthetic Delta-9-THC Inhaler Offers Safe, Rapid Delivery, Phase I Study (news - 2005)  
http://www.medicalnewstoday.com/articles/22937.php

A pilot clinical study of Delta(9)-tetrahydrocannabinol in patients with recurrent glioblastoma multiforme. (full - 2006)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2360617/

A tale of two cannabinoids: The therapeutic rationale for combining tetrahydrocannabinol and cannabidiol. (full - 2006)  

Comparison of orally administered cannabis extract and delta-9-tetrahydrocannabinol in treating patients with cancer-related anorexia-cachexia syndrome: a multicenter, phase III, randomized, double-blind, placebo-controlled clinical trial from the Cannabis-In-Cachexia-Study-Group (full - 2006)  
http://jco.ascopubs.org/content/24/21/3394.long

A Molecular Link between the Active Component of Marijuana and Alzheimer’s Disease Pathology (full - 2006)  
http://www.ukcia.org/research/AlzheimersDiseasePathology.pdf

{Delta}9-Tetrahydrocannabinol Inhibits Cell Cycle Progression in Human Breast Cancer Cells through Cdc2 Regulation (full - 2006)  
http://cancerres.aacrjournals.org/cgi/content/full/66/13/6615

Δ9-Tetrahydrocannabinol-Induced Apoptosis in Jurkat Leukemia T Cells Is Regulated by Translocation of Bad to Mitochondria (full - 2006)  
http://mcr.aacrjournals.org/content/4/8/549.full

Further Characterization of the Time-Dependent Vascular Effects of Δ9-Tetrahydrocannabinol (full - 2006)  
http://jpet.aspetjournals.org/content/317/1/428.full

Cannabinoids and the Endocannabinoid System (full - 2006)  

http://www.nature.com/npp/journal/v31/n12/full/1301197a.html

The Cannabinoid Cb1 Receptor Antagonist Rimonabant Attenuates the Hypotensive Effect of Smoked Marijuana in Male Smokers. (full – 2006)  
http://www.ahjonline.com/article/S0002-8703%2805%2901013-6/fulltext
http://www.google.it/patents/US20060167084

Pharmacological Characterization of Novel Water-Soluble Cannabinoids

Delta-9-tetrahydrocannabinol for nighttime agitation in severe dementia


Delta(9)-Tetrahydrocannabinol protects hippocampal neurons from excitotoxicity  (abst - 2006)  http://www.unboundmedicine.com/medline/ebm/record/17140550/abstract/Delta_9_Tetrahydrocannabinol_protects_hippocampal_neurons_from_excitotoxicity


THC and prochlorperazine effective in reducing vomiting in women following breast surgery  (news - 2006)  http://www.cannabis-med.org/english/bulletin/ww_en_db_cannabis_artikel.php?id=219#1

THC inhibits primary marker of Alzheimer's disease  (news - 2006)

Cannabis destroys cancer cells  (news - 2006)
http://www.news-medical.net/news/2006/03/01/16340.aspx

Cesamet, THC and chemotherapy  (news – 2006)

Cannabinoid Offers Cardioprotection  (news - 2006)
http://norml.org/news/2006/02/16/cannabinoid-offers-cardioprotection-study-says

The diverse CB1 and CB2 receptor pharmacology of three plant cannabinoids: Δ9-tetrahydrocannabinol, cannabidiol and Δ9-tetrahydrocannabivarin  (full - 2007)

Cross-sensitization and cross-tolerance between exogenous cannabinoid antinociception and endocannabinoid-mediated stress-induced analgesia  (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2771679/?tool=pubmed

The Endogenous Cannabinoid Anandamide Produces δ-9-Tetrahydrocannabinol-Like Discriminative and Neurochemical Effects That Are Enhanced by Inhibition of Fatty Acid Amide Hydrolase but Not by Inhibition of Anandamide Transport  (full - 2007)
http://jpet.aspetjournals.org/content/321/1/370.full

Opioid Antagonism of Cannabinoid Effects: Differences between Marijuana Smokers and Nonmarijuana Smokers  (full - 2007)
http://www.nature.com/npp/journal/v32/n6/full/1301243a.html

The psychoactive plant cannabinoid, Delta9-tetrahydrocannabinol, is antagonized by Delta8- and Delta9-tetrahydrocannabivarin in mice in vivo.  (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2189766/?tool=pubmed

Anandamide and Delta9-tetrahydrocannabinol directly inhibit cells of the immune system via CB2 receptors.  (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2083705/?tool=pmcentrez

CB2 receptors in the brain: role in central immune function  (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219530/?tool=pmcentrez

Δ9-Tetrahydrocannabinol (THC) and AM 404 protect against cerebral ischaemia in gerbils through a mechanism involving cannabinoid and opioid receptors  (full - 2007)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2189998/
Low dose combination of morphine and Δ9-tetrahydrocannabinol circumvents antinociceptive tolerance and apparent desensitization of receptors (full - 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2040345/


Cerebellar-Dependent Learning as a Neurobehavioral Index of the Cannabinoid System (abst – 2007) http://dl.begellhouse.com/journals/7b004699754c9fe6.64ecdd6045552415.684ce66e63101f0f.html

The antinociceptive effect of Delta9-tetrahydrocannabinol in the arthritic rat involves the CB(2) cannabinoid receptor. (abst - 2007) http://www.unboundmedicine.com/medline/ebm/record/17588560/abstract/The_antinociceptive_effect_of_Delta9_tetrahydrocannabinol_in_the_arthritic_rat_involves_the_CB_2__cannabinoid_receptor


Synergy between Delta(9)-tetrahydrocannabinol and morphine in the arthritic rat (abst - 2007) http://www.unboundmedicine.com/medline/ebm/record/17499868/abstract/Synergy_between_Delta_9__tetrahydrocannabinol_and_morphine_in_the_arthritic_rat

Delta(9)-tetrahydrocannabinol (Delta(9)-THC) prevents cerebral infarction via hypothalamic-independent hypothermia. (abst - 2007) http://www.unboundmedicine.com/medline/ebm/record/17289082/abstract/Delta_9__tetrahydrocannabinol__Delta_9__THC__prevents_cerebral_infarction_via_hypothalamic_independent_hypothermia


Effects of a Selective Cannabinoid Agonist and Antagonist on Body Temperature in Rats (abst - 2007) http://www.fasebj.org/cgi/content/meeting_abstract/21/5/A4099?maxtoshow=&khs=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=800&resourcetype=HWCIT
Effects of different substance misuse in genital reflexes of paradoxical sleep deprived male rats.  
(abst – 2007)  

Endocannabinoid system in cancer cachexia.  
(abst – 2007)  

Cannabinoid receptor agonists are mitochondrial inhibitors: a unified hypothesis of how cannabinoids modulate mitochondrial function and induce cell death.  
(abst – 2007)  

The diverse CB1 and CB2 receptor pharmacology of three plant cannabinoids: Δ9-tetrahydrocannabinol, cannabidiol and Δ9-tetrahydrocannabivarin  
(full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219532/

Δ9-Tetrahydrocannabinol Content of Commercially Available Hemp Products  
(full - 2008)  
www.mcssl.com/content/147111/the_study_jat_2008.pdf

Divergent effects of cannabidiol on the discriminative stimulus and place conditioning effects of Δ9-tetrahydrocannabinol  
(full - 2008)  

Attenuation of Experimental Autoimmune Hepatitis by Exogenous and Endogenous Cannabinoids: Involvement of Regulatory T Cells  
(full - 2008)  
http://molpharm.aspetjournals.org/content/74/1/20.full?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=320&resourcetype=HWCIT#content-block

Cannabinoids in the management of difficult to treat pain  
(full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2503660/?tool=pmcentrez

Cannabinoid receptors in acute and chronic complications of atherosclerosis  
(full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219535/?tool=pmcentrez

Antibacterial cannabinoids from Cannabis sativa: a structure-activity study.  
(full - 2008)  

The cannabinoid delta-9-tetrahydrocannabinol mediates inhibition of macrophage chemotaxis to RANTES/CCL5: linkage to the CB2 receptor.  
(full – 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2677557/

Plant-derived cannabinoids modulate the activity of transient receptor potential channels of ankyrin type-1 and melastatin type-8.  
(full - 2008)  
http://jpet.aspetjournals.org/content/325/3/1007.long

Endocannabinoids in the retina: from marijuana to neuroprotection.  
(full - 2008)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2584875/
Evaluation of fatty acid amides in the carrageenan-induced paw edema model. (full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2200792/


Sensitivity to delta9-tetrahydrocannabinol is selectively enhanced in beta-arrestin2-/-mice. (full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2751575/


Delta 9-tetrahydrocannabinol inhibits cell cycle progression by downregulation of E2F1 in human glioblastoma multiforme cells. (full - 2008) http://www.tandfonline.com/doi/full/10.1080/02841860701678787


Science: THC reduces reflux of acid from the stomach  (news – 2008)

Getting High For Your Health  (news – 2008)
http://www.popsci.com/rachel-durfee/article/2008-09/getting-high-your-health

CSI: fingerprinting and drug detection in one  (news – 2008)

Synthetic and plant-derived cannabinoid receptor antagonists show hypophagic properties in fasted and non-fasted mice  (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2697695/?tool=pubmed

Delta 9-tetrahydrocannabinol induces dopamine release in the human striatum.  (full - 2009)
http://www.nature.com/npp/journal/v34/n3/full/npp2008138a.html

Cannabinoids Δ9-Tetrahydrocannabinol and Cannabidiol Differentially Inhibit the Lipopolysaccharide-activated NF-κB and Interferon-β/STAT Proinflammatory Pathways in BV-2 Microglial Cells  (full – 2009)
http://www.jbc.org/content/285/3/1616.full?sid=43211ca4-a4aa-4182-a554-d15e2835e288

Hydroxylation and Further Oxidation of Δ9-Tetrahydrocannabinol by Alkane-Degrading Bacteria  (full - 2009)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2786519/

Cannabinoids, Endocannabinoids, and Related Analogs in Inflammation  (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2664885/?tool=pubmed

Cannabinoid Receptor 1 Binding Activity and Quantitative Analysis of Cannabis sativa L. Smoke and Vapor  (full – 2009)
https://www.jstage.jst.go.jp/article/cpb/58/2/58_2_201/_pdf

Dual blockade of FAAH and MAGL identifies behavioral processes regulated by endocannabinoid crosstalk in vivo.  (full – 2009)
http://www.pnas.org/content/106/48/20270.long

Opposite Effects of Delta-9-Tetrahydrocannabinol and Cannabidiol on Human Brain Function and Psychopathology.  (full - 2009)

The endocannabinoid system of the skin in health and disease: novel perspectives and therapeutic opportunities  (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2757311/

Evaluation of Prevalent Phytocannabinoids in the Acetic Acid Model of Visceral Nociception  (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2765124/?tool=pubmed
Tetrahydrocannabinol (Delta 9-THC) Treatment in Chronic Central Neuropathic Pain and Fibromyalgia Patients: Results of a Multicenter Survey  (full - 2009)  

Effect of Δ9-tetrahydrocannabinol, a cannabinoid receptor agonist, on the triggering of transient lower oesophageal sphincter relaxations in dogs and humans  (full - 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2697772/?tool=pmcentrez

Actions of delta-9-tetrahydrocannabinol in cannabis  (full - 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2731700/?tool=pmcentrez

Cannabinoid receptor 1 is a potential drug target for treatment of translocation-positive rhabdomyosarcoma  (full - 2009)  
http://mct.aacrjournals.org/content/8/7/1838.full

TRB3 links ER stress to autophagy in cannabinoid anti-tumoral action.  (full – 2009)  
https://www.researchgate.net/publication/26714808_TRB3_links_ER_stress_to_autophagy_in_cannabinoid_antitumoral_action

Cannabinoid action induces autophagy-mediated cell death through stimulation of ER stress in human glioma cells.  (full - 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2673842/pdf/JCI37948.pdf

Pharmaceutical Compositions For The Treatment Of Chronic Obstructive Disease IS2009/0197941 A1 Aug. 6, 2009  (full – 2009)  
http://www.cannabisinternational.org/info/COPD-Compositions.pdf

The analgesic potential of cannabinoids.  (full - 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3728280/

Modulation of effective connectivity during emotional processing by Delta9-tetrahydrocannabinol and cannabidiol.  (full - 2009)  
http://ijnp.oxfordjournals.org/content/13/4/421.long

Towards a Better Understanding of the Psychopharmacology of Nutmeg: Activities in the Mouse Tetrad Assay  (full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2783227/

http://www.google.com/patents/US20090197941

Patent 7524881 - Production of Δ 9 tetrahydrocannabinol  (full – 2009)  
http://www.freepatentsonline.com/7524881.html

Extended urinary Delta9-tetrahydrocannabinol excretion in chronic cannabis users precludes use as a biomarker of new drug exposure.  (full - 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2763020/?tool=pubmed


Cannabinoids for Tourette's Syndrome. (abst - 2009) http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD006565.pub2/abstract;jsessionid=B1022CE8CC4E95B78078F0B77F113D34.f04t02


**THC ACID/THCA** - non-psychoactive precursor of THC

The gene controlling marijuana psychoactivity: molecular cloning and heterologous expression of Delta1-tetrahydrocannabinolic acid synthase from Cannabis sativa L. (full – 2004) [http://www.jbc.org/content/279/38/39767.long](http://www.jbc.org/content/279/38/39767.long)


Unheated Cannabis sativa extracts and its major compound THC-acid have potential immuno-modulating properties not mediated by CB1 and CB2 receptor coupled pathways. (full - 2006) [https://openaccess.leidenuniv.nl/bitstream/handle/1887/3744/07.pdf?sequence=6](https://openaccess.leidenuniv.nl/bitstream/handle/1887/3744/07.pdf?sequence=6)


Identification and Characterization of Cannabinoids That Induce Cell Death through Mitochondrial Permeability Transition in Cannabis Leaf Cells (full – 2007) [http://www.jbc.org/content/282/28/20739.full?sid=a5db98db-f996-4187-8790-57097bbe15c1](http://www.jbc.org/content/282/28/20739.full?sid=a5db98db-f996-4187-8790-57097bbe15c1)


Evaluation of Prevalent Phytocannabinoids in the Acetic Acid Model of Visceral Nociception (full – 2009) [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2765124/?tool=pubmed](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2765124/?tool=pubmed)


**THC-HS/TETRAHYDROCANNABINOL-HEMISUCCINATE** *

**TETRAHYDROCANNABIORCOL** – activates the TRPA1 channel like acetaminophen does


**THCV/ TETRAHYDROCANNABIVARIN** * CB1 & CB2 antagonist

Phytocannabinoids (news – undated) http://www.news-medical.net/health/Phytocannabinoids.aspx

Delta9-tetrahydrocannabinvarin as a marker for the ingestion of marijuana versus Marinol: results of a clinical study (full - 2001) http://jat.oxfordjournals.org/content/25/7/565.long


Evidence that the plant cannabinoid Δ9-tetrahydrocannabinvarin is a cannabinoid CB1 and CB2 receptor antagonist (full - 2005) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1751228/?tool=pubmed


The psychoactive plant cannabinoid, Delta9-tetrahydrocannabinol, is antagonized by Delta8- and Delta9-tetrahydrocannabinvarin in mice in vivo. (full - 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2189766/?tool=pubmed

The phytocannabinoid Δ9-tetrahydrocannabinvarin modulates inhibitory neurotransmission in the cerebellum (full – 2007) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2438968/

The diverse CB1 and CB2 receptor pharmacology of three plant cannabinoids: Δ9-tetrahydrocannabinol, cannabidiol and Δ9-tetrahydrocannabinvarin (full - 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219532/
Weeding out the highs of medical marijuana (news – 2008)
https://www.sciencedaily.com/releases/2008/07/080714192555.htm

Non-psychotropic plant cannabinoids: new therapeutic opportunities from an ancient herb (full - 2009)
Non-psychotropic plant cannabinoids: new therapeutic opportunities..

Synthetic and plant-derived cannabinoid receptor antagonists show hypophagic properties in fasted and non-fasted mice (full - 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2697695/?tool=pubmed
Granny Storm Crow's List - January 2017

PRE- 2000

**ABN-CBD/ ABNORMAL CANNABIDIOL/ CAY10429** – synthetic, GPR-18 or GPR-55 agonist?

Effects of cannabinoids on L1210 murine leukemia. 1. Inhibition of DNA synthesis.  
(abst - 1977)  

A cannabinoid with cardiovascular activity but no overt behavioral effects.  
(abst – 1977)  

Cannabinoid-induced mesenteric vasodilation through an endothelial site distinct from CB1 or CB2 receptors.  
(full – 1999)  
[http://www.ncbi.nlm.nih.gov/pmc/articles/PMC24203/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC24203/)

**ACEA/ ARACHIDONYL-2'-CHLOROETHYLAMIDE** - synthetic, CB1 agonist

Synthesis and characterization of potent and selective agonists of the neuronal cannabinoid receptor (CB1).  
(full – 1999)  
[http://jpet.aspetjournals.org/content/289/3/1427.long](http://jpet.aspetjournals.org/content/289/3/1427.long)

**ADDICTION**

Tokepure  
(news – undated)  

Effects of Chronic Smoking of Cannabis in Jamaica  
(download – 1972)  
[Effects of Chronic Smoking of Cannabis in Jamaica](http://cifas.us/analyses/Goode1.html)

Does Marijuana Lead to Dangerous Drugs?  
(article – 1972)  
[http://cifas.us/analyses/Goode1.html](http://cifas.us/analyses/Goode1.html)

Investigations of Very Heavy, Very Long-Term Cannabis Users  
(article – 1972)  
[http://cifas.us/analyses/VeryHeavyUsers.html](http://cifas.us/analyses/VeryHeavyUsers.html)
Marihuana and setting. (link to download – 1975)
http://jamanetwork.com/journals/jamapsychiatry/fullarticle/491378

An Abstinence Syndrome Following Chronic Administration of Delta-9-terahydrocannabinol in Rhesus Monkeys. (abst – 1980)

Relative Addictiveness of Various Substances (full - 1990)
http://www.ukcia.org/research/addictiv.htm

Comparative Epidemiology of Dependence on Tobacco, Alcohol, Controlled Substances, and Inhalants: Basic Findings From the National Comorbidity Survey (full – 1994)

Selective inhibition of sucrose and ethanol intake by SR 141716, an antagonist of central cannabinoid (CB1) receptors. (PDF – 1994)
www.druglibrary.org/crl/behavior/armone-01.pdf

Genetic differences in delta 9-tetrahydrocannabinol-induced facilitation of brain stimulation reward as measured by a rate-frequency curve-shift electrical brain stimulation paradigm in three different rat strains. (abst – 1996)

Cannabis dependence, withdrawal, and reinforcing effects among adolescents with conduct symptoms and substance use disorders (abst – 1997)

Anandamide, an Endogenous Cannabinoid, Has a Very Low Physical Dependence Potential (full - 1998)
http://jpet.aspetjournals.org/content/287/2/598.full?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=480&resourcetype=HWCIT

The Changing Pattern of Substance Abuse in Urban Adolescents (full – 1998)
http://archpedi.jamanetwork.com/article.aspx?articleid=189315&resultClick=3


Cannabis use in Amsterdam. (link to PDF – 1998)
Download Cannabis use in Amsterdam

Abuse potential of dronabinol (Marinol). (abst – 1998)
ADD/ADHD

ADHD by Ryan P (anecdotal - undated)
http://www.rxmarijuana.com/shared_comments/ADHD4.htm

Barba Jacob and the history of marihuana (abst – 1986)

2-AG / 2-ARACHIDONOYLGLYCEROL - endocannabinoid, CB1 agonist

Phytocannabinoids (news – undated)
http://www.news-medical.net/health/Phytocannabinoids.aspx

2-Arachidonoylglycerol: A Possible Endogenous Cannabinoid Receptor Ligand in Brain (abst – 1995)

Anandamide amidohydrolase reacting with 2-arachidonoylglycerol, another cannabinoid receptor ligand (full – 1997)
http://www.druglibrary.org/crl/receptors/endogenous/Goparahu%20et.al%2098%202-AG%20FEBSLet.pdf


Brain Chemicals Mimic Marijuana (news - 1997)
http://www.ukcia.org/research/anandami.php

2-Arachidonoylglycerol, an endogenous cannabinoid receptor agonist: identification as one of the major species of monoacylglycerols in various rat tissues, and evidence for its generation through Ca2.-dependent and -independent mechanisms (full – 1998)
http://www.druglibrary.org/crl/receptors/endogenous/Kondo%20et.al%2098%20Generation%20FEBSLet.pdf

2-Arachidonoyl-glycerol as an "endocannabinoid": limelight for a formerly neglected metabolite. (abst - 1998)

Evidence That the Cannabinoid CB1 Receptor Is a 2-Arachidonoylglycerol Receptor (full – 1999)
http://www.jbc.org/content/274/5/2794.long

Behavioral Effects of Cannabinoid Agents in Animals. (abst – 1999)
https://www.ncbi.nlm.nih.gov/pubmed/28134612
AGING /USE BY SENIORS

Post-Menopausal Hot Flashes by Anonymous (anecdotal – undated)
http://www.rxmarijuana.com/shared_comments/menopause.htm

Changes in cannabinoid receptor binding and mRNA levels in several brain regions of aged rats. (full – 1998)

ALCOHOLISM /ALCOHOL

Comparison of the Effects of Marijuana and Alcohol on Simulated Driving Performance (full - 1969)
Comparison of the Effects of Marijuana and Alcohol on Simulated ...

Effects of Chronic Smoking of Cannabis in Jamaica (download – 1972)
Effects of Chronic Smoking of Cannabis in Jamaica

Interaction of cannabidiol and alcohol in humans. (abst – 1979)

Effect of Alcohol and Marihuana on Tobacco Smoking. (abst – 1980)

Alcohol and marijuana: comparison of use and abuse in regular marijuana users. (abst – 1984)

Concordant alcohol and marihuana use in women. (abst – 1986)

Alcohol use, marihuana smoking, and sexual activity in women. (abst – 1988)

Marihuana attenuates the rise in plasma ethanol levels in human subjects. (abst – 1992)

Selective inhibition of sucrose and ethanol intake by SR 141716, an antagonist of central cannabinoid (CB1) receptors. (link to PDF – 1994)
www.druglibrary.org/crl/behavior/armone-01.pdf

Effects of Alcohol Pretreatment on Human Marijuana Self-administration. (abst – 1994)
ALLERGIES AND CANNABIS

Normal skin test responses in chronic marijuana users. (abst – 1974)

Marijuana smoking and fungal sensitization. (full - 1983)
http://www.jacionline.org/article/0091-6749%2883%2990067-2/pdf

ALLERGIES TO CANNABIS

Allergy to Marihuana (abst - 1971)

Occupational immediate type allergy to hemp pollen and hashish (abst – 1980)

Allergic Skin Test Reactivity to Marijuana in the Southwest (full - 1983)

Allergenic properties of naturally occurring cannabinoids. (abst - 1983)

Head-high, airborne pollen grains from different areas of metropolitan Delhi (abst – 1990)

ALZHEIMER'S DISEASE

Tau protein after delta-9-tetrahydrocannabinol in a human neuroblastoma cell line. (abst – 1996)

Effects of dronabinol on anorexia and disturbed behavior in patients with Alzheimer's disease. (abst - 1997)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=59

AM- 281 - synthetic, CB1 antagonist and inverse agonist
AM-630 – synthetic, CB2 antagonist

AM630, a competitive cannabinoid receptor antagonist. (abst – 1995)

AMOTIVATIONAL SYNDROME

Investigations of Very Heavy, Very Long-Term Cannabis Users (article – 1972)
http://cifas.us/analyses/VeryHeavyUsers.html

Effects of Chronic Smoking of Cannabis in Jamaica (download – 1972)
Effects of Chronic Smoking of Cannabis in Jamaica

Marihuana Use and Psychosocial Adaptation (abst - 1974)
http://archpsyc.ama-assn.org/cgi/content/abstract/31/5/713?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=marihuana&searchid=1&FIRSTINDEX=0&resourcetype=HWCIT

Cannabis and Work in Jamaica: A Refutation of the Amotivational Syndrome (download – 1976)
"Cannabis and Work in Jamaica: A Refutation of the Amotivational Syndrome."

Operant acquisition of marihuana in man. (abst - 1976)


http://csp.org/chrestomathy/ganja_in.html

Marihuana and Work: Cannabis Smoking on a Jamaican Sugar Estate (download – 1983)
Marihuana and Work: Cannabis Smoking on a Jamaican Sugar Estate

Operant acquisition of marihuana by women. (abst - 1985)
ANANDAMIDE / AEA – endocannabinoid, CB 1 & 2 agonist

Phytocannabinoids (news – undated) http://www.news-medical.net/health/Phytocannabinoids.aspx

Isolation and Structure of a Brain Constituent That Binds to the Cannabinoid Receptor. (link to PDF – 1992) https://www.researchgate.net/publication/21684638_Isolation_and_Structure_of_a_Brain_Constituent_That_Binds_to_the_Cannabinoid_Receptor

Cross-tolerance between delta-9-tetrahydrocannabinol and the cannabimimetic agents CP 55,940, WIN 55,212-2 and anandamide. (full - 1993) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2175863/?tool=pmcentrez&page=1

Anandamide, an endogenous cannabimimetic eicosanoid, binds to the cloned human cannabinoid receptor and stimulates receptor-mediated signal transduction (full - 1993) http://www.pnas.org/content/90/16/7656.full.pdf+html


Enzymatic synthesis of anandamide, an endogenous ligand for the cannabinoid receptor, by brain membranes (full - 1994) http://www.pnas.org/content/91/14/6698.full.pdf+html

Formation and inactivation of endogenous cannabinoid anandamide in central neurons. (letter – 1994) http://www.nature.com/nature/journal/v372/n6507/abs/372686a0.html

Mast cells express a peripheral cannabinoid receptor with differential sensitivity to anandamide and palmitoylethanolamide. (full – 1995) http://www.pnas.org/content/92/8/3376.full.pdf+html

Anandamide and delta 9-THC dilation of cerebral arterioles is blocked by indomethacin (abst - 1995) http://ajpheart.physiology.org/cgi/content/abstract/269/6/H1859?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=2320&resourcetype=HWCIT


Occurrence and biosynthesis of endogenous cannabinoid precursor, N-arachidonoyl phosphatidylethanolamine, in rat brain. (full – 1997) http://www.jneurosci.org/content/17/4/1226.long


Cannabinoid-Induced Hypotension and Bradycardia in Rats Is Mediated by CB1-Like Cannabinoid Receptors (full - 1997) http://jpet.aspetjournals.org/content/281/3/1030.full?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=320&resourcetype=HWCIT

Anandamide, a Natural Ligand for the Peripheral Cannabinoid Receptor Is a Novel Synergistic Growth Factor for Hematopoietic Cells (full – 1997) http://bloodjournal.hematologylibrary.org/content/90/4/1448.full

Ibuprofen inhibits rat brain deamidation of anandamide at pharmacologically relevant concentrations. Mode of inhibition and structure-activity relationship. (full – 1997) http://jpet.aspetjournals.org/content/283/2/729.long

Patent 5631297 - Anandamides useful for the treatment of intraocular hypertension, ophthalmic compositions containing the same and methods of use of the same
Anandamide: The molecule of extreme pleasure
http://www.chm.bris.ac.uk/motm/anandamide/ananh.htm

Activation of peripheral CB1 cannabinoid receptors in haemorrhagic shock.

Ibuprofen inhibits the metabolism of the endogenous cannabimimetic agent anandamide.

Recent advances in the biology of n-6 fatty acids

Brain Chemicals Mimic Marijuana

Anandamide, an Endogenous Cannabinoid, Has a Very Low Physical Dependence Potential
(full - 1998) http://jpet.aspetjournals.org/content/287/2/598.full
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=480&resourcectype=HWCIT

The endogenous cannabinoid anandamide inhibits human breast cancer cell proliferation
(full - 1998) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC20983/

Assessment of Anandamide Interaction with the Cannabinoid Brain Receptor: SR 141716A Antagonism Studies in Mice and Autoradiographic Analysis of Receptor Binding in Rat Brain (full – 1998) http://jpet.aspetjournals.org/content/284/3/1209.full

Interactions between synthetic vanilloids and the endogenous cannabinoid system.

Cannabinoid receptors and immunity. (abst – 1998)
http://www.cell.com/immunology/abstract/S0167-5699(98)01300-0

The endogenous cannabinoid anandamide is a lipid messenger activating cell growth via a cannabinoid receptor-independent pathway in hematopoietic cell lines.

Cardiovascular actions of cannabinoids and their generation during shock.


Pain modulation by release of the endogenous cannabinoid anandamide (full - 1999) http://www.pnas.org/content/96/21/12198.full

Cannabinoid-induced mesenteric vasodilation through an endothelial site distinct from CB1 or CB2 receptors. (full – 1999) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC24203/

SR141716A Antagonizes the disruptive effects of cannabinoid ligands on learning in rats. (full – 1999) http://jpet.aspetjournals.org/content/282/3/1526.long


Brain Releases Marijuana-Like Substance In Response To Pain, Study Finds (news - 1999) http://www.sciencedaily.com/releases/1999/10/991013074947.htm


Why your brain is primed for a high (news - 1999) http://www.mapinc.org/drugnews/v99.n362.a08.html
ANECDOtal / PERSONAl STORIES

Marijuana and Crohn’s Disease (anecdotal - 1997)
http://www.rxmarihuana.com/chrohns3.htm

Smoking dope restored my sight (news/anecdotal - 1998)
http://news.bbc.co.uk/2/hi/health/212301.stm

ANTI-BACTERIAL PROPERTIES

HEMP AS A MEDICAMENT: Methods and results of the bacteriological experiments (full - 1955)
http://www.bushka.cz/KabelikEN/methods.html

Antibacterial preparation from hemp (Cannabis sativa) (abst - 1958)
http://chemport.cas.org/cgi-bin/sdcgi?
APP=fitslink&action=reflink&origin=ACS&version=1.0&coi=1%3ACAS%3A528%3ADyaG1cXpvVGiug%253D%253D&md5=36fcabac61432cf5e852e26e9bba3ed1

Hemp (Cannabis sativa)-an antibiotic drug. II. Methods and results of bacteriological investigations and preliminary clinical experiences (abst - 1958)
http://chemport.cas.org/cgi-bin/sdcgi?
APP=fitslink&action=reflink&origin=ACS&version=1.0&coi=1%3ACAS%3A528%3ADyaG1cXotl2guw%253D%253D&md5=a36c74726c1e02d8a52d1f297d624fc6

Effect of Biogenic Amines and Cannabinoids on Bacterial Chemotaxis (full - 1973)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC246374/?page=1

Antibacterial activity of delta9-tetrahydrocannabinol and cannabidiol. (abst - 1976)

Biological activity of cannabichromene, its homologs and isomers. (abst - 1981)

Antiinflammatory and antimicrobial compounds and compositions
United States Patent 4837228 (full - 1989)
http://www.freepatentsonline.com/4837228.html

ANTI-INFLAMMATORY PROPERTIES

Antipyretic, analgesic and anti-inflammatory effects of delta9-tetrahydrocannabinol in the rat. (full - 1973)
http://druglibrary.org/schaffer/hemp/medical/ANTIPYRETIC.html
**Anti-inflammatory properties of cannabichromene**
(abst – 1980)

Biological activity of cannabichromene, its homologs and isomers.
(abst - 1981)

Analgesic and antiinflammatory activity of constituents of Cannabis sativa L.
(full - 1988)
http://www.ukcia.org/research/AnalgesicAndAntiInflammatoryActivityofConstituents.html

Antiinflammatory and antimicrobial compounds and compositions
United States Patent 4837228
(full - 1989)
http://www.freepatentsonline.com/4837228.html

1′,1′-Dimethylheptyl-Δ-8-tetrahydrocannabinol-11-oic Acid: A Novel, Orally Effective
Cannabinoid with Analgesic and Anti-inflammatory Properties
(full - 1999)
http://jpet.aspetjournals.org/content/291/1/31.full?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=marihuana&searchid=1&FIRSTINDEX=1840&res
courcetype=HWCIT

**ANTI-PROTOZOAN PROPERTIES**

Susceptibility of Naegleria fowleri to delta 9-tetrahydrocannabinol.
(full - 1979)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC352928/

The effect of fibre hemp (Cannabis sativa L.) on selected soil-borne pathogens

The trypanocidal effect of Cannabis sativa constituents in experimental animal
trypanosomiasis. (African Sleeping Sickness)

**ANTIOXIDANT PROPERTIES**

Biological screening of 100 plant extracts for cosmetic use (II): anti-oxidative activity
and free radical scavenging activity.
(abst - 1997)
http://www.unboundmedicine.com/medline/ebm/record/18505484/abstract/Biological_screening_of_100_pla
nt_extracts_for_cosmetic_use_II:_anti_oxidative_activity_and_free_radical_scavenging_activity

Cannabidiol and (−)Δ9-tetrahydrocannabinol are neuroprotective antioxidants
Cannabinoid Antioxidant Protects Brain Cells -- Without the High (news – 1998)
http://hempworld.com/HempPharm/articles/medicalm05.html

**ANXIETY/ ANXIOLYTIC EFFECTS** (anxiety reducing)

Sedative activity of cannabis in relation to its delta'-trans-tetrahydrocannabinol and cannabidiol content. (full - 1981)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2071638/?tool=pmcentrez

The efficacy and safety of nabilone (a synthetic cannabinoid) in the treatment of anxiety (abst - 1981)
http://www.ncbi.nlm.nih.gov/pubmed/6117575

http://www.cannabis-med.org/studies/ww_en_db_study_show.php? s_id=236&&search_pattern=blood,pressure

Action of cannabidiol on the anxiety and other effects produced by delta 9-THC in normal subjects. (abst – 1982)

Antianxiety effect of cannabidiol in the elevated plus-maze. (abst – 1990)

**APPETITE** - also see TASTE, OBESITY

Factors influencing the aggressiveness elicited by marihuana in food-deprived rats (full - 1972)
http://www.pubmedcentral.nih.gov/articlerender.fcgi?
artid=1666002&tool=pmcentrez


Inhalation of tobacco and marijuana in dog over a period of 30 months: effect on body weight, food intake and organ weight. (abst – 1976)

Anorexia and hyperphagia produced by five pharmacologic classes of hallucinogens. (abst – 1982)

Behavioral analysis of marijuana effects on food intake in humans. (abst - 1986)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=118

Effects of smoked marijuana on food intake and body weight of humans living in a residential laboratory. (abst - 1988)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=117

Dronabinol enhancement of appetite in cancer patients. (abst - 1990)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=149

Recent clinical experience with dronabinol. (abst - 1991)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=90

Dronabinol stimulates appetite and causes weight gain in HIV patients. (abst - 1992)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=20

Dronabinol effects on weight in patients with HIV infection. (abst - 1992)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=45

Effect of dronabinol on nutritional status in HIV infection. (abst - 1993)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=150

Selective inhibition of sucrose and ethanol intake by SR 141716, an antagonist of central cannabinoid (CB1) receptors. (link to PDF – 1994)
www.druglibrary.org/crl/behavior/arnone-01.pdf

A phase II study of delta-9-tetrahydrocannabinol for appetite stimulation in cancer-associated anorexia. (abst - 1994)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=52

Cannabinoids and appetite stimulation. (abst – 1994)

Dronabinol as a treatment for anorexia associated with weight loss in patients with AIDS. (abst - 1995)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=21

The perceived effects of smoked cannabis on patients with multiple sclerosis. (abst - 1997)

Effects of dronabinol on anorexia and disturbed behavior in patients with Alzheimer's disease (abst - 1997)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=59

SR 141716, a CB1 cannabinoid receptor antagonist, selectively reduces sweet food intake in marmoset. (abst – 1998)

Anandamide induces overeating: mediation by central cannabinoid (CB1) receptors. (abst – 1999)
**ARTHRTIS**

Anti-edema and analgesic properties of delta9-tetrahydrocannabinol (THC). (abst - 1973)  
http://jpet.aspetjournals.org/content/186/3/646.abstract?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=marihuana&searchid=1&FIRSTINDEX=2160&resourcetype=HWCIT

Analgesic and antiinflammatory activity of constituents of Cannabis sativa L. (full - 1988)  
http://www.ukcia.org/research/AnalgesicAndAntiInflammatoryActivityofConstituents.html

Immunology in medical practice. XIV. Central nervous system complications in systemic autoimmune diseases (abst – 1998)  

**ASTHMA** - also see LUNG FUNCTION

Acute effects of smoked marijuana and oral delta-9-tetrahydrocannabinol on specific airway conductance in asthmatic subjects (full - 1974)  
http://www.ukcia.org/research/SmokedAndOralInAsthmatic.php

Effects of smoked marijuana in experimentally induced asthma. (full - 1975)  
http://www.ukcia.org/research/InducedAsthma/index.php

Bronchodilator effect of delta1-tetrahydrocannabinol administered by aerosol of asthmatic patients. (full - 1976)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC470501/?tool=pmcentrez&page=1

Bronchial effects of aerosolized delta 9-tetrahydrocannabinol (abst - 1977)  

Bronchodilator effect of delta1-tetrahydrocannabinol. (full - 1978)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1429361/

Comparison of bronchial effects of nabilone and terbutaline (abst - 1983)  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=43

Acute and subacute bronchial effects of oral cannabinoids. (abst - 1984)  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=44

Role of prostaglandins in marihuana-induced bronchodilation. (abst – 1986)  
ANALGESIC AND ANTIINFLAMMATORY ACTIVITY OF CONSTITUENTS OF CANNABIS SATIVA L. (full - 1988)
http://www.ukcia.org/research/AnalgesicAndAntiInflammatoryActivityofConstituents.html

Cannabis and cannabinoids: pharmacology and rationale for clinical use

ATHEROSCLEROSIS

Cardiovascular Effects of Cannabis (news - undated)
http://www.idmu.co.uk/cannocardio.htm

Cannabinoids impair the formation of cholesteryl ester in cultured human cells.
(full – 1981) http://atvb.ahajournals.org/cgi/reprint/1/6/449

BETA-CARYOPHYLLENE/ (E)-BCP – phytocannabinoid, CB2 agonist

The Volatile Oil Composition of Fresh and Air-Dried Buds of Cannabis sativa

BIPOLAR DISORDER

Bipolar Disorder and Endometriosis by Anonymous (anecdotal – undated)
http://rxmarijuana.com/shared_comments/Endometriosis4.htm

The Use of Cannabis as a Mood Stabilizer in Bipolar Disorder: Anecdotal Evidence and the Need for Clinical Research (full - 1998)
http://www.ukcia.org/research/TheUseofCannabisasaMoodStabilizerinBipolarDisorder.html

BLADDER / URINARY FUNCTIONS

Comparative diuretic activity of delta9-tetrahydrocannabinol, cannabidiol, cannabinol and hydrochlorothiazide in the rat. (abst – 1977)
Evidence for the presence of cannabinoid CB1 receptors in mouse urinary bladder (full – 1996)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1909890/

**BLEPHAROSPASM -** also see MEIGE'S SYNDROME in PRE-2000 section

Open label evaluation of cannabidiol in dystonic movement disorders.  
(full - 1986)  
http://web.acsalaska.net/~warmgun/es017.html

**BLOOD**

Anandamide, a Natural Ligand for the Peripheral Cannabinoid Receptor Is a Novel Synergistic Growth Factor for Hematopoietic Cells  
(full – 1997)  
http://bloodjournal.hematologylibrary.org/content/90/4/1448.full

The inhibitory effects of cannabinoids, the active constituents of Cannabis sativa L. on human and rabbit platelet aggregation.  
(abst - 1989)  

**BLOOD PRESSURE**

Cardiovascular and respiratory effects of cannabis in cat and rat  
(full – 1973)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1776461/

Reduction by Δ9-tetrahydrocannabinol in the blood pressure of hypertensive rats bearing regenerated adrenal glands  
(full – 1973)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1776093/

The effect of cannabichromene on mean blood pressure, heart rate, and respiration rate responses to tetrahydrocannabinol in the anesthetized rat  
(abst – 1979)  

Effect of marihuana on intraocular and blood pressure in glaucoma  
(full - 1980)  
http://www.ukcia.org/research/EffectOnIntraocularAndBloodPressureInGlaucoma.php

The cardiovascular and autonomic effects of repeated administration of delta-9-tetrahydrocannabinol to rhesus monkeys.  
(abst – 1981)  
Glaucoma, hypertension, and marijuana. (full - 1982)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2552967/?tool=pmcentrez&page=1

Anandamide and delta 9-THC dilation of cerebral arterioles is blocked by indomethacin
(abst - 1995)
http://ajpheart.physiology.org/cgi/content/abstract/269/6/H1859?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=2320&resourcetype=HWCIT

Novel antagonist implicates the CB1 cannabinoid receptor in the hypotensive action of

Cannabinoid-Induced Hypotension and Bradycardia in Rats Is Mediated by CB1-Like
Cannabinoid Receptors (full - 1997)
http://jpet.aspetjournals.org/content/281/3/1030.full?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=320&resourcetype=HWCIT

Body's 'cannabis' could hold blood pressure key (news - 1998)
http://www.ukcia.org/research/blood-pressure.php

BOWEL DISORDERS - also see COLITIS, CROHN’S

Some actions of delta-1 tetrahydrocannabinol and cannabidiol at cholinergic junctions.
(full – 1971)

The effect of cannabinoids on intestinal motility and their antinociceptive effect in mice
(full - 1973) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1776598/?tool=pmcentrez&page=1

Intestinal obstruction by an unusual foreign body (full - 1973)

Psychoactive Cannabinoids Reduce Gastrointestinal Propulsion and Motility in Rodents

Cannabinoid modulation of intestinal propulsion in mice. (abst – 1998)

Inhibitory effect of cannabinoid agonists on gastric emptying in the rat (abst – 1999)
The role of cannabinoid receptors in intestinal motility, defaecation and diarrhoea in rats

**BRAIN**

Effects of Chronic Smoking of Cannabis in Jamaica (download – 1972)
Effects of Chronic Smoking of Cannabis in Jamaica

Computed tomographic examination of heavy marijuana smokers.
(link to download – 1977) http://jamanetwork.com/journals/jama/fullarticle/352027


Chronic Exposure to Delta 9-tetrahydrocannabinol Fails to Irreversibly Alter Brain Cannabinoid Receptors. (abst – 1991)

Isolation and Structure of a Brain Constituent That Binds to the Cannabinoid Receptor. (link to PDF – 1992)
https://www.researchgate.net/publication/21684638_Isolation_and_Structure_of_a_Brain_Constituent_That_Binds_to_the_Cannabinoid_Receptor


Changes in cannabinoid receptor binding and mRNA levels in several brain regions of aged rats. (full – 1998)

Effects of frequent marijuana use on brain tissue volume and composition (abst – 1999)
http://www.ukcia.org/research/EffectsOfFrequentMarrijuanaUseOnBrainTissueVolumeAndComposition.htm

Behavioral Effects of Cannabinoid Agents in Animals. (abst – 1999)
BRAIN TRAUMA


Cytokine production in the brain following closed head injury: dexanabinol (HU-211) is a novel TNF-alpha inhibitor and an effective neuroprotectant. (abst – 1997) http://www.ncbi.nlm.nih.gov/pubmed/9042110


BREASTFEEDING/ LACTATION/ INFANT APPETITE


Inhibition of Suckling-Induced Milk Ejections in the Lactating Rat by Δ9-Tetrahydrocannabinol (link to download – 1987) http://press.endocrine.org/doi/abs/10.1210/endo-123-1-469


BUSINESS OF CANNABIS

The Business of Drug Dealing in Milwaukee (download – 1988)
The business of drug dealing in Milwaukee.
**CANCER - BREAST**

The endogenous cannabinoid anandamide inhibits human breast cancer cell proliferation
(full - 1998)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC20983/

**CANCER - GASTRIC**

Intractable nausea and vomiting due to gastrointestinal mucosal metastases relieved by
tetrahydrocannabinol (dronabinol).  (full - 1997)
http://www.jpsmjournal.com/article/S0885-3924%2897%2900229-7/pdf

**CANCER – GLIOMA/ BRAIN CANCERS**

Cannabinoids inhibit N-type calcium channels in neuroblastoma-glioma cells.
(full - 1992)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC525583/

Anandamide, an endogenous cannabinoid, inhibits calcium currents as a partial agonist in
N18 neuroblastoma cells.  (abst – 1993)

Δ9-Tetrahydrocannabinol induces apoptosis in C6 glioma cells  (full – 1998)

**CANCER - LEUKEMIA**

Antineoplastic activity of cannabinoids  (full - 1975)
http://www.ukcia.org/research/AntineoplasticActivityOfCannabinoids/default.html

Effects of cannabinoids on L1210 murine leukemia. 1. Inhibition of DNA synthesis.

Cannabinoids induce incomplete maturation of cultured human leukemia cells
(full - 1987)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC298868/?tool=pmcentrez&page=1
Fatal aspergillosis associated with smoking contaminated marijuana, in a marrow transplant recipient.  
(link to PDF - 1988)  

Anandamide, a natural ligand for the peripheral cannabinoid receptor is a novel synergistic growth factor for hematopoietic cells.  
(full – 1997)  
http://www.bloodjournal.org/content/90/4/1448.long?sso-checked=true

**CANCER - LUNG**

A pilot study of orally administered Δ1-trans-tetrahydrocannabinol in the management of patients undergoing radiotherapy for carcinoma of the bronchus  
(full - 1974)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1402430/?tool=pmcentrez&page=1

Anticancer activity of cannabinoids  
(full - 1975)  

Antineoplastic activity of cannabinoids  
(full - 1975)  
http://www.ukcia.org/research/AntineoplasticActivityOfCannabinoids/default.html

In vivo effects of cannabinoids on macromolecular biosynthesis in Lewis lung carcinomas.  
(abst - 1977)  

Anti-emetic efficacy and toxicity of nabilone, a synthetic cannabinoid, in lung cancer chemotherapy.  
(full - 1983)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2011510/?tool=pmcentrez&page=1

No increase in carcinogen-DNA adducts in the lungs of monkeys exposed chronically to marijuana smoke.  
(abst – 1992)  

Marijuana Less Harmful to Lungs than Cigarettes  
(news - 1994)  
http://www.ukcia.org/research/lungs.php

So, you thought it was the tar that caused cancer...  
(news – 1999)  
http://www.ukcia.org/research/cancer2.php

**CANCER - LYMPHOMA**

UCSF Researchers Report New Risk Factors For Non-Hodgkin's Lymphoma  
(news - 1999)  
http://www.sciencedaily.com/releases/1999/08/990817065339.htm
CANCER - MELANOMA

Intractable nausea and vomiting due to gastrointestinal mucosal metastases relieved by tetrahydrocannabinol (dronabinol). (full - 1997)
http://www.jspsmjournal.com/article/S0885-3924%2897%2900229-7/pdf

CANCER - NEUROBLASTOMA

Inhibition of neuroblastoma adenylate cyclase by cannabinoid and nantradol compounds (abst – 1984)


Interaction of delta-9-tetrahydrocannabinol with rat B103 neuroblastoma cells. (abst – 1987)

Cannabinoids inhibit N-type calcium channels in neuroblastoma-glioma cells. (full - 1992)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC525583/

Cannabinoid receptor agonists inhibit Ca current in NG108-15 neuroblastoma cells via a pertussis toxin-sensitive mechanism. (full - 1992)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1907498/?tool=pmcentrez&page=1

Stimulation of anandamide biosynthesis in N-18TG2 neuroblastoma cells by delta 9-tetrahydrocannabinol (THC). (abst – 1995)

Potential biosynthetic connections between the two cannabimimetic eicosanoids, anandamide and 2-arachidonoyl-glycerol, in mouse neuroblastoma cells. (abst – 1996)

Tau protein after delta-9-tetrahydrocannabinol in a human neuroblastoma cell line. (abst – 1996)
CANCER - ORAL


CANCER - PROSTATE

Delta9-tetrahydrocannabinol induces apoptosis in human prostate PC-3 cells via a receptor-independent mechanism. (full - 1999)

CANCER - RISK CANNABIS VS TOBACCO

So, you thought it was the tar that caused cancer... (news - undated)
http://www.ukcia.org/research/cancer2.php

Marijuana Less Harmful to Lungs than Cigarettes (news - 1994)
http://www.ukcia.org/research/lungs.php


CANCER - TESTICULAR

Chemotherapy for Testicular Cancer (anecdotal - undated)
http://www.rxmarihuana.com/shared_comments/testicularchemo.htm

Crossover comparison of the antiemetic efficacy of nabilone and alizapride in patients with nonseminomatous testicular cancer receiving cisplatin therapy (abst - 1986)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=127
Unpublished Federal Study Found THC-Treated Rats Lived Longer, Had Less Cancer

Analgesic effect of delta-9-tetrahydrocannabinol.  (abst - 1975)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=16

The analgesic properties of delta-9-tetrahydrocannabinol and codeine.  (abst - 1975)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=17

Delta-9-Tetrahydrocannibinol as an Antiemetic in Cancer Patients Receiving High-Dose Methotrexate  (full - 1979)
http://www.ukcia.org/research/AntiemeticForMethotrexate.php

Delta-9-tetrahydrocannabinol as an antiemetic for patients receiving cancer chemotherapy. A comparison with prochlorperazine and a placebo.  (abst - 1979)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=5

Delta-9-tetrahydrocannabinol (THC) as an antiemetic in patients treated with cancer chemotherapy; a double-blind cross-over trial against placebo  (abst - 1979)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=27

Amelioration of cancer chemotherapy-induced nausea and vomiting by delta-9--tetrahydrocannabinol.  (abst - 1979)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=107

Superiority of nabilone over prochlorperazine as an antiemetic in patients receiving cancer chemotherapy.  (abst - 1979)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=126

The antiemetic activity of tetrahydrocanabinol versus metoclopramide and thiethylperazine in patients undergoing cancer chemotherapy.  (abst - 1980)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=24

http://www.gacareproject.com/flash-back-how-georgia-legalized-medical-marijuana/

A multi-institutional Phase III study of nabilone vs. placebo in chemotherapy-induced nausea and vomiting.  (abst - 1982)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=156

Evaluation of the Use of Both Marijuana and THC in Cancer Patients for the Relief of Nausea and Vomiting Associated With Cancer Chemotherapy After Failure of Conventional Anti-Emetic Therapy: Efficacy and Toxicity  (full – 1983)
Prospective randomized double-blind trial of nabilone versus domperidone in the treatment of cytotoxic-induced emesis  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=129

Efficacy of tetrahydrocannabinol in patients refractory to standard anti-emetic therapy  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=31

Dronabinol enhancement of appetite in cancer patients.  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=149

Dronabinol and prochlorperazine in combination for treatment of cancer chemotherapy-induced nausea and vomiting.  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=28

A phase II study of delta-9-tetrahydrocannabinol for appetite stimulation in cancer-associated anorexia  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=52

NTP Technical Report on the Toxicology and Carcinogenesis Studies of 1-Trans-Delta9-Tetrahyrdocannabinol (CAS No. 1972-08-3) in F344/N Rats and B6C3F1 Mice (Gavage Studies)  
http://www.druglibrary.org/Schaffer/hemp/Trans-Delta%20Report.pdf

Toxicity and Carcinogenicity of {Delta}9-Tetrahydrocannabinol in Fischer Rats and B6C3F1 Mice  
http://toxsci.oxfordjournals.org/content/30/1/109.full.pdf+html

Marijuana Use and Cancer Incidence (California, United States). Cancer Causes and Control.  

Study: THC Not Cancer-Causing  
http://www.ukcia.org/research/cancer.php

Study may undercut marijuana opponents - Report says THC did not cause cancer  
http://www.marijuanalibrary.org/Globe_mj_cancer_013097.html

CANNABINOIDS IN OTHER PLANTS

Thujone exhibits low affinity for cannabinoid receptors but fails to evoke cannabimimetic responses.  
**CBC/ CANNABICHROMENE** - phytocannabinoid, unknown receptor

Phytocannabinoids  
(news – undated)  
http://www.news-medical.net/health/Phytocannabinoids.aspx

Constituents of Cannabis sativa L. VIII: Possible biological application of a new method to separate cannabidiol and cannabichromene.  
(abst - 1975)  

The effect of cannabichromene on mean blood pressure, heart rate, and respiration rate responses to tetrahydrocannabinol in the anesthetized rat  
(abst – 1979)  

Sequential appearance of cannabinoids during seedling development  
(full – 1980)  
https://www.realhemp.com/marihuana-84/

Anti-inflammatory properties of cannabichromene  
(abst – 1980)  

Biological activity of cannabichromene, its homologs and isomers.  
(abst - 1981)  

Patent 4315862 - Process for preparing cannabichromene  
(full - 1982)  
http://www.freepatentsonline.com/4315862.html

Neurobehavioral actions of cannabichromene and interactions with delta 9-tetrahydrocannabinol.  
(abst – 1983)  

Allergenic properties of naturally occurring cannabinoids.  
(abst - 1983)  

Intraocular pressure, ocular toxicity and neurotoxicity after administration of delta 9-tetrahydrocannabinol or cannabichromene.  
(abst – 1984)  

Antinflammatory and antimicrobial compounds and compositions  
United States Patent 4837228  
(full - 1989)  
http://www.freepatentsonline.com/4837228.html

In vitro metabolism of cannabichromene in seven common laboratory animals.  
(abst – 1990)  

**CBD/ CANNABIDIOL**  phytocannabinoids, antagonist of CB1 and CB2, GPR – 55 and 18

Phytocannabinoids  
(news – undated)
ACCESSING 0.5 to 2.0 GRAMS CBD FRACTIONATING THE PHYTOCANNABINOIDs BY THEIR VAPORIZATION POINTS
(article – forum repost - undated)

Isolation of Cannabinol, Cannabidiol and Quebrachitol from Red Oil of Minnesota Wild Hemp (1st page – 1940) http://pubs.acs.org/doi/abs/10.1021/ja01865a080

STUDIES ON THE PHARMACOLOGY AND ACUTE TOXICITY OF COMPOUNDS WITH MARIHUANA ACTIVITY (abst - 1946)
http://jpet.aspetjournals.org/content/88/2/154.abstract?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=marihuana&searchid=1&FIRSTINDEX=0&resourcetype=HWCIT

Chemical and Physiological Identification of Indian Hemp (has a test for CBD – “Beam’s Reaction”) (full – 1950)


A metabolic interaction in vivo between cannabidiol and Δ1-tetrahydrocannabinol (full - 1972) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1666148/?tool=pubmed

Cardiovascular and respiratory effects of cannabis in cat and rat (full – 1973)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1776461/


Cannabidiol and Electroencephalographic Epileptic Activity (abst – 1974)


Differential effect of cannabinol and cannabidiol on THC-induced responses during abstinence in morphine-dependent rats. (abst - 1975)
Db=pubmed&Cmd=Retrieve&list_uids=1237925&dopt=abstractplus


Absence of interaction between delta9-tetrahydrocannabinol (delta-THC) and cannabidiol (CBD) in aggression, muscle control and body temperature experiments in mice. (abst – 1975) http://www.ncbi.nlm.nih.gov/pubmed/1171491


Antineoplastic activity of cannabinoids (full - 1975) http://www.ukcia.org/research/AntineoplasticActivityOfCannabinoids/default.html


Cannabidiol--antiepileptic drug comparisons and interactions in experimentally induced seizures in rats. (abst - 1977) http://jpet.aspetjournals.org/content/201/1/26.abstract?ijkey=8457ace5313942358e64d156c12d04bd3c7d5f21&keytype2=tf_ipsecsha


CHRONIC ADMINISTRATION OF CANNABIDIOL TO HEALTHY VOLUNTEERS AND EPILEPTIC PATIENTS (full - 1980) http://web.acsalaska.net/~warmingun/es201.html

Sedative activity of cannabis in relation to its delta'-trans-tetrahydrocannabinol and cannabidiol content. (full - 1981) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2071638/?tool=pmcentrez


Open label evaluation of cannabidiol in dystonic movement disorders. (full - 1986) http://web.acsalaska.net/~warmgun/es017.html

EFFECTS OF CANNABIDIOL IN HUNTINGTON'S DISEASE (abst - 1986) http://www.druglibrary.org/schaffer/hemp/medical/hunting1.htm


The inhibitory effects of cannabinoids, the active constituents of Cannabis sativa L. on human and rabbit platelet aggregation. (abst - 1989) http://www.ncbi.nlm.nih.gov/pubmed/2575149

Controlled clinical trial of cannabidiol in Huntington's disease. (abst – 1991)

Mammary excretion of cannabidiol in rabbits after intravenous administration.

Cannabidiol and (−)Δ9-tetrahydrocannabinol are neuroprotective antioxidants

Hemp and Marijuana: Myths & Realities (full – 1998)
http://www.naihc.org/hemp_information/content/hemp.mj.html

Marijuana chemical tapped to fight strokes? (news - 1998)
http://www.thefreelibrary.com/Marijuana+chemical+tapped+to+fight+strokes.-a020973037

Cannabinoid Antioxidant Protects Brain Cells -- Without the High (news – 1998)
http://hempworld.com/HempPharm/articles/medicalm05.html

Cannabinoid-induced mesenteric vasodilation through an endothelial site distinct from CB1 or CB2 receptors. (full – 1999)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC24203/

SR141716A Antagonizes the disruptive effects of cannabinoid ligands on learning in rats.
(full – 1999) http://jpet.aspetjournals.org/content/282/3/1526.long

**CBDA/ CANNABIDIOLIC ACID** - phytocannabinoids, precursor to Cannabidiol

Purification and characterization of cannabidiolic-acid synthase from Cannabis sativa L..
Biochemical analysis of a novel enzyme that catalyzes the oxidocyclization of cannabigerolic acid to cannabidiolic acid. (full – 1996)
http://www.jbc.org/content/271/29/17411.long

**CBG/ CANNABIGEROL** - phytocannabinoid, CB2 agonist

Phytocannabinoids (news – undated)
http://www.news-medical.net/health/Phytocannabinoids.aspx

“Cannabigerol-like compounds from Helichrysum umbraculigerum” (abst – 1979)

Sequential appearance of cannabinoids during seedling development
Allergenic properties of naturally occurring cannabinoids. (abst - 1983)


The inhibitory effects of cannabinoids, the active constituents of Cannabis sativa L. on human and rabbit platelet aggregation. (abst - 1989) http://www.ncbi.nlm.nih.gov/pubmed/2575149


CBR - CB1 CANNABINOID RECEPTOR - activated by THC, Anandamide, several synthetics

Cannabinoid Receptor Ligands (full - undated) http://www.tocris.com/pdfs/cannabinoid_receptor_review/page_001.html

Isolation and Structure of a Brain Constituent That Binds to the Cannabinoid Receptor. (link to PDF – 1992) https://www.researchgate.net/publication/21684638_Isolation_and_Structure_of_a_Brain_Constituent_That_Binds_to_the_Cannabinoid_Receptor

Selective inhibition of sucrose and ethanol intake by SR 141716, an antagonist of central cannabinoid (CB1) receptors. (link to PDF – 1994) www.druglibrary.org/crl/behavior/amnone-01.pdf


Evidence for the presence of cannabinoid CB1 receptors in mouse urinary bladder (full – 1996)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1909890/


Molecular Aspects of Cannabinoid Receptors (abst – 1997)  http://dl.begellhouse.com/journals/7b004699754e9fe6.0af6f0a055729ff1f27123f036bd79f8e.html

Cannabinoid-Induced Hypotension and Bradycardia in Rats Is Mediated by CB1-Like Cannabinoid Receptors (full - 1997)  http://jpet.aspetjournals.org/content/281/3/1030.full?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=320&res
ourcetype=HWCIT


Hypoactivity of the Spinal Cannabinoid System Results in NMDA-Dependent Hyperalgesia (full – 1998)  http://www.jneurosci.org/content/18/1/451.long

Assessment of Anandamide Interaction with the Cannabinoid Brain Receptor: SR 141716A Antagonism Studies in Mice and Autoradiographic Analysis of Receptor Binding in Rat Brain (full – 1998)  http://jpet.aspetjournals.org/content/284/3/1209.long


Cardiovascular actions of cannabinoids and their generation during shock.
Cannabinoid modulation of intestinal propulsion in mice. (abst – 1998)

Evidence That the Cannabinoid CB1 Receptor Is a 2-Arachidonoylglycerol Receptor
(full – 1999) http://www.jbc.org/content/274/5/2794.long

Increased Mortality, Hypoactivity, and Hypoalgesia in Cannabinoid Cb1 Receptor
Knockout Mice. (full – 1999) http://www.pnas.org/content/96/10/5780.long

Cannabinoid-induced mesenteric vasodilation through an endothelial site distinct from
CB1 or CB2 receptors. (full – 1999)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC24203/

Localization of Cannabinoid CB1 Receptors in the Human Anterior Eye and Retina
(full – 1999) http://iovs.arvojournals.org/article.aspx?articleid=2162341&resultClick=1

Anandamide induces overeating: mediation by central cannabinoid (CB1) receptors.

Cannabis and cannabinoids: pharmacology and rationale for clinical use (abst – 1999)

Expression of the cannabinoid receptor CB1 in distinct neuronal subpopulations in the

Thujone exhibits low affinity for cannabinoid receptors but fails to evoke cannabimimetic

Presence and functional regulation of cannabinoid receptors in immune cells.

Behavioral Effects of Cannabinoid Agents in Animals. (abst – 1999)
https://www.ncbi.nlm.nih.gov/pubmed/28134612

CBR - CB2 CANNABINOID RECEPTOR - no "high", activated by THC, Anandamide, 2-AG,
synthetics

Cannabinoid Receptor Ligands (full - undated)
http://www.tocris.com/pdfs/cannabinoid_receptor_review/page_001.html

Cannabinoids enhance human B-cell growth at low nanomolar concentrations.
Anandamide, a natural ligand for the peripheral cannabinoid receptor is a novel synergistic growth factor for hematopoietic cells. (full – 1997)
http://www.bloodjournal.org/content/90/4/1448.long?sso-checked=true

Molecular Aspects of Cannabinoid Receptors (abst – 1997)
http://dl.begellhouse.com/journals/7b004699754c9fe6.0af6f0a055729f1f.27123f036bd79f8c.html

Pharmacology of cannabinoid CB1 and CB2 receptors. (abst – 1997)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC24203/

Interactions between synthetic vanilloids and the endogenous cannabinoid system. (full – 1998)

The endogenous cannabinoid anandamide is a lipid messenger activating cell growth via a cannabinoid receptor-independent pathway in hematopoietic cell lines. (full – 1998)

SR 144528, the first potent and selective antagonist of the CB2 cannabinoid receptor (link to PDF – 1998)
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.586.4155&rank=86

Cannabinoid receptors and immunity. (abst – 1998)
http://www.cell.com/immunology/abstract/S0167-5699(98)01300-0

Cannabis and cannabinoids: pharmacology and rationale for clinical use. (abst – 1999)

Presence and functional regulation of cannabinoid receptors in immune cells. (abst – 1999)

Behavioral Effects of Cannabinoid Agents in Animals. (abst – 1999)
https://www.ncbi.nlm.nih.gov/pubmed/28134612

CBR- CBe – endothelial cannabinoid receptor

Cannabinoid-induced mesenteric vasodilation through an endothelial site distinct from CB1 or CB2 receptors. (full – 1999)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC24203/
CBR - GPR55/ CB3 CANNABINOID RECEPTOR
Activated by l-α-lysophosphatidylinositol (LPI), and to a lesser extent possibly by THC, CBD,O-1602, PEA, 2-AG, Anandamide, Virodhamine


CEREBRAL PALSY


CHEMICAL COMPOSITION

Compounds found in Cannabis Sativa (list - undated) http://www.ukcia.org/research/cannabis-compounds.htm


The Active Principles of Cannabis and the Pharmacology of the Cannabinols (full - 1940) http://www.ukcia.org/research/TherapeuticPotentialMedicalUses.php

Isolation of Cannabinol, Cannabidiol and Quebrachitol from Red Oil of Minnesota Wild Hemp (1st page – 1940) http://pubs.acs.org/doi/abs/10.1021/ja01865a080


HEMP AS A MEDICAMENT : Survey of clinical experiences (full - 1955)
http://www.bushka.cz/KabelikEN/survey.html

A comparative study on some chemical and biological characteristics of various samples
of cannabis resin (full – 1962)

Isolation, Structure, and Partial Synthesis of an Active Constituent of Hashish
(full - 1964)

ESSENTIAL OILS AND THEIR CONSTITUENTS: XXIX. THE ESSENTIAL OIL OF
MARIHUANA: COMPOSITION OF GENUINE INDIAN CANNABIS SATIVA L.
(link to PDF – 1965)
http://www.nrcresearchpress.com/doi/abs/10.1139/v65-468#.V3INgaJA76h

A SIMPLE METHOD FOR DEMONSTRATING TETRAHYDROCANNABINOLS IN
FRESH OR FIXED FROZEN SECTIONS (full – 1972)
http://jhc.sagepub.com/content/20/10/827.full.pdf+html

Water-soluble derivatives of 1 -tetrahydrocannabinol. (abst - 1972)

Analysis of Cannabis Smoke Obtained under Different Combustion Conditions

The chemistry and biological activity of cannabis (news - 1972)

Cannabinoid Phenotypes in Cannabis sativa (abst - 1973)
http://www.nature.com/nature/journal/v245/n5421/abs
245147a0.html

Cannabinoid Profile and Elemental Uptake of Cannabis sativa L. as Influenced by Soil
Characteristics (full - 1975)

Constituents of Cannabis sativa L. II: Absence of cannabidiol in an african variant

Constituents of Cannabis sativa L. VIII: Possible biological application of a new method
to separate cannabidiol and cannabichromene. (abst - 1975)

Pharmacological activity of three fractions obtained by smoking cannabis through a water

Chemical composition of Brazilian marihuana samples and the importance of several constituents to the pharmacological activity of the plant (abst – 1977) http://www.ncbi.nlm.nih.gov/pubmed/609775


Chemataxonomic researches in higher plants. XV Carotenoid and chlorophyll pigments in the leaves of Cannabis sativa L. (link to PDF - 1981)

Constituents of Cannabis sativa L., XX: the cannabinoid content of Mexican variants grown in Mexico and in Mississippi, United States of America (full - 1982)

Some features of Cannabis plants grown in the United Kingdom from seeds of known origin. (full - 1982)

Structure, development and composition of glandular trichomes of Cannabis (link to PDF – 1984)

Constituents of Cannabis sativa, XXV. Isolation of two new dihydrostilbenes from a Panamanian variant. (abst – 1984)

The physical and chemical features of Cannabis plants grown in the United Kingdom of Great Britain and Northern Ireland from seeds of known origin - Part III: third and fourth generation studies (full – 1985)

Cannabinoid content of cannabis grown on the Danish island of Bornholm. (abst – 1985)

UV-B radiation effects on photosynthesis, growth and cannabinoid production of two Cannabis sativa chemotypes (link to download – 1987)
DOWNLOAD PDF VERSION

Identification of a New Chemotype in Cannabis sativa: Cannabigerol - Dominant Plants, Biogenetic and Agronomic Prospects (abst – 1987)

Oral vs. Inhaled Cannabinoids for Nausea/Vomiting from Cancer Chemotherapy (full - 1988)
http://www.druglibrary.org/schaffer/hemp/medical/pierson.html

Histochemical detection of hemp trichomes and their correlation with the THC content. (abst - 1988)
https://www.ncbi.nlm.nih.gov/pubmed/2855383

Characterization of the lipophilicity of natural and synthetic analogs of delta 9-tetrahydrocannabinol and its relationship to pharmacological potency. (abst - 1990)
http://jpet.aspetjournals.org/content/255/2/624.abstract?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=marihuana&searchid=1&FIRSTINDEX=240&resourcetype=HWCIT
Cannabinoid acids analysis. (abst – 1992)

Chemical ecology of Cannabis (full - 1994)
http://www.hempfood.com/IHA/iha01201.html

The Volatile Oil Composition of Fresh and Air-Dried Buds of Cannabis sativa (full – 1996)

Effect of nitrogen on tetrahydrocannabinol (THC) content in hemp (Cannabis sativa L.) leaves at different positions (full - 1997)
http://www.internationalhempassociation.org/jiha/jiha4207.html

Essential oil of Cannabis sativa L. strains (full – 1997)
http://www.internationalhempassociation.org/jiha/jiha4208.html

Immmunochemical localization of tetrahydrocannabinol (THC) in cryofixed glandular trichomes of Cannabis (Cannabaceae) (full – 1997)
http://www.amjbot.org/content/84/3/336.full.pdf+html

Capillary electrochromatography of cannabinoids. (abst – 1998)

Medical Cannabis Potency Testing Project (full - 1999)

Hemp Seed Oil : The Wonder Oil For the New Millennium (news - 1999)
http://www.ukcia.org/research/Happi/HempSeedOilTheWonderOilForTheNewMillennium.htm

CHEMOTHERAPY

Antiemetic effect of delta-9-tetrahydrocannabinol in patients receiving cancer chemotherapy. (abst - 1975)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=4

Delta-9-Tetrahydrocannabinol as an Antiemetic in Cancer Patients Receiving High-Dose Methotrexate (full - 1979)
http://www.ukcia.org/research/AntiemeticForMethotrexate.php

Delta-9-tetrahydrocannabinol as an antiemetic for patients receiving cancer chemotherapy. A comparison with prochlorperazine and a placebo. (abst - 1979)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=5
Delta-9-tetrahydrocannabinol (THC) as an antiemetic in patients treated with cancer chemotherapy; a double-blind cross-over trial against placebo (abst - 1979)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=27

Amelioration of cancer chemotherapy-induced nausea and vomiting by delta-9-tetrahydrocannabinol. (abst - 1979)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=107

Superiority of nabilone over prochlorperazine as an antiemetic in patients receiving cancer chemotherapy. (abst - 1979)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=126

Antiemetic effect of tetrahydrocannabinol. Compared with placebo and prochlorperazine in chemotherapy-associated nausea and emesis. (abst - 1980)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=6

The antiemetic activity of tetrahydrocanabinol versus metoclopramide and thiethylperazine in patients undergoing cancer chemotherapy. (abst - 1980)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=24

Antiemetics in patients receiving chemotherapy for cancer: a randomized comparison of delta-9-tetrahydrocannabinol and prochlorperazine. (abst - 1980)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=3

Double-blind comparison of the antiemetic effects of nabilone and prochlorperazine on chemotherapy-induced emesis. (abst - 1980)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=131

Physiologic observations in a controlled clinical trial of the antiemetic effectiveness of 5, 10, and 15 mg of delta 9-tetrahydrocannabinol in cancer chemotherapy. Ophthalmologic implications. (abst - 1981)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=88

Clinical experience with levonantradol hydrochloride in the prevention of cancer chemotherapy-induced nausea and vomiting. (abst – 1981)

Dose vs response of tetrahydroannabinol (THC) vs prochlorperazine as chemotherapy antiemetics. (abst - 1981)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=30

Comparative trial of the antiemetic effects of THC and haloperidol (abst - 1981)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=64

Cannabis and cancer chemotherapy: a comparison of oral delta-9-THC and prochlorperazine. (full – 1982)


Anti-emetic efficacy and toxicity of nabilone, a synthetic cannabinoid, in lung cancer chemotherapy. (full - 1983) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2011510/?tool=pmcentrez&page=1


A cross-over comparison of nabilone and prochlorperazine for emesis induced by cancer chemotherapy. (abst - 1985) http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=128


http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=120

Efficacy of tetrahydrocannabinol in patients refractory to standard anti-emetic therapy (abst - 1988)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=31

A randomized trial of oral nabilone and prochlorperazine compared to intravenous metoclopramide and dexamethasone in the treatment of nausea and vomiting induced by chemotherapy regimens containing cisplatin or cisplatin analogues. (abst – 1988)

Marijuana as antiemetic medicine: A Survey of Oncologists' Experiences and Attitudes (full - 1991)

Dronabinol and prochlorperazine in combination for treatment of cancer chemotherapy-induced nausea and vomiting. (abst - 1991)

An efficient new cannabinoid antiemetic in pediatric oncology (full - 1995)
http://www.druglibrary.org/olsen/hemp/iha/iha02210.html

**CHILDREN/ YOUNG ADULTS**

HEMP AS A MEDICAMENT: Importance of hemp seeds in the tuberculosis therapy (forum thread- full - 1955) (EDEZYME recipe)
http://www.bushka.cz/KabelikEN/hempseed.html

Survey of adolescent drug use. I. Sex and grade distribution. (full – 1971)

Effects of Chronic Smoking of Cannabis in Jamaica (download – 1972)
Effects of Chronic Smoking of Cannabis in Jamaica

Adolescent Marihuana Use: Role of Parents and Peers. (full – 1976)

Nabilone: an alternative antiemetic for cancer chemotherapy. (abst - 1986)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=123
Nabilone versus prochlorperazine for control of cancer chemotherapy-induced emesis in children (abst - 1987)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=120

Newborn Outcomes With Maternal Marihuana Use in Jamaican Women (download - 1988)

Effects of Marijuana on Newborn Cry (download – 1989)

Marijuana Use in Pregnancy and Pregnancy Outcome. (abst – 1990)

Prenatal marijuana use and neonatal outcome. (link to PDF – 1991)

Five-year follow-up of rural Jamaican children whose mothers used marijuana during pregnancy. (download – 1991)

Analysis of Facial Shape in Children Gestationally Exposed to Marijuana, Alcohol, and/or Cocaine (abst - 1992)
http://pediatrics.aappublications.org/cgi/content/abstract/89/1/67?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=marihuana&searchid=1&FIRSTINDEX=960&resourcetype=HWCIT


Prenatal Marijuana Exposure and Neonatal Outcomes in Jamaica: An Ethnographic Study (full - 1994)
http://www.ukcia.org/research/can-babies.php

Tobacco and marijuana use on offspring growth from birth through 3 years of age. (abst - 1992)

Prenatal exposure to marihuana and tobacco during infancy, early and middle childhood: effects and an attempt at synthesis. (abst – 1995)

Prenatal tobacco and marijuana use among adolescents: effects on offspring gestational age, growth, and morphology. (abst – 1995)

An efficient new cannabinoid antiemetic in pediatric oncology. (abst - 1995)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=7


The prevalence of illicit drug use in the general population and in schools, as monitored by a number of different methods (full – 1998)  http://www.cedro-uva.org/lib/langemeijer.prevalence.html

Mortality Within the First 2 Years in Infants Exposed to Cocaine, Opiate, or Cannabinoid During Gestation (abst - 1997)  http://pediatrics.aappublications.org/cgi/content/abstract/100/1/797?maxtoshow=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=640&resourcetype=HWCIT


Dr. Melanie Dreher, reefer researcher (interview - 1998)  http://www.cannabisculture.com/content/1998/11/01/1404


Ganja mothers, ganja babies (news - 1999)  http://www.cannabisculture.com/content/1999/01/01/1422
**CHOCOLATE** - contains a small amount of Anandamide and compounds that block its breakdown


**CHOLERA**

Differential cholera-toxin sensitivity of supraspinal antinociception induced by the cannabinoid agonists delta9-THC, WIN 55,212-2 and anandamide in mice.  

**CHOLESTEROL**

Cannabinoids impair the formation of cholesteryl ester in cultured human cells.  
(full – 1981)  [http://atvb.ahajournals.org/cgi/reprint/1/6/449](http://atvb.ahajournals.org/cgi/reprint/1/6/449)

**CHRONIC FATIGUE SYNDROME/ MYALGIC ENCEPHALOMYELITIS**

Myalgic Encephalomyelitis by Anonymous  
(anecdotal – undated)  [http://www.rxmarijuana.com/shared_comments/Myalgic_Encephalomyelitis.htm](http://www.rxmarijuana.com/shared_comments/Myalgic_Encephalomyelitis.htm)

**COLITIS** - also see BOWEL DISORDERS

Ulcerative Colitis and Marijuana  

**COPD/ CHRONIC OBSTRUCTIVE PULMONARY DISEASE**
Heavy Habitual Marijuana Smoking Does Not Cause an Accelerated Decline in FEV with Age

Marijuana. Respiratory tract effects.
(http://www.ncbi.nlm.nih.gov/pubmed/9358987)

Heavy Long-Term Marijuana Use Does Not Impair Lung Function
(http://www.erowid.org/plants/cannabis/cannabis_media7.shtml)

**CP 47,497** - synthetic, CB1 & CB2 agonist

Cannabimimetic activity from CP-47,497, a derivative of 3-phenylcyclohexanol
(http://jpet.aspetjournals.org/content/223/2/516.abstract?maxtoshow=80&RESULTFORMAT=&fulltext=Hexahydrocannabinol&searchid=1&FIRSTINDEX=0&resourcetype=HWCIT)

The Conformational Properties of the Highly Selective Cannabinoid Receptor Ligand CP-55,940
(http://www.jbc.org/content/271/18/10640.full?maxtoshow=80&RESULTFORMAT=&fulltext=Hexahydrocannabinol&searchid=1&FIRSTINDEX=0&resourcetype=HWCIT)

**CP 50,556-1 / LEVONANTRADOL** - synthetic, CB1 & CB2 agonist

Clinical experience with levonantradol hydrochloride in the prevention of cancer chemotherapy-induced nausea and vomiting.
(http://www.ncbi.nlm.nih.gov/pubmed/7298877)

Randomised Clinical Trial of Levonantradol and Chlorpromazine in the Prevention of Radiotherapy-induced Vomiting.
(http://www.ncbi.nlm.nih.gov/pubmed/6754212)

Levonantradol, a new antiemetic with a high rate of side-effects for the prevention of nausea and vomiting in patients receiving cancer chemotherapy.
(http://www.ncbi.nlm.nih.gov/pubmed/7139853)

Respiratory and cardiovascular depressant effects of nabilone, N-methyllevonantradol and delta 9-tetrahydrocannabinol in anesthetized cats.
(http://www.ncbi.nlm.nih.gov/pubmed/7139853)
Levonantradol: a synthetic cannabinoid in the treatment of severe chemotherapy-induced nausea and vomiting resistant to conventional anti-emetic therapy.  

Antiemetic efficacy of levonantradol compared to delta-9-tetrahydrocannabinol for chemotherapy-induced nausea and vomiting.  

Thujone exhibits low affinity for cannabinoid receptors but fails to evoke cannabimimetic responses.  

**CP 55,940** - synthetic, CB1, CB2 & GPR-55 agonist

Molecular cloning of a human cannabinoid receptor which is also expressed in testis  
(full – 1991)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1151556/

Cannabinoid receptor agonists inhibit Ca current in NG108-15 neuroblastoma cells via a pertussis toxin-sensitive mechanism.  
(full - 1992)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1907498/?tool=pmcentrez&page=1

Cross-tolerance between delta-9-tetrahydrocannabinol and the cannabimimetic agents, CP 55,940, WIN 55,212-2 and anandamide.  
(full - 1993)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2175863/?tool=pmcentrez&page=1

 Localization of cannabinoid receptors and nonsaturable high-density cannabinoid binding sites in peripheral tissues of the rat: implications or receptor-mediated immune modulation by cannabinoids.  
(abst – 1993)  

Cannabinoids enhance human B-cell growth at low nanomolar concentrations.  
(full – 1995)  

AM630, a competitive cannabinoid receptor antagonist.  
(abst – 1995)  

The Conformational Properties of the Highly Selective Cannabinoid Receptor Ligand, CP-55940  
(link to PDF - 1996)  
Involvement of Dynorphin B in the Antinociceptive Effects of the Cannabinoid CP55,940 in the Spinal Cord (full - 1997) http://jpet.aspetjournals.org/content/281/2/730.full


Cannabinoid Receptor Agonists Protect Cultured Rat Hippocampal Neurons from Excitotoxicity (full - 1998) http://molpharm.aspetjournals.org/content/54/3/459.full


CROHN’S DISEASE - also see BOWEL DISORDERS


CYSTIC FIBROSIS

**DEPRESSION**

The perceived effects of smoked cannabis on patients with multiple sclerosis.  
(abst - 1997)  

**DERMATITIS**

Allergenic properties of naturally occurring cannabinoids.  
(abst - 1983)  

Hemp Seed Oil : The Wonder Oil For the New Millennium  
(full - 1999)  
http://www.ukcia.org/research/Happi/HempSeedOilTheWonderOilForTheNewMillennium.htm

**DRIVING AND CANNABIS**

Comparison of the Effects of Marijuana and Alcohol on Simulated Driving Performance  
(full - 1969)  
Comparison of the Effects of Marijuana and Alcohol on Simulated ...  

Simulated Flying Performance After Marihuana Intoxication.  
(abst – 1976)  

Marijuana effects on simulated flying ability.  
(abst – 1976)  

Abstracts of several studies  
(absts - 1982 - 1998)  
http://www.ukcia.org/research/medline/8.htm

EFFECTS OF MARIJUANA ON HUMAN REACTION TIME AND MOTOR  
CONTROL  
(abst – 1977)  

Marijuana And Actual Driving Performance  
(full - 1993)  

CANNABIS AND ROAD SAFETY: AN OUTLINE OF THE RESEARCH STUDIES  
TO EXAMINE THE EFFECTS OF CANNABIS ON DRIVING SKILLS AND ON  
ACTUAL DRIVING PERFORMANCE  
(full - c.1995)  
http://www.ukcia.org/research/driving2.htm
**DRUG TESTING**

Chemical and Physiological Identification of Indian Hemp
(has a test for CBD – “Beam’s Reaction”) (full – 1950)

THE SPECTROPHOTOMETRIC DETECTION OF CANNABIS SATIVA RESIN


False negative GC/MS assay for carboxy THC due to ibuprofen interference. (full – 1988) http://jat.oxfordjournals.org/content/12/5/290.long

Legal and ethical aspects of drug testing. (full - 1989) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1807765/?tool=pmcentrez&page=1

maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=1440&resource=HWCIT


**DRUG TESTING - BLOOD**


**DRUG TESTING - HAIR**


Are cannabinoids detected in hair after washing with Cannabio shampoo? (full - 1999) http://jat.oxfordjournals.org/content/23/5/349.long

**DRUG TESTING - FINGERNAILS**

Nail analysis for drugs of abuse: extraction and determination of cannabis in fingernails by RIA and GC-MS. (full – 1999) http://jat.oxfordjournals.org/content/23/3/147.long

**DRUG TESTING - URINE**

Confirmation of the Presence of 11-Hydroxy-r 9-Tetrahydrocannabinol in the Urine of Marijuana Smokers (link to PDF - 1972)
http://ajph.aphapublications.org/cgi/reprint/62/10/1394?
maxtostow=&hits=80&RESULTFORMAT=&fulltext=cannabis&searchid=1&FIRSTINDEX=3760&resou
rcetype=HWCIT

Detection of cannabis products in urine by radioimmunoassay. (full - 1975)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1673774/?tool=pmcentrez&page=1

Homogeneous enzyme immunoassay for cannabinoids in urine. (full - 1978)
http://www.clinchem.org/cgi/reprint/24/1/95

Laboratory verification of “heavy” and “light” users of cannabis (abst - 1981)

Persistence of Urinary Marijuana Levels After Supervised Abstinence. (abst – 1982)

Passive inhalation of marihuana smoke and urinary excretion of cannabinoids (abst - 1983)

Excretion patterns of cannabinoid metabolites after last use in a group of chronic users (full - 1985)
http://www.nature.com/clpt/journal/v38/n5/pdf/clpt1985226a.pdf

Contact highs and urinary cannabinoid excretion after passive exposure to marijuana smoke (abst - 1986)

Passive inhalation of marijuana smoke: urinalysis and room air levels of delta-9-tetrahydrocannabinol. (link to PDF - 1987)
http://jat.oxfordjournals.org/content/11/3/89.long

Cannabinoid intake by passive smoking (abst - 1987)

http://jat.oxfordjournals.org/content/12/4/169.long

False negative GC/MS assay for carboxy THC due to ibuprofen interference. (full – 1988)
http://jat.oxfordjournals.org/content/12/5/290.long

Cross-reactivity of selected compounds in the Abbott TDx cannabinoid assay. (full – 1990)
http://jat.oxfordjournals.org/content/14/5/277.long

SIMPLE WAY TO BEAT URINE TESTS -- JUST DRINK WATER (news – 1990)
http://druglibrary.org/schaffer/MISC/drinkwater.htm

High urinary cannabinoids from a hashish body packer. (full – 1993)
Effect of freezing on the concentration of drugs of abuse in urine. (full - 1993)

Increased detection of marijuana use with a 50 micrograms/L urine screening cutoff. (full - 1994)

Hemp oil ingestion causes positive urine tests for Δ9-tetrahydrocannabinol carboxylic acid (full - 1997)

A procedure to overcome interferences caused by the adulterant "Klear" in the GC-MS analysis of 11-nor-delta9-THC-9-COOH. (full – 1997)

Excretion of Cannabinoids in Urine After Ingestion of Cannabis Seed Oil. (full – 1997)

Marijuana-positive urine test results from consumption of hemp seeds in food products. (full – 1997)

In vivo adulteration: excess fluid ingestion causes false-negative marijuana and cocaine urine test results. (full – 1998)


Adulteration of urine by "Urine Luck". (full – 1999)

Potassium nitrite reaction with 11-nor-delta 9-tetrahydrocannabinol-9-carboxylic acid in urine in relation to the drug screening analysis (abst - 1999)

Concentration of Marijuana Metabolites in the Urine After Ingestion of Hemp Seed Tea. (abst - 1999)

DYSKINESIA

Tetrahydrocannabinol potentiates reserpine-induced hypokinesia. (abst – 1981)
Beneficial and adverse effects of cannabidiol in a Parkinson patient with sinemet-induced dystonic dyskinesia.  (abst - 1985)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=142

The effects of the cannabinoid receptor agonist nabilone on L-DOPA induced dyskinesia in patients with idiopathic Parkinson's disease (PD).  (abst - 1998)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=153

DYSTONIA

Tetrahydrocannabinol potentiates reserpine-induced hypokinesia.  (abst – 1981)

Treatment of Meige's syndrome with cannabidiol.  (abst - 1984)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=114

Open label evaluation of cannabidiol in dystonic movement disorders.  (full - 1986)
http://web.acsalaska.net/~warming/es017.html

Cannabidiol (CBD) in dystonic movement disorders.  (abst - 1986)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=139


Cannabis in movement disorders.  (abst - 1999)

EDEMA

ANTI-EDEMA AND ANALGESIC PROPERTIES OF Δ9-TETRAHYDROCANNABINOL (THC)  (abst - 1973)
http://jpet.aspetjournals.org/content/186/3/646.abstract?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=marihuana&searchid=1&FIRSTINDEX=2160&resourcetype=HWCIT
ENCEPHALOMYELITIS/ EAE - a mouse multiple sclerosis model

Suppression of experimental autoimmune encephalomyelitis by cannabinoids.

ENDOCANNABINOIDS - also see ANANDAMIDE, 2-AG,

Cannabinoids (encyclopedia entry)
http://www.chemie.de/lexikon/e/Cannabinoids/

Phytocannabinoids (news – undated)
http://www.news-medical.net/health/Phytocannabinoids.aspx

Anandamide amidohydrolase reacting with 2-arachidonoylglycerol, another cannabinoid receptor ligand (full – 1997)
http://www.druglibrary.org/crl/receptors/endogenous/Goparahu%20et.al%2098%20AG%20FEBSL.pdf

Brain Chemicals Mimic Marijuana (news - 1997)
http://www.ukcia.org/research/anandami.php

Body's 'cannabis' could hold blood pressure key (news - 1998)
http://www.ukcia.org/research/blood-pressure.php

Cannabis and cannabinoids: pharmacology and rationale for clinical use

UC Irvine Researchers Demonstrate How Marijuana-Like Chemicals Work In The Brain

ENDOCANNABINOID SYSTEM - also see CBRs, ENDOCANNABINOIDS, 2-AG, ANANDAMIDE

Cannabinoids (encyclopedia entry) http://www.chemie.de/lexikon/e/Cannabinoids/

Cannabinoid Receptor Ligands (full - undated)
http://www.tocris.com/pdfs/cannabinoid_receptor_review/page_001.html
Cellular effects of cannabinoids (abst - 1986)
 http://pharmrev.aspetjournals.org/content/38/1/45.abstract?
 maxtoshow=&hits=80&RESULTFORMAT=&fulltext=Hexahydrocannabinol&searchid=1&FIRSTINDEX
 =0&resourcetype=HWCIT

Cannabinoid Receptor Localization in Brain (full - 1990)
 http://www.pnas.org/content/87/5/1932.full.pdf+html?
 maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabis&searchid=1&FIRSTINDEX=3760&resou
rcetype=HWCIT

Molecular cloning of a human cannabinoid receptor which is also expressed in testis

Characterization and Localization of Cannabinoid Receptors in Rat
Brain: A Quantitative in vitro Autoradiographic Study (full – 1991)
 http://www.jneurosci.org/content/11/2/563.long

Loss of cannabinoid receptors in the substantia nigra in Huntington's disease.

Molecular characterization of a peripheral receptor for cannabinoids

Molecular Aspects of Cannabinoid Receptors (abst – 1997)
 http://dl.begellhouse.com/journals/7b004699754c9fe6.0aff6f0a055729f1f.27123f036bd79f8c.html

Brain Chemicals Mimic Marijuana (news - 1997)
 http://www.ukcia.org/research/anandami.php

Changes in cannabinoid receptor binding and mRNA levels in several brain regions of

Interactions between synthetic vanilloids and the endogenous cannabinoid system.

Body's 'cannabis' could hold blood pressure key (news - 1998)
 http://www.ukcia.org/research/blood-pressure.php

Pain modulation by release of the endogenous cannabinoid anandamide
(full - 1999) http://www.pnas.org/content/96/21/12198.full

Anandamide induces overeating: mediation by central cannabinoid (CB1) receptors.

Cannabis and cannabinoids: pharmacology and rationale for clinical use
Finding of the endocannabinoid signalling system in Hydra, a very primitive organism: possible role in the feeding response. (abst – 1999)


Links found between marijuana and vision (news – 1999)

Why your brain is primed for a high (news - 1999)
http://www.mapinc.org/drugnews/v99.n362.a08.html

ENTOURAGE EFFECT- ENDOCANNABINOIDS

An entourage effect: inactive endogenous fatty acid glycerol esters enhance 2-arachidonoyl-glycerol cannabinoid activity. (abst – 1998)

EPILEPSY/ SEIZURES

Marijuana and Epilepsy (anecdotal- undated) http://www.rxmarihuana.com/epilepsy.htm

Cannabidiol and Electroencephalographic Epileptic Activity (abst – 1974)

Anticonvulsant nature of marihuana smoking. (abst - 1975)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=39


Cannabidiol--antiepileptic drug comparisons and interactions in experimentally induced seizures in rats. (full - 1977)
http://jpet.aspetjournals.org/content/201/1/26.abstract?ijkey=8457ace5313942358e64d156c12d04bd3c7d5f21&keytype2=tf_ipsecsha


Chronic administration of cannabidiol to healthy volunteers and epileptic patients. (full - 1980) http://web.acsalaska.net/~warmgun/es201.html


ILLICIT DRUG USE AND THE RISK OF NEW-ONSET SEIZURES (abst – 1990)
http://aje.oxfordjournals.org/content/132/1/47.abstract?sid=9fd403c4-2e6e-4df4-a57c-208434b8ad0a

Marijuana use and the risk of new onset seizures. (full - 1992) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2376682/?tool=pmcentrez

**EXERCISE and the ENDOCANNABINOID SYSTEM**

**FAMILIAL MEDITERRANEAN FEVER**

Pain relief with oral cannabinoids in familial Mediterranean fever.  
(abstract - 1997)  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=18

**FERTILITY/ SEXUAL FUNCTION**

An attitude survey of the effects of marijuana on sexual enjoyment.  
(abstract – 1979)  

Marijuana Effects on the Endocrine and Reproductive Systems  
http://archives.drugabuse.gov/pdf/monographs/44.pdf

Endocrine effects of marijuana in the male: preclinical studies  
(abstract - 1984)  

Acute effects of smoking marijuana on hormones, subjective effects and performance in male human subjects  
(abstract - 1986)  

Tolerance to the luteinizing hormone and prolactin suppressive effects of delta-9-tetrahydrocannabinol develops during chronic prepubertal treatment of female rats.  
(abst - 1986)  
http://jpet.aspetjournals.org/content/238/3/1034.abstract?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabis&searchid=1&FIRSTINDEX=3760&resourcetype=HWCIT

Molecular cloning of a human cannabinoid receptor which is also expressed in testis  
(full – 1991)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1151556/

**FEVER/ TEMPERATURE CONTROL**

The effects of (-)-Δ9-tetrahydrocannabinol on reserpine-induced hypothermia in rats  
(full - 1973)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1776374/?page=1

Tolerance to the hypothermic effects of Δ9-tetrahydrocannabinol as a function of age in the chicken  
(full – 1973)  

Antipyretic, analgesic and anti-inflammatory effects of delta9-tetrahydrocannabinol in the rat.  
(full - 1973)  
http://druglibrary.org/schaffer/hemp/medical/ANTIPYRETIC.html
EVALUATION OF THE HYPOTHERMIC ACTION OF TETRAHYDROCANNABINOLS IN AND SQUIRREL MONKEYS (abst - 1973)
http://jpet.aspetjournals.org/content/187/3/568.abstract?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabis&searchid=1&FIRSTINDEX=2560&resourcetype=HWCIT

Absence of interaction between delta9-tetrahydrocannabinol (delta-THC) and cannabidiol (CBD) in aggression, muscle control and body temperature experiments in mice. (abst – 1975) http://www.ncbi.nlm.nih.gov/pubmed/1171491


Effects of delta 9-tetrahydrocannabinol, 2.4-dinitrophenol and pentolinium tartrate on behavioural thermoregulation in mice. (full – 1979) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2043799/pdf/brjpharm00447-0081.pdf


Marijuana: the ultimate sex drug (news - 1999) http://www.cannabisculture.com/content/1999/11/01/77

GATEWAY THEORY
The Myth of Marijuana's Gateway Effect  (news - undated)
http://www.druglibrary.org/schaffer/library/mjgate.htm

Does Marijuana Lead to Dangerous Drugs?  (article – 1972)
http://cifas.us/analyses/Goode1.html

Marijuana And The Gateway Theory  (full - 1996)
http://www.ukcia.org/research/gateway.php

Cannabis Use- A Gateway to other Drugs? The Case of Amsterdam  (full - 1997)

Cannabis use in Amsterdam.  (link to download – 1998)
Download Cannabis use in Amsterdam

Does cannabis lead to taking other drugs?  (faq - 1998)
http://www.ukcia.org/research/gateway2.php

GENDER-BASED DIFFERENCES

Hemp = Hormonal Balance  (ad/ article - undated)
http://www.nonamenutrition.com/promog/featuredarticle.asp?
storeID=EXMVRHM35QFW8N06361K08OS58P2679H3&ID=402&RedirShopperID=

Women and Cannabis  (download – 1977)
Women and Cannabis: The Jamaican Example

Marijuana use Among Women: an Anthropological View  (download – 1984)
Marijuana use Among Women: an Anthropological View.

Marijuana withdrawal syndrome in a woman.  (abst – 1984)

Concordant alcohol and marihuana use in women.  (abst – 1986)


Alcohol use, marihuana smoking, and sexual activity in women.  (abst – 1988)

Poor and Pregnant: Perinatal Ganja use in Rural Jamaica  (download – 1989)
Poor and Pregnant: Perinatal Ganja use in Rural Jamaica.
Effects of chronic marijuana use on testosterone, luteinizing hormone, follicle stimulating hormone, prolactin and cortisol in men and women. (abst - 1991)

Working Men and Ganja: Marijuana Use in Rural Jamaica (download – 1992)
Working Men and Ganja: Marijuana Use in Rural Jamaica

GYNECOLOGY / FEMALE SEXUAL FUNCTION

Post-Menopausal Hot Flashes by Anonymous (anecdotal – undated)
http://www.rxmarijuana.com/shared_comments/menopause.htm

Hemp = Hormonal Balance (ad/ article - undated)
http://www.nonamenutrition.com/promog/featuredarticle.asp?
storeID=EXMVRHM35QFW8N06361K08Q58P2679H3&ID=402&RedirShopperID=

Marijuana Effects on the Endocrine and Reproductive Systems (full - 1984)
http://archives.drugabuse.gov/pdf/monographs/44.pdf

Marihuana use across the menstrual cycle. (abst – 1986)

Alcohol use, marihuana smoking, and sexual activity in women. (abst – 1988)

SCIENCE WATCH; Marijuana Medication (news – 1993)

Marijuana: the ultimate sex drug (news - 1999)
http://www.cannabisculture.com/content/1999/11/01/77

HEARING

Effect of Marihuana on Hearing. (abst – 1976)

HEART DISEASE/ CARDIOVASCULAR
Cardiovascular and respiratory effects of cannabis in cat and rat (full – 1973)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1776461/

Effects of cannabis roots on the heart. (abst - 1973)

Cardiovascular and respiratory effects of cannabis extracts and 1-tetra-hydrocannabinol (1-THC). (abst - 1973)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1776288/?page=1

Intravenous delta9-Tetrahydrocannabinol: Effects of ventilatory control and cardiovascular dynamics. (link to PDF - 1975)

Combination of delta9-tetrahydrocannabinol with oxymorphone or pentobarbital: Effects on ventilatory control and cardiovascular dynamics. (link to PDF - 1975)

The Effects of Delta-9-Tetrahydrocannabinol (Cannabis) on Cardiac Performance with and without Beta Blockade (full - 1976)

Short-term effects of smoked marihuana on left ventricular function in man (link to PDF - 1977) http://journal.publications.chestnet.org/article.aspx?articleid=1049159


Propranolol Effects on Acute Marihuana Intoxication in Man. (abst – 1977)

The effect of cannabichromene on mean blood pressure, heart rate, and respiration rate responses to tetrahydrocannabinol in the anesthetized rat (abst – 1979)

The cardiovascular and autonomic effects of repeated administration of delta-9-tetrahydrocannabinol to rhesus monkeys. (abst – 1981)

Effects of acute marijuana smoking in post-menopausal women. (abst – 1986)
http://www.ncbi.nlm.nih.gov/pubmed/3094054

The inhibitory effects of cannabinoids, the active constituents of Cannabis sativa L. on human and rabbit platelet aggregation. (abst - 1989)
Effects of tetrahydrocannabinol content on marijuana smoking behavior, subjective reports, and performance. (abst – 1989)

Changes in middle cerebral artery velocity after marijuana smoking. (abst - 1992)

Localization of cannabinoid receptors and nonsaturable high-density cannabinoid binding sites in peripheral tissues of the rat: implications or receptor-mediated immune modulation by cannabinoids. (abst– 1993)


Cannabinoid-Induced Hypotension and Bradycardia in Rats Is Mediated by CB1-Like Cannabinoid Receptors (full - 1997)
http://jpet.aspetjournals.org/content/281/3/1030.full?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=320&resourcetype=HWCIT

Cannabinoid-induced mesenteric vasodilation through an endothelial site distinct from CB1 or CB2 receptors. (full – 1999)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC24203/

HEMORRHAGIC SHOCK


HEMP

YEARBOOK OF THE UNITED STATES DEPARTMENT OF AGRICULTURE--1913, pages 283-346. (exerpt – 1913)
http://www.naihe.org/hemp_information/content/1913.html
http://www.gutenberg.org/files/17855/17855-h/17855-h.htm

New Billion Dollar Crop  (news – 1938)
http://www.hempfarm.org/BillionDollarCrop.html

New Billion Dollar Crop- Popular Mechanics  (in original on page 239) (news – 1938)
https://books.google.com/books?id=e9sDAAAAMBAJ&printsec=frontcover&dq=popular+mechanics+the+new+billion+dollar+crop&hl=en&sa=X&ved=0CB0Q6AEwAGoVChMI3qOk3cHqxwIVBiqlCh19XAHE#v=onepage&q=billion%20dollar&f=false

Isolation of Cannabinol, Cannabidiol and Quebrachitol from Red Oil of Minnesota Wild Hemp  (1st page – 1940)
http://pubs.acs.org/doi/abs/10.1021/ja01865a080

Biochemical Changes Involved in the Decomposition of Hemp Bark by Pure Cultures of Fungi  (full – 1945)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC374185/

Byssinosis, chronic bronchitis, and ventilatory capacities in workers exposed to soft hemp dust.  (full – 1968)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1008770/

Respiratory mechanics and dust exposure in byssinosis.  (full – 1970)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC322449/

NEW FOSSIL EVIDENCE FOR THE PAST CULTIVATION AND PROCESSING OF HEMP (CANNABIS SATIVA L.) IN EASTERN ENGLAND  (full – 1981)

Marijuana, Cannabis sativa L: Moraceae, Cannaboideae.  (full – 1983)

HEMP AS A CROP FOR MISSOURI FARMERS  (full – 1991)
http://www.naihc.org/hemp_information/content/millerhemp.html

Male and female plant selection in the cultivation of hemp, and variations in fossil Cannabis pollen representation  (link to download - 1992)
http://journals.sagepub.com/doi/abs/10.1177/095968369200200111

Commercial Hemp Cultivation in Canada "An Economic Justification"  (full – 1995)
http://www.naihc.org/hemp_information/content/dmarcustx.html

Hemp seed oil: A source of valuable essential fatty acids  (full – 1996)
http://hempfood.com/IHA/iha03101.html

Alternative Agricultural Strategies in Vermont: The Case of Industrial Hemp
Essential oil of Cannabis sativa L. strains
http://www.internationalhempassociation.org/jiha/jiha4208.html

Cannabis Hemp: The Invisible Prohibition Revealed.
Download File

Hemp Oil Fuels & How to Make Them

Industrial Hemp as an Alternative Crop in North Dakota

Economic Impact of Industrial Hemp in Kentucky

Hemp and Marijuana: Myths & Realities
http://www.naihc.org/hemp_information/content/hemp.mj.html

Factors influencing the yield and the quality of hemp (Cannabis sativa L.) essential oil
http://www.druglibrary.org/olsen/hemp/iha/jiha5107.html

Feasibility of Industrial Hemp Production in the United States Pacific Northwest
https://catalog.extension.oregonstate.edu/sb681

Have I got brews for you... Hemp beer's here to stay.
http://www.thefreelibrary.com/Have+I+got+brews+for+you...+Hemp+beer%27s+here+to+stay.-a060746769

Hemp "Eats" Chernobyl Waste, Offers Hope For Hanford

Agronomic characteristics of some hemp genotypes
http://www.druglibrary.org/olsen/hemp/iha/jiha6201.html

The nutritive value of hemp meal for ruminants
http://www.nrcresearchpress.com/doi/abs/10.4141/A98-031#.V2uEiKJA44C

A history of the Royal Grain
http://www.cannabisculture.com/content/1999/01/01/1425
HERPES VIRUS

The Effect of {Delta}-9-Tetrahydrocannabinol on Herpes Simplex Virus Replication
(link to PDF - 1980) http://vir.sgmjournals.org/cgi/content/abstract/49/2/427


HICCUPS

Hiccups by Ben (anecdotal – undated)
http://rxmarijuana.com/shared_comments/hiccups.htm

Marijuana For Intractable Hiccups (abst - 1998)
http://cannabislink.ca/medical/hiccups.html

Marijuana cures hiccups (news - 1998)
http://www.yourhealthbase.com/database/a77k.htm

THE “HIGH”

On Being Stoned: A Psychological Study of Marijuana Intoxication (book - 1971)
http://www.druglibrary.org/special/tart/tartcont.htm

Effects of Chronic Smoking of Cannabis in Jamaica (download – 1972)

Getting High: Ganja Man and his Socio-Economic Milieu (download – 1976)

Opprobrium and Presecution: Hashish Users in Urban Greece (download – 1982)

The effects of marijuana on human physical aggression. (abst – 1985)
http://psycnet.apa.org/index.cfm?fa=buy.optionToBuy&id=1986-11321-001

Delta-9-tetrahydrocannabinol content and human marijuana self-administration


Marijuana smoking: effect of varying delta 9-tetrahydrocannabinol content and number of puffs. (abst - 1992) http://jpet.aspetjournals.org/content/261/1/114.abstract?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=marihuana&searchid=1&FIRSTINDEX=480&resourcetype=HWCIT


Effects of delta 9-THC on marijuana smoking, dose choice, and verbal report of drug liking. (full - 1994) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1334408/?tool=pubmed


Cannabis use in Amsterdam. (link to PDF – 1998) Download Cannabis use in Amsterdam

HISTORICAL STUDIES - PRE 1937

Observations on the raising and dressing of hemp (1789)
As text- http://memory.loc.gov/cgi-bin/query/r?ammem/faw:@field%28DOCID+icufawcbe0010%29

Observations on the raising and dressing of hemp (1789)
Original format- http://memory.loc.gov/cgi-bin/ampage?collId=icufaw&fileName=cbe0010/icufawcbe0010.db&recNum=0&itemLink=D?

ON THE PREPARATIONS OF THE INDIAN HEMP, OR GUNJAH (1839)
http://www.druglibrary.org/schaffer/history/e1850/gunjah.htm

DISPENSATORY OF THE UNITED STATES OF AMERICA Fifth Edition (1843)
http://www.druglibrary.org/schaffer/hemp/history/dispensa.htm

On the Preparations of the Indian Hemp, or gunjah* Cannabis Indica Their Effects on the Animal System in Health, and their Utility in the Treatment of Tetanus and other Convulsive Diseases (1843) http://www.druglibrary.org/schaffer/history/e1850/gunjah.htm


Observations on the Cannabis Indica, or Indian Hemp (1843) http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=2490354&tool=pmcentrez

On Traumatic Tetanus and Its Treatment, with Some Remarks on the Extract of Cannabis Indica of Commerce (1845) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2558904

Case of Traumatic Tetanus — Exhibition of the Extract of Indian Hemp (Cannabis Indica)—Death—Autopsy (1845) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2558623

A Case of Dysmenorrhoea in Which the Tincture of Cannabis Indica Was Employed, with Some Observations upon That Drug (1847) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2487155/
On the Haschisch or Cannabis Indica          (1857)
http://www.druglibrary.org/schaffer/hemp/history/bellhash.htm

On the Action of Cannabis Indica                 (1883)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2372454/

Cannabis Indica                                  (1883)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2372636/?tool=pmcentrez&page=1

Physical, Mental, and Moral Effects of Marijuana: The Indian Hemp Drugs Commission Report     (1894)
http://www.druglibrary.org/schaffer/Library/effects.htm

Indian Hemp Drugs Commission Report  CHAPTER IX  SOCIAL AND RELIGIOUS CUSTOMS.       (1894)
http://cifas.us/analyses/IndianCommChapIX.html

A Practical treatise on nervous exhaustion(neurasthenia) aka Chronic Fatigue Syndrome (link to download – 1894)
https://archive.org/details/apracticaltreat03beargoog

Cannabis Sativa Seu Indica: Indian Hemp                                      (1895)

Cannabis Indica (U. S. P.)—Indian Cannabis. King's American Dispensatory,     (1898)
http://www.henriettesherbal.com/eclectic/kings/cannabis.html

Cannabis Indica Poisoning                                    (1899)
http://www.druglibrary.org/schaffer/hemp/history/oday.htm

Two cases of Poisoning by Cannabis Indica                          (1900)
http://www.druglibrary.org/schaffer/history/foulis.htm

ON INDICATIONS OF THE HACHISH-VICE IN THE OLD TESTAMENT  
(1903)
http://www.druglibrary.org/schaffer/hemp/history/hashot.htm

A British Study of Cannabis      (Circa 1910)     http://www.ukcia.org/research/red-eye.php

YEARBOOK OF THE UNITED STATES DEPARTMENT OF AGRICULTURE--1913,  
pages 283-346.       (exerpt – 1913)       http://www.naihc.org/hemp_information/content/1913.html

The Physiological Activity of Cannabis Sativa                                 (1913)
http://www.druglibrary.org/schaffer/hemp/history/japa.htm

Narcotic Control in the State of Washington                  (full – forum repost - 1923)  

http://www.druglibrary.org/schaffer/hemp/history/vbchmed1.htm
Effects of Alcohol and Cannabis during Labor. (full - forum repost - 1930)

MARIAJUANA SMOKING IN PANAMA (1933)
http://www.druglibrary.org/schaffer/Library/studies/panama/panama1.htm

The British Pharmaceutical Codex (1934)
http://www.druglibrary.org/schaffer/hemp/medical/brit34.htm

MARIHUANA INTOXICATION (abst - 1934)

TIME FACTOR IN UTILIZATION OF MINERAL NUTRIENTS BY HEMP
by Sister Mary Etienne Tibeau (1936)

American Medical Association Opposes the Marijuana Tax Act of 1937 (1937)
http://www.marijuanalibrary.org/AMA_opposes_1937.html

HISTORY - ANCIENT USE

Ancient Psychoactive Incense and Preparations (news- undated)

Ayurvedic Herbs – Cannabis (article – undated)
http://www.indianmirror.com/ayurveda/cannabis.html

Spiritual Use Of Cannabis (article – undated)
http://www.sparcsf.org/learning-center/spiritual-use-canabis

HEMP AS A MEDICAMENT : History of the medicinal use of hemp (full - 1955)
http://www.bushka.cz/KabelikEN/history.html

The Use of the Cannabis Drugs in India (full – 1957)

Marijuana: social benefit or social detriment? (full – 1967)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1502716/?page=1

A case for cannabis? (full – 1967)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1842152/?page=1

Historical Note—Hashish and Alcohol “Scenes” in France and Great Britain 120 Years Ago (1st page – 1969)
Pharmacy in medieval Islam and the history of drug addiction. (full - 1972)  

EARLY DIFFUSION AND FOLK USES OF HEMP (full – 1975)  
http://khem-caigan.livejournal.com/3259.html

Sociocultural and Epidemiological Aspects of Hashish Use in Greece (1st page – 1975)  
https://www.degruyter.com/abstract/books/9783110812060/9783110812060.303/9783110812060.303.xml

The Religious and Medicinal Uses of Cannabis in China, India and Tibet (full - 1981)  

NEW FOSSIL EVIDENCE FOR THE PAST CULTIVATION AND PROCESSING OF HEMP (CANNABIS SATIVA L.) IN EASTERN ENGLAND (full – 1981)  

Hashish in Islam 9th to 18th century. (full - 1982)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1805385/?tool=pmcentrez&page=1

Marijuana, Cannabis sativa L: Moraceae, Cannaboideae. (full – 1983)  

Hashish and drug abuse in Egypt during the 19th and 20th centuries. (full - 1985)  

Thandai and chilam: traditional Hindu beliefs about the proper uses of Cannabis. (abst – 1985)  

Male and female plant selection in the cultivation of hemp, and variations in fossil Cannabis pollen representation (link to download - 1992)  
http://journals.sagepub.com/doi/abs/10.1177/095968369200200111

SCIENCE WATCH; Marijuana Medication (news – 1993)  

Ganja in Jamaica (editorial – 1996)  
http://www.cedro-uva.org/lib/boekhout.ganja.en.html

Drugs in Prehistory: Chemical Analysis of Ancient Human Hair.  
(link to download – 1998)  

Marijuana and the Bible (article – 1988)  
https://www.erowid.org/plants/cannabis/cannabis_spirit2.shtml
HISTORY - 1937 to present

VICTOR LICATA: A RUSH TO JUDGEMENT  
http://reefermadnessmuseum.org/VictorLicata/Chap00_Index.htm

THE LEGEND OF THE HOT TAMALE PEDDLER: What the Newspapers were saying:  

Marijuana smoking in Panama  
http://cifas.us/analyses/Panama.html

The active principles of Cannabis indica resin. I.  

THE RELATIVE ACTIVITY OF VARIOUS PURIFIED PRODUCTS OBTAINED FROM AMERICAN GROWN HASHISH  
http://jpet.aspetjournals.org/content/62/2/239.abstract?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabis&searchid=1&FIRSTINDEX=640&resourcetype=HWCIT

New Billion Dollar Crop  
http://www.hempfarm.org/BillionDollarCrop.html

Marihuana: America's New Drug Problem  

The Active Principles of Cannabis and the Pharmacology of the Cannabinols  
http://www.ukcia.org/research/TherapeuticPotentialMedicalUses.php

The La Guardia Committee Report  
http://www.druglibrary.org/schaffer/Library/studies/lag/lagmenu.htm

The Marihuana Problem  
PERSONALITY STUDIES OF MARIHUANA ADDICTS (1945)
http://www.pep-web.org/document.php?id=paq.017.0131c

MARIHUANA, AN INTOXICANT (abst - 1945)

MARIHUANA AND AGGRESSIVE CRIME (abst - 1946)

Absolute Beginners (1950s use) (article - undated)
http://www.ukcia.org/potculture/50/beginner.html

Marijuana in medicine: past, present and future. (full - 1969)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1503422/?tool=pmcentrez

Marijuana, the New Prohibition (link to PDF – 1970)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1501862/

The marijuana problem. (full – 1971)

Survey of adolescent drug use. I. Sex and grade distribution. (full – 1971)

The Marihuana Tax Act of 1937 (full - 1971)
http://www.druglibrary.org/schaffer/hemp/taxact/mjtaxact.htm

The Report of the National Commission on Marihuana and Drug Abuse
Marihuana: A Signal of Misunderstanding (full – 1972)
http://www.druglibrary.org/schaffer/library/studies/nc/ncmenu.htm

Decriminalization, demythologizing, desymbolizing and deemphasizing marijuana. (full – 1972)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1530369/pdf/amipph00730-0113.pdf

Effects of Chronic Smoking of Cannabis in Jamaica (download – 1972)
Effects of Chronic Smoking of Cannabis in Jamaica

Untoward effects of drug education. (full – 1973)


Sociocultural and Epidemiological Aspects of Hashish Use in Greece (1st page – 1975)
https://www.degruyter.com/abstract/books/9783110812060/9783110812060.303/9783110812060.303.xml

Paraquat and marijuana: epidemiologic risk assessment. (full - 1978)
Detection and analysis of paraquat in confiscated marijuana samples. (abst – 1978)  

Reefer Madness -- The Federal Response to California's Medical-Marijuana Law  
(article- 1997)  
http://www.drugsense.org/tfy/nejm0897.htm

MARIJUANA RESCHEDULING PETITION RULING- JUDGE FRANCIS L. YOUNG  
(full – 1988)  
http://www.druglibrary.org/SCHAFFER/Library/studies/YOUNG/index.html

Physicians' attitudes toward the legalization of marijuana use. (full – 1989)  

Economics of Legalization (full – 1994)  
http://norml.org/component/zoo/category/economics-of-cannabis-legalization

A Comparative Appraisal of the Health and Psychological Consequences of Alcohol, Cannabis, Nicotine and Opiate Use (full – 1995)  
http://www.druglibrary.org/SCHAFFER/hemp/general/who-index.htm

To Prescribe Or Not To Prescribe? (news – 1996)  
http://www.time.com/time/nation/article/0,8599,0,00.html

Workshop on the Medical Utility of Marijuana (full - 1997)  
http://www.sky.org/data/laaketiede/MedicalMJ.html

Cannabis Hemp: The Invisible Prohibition Revealed. (link to PDF – 1997)  
Download File

Green Light for Pot? (news – 1997)  
http://www.time.com/time/nation/article/0,8599,0,00.html

Cannabis as medicine: time for the phoenix to rise? (full – 1998)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1112898/?tool=pubmed

Hemp and Marijuana:Myths & Realities (full – 1998)  
http://www.naihc.org/hemp_information/content/hemp.mj.html

Cannabis use in Amsterdam. (link to PDF – 1998)  
Download Cannabis use in Amsterdam

Marcus Garvey and the Early Rastafarians: Continuity and Discontinuity (article – 1998)  
http://cifas.us/analyses/Garvey&Rasta.html

http://www.ukcia.org/research/ekdf.pdf

MARIJUANA AND MEDICINE: ASSESSING THE SCIENCE BASE
Canada OKs Medical Marijuana

Marijuana Gets Research Nod

Medical Marijuana Wins Support

HIV / AIDS

Recent clinical experience with dronabinol.
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=90

Dronabinol stimulates appetite and causes weight gain in HIV patients.
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=20

Dronabinol effects on weight in patients with HIV infection.
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=45

Effect of dronabinol on nutritional status in HIV infection.
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=150

Dronabinol as a treatment for anorexia associated with weight loss in patients with AIDS.
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=21

Editorial: Federal Foolishness and Marijuana

HORMONES

Hemp = Hormonal Balance (ad/ article - undated)
http://www.nonamenutrition.com/promog/featuredarticle.asp?
storeID=EXMVRHM35QFW8N06361K08Q58P2679H3&ID=402&RedirShopperID=

Effects of Chronic Smoking of Cannabis in Jamaica (download – 1972)

Reduction by Δ9-tetrahydrocannabinol in the blood pressure of hypertensive rats bearing regenerated adrenal glands (full – 1973)

Gynecomastia and cannabis smoking: A nonassociation among US Army soldiers

Effects of chronic marihuana use on integrated plasma testosterone and luteinizing
hormone levels. (abst - 1978)
http://jpet.aspetjournals.org/content/207/2/611.abstract?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabis&searchid=1&FIRSTINDEX=2560&resourcetype=HWCIT

Delta9-tetrahydrocannabinol increase plasma testosterone concentrations in mice
(abst - 1981) http://www.sciencemag.org/cgi/content/abstract/213/4507/581?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=1600&resourcetype=HWCIT

Marijuana: interaction with the estrogen receptor (abst - 1983)
http://jpet.aspetjournals.org/cgi/content/abstract/224/2/404

Marijuana Effects on the Endocrine and Reproductive Systems (full - 1984)
http://archives.drugabuse.gov/pdf/monographs/44.pdf

Acute Effects of Natural and Synthetic Cannabis Compounds on Prolactin Levels in

Acute effects of marihuana smoking on prolactin levels in human females. (abst - 1985)
http://jpet.aspetjournals.org/content/232/1/220.abstract?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=marihuana&searchid=1&FIRSTINDEX=0&resourcetype=HWCIT

Acute effects of marihuana on luteinizing hormone in menopausal women.

Marijuana use does not spuriously elevate serum human chorionic gonadotropin levels.

Effects of Tetrahydrocannabinol on Melatonin Secretion in Man.

Tolerance to the luteinizing hormone and prolactin suppressive effects of delta-9- tetrahydrocannabinol develops during chronic prepubertal treatment of female rats.
Marihuana use across the menstrual cycle.  

Effects of chronic marijuana use on testosterone, luteinizing hormone, follicle stimulating hormone, prolactin and cortisol in men and women.  

**HU-210** - synthetic, CB 1 & CB 2 agonist

Cannabinoid-induced mesenteric vasodilation through an endothelial site distinct from CB1 or CB2 receptors.  
( full – 1999)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC24203/

Learning impairment produced in rats by the cannabinoid agonist HU 210 in a water-maze task.  
( abst – 1999)  

**HU-211 / DEXANABINOL / ETS-2101** - synthetic, CB 2 agonist

A nonpsychotropic cannabinoid, HU-211, has cerebroprotective effects after closed head injury in the rat.  
( abst – 1993)  

HU-211, a Novel Noncompetitive N-Methyl-D-Aspartate Antagonist, Improves Neurological Deficit and Reduces Infarct Volume After Reversible Focal Cerebral Ischemia in the Rat  
( full - 1995)  
http://stroke.ahajournals.org/cgi/content/full/26/12/2313

45Ca accumulation in rat brain after closed head injury; attenuation by the novel neuroprotective agent HU-211.  
( abst – 1995)  

Development of HU-211 as a neuroprotectant for ischemic brain damage.  
( abst – 1995)  

A novel nonpsychotropic cannabinoid, HU-211, in the treatment of experimental pneumococcal meningitis.  
( full - 1996)  
http://jid.oxfordjournals.org/content/173/3/735.long

HU-211, a nonpsychotropic cannabinoid, produces short- and long-term neuroprotection after optic nerve axotomy.  
( abst – 1996)  

Protection Against Septic Shock and Suppression of Tumor Necrosis Factor α and Nitric Oxide Production by Dexanabinol (HU-211), a Nonpsychotropic Cannabinoid
Cytokine production in the brain following closed head injury: dexanabinol (HU-211) is a novel TNF-alpha inhibitor and an effective neuroprotectant. (abst – 1997)  

Dexanabinol; a novel neuroprotective drug in experimental focal cerebral ischemia. (abst – 1999)  

**HU-308** - synthetic, CB2 agonist

HU-308: a specific agonist for CB(2), a peripheral cannabinoid receptor. (full - 1999)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC24419/?tool=pubmed

**HUMAN ENDOCANNABINOID SYSTEM GENETICS**

Cannabinoid receptor genes. (abst – 1996)  

A frequent polymorphism in the coding exon of the human cannabinoid receptor (CNR1) gene. (abst – 1999)  

**HUNTINGTON'S DISEASE**

Tetrahydrocannabinol potentiates reserpine-induced hypokinesia. (abst – 1981)  

EFFECTS OF CANNABIDIOL IN HUNTINGTON'S DISEASE (abst - 1986)  
http://www.druglibrary.org/schaffer/hemp/medical/hunting1.htm

Controlled clinical trial of cannabidiol in Huntington's disease. (abst – 1991)  

Loss of cannabinoid receptors in the substantia nigra in Huntington's disease. (abst – 1993)  

Cannabis in movement disorders. (abst - 1999)  
**HYSTERECTOMY**

Effect of nabilone on nausea and vomiting after total abdominal hysterectomy  
(abst - 1994)  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=137

**IBUPROFEN** – slows the breakdown of your body’s anandamide (which is what eases your pain)

Ibuprofen inhibits rat brain deamidation of anandamide at pharmacologically relevant concentrations. Mode of inhibition and structure-activity relationship.  
(full – 1997)  
http://jpet.aspetjournals.org/content/283/2/729.long

Ibuprofen inhibits the metabolism of the endogenous cannabimimetic agent anandamide.  
(abst – 1997)  

Inhibition of anandamide hydrolysis by the enantiomers of ibuprofen, ketorolac, and flurbiprofen.  
(abst – 1999)  

**IMMUNE SYSTEM**

Localization of cannabinoid receptors and nonsaturable high-density cannabinoid binding sites in peripheral tissues of the rat: implications or receptor-mediated immune modulation by cannabinoids.  
(abst– 1993)  

Cannabinoids enhance human B-cell growth at low nanomolar concentrations.  
(full – 1995)  

Cannabinoid receptors and immunity.  
(abst – 1998)  
http://www.cell.com/immunology/abstract/S0167-5699(98)01300-0

Presence and functional regulation of cannabinoid receptors in immune cells.  
(abst – 1999)  
INDICATIONS AND CLINICAL USES

HEMP AS A MEDICAMENT: Survey of clinical experiences (full - 1955)
http://www.bushka.cz/KabelikEN/survey.html

Cannabis as a Medicine? (link to download - 1995)
http://bja.oxfordjournals.org/cgi/reprint/74/4/359?
maxtoshow=&hits=80&RESULTFORMAT=1&andorexacttitle=and&andorexacttitleabs=and&fulltext=cannabinoid&andorexactfulltext=and&searchid=1&FIRSTINDEX=0&sortspec=relevance&resourcetype=HW

Medicinal Applications of Delta-9-Tetrahydrocannabinol and Marijuana (abst - 1997)

Hemp and Health (book - 1999)  http://www.rexresearch.com/hhusb/hmphlth.htm#hhl2s

INTERACTIONS WITH OTHER DRUGS

INTERACTIONS OF Δ1-TETRAHYDROCANNABINOL WITH BARBITURATES AND METHAMPHETAMINE (abst - 1970)
http://jpet.aspetjournals.org/content/173/1/94.abstract?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabis&searchid=1&FIRSTINDEX=2560&resourcetype=HWCIT

Effect of cannabis and certain of its constituents on pentobarbitone sleeping time and phenazone metabolism (full - 1972)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1666020/

Proceedings: Effects of chronic and acute cannabis treatment upon thiopentone anaesthesia in rabbits. (full - 1972)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1666093/?tool=pubmed

Cardiovascular and respiratory effects of cannabis extracts and 1-tetra-hydrocannabinol (1-THC). (abst - 1973)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1776288/?page=1

Interaction of cannabis and general anaesthetic agents in mice (full - 1974)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1776719/?tool=pmcentrez

Cannabidiol interferes with the effects of Δ9-tetrahydrocannabinol in man (abst – 1974)

Combination of delta9-tetrahydrocannabinol with oxymorphone or pentobarbital: Effects on ventilatory control and cardiovascular dynamics. (link to PDF - 1975)

The analgesic properties of delta-9-tetrahydrocannabinol and codeine. (abst - 1975)  http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=17


The Effects of Delta-9-Tetrahydrocannabinol (Cannabis) on Cardiac Performance with and without Beta Blockade (full - 1976)  http://circ.ahajournals.org/cgi/reprint/53/4/703?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=marihuana&searchid=1&FIRSTINDEX=2080&res
ourcetype=HWCIT


Cannabidiol--antiepileptic drug comparisons and interactions in experimentally induced seizures in rats. (full - 1977)  http://jpet.aspetjournals.org/content/201/1/26.abstract?
ijkey=8457ace5313942358e64d156c12d04bd3c7d5f21&keytype2=tf_ipsecsha


Effects of drugs on behavior in pigeons tolerant to delta 9-tetrahydrocannabinol. (abst - 1980)  http://jpet.aspetjournals.org/content/212/1/85.abstract?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabis&searchid=1&FIRSTINDEX=3760&resou
rcetype=HWCIT.


ANALGESIC INTERACTION BETWEEN NITROUS OXIDE AND DELTA-9-TETRAHYDROCANNABINOL IN THE RAT (link to PDF - 1983)  http://bja.oxfordjournals.org/content/55/10/997.abstract


Respiratory effects of cocaine "freebasing" among habitual users of marijuana with or without tobacco. (link to PDF - 1987) http://journal.publications.chestnet.org/article.aspx?articleid=1060521&resultClick=1


Anandamide and delta 9-THC dilation of cerebral arterioles is blocked by indomethacin (abst - 1995) http://ajpheart.physiology.org/cgi/content/abstract/269/6/H1859?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=2320&resourcetype=HWCIT


Case report: adverse effects of taking tricyclic antidepressants and smoking marijuana. (full - 1999) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2328650/

IQ/ MEMORY/ COGNITIVE EFFECTS

Marihuana and Memory: Acquisition or Retrieval? (abst - 1971) http://www.sciencemag.org/cgi/content/abstract/173/4001/1038?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=marihuana&searchid=1&FIRSTINDEX=0&resourcetype=HWCIT

Neuropsychological effects of marijuana (full - 1973)

Marihuana Use and Psychosocial Adaptation (abst - 1974)
http://archpsyc.ama-assn.org/cgi/content/abstract/31/5/713?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=marihuana&searchid=1&FIRSTINDEX=0&resourcetype=HWCIT

Operant acquisition of marihuana in man. (abst - 1976)

Cognition and Long-Term Use of Ganja (Cannabis) (full - 1981)
http://www.druglibrary.org/schaffer/hemp/medical/cognition.htm

Effects of tetrahydrocannabinol content on marijuana smoking behavior, subjective reports, and performance. (abst – 1989)

Operant acquisition of marihuana by women. (abst - 1985)

Flashback Following Use of Cannabis--a Review (abst – 1991)

THREE THINGS MARIJUANA DOESN'T DO (news - 1992)
http://www.ukcia.org/research/mjfaq2.php


Cerebellar activity and disturbed time sense after THC. (abst - 1998)

Cannabis use and cognitive decline in persons under 65 years of age (full - 1999)
http://www.ukcia.org/research/CannabisUseAndCognitiveDecline.html

SR141716A Antagonizes the disruptive effects of cannabinoid ligands on learning in rats. (full– 1999)
http://jpet.aspetjournals.org/content/282/3/1526.long

Learning impairment produced in rats by the cannabinoid agonist HU 210 in a water-maze task. (abst – 1999)

Enhancement of Memory in Cannabinoid Cb1 Receptor Knock-out Mice. (abst – 1999)

Behavioral Effects of Cannabinoid Agents in Animals. (abst – 1999)
https://www.ncbi.nlm.nih.gov/pubmed/28134612
**KNOCK-OUT MICE** – examples of severely defective endocannabinoid systems.

Increased Mortality, Hypoactivity, and Hypoalgesia in Cannabinoid Cb1 Receptor Knockout Mice.  
(full – 1999)  
[http://www.pnas.org/content/96/10/5780.long](http://www.pnas.org/content/96/10/5780.long)

Enhancement of Memory in Cannabinoid Cb1 Receptor Knock-out Mice.  
(abst – 1999)  

**LIVER/ LIVER DISEASE - NON HEPATITIS** - also see HEPATITIS

HEMP AS A MEDICAMENT : Importance of hemp seeds in the tuberculosis therapy  
(Forum thread - full - 1955)  
(EDEZYME recipe)  

Localization of cannabinoid receptors and nonsaturable high-density cannabinoid binding sites in peripheral tissues of the rat: implications or receptor-mediated immune modulation by cannabinoids.  
(abst – 1993)  

**LONG TERM/ HEAVY USE EFFECTS**

Investigations of Very Heavy, Very Long-Term Cannabis Users  
(article – 1972)  
[http://cifas.us/analyses/VeryHeavyUsers.html](http://cifas.us/analyses/VeryHeavyUsers.html)

Effects of Chronic Smoking of Cannabis in Jamaica  
(download – 1972)  
[http://jamanetwork.com/journals/jama/fullarticle/352027](http://jamanetwork.com/journals/jama/fullarticle/352027)

Ganja in Jamaica: The Effects of Marijuana Use.  
(book exerpts - 1976)  
[http://csp.org/chrestomathy/ganja_in.html](http://csp.org/chrestomathy/ganja_in.html)

Physical assessment of 30 chronic cannabis users and 30 matched controls.  
(1st page – 1976)  

Computed tomographic examination of heavy marijuana smokers.  
(link to download – 1977)  
[http://jamanetwork.com/journals/jama/fullarticle/352027](http://jamanetwork.com/journals/jama/fullarticle/352027)


**LUNG FUNCTION**


Effects of Chronic Smoking of Cannabis in Jamaica (download – 1972)

Cardiovascular and respiratory effects of cannabis in cat and rat (full – 1973) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1776461/

Cardiovascular and respiratory effects of cannabis extracts and 1-tetra-hydrocannabinol (1-THC). (abst - 1973) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1776288/?page=1


Combination of delta9-tetrahydrocannabinol with oxymorphone or pentobarbital: Effects on ventilatory control and cardiovascular dynamics. (link to PDF - 1975)

Bronchodilator effect of delta1-tetrahydrocannabinol. (full - 1978) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1429361/


Respiratory effects of cocaine "freebasing" among habitual users of marijuana with or without tobacco. (link to PDF - 1987) http://journal.publications.chestnet.org/article.aspx?articleid=1060521&resultClick=1


Health care use by frequent marijuana smokers who do not smoke tobacco. (full - 1993) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1311782/

**LUPUS**


**MALE SEXUAL FUNCTION**


Marijuana: the ultimate sex drug (news - 1999) http://www.cannabisculture.com/content/1999/11/01/77
**MARINOL/ DRONABINOL** - a synthetic THC

Cannabinoids (encyclopedia entry) [http://www.chemie.de/lexikon/e/Cannabinoids/](http://www.chemie.de/lexikon/e/Cannabinoids/)

Cannabis, Coca, & Poppy: Nature’s Addictive Plants - Cannabis (article – undated) [http://www.deamuseum.org/ccp/cannabis/history.html](http://www.deamuseum.org/ccp/cannabis/history.html)

CANNABIS AND MARINOL IN THE TREATMENT OF MIGRAINE HEADACHE (abst - undated) [http://www.druglibrary.net/schaffer/hemp/migrn2.htm](http://www.druglibrary.net/schaffer/hemp/migrn2.htm)


Chronic Migraine Headache: five cases successfully treated with Marinol and/or illicit cannabis. (abst - 1991) [http://www.druglibrary.org/schaffer/hemp/migrn1.htm](http://www.druglibrary.org/schaffer/hemp/migrn1.htm)


Schedules of controlled substances: rescheduling of the Food and Drug Administration approved product containing synthetic dronabinol [(-) - [DELTA] less than 9 greater than
- (trans)-tetrahydrocannabinol] in sesame oil and encapsulated in soft gelatin capsules from schedule II to schedule III. Department of Justice (DOJ), Drug Enforcement Administration (DEA). Final rule.  

MCCUNE-ALBRIGHT SYNDROME


MEDICAL MARIJUANA - NEWS

Outline for a Marijuana Medical Handbook - Tod Mikuriya  (undated)  
http://www.ukcia.org/medical/marijuanamedicalhandbook.php

The Use of the Cannabis Drugs in India  (full – 1957)  

Women and Cannabis  (download – 1977)  
Women and Cannabis: The Jamaican Example

http://www.gacareproject.com/flash-back-how-georgia-legalized-medical-marijuana/

ON FURTHER RECONSIDERATION by Lester Grinspoon M.D.  (article – 1994)  
http://rxmarijuana.com/FURTHER_RECONSIDERATION.htm

Ganja in Jamaica  (editorial – 1996)  
http://www.cedro-uva.org/lib/boekhout.ganja.en.html

Club Medicine  (news – 1996)  
http://www.ukcia.org/medical/clubmedicine.php

Drug Dealing in the Doctor's Office, or Who's the Criminal, Who's the Victim?  (article – 1997)  


Reefer Madness -- The Federal Response to California's Medical-Marijuana Law
MEDICAL MARIJUANA – STUDIES

The physiological activity of cannabis sativa. Comparison of extracts from indian and American-grown drug upon human subjects (full – 1913)
http://www.lycaeum.org/~sputnik/Ludlow/Texts/japa.html

Marijuana in medicine: past, present and future. (full – 1969)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1503422/

Effects of Chronic Smoking of Cannabis in Jamaica (download – 1972)
Effects of Chronic Smoking of Cannabis in Jamaica

Cannabis and Work in Jamaica: A Refutation of the Amotivational Syndrome (download – 1976)
"Cannabis and Work in Jamaica: A Refutation of the Amotivational Syndrome."

Evaluation of the Use of Both Marijuana and THC in Cancer Patients for the Relief of Nausea and Vomiting Associated With Cancer Chemotherapy After Failure of Conventional Anti-Emetic Therapy: Efficacy and Toxicity (full – 1983)

Marijuana use Among Women: an Anthropological View (download – 1984)
Marijuana use Among Women: an Anthropological View

Poor and Pregnant: Perinatal Ganja use in Rural Jamaica
(download – 1989)

Some physical characteristics of NIDA marijuana cigarettes.
(abst – 1989)

Working Men and Ganja: Marijuana Use in Rural Jamaica
(download – 1992)

The Medicinal Use of Marijuana
(full – 1993)
http://www.ukcia.org/medical/medicinaluseofmarijuana.php

Marihuana as Medicine: A Plea for Reconsideration
(full – 1995)
http://www.ukcia.org/research/grinspoo.php

DRUG USE AND HUMAN RIGHTS: PRIVACY, VULNERABILITY, DISABILITY,
AND HUMAN RIGHTS INFRINGEMENTS
(article – 1996)
http://cifas.us/analyses/Gilmore1.html

Ganja in Jamaica
(editorial – 1996)
http://www.cedro-uva.org/lib/boekhout.ganja.en.html

The therapeutic potential of cannabis and cannabinoids for multiple sclerosis and spinal
injury
(full – 1997)
http://www.druglibrary.net/olsen/HEMP/IHA/jiha4101.html

Reefer Madness -- The Federal Response to California's Medical-Marijuana Law
(article - 1997)
http://www.drugsense.org/tfy/nejm0897.htm

Marinol vs. Marijuana: Politics, Science, and Popular Culture
(article – 1997)

Editorial: Federal Foolishness and Marijuana
(editorial – 1997)
http://www.marijuanalibrary.org/NEJM_Foolishness_013097.html

Schedules of controlled substances: rescheduling of the Food and Drug Administration
approved product containing synthetic dronabinol [(-) - [DELTA] less than 9 greater than
- (trans)-tetrahydrocannabinol] in sesame oil and encapsulated in soft gelatin capsules
from schedule II to schedule III. Department of Justice (DOJ), Drug Enforcement
Administration (DEA). Final rule.
(full – 1999)

The Relationship between Research and Drug Policy in the United States
(article – 1999)
http://cifas.us/analyses/laniel.html
MEIGE'S SYNDROME

Treatment of Meige's syndrome with cannabidiol. (abst - 1984)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=114

Open label evaluation of cannabidiol in dystonic movement disorders. (full - 1986)
http://web.acsalaska.net/~warmgun/es017.html

MENINGITIS

http://jid.oxfordjournals.org/content/173/3/735.long

MENOPAUSE - also see AGING, GYNOCOLOGY

Post-Menopausal Hot Flashes by Anonymous (anecdotal – undated)
http://www.rxmarijuana.com/shared_comments/menopause.htm

Acute effects of marihuana on luteinizing hormone in menopausal women. (abst – 1985)

Effects of acute marijuana smoking in post-menopausal women. (abst – 1986)
http://www.ncbi.nlm.nih.gov/pubmed/3094054

METHODS OF USE – CAPSULES

Herbal Intoxication: Psychoactive Effects From Herbal Cigarettes, Tea, and Capsules (abst - 1976)

METHODS OF USE – EDIBLES – General use
Marijuana-Laced Brownies: Behavioral Effects, Physiologic Effects, and Urinalysis in Humans Following Ingestion
http://jat.oxfordjournals.org/content/12/4/169.long


**METHODS- EDIBLES- BEVERAGES**


Effects of Chronic Smoking of Cannabis in Jamaica  (download – 1972)
Effects of Chronic Smoking of Cannabis in Jamaica

Herbal Intoxication: Psychoactive Effects From Herbal Cigarettes, Tea, and Capsules  


Concentration of Marijuana Metabolites in the Urine After Ingestion of Hemp Seed Tea.  

**METHODS – EDIBLES - FOODS**


Recipes from "Onlinepot"  (undated)  http://www.onlinepot.org/recipes.htm

Hemp Seed Recipes  (collection- undated)  http://manitobaharvest.com/recipes.html

METHODS OF USE - INJECTION-  DO NOT TRY!

Collapse after intravenous injection of hashish.  (full - 1968)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1986226/?tool=pmcentrez&page=1

Effect of Intravenous Injection of Marihuana  (abst - 1969)
http://jama.ama-assn.org/cgi/content/abstract/210/4/724?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=marihuana&searchid=1&FIRSTINDEX=3840&resourcetype=HWT

Intravenous delta9-Tetrahydrocannabinol: Effects of ventilatory control and cardiovascular dynamics.  (link to PDF - 1975)

The toxicity of intravenously used marihuana.  (abst - 1975)

Emotional response to intravenous delta9tetrahydrocannabinol during oral surgery.  (abst – 1976)
http://www.ncbi.nlm.nih.gov/pubmed/1062533

Adverse Effects of Intravenous Cannabis Tea  (full - 1977)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2536936/

Plasma delta-9-tetrahydrocannabinol concentrations and clinical effects after oral and intravenous administration and smoking  (abst - 1980)

Intravenous marijuana syndrome.  (full - 1986)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1306836/?tool=pmcentrez&page=1

METHODS OF USE – SECOND-HAND SMOKE

Passive inhalation of marijuana smoke: urinalysis and room air levels of delta-9-
tetrahydrocannabinol.  (link to PDF - 1987)
http://jat.oxfordjournals.org/content/11/3/89.long

Cannabinoid intake by passive smoking  (abst - 1987)
METHODS OF USE - SMOKING - also see SMOKED CANNABIS AS MEDICINE

Tokepure (news – undated) http://ukcia.org/activism/tokepure.php

How to Smoke Cannabis (news – undated) http://ukcia.org/culture/smoking.php

Rolling a Joint - Basic joint rolling tips (article – undated) http://www.weedfarmer.com/joint_rolling/rolling/rolling.htm

Smoking Cannabis (news - undated) http://www.ukcia.org/culture/smoking.php#knife


{delta}9-Trans-tetrahydrocannabinol and Natural Marihuana (abst - 1973) http://archpsyc.ama-assn.org/cgi/content/abstract/28/2/278?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=marihuana&searchid=1&FIRSTINDEX=0&resourcetype=HWCIT

Effects of Marihuana on Man: Committee on Drugs (full - 1975) http://pediatrics.aappublications.org/cgi/reprint/56/1/134?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=marihuana&searchid=1&FIRSTINDEX=0&resourcetype=HWCIT


Computed tomographic examination of heavy marijuana smokers. (link to download – 1977) http://jamanetwork.com/journals/jama/fullarticle/352027


Marijuana smoking: effect of varying delta 9-tetrahydrocannabinol content and number of puffs. (abst - 1992)
Characterization of the absorption phase of marijuana smoking. (abst – 1992)

Effects of water filtration on marijuana smoke: a literature review (full - 1993)
http://www.ukcia.org/research/EffectsOfWaterFiltrationOnMarijuanaSmoke.php

Effects of delta 9-THC on marijuana smoking, dose choice, and verbal report of drug liking. (full - 1994) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1334408/?tool=pubm


Effects of Varying Marijuana Potency on Deposition of Tar and D9-THC in the Lung During Smoking (full - 1997)

**METHODS OF USE – SUPPOSITORIES / RECTAL USE**


US Patent 5508037 - Stable suppository formulations effecting bioavailability of Δ9-THC  
(full - 1996)  

The effect of orally and rectally administered delta-9-tetrahydrocannabinol on spasticity: a pilot study with 2 patients.  
(abst - 1996)  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=12

METHODS OF USE - TINCTURES

Tinctures - by Dr. Jay R. Cavanaugh, Ph.D.  
(undated)  
http://www.letfreedomgrow.com/recipes/tincture.htm

Cooking With Cannabis  
(news – undated)  
http://ukcia.org/culture/eat.php

Extractum Cannabis Indicae (U. S. P.)—Extract of Indian Cannabis.  
(1898)  
http://www.henriettesherbal.com/eclectic/kings/cannabis-indi_extr.html

Extractum Cannabis Indicae Fluidum (U. S. P.)—Fluid Extract of Indian Cannabis.  
(1898)  

Tinctura Cannabis Indicae (U. S. P.)—Tincture of Indian Cannabis.  
(1898)  

METHODS OF USE - VAPORIZERS

ACCESSING 0.5 to 2.0 GRAMS CBD FRACTIONATING THE PHYTOCANNABINOIDS BY THEIR VAPORIZATION POINTS  
(article – forum repost - undated)  

How to Smoke Cannabis  
(news – undated)  
http://ukcia.org/culture/smoking.php

Vaporizers for medical marijuana.  
(abst – 1999)  
METHODS OF USE - VARIOUS

Tokepure (news – undated) http://ukcia.org/activism/tokepure.php


Effects of Chronic Smoking of Cannabis in Jamaica (download – 1972)
Effects of Chronic Smoking of Cannabis in Jamaica


MIGRAINE/ HEADACHE

CANNABIS AND MARINOL IN THE TREATMENT OF MIGRAINE HEADACHE (abst - undated) http://www.druglibrary.net/schaffer/hemp/migrn2.htm

An Overdose of Hasheesh (1884) http://www.popsci.com/archive-viewer?id=vCoDAAAAMBAJ&pg=509

Cannabinoids block release of serotonin from platelets induced by plasma from migraine patients (full - 1985) http://www.druglibrary.org/schaffer/hemp/medical/cannabin1.htm

Chronic Migraine Headache: five cases successfully treated with Marinol and/or illicit cannabis. (abst - 1991) http://www.druglibrary.org/schaffer/hemp/migrn1.htm


MISCELLANEOUS STUFF
VICTOR LICATA : A RUSH TO JUDGEMENT (ebook – undated)
http://reefermadnessmuseum.org/VictorLICata/Chap00_Index.htm

THE LEGEND OF THE HOT TAMALE PEDDLER: What the Newspapers were saying: (news – undated)

http://www.gutenberg.org/files/17855/17855-h/17855-h.htm

New Billion Dollar Crop (news – 1938)
http://www.hempfarm.org/BillionDollarCrop.html

New Billion Dollar Crop- Popular Mechanics (in original on page 239) (news – 1938)
https://books.google.com/books?id=e9sDAAAAMBAJ&printsec=frontcover&dq=popular+mechanics+the+new+billion+dollar+crop&hl=en&sa=X&ved=0CB0Q6AEwAGoVChMI3qOk3cHpxv1VBiqICf19XAHE#v=onepage&q=billion%20dollar&f=false

Problems of modern hemp breeding, with particular reference to the breeding of varieties of hemp containing little or no hashish (full – 1956)

The Use of the Cannabis Drugs in India (full – 1957)

Suppressive Effects of 2-thiouracil on Differentiation and Flowering in Cannabis Sativa. (abst – 1960)


Mr. X by Carl Sagan (article - 1969) http://marijuana-uses.com/mr-x/

Marijuana, the New Prohibition (link to PDF – 1970)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1501862/

Marijuana and Mutism (abst - 1972)
http://ajp.psychiatryonline.org/doi/abs/10.1176/ajp.129.4.475

Cannabinoid Profile and Elemental Uptake of Cannabis sativa L. as Influenced by Soil Characteristics (full - 1975)

Kif in Morocco. (abst – 1975)

Physical assessment of 30 chronic cannabis users and 30 matched controls.
A note on the cannabinoid content of Jamaican ganja. (abst – 1976)

http://csp.org/chrestomathy/ganja_in.html

Marijuana - The First Twelve Thousand Years (book – 1980)
http://www.druglibrary.org/Schaffer/hemp/history/first12000/abel.htm

Sequential appearance of cannabinoids during seedling development (full – 1980)
https://www.realhemp.com/marihuana-84/

Ingestion of Hashish Oil-filled Condoms. (abst – 1980)

Bias and the cannabis researcher. (abst – 1981)

Structure, development and composition of glandular trichomes of Cannabis (link to PDF – 1984)

Illicit traffic and abuse of cannabis in Canada (full – 1985)

The effects of marijuana on human physical aggression. (abst – 1985)
http://psycnet.apa.org/index.cfm?fa=buy.optionToBuy&id=1986-11321-001

Barba Jacob and the history of marihuana (abst – 1986)

Retrieving impacted cannabis resin with ear drops. (full - 1987)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1492799/?tool=pubmed

UV-B radiation effects on photosynthesis, growth and cannabinoid production of two Cannabis sativa chemotypes (link to download – 1987)
DOWNLOAD PDF VERSION

The Business of Drug Dealing in Milwaukee (download – 1988)
The business of drug dealing in Milwaukee.

Nature in the Rastafarian Consciousness (news – 1989)

Stability of Cannabinoids in Dried Samples of Cannabis Dating from Around 1896-1905. (abst – 1990)
The Intangible Rewards from Crime: The Case of Domestic Marijuana Cultivation (link to download - 1991)
http://cad.sagepub.com/content/37/4/506.abstract?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=marihuana&searchid=1&FIRSTINDEX=1840&res
ourcetype=HWCIT

Flashback Following Use of Cannabis--a Review (abst – 1991)

http://www.tandfonline.com/doi/abs/10.3109/10826089109058909

http://www.drugpolicy.org/docUploads/model.pdf

Economics of Legalization (full – 1994)
http://norml.org/component/zoo/category/economics-of-cannabis-legalization

ON FURTHER RECONSIDERATION by Lester Grinspoon M.D. (article – 1994)
http://rxmarijuana.com/FURTHER_RECONSIDERATION.htm

Preference for High- Versus Low-potency Marijuana. (abst – 1994)

Economics of Cannabis Legalization (article – 1993)
http://cifas.us/analyses/gieringer.html

Ganja in Jamaica (editorial – 1996)
http://www.cedro-uva.org/lib/boekhout.ganja.en.html

Imunochemical localization of tetrahydrocannabinol (THC) in cryofixed glandular trichomes of Cannabis (Cannabaceae) (full – 1997)
http://www.amjbot.org/content/84/3/336.full.pdf+html

Cannabis Hemp: The Invisible Prohibition Revealed. (link to PDF – 1997)
Download File

Kaneh Bosm: Cannabis in the Old Testament (article – 1997)
http://www.cannabisculture.com/content/1996/05/01/1090

Hemp Oil Fuels & How to Make Them (article – 1997)

Feasibility of Industrial Hemp Production in the United States Pacific Northwest (link to PDF – 1998)
https://catalog.extension.oregonstate.edu/sb681

Drugs in Prehistory: Chemical Analysis of Ancient Human Hair.
(link to download – 1998)

Providing medical marijuana: the importance of cannabis clubs. (abst – 1998)

Have I got brews for you... Hemp beer's here to stay. (news – 1998)
http://www.thefreelibrary.com/Have+I+got+brews+for+you...+Hemp+beer%27s+here+to+stay.-a060746769

Schedules of controlled substances: rescheduling of the Food and Drug Administration approved product containing synthetic dronabinol [(-) - [DELTA] less than 9 greater than -(trans)-tetrahydrocannabinol] in sesame oil and encapsulated in soft gelatin capsules from schedule II to schedule III. Department of Justice (DOJ), Drug Enforcement Administration (DEA). Final rule. (full – 1999)

A Critical Look at the D.A.R.E. Program and Effective Youth Programs (3 articles - 1999)
https://web.stanford.edu/class/e297c/poverty_prejudice/ganginterv/criticallook.htm

Thujone exhibits low affinity for cannabinoid receptors but fails to evoke cannabimimetic responses. (abst – 1999)

Project DARE: no effects at 10-year follow-up. (abst – 1999)

Canada OKs Medical Marijuana (news – 1999)

Marijuana Gets Research Nod (news – 1999)

A history of the Royal Grain (news - 1999)
http://www.cannabisculture.com/content/1999/01/01/1425

Marijuana: the ultimate sex drug (news - 1999)
http://www.cannabisculture.com/content/1999/11/01/77

MORTALITY RATES

Annual Causes of Death in America (news - undated)
INTERACTIONS OF Δ1-TETRAHYDROCANNABINOL WITH BARBITURATES AND METHAMPHETAMINE (abst - 1970)
http://jpet.aspetjournals.org/content/173/1/94.abstract?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabis&searchid=1&FIRSTINDEX=2560&resourceType=HWCIT

The Report of the National Commission on Marihuana and Drug Abuse
Acute Effects of Marihuana (full – 1972)
http://www.druglibrary.org/schaffer/library/studies/nc/nc1e.htm

Spectrophotometric evaluation of carboxyhemoglobin in blood of mice after exposure to marijuana or tobacco smoke in a modified Walton horizontal smoke exposure machine. (full - 1987) http://jat.oxfordjournals.org/content/11/1/19.long

Known drug-related deaths in the UK, 1990 (list - 1990)


Mortality Within the First 2 Years in Infants Exposed to Cocaine, Opiate, or Cannabinoid During Gestation (abst - 1997)
http://pediatrics.aappublications.org/cgi/content/abstract/100/1/79?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=640&resourceType=HWCIT

Regular Marijuana Users Have No Higher Rates of Mortality, Long-Term Study Concludes (news – 1997)

MRSA/ METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS

HEMP AS A MEDICAMENT : Methods and results of the bacteriological experiments (full - 1955) http://www.bushka.cz/KabelikEN/methods.html

Antibacterial preparation from hemp (Cannabis sativa) (abst - 1958)
http://chemport.cas.org/cgi-bin/sdcgi?
APP=fblink&action=reflink&origin=ACS&version=1.0&coi=1%3ACAS%3A528%3ADyaG1cXpvVGiuGiw
%253D%253D&md5=36fcaab5e61432cf5f852c26eb9bba3ed1

Hemp (Cannabis sativa)-an antibiotic drug. II. Methods and results of bacteriological investigations and preliminary clinical experiences (abst - 1958)
MULTIPLE SCLEROSIS/ MS

The use of cannabinoids in MS: is it evidence based? (abst - undated)
http://www.ukcia.org/research/UseOfCannabinoidsInMSEvidenceBased.pdf

Marihuana as a therapeutic agent for muscle spasm or spasticity (abst - 1980)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=53

Tetrahydrocannabinol for tremor in multiple sclerosis. (abst - 1983)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=9

Delta-9-THC in the treatment of spasticity associated with retinopathy. (abst - 1987)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=1

Effect of cannabinoids on spasticity and ataxia in multiple sclerosis. (abst - 1989)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=2

http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=11

The effect of orally and rectally administered delta-9-tetrahydrocannabinol on spasticity: a pilot study with 2 patients. (abst - 1996)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=12


The perceived effects of smoked cannabis on patients with multiple sclerosis. (abst - 1997)

Cannabis and cannabinoids: pharmacology and rationale for clinical use (abst – 1999)

Analgesic effect of the cannabinoid analogue nabilone is not mediated by opioid receptors. (abst - 1999)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=203
MUSCULAR DYSTROPHY/ MD

Muscular dystrophy in mice after chronic subcutaneous treatment with cannabinoids.
(abst - 1977)
http://www.unboundmedicine.com/medline/ebm/record/903049/abstract/Muscular_dystrophy_in_mice_afte
r_chronic_subcutaneous_treatment_with_cannabinoids

NABILONE / CESAMET - a synthetic THC, CB 1 & CB 2 agonist

GENERIC NAME: NABILONE - ORAL (NAB-ih-lone)
Brand Names : Cesamet       (monograph - undated)
http://www.medicinenet.com/nabilone-oral/article.htm

Microbiological transformations of nabilone, a synthetic cannabinoid.       (full - 1979)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC243333/?tool=pmcentrez&page=1

Superiority of nabilone over prochlorperazine as an antiemetic in patients receiving
cancer chemotherapy.       (abst - 1979)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=126

Double-blind comparison of the antiemetic effects of nabilone and prochlorperazine on
chemotherapy-induced emesis.       (abst - 1980)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=131

The efficacy and safety of nabilone (a synthetic cannabinoid) in the treatment of anxiety
(abst - 1981)
http://www.ncbi.nlm.nih.gov/pubmed/6117575

A double-blind, controlled trial of nabilone vs. prochlorperazine for refractory emesis
induced by cancer chemotherapy.       (abst - 1982)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=146

A multi-institutional Phase III study of nabilone vs. placebo in chemotherapy-induced
nausea and vomiting.       (abst - 1982)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=156

Anti-emetic efficacy and toxicity of nabilone, a synthetic cannabinoid, in lung cancer
chemotherapy.       (full - 1983)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2011510/?tool=pmcentrez&page=1

Comparison of bronchial effects of nabilone and terbutaline in healthy and asthmatic
subjects.       (abst - 1983)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=43

Respiratory and cardiovascular depressant effects of nabilone, N-methyllevonantradol
and delta 9-tetrahydrocannabinol in anesthetized cats.       (abst - 1983)

A cross-over comparison of nabilone and prochlorperazine for emesis induced by cancer chemotherapy. (abst - 1985) http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=128


Effect of nabilone on nausea and vomiting (letter - 1995)
http://bja.oxfordjournals.org/cgi/reprint/74/1/111
maxtoshow=&hits=80&RESULTFORMAT=1&andorexacttitle=and&andorexacttitleabs=and&fulltext=can
nabinoid&andorexactfulltext=and&searchid=1&FIRSTINDEX=0&sortspec=relevance&resourcetype=HW
CIT

http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=11

The therapeutic potential of cannabis and cannabinoids for multiple sclerosis and spinal

The effects of the cannabinoid receptor agonist nabilone on L-DOPA induced dyskinesia
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=153

Analgesic effect of the cannabinoid analogue nabilone is not mediated by opioid

Cannabis and cannabinoids: pharmacology and rationale for clinical use (abst – 1999)

NAUSEA - also see RADIATION-INDUCED NAUSEA

Antiemetic effect of delta-9-tetrahydrocannabinol in patients receiving cancer

Delta-9-Tetrahydrocannibinol as an Antiemetic in Cancer Patients Receiving High-Dose
Methotrexate (full - 1979) http://www.ukcia.org/research/AntiemeticForMethotrexate.php

Delta-9-tetrahydrocannabinol (THC) as an antiemetic in patients treated with cancer
chemotherapy; a double-blind cross-over trial against placebo (abst - 1979)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=27

Amelioration of cancer chemotherapy-induced nausea and vomiting by delta-9-

Superiority of nabilone over prochlorperazine as an antiemetic in patients receiving


Comparative trial of the antiemetic effects of THC and haloperidol (abst - 1981) http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=64


Evaluation of the Use of Both Marijuana and THC in Cancer Patients for the Relief of Nausea and Vomiting Associated With Cancer Chemotherapy After Failure of Conventional Anti-Emetic Therapy: Efficacy and Toxicity (full – 1983)

Anti-emetic efficacy and toxicity of nabilone, a synthetic cannabinoid, in lung cancer chemotherapy. (full - 1983)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2011510/?tool=pmcentrez&page=1

Levonantradol: a synthetic cannabinoid in the treatment of severe chemotherapy-induced nausea and vomiting resistant to conventional anti-emetic therapy. (abst – 1983)


THC or Compazine for the cancer chemotherapy patient--the UCLA study. Part II: Patient drug preference. (abst - 1985)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=34

A cross-over comparison of nabilone and prochlorperazine for emesis induced by cancer chemotherapy. (abst - 1985)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=128

Antiemetic efficacy of levonantradol compared to delta-9-tetrahydrocannabinol for chemotherapy-induced nausea and vomiting. (abst – 1985)

Nabilone and metoclopramide in the treatment of nausea and vomiting due to cisplatinum: a double blind study. (abst - 1986)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=121

Nabilone: an alternative antiemetic for cancer chemotherapy. (abst - 1986)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=123

Crossover comparison of the antiemetic efficacy of nabilone and alizapride in patients with nonseminomatous testicular cancer receiving cisplatin therapy. (abst - 1986)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=127

Prospective randomized double-blind trial of nabilone versus domperidone in the treatment of cytotoxic-induced emesis. (abst - 1986)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=129

http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=120
A double-blind randomised cross-over comparison of nabilone and metoclopramide in the control of radiation-induced nausea. (abst - 1987)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=130

Oral vs. Inhaled Cannabinoids for Nausea/Vomiting from Cancer Chemotherapy (full - 1988)
http://www.druglibrary.org/schaffer/hemp/medical/pierson.html

Efficacy of tetrahydrocannabinol in patients refractory to standard anti-emetic therapy (abst - 1988)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=31

A randomized trial of oral nabilone and prochlorperazine compared to intravenous metoclopramide and dexamethasone in the treatment of nausea and vomiting induced by chemotherapy regimens containing cisplatin or cisplatin analogues. (abst – 1988)

Poor and Pregnant: Perinatal Ganja use in Rural Jamaica (download – 1989)

Marijuana as antiemetic medicine : A Survey of Oncologists' Experiences and Attitudes (full - 1991)

Effect of nabilone on nausea and vomiting after total abdominal hysterectomy. (abst - 1994)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=137

Effect of nabilone on nausea and vomiting (letter - 1995)
http://bja.oxfordjournals.org/cgi/reprint/74/1/111?
maxtoshow=&hits=80&RESULTFORMAT=1&andorexacttitle=and&andorexacttitleabs=and&fulltext=cannabinoid&andorexactfulltext=and&searchid=1&FIRSTINDEX=0&sortspec=relevance&resourcetype=HW
CIT

An efficient new cannabinoid antiemetic in pediatric oncology. (abst - 1995)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=7

Intractable nausea and vomiting due to gastrointestinal mucosal metastases relieved by tetrahydrocannabinol (dronabinol). (full - 1997)
http://www.jpsmjournal.com/article/S0885-3924%2897%2900229-7/pdf

http://www.google.com/patents/US5605928

NEURONS/ BRAIN CELLS

Cannabinoid Receptor Localization in Brain (full - 1990)
Formation and inactivation of endogenous cannabinoid anandamide in central neurons. (letter – 1994) [http://www.nature.com/nature/journal/v372/n6507/abs/372686a0.html]

Anandamide amidohydrolase activity in rat brain microsomes. Identification and partial characterization. (full – 1995) [http://www.jbc.org/content/270/11/6030.long]


Cannabinoid Receptor Agonists Protect Cultured Rat Hippocampal Neurons from Excitotoxicity (full - 1998) [http://molpharm.aspetjournals.org/content/54/3/459.full]


**NEUROPATHIC PAIN**


NEUROPROTECTANT

Marijuana Protects Your Brain (news - undated) http://www.roninpub.com/art-mjbrain.html

The use of cannabinoids in MS: is it evidence based? (abst - undated) http://www.ukcia.org/research/UseOfCannabinoidsInMSEvidenceBased.pdf


Cannabidiol and delta 9THC are neuroprotective antioxidants (full - 1998) http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=20965&tool=pmcentrez


Cannabinoid Antioxidant Protects Brain Cells -- Without the High (news – 1998) http://hempworld.com/HempPharm/articles/medicalm05.html

Cannabinoids and Neuroprotection in Global and Focal Cerebral Ischemia and in Neuronal Cultures (full - 1999) http://www.jneurosci.org/cgi/content/full/19/8/2987?maxtoshow=&hits=10&RESULTFORMAT=&fulltext=cannabis&andorexactfulltext=and&searchid=1&FIRSTINDEX=50&sortspec=relevance&resourcetype=HWCIT


NIEMANN-PICK DISEASE

NUTRITION – GENERAL - also see OMEGA3/ CB 1 CONNECTION, METHODS OF USE- EDIBLES

Hemp and Flax Seeds and Oil in Modern Nutrition: An Overview
(article – undated) http://www.industrialhemp.net/pdf/Leson.HempAndFlax.pdf

The Effect of Marijuana on Carbohydrate Metabolism. (abst – 1976)

NUTRITION – HEMP SEED

HEMP AS A MEDICAMENT: Importance of hemp seeds in the tuberculosis therapy
(Forum thread – full - 1955) (EDEZYME. recipe)
http://www.bushka.cz/KabelikEN/hempseed.html


Hempseed: Nature's Perfect Food? (news - 1992)
http://www.marijuanalibrary.org/HT_Hempseed_0492.html

Marijuana-positive urine test results from consumption of hemp seeds in food products.
(full – 1997) http://jat.oxfordjournals.org/content/21/6/476.long


Hemp Foods and THC Levels: A Scientific Assessment 1 (full - 1999)
http://www.hempfood.com/thclimits1.html

Hemp Foods and THC Levels: A Scientific Assessment 2 (full - 1999)
http://www.hempfood.com/thclimits2a.html

Hemp and Health (book excerpt - 1999)
http://www.rexresearch.com/hhusb/hmphlth.htm#hhl3

The nutritive value of hemp meal for ruminants (link to PDF – 1999)
http://www.nrcresearchpress.com/doi/abs/10.4141/A98-031#.V2uEiKJA44C

A history of the Royal Grain (news - 1999)
NUTRITION – HEMP SEED OIL - also see Omega 3/ CB1 CONNECTION

Hemp & GLA: Good Fat Burns Bad Fat  (news - forum repost- undated)

Therapeutic Hemp Oil  (news - 1993)
http://www.ukcia.org/research/TerapeuticHempOil.php

Hemp seed oil: A source of valuable essential fatty acids  (full - 1996)
http://www.hempfood.com/IHA/iha03101.html

Occurrence of "omega-3" stearidonic acid in hemp seed  (full - 1996)
http://www.hempfood.com/IHA/iha03208.html

Guide to Hemp Seed Oil  (article - 1998?)

Hemp Seed Oil : The Wonder Oil For the New Millennium  (full - 1999)
http://www.ukcia.org/research/Happi/HempSeedOilTheWonderOilForTheNewMillennium.htm

Hemp and Health  (book excerpt - 1999)
http://www.rexresearch.com/hhusb/hmphlth.htm#hhl4

OBESITY

Hemp & GLA: Good Fat Burns Bad Fat  (news - forum repost- undated)

Inhalation of tobacco and marijuana in dog over a period of 30 months: effect on body weight, food intake and organ weight.  (abst – 1976)

Effects of smoked marijuana on food intake and body weight of humans living in a residential laboratory.  (abst - 1988)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=117
**OMEGA-3/ CB1 CONNECTION** - without Omega 3, new CB1 receptors are made imperfectly-
also see NUTRITION – HEMP SEED OIL, CBR- CB1 receptors

Omega-3 and Omega-6 Essential fatty Acids (EFA) (infomercial/ad – undated)

Occurrence of "omega-3" stearidonic acid in hemp seed (full - 1996)
http://www.hempfood.com/IHA/iha03208.html

Recent advances in the biology of n-6 fatty acids (abst – 1997)
http://www.nutritionjrnl.com/article/S0899-9007%2897%2900341-9/abstract

**OMEGA-6**

Recent advances in the biology of n-6 fatty acids (abst – 1997)
http://www.nutritionjrnl.com/article/S0899-9007%2897%2900341-9/abstract

**ORGAN TRANSPLANTS**

Fatal aspergillosis associated with smoking contaminated marijuana, in a marrow transplant recipient. (link to PDF - 1988)

Successfully treated invasive pulmonary aspergillosis associated with smoking marijuana in a renal transplant recipient. (abst - 1996)

**OVERDOSES on CANNABINOIDS** *Natural cannabinoid overdoses are NEVER fatal. Overdoses on SYNTHETIC cannabinoids CAN be fatal.  - also see CANNABINOID HYPEREMESIS*

An Overdose of Hasheesh (1884)
http://www.popsci.com/archive-viewer?id=vCoDAAAAMBAJ&pg=509

Cannabis Indica Poisoning (1899) http://www.druglibrary.org/schaffer/hemp/history/oday.htm

Two cases of Poisoning by Cannabis Indica (1900)
http://www.druglibrary.org/schaffer/history/foulis.htm
Collapse after intravenous injection of hashish. (full - 1968) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1986226/?tool=pmcentrez&page=1


OVERVIEWS


PAIN


The analgesic properties of delta-9-tetrahydrocannabinol and codeine. (abst - 1975) http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=17


ANALGESIC INTERACTION BETWEEN NITROUS OXIDE AND DELTA-9-TETRAHYDROCANNABINOL IN THE RAT (link to PDF - 1983) http://bja.oxfordjournals.org/content/55/10/997.abstract
ANALGESIC AND ANTIINFLAMMATORY ACTIVITY OF CONSTITUENTS OF CANNABIS SATIVA L.  (full - 1988)  [108x695]
http://www.ukcia.org/research/AnalgesicAndAntiInflammatoryActivityofConstituents.html

The effect of orally and rectally administered delta-9-tetrahydrocannabinol on spasticity: a pilot study with 2 patients.  (abst - 1996)  [108x681]
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=12

The therapeutic potential of cannabis and cannabinoids for multiple sclerosis and spinal injury  (full – 1997)  [108x628]
http://www.druglibrary.net/olsen/HEMP/IHA/jiha4101.html

The perceived effects of smoked cannabis on patients with multiple sclerosis.  (abst - 1997)  [108x616]

Pain relief with oral cannabinoids in familial Mediterranean fever  (abst - 1997)  [108x589]
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=18

Hypoactivity of the Spinal Cannabinoid System Results in NMDA-Dependent Hyperalgesia  (full – 1998)  [108x453]
http://www.jneurosci.org/content/18/1/451.long

Doped skin  (news – forum repost - 1998)  [108x426]

Brain Releases Marijuana-Like Substance In Response To Pain, Study Finds  (news - 1999)  [108x283]
http://www.sciencedaily.com/releases/1999/10/991013074947.htm

PARKINSON'S DISEASE

Tetrahydrocannabinol potentiates reserpine-induced hypokinesia.  (abst – 1981)  [108x172]

Beneficial and adverse effects of cannabidiol in a Parkinson patient with sinemet-induced dystonic dyskinesia.  (abst - 1985)  [108x161]
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=142

Open label evaluation of cannabidiol in dystonic movement disorders.  (full - 1986)
The effects of the cannabinoid receptor agonist nabilone on L-DOPA induced dyskinesia in patients with idiopathic Parkinson's disease (PD).

Cannabis in movement disorders.

Why your brain is primed for a high

PATENTS RELATED TO CANNABIS

US Patent 4189491 - Tetrahydrocannabinol in a method of treating glaucoma

Patent 4315862 - Process for preparing cannabichromene

Patent 4758597 Cannabidiol and derivatives


US Patent 5389375 - Stable suppository formulations effecting bioavailability of Δ9-THC

US Patent 5508037 - Stable suppository formulations effecting bioavailability of Δ9-THC

Patent 5605928 - Antiemetic compositions
Patent 5631297 - Anandamides useful for the treatment of intraocular hypertension, ophthalmic compositions containing the same and methods of use of the same (full – 1997)  
http://www.freepatentsonline.com/5631297.html


**PEA – PALMITOYLETHANOLAMIDE** - endocannabinoid, CB 2, GPR55 & GPR119 agonist

Mast cells express a peripheral cannabinoid receptor with differential sensitivity to anandamide and palmitoylethanolamide. (full – 1995)  
http://www.pnas.org/content/92/8/3376.full.pdf+html

The endogenous cannabinoid anandamide is a lipid messenger activating cell growth via a cannabinoid receptor-independent pathway in hematopoietic cell lines. (full – 1998)  

The palmitoylethanolamide and oleamide enigmas: are these two fatty acid amides cannabimimetic? (abst – 1999)  

**PHYTOCANNABINOIDS/ PLANT EXTRACTS** - also see THC, CBD

Phytocannabinoids (news – undated)  
http://www.news-medical.net/health/Phytocannabinoids.aspx

ACCESSING 0.5 to 2.0 GRAMS CBD FRACTIONATING THE PHYTOCANNABINOIDS BY THEIR VAPORIZATION POINTS (article – forum repost - undated)  

Cannabinoids (encyclopedia entry)  
http://www.chemie.de/lexikon/e/Cannabinoids/

Cannabis Indica (U. S. P.)—Indian Cannabis. King's American Dispensatory (1898)  
http://www.henriettesherbal.com/eclectic/kings/cannabis.html

The physiological activity of cannabis sativa. Comparison of extracts from indian and American-grown drug upon human subjects (full – 1913)  
http://www.lycaeum.org/~sputnik/Ludlow/Texts/japa.html

The effects of large doses of Cannabis indica (1st page – 1923)  

Cardiovascular and respiratory effects of cannabis extracts and 1-tetra-hydrocannabinol (1-THC). (abst - 1973) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1776288/?page=1


POISONING – HEAVY METAL


POISONING - PARAQUAT
Paraquat goes to pot. (full - 1978)

Paraquat and marihuana. Assessing the hazard. (full - 1978)

An effect of paraquat on the lungs of rabbits. Its implications in smoking contaminated marihuana. (full - 1978)

The City, The State And Paraquat (news – 1978)

Paraquat and marijuana: epidemiologic risk assessment. (full - 1983)

U.S. to Resume Using Paraquat on Marijuana (news – 1988)

**POST TRAUMATIC STRESS DISORDER/ PTSD**

Chronic PTSD in Vietnam combat veterans: course of illness and substance abuse (abst – 1996)

**POTENCY**

Problems of modern hemp breeding, with particular reference to the breeding of varieties of hemp containing little or no hashish (full – 1956)

A note on the cannabinoid content of Jamaican ganja. (abst – 1976)

An investigation of procedures reported to increase potency of marijuana: a chemical analysis and psychological interpretation. (abst – 1978)

Variation in the THC content in illicitly imported Cannabis products--Part II (abst – 1982)

Structure, development and composition of glandular trichomes of Cannabis
UV-B radiation effects on photosynthesis, growth and cannabinoid production of two Cannabis sativa chemotypes (link to download – 1987)


Characterization of the lipophilicity of natural and synthetic analogs of delta 9-tetrahydrocannabinol and its relationship to pharmacological potency. (abst - 1990) http://ipet.aspetjournals.org/content/255/2/624.abstract


Hemp and Marijuana:Myths & Realities (full – 1998) http://www.naihc.org/hemp_information/content/hemp.mj.html


**PREGNANCY/ PRENATAL EXPOSURE.** - also see PERINATAL HYPOXIC-ISCHEMIC INJURY, CHILDREN/ YOUNG ADULTS

Effects of Chronic Smoking of Cannabis in Jamaica

Women and Cannabis

Nonmutagenic action of cannabinoids in vitro

Teratologic evaluation of synthetic delta 9-tetrahydrocannabinol in rabbits.

Acute effects of marihuana smoking on prolactin levels in human females.

Effects of prenatal exposure to cannabinoids.

Tolerance to the luteinizing hormone and prolactin suppressive effects of delta-9-tetrahydrocannabinol develops during chronic prepubertal treatment of female rats.

A comparison of the effects of prenatal exposure to tobacco, alcohol, cannabis and caffeine on birth size and subsequent growth

Newborn Outcomes With Maternal Marihuana Use in Jamaican Women

Poor and Pregnant: Perinatal Ganja use in Rural Jamaica

Effects of Marijuana on Newborn Cry

Marijuana Use in Pregnancy and Pregnancy Outcome.

Prenatal marijuana use and neonatal outcome.

Five-year follow-up of rural Jamaican children whose mothers used marijuana during pregnancy.
Five-year Follow-up of Rural Jamaican Children whose Mothers used Marijuana during Pregnancy

Analysis of Facial Shape in Children Gestationally Exposed to Marijuana, Alcohol, and/or Cocaine (abst - 1992)
http://pediatrics.aappublications.org/cgi/content/abstract/89/1/67?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=marihuana&searchid=1&FIRSTINDEX=960&resourcetype=HWCIT

Tobacco and marijuana use on offspring growth from birth through 3 years of age. (abst - 1992)

THREE THINGS MARIJUANA DOESN'T DO (news - 1992)
http://www.ukcia.org/research/mjfaq2.php

SCIENCE WATCH; Marijuana Medication (news – 1993)

Prenatal Marijuana Exposure and Neonatal Outcomes in Jamaica: An Ethnographic Study (full - 1994)
http://www.druglibrary.org/Schaffer/hemp/medical/can-babies.htm

The preimplantation mouse embryo is a target for cannabinoid ligand-receptor signaling. (full - 1995)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC40821/

Prenatal exposure to marihuana and tobacco during infancy, early and middle childhood: effects and an attempt at synthesis. (abst – 1995)

Prenatal tobacco and marijuana use among adolescents: effects on offspring gestational age, growth, and morphology. (abst – 1995)

Mortality Within the First 2 Years in Infants Exposed to Cocaine, Opiate, or Cannabinoid During Gestation (abst - 1997)
http://pediatrics.aappublications.org/cgi/content/abstract/100/1/792?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=640&resourcetype=HWCIT

Maternal cannabis use and birth weight: a meta-analysis (abst – 1997)
http://www.ingentaconnect.com/content/carfax/cadd/1997/00000092/00000011/art00015

Use of Marijuana During Pregnancy (book excerpt - 1997)
http://www.mothering.com/articles/use-of-marijuana-during-pregnancy/

Dr. Melanie Dreher, reefer researcher (interview - 1998)
http://www.cannabisculture.com/content/1998/11/01/1404

Cannabis and pregnancy (full - 1999)
http://www.ukcia.org/research/CannabisAndPregnancy.php
QUITTING CANNABIS - also see ADDICTION, WITHDRAWAL

- Investigations of Very Heavy, Very Long-Term Cannabis Users (article – 1972)
  http://cifas.us/analyses/VeryHeavyUsers.html

- An Abstinence Syndrome Following Chronic Administration of Delta-9-terahydrocannabinol in Rhesus Monkeys. (abst – 1980)


- Psychotropic Analgesic Nitrous Oxide Prevents Craving After Withdrawal for Alcohol, Cannabis and Tobacco. (abst – 1994)

- Cannabis use in Amsterdam. (link to PDF – 1998)
  Download Cannabis use in Amsterdam

QUITTING OTHER DRUGS

  http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=86

  http://www.drugpolicy.org/docUploads/model.pdf


Inhibition of naloxone-induced withdrawal in morphine dependent mice by 1-trans-delta9-tetrahydrocannabinol. (abst – 1976)

Time course of the effects of naturally occurring cannabinoids on morphine abstinence syndrome. (abst – 1978)

The quasi-morphine withdrawal syndrome: effect of cannabinol, cannabidiol and tetrahydrocannabinol. (abst - 1985)

The Changing Pattern of Substance Abuse in Urban Adolescents (full – 1998)
http://archpedi.jamanetwork.com/article.aspx?articleid=189315&resultClick=3

Marijuana use and treatment outcome among opioid-dependent patients. (abst – 1998)

Therapeutic use of cannabis by crack addicts in Brazil. (abst - 1999)

RADIATION-INDUCED NAUSEA

Randomised Clinical Trial of Levonantradol and Chlorpromazine in the Prevention of Radiotherapy-induced Vomiting. (abst - 1982)


A double-blind randomised cross-over comparison of nabilone and metoclopramide in the control of radiation-induced nausea. (abst - 1987)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=130

RELIGION and CANNABIS
Marijuana in the Bible with cognate study of KNH, BSM & MKNH in the literal Word with Genesis 4:1; 14:19,22; 1st Kings 14:15, Ezekiel 31:9, Matthew 11:7, Luke 7:24 for the revelatory Word

Spiritual Use Of Cannabis
http://www.sparcsf.org/learning-center/spiritual-use-cannabis

Indian Hemp Drugs Commission Report  CHAPTER IX SOCIAL AND RELIGIOUS CUSTOMS.  (1894)
http://www.druglibrary.org/schaffer/hemp/history/hashot.htm

ON INDICATIONS OF THE HACHISH-VICE IN THE OLD TESTAMENT  (1903)
http://www.druglibrary.org/schaffer/hemp/history/hashot.htm

Effects of Chronic Smoking of Cannabis in Jamaica
Effects of Chronic Smoking of Cannabis in Jamaica

Getting High: Ganja Man and his Socio-Economic Milieu
Getting High: Ganja Man and his Socio-Economic Milieu

The Religious and Medicinal Uses of Cannabis in China, India and Tibet  (full - 1981)

http://cifas.us/analyses/drehercourt.html

Thandai and chilam: traditional Hindu beliefs about the proper uses of Cannabis. (abst – 1985)

Marijuana and the Bible  (article – 1988)
https://www.erowid.org/plants/cannabis/cannabis_spirit2.shtml

Nature in the Rastafarian Consciousness  (news – 1989)

http://www.tandfonline.com/doi/abs/10.3109/10826089109058909

Ganja in Jamaica  (editorial – 1996)
http://www.cedro-uva.org/lib/boekhout.ganja.en.html

Marcus Garvey and the Early Rastafarians: Continuity and Discontinuity  (download – 1998)
http://cifas.us/analyses/Garvey&Rasta.html

Rastafarians and Ganja  (article – 1998)
http://cifas.us/analyses/nolan.html
RECREATIONAL USE

Comparison of the Effects of Marijuana and Alcohol on Simulated Driving Performance (full - 1969)  
Effects of Chronic Smoking of Cannabis in Jamaica (download – 1972)  
Effects of Chronic Smoking of Cannabis in Jamaica  
Sociocultural and Epidemiological Aspects of Hashish Use in Greece (1st page – 1975)  
https://www.degruyter.com/abstract/books/9783110812060/9783110812060.303/9783110812060.303.xml  
The Social Nexus of Ganja in Jamaica (1st page – 1975)  
https://www.degruyter.com/abstract/books/9783110812060/9783110812060.119/9783110812060.119.xml  
Cannabis and Work in Jamaica: A Refutation of the Amotivational Syndrome (download – 1976)  
"Cannabis and Work in Jamaica: A Refutation of the Amotivational Syndrome."
Marijuana use Among Women: an Anthropological View (download – 1984)  
Marijuana use Among Women: an Anthropological View  
Evolution of a Roots Daughter (download – 1987)  
The Evolution of a Roots Daughter  
Respiratory effects of cocaine "freebasing" among habitual users of marijuana with or without tobacco. (link to PDF - 1987)  
http://journal.publications.chestnet.org/article.aspx?articleid=1060521&resultClick=1  
The Business of Drug Dealing in Milwaukee (download – 1988)  
The business of drug dealing in Milwaukee  
http://www.tandfonline.com/doi/abs/10.3109/10826089109058909  
Working Men and Ganja: Marijuana Use in Rural Jamaica (download – 1992)  
Working Men and Ganja: Marijuana Use in Rural Jamaica  
Economics of Legalization (full – 1994)  
http://norml.org/component/zoo/category/economics-of-cannabis-legalization  
Ganja in Jamaica (editorial – 1996)  
http://www.cedro-uva.org/lib/boekhout.ganja.en.html
Cannabis Use- A Gateway to other Drugs? The Case of Amsterdam (full - 1997)  

The prevalence of illicit drug use in the general population and in schools, as monitored by a number of different methods (full – 1998)  
http://www.cedro-uva.org/lib/langemeijer.prevalence.html

Cannabis use in Amsterdam. (link to PDF – 1998)  
Download Cannabis use in Amsterdam

Kaneh Bosm: Cannabis in the Old Testament (article – 1997)  
http://www.cannabisculture.com/content/1996/05/01/1090

The Relationship between Research and Drug Policy in the United States (article – 1999)  
http://cifas.us/analyses/laniel.html

RETINITIS PIGMENTOSA

Smoking dope restored my sight (news/anecdotal - 1998)  
http://news.bbc.co.uk/2/hi/health/212301.stm

RIMONABANT/ ACOMPLIA/ SR141716/ SR1 – a CB1 & CB2 antagonist, failed diet drug

SR141716A, a potent and selective antagonist of the brain cannabinoid receptor. (full – 1994)  

Cannabinoids enhance human B-cell growth at low nanomolar concentrations. (full – 1995)  

Selective inhibition of sucrose and ethanol intake by SR 141716, an antagonist of central cannabinoid (CB1) receptors. (link to PDF – 1994)  
www.druglibrary.org/crl/behavior/armone-01.pdf

The CB1 cannabinoid receptor antagonist SR 141716A affects A9 dopamine neuronal activity in the rat. (abst – 1995)  


Assessment of Anandamide Interaction with the Cannabinoid Brain Receptor: SR 141716A Antagonism Studies in Mice and Autoradiographic Analysis of Receptor Binding in Rat Brain (full – 1998) http://jpet.aspetjournals.org/content/284/3/1209.long


Cannabinoid-induced mesenteric vasodilation through an endothelial site distinct from CB1 or CB2 receptors. (full – 1999) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC24203/

SR141716A Antagonizes the disruptive effects of cannabinoid ligands on learning in rats. (full– 1999) http://jpet.aspetjournals.org/content/282/3/1526.long


R(+)-METHANANANDAMIDE – synthetic, anandamide analog


SR141716A Antagonizes the disruptive effects of cannabinoid ligands on learning in rats. (full– 1999) http://jpet.aspetjournals.org/content/282/3/1526.long

SAFETY AS A MEDICINE

THE RELATIVE ACTIVITY OF VARIOUS PURIFIED PRODUCTS OBTAINED FROM AMERICAN GROWN HASHISH (abst - 1938) http://jpet.aspetjournals.org/content/62/2/239.abstract?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabis&searchid=1&FIRSTINDEX=640&resourcetype=HWCIT

STUDIES ON THE PHARMACOLOGY AND ACUTE TOXICITY OF COMPOUNDS WITH MARIHUANA ACTIVITY (abst - 1946) http://jpet.aspetjournals.org/content/88/2/154.abstract?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=marihuana&searchid=1&FIRSTINDEX=0&resourcetype=HWCIT


The Report of the National Commission on Marihuana and Drug Abuse
Acute Effects of Marihuana (full – 1972) http://www.druglibrary.org/schaffer/library/studies/nc/nc1e.htm

Effects of Chronic Smoking of Cannabis in Jamaica (download – 1972)
Effects of Chronic Smoking of Cannabis in Jamaica

Women and Cannabis (download – 1977)
Women and Cannabis: The Jamaican Example


Health care use by frequent marijuana smokers who do not smoke tobacco. (full - 1993) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1311782/


Proven: Cannabis is safe medicine (news - 1996) http://www.ukcia.org/research/safe-medicine.htm


SAFETY- ADULTERANTS/ CONTAMINANTS


Fatal aspergillosis associated with smoking contaminated marijuana, in a marrow transplant recipient. (link to PDF - 1988)

Microbiological contaminants of marijuana (full - 1994)
http://www.hempfood.com/IHA/iha01205.html

Successfully treated invasive pulmonary aspergillosis associated with smoking marijuana in a renal transplant recipient. (abst - 1996)

**SCHIZOPHRENIA/ MENTAL DISORDERS**

The Report of the National Commission on Marihuana and Drug Abuse
Acute Effects of Marihuana (full – 1972)
http://www.druglibrary.org/schaffer/library/studies/nc/nc1e.htm

radical notion (letter - 1974)
http://schizophreniabulletin.oxfordjournals.org/cgi/reprint/1/11/16-a?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabis&searchid=1&FIRSTINDEX=1040&resource=HWCIT

Study Shows Long Term Marijuana Users Healthy (news - 1994)
http://www.erowid.org/plants/cannabis/cannabis_science3.shtml


**SEPTIC SHOCK**

Protection Against Septic Shock and Suppression of Tumor Necrosis Factor α and Nitric Oxide Production by Dexanabinol (HU-211), a Nonpsychotropic Cannabinoid (full - 1997)
http://jpet.aspetjournals.org/content/283/2/918.full

SINUSITIS

HEMP AS A MEDICAMENT: Cannabis indica in oto-rhino-laryngology  (full - 1955)
http://www.bushka.cz/KabelikEN/otorhino.html

SLEEPING SICKNESS/TRYPANOSOMIASIS


SLEEP MODULATION

Effect of cannabis and certain of its constituents on pentobarbitone sleeping time and phenazone metabolism  (full - 1972)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1666020/

(−)δ9 THC as an hypnotic  (abst – 1973)
http://link.springer.com/article/10.1007%2FBF00437513#page-1

SMOKED CANNABIS AS A MEDICATION – also see METHODS OF USE- SMOKING

CANNABIS AND MARINOL IN THE TREATMENT OF MIGRAINE HEADACHE  (abst - undated)  http://www.druglibrary.net/schaffer/hemp/migrn2.htm

Marihuana smoking and intraocular pressure.  (abst - 1971)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=47

Effects of Chronic Smoking of Cannabis in Jamaica  (download – 1972)
Effects of Chronic Smoking of Cannabis in Jamaica

Smoked marijuana and oral delta-9-THC on specific airway conductance in asthmatic subjects  (full - 1974)
http://www.ukcia.org/research/SmokedAndOralInAsthmatic.php

Effects of smoked marijuana in experimentally induced asthma.  (full - 1975)
Anticonvulsant nature of marihuana smoking (abst - 1975)

Short-term effects of smoked marihuana on left ventricular function in man (link to PDF - 1977)

Effect of marihuana on intraocular and blood pressure in glaucoma (full - 1980)

Evaluation of the Use of Both Marijuana and THC in Cancer Patients for the Relief of Nausea and Vomiting Associated With Cancer Chemotherapy After Failure of Conventional Anti-Emetic Therapy: Efficacy and Toxicity (full – 1983)

Marihuana and Work: Cannabis Smoking on a Jamaican Sugar Estate (download – 1983)

Oral vs. Inhaled Cannabinoids for Nausea/Vomiting from Cancer Chemotherapy (full - 1988)

Effects of smoked marijuana on food intake and body weight of humans living in a residential laboratory. (abst - 1988)

Marijuana Smoking: Factors That Influence the Bioavailability of Tetrahydrocannabinol (full - 1990)

Effects of delta 9-THC on marijuana smoking, dose choice, and verbal report of drug liking. (full - 1994)

The perceived effects of smoked cannabis on patients with multiple sclerosis. (abst - 1997)

Marijuana Smoking vs Cannabinoids for Glaucoma Therapy (full - 1998)

SOCIAL ADJUSTMENT/ BEHAVIOR

http://www.ukcia.org/research/InducedAsthma/index.php

http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=39


http://www.ukcia.org/research/EffectOnIntraocularAndBloodPressureInGlaucoma.php

http://www.ukcia.org/research/EffectOnIntraocularAndBloodPressureInGlaucoma.php

http://www.ukcia.org/research/EffectOnIntraocularAndBloodPressureInGlaucoma.php

http://www.druglibrary.org/schaffer/hemp/medical/pierson.html

http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=117


http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1334408/?tool=pubmed


http://archopht.ama-assn.org/cgi/content/full/116/11/1433
Introduction to the Indian Hemp Drugs Commission Report (introduction – undated)  http://cifas.us/analyses/Mikuriya1.html

Marihuana and Work: Cannabis Smoking on a Jamaican Sugar Estate (download – 1983)  Marihuana and Work: Cannabis Smoking on a Jamaican Sugar Estate

Physical, Mental, and Moral Effects of Marijuana: The Indian Hemp Drugs Commission Report (1894)  http://www.druglibrary.org/schaffer/Library/effects.htm

Indian Hemp Drugs Commission Report  CHAPTER IX SOCIAL AND RELIGIOUS CUSTOMS. (1894)  http://cifas.us/analyses/IndianCommChapIX.html


Mr. X by Carl Sagan (article - 1969)  http://marijuana-uses.com/mr-x/

Marijuana, the New Prohibition (link to PDF – 1970)  https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1501862/

Effects of Chronic Smoking of Cannabis in Jamaica (download – 1972)  Effects of Chronic Smoking of Cannabis in Jamaica

Investigations of Very Heavy, Very Long-Term Cannabis Users (article – 1972)  http://cifas.us/analyses/VeryHeavyUsers.html


Getting High: Ganja Man and his Socio-Economic Milieu (download – 1976)  Getting High: Ganja Man and his Socio-Economic Milieu
http://csp.org/chrestomathy/ganja_in.html

Cannabis and Work in Jamaica: A Refutation of the Amotivational Syndrome  
(download – 1976)  "Cannabis and Work in Jamaica: A Refutation of the Amotivational Syndrome."

Women and Cannabis   (download – 1977)  
Women and Cannabis: The Jamaican Example

The Effect of Marijuana on Small Group Process.   (abst – 1977)  

Delta9-tetrahydrocannabinol: antiaggressive effects in mice, rats, and squirrel monkeys  
(abst - 1978)  
http://www.sciencemag.org/cgi/content/abstract/199/4336/1459?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=marihuana&searchid=1&FIRSTINDEX=240&resourcetype=HWCIT

Marihuana and mood in human volunteers.   (abst – 1978)  

Opprobrium and Presecution: Hashish Users in Urban Greece   (download – 1982)  
Opprobrium and Presecution: Hashish Users in Urban Greece.

Marijuana use Among Women: an Anthropological View   (download – 1984)  
Marijuana use Among Women: an Anthropological View.

The effects of marijuana on human physical aggression.   (abst – 1985)  
http://psycnet.apa.org/index.cfm?fa=buy.optionToBuy&id=1986-11321-001


The Business of Drug Dealing in Milwaukee   (download – 1988)  
The business of drug dealing in Milwaukee.

Poor and Pregnant: Perinatal Ganja use in Rural Jamaica   (download – 1989)  
Poor and Pregnant: Perinatal Ganja use in Rural Jamaica.

http://www.tandfonline.com/doi/abs/10.3109/10826089109058909

Working Men and Ganja: Marijuana Use in Rural Jamaica   (download – 1992)  
Working Men and Ganja: Marijuana Use in Rural Jamaica

Psychoactive Substances and Violence   (article – 1994)  
http://cifas.us/analyses/roth1.html


Marcus Garvey and the Early Rastafarians: Continuity and Discontinuity
(download – 1998) http://cifas.us/analyses/Garvey&Rasta.html

Moms, Kids and Drugs. (forum repost – 1998)

Long-term cannabis use: characteristics of users in an Australian rural area.

SPASTICITY

The perceived effects of marijuana on spinal cord injured males. (abst - 1974)

Marihuana as a therapeutic agent for muscle spasm or spasticity. (abst - 1980)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=53

Treatment of human spasticity with delta 9-tetrahydrocannabinol. (abst - 1981)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=8

Cannabis effect on spasticity in spinal cord injury. (abst - 1982)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=113

Effect of Delta-9-THC on EMG Measurements in Human Spasticity (abst - 1986)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=110

The effect of delta-9-THC on human spasticity. (abst - 1986)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=154

http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=1

Effect of cannabinoids on spasticity and ataxia in multiple sclerosis. (abst - 1989)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=2

Delta-9-tetrahydrocannabinol shows antispastic and analgesic effects in a single case double-blind trial. (abst - 1990)
http://www.springerlink.com/content/3826667673770p51/fulltext.pdf?page=1

http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=11
Treatment of spasticity in spinal cord injury with dronabinol, a tetrahydrocannabinol derivative. (abst - 1995)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?si_d=112

The effect of orally and rectally administered delta-9-tetrahydrocannabinol on spasticity: a pilot study with 2 patients. (abst - 1996)

The therapeutic potential of cannabis and cannabinoids for multiple sclerosis and spinal injury (full – 1997)
http://www.druglibrary.net/olsen/HEMP/IHA/jiha4101.html

**SPINAL CORD INJURY**

The perceived effects of marijuana on spinal cord injured males. (abst - 1974)

Marihuana as a therapeutic agent for muscle spasm or spasticity. (abst - 1980)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?si_d=53

Cannabis effect on spasticity in spinal cord injury. (abst - 1982)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?si_d=113

The effect of delta-9-THC on human spasticity. (abst - 1986)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?si_d=154

Delta-9-tetrahydrocannabinol shows antispastic and analgesic effects in a single case double-blind trial. (abst - 1990)

Treatment of spasticity in spinal cord injury with dronabinol, a tetrahydrocannabinol derivative. (abst - 1995)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?si_d=112

The effect of orally and rectally administered delta-9-tetrahydrocannabinol on spasticity: a pilot study with 2 patients. (abst - 1996)

The therapeutic potential of cannabis and cannabinoids for multiple sclerosis and spinal injury (full – 1997)
http://www.druglibrary.net/olsen/HEMP/IHA/jiha4101.html

Involvement of Dynorphin B in the Antinociceptive Effects of the Cannabinoid CP55,940 in the Spinal Cord (full - 1997)
http://jpet.aspetjournals.org/content/281/2/730.full

Cannabis and cannabinoids: pharmacology and rationale for clinical use (abst – 1999)
SPLEEN

Localization of cannabinoid receptors and nonsaturable high-density cannabinoid binding sites in peripheral tissues of the rat: implications or receptor-mediated immune modulation by cannabinoids. (abst–1993)

Molecular characterization of a peripheral receptor for cannabinoids (abst–1993)

STORAGE of CANNABIS

The stability of cannabis and its preparations on storage. (abst–1976)

The decomposition of acidic and neutral cannabinoids in organic solvents.


STROKE - also see PERINATAL HYPOXIC-ISCHEMIC INJURY

The inhibitory effects of cannabinoids, the active constituents of Cannabis sativa L. on human and rabbit platelet aggregation. (abst-1989)
HU-211, a Novel Noncompetitive N-Methyl-D-Aspartate Antagonist, Improves Neurological Deficit and Reduces Infarct Volume After Reversible Focal Cerebral Ischemia in the Rat. (full - 1995) http://stroke.ahajournals.org/cgi/content/full/26/12/2313

Marijuana chemical tapped to fight strokes? (news - 1998) http://www.thefreelibrary.com/Marijuana+chemical+tapped+to+fight+strokes.-a020973037


Cannabinoids and Neuroprotection in Global and Focal Cerebral Ischemia and in Neuronal Cultures (full - 1999) http://www.jneurosci.org/cgi/content/full/19/8/2987?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&andorexactfulltext=and&searchid=1&FIRSTINDEX=0&sortspec=relevance&resourcetype=HWCIT


**TASTE** - also see **APPETITE STIMULANT**

Selective inhibition of sucrose and ethanol intake by SR 141716, an antagonist of central cannabinoid (CB1) receptors. (link to PDF – 1994) www.druglibrary.org/crl/behavior/armone-01.pdf


**TAXONOMY/ GENETICS OF CANNABIS**


Induction of female flowers on male plants of Cannabis sativa L. by 2-chloroethanephosphonic acid (full - 1970) http://repository.ias.ac.in/26409/1/401.pdf

Feminization of male flowers of Cannabis sativa L. by a morphactin (full – 1971) http://repository.ias.ac.in/26413/1/406.pdf
Induction of male flowers on female plants of Cannabis sativa by gibberellins and its inhibition by abscisic acid  (full – 1972)  http://repository.ias.ac.in/26417/1/410.pdf

Cannabinoid Phenotypes in Cannabis sativa  (abst - 1973)  http://www.nature.com/nature/journal/v245/n5421/abs/245147a0.html


Comparative effect of silver ion and gibberellic acid on the induction of male flowers on female Cannabis plants  (full – 1978)  http://repository.ias.ac.in/26407/1/399.pdf


TEA AS MEDICINE

How to Brew Marijuana Tea (news – undated)
http://www.mahalo.com/how-to-brew-marijuana-tea/

Concentration of Marijuana Metabolites in the Urine After Ingestion of Hemp Seed Tea. (abst - 1999)

TEETH / DENTISTRY

HEMP AS A MEDICAMENT : Therapeutic results in stomatology (full - 1955)
http://www.bushka.cz/KabelikEN/stomatologie.html

Emotional response to intravenous delta9tetrahydrocannabinol during oral surgery. (abst – 1976)
http://www.ncbi.nlm.nih.gov/pubmed/1062533

A study of the effect of delta 9-tetrahydrocannabinol (delta 9-THC) on mammalian salivary flow. (abst - 1978)
http://jpet.aspetjournals.org/content/206/3/567.abstract?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabis&searchid=1&FIRSTINDEX=2560&resou
ccertype=HWCIT

TERPINOIDS / TERPENES – These make the cannabis scent and help cannabinoids work better also see Beta Carophyllene

THC (TETRAHYDROCANNABINOL) ACCUMULATION IN GLANDS OF CANNABIS (CANNABACEAE) (full – undated)
http://www.hempreport.com/issues/17/malbody17.html


The Volatile Oil Composition of Fresh and Air-Dried Buds of Cannabis sativa (full – 1996)
**THC/ TETRAHYDROCANNABINOL** - phytocannabinoid, CB1 & 2 agonist

Phytocannabinoids (news – undated)
http://www.news-medical.net/health/Phytocannabinoids.aspx

Tetrahydrocannabinol- an interview with Akshat Rathi (interview - undated)
http://www.rsc.org/chemistryworld/podcast/CIIEcompounds/transcripts/THC.asp

**STUDIES ON THE PHARMACOLOGY AND ACUTE TOXICITY OF COMPOUNDS WITH MARIHUANA ACTIVITY** (abst - 1946)
http://jpet.aspetjournals.org/content/88/2/154.abstract
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=marihuana&searchid=1&FIRSTINDEX=0&resourcetype=HWCIT

Isolation, Structure, and Partial Synthesis of an Active Constituent of Hashish (full - 1964)

Chemical basis of hashish activity. (abst - 1970)

Some actions of delta-1 tetrahydrocannabinol and cannabidiol at cholinergic junctions. (full – 1971)

Activity of Dgr8-and Dgr9-Tetrahydrocannabinol and Related Compounds in the Mouse (abst - 1971)
http://www.sciencemag.org/cgi/content/abstract/172/3979/165?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=marihuana&searchid=1&FIRSTINDEX=2240&resourcetype=HWCIT

A metabolic interaction in vivo between cannabidiol and Δ1-tetrahydrocannabinol (full - 1972)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1666148/?tool=pubmed

The Report of the National Commission on Marihuana and Drug Abuse

Acute Effects of Marihuana (full – 1972)
http://www.druglibrary.org/schaffer/library/studies/nc/nc1e.htm

Water-soluble derivatives of 1 -tetrahydrocannabinol. (abst - 1972)

Effect of Biogenic Amines and Cannabinoids on Bacterial Chemotaxis (full - 1973)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC246374/?page=1

Cardiovascular and respiratory effects of cannabis in cat and rat (full – 1973)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1776461/
Reduction by Δ9-tetrahydrocannabinol in the blood pressure of hypertensive rats bearing regenerated adrenal glands (full – 1973)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1776093/

Tolerance to the hypothermic effects of Δ9-tetrahydrocannabinol as a function of age in the chicken (full – 1973)

Antipyretic, analgesic and anti-inflammatory effects of delta9-tetrahydrocannabinol in the rat. (full - 1973)
http://druglibrary.org/schaffer/hemp/medical/ANTIPYRETIC.html

(−)δ9 THC as an hypnotic (abst – 1973)
http://link.springer.com/article/10.1007%2FBF00437513#page-1

Cardiovascular and respiratory effects of cannabis extracts and 1-tetra-hydrocannabinol (1-THC). (abst - 1973)
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1776288/?page=1

Effects of marihuana in laboratory animals and in man (full - 1974)

A pilot study of orally administered Δ1-trans-tetrahydrocannabinol in the management of patients undergoing radiotherapy for carcinoma of the bronchus (full - 1974)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1402430/?tool=pmcentrez&page=1

Smoked marijuana and oral delta-9-THC on specific airway conductance in asthmatic subjects (full - 1974)
http://www.ukcia.org/research/SmokedAndOralInAsthmatic.php

Acute effects of smoked marijuana and oral delta9-tetrahydrocannabinol on specific airway conductance in asthmatic subjects (abst - 1974)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=67

Cannabidiol interferes with the effects of Δ9-tetrahydrocannabinol in man (abst – 1974)

Intravenous delta9-Tetrahydrocannabinol: Effects of ventilatory control and cardiovascular dynamics. (link to PDF - 1975)

Combination of delta9-tetrahydrocannabinol with oxymorphone or pentobarbital: Effects on ventilatory control and cardiovascular dynamics. (link to PDF - 1975)

Interactions in man of delta-9-tetrahydrocannabinol. II. Cannabinol and cannabidiol. (abst – 1975)

Effects of smoked marijuana in experimentally induced asthma. (abst - 1975)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=57
The influence of delta9-tetrahydrocannabinol, cannabinol and cannabidiol on tissue oxygen consumption. (abst – 1975)

Analgesic effect of delta-9-tetrahydrocannabinol. (abst - 1975)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=16

The analgesic properties of delta-9-tetrahydrocannabinol and codeine. (abst - 1975)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=17

Epileptiform seizures in domestic fowl. V. The anticonvulsant activity of delta9-tetrahydrocannabinol. (abst – 1975)

Antiepileptic and prophylactic effects of tetrahydrocannabinols in amygdaloid kindled cats. (abst – 1975)

Absence of interaction between delta9-tetrahydrocannabinol (delta-THC) and cannabidiol (CBD) in aggression, muscle control and body temperature experiments in mice. (abst – 1975)

Antineoplastic activity of cannabinoids (full - 1975)
http://www.ukcia.org/research/AntineoplasticActivityOfCannabinoids/default.html

Bronchodilator effect of delta1-tetrahydrocannabinol administered by aerosol of asthmatic patients. (full - 1976)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC470501/?tool=pubmed

Anticonvulsant activity of delta9-tetrahydrocannabinol compared with three other drugs. (abst – 1976)

Antibacterial activity of delta9-tetrahydrocannabinol and cannabidiol. (abst - 1976)

In vivo effects of cannabinoids on macromolecular biosynthesis in Lewis lung carcinomas. (abst - 1977)

Bronchial effects of aerosolized delta 9-tetrahydrocannabinol in healthy and asthmatic subjects. (abst - 1977)

Comparative diuretic activity of delta9-tetrahydrocannabinol, cannabidiol, cannabinol and hydrochlorothiazide in the rat. (abst – 1977)
The effect of delta 9-tetrahydrocannabinol, cannabidiol, and cannabinol on the anaesthesia induced by various anaesthetic agents in mice. (abst - 1977)

The effects of cannabinoids on body temperature and brain catecholamine synthesis. (abst - 1978)

Delta-9-Tetrahydrocannabinol as an Antiemetic in Cancer Patients Receiving High-Dose Methotrexate (full - 1979)
http://www.ukcia.org/research/AntiemeticForMethotrexate.php

The effect of cannabichromene on mean blood pressure, heart rate, and respiration rate responses to tetrahydrocannabinol in the anesthetized rat (abst – 1979)

Sequential appearance of cannabinoids during seedling development (full – 1980)
https://www.realhemp.com/marihuana-84/

Plasma delta-9-tetrahydrocannabinol concentrations and clinical effects after oral and intravenous administration and smoking (abst - 1980)

Marihuana as a therapeutic agent for muscle spasm or spasticity. (abst - 1980)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=53

Sedative activity of cannabis in relation to its delta'-trans-tetrahydrocannabinol and cannabidiol content. (full - 1981)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2071638/?tool=pmcentrez

Activity of cannabis in relation to its delta'-trans-tetrahydro-cannabinol content. (full - 1981)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2071597/?tool=pmcentrez&page=1

The seed and the soil: effect of dosage, personality and starting state on the response to delta 9 tetrahydrocannabinol in man. (full – 1981)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1401962/?tool=pubmed

The cardiovascular and autonomic effects of repeated administration of delta-9-tetrahydrocannabinol to rhesus monkeys. (abst – 1981)

Rabbit behavioral model of marijuana psychoactivity in humans. (abst – 1981)

Ocular Effects of Topical Administration of {Delta}9-Tetrahydrocannabinol in Man (abst - 1982)
http://archopht.ama-assn.org/cgi/reprint/100/2/265?maxtoshow=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=2960&resourcetype=HWCIT
Action of cannabidiol on the anxiety and other effects produced by delta 9-THC in normal subjects. (abst – 1982)  

Multiple-Drop Study of Topically Applied 1% Δ9-Tetrahydrocannabinol in Human Eyes (abst - 1983)  

Neurobehavioral actions of cannabichromene and interactions with delta 9-tetrahydrocannabinol. (abst - 1983)  

Respiratory and cardiovascular depressant effects of nabilone, N-methyllevonantradol and delta 9-tetrahydrocannabinol in anesthetized cats. (abst - 1983)  
http://jpet.aspetjournals.org/content/227/2/508.abstract

Allergenic properties of naturally occurring cannabinoids. (abst - 1983)  

http://jat.oxfordjournals.org/content/8/5/202.long

Acute Effects of Natural and Synthetic Cannabis Compounds on Prolactin Levels in Human Males. (abst – 1984)  

Intraocular pressure, ocular toxicity and neurotoxicity after administration of delta 9-tetrahydrocannabinol or cannabichromene. (abst – 1984)  

Ocular hypotension, ocular toxicity, and neurotoxicity in response to marihuana extract and cannabidiol. (abst – 1984)  

Inhibition of neuroblastoma adenylate cyclase by cannabinoid and nantradol compounds (abst – 1984)  

Concentration and particle size distribution in smoke from marijuana cigarettes with different delta 9-tetrahydrocannabinol content. (abst – 1984)  
The physical and chemical features of Cannabis plants grown in the United Kingdom of Great Britain and Northern Ireland from seeds of known origin - Part III: third and fourth generation studies  (full – 1985)

The quasi-morphine withdrawal syndrome: effect of cannabiol, cannabidiol and tetrahydrocannabinol.  (abst - 1985)

Antiemetic efficacy of levonantradol compared to delta-9-tetrahydrocannabinol for chemotherapy-induced nausea and vomiting.  (abst – 1985)

Tetrahydrocannabinol stability in whole blood: plastic versus glass containers.  (full – 1986)
http://jat.oxfordjournals.org/content/10/4/129.long

Effects of Tetrahydrocannabinol on Melatonin Secretion in Man.  (link to download– 1986)

The effect of delta-9-THC on human spasticity.  (abst - 1986)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=154

Passive inhalation of marijuana smoke: urinalysis and room air levels of delta-9-tetrahydrocannabinol.  (link to PDF - 1987)
http://jat.oxfordjournals.org/content/11/3/89.long

UV-B radiation effects on photosynthesis, growth and cannabinoid production of two Cannabis sativa chemotypes  (link to download – 1987)
DOWNLOAD PDF VERSION

Inhibition of Suckling-Induced Milk Ejections in the Lactating Rat by Δ9-Tetrahydrocannabinol  (link to download – 1987)
http://press.endocrine.org/doi/abs/10.1210/endo-123-1-469

Oral vs. Inhaled Cannabinoids for Nausea/Vomiting from Cancer Chemotherapy  (full - 1988)
http://www.druglibrary.org/schaffer/hemp/medical/pierson.html

False negative GC/MS assay for carboxy THC due to ibuprofen interference.  (full – 1988)
http://jat.oxfordjournals.org/content/12/5/290.long

The inhibitory effects of cannabinoids, the active constituents of Cannabis sativa L. on human and rabbit platelet aggregation.  (abst - 1989)

Effects of tetrahydrocannabinol content on marijuana smoking behavior, subjective reports, and performance.  (abst – 1989)
Marijuana Smoking: Factors That Influence the Bioavailability of Tetrahydrocannabinol (full - 1990)

A comparison of the ocular and central effects of delta 9-tetrahydrocannabinol and cannabigerol. (abst - 1990)

Delta-9-tetrahydrocannabinol shows antispastic and analgesic effects in a single case double-blind trial. (abst - 1990)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=10

Chronic Exposure to Delta 9-tetrahydrocannabinol Fails to Irreversibly Alter Brain Cannabinoid Receptors. (abst - 1991)

Cannabinoid receptor agonists inhibit Ca current in NG108-15 neuroblastoma cells via a pertussis toxin-sensitive mechanism. (full - 1992)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1907498/?tool=pmcentrez&page=1

Characterization of the absorption phase of marijuana smoking. (abst – 1992)

Cross-tolerance between delta-9-tetrahydrocannabinol and the cannabimimetic agents, CP 55,940, WIN 55,212-2 and anandamide. (full - 1993)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2175863/?tool=pmcentrez&page=1

Effects of delta 9-THC on marijuana smoking, dose choice, and verbal report of drug liking. (full - 1994)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1334408/?tool=pubmed

Interactions between delta 9-tetrahydrocannabinol and kappa opioids in mice. (abst - 1994)
http://jpet.aspetjournals.org/content/268/3/1381.abstract?maxtoshow=80&RESULTFORMAT=&fulltext=marihuana&searchid=1&FIRSTINDEX=1840&resourcetype=HWCIT


Cannabinoids enhance human B-cell growth at low nanomolar concentrations. (full – 1995)

Anandamide and delta 9-THC dilation of cerebral arterioles is blocked by indomethacin (abst - 1995)
Cannabinoid precipitated withdrawal by the selective cannabinoid receptor antagonist, SR 141716A. (abst – 1995)

AM630, a competitive cannabinoid receptor antagonist. (abst – 1995)

NTP Technical Report on the Toxicology and Carcinogenesis Studies of 1-Trans-Delta9-Tetrahyrdocannabinol (CAS No. 1972-08-3) in F344/N Rats and B6C3F1 Mice (Gavage Studies) (full - 1996)
http://www.druglibrary.org/Schaffer/hemp/Trans-Delta%20Report.pdf

The effect of orally and rectally administered delta-9-tetrahydrocannabinol on spasticity: a pilot study with 2 patients. (abst - 1996)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=12

Toxicity and Carcinogenicity of {Delta}9-Tetrahydrocannabinol in Fischer Rats and B6C3F1 Mice (full - 1996)
http://toxsci.oxfordjournals.org/content/30/1/109.full.pdf+html

Genetic differences in delta 9-tetrahydrocannabinol-induced facilitation of brain stimulation reward as measured by a rate-frequency curve-shift electrical brain stimulation paradigm in three different rat strains. (abst – 1996)

Immonochemical localization of tetrahydrocannabinol (THC) in cryofixed glandular trichomes of Cannabis (Cannabaceae) (full – 1997)
http://www.amjbot.org/content/84/3/336.full.pdf+html

http://www.marijuanalibrary.org/NEJM_Foolishness_013097.html


The perceived effects of smoked cannabis on patients with multiple sclerosis. (abst - 1997)

Study may undercut marijuana opponents - Report says THC did not cause cancer (news – 1997)
http://www.marijuanalibrary.org/Globe.mj_cancer_013097.html

Study: THC Not Cancer-Causing (news - 1997)
http://www.ukcia.org/research/cancer.php

Cannabidiol and (−)Δ9-tetrahydrocannabinol are neuroprotective antioxidants
Δ9-Tetrahydrocannabinol induces apoptosis in C6 glioma cells (full – 1998)

Hemp and Marijuana: Myths & Realities (full – 1998)
http://www.naihc.org/hemp_information/content/hemp.mj.html

Cerebellar activity and disturbed time sense after THC. (abst - 1998)

Delta9-tetrahydrocannabinol induces apoptosis in human prostate PC-3 cells via a receptor-independent mechanism. (full - 1999)

Treatment of Tourette's Syndrome With Delta-9-Tetrahydrocannabinol (letter - 1999)
http://ajp.psychiatryonline.org/doi/full/10.1176/ajp.156.3.495

Cannabis and cannabinoids: pharmacology and rationale for clinical use (abst – 1999)

Cannabis: Discrimination of "Internal Bliss"? (abst – 1999)

Behavioral Effects of Cannabinoid Agents in Animals. (abst – 1999)
https://www.ncbi.nlm.nih.gov/pubmed/28134612

**THC-HS / TETRAHYDROCANNABINOL-HEMISUCCINATE** - synthetic

US Patent 5389375 - Stable suppository formulations effecting bioavailability of Δ9-THC
(full - 1995)

The effect of orally and rectally administered delta-9-tetrahydrocannabinol on spasticity: a pilot study with 2 patients. (abst - 1996)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=12

**THCV/TETRAHYDROCANNABIVARIN** phytocannabinoid, CB1 & CB2 antagonist

Phytocannabinoids (news – undated)
http://www.news-medical.net/health/Phytocannabinoids.aspx

Cannabivarin and Tetrahydrocannabivarin, Two New Constituents of Hashish (abst - 1971)
http://www.nature.com/nature/journal/v232/n5312/abs/232579a0.html

**THYROID GLAND**

Effects of Chronic Smoking of Cannabis in Jamaica (download – 1972)
Effects of Chronic Smoking of Cannabis in Jamaica


**TIME PERCEPTION**

Cannabis, atropine, and temporal information processing. (abst - 1984)

Cerebellar activity and disturbed time sense after THC. (abst – 1998)

**TOBACCO VS CANNABIS**

Tokepure (news – undated)
http://ukcia.org/activism/tokepure.php
So, you thought it was the tar that caused cancer...

(http://www.ukcia.org/research/cancer2.php)

Inhalation of tobacco and marijuana in dog over a period of 30 months: effect on body weight, food intake and organ weight.
(abst – 1976)
(http://www.ncbi.nlm.nih.gov/pubmed/935636)

Enhanced Biotransformation of Theophylline in Marihuana and Tobacco Smokers.
(abst – 1978)
(http://www.ncbi.nlm.nih.gov/pubmed/688731)

Effect of Alcohol and Marihuana on Tobacco Smoking.
(abst – 1980)

Spectrophotometric evaluation of carboxyhemoglobin in blood of mice after exposure to marijuana or tobacco smoke in a modified Walton horizontal smoke exposure machine.
(full - 1987)
(http://jat.oxfordjournals.org/content/11/1/19.long)

Respiratory effects of cocaine "freebasing" among habitual users of marijuana with or without tobacco.
(link to PDF - 1987)
(http://journal.publications.chestnet.org/article.aspx?articleid=1060521&resultClick=1)

Marijuana v.s. Tobacco smoke compositions
(list - 1988)
(http://www.ukcia.org/research/smoke-contents.php)

Tobacco and marijuana use on offspring growth from birth through 3 years of age.
(abst - 1992)

Marijuana Less Harmful to Lungs than Cigarettes
(news - 1994)
(http://www.ukcia.org/research/lungs.php)

Prenatal tobacco and marijuana use among adolescents: effects on offspring gestational age, growth, and morphology.
(abst – 1995)
(http://www.ncbi.nlm.nih.gov/pubmed/7724314)

High anxieties - What the WHO doesn't want you to know about cannabis
(news – forum repost - 1998)
(http://endingcannabisprohibition.yuku.com/topic/503#.VZcOKEZwtB8)

TOLERANCE

Lack of tolerance to 9 -tetrahydrocannabinol in chimpanzees
(abst - 1973)
(http://www.ncbi.nlm.nih.gov/pubmed/4705343)
Long-Term Use of Marihuana and the Development of Tolerance or Sensitivity to Δ9-Tetrahydrocannabinol (abst - 1974)
http://archpsyc.ama-assn.org/cgi/content/abstract/31/1/89?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=3040&resourcekey=HWCIT

Rabbit behavioral model of marijuana psychoactivity in humans. (abst – 1981)

Cross-tolerance between delta-9-tetrahydrocannabinol and the cannabimimetic agents, CP 55,940, WIN 55,212-2 and anandamide. (full - 1993)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2175863/?tool=pmcentrez&page=1


TOURETTE'S SYNDROME

MARIJUANA AND TOURETTE'S SYNDROME (letter - 1988)
http://www.druglibrary.org/schaffer/hemp/medical/mjtouret.htm

Nicotine and cannabinoids as adjuncts to neuroleptics in the treatment of Tourette syndrome and other motor disorders. (abst – 1989)

Effective treatment of Tourette’s syndrome with marijuana. (abst - 1993)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=2555&&search_pattern=INTERACTION

Gilles de la Tourette syndrome, influence of nicotine, alcohol, and marijuana on the clinical symptoms (abst - 1997)

Cannabinoids: possible role in patho-physiology and therapy of Gilles de la Tourette syndrome. (abst - 1998)
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=100

Cannabis in movement disorders. (abst - 1999)

Treatment of Tourette's Syndrome With Delta-9-Tetrahydrocannabinol (letter - 1999)
http://ajp.psychiatryonline.org/doi/full/10.1176/ajp.156.3.495

Science: THC in TOURETTE-Syndrome (news - 1999)
TUBERCULOSIS

HEMP AS A MEDICAMENT: Importance of hemp seeds in the tuberculosis therapy (Forum thread- full - 1955) (EDEZYME recipe)
http://www.bushka.cz/KabelikEN/hempseed.html

VETERINARY USE/ ANIMALS

THE RELATIVE ACTIVITY OF VARIOUS PURIFIED PRODUCTS OBTAINED FROM AMERICAN GROWN HASHISH (abst - 1938)
http://jpet.aspetjournals.org/content/62/2/239.abstract?
maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabis&searchid=1&FIRSTINDEX=640&resour
cetype=HWCIT

Cardiovascular and respiratory effects of cannabis in cat and rat (full – 1973)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1776461/

Tolerance to the hypothermic effects of Δ9-tetrahydrocannabinol as a function of age in the chicken (full – 1973)

Epileptiform seizures in domestic fowl. V. The anticonvulsant activity of delta9-tetrahydrocannabinol. (abst – 1975)

Rabbit behavioral model of marijuana psychoactivity in humans. (abst – 1981)

Disposition and bioavailability of various formulations of tetrahydrocannabinol in the rhesus monkey. (abst – 1985)

A species comparison of the toxicity of nabilone, a new synthetic cannabinoid. (abst – 1987)

Species specificity in the metabolism of nabilone. Relationship between toxicity and metabolic routes. (abst - 1987)
Pharmacokinetics of cannabidiol in dogs. (abst - 1988)
http://dmd.aspetjournals.org/content/16/3/469.abstract?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabis&searchid=1&FIRSTINDEX=800&resourcetype=HWCIT

In vitro metabolism of cannabichromene in seven common laboratory animals. (abst – 1990)


In vitro metabolism of cannabigerol in several mammalian species. (abst – 1990)

The nutritive value of hemp meal for ruminants (link to PDF – 1999)
http://www.nrcresearchpress.com/doi/abs/10.4141/A98-031#.V2uEiKJA44C

Behavioral effects of cannabinoid agents in animals. (abst – 1999)

Finding of the endocannabinoid signalling system in Hydra, a very primitive organism: possible role in the feeding response. (abst – 1999)

**VIOLENCE**

The Business of Drug Dealing in Milwaukee (download – 1988)
The business of drug dealing in Milwaukee.


**VISION**

CONJUGATE DEVIATION OF THE EYES AFTER Cannabis indica INTOXICATION (full - 1964)

Physiologic observations in a controlled clinical trial of the antiemetic effectiveness of 5, 10, and 15 mg of delta 9-tetrahydrocannabinol in cancer chemotherapy. Ophthalmologic implications.  (abst - 1981)  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=88

Mydriasis induced by tetrahydrocannabinol (THC) in rats  (link to PDF - 1982)  

Ocular Effects of Topical Administration of \{Delta\}9-Tetrahydrocannabinol in Man  (abst - 1982)  
http://archopht.ama-assn.org/cgi/reprint/100/2/265?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=2960&resourcetype=HWCIT

Intraocular pressure, ocular toxicity and neurotoxicity after administration of delta 9-tetrahydrocannabinol or cannabichromene.  (abst – 1984)  

Ocular hypotension, ocular toxicity, and neurotoxicity in response to marihuana extract and cannabidiol.  (abst – 1984)  

Intraocular pressure, ocular toxicity and neurotoxicity after administration of cannabinol or cannabigerol.  (abst – 1984)  

Persistent visual changes following hashish consumption.  (full - 1993)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC513962/?page=1

HU-211, a nonpsychotropic cannabinoid, produces short- and long-term neuroprotection after optic nerve axotomy.  (abst – 1996)  

Patent 5631297 - Anandamides useful for the treatment of intraocular hypertension, ophthalmic compositions containing the same and methods of use of the same  (full – 1997)  
http://www.freepatentsonline.com/5631297.html

Smoking dope restored my sight  (news/anecdotal - 1998)  
http://news.bbc.co.uk/2/hi/health/212301.stm

Localization of Cannabinoid CB1 Receptors in the Human Anterior Eye and Retina  (full – 1999)  
http://iovs.arvojournals.org/article.aspx?articleid=2162341&resultClick=1

Effects of synthetic delta9-tetrahydrocannabinol on binocular depth inversion of natural and artificial objects in man.  (abst – 1999)  
WIN 55,212-2 - a synthetic cannabinoid, CB1 & 2 agonist

Cannabinoids inhibit N-type calcium channels in neuroblastoma-glioma cells.
(full - 1992) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC525583/

Cross-tolerance between delta-9-tetrahydrocannabinol and the cannabimimetic agents, CP 55,940, WIN 55,212-2 and anandamide. (full - 1993) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2175863/?tool=pmcentrez&page=1


Cannabinoid Receptor Agonists Protect Cultured Rat Hippocampal Neurons from Excitotoxicity (full - 1998) http://molpharm.aspetjournals.org/content/54/3/459.full


Cannabinoids and Neuroprotection in Global and Focal Cerebral Ischemia and in Neuronal Cultures (full - 1999) http://www.jneurosci.org/cgi/content/full/19/8/29872 maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&andorexactfulltext=and&searchid=1&FIRSTINDEX=0&sortspec=relevance&resourcetype=HWCIT


WITHDRAWAL SYNDROME


Granny Storm Crow's List - July 2014

MINI-DICTIONARY- Sci-Speak to English

Just a few definitions to help you along.
(You might want to print this up.)

A

**Acetylcholine** – a common neurotransmitter

**Achalasia** - a disease of the esophagus, a failure of smooth muscle fibers to relax

**Acute**- sharp or severe in effect; intense

**Adenosine**- a compound that makes you tired

**Adipose tissue** - fat

**Adipocyte** – a fat cell

**Adjunct** – a medication used in conjunction with another to help it work better

**2-AG** - A “messenger chemical” made by your body – similar to THC

**Agonist** – a chemical that activates a receptor

**Allodynia**- pain due to a stimulus which does not normally cause pain, (ie- a light touch)

**Allosteric**- works through a “back door” mechanism, not the usual binding site

**Amygdala** – an area of the brain that plays a key role in the processing of emotions

**Analgesic** – pain relieving

**Analogue** – a synthetic version
Anandamide/ AEA - a “messenger chemical” made by your body – similar to THC

Anaplasia – normal cells de-evolving and degrading into cancer cells

Anapyrexia - body temp dropping below normal

Angiogenesis - making new blood vessels, often to feed a tumor

Anorectic - Pertaining to anorexia, a lack of appetite

Antagonist – a chemical that blocks the action of an agonist

Antigen- a substance which causes an immune response

Anti-nociception- pain relieving

Anxiolytic – calming, anti-anxiety

Apoptosis - a process that leads to the normally programed death of a cell.

Aqueous humor – the liquid between the colored iris and the clear cornea of your eye

Arachidonic acid - an Omega 6

Astrocytes – Glial cells that link the vascular system to its neighboring neurons

Ataxia - lack of muscle coordination during movements like walking, or picking up objects

Atherogenesis – the formation of arterial plaques, as in atherosclerosis

Autapse - a synapse formed by the axon of a neuron on its own dendrites

Autocatalysis – when a single chemical reaction happens

Autocrine – when a cell secretes a compound that binds to receptors on the same type of cell.

Autopathic - relating to the structure and characteristics of a diseased organism. Idiopathic.
**Autophagy** – the cell self-destructs, literally “eats itself”

**B**

**Baroreflex** – the way your body uses your heart rate to control blood pressure

**Beta amyloid plaque / β-amyloid/ Aβ** – the stuff that gums up your brain in Alzheimer’s

**Biphasic** – different results for different doses, THC stops or causes nausea depending on dose

**Bronchodilator** – opens up the lungs

**C**

**Cannabinoids** – they activate CB receptors and are made in your body, cannabis or labs.

**Cannabinomimetic** – acts like a cannabinoid

**Capacitation** - chemical changes in a sperm that let it fertilize an egg.

**Carcinoma** - cancer

**Cachexia** – severe wasting away due to illness

**Caveolae** - little caves or pits in the cell membrane that trap fluids

**CCK** – an intestinal hormone that tells you that you are full and satisfied
Cell oncosis – the cells fill with water and calcium, their proteins denature, and they die.

Central nervous system/CNS - the brain and spinal cord

Chemotaxis - the movement of a cell or bacteria toward, or from a stimulus (food or a poison)

Cholinergics- drugs that inhibit, enhance, or mimic the action of acetylcholine

Chondrocytes- the only kind of cells found in healthy cartilage

Chronic – long term

Cirrhosis – scarring (usually) of the liver, impairing function

Clastrum - a thin, irregular, sheet of neurons attached to the bottom of the brain’s neocortex

Cogener- related chemicals

Colocalize- to occur together in the same cell.

Corticolimbic circuits- brain circuits that control cognitive and emotional behavioral processes.

COX-2 - a key enzyme that oxidizes Anandamide

Cross tolerance – tolerance to a drug causes tolerance to another, similar, drug

Cryofixed - frozen with liquid nitrogen for electron microscopic examination

Cutaneous – pertaining to the skin

Cytotoxic – poisonous to living cells
D

**Demyelinating diseases** - diseases in which the myelin on nerves is destroyed, as in MS

**Dimer** - a molecule composed of two identical, simpler molecules.

**Docosahexaenoic Acid (DHA)** - an Omega 3

**Dopamine** - a neurotransmitter that helps control the brain's reward and pleasure centers

**Dose-dependent manner** – the more they got, the more effectively it worked

**Downregulation** – a decrease in number

**Dysgeusia** - a distortion of the sense of taste

**Dysregulation** – malfunctioning, out of kilter

E

**Efferosytosis**- the removal of dead or dying cells

**Eicosanoids** – a group of bioactive compounds that include the endocannabinoids

**Eicosapentaenoic Acid (EPA)** – an Omega 3

**Emesis**- vomiting

**Endocannabinoid** – a chemical messenger made by your body- anandamide and 2-AG

**Endocannabinoid System/ ECS** – a system of chemical receptors on and between your cells
**Endogenous** – made in your own body, opposite of exogeneous

**Epidermal** – pertaining to the skin

**Epigenetic** - genes being turned on, or off, by chemical reactions, but with no change to the DNA

**Epithelial cells** – cells lining of your gut and surfaces of structures throughout the body

**Excitotoxic** - when nerve cells are damaged or killed by over-stimulation

**Exogenous** - from outside the body, opposite of endogenous

**Extracellular** – outside of the cells

**F**

**FAAH/ Fatty acid amide hydrolase** – an enzyme that breaks down anandamide

**Fascia** - connective tissues

**Follicule** - sac or cavity having excretory, secretory, or protective function: a hair follicle,

**G**

**GABA Glycine**- it keeps nerves from firing too often

**Ganglia/ ganglion** – a bunch of nerves outside the CNS, or some gray matter bits in the brain
Gene expression- the body reads a gene’s info and translates it into a product (protein, etc)

Genotype - all the genetic traits of an organism, both visible and hidden

Glial cells – they form myelin, and provide support and protection for neurons

Glomerulus - a kidney cell involved in the first stages of filtering blood

Glutamate- a compound that many nerves use to “talk to each other”

Gut microbiota - microorganisms that live in the digestive tract

H

Haploid – having half the number of chromosomes of a normal cell, as in sperm and eggs.

Hebbian theory - a neuroscience theory about the adaptation of brain neurons during learning.

Hemp – Cannabis sativa, usually referring to strains with a low level of THC

Hemoptysis – coughing up blood

Hematopoiesis – the making of new blood cells in bone marrow

Haematopoietic Stem Cells/ HSC - bone marrow stem cells that can give rise to blood cells

Hemopressin - a hemoglobin fragment that dilates blood vessels using nitric oxide

Hemostasis- the process of blood clotting

Hepatic – pertaining to the liver
Heterologous - from one species to another

Heteromer – a group containing 2 or more different types of things.

Hippocampus – part of the brain, controls mood and memory.

Homologous - having the same or a similar relation, as in relative position or structure

Homeostasis - your body keeping everything in balance and working right

Hydrolysis - breaking down a compound using enzymes

Hyper- over, above, extreme

Hyperalgesia – severe pain

Hypercapnia - too much CO2 in the blood

Hyperemesis – severe vomiting

Hyperphagic – over-eating

Hyperthermia – a fever

Hyperplasia- an increase in the number of normal cells in a tissue or an organ

Hypo- under, or below

Hypocretin (aka orexin)- a neuropeptide that regulates arousal, wakefulness, and appetite

Hypophagic – under-eating

Hypothermia – lowered body temperature

Hypoxaemia - low oxygen levels in blood

Hypoxia – not getting enough oxygen
**Ictal** - refers to a physiologic state or event such as a seizure, stroke, or headache.

**Ictus** - an epileptic seizure, or alternatively, a stroke

**Idiopathic** - of unknown cause

**Indica** - short plants, broad leaves, solid buds; “heavy” body high, good pain relief, some CBD

**Inflammasome** - immune system receptors and sensors that regulate inflammation

**In silico** – done on a computer

**In vivo** – in a live animal

**In vitro** – in a test tube

**Infarction** – damage from a lack of blood due to a blood vessel blockage

**Intraocular** – inside the eye

**Intrathecal injection** - injected under the arachnoid membrane of the brain or spinal cord

**Intrauterine** – inside the uterus

**Inverse agonist**- binds to a receptor like an agonist, but causes the opposite effect

**Involution** - the shrinking or return of an organ to a former size, as in a post-pregnancy uterus

**Ischemia** – damage from lack of blood to an area
J

**Jejunum** - the middle section of the small intestine in most higher animals

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K

**Koro**- a fear that one’s genitals are retracting and will disappear, “genital retraction syndrome”

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L

**Lactating** - producing breast milk, nursing

**Leptin** – a hormone that turns on hunger

**leukocytospermia** – too many white blood cells in the semen causing serious fertility problems.

**Leukotrienes** - compounds that promote asthma and allergic reactions

**Ligand** - a chemical that binds to a receptor- THC is a ligand of CB1 and CB2 receptors
Linoleic acid (LA) - is a polyunsaturated omega-6 fatty acid

Lipids – fats and oils

Lysis - the destruction or decomposition of a cell

M

Macrophages - specialized cells that attack foreign substances, disease germs and cancer cells

MAGL - an enzyme that breaks down 2-AG

MAPK-JNK signal pathway - the way the receptor’s message gets into the nucleus’ DNA

Meiosis - cell division that results in a sex cell (sperm or egg).

Metabolites – what’s left over after your body breaks down a compound

Metastasis – spreading through the body

Microglial cells – they destroy germs and remove dying cells, but can “go crazy”, doing damage

Microphage - a white blood cell capable of ingesting bacteria, etc.

MicroRNA - short, single-stranded RNA molecules that regulate gene expression

Micturation – urination, peeing

Mitosis - one cell divides into 2 identical “carbon copies” of itself.

Modulate – control or regulate something
Monocytes- big white blood cells that can change into macrophages or dendritic cells.

Murine - mouse

Mydriasis - a disorder in which the pupil of the eye dilates abnormally, and stays dilated

Myelinated – a protective covering on the axion part of a nerve cell

Myocardial – pertaining to the heart muscle

Myopericarditis - Inflammation of the heart wall and the sac around it, the pericardium

Nanomolar – a very tiny amount

Necrotic – dead or dying

Nephritis – an inflammation of the kidneys

Nephro – referring to the kidneys

Neurogenesis – new brain cells are being formed

Neuropathic Pain – pain due to nerve injury

Neuropeptide – compounds used by neurons to “talk” with each other

Neurophatogenic - causing disease of nervous system

Neuroprotective – protects nerves and brain cells
Neurotransmitter - a chemical messenger that carries messages between neurons and other cells

Neutrophil – the most common type of white blood cell

Nocebo - a harmless substance that creates harmful effects in a patient. Opposite of placebo.

Nociceptive – experiencing pain from a stimulus such as heat or tissue damage

Nociceptor – pain nerve

Nonpsychoactive – won’t get you high

Nonpsychotropic – won’t get you high

Nootropic drug - a mind enhancing drug

Nucleus Accumbens – part of the brain involved in reward/addiction

 Obtundation- less than fully alert, an altered level of consciousness

 Occluded – blocked up, as in an occluded artery

 Ocular – referring to the eye

Olfactory – pertaining to smell, odor detection

Oligodendrocytes - cells that make the myelin sheath that protects CNS nerves
Oocyte – a female germ cell/ egg

Orexin (aka hypocretin)- a neuropeptide that regulates arousal, wakefulness, and appetite

Oromucosal – pertaining to the lining inside of the mouth

Ortholog- the same gene in different species doing the same job, traceable to a common ancestor

Osteoblast – a cell that makes new bone

Osteoclast - cell that eats away and breaks down bone causing bone resorption

Oviduct - a tube that connects the ovary to the uterus

Placentation - the process of forming a placenta

Palliative - health care focused on relieving and preventing suffering

Partial agonist- doesn’t activate receptor fully, may “hog” receptors, blocking full agonists

Pathogenesis - the origin and development of a disease

Peptide – string a bunch of peptides together, and you get a protein

Periaqueductal gray – the brain’s the primary control center for reducing pain

Peripheral nervous system (PNS) - the nerves and ganglia outside of the brain and spinal cord

Peritoneal – pertaining to the peritoneum that lines the walls of the abdominal cavity
Phagocyte - a “clean-up crew” cell that “eats” harmful foreign particles, bacteria, and dead cells

Phagocytosis - When a phagocyte “eats” a bacteria or other object by engulfing it

Phenotype- the genetic traits that you can see

Phytocannabinoid – a cannabinoid produced by a plant – THC and CBD are examples

Phyto - referring to plants

Phytochemical – a compound produced by a plant

Pleiotropic- producing many effects, especially when referring to genes

Podocyte – a kidney cell that filters blood

Polymorphism – having more than one form, different phenotypes in genes

Porcine – pertaining to pigs

Prions – they cause Mad Cow Disease

Proteolysis - the breakdown of proteins into smaller polypeptides or amino acids

Proteotoxicity - toxicity caused by proteins, usually by misfolded proteins

Pruritus – chronic itchiness

Psychoactive – will get you high

Psychotropic – will get you high

Pulmonary – pertaining to the lungs
Receptors - These receive the chemical messages and send them into our cells.

Refractory - non-reversible

Refractory pain - pain not responding to the usual treatments, stubborn pain

Renal - pertaining to the kidneys

Reperfusion damage - damage caused when blood returns to an area

Reuptake - reabsorption of a substance by the cells that originally produced it

Rhabdomyolysis - the rapid destruction of skeletal muscle.

RNA - ribonucleic acid, a long, single-stranded chain of cells that processes protein

Ruderalis – small, short-season, autoflowering strains, potency varies

Sativa – tall plant, long skinny leaves, slow maturing; a mental/ party high, occasional paranoia

Sclerosis - a stiffening of an organ with connective tissue
Sebaceous glands - oil glands in the skin

Seronegative - testing negative for a disease

Seropositive - testing positive for a disease

SiRNA- used to inactivate or “silence” a gene to validate the gene’s function

Spermatogenesis - the process of making sperm

Substance P - it sends pain info through the spinal cord

Synapse - a structure that lets a neuron pass an electrical or chemical signal to another neuron

Teratologic – causing birth defects

Terpinoids – gives cannabis its odor, may help cannabinoids to enter cells more easily

Thiophilic - having an affinity with ligands that contain sulphur

Thrombocytopenia – a loss of platelets in the blood

Transgenic – genetically modified, a GMO

Trichome – in cannabis, it usually refers to tiny mushroom-shaped structures that hold THC

Trigeminal nerve – responsible for sensation in the face, and biting and chewing
**Ubiquitination**: The "kiss of death" for proteins. The protein is inactivated by ubiquitin.

**Ubiquitin** – a regulatory protein that inactivates other proteins

**Upregulation** – increase in number

**Uveitis** - infection of the middle layer of the eye involving the iris, ciliary body and/or choroid.

**Vascular** – referring to blood vessels

**Vasodilator** – expands the blood vessels

**Vasoconstrictor** – contracts the blood vessels

**Vasopressin** – constricts blood vessels and is an anti-diuretic

**Ventral tegmental area** – works with the nucleus accumbens in reward and addiction

**Vesicants** = compounds that cause blistering

**Visceral** - pertaining to internal organs, guts
**X**

*Xenograft* - transplanting living cells, tissues or organs from one species into another

*Xerostomia* - dry mouth resulting from reduced or absent saliva flow.