Granny Storm Crow's List - January 2014

PHYTOCANNABINOIDS and RELATED COMPOUNDS

**AMYRINS** – phytochemicals that inhibit the breakdown of 2-AG.


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/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3484111/)


Transcriptional Profiles of the Response of Methicillin-Resistant Staphylococcus aureus to Pentacyclic Triterpenoids  (full – 2013) [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3577688/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3577688/)


**ANTHOCYANINS/ ANTHOCYADINS** – plant pigments, moderately activate CB1 & CB2 receptors

An examination of anthocyanins' and anthocyanidins' affinity for cannabinoid receptors.  
(abst – 2009)  

**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)  
[http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2449371/?tool=pmcentrez](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2449371/?tool=pmcentrez)

Anti-inflammatory cannabinoids in diet  
(full - 2008)  
[http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2633791/?tool=pmcentrez](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2633791/?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](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2664885/?tool=pmcentrez)

Terpenes, Terpenoids and Cannabis  
(news – 2010)  

Screening for Antiviral Activities of Isolated Compounds from Essential Oils  
(full - 2011)  

Taming THC: potential cannabis synergy and phytocannabinoid-terpenoid entourage effects.  
(full - 2011)  
[http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165946/](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.  
(abst – 2011)  

Terpenoids, ‘minor’ cannabinoids contribute to ‘entourage effect’ of cannabis-based medicines  
(news – 2011)  

β-Caryophyllene ameliorates cisplatin-induced nephrotoxicity in a cannabinoid 2 receptor-dependent manner.  
(abst – 2012)  


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


β-Caryophyllene ameliorates cisplatin-induced nephrotoxicity in a cannabinoid 2 receptor-dependent manner  (abst – 2013)  http://www.fasebj.org/cgi/content/meeting_abstract/27/1_MeetingAbstracts/704.3?sid=eea722c0-971c-4dab-8b8c-38c0e63c19ad


Activation of cortical type 2 cannabinoid receptors ameliorates ischemic brain injury  (news – 2013)  http://www.sciencedaily.com/releases/2013/02/130221141140.htm

**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

Marine Cyanobacterial Fatty Acid Amides Acting on Cannabinoid Receptors.


**CANNADOR** – a cannabis extract in pill form


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


Cannabinoids as pharmacotherapies for neuropathic pain: from the bench to the bedside.
Clinical phase III study with the cannabis extract Cannador successful in multiple sclerosis  

Marijuana Helps Ease MS Symptoms, Study Finds  
http://www.healthline.com/health-blogs/study-roundup/marijuana-multiple-sclerosis-101112

Medical Marajuana: Consortium of Multiple Sclerosis Centers  

**CANNAFLAVIN-A/ CANNAFLAVIN-B** - non-cannabinoid compounds from cannabis

Microbial metabolism of cannflavin A and B isolated from Cannabis sativa.  
(abst – 2008)  

Non-cannabinoid constituents from a high potency Cannabis sativa variety.  
(abst – 2008)  

Cytotoxic and NF-kB-modulating effects of cannabis constituents  
(abst – 2008)  

Neuritogenic Effects of Cannabinoids with Nerve Growth Factor (NGF) on PC12 Cells  
(abst – 2013)  

**CBC/ CANNABICHROMENE** * - phytocannabinoid, unknown receptor

Phytocannabinoids  
(news – undated)  
http://www.news-medical.net/health/Phytocannabinoids.aspx

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


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/


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/


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

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/

Analysis of cannabinoids in laser-microdissected trichomes of medicinal Cannabis sativa using LCMS and cryogenic NMR.  (abst – 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

The cannabinoid TRPA1 agonist cannabichromene inhibits nitric oxide production in macrophages and ameliorates murine colitis.  (abst – 2013)

The effect cannabichromene on adult neural stem/progenitor cells.  (abst – 2013)

The cannabinoid TRPA1 agonist cannabichromene inhibits nitric oxide production in macrophages and ameliorates murine colitis.  (abst – 2013)

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

**CBD/ CANNABIDIOL/ GWP- 42004**  * 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 - undated )

Effects of cannabidiol derivatives on intestinal motility  (abst - undated)
http://www.docstoc.com/docs/26071658/Effects-of-cannabidiol-derivatives-on-intestinal-motility-

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) http://cannabismovement.org/docs/cannabis%20terpenes.pdf


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


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


Marijuana-like compounds may aid array of debilitating conditions ranging from Parkinson’s to pain (news – 2004) http://www.eurekalert.org/pub_releases/2004-10/sfn-mcm102604.php

Comparison of Cannabidiol, Antioxidants, and Diuretics in Reversing Binge Ethanol-Induced Neurotoxicity (full - 2005) http://jpet.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/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

Cannabinol delays symptom onset in SOD1 (G93A) transgenic mice without affecting survival.  (abst - 2005)  

Peripheral, but not central effects of cannabidiol derivatives: mediation by CB(1) and unidentified receptors.  (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)  

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

The effects of cannabinoids on P-glycoprotein transport and expression in multidrug resistant cells. (abst - 2006)  

Cannabidiol, a constituent of Cannabis sativa, modulates sleep in rats. (abst - 2006)  


Differential effects of cannabis extracts and pure plant cannabinoids on hippocampal neurones and glia. (abst - 2006)  

The non-psychoactive cannabidiol triggers caspase activation and oxidative stress in human glioma cells. (abst - 2006)  

The marijuana component cannabidiol inhibits beta-amyloid-induced tau protein hyperphosphorylation through Wnt/beta-catenin pathway rescue in PC12 cells. (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)  

Cannabidiol inhibits tumour growth in leukaemia and breast cancer (news - 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

The diverse CB1 and CB2 receptor pharmacology of three plant cannabinoids: Δ9-tetrahydrocannabinol, cannabidiol and Δ9-tetrahydrocannabinvarin (full - 2007)  

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  
(2007)  

Cannabidiol, a nonpsychoactive Cannabis constituent, protects against myocardial ischemic reperfusion injury  
(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  
(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.  
(2007)  
http://www3.interscience.wiley.com/cgi-bin/fulltext/118484119/HTMLSTART

Nonpsychoactive Cannabidiol Prevents Prion Accumulation and Protects Neurons against Prion Toxicity  
(2007)  
http://www.jneurosci.org/cgi/content/full/27/36/9537

Cannabidiol, unlike synthetic cannabinoids, triggers activation of RBL-2H3 mast cells  
(2007)  
http://www.jleukbio.org/content/early/2007/03/05/jlb.1206738.full.pdf+html

The multidrug transporter ABCG2 (BCRP) is inhibited by plant-derived cannabinoids.  
(2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190019/?tool=pubmed

US Patent Application 20070099987 - Treating or preventing diabetes with cannabidiol  
(2007)  
http://www.patentstorm.us/applications/20070099987/fulltext.html

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)  

Who's Afraid of Cannabidiol?  
(news - 2007)  

Cannabidiol May be Effective in Preventing Bovine Spongiforme Enzephalopathy (Mad Cow Disease)  
(news - 2007)  
http://www.letfreedomgrow.com/articles/fr070916.htm

Marijuana Compound Shows Promise In Fighting Breast Cancer  
(news - 2007)  

Cannabis compound cannabidiol CBD 'halts cancer'  
(news - 2007)
Cannabis compound stops spread of breast cancer: researchers  (news - 2007)

Divergent effects of cannabidiol on the discriminative stimulus and place conditioning effects of Δ9-tetrahydrocannabinol  (full - 2008)

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

Antibacterial cannabinoids from Cannabis sativa: a structure-activity study.  (full - 2008)

Cannabidiol, extracted from Cannabis sativa, selectively inhibits inflammatory hypermotility in mice  (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2451037/?tool=pmcentrez

Neuroprotective effects of cannabidiol in endotoxin-induced uveitis: critical role of p38 MAPK activation.  (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2592995/?tool=pubmed

Effects of cannabidiol on schizophrenia-like symptoms in people who use cannabis  (full - 2008)
http://bjp.rcpsych.org/cgi/content/full/192/4/306?maxtoshow=&hits=80&RESULTFORMATT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=1200&resourcetype=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


The nonpsychoactive cannabis constituent cannabidiol is a wake-inducing agent.

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


Scheduling process at DEA - the example of cannabidiol (abst – 2008)  http://www.fasebj.org/cgi/content/meeting_abstract/22/1_MeetingAbstracts/711.1

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, 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)
Cannabidiol, a Nonpsychotropic Component of Cannabis, Inhibits Cue-Induced Heroin Seeking and Normalizes Discrete Mesolimbic Neuronal Disturbances (full - 2009)

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)

Non-psychotropic plant cannabinoids:new therapeutic opportunities from an ancient herb (full - 2009)

Cannabidiol: a promising drug for neurodegenerative disorders? (full - 2009)

Cannabidiol Attenuates Cisplatin-Induced Nephrotoxicity by Decreasing Oxidative/Nitrosative Stress, Inflammation, and Cell Death (full – 2009)

Cannabidiol-induced lymphopenia does not involve NKT and NK cells. (full – 2009)

Cannabidiol-2'6'-Dimethyl Ether, a Cannabidiol Derivative, Is a Highly Potent and Selective 15-Lipoxygenase Inhibitor. (full - 2009)

Cannabidiol targets mitochondria to regulate intracellular Ca2+ levels. (full – 2009)

Effects of cannabidiol on amphetamine-induced oxidative stress generation in an animal model of mania (abst – 2009)

The nonpsychotropic cannabinoid cannabidiol modulates and directly activates alpha-1 and alpha-1-Beta glycine receptor function (abst – 2009)

Cannabidiol Attenuates Myocardial Dysfunction, Fibrosis, Inflammation, Cell Death and Interrelated Signaling Pathways Associated With Diabetic Cardiomyopathy (abst - 2009)


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_psychotropic_ingredient_of_the_marijuana_plant_Cannabis_sativa_is_protective_in_a_murine_model_of_colitis


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


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


Cannabidiol protects retinal neurons by preserving glutamine synthetase activity in diabetes. (full - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2925907/?tool=pubmed

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

Regulation of nausea and vomiting by cannabinoids (full - 2010)  

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

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

Anti-tumoural effects of cannabinoid combinations - Patent TW201002315 (A) — 2010-01-16 (full – 2010)  

Therapeutic Potential of Non-Psychotropic Cannabidiol in Ischemic Stroke (link to PDF – 2010)  
http://www.mdpi.com/1424-8247/3/7/2197

A behavioural comparison of acute and chronic Delta9-tetrahydrocannabinol and cannabidiol in C57BL/6JArc mice. (abst – 2010)  
http://www.unboundmedicine.com/medline/ebm/record/19785914/abstract/A_behavioural_comparison_of_acute_and_chronic_Delta9_tetrahydrocannabinol_and_cannabidiol_in_C57BL/6JArc_mice

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_gray_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 cannabiol, as isoform-selective and potent inhibitors of human CYP1 enzymes. (abst – 2010)  

Cannabidiol bioavailability after nasal and transdermal application: effect of permeation enhancers. (abst - 2010)  


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 (abst - 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3023979/

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

Neural basis of anxiolytic effects of cannabidiol (CBD) in generalized social anxiety disorder: a preliminary report (abst - 2010) http://jop.sagepub.com/content/25/1/121


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)
http://www.norml.org/index.cfm?Group_ID=8424

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)

The potential for clinical use of cannabinoids in treatment of cardiovascular diseases. (full – 2011)

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 Alzheimer’s 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
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)  

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)  

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
The endocannabinoid system in the regulation of emotions throughout lifespan: a discussion on therapeutic perspectives. (full – 2011) http://jop.sagepub.com/content/26/1/150.full.pdf+html


Cannabidiol inhibits lung cancer cell invasion and metastasis via intercellular adhesion molecule-1. (full – 2011) http://www.fasebj.org/content/26/4/1535.long


Cannabidiol as an anti-arrhythmic, the role of the CB1 receptors. (abst – 2011) http://heart.bmj.com/content/97/24/e8.9.abstract


Cannabidiol decreases body weight gain in rats: Involvement of CB2 receptors. (abst - 2011) http://marijuana.researchtoday.net/archive/8/1/3517.htm


CANNABIDIOL INHIBITS PATHOGENIC T-CELLS, DECREASES SPINAL MICROGLIAL ACTIVATION AND AMELIORATES MULTIPLE SCLEROSIS-LIKE DISEASE IN C57BL/6 MICE.  (abst – 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.  (abst - 2011)


Cannabidiol inhibits the hyperphagia induced by cannabinoid-1 or serotonin-1A receptor agonists.  (abst – 2011)  http://www.ncbi.nlm.nih.gov/pubmed/21238476

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


Cannabidiol Dampens Streptozotocin-Induced Retinal Inflammation by Targeting of Microglial Activation  (abst - 2011)  http://abstracts iovs.org/cgi/content/abstract/52/6/1002?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=80&sortspec=date&resourcetype=HWCIT

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


Cannabidiol protects against hepatic ischemia/reperfusion injury by attenuating oxidative stress, inflammatory response, and cell death  (abst – 2011)  http://www.fasebj.org/cgi/content/meeting_abstract/25/1_MeetingAbstracts/639.12?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=160&sortspec=date&resourcetype=HWCIT


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_

Memory-rescuing effects of cannabidiol in an animal model of cognitive impairment relevant to neurodegenerative disorders.  (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)  

Induction of apoptosis by cannabinoids in prostate and colon cancer cells is phosphatase dependent.  (abst – 2011)  

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)  
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_

Cannabis could help treat epilepsy #1  (news – 2011)  

Cannabis could be used to treat epilepsy #2  (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)  

Cannabinoid 'Completely' Prevents Chemotherapy-Induced Neuropathy, Study Says  (news – 2011)  
http://www.norml.org/index.cfm?Group_ID=8710
Cannabidiol May Fight Alzheimer's Disease (news - 2011)  

Marijuana Compound Induces Cell Death In Hard-To-Treat Brain Cancer (news – 2011)  
http://www.norml.org/index.cfm?Group_ID=8459

Marijuana component may ease pain from chemo therapy drugs  (news – 2011)  
http://www.jpost.com/Health/Article.aspx?id=241299

Pot Compound Exerts Anticonvulsant Effects In Animal Models Of Epilepsy (news - 2011)  
http://www.norml.org/index.cfm?Group_ID=8458

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)  
http://www.norml.org/index.cfm?Group_ID=8615

CBD Tops The Chart  (news - 2011)  

Cannabidiol may help prevent paclitaxel-induced peripheral neuropathy  (news – 2011)  

Cannabidiol, a Cannabis sativa constituent, as an anxiolytic drug.  (full – 2012)  

Topical and Systemic Cannabidiol Improves Trinitrobenzene Sulfonic Acid Colitis in Mice.  (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/

Medical use of cannabis. Cannabidiol: A new light for schizophrenia?  (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

Cannabidiol enhances anandamide signaling and alleviates psychotic symptoms of schizophrenia.  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3316151/?tool=pubmed

The Therapeutic Potential of Cannabis and Cannabinoids  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3442177/

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

GW Pharma Investment Summary  (shows GW42004 is CBD)  (report - 2012)  https://docs.google.com/viewer?a=v&q=cache%3AFaPqL-KYKUQJ%3Awww.gwpharm.com%2Fuploads%2Fgwpharma290312update.pdf+&hl=en&gl=uk&pid=bl&srcid=ADGEESjz6IaNGeQZ30IRSDA1hR_oT0Ee2y9cv7Lia4mG0T53YknfusaXFUs_IWaOObaROUjdkIgPxmt0GhmvW04DdUlht7fwV5ia-BI3IM3YNBbXhQxaI1g-XJW_1AnHLnvTXMXem&sig=AHIEtbTKgja5QaLtUOw4IHtkp8ajDt5G0A

Islet protection and amelioration of diabetes type 2 in Psammomys obesus by treatment with cannabidiol  (link to PDF - 2012)  http://www.scirp.org/searchResult/Index.aspx?searchCode=Islet+protection+and+amelioration+of+diabetes+type+2+in+Psammomys+obesus+by+treatment+with+cannabidiol


Id-1 is a Key Transcriptional Regulator of Glioblastoma Aggressiveness and a Novel Therapeutic Target.  (abst – 2012)  http://www.ncbi.nlm.nih.gov/pubmed/23243024


Heat Exposure of Cannabis sativa Extracts Affects the Pharmacokinetic and Metabolic Profile in Healthy Male Subjects. (abst – 2012)  

The therapeutic potential of the endocannabinoid system for Alzheimer's disease. (abst – 2012)  

On Disruption of Fear Memory by Reconsolidation Blockade: Evidence from Cannabidiol Treatment. (abst – 2012)  

Cannabinol and cannabidiol exert opposing effects on rat feeding patterns. (abst – 2012)  

Cannabidiol for neurodegenerative disorders: important new clinical applications for this phytocannabinoid? (abst – 2012)  

Cannabidiol inhibits angiogenesis by multiple mechanisms. (abst – 2012)  

Cannabinoids suppress inflammatory and neuropathic pain by targeting α3 glycine receptors. (abst – 2012)  

Poly-ɛ-caprolactone microspheres as a drug delivery system for cannabinoid administration: Development, characterization and in vitro evaluation of their antitumoral efficacy. (abst – 2012)  

Effects of cannabinoids Δ(9)-tetrahydrocannabinol, Δ(9)-tetrahydrocannabinolic acid and cannabidiol in MPP(+) affected murine mesencephalic cultures. (abst – 2012)  


Cannabidiol enhances anandamide signaling and alleviates psychotic symptoms of schizophrenia. (abst – 2012)  

Cannabidiol-induced apoptosis in murine microglial cells through lipid raft (abst – 2012)  

A critical review of the antipsychotic effects of Cannabidiol: 30 years of a translational investigation. (abst – 2012)  

Acute effects of a single, oral dose of d9-tetrahydrocannabinol (THC) and cannabidiol (CBD) administration in healthy volunteers. (abst – 2012)  


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


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)

Can marijuana stop cancer? (news – 2012)
http://www.examiner.com/article/can-marijuana-stop-cancer

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-tumor calls-child-a-miracle-baby_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)
http://news.yahoo.com/israel-pushing-ahead-medical-marijuana-industry-180817891.html;_ylt=A2KJjbz3o5RQ4BcAYprQtDMD

Marijuana Compound Treats Schizophrenia with Few Side Effects: Clinical Trial (news – 2012)
http://www.mhhub.com/archives/16603

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)

Study: Marijuana Could Stop Growth of Colon Cancer Cells (news – 2012)

Is Marijuana the Cancer Cure We’ve Waited For? (news – 2012)
The Amazing Health Benefits of Juicing Raw Cannabis Leaves  (news – 2012)  

Weaker Hemp Derivatives Can’t Compare to Full-Spectrum Marijuana Pills  
(news/ad- 2012)  
http://www.prweb.com/releases/marijuanapills/cannabispill/prweb10099535.htm

Simple Method: Isolating & Extracting INDIVIDUAL Cannabinoids... from BadKittySmiles  
(forum post – 2012)  

Non-THC cannabinoids inhibit prostate carcinoma growth in vitro and in vivo: pro-apoptotic effects and underlying mechanisms.  
(full – 2013)  

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

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/

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 HIV gp120  
(full – 2013)  
http://www.jleukbio.org/content/92/5/1093.full

Modulating the endocannabinoid system in human health and disease: successes and failures  
(full – 2013)  

Cannabidiol as potential anticancer drug  
(full – 2013)  

Natural Cannabinoids Improve Dopamine Neurotransmission and Tau and Amyloid Pathology in a Mouse Model of Tauopathy.  
(full – 2013)  
http://iospress.metapress.com/content/4j61942x88175321/fulltext.html

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)

Acute and chronic administration of cannabidiol increases mitochondrial complex and creatine kinase activity in the rat brain.  (full – 2013)

Transdermal delivery of cannabidiol  Patent 8435556  (full – 2013)
http://www.patentstorm.us/patents/8435556/fulltext.html

http://www.patentstorm.us/applications/20130245110/fulltext.html

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


A new multiple sclerosis spasticity treatment option: effect in everyday clinical practice and cost-effectiveness in Germany. (abst – 2013)


Mechanisms Of Cannabidiol Neuroprotection In Hypoxic-Ischemic Newborn Pigs: Role Of 5HT1A And CB2 Receptors. (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)

Infusion of cannabidiol into infralimbic cortex facilitates fear extinction via CB1 receptors. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/23643693


Cannabidiol attenuates the long lasting cognitive deficits and anxiogenic-like behaviors promoted by murine cerebral malaria (abst – 2013)
http://www.fasebj.org/cgi/content/meeting_abstract/27/1_MeetingAbstracts/1097.9?sid=eea722c0-971c-4daa-8b8c-38c0c63c19ad

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-4daa-8b8c-38c0c63c19ad


Cannabidiol attenuates catalepsy induced by distinct pharmacological mechanisms via 5-HT1A receptors activation in mice. (abst – 2013)
CHANGES ON METABOLIC PARAMETERS INDUCED BY ACUTE CANNABINOID ADMINISTRATION (CBD, THC) IN A RAT EXPERIMENTAL MODEL OF NUTRITIONAL VITAMIN A DEFICIENCY.  (abst – 2013)  

Epigenetic Control of Skin Differentiation Genes by Phytocannabinoids (abst – 2013)  

Cannabinoids Decrease the Th17 Inflammatory Autoimmune Phenotype.  (abst – 2013)  

Motor effects of the non-psychotropic phytocannabinoid cannabidiol that are mediated by 5-HT1A receptors.  (abst – 2013)  

Neuroprotection and reduction of glial reaction by cannabidiol treatment after sciatic nerve transection in neonatal rats.  (abst – 2013)  

Therapeutic potential of cannabinoid medicines.  (abst – 2013)  

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)  

Clinical experiences with cannabinoids in spasticity management in multiple sclerosis.  (abst – 2013)  

A review of the cultivation and processing of cannabis (Cannabis sativa L.) for production of prescription medicines in the UK.  (abst – 2013)  

Enhancing the Activity of Cannabidiol and Other Cannabinoids In Vitro Through Modifications to Drug Combinations and Treatment Schedules.  (abst – 2013)  

CANNABINOIDS ALTER ENDOTHELIAL FUNCTION IN THE ZUCKER RAT MODEL OF TYPE 2 DIABETES.  (abst – 2013)  

Cannabidiol inhibits paclitaxel-induced neuropathic pain through 5-HT1A receptors without diminishing nervous system function or chemotherapy efficacy.  (abst – 2013)  

Effects of cannabidiol on the function of α7-nicotinic acetylcholine receptors.


Cannabidiol reverses the mCPP-induced increase in marble-burying behavior. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/24118015

Medicinal chemistry and pharmacology focused on cannabidiol, a major component of the fiber-type cannabis. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/24088353


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). (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/23926240


Interleukin 17A evoked mucosal damage is attenuated by cannabidiol and anandamide in a human colonic explant model. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/24238999

Increase of mesenchymal stem cell migration by Cannabidiol via activation of p42/44 MAPK. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/24304686


Charlotte’s Web Of Suffering: Six-Year-Old Colorado Girl With Dravet Syndrome Finds Relief From Marijuana High In CBD  

Toronto family hopes for access to controversial treatment to cure baby’s rare epilepsy  

Cannabis may help reverse dementia: study  

Mother Investigated After Opting For Marijuana Over Chemotherapy  

Sending multiple sclerosis up in smoke  

Chemicals in marijuana ‘protect nervous system’ against MS  
http://www.medicalnewstoday.com/articles/267161.php

Families migrate to Colorado for marijuana miracle  

Comes Now Epidiolex (FDA approves IND studies of CBD)  

Epidiolex  
http://www.gwpharm.com/Epidiolex.aspx

Pharmaceuticals Provides Update on Orphan Program in Childhood Epilepsy for Epidiolex®  

Cannabis-Based Epilepsy Drug Approved For Clinical Trials  

OBTAINING EPIDIOLEX™ IN THE U.S.  
http://www.dravetfoundation.org/dravet-syndrome/consider-dravet/o.png

Can Marijuana Help You Quit Cigarettes? Study Says Yes  
http://www.leafscience.com/2013/11/01/can-marijuana-help-quit-cigarettes-study-says-yes/

Can The Cannabis Component Cannabidiol (CBD) Cure Schizophrenia?  

Study shows non-hallucinogenic cannabinoids are effective anti-cancer drugs


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/


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

Cannabidiol protects liver from binge alcohol-induced steatosis by mechanisms including inhibition of oxidative stress and increase in autophagy (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/24398069

**CBDA/ CANNABIDIOLIC ACID** * - precursor to Cannabidiol

Cannabidiolic-acid synthase, the chemotype-determining enzyme in the fiber-type Cannabis sativa (full – 2007) http://www.sciencedirect.com/science/article/pii/S0014579307005728

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


Cannabidiolic acid prevents vomiting in Suncus murinus and nausea-induced behaviour in rats by enhancing 5-HT(1A) receptor activation. (abst – 2012) http://www.ncbi.nlm.nih.gov/pubmed/23121618

Medicinal chemistry and pharmacology focused on cannabidiol, a major component of the fiber-type cannabis. (abst – 2013)  http://www.ncbi.nlm.nih.gov/pubmed/24088353

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.ncbi.nlm.nih.gov/pubmed/24012649

**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


Cannabidivarin (CBDV) suppresses pentylenetetrazole (PTZ)-induced increases in epilepsy-related gene expression. (full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3840466/


Evaluation of the potential of the phytocannabinoids, cannabidivarin (CBDV) and Δ9-tetrahydrocannabivarin (THCV), to produce CB1 receptor inverse agonism symptoms of nausea in rats. (abst – 2013)  http://www.ncbi.nlm.nih.gov/pubmed/23902479
Cannabidiivarin-rich cannabis extracts are anticonvulsant in mouse and rat via a CB1 receptor-independent mechanism.  (abst – 2013)

Cannabis Anti-Convulsant Shakes up Epilepsy Treatment     (news – 2013)
http://www.thecompassionchronicles.com/2013/01/26/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

New Study: Cannabinoids Protect the Brain and Heart From Injury     (news – 2013)
http://www.science20.com/news_articles/thc_can_prevent_brain_damage_study-113512

CBG/ CANNABIGEROL * - CB2 agonist

Phytocannabinoids     (news – undated)
http://www.news-medical.net/health/Phytocannabinoids.aspx

Cannabinoids in clinical practice.     (abst - 2000)

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

Cytotoxic and NF-κB-modulating effects of cannabis constituents     (abst – 2008)

Patent application title: THERAPEUTIC USES OF CANNABIGEROL     (full - 2010)
http://www.faqs.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), cannabidivarin (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


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

The effect of CBG (BDS) botanical cannabinoid extract on MCF-7 human breast carcinoma cells  (abst – 2013)  http://www.fasebj.org/cgi/content/meeting_abstract/27/1_MeetingAbstracts/1105.21?sid=eea722c0-971c-4daa-8b8c-38c0e63c19ad


Study shows non-hallucinogenic cannabinoids are effective anti-cancer drugs  (news – 2013)  http://www.alphagalileo.org/ViewItem.aspx?ItemId=135404&CultureCode=en


CBN/ CANNABINOL  -  CB2 agonist, weak CB1 agonist


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


**CHOCOLATE** * - contains a tiny amount of Anandamide and compounds that block its breakdown


Desiring Chocolate (article – 2009) http://chocolatebook.info/consumption/desiring-chocolate/


Chocolate & marijuana: chemical cousins (news – 2011)


Your Brain On Chocolate: Marijuana-Like Chemicals Explain Why We Crave It (news – 2013)

**ECHINACEA** - contains CB 2 agonists and inverse agonists


Alkylamides from *Echinacea* Are a New Class of Cannabinomimetics (full – 2006) http://www.jbc.org/content/281/20/14192.full


Alkamides and a neolignan from Echinacea purpurea roots and the interaction of alkamides with G-protein-coupled cannabinoid receptors. (abst – 2011)

**EPIDIOLEX** - a CBD-based RSO used for epilepsy

Epidiolex - GW Pharmaceuticals  (drug development page – 2013)
http://www.gwpharm.com/Epidiolex.aspx

Pharmaceuticals Provides Update on Orphan Program in Childhood Epilepsy for Epidiolex® (news – 2013)

Comes Now Epidiolex (FDA approves IND studies of CBD) (news – 2013)

Cannabis-Based Epilepsy Drug Approved For Clinical Trials (news – 2013)

OBTAINING EPIDIOLEX™ IN THE U.S. (news – 2013)
http://www.dravetfoundation.org/dravet-syndrome/consider-dravet/obtaining-epidiolex

GW-42004 - see CBD/CANNABIDIOL

GWP- 42006 - see THCV/ TETRAHYDROCANNABIVARIN

**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 natural plant product, inhibits inflammatory signals and alleviates inflammatory arthritis.  (full – 2007) http://www.jimmunol.org/content/179/2/753.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/


IDRASIL – a natural, phytocannabinoid pill, available only in California so far

Introducing Idrasil - The Marijuana Pill  (ad – undated) http://idrasil.info/


Cannabis Effective for Easing MS Symptoms, but Not for Slowing Progression (news – 2012)  

European Medical Marijuana product Sativex is challenged by North America’s New Cannabis Pill Idrasil, Says Doobons (news/ad- 2012)  

Weaker Hemp Derivatives Can’t Compare to Full-Spectrum Marijuana Pills (news/ad- 2012)  
http://www.prweb.com/releases/marijuanapills/cannabispill/prweb10099535.htm

**MAGNOLOL** - from magnolia trees, CB2 agonist, and GPR-55 antagonist

**MAGNOLIA BARK** (article – 2001)  
http://www.itmonline.org/arts/magnolia.htm

The Natural Product Magnolol as a Lead Structure for the Development of Potent Cannabinoid Receptor Agonists (full – 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3813752/

Chemopreventive effects of combination of honokiol and magnolol with α-santalol on skin cancer developments. (full – 2013)  

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 suppresses vascular endothelial growth factor-induced angiogenesis by inhibiting ras-dependent mitogen-activated protein kinase and phosphatidylinositol 3-kinase/akt signaling pathways. (abst + 1st page - 2013)  


Magnolia extract, magnolol and metabolites: activation of cannabinoid CB2 receptors and blockade of the related GPR55 (abst – 2013)  
http://pubs.acs.org/doi/abs/10.1021/ml300235q


Synthesis of Tetrahydrohonokiol Derivatives 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](http://www.mdpi.com/1420-3049/19/1/1223)
Magnolia dealbata seeds extract exert cytotoxic and chemopreventive effects on MDA-MB231 breast cancer cells.  
(abst – 2014)  

**NAMISOL** – a THC tablet

Holland: Echo Pharmaceuticals develops THC tablet Namisol  
(news – 2008)  

Novel Δ(9)-tetrahydrocannabinol formulation Namisol® has beneficial pharmacokinetics and promising pharmacodynamic effects.  
(full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3394127/

**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/

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)

**PHYTOCANNABINOIDS/ PLANT EXTRACTS** *

Phytocannabinoids (news – undated)
http://www.news-medical.net/health/Phytocannabinoids.aspx

Introduction to the Endocannabinoid System (news – undated)
http://norml.org/library/item/introduction-to-the-endocannabinoid-system

ACCESSING 0.5 to 2.0 GRAMS CBD FRACTIONATING THE PHYTOCANNABINOIDS BY THEIR VAPORIZATION POINTS (article - undated)

Cannabinoids (encyclopedia entry) http://www.chemie.de/lexikon/e/Cannabinoids/

Advantages of polypharmaceutical herbal cannabis compared to single ingredient, synthetic tetrahydrocannabinol (full - 2000)
http://cannabismovement.org/docs/cannabis%20terpenes.pdf

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)

Cannabis and Cannabis Extracts: Greater Than the Sum of Their Parts? (full - 2001)

Chapter 3: Cannabis and Marinol Compared (book excerpt - 2001)
http://www.or-coast.net/contigo/PDF%20Files/chpt_3.pdf

Natural cannabis 'better than extracts' (news - 2001)
http://news.bbc.co.uk/2/hi/health/1261737.stm

Cannabis can help MS sufferers (news - 2003) (may need registration)

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 truly helps multiple sclerosis sufferers (news - 2004) (may need registration)

Plant cannabinoids: a neglected pharmacological treasure trove. (full - 2005)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1751232/?tool=pubmed

Chemical constituents of marijuana: the complex mixture of natural cannabinoids. (full – 2005)

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

Endocannabinoids and Related Compounds: Walking Back and Forth between Plant Natural Products and Animal Physiology (full - 2007)

Medicinal chemistry endeavors around the phytocannabinoids. (abst - 2007)
Cannabis tinctures and extracts – in vitro profiling for cytotoxic and anti-inflammatory effects  (abst – 2007)  

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/

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

Pain relief with cannabinoids-- the importance of endocannabinoids and cannabinoids for pain therapy  (abst - 2008)  

Antihyperalgesic effect of a Cannabis sativa extract in a rat model of neuropathic pain: mechanisms involved.  (abst - 2008)  

Interaction of plant cannabinoids with the multidrug transporter ABCC1 (MRP1).  (abst - 2008)  

Immunomodulatory lipids in plants: plant fatty acid amides and the human endocannabinoid system.  (abst – 2008)  

PKS activities and biosynthesis of cannabinoids and flavonoids in Cannabis sativa L. plants  (abst - 2008)  

Non-psychotropic plant cannabinoids:new therapeutic opportunities from an ancient herb  (full - 2009)  
http://www.onlinepot.org/medical/Izzo%20Plant%20Cannabinoids%20Therapeutic%20Opportunities%20TIPS%202009.pdf

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

Phytocannabinoids and endocannabinoids.  (abst - 2009)  

Pharmacological and therapeutic secrets of plant and brain (endo)cannabinoids.
Fungal biotransformation of cannabinoids: potential for new effective drugs.

Phytocannabinoid scientists unveils lozenge to treat H1N1 swine flu and H5N1 bird flu
(news/ad - 2009)  http://www.examiner.com/examiner/x-7002-Pittsburgh-History-Examiner--y2009m6d11-
Phytocannabinoid-scientists-unveils-lozenge-to-treat--H1N1-swine-flu-and-H5N1-bird-flu#comments

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

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

AMELIORATIVE POTENTIAL OF CANNABIS SATIVA EXTRACT ON DIABETES INDUCED NEUROPATHIC PAIN IN RATS  (full – 2010)

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

Non-CB1, non-CB2 receptors for endocannabinoids, plant cannabinoids, and synthetic cannabimimetics: focus on G-protein-coupled receptors and transient receptor potential channels.  (abstract – 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


Scientists Find New Sources of Plant Cannabinoids Other than Medical Marijuana? (news – 2010)  

Nature's (Legal) Cannabinoids (news - 2010)  
http://www.mapinc.org/drugnews/v10/n126/a04.html?1194

Gut feelings about the endocannabinoid system (full – 2011)  

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

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/

Treatment of Crohn's disease with cannabis: an observational study. (full – 2011)  

The Endocannabinoid System: Plant-Derived Cannabinoids in Diabetes and Diabetic Complications. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3349875/

Effects of cannabinoids and cannabinoid-enriched Cannabis extracts on TRP channels and endocannabinoid metabolic enzymes. (full – 2011)  


The role of phytochemicals in the treatment and prevention of dementia. (abst – 2011)  
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)  

Marijuana, endocannabinoids, and epilepsy: Potential and challenges for improved therapeutic intervention. (abst - 2011)  

Natural Herbs That Increase Serotonin (news – 2011)  

CBD Tops The Chart (news - 2011)  

Marijuana (Cannabis sativa) Mayo Clinic (news – 2011)  
http://www.mayoclinic.com/health/marijuana/NS_patient-marijuana/DSECTION=evidence

The Endocannabinoid System and Plant-Derived Cannabinoids in Diabetes and Diabetic Complications (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3349875/

Cannabis Responsive Head Injury Induced Multiple Disabilities: A Case Report (full - 2012)  
http://file.scirp.org/Html/9-2500130_16958.htm

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)  

Phytocannabinoids as novel therapeutic agents in CNS disorders. (abst – 2012)  

Nature Against Depression. (abst – 2012)  

Cannabis exposure associated with weight reduction and β-cell protection in an obese rat model. (abst – 2012)  

Cannabinoid-associated cell death mechanisms in tumor models (Review). (abst – 2012)

Effect of extraction conditions on total polyphenol contents, antioxidant and antimicrobial activities of Cannabis sativa L (abst – 2012) http://www.cabdirect.org/abstracts/20123212113.html;jsessionid=DDBC2FF41C8322957AD4B468D3785A59?gitCommit=4.13.20-5-ga6ad01a


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. (abst – 2012) http://www.ncbi.nlm.nih.gov/pubmed/22860209


Natural Cannabinoids Improve Dopamine Neurotransmission and Tau and Amyloid Pathology in a Mouse Model of Tauopathy. (full – 2013) http://iospress.metapress.com/content/4j61942x88175321/fulltext.html


Cannabis, a complex plant: different compounds and different effects on individuals (full – 2013) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3736954/


The pharmacologic and clinical effects of medical cannabis.  (abst – 2013)

Cannabis Induces a Clinical Response in Patients with Crohn's Disease: a Prospective Placebo-Controlled Study.  (abst – 2013)

The effect of CBG (BDS) botanical cannabinoid extract on MCF-7 human breast carcinoma cells  (abst – 2013)
http://www.fasebj.org/cgi/content/meeting_abstract/27/1_MeetingAbstracts/1105.21?sid=eea722c0-971c-4daa-8b8c-38c0c63c19ad

Pro-resolution, protective and anti-nociceptive effects of a cannabis extract in the rat gastrointestinal tract.  (abst – 2013)

Epigenetic Control of Skin Differentiation Genes by Phytocannabinoids  (abst – 2013)

Towards a better Cannabis drug.  (abst – 2013)

A review of the cultivation and processing of cannabis (Cannabis sativa L.) for production of prescription medicines in the UK.  (abst – 2013)

Enhancing the Activity of Cannabidiol and Other Cannabinoids In Vitro Through Modifications to Drug Combinations and Treatment Schedules.  (abst – 2013)

Molecular Mechanisms Involved in the Antitumor Activity of Cannabinoids on Gliomas: Role for Oxidative Stress.  (abst – 2013)

Cannabidivarin-rich cannabis extracts are anticonvulsant in mouse and rat via a CB1 receptor-independent mechanism.  (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_medical_use_of_cannabis_and_cannabinoids--an_international_cross-sectional_survey_on_administration_forms

Inhibition of colon carcinogenesis by a standardized Cannabis sativa extract with high content of cannabidiol.  (abst – 2013)

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)  

Study shows non-hallucinogenic cannabinoids are effective anti-cancer drugs  
(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

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/

Cannabis fractions: Separating cannabinoids from terpenoids  
(news – 2013)  

**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 Drug Monograph  
(monograph – 2005)  
http://www.ukcia.org/research/SativexMonograph.pdf

Sativex: Fact Sheet  
(full - 2005)  
http://www.bayer.ca/files/sativex_fs_fd_091289_e.pdf

Sativex: Health Care Professional letter  
(letter - 2005)  
http://www.bayer.ca/files/sativex_dhcpl_lapds_091289_e.pdf

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

Conditional okay for cannabis prescription drug  
(news - 2005)  

Cannabis-Based Drug Relieves Arthritis Pain  
(news - 2005)  
http://www.medpagetoday.com/Rheumatology/Arthritis/2097


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


Combined cannabinoid therapy via an oromucosal spray (abst – 2006) http://journals.prous.com/journals/servlet/xmlxsl/pk_journals.xml_summaryn_pr?p_JournalId=4&p_RefId=1021517

Sativex showed positive effects in 65 per cent of patients with chronic diseases (news - 2006) http://www.cannabis-med.org/english/bulletin/ww_en_db_cannabis_artikel.php?id=230#4


Letter: The herbal way - a response to Ethan Russo  
(letter – 2007)

Cannabis; adverse effects from an oromucosal spray.  
 abst - 2007)

Cannabis, pain, and sleep: lessons from therapeutic clinical trials of Sativex, a cannabis-based medicine.  
(abst - 2007)

Symptomatic treatment of multiple sclerosis using cannabinoids: recent advances.  
(abst - 2007)  

Sativex successfully treats neuropathic pain characterised by allodynia: A randomised, double-blind, placebo-controlled clinical trial  
(abst - 2007)

Oromucosal delta9-tetrahydrocannabinol/cannabidiol for neuropathic pain associated with multiple sclerosis: an uncontrolled, open-label, 2-year extension trial.  
(abst – 2007)

Cannabinoids Associated With "More Restful Sleep," Study Says  
http://www.illinoisnorml.org/content/view/648/27/  
(news - 2007)

Cannabinoids in the management of difficult to treat pain  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2503660/?tool=pmcentrez  
(full - 2008)

Emerging strategies for exploiting cannabinoid receptor agonists as medicines.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2697681/  
(full – 2009)

Cannabinoids as pharmacotherapies for neuropathic pain: from the bench to the bedside.  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2755639/  
(full – 2009)

Summary of Product Characteristics- Sativex Oralmucosal Spray  
http://www.medicines.org.uk/EMC/medicine/23262/SPC/Sativex+Oralmucosal+Spray/  
(full – 2010)

Meta-analysis of the efficacy and safety of Sativex (nabiximols), on spasticity in people with multiple sclerosis  
http://msj.sagepub.com/cgi/content/abstract/16/6/707?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabis&searchid=1&FIRSTINDEX=0&sortspec=date&resourcetype=HWCIT  
(abst - 2010)

Randomized controlled trial of Sativex to treat detrusor overactivity in multiple sclerosis.  
http://www.cannabis-med.org/studies/ww_en_db_study_show.php?s_id=314  
(abst – 2010)

Medical marijuana aka Sativex now available in UK  
http://www.examiner.com/article/medical-marijuana-aka-sativex-now-available-uk  
(news – 2010)

Plasma cannabinoid pharmacokinetics following controlled oral delta9-tetrahydrocannabinol and oromucosal cannabis extract administration.  
(full– 2011)
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


Is Pot Good For You?  (news – 2011)  http://www.maps.org/media/view/is_pot_good_for_you/

The Therapeutic Potential of Cannabis and Cannabinoids  (full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3442177/


Endocannabinoids in nervous system health and disease: the big picture in a nutshell  (full – 2012)  http://rstb.royalsocietypublishing.org/content/367/1607/3193.full

Treatment of Tourette syndrome with cannabinoids.  (link to PDF – 2012)
Cannabis derivatives therapy for a seronegative stiff-person syndrome: a case report.  

Cannabinoids: Novel Medicines for the Treatment of Huntington's Disease.  

Nabiximols for Opioid-Treated Cancer Patients With Poorly-Controlled Chronic Pain: A Randomized, Placebo-Controlled, Graded-Dose Trial.  

A questionnaire survey of patients and carers of patients prescribed Sativex as an unlicensed medicine.  

Subjective and Physiological Effects of Oromucosal Sprays Containing Cannabinoids (Nabiximols): Potentials and Limitations for Psychosis Research.  

Potential Control of Multiple Sclerosis by Cannabis and the Endocannabinoid System.  

Clinical efficacy and effectiveness of Sativex, a combined cannabinoid medicine, in multiple sclerosis-related spasticity.  

Evaluation of the safety and tolerability profile of Sativex: is it reassuring enough?  

Nabiximols in the treatment of spasticity, pain and urinary symptoms due to multiple sclerosis.  

Symptomatic therapy in multiple sclerosis: the role of cannabinoids in treating spasticity.  

Treatment of spasticity in multiple sclerosis: new perspectives regarding the use of cannabinoids 

Cost Effectiveness of Oromucosal Cannabis-Based Medicine (Sativex®) for Spasticity in Multiple Sclerosis.  

Can oral fluid cannabinoid testing monitor medication compliance and/or cannabis smoking during oral THC and oromucosal Sativex administration? 

A double-blind, randomized, placebo-controlled, parallel-group study of THC/CBD oromucosal spray in combination with the existing treatment regimen, in the relief of central neuropathic pain in patients with multiple sclerosis.  
(abst – 2012)

What place for cannabis extract in MS? (abst – 2012) [http://dtb.bmj.com/content/50/12/141.abstract]


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


Natural Cannabinoids Improve Dopamine Neurotransmission and Tau and Amyloid Pathology in a Mouse Model of Tauopathy. (full – 2013) [http://iospress.metapress.com/content/4j61942x88175321/fulltext.html]

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/]

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]


A new multiple sclerosis spasticity treatment option: effect in everyday clinical practice and cost-effectiveness in Germany.  (abst – 2013)  

Multiple sclerosis and the blood-central nervous system barrier.  (abst – 2013)  

(abst – 2013)  

A Double-Blind, Placebo-Controlled, Crossover Pilot Trial With Extension Using an Oral Mucosal Cannabinoid Extract for Treatment of Chemotherapy-Induced Neuropathic Pain.  
(abst – 2013)  

A review of the cultivation and processing of cannabis (Cannabis sativa L.) for production of prescription medicines in the UK.  
(abst – 2013)  

Advances in the management of multiple sclerosis spasticity: experiences from recent studies and everyday clinical practice.  
(abst – 2013)  

A Multiple-Dose, Randomized, Double-Blind, Placebo-Controlled, Parallel-Group QT/QTc Study to Evaluate the Electrophysiologic Effects of THC/CBD Spray  
(abst – 2013)  

"Miracle" Cannabis Oil: May Treat Cancer, But Money and the Law Stand in the Way of Finding Out  
(news – 2013)  

Medical Marajuana: 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

The Great GW Pharma Confidence Trick.  
(news – 2013)  
http://www.clear-uk.org/the-great-gw-pharma-confidence-trick/

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


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


Taming THC: potential cannabis synergy and phytocannabinoid-terpenoid entourage effects. (full - 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165946/
Terpenoids, ‘minor’ cannabinoids contribute to ‘entourage effect’ of cannabis-based medicines (news – 2011)

The Importance Of Matured Cannabis (news – 2011)
http://www.clear-uk.org/the-importance-of-matured-cannabis/


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/

Cannabis fractions: Separating cannabinoids from terpenoids (news – 2013)

**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/CIIEcompounds/transcripts/THC.asp

Advantages of polypharmaceutical herbal cannabis compared to single ingredient, synthetic tetrahydrocannabinol (full - 2000)
http://cannabismovement.org/docs/cannabis%20terpenes.pdf

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


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


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

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


Cannabinoid CB2 receptor activation reduces mouse myocardial ischemia-reperfusion injury: involvement of cytokine/chemokines and PMN (full - 2003)
The Endogenous Cannabinoid System Regulates Seizure Frequency and Duration in a Model of Temporal Lobe Epilepsy  (full - 2003)

Inhibition of tumor angiogenesis by cannabinoids  (full - 2003)

Effects of THC on Behavioral Measures of Impulsivity in Humans  (full - 2003)

Cannabis and the brain.  (full - 2003)


Cannabinoid influences on palatability: microstructural analysis of sucrose drinking after delta(9)-tetrahydrocannabinol, anandamide, 2-arachidonoyl glycerol and SR141716.  (abst – 2003)

Delta 9-tetrahydrocannabinol (THC) is effective in the treatment of tics in Tourette syndrome: a 6-week randomized trial.  (abst - 2003)

The endocannabinoid system as a target for the development of new drugs for cancer therapy.  (abst – 2003)

Pharmacokinetics and pharmacodynamics of cannabinoids.  (abst – 2003)

Cannabis can help MS sufferers  (news - 2003) (may need registration)
Differential Effects of THC or CBD-rich Cannabis Extracts on Working Memory in Rats (full - 2004)  
http://www.ukcia.org/research/THCCBDWorkingMemory.pdf

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) (funky link- says “404”, delete the “404” and it comes up)  

The good and the bad effects of (−) trans-delta-9-tetrahydrocannabinol (Δ9-THC) on humans (abst - 2004)  
http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6TCS-4CSG2C4-2&_user=10&rdoc=1&fmt=&orig=search&sort=d&view=c&acct=C000050221&version=1&_urlVersion=0&md5=99df29b0ce94c395c01f5aad8825d28b

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)  

[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)  

THC in marijuana may block the spread of forms of cancer causing herpes viruses (news - 2004)  

Cannabis truly helps multiple sclerosis sufferers (news - 2004) (may need registration)  

Marijuana-like compounds may aid array of debilitating conditions ranging from Parkinson’s to pain (news – 2004)  

Low dose oral cannabinoid therapy reduces progression of atherosclerosis in mice
Synergistic Interactions between Cannabinoids and Environmental Stress in the Activation of the Central Amygdala (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)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1824211/?tool=pmcentrez

Cannabinoids and cancer: potential for colorectal cancer therapy. (full - 2005)
http://www.biochemsoctrans.org/bst/033/0712/bst0330712.htm

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

p38 MAPK is involved in CB2 receptor-induced apoptosis of human leukaemia cells. (full – 2005)

Pharmacokinetics and metabolism of the plant cannabinoids, delta9-tetrahydrocannabinol, cannabidiol and cannabinoil. (abst – 2005)

Vascular effects of delta 9-tetrahydrocannabinol (THC), anandamide and N-arachidonoyldopamine (NADA) in the rat isolated aorta. (abst – 2005)

Targeting cannabinoid receptors to treat leukemia: role of cross-talk between extrinsic and intrinsic pathways in Delta9-tetrahydrocannabinol (THC)-induced apoptosis of Jurkat cells (abst – 2005)

Treatment of Tourette-syndrome with cannabinoids: results from clinical and neuroimaging studies (abst – 2005)

Cannabis may help keep arteries clear (news - 2005) (may need registration)
http://www.newscientist.com/article/mg18624956.000

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

Cannabis Spray for Bipolar (news - 2005)
http://www.prohealth.com/me-cfs/blog/boardDetail.cfm?id=565511


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/


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


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


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)

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)

Opioid Antagonism of Cannabinoid Effects: Differences between Marijuana Smokers and Nonmarijuana Smokers (full - 2007)

The psychoactive plant cannabinoid, Delta9-tetrahydrocannabinol, is antagonized by Delta8- and Delta9-tetrahydrocannabivarin in mice in vivo. (full - 2007)

Anandamide and Delta9-tetrahydrocannabinol directly inhibit cells of the immune system via CB2 receptors. (full - 2007)

CB2 receptors in the brain: role in central immune function (full - 2007)

Δ9-Tetrahydrocannabinol (THC) and AM 404 protect against cerebral ischaemia in gerbils through a mechanism involving cannabinoid and opioid receptors (full - 2007)

Low dose combination of morphine and Δ9-tetrahydrocannabinol circumvents antinociceptive tolerance and apparent desensitization of receptors (full - 2007)

The cannabinoid delta(9)-tetrahydrocannabinol inhibits RAS-MAPK and PI3K-AKT survival signalling and induces BAD-mediated apoptosis in colorectal cancer cells. (full - 2007)

On the pharmacological properties of Delta9-tetrahydrocannabinol (THC). (abst - 2007)

The antinociceptive effect of Delta9-tetrahydrocannabinol in the arthritic rat involves the CB(2) cannabinoid receptor. (abst - 2007)

THC improves appetite and reverses weight loss in AIDS patients (abst - 2007)
Repeated Treatment with Cannabidiol but Not Delta9-tetrahydrocannabinol Has a Neuroprotective Effect Without the Development of Tolerance  (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_morphe 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


Medicinal chemistry endeavors around the phytocannabinoids. (abst - 2007)  

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=800&resourcetype=HWCIT

Cannabinoid receptor agonists are mitochondrial inhibitors: a unified hypothesis of how cannabinoids modulate mitochondrial function and induce cell death. (abst – 2007)  

Pot's Active Ingredient Halts Lung Cancer Growth, Study Says  (news - 2007)  
http://www.illinoisnorml.org/content/view/529/27/

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)  

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

Delta-9-tetrahydrocannabinol pharmacokinetics (abst - 2008)  

Cytotoxic and NF-κB-modulating effects of cannabis constituents (abst – 2008)  

High concentrations of cannabinoids activate apoptosis in human U373MG glioma cells. (abst - 2008)  

Effect of intrapulmonary tetrahydrocannabinol administration in humans. (abst - 2008)  


Science: THC reduces reflux of acid from the stomach (news – 2008)  

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)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2786519/?tool=pmcentre

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

Opposite Effects of Delta-9-Tetrahydrocannabinol and Cannabidiol on Human Brain Function and Psychopathology (full - 2009)  

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)  

Actions of delta-9-tetrahydrocannabinol in cannabis (full - 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2731700/?tool=pmcentre

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)  

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

THC can improve symptoms of schizophrenia (article– 2009)  

Cannabidiol reverses the reduction in social interaction produced by low dose Delta(9)-tetrahydrocannabinol in rats. (abst – 2009)  

Neurocognitive performance during acute THC intoxication in heavy and occasional cannabis users. (abst - 2009)
Central side-effects of therapies based on CB1 cannabinoid receptor agonists and antagonists: focus on anxiety and depression.  (abst – 2009)

Modulation of effective connectivity during emotional processing by Delta9-tetrahydrocannabinol and cannabidiol.  (abst - 2009)


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://jpet.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


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/PMC2866040/?tool=pubmed

Cannabinoid Administration Attenuates the Progression of Simian Immunodeficiency Virus (full - 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3131805/

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/

Regulation of nausea and vomiting by cannabinoids (full - 2010)  

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

Anti-tumoural effects of cannabinoid combinations - Patent TW201002315 (A) — 2010-01-16 (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/1424-8247/3/9/2930

Cannabinoids Inhibit Cellular Respiration of Human Oral Cancer Cells (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

Chronic cannabinoid administration lowers viral replication in lymph nodes of SIV infected Rhesus macaques  (abst - 2010)  http://www.fasebj.org/cgi/content/abstract/24/1_MeetingAbstracts/752.6?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=720&resourcetype=HWCIT


A behavioural comparison of acute and chronic Delta9-tetrahydrocannabinol and cannabidiol in C57BL/6J Arc mice.  (abst – 2010)  http://www.unboundmedicine.com/medline/abstract/A_behavioural_comparison_of_acute_and_chronic_Delta9_tetrahydrocannabinol_and_cannabidiol_in_C57BL/6J_Arc_mice


Tocolytic Effect of Δ9-Tetrahydrocannabinol in Mice Model of Lipopolysaccharide—Induced Preterm Delivery: Role of Nitric Oxide  (abst - 2010)  http://rsx.sagepub.com/content/17/4/391.abstract
Activity-based anorexia in C57/BL6 mice: effects of the phytocannabinoid, Delta9-tetrahydrocannabinol (THC) and the anandamide analogue, OMDM-2.  (abst – 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://www.norml.org/index.cfm?Group_ID=8191

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)  
http://www.cannabis-med.org/english/bulletin/ww_en_db_cannabis_artikel.php?id=313#3

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)  

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

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/early/2011/02/11/annonc.mdq727.full

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
Prospects for cannabinoid therapies in basal ganglia disorders. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165947/

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)

Influence of agroclimatic conditions on content of main cannabinoids in industrial hemp (Cannabis sativa L.). (full – 2011)

Heterogeneity in the composition of marijuana seized in California. (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

Cannabinoid Neuroimmune Modulation of SIV Disease. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3208744/

Clozapine and SCH 23390 prevent the spatial working memory disruption induced by Δ9-THC administration into the medial prefrontal cortex. (full – 2011)

Effects of cannabinoids and cannabinoid-enriched Cannabis extracts on TRP channels and endocannabinoid metabolic enzymes. (full – 2011)

Plasma cannabinoid pharmacokinetics following controlled oral delta9-tetrahydrocannabinol and oromucosal cannabis extract administration. (full – 2011)
http://www.clinchem.org/content/57/1/66.long

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/

US Patent Application 20110257256 - CANNABINOIDS FOR USE IN TREATING OR PREVENTING COGNITIVE IMPAIRMENT AND DEMENTIA (full - 2011)  
http://www.patentstorm.us/applications/20110257256/fulltext.html

Cannabidiol potentiates Δ(9)-tetrahydrocannabinol (THC) behavioural effects and alters THC pharmacokinetics during acute and chronic treatment in adolescent rats. (abst - 2011)  

Combined effects of THC and caffeine on working memory 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/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/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)  
http://www.unboundmedicine.com/medline/abstract/THC_and_CBD_oromucosal_spray_Sativex%C2%AE_in_the_management_of_spasticity_associated_with_multiple_sclerosis_

Pharmacokinetics of a combination of Δ9-tetrahydro-cannabinol and celecoxib in a porcine model of hemorrhagic shock. (abst – 2011)  
http://www.unboundmedicine.com/medline/abstract/Pharmacokinetics_of_a_combination_of_%CE%949_tetrahydro_cannabinol_and_celecoxib_in_a_porcine_model_of_hemorrhagic_shock_

Pre- and post-conditioning treatment with an ultra-low dose of Δ9-tetrahydrocannabinol (THC) protects against pentylenetetrazole (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?booknrn=925_15
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)

The Therapeutic Potential of Cannabis and Cannabinoids (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3442177/

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

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

GPR18 in microglia: implications for the CNS and endocannabinoid system signaling (full – 2012)

Towards the use of non-psychoactive cannabinoids for prostate cancer. (full – 2012)

So what do we call GPR18 now? (full – 2012)

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
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/

Diuretic effects of cannabinoids. (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3533417/

Process for production of delta-9-tetrahydrocannabinol - Patent 8106244 (full – 2012)
http://www.patentstorm.us/patents/8106244/fulltext.html


Treatment of Tourette syndrome with cannabinoids. (link to PDF – 2012)
http://www.hindawi.com/journals/bn/2013/294264/abs/


Effect of delta-9-tetrahydrocannabinol on behavioral despair and on presynaptic and postsynaptic serotonergic transmission. (abst – 2012)

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)
Acute effects of a single, oral dose of Δ9-tetrahydrocannabinol (THC) and cannabidiol (CBD) administration in healthy volunteers. (abst – 2012)

Multiple Sclerosis and Extract of Cannabis: results of the MUSEC trial. (abst – 2012)


Effect of ion pairing on in vitro transcorneal permeability of a Δ(9)-tetrahydrocannabinol prodrug: potential in glaucoma therapy. (abst – 2012)


Cannabinoid facilitation of fear extinction memory recall in humans. (abst – 2012)

Manipulating brain connectivity with δ(9)-tetrahydrocannabinol: A pharmacological resting state FMRI study. (abst – 2012)

Brain regional differences in CB1 receptor adaptation and regulation of transcription. (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)

The periaqueductal gray contributes to bidirectional enhancement of antinociception between morphine and cannabinoids. (abst – 2012)

Δ9-Tetrahydrocannabinol acts as a partial agonist/antagonist in mice. (abst – 2012)

Δ9-Tetrahydrocannabinol Impairs the Inflammatory Response to Influenza Infection: Role of Antigen Presenting Cells and the Cannabinoid Receptors 1 and 2. (abst – 2012)

Acute effects of THC on time perception in frequent and infrequent cannabis users (abst – 2012)
What place for cannabis extract in MS?  
[http://dtb.bmj.com/content/50/12/141.abstract](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.  

Pharmacological modulation of the endocannabinoid signalling alters binge-type eating behaviour in female rats  

Long-term behavioral and biochemical effects of an ultra-low dose of Δ(9)-tetrahydrocannabinol (THC): neuroprotection and ERK signaling.  

Effects of ethanol, Δ(9)-tetrahydrocannabinol, or their combination on object recognition memory and object preference in adolescent and adult male rats.  

Effects of delta-9-tetrahydrocannabinol on evaluation of emotional images  
[http://jop.sagepub.com/content/26/10/1289.abstract](http://jop.sagepub.com/content/26/10/1289.abstract)

Researchers study neuroprotective properties in cannabis  

Can medical marijuana help rheumatoid arthritis?  

Cannabinoids May Help Prevent MDMA induced brain damage  

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

Natural Cannabinoids Improve Dopamine Neurotransmission and Tau and Amyloid Pathology in a Mouse Model of Tauopathy.  
[http://iospress.metapress.com/content/4j61942x88175321/fulltext.html](http://iospress.metapress.com/content/4j61942x88175321/fulltext.html)

Local delivery of cannabinoid-loaded microparticles inhibits tumor growth in a murine xenograft model of glioblastoma multiforme.  

Modulating the endocannabinoid system in human health and disease: successes and failures  
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

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

http://www.jbc.org/content/early/2013/11/07/jbc.M113.503037.long

The effects of caffeine, nicotine, ethanol, and tetrahydrocannabinol on exercise performance  (full – 2013)  
http://www.nutritionandmetabolism.com/content/10/1/71

Induction of the fatty acid 2-hydroxylase (FA2H) gene by Δ9-tetrahydrocannabinol in human breast cancer cells  (full – 2013)  
https://www.jstage.jst.go.jp/article/jts/38/2/38_305/_pdf

Magnitude of stimulation dictates the cannabinoid-mediated differential T cell response to HIVgp120  (full – 2013)  
http://www.jleukbio.org/content/92/5/1093.full

Understanding the Molecular Aspects of Tetrahydrocannabinol and Cannabidiol as Antioxidants  (link to PDF - 2013)  
http://www.mdpi.com/1420-3049/18/10/12663

Critical appraisal of the potential use of cannabinoids in cancer management.  
(link to PDF – 2013)  

Amygdala activity contributes to the dissociative effect of cannabis on pain perception.  
(abst – 2013)  

Dissociation of the Pharmacological Effects of THC by mTOR Blockade.  
(abst – 2013)  

Differential Expression of Intracellular and Extracellular CB(2) Cannabinoid Receptor Protein by Human Peripheral Blood Leukocytes.  
(abst – 2013)  

Surinabant, a selective CB(1) antagonist, inhibits THC-induced central nervous system and heart rate effects in humans.  
(abst – 2013)  

Prior Exposure to THC Increases the Addictive Effects of Nicotine in Rats.  
(abst – 2013)  


Tolerance and cross-tolerance among high-efficacy synthetic cannabinoids JWH-018 and JWH-073 and low-efficacy phytocannabinoid Δ9-THC (abst – 2013) http://www.fasebj.org/cgi/content/meeting_abstract/27/1_MeetingAbstracts/1097.1?sid=eea722c0-971c-4daa-8b8c-38c0c63c19ad
Additive antiemetic efficacy of Δ9-THC with vanilloid TRPV1 receptor agonists in the least shrew (Cryptotis parva)  
http://www.fasebj.org/cgi/content/meeting_abstract/27/1_MeetingAbstracts/1093.20?sid=eea722c0-971c-4d4a8b8c-38c0e63c19ad

Effects of anandamide and other CB1 ligands on cognitive function  
http://www.fasebj.org/cgi/content/meeting_abstract/27/1_MeetingAbstracts/1097.10?sid=eea722c0-971c-4d4a8b8c-38c0e63c19ad

Conditioned taste aversion elicited by synthetic cannabinoid JWH-018 in mice is attenuated by pretreatment with phytocannabinoid (Δ9)9-THC  
http://www.fasebj.org/cgi/content/meeting_abstract/26/1_MeetingAbstracts/660.4?sid=eea722c0-971c-4d4a8b8c-38c0e63c19ad

Interrogating Therapeutic Manipulation of the Endocannabinoid System in Human Colon  
http://www.fasebj.org/cgi/content/meeting_abstract/26/1_MeetingAbstracts/1123.1?sid=eea722c0-971c-4d4a8b8c-38c0e63c19ad

Does olanzapine inhibit the psychomimetic effects of Δ9-tetrahydrocannabinol?  
http://jop.sagepub.com/content/26/10/1307.abstract

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.  

Cannabinoids Inhibit T-cells via Cannabinoid Receptor 2 in an In Vitro Assay for Graft Rejection, the Mixed Lymphocyte Reaction.  

Intraperitoneal injection of Δ9-tetrahydrocannabinol induces local MDSCs with potent immunosuppressive properties  
http://www.jimmunol.org/cgi/content/meeting_abstract/190/1_MeetingAbstracts/208.5?sid=c3422dd2-7ad0-42e4-a862-845dc670f7bf

CHANGES ON METABOLIC PARAMETERS INDUCED BY ACUTE CANNABINOID ADMINISTRATION (CBD, THC) IN A RAT EXPERIMENTAL MODEL OF NUTRITIONAL VITAMIN A DEFICIENCY.  

Palmitoylethanolamide: From endogenous cannabimimetic substance to innovative medicine for the treatment of cannabis dependence.  

Cannabinoids Decrease the Th17 Inflammatory Autoimmune Phenotype.  


Exogenous cannabinoids as substrates, inhibitors, and inducers of human drug metabolizing enzymes: a systematic review. (abst – 2013)


Study: cannabis compound might have use as an HIV drug (news – 2013) http://www.wired.co.uk/news/archive/2013-05/1/cannabis-hiv-drug

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

New Study: Cannabinoids Protect the Brain and Heart From Injury (news – 2013) http://www.science20.com/news_articles/thc_can_prevent_brain_damage_study-113512


South Carolina researchers find THC in pot could turn microRNA on or off (news – 2013)

Poor Sleep Quality Makes It Harder To Quit Marijuana — Here’s Why (news – 2013)

Neurotransmitters Studied as Way to Enhance PTSD Treatment (news – 2013)

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

Chemicals in marijuana 'protect nervous system' against MS (news – 2013)
http://www.medicalnewstoday.com/articles/267161.php

Drug Testing Gets Harder: Exercise Causes THC Levels To Spike (news – 2013)

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

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. (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


Clinical experience with THC:CBD oromucosal spray in patients with multiple sclerosis-related spasticity. (abst – 2014)

Acute administration of Δ9 tetrahydrocannabinol does not prevent enhancement of sensory gating by clozapine in DBA/2 mice. (abst – 2014)

Cannabinoids inhibit cholinergic contraction in human airways through prejunctional CB1 receptors. (abst – 2014)

Active ingredient in pot sets off a feedback that reduces intoxication (news – 2014) http://arstechnica.com/science/2014/01/active-ingredient-in-pot-sets-off-a-feedback-that-reduces-intoxication/

**THC ACID/THCA** - non-psychoactive precursor of THC


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


Production of THC acid by the biosynthetic enzyme secreted from transgenic Pichia pastoris. (abst - 2007) http://marijuana.researchtoday.net/archive/4/8/1331.htm


Studies on tetrahydrocannabinolic acid synthase that produces the acidic precursor of tetrahydrocannabinol, the pharmacologically active cannabinoid in marijuana (full – 2009) http://www.ddtjournal.com/action/downloaddoc.php?docid=218
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)

Immunochromatographic approach using monoclonal antibody against Δ(9)-tetrahydrocannabinolic acid (THCA) to discern cannabis plants and to investigate new drug candidates. (link to PDF – 2011)
http://www.eurekaselect.com/94339/article

A real-time PCR assay for the relative quantification of the tetrahydrocannabinolic acid (THCA) synthase gene in herbal Cannabis samples (abst – 2011)

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)

Differential Modulation by Delta(9)-Tetrahydrocannabinol (Δ (9)-THC) of CD40 Ligand (CD40L) Expression in Activated Mouse Splenic CD4(+) T cells. (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/


**THC-HS / TETRAHYDROCANNABINOL-HEMISUCCINATE** *


**TETRAHYDROCANNABIORCOL** – activates the TRPA1 channel like acetaminophen does

TRPA1 mediates spinal antinociception induced by acetaminophen and the cannabinoid Δ9-tetrahydrocannabinol (abst – 2011)
http://www.nature.com/ncomms/journal/v2/n11/full/ncomms1559.html

**THCV/TETRAHYDROCANNABIVARIN/GWP-42006** *CB1 & CB2 antagonist*

Phytocannabinoids (news – undated)
http://www.news-medical.net/health/Phytocannabinoids.aspx

Delta9-tetrahydrocannabivarin as a marker for the ingestion of marijuana versus Marinol: results of a clinical study (abst - 2001)
http://www.unboundmedicine.com/medline/ebm/record/11599601/abstract/

Plant cannabinoids: a neglected pharmacological treasure trove (full - 2005)

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

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 phytocannabinoid Δ9-tetrahydrocannabivarin 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-tetrahydrocannabivarin (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219532/

Non-psychotropic plant cannabinoids: new therapeutic opportunities from an ancient herb (full - 2009)
http://www.onlinepot.org/medical/Izzo%20Plant%20Cannabinoids%20Therapeutic%20Opportunities%20TIPS%202009.pdf

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

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


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


Cannabis could be used to treat epilepsy #2 (news – 2011) http://www.telegraph.co.uk/science/science-news/8440303/Cannabis-could-be-used-to-treat-epilepsy.html


The Endocannabinoid System and Plant-Derived Cannabinoids in Diabetes and Diabetic Complications (full – 2012) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3349875/


GW Pharma Investment Summary (shows GW42006 is THCV) (report - 2012) https://docs.google.com/viewer?a=v&q=cache%3AFaPqLKYKUQJ%3Awww.gwpharm.com%2FUploads%2Fgwpharma290312update.pdf+&hl=en&gl=uk&pid=bl&srcid=ADGEESjz6iANgQZ30IRSDA1hR_oT0Fes2y9cv7Lja4mG0T53YkafusaXFUs_IWaOObaROUjdklgPxmt0GlmVW04DdDuhl7fwVf5ia-Blj3lM3YNBbXhQxa1g-XJW_1AnHLnvTXMXem&sig=AHIEtbTKgia5QaLtU0v4IHtkp8ajDt5G0A


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


Evaluation of the potential of the phytocannabinoids, cannabidivarin (CBDV) and Δ9-tetrahydrocannabivarín (THCV), to produce CB1 receptor inverse agonism symptoms of nausea in rats. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/23902479


**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


Trans-Caryophyllene Suppresses Hypoxia-Induced Neuroinflammatory Responses by Inhibiting NF-κB Activation in Microglia. (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/24488604