Granny Storm Crow's List - January 2014

THE ENDOCANNABINOID SYSTEM

2-AG / 2-ARACHIDONOYLGLYCEROL - CB 1 agonist

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


Endocannabinoids control spasticity in a multiple sclerosis model (full - 2000)
http://www.fasebj.org/cgi/reprint/00-0399fjev1?maxtoshow=&hits=10&RESULTFORMAT=&fulltext=cannabis&andorexactfulltext=and&searchid=1&FIRSTINDEX=10&sortspec=relevance&resourcetype=HWCIT

Endocannabinoid 2-arachidonyl glycerol is a full agonist through human type 2 cannabinoid receptor: antagonism by anandamide. (full – 2000)
http://molpharm.aspetjournals.org/content/57/5/1045.long

Endocannabinoids and Vascular Function (full - 2000)
http://jpet.aspetjournals.org/content/294/1/27.long

2-Arachidonoylglycerol and the cannabinoid receptors. (abst – 2000)

Cardiovascular effects of endocannabinoids--the plot thickens. (abst - 2000)

Endogenous cannabinoids and appetite. (abst – 2000)


Despite substantial degradation, 2-arachidonoylglycerol is a potent full efficacy agonist mediating CB1 receptor-dependent G-protein activation in rat cerebellar membranes. (full – 2001) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1572991/?tool=pubmed

Endogenous cannabinoids mediate hypotension after experimental myocardial infarction (full - 2001)
Inhibition of Rat C6 Glioma Cell Proliferation by Endogenous and Synthetic Cannabinoids. Relative Involvement of Cannabinoid and Vanilloid Receptors (full - 2001)  
http://jpet.aspetjournals.org/content/299/3/951.full

Cannabinoid CB1-receptor mediated regulation of gastrointestinal motility in mice in a model of intestinal inflammation (full - 2001)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1572987/?tool=pmcentrez

2-Arachidonyl glyceryl ether, an endogenous agonist of the cannabinoid CB1 receptor (full - 2001)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC31108/

Endocannabinoids are implicated in the infarct size-reducing effect conferred by heat stress preconditioning in isolated rat hearts (full – 2001)  

The neurobiology and evolution of cannabinoid signalling (full - 2001)  
http://rstb.royalsocietypublishing.org/content/356/1407/381.full.pdf+html

An endogenous cannabinoid (2-AG) is neuroprotective after brain injury. (abst - 2001)  

Sourcing the Code: Searching for the Evolutionary Origins of Cannabinoid Receptors, Vanilloid Receptors, and Anandamide (full – 2002)  

Activation of PAF receptors results in enhanced synthesis of 2-arachidonoylglycerol (2-AG) in immune cells (full - 2002)  
http://www.fasebj.org/cgi/content/full/15/12/2171?maxtoshow=&hits=10&RESULTFORMAT=&fulltext=cannabis&andorexactfulltext=and&searchid=1&FIRSTINDEX=10&sortspec=relevance&resourcetype=HWCIT

The potent emetogenic effects of the endocannabinoid, 2-AG (2-arachidonoylglycerol) are blocked by delta(9)-tetrahydrocannabinol and other cannabinoids. (full – 2002)  
http://jpet.aspetjournals.org/content/300/1/34.long

Comparison of the enzymatic stability and intraocular pressure effects of 2-arachidonoylglycerol and noladin ether, a novel putative endocannabinoid. (full – 2002)  
http://www.iovs.org/content/43/10/3216.full

Endocannabinoid levels in rat limbic forebrain and hypothalamus in relation to fasting, feeding and satiation: stimulation of eating by 2-arachidonoyl glycerol. (full – 2002)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1573386/?tool=pubmed

Changes in endocannabinoid contents in the brain of rats chronically exposed to nicotine, ethanol or cocaine. (abst – 2002)  


Endocannabinoids protect the rat isolated heart against ischaemia (full - 2003) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1573907/?tool=pmcentrez


The Endogenous Cannabinoid System Regulates Seizure Frequency and Duration in a Model of Temporal Lobe Epilepsy (full - 2003) http://jpet.aspetjournals.org/content/307/1/129.full?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=160&resourcetype=HWCIT

Manipulation of the endocannabinoid system by a general anaesthetic. (full – 2003) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1573927/?tool=pubmed


The endocannabinoid system: physiology and pharmacology. (full - 2004) http://alcalc.oxfordjournals.org/cgi/content/full/40/1/2

2-Arachidonoylglycerol A Novel Inhibitor of Androgen-Independent Prostate Cancer Cell Invasion  
http://cancerres.aacrjournals.org/cgi/content/full/64/24/8826?ijkey=951f5f9d238bd059cf30ee2be3a5a31aa/f2b094

Endogenous Cannabinoids Take the Edge off Neuroendocrine Responses to Stress  

The endocannabinoid-CB receptor system: Importance for development and in pediatric disease.  
(abst - 2004)  

A new class of inhibitors of 2-arachidonoylglycerol hydrolysis and invasion of prostate cancer cells  
(full – 2005)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1450257/

Role of the endocannabinoid system in the development of tolerance to alcohol  
(full – 2005)  
http://alcalc.oxfordjournals.org/content/40/1/15.long

2-Arachidonoylglycerol, an endogenous cannabinoid receptor ligand, induces rapid actin polymerization in HL-60 cells differentiated into macrophage-like cells  
(full – 2005)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1134878/

Analgesia through endogenous cannabinoids  
(full - 2005)  
http://www.cmaj.ca/cgi/content/full/173/4/357?maxtoshow=&hits=10&RESULTFORMAT=&fulltext=endocannabinoid&andorexactfulltext=and&searchid=1&FIRSTINDEX=0&sortspec=date&resourcetype=HW

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

CB1 cannabinoid receptor-mediated modulation of food intake in mice  
(full - 2005)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1576140/?tool=pmcentrez

Effects of cannabinoids on colonic muscle contractility and tension in guinea pigs.  
(full – 2005)  
https://www.jstage.jst.go.jp/article/jnms/72/1/72_1_43/_pdf

Reduced endocannabinoid immune modulation by a common cannabinoid 2 (CB2) receptor gene polymorphism: possible risk for autoimmune disorders.  
(full – 2005)  
http://www.jleukbio.org/content/78/1/231.long

Up-regulation of the endocannabinoid system in the uterus of leptin knockout (ob/ob) mice and implications for fertility  
(full – 2005)  
http://molehr.oxfordjournals.org/content/11/1/21.full

Finding of endocannabinoids in human eye tissues: implications for glaucoma.  
(abst – 2005)  

Fatty acid amidohydrolase in human neocortex-activity in epileptic and non-epileptic brain tissue and inhibition by putative endocannabinoids.  
(abst – 2005)

Body's Own Marijuana-Like Compounds Are Crucial For Stress-Induced Pain Relief  (news - 2005)  http://www.sciencedaily.com/releases/2005/06/050628064435.htm


Endocannabinoids, feeding and suckling – from our perspective  (full – 2006)  http://www.nature.com/ijo/journal/v30/n1s/full/0803274a.html


Experimental autoimmune encephalomyelitis disrupts endocannabinoid-mediated neuroprotection  (full - 2006)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1458883/?tool=pmcentrez

Weight Control in Individuals With Diabetes  (full - 2006)  http://care.diabetesjournals.org/content/29/12/2749.full?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabis&searchid=1&FIRSTINDEX=2000&resourcetype=HWCIT

A new strategy to block tumor growth by inhibiting endocannabinoid inactivation.  (full – 2006)  http://www.fasebj.org/content/early/2004/10/02/fj.04-1754fje.long

Involvement of the Cannabinoid CB2 Receptor and Its Endogenous Ligand 2-Arachidonoylglycerol in Oxazolone-Induced Contact Dermatitis in Mice  (full – 2006)  http://www.jimmunol.org/content/177/12/8796.full


Monoacylglycerol lipase inhibition by organophosphorus compounds leads to elevation of brain 2-arachidonoylglycerol and the associated hypomotility in mice.  (abst – 2006)
Biochemistry, pharmacology and physiology of 2-arachidonoylglycerol, an endogenous cannabinoid receptor ligand. (abst - 2006)  

The endocannabinoid 2-AG protects the blood-brain barrier after closed head injury and inhibits mRNA expression of proinflammatory cytokines. (abst – 2006)  


The CB1 Cannabinoid Receptor Mediates Excitotoxicity-induced Neural Progenitor Proliferation and Neurogenesis (full - 2007)  
http://www.jbc.org/content/282/33/23892.full

Endocannabinoids and the haematological system  (full - 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2190025/?tool=pmcentrez

Increased endocannabinoid levels reduce the development of precancerous lesions in the mouse colon  (full - 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2755791/?tool=pmcentrez

Diverse roles of 2-arachidonoylglycerol in invasion of prostate carcinoma cells: Location, hydrolysis and 12-lipoxygenase metabolism  (full – 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2565646/?tool=pubmed

Opposing Actions of Endocannabinoids on Cholangiocarcinoma Growth: RECRUITMENT OF Fas AND Fas LIGAND TO LIPID RAFTS  (full – 2007)  
http://www.jbc.org/content/282/17/13098.full

Pharmacological enhancement of the endocannabinoid system in the nucleus accumbens shell stimulates food intake and increases c-Fos expression in the hypothalamus. (full – 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2042935/?tool=pubmed

Cannabinoid-2 receptor mediates protection against hepatic ischemia/reperfusion injury  (full - 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2228252/?tool=pmcentrez

Endocannabinoids block status epilepticus in cultured hippocampal neurons  (full - 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2617750/?tool=pmcentrez

Chronologically overlapping occurrences of nicotine-induced anxiety- and depression-related behavioral symptoms: effects of anxiolytic and cannabinoid drugs  (full - 2007)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2075518/?tool=pubmed

2-AG + 2 new players = forecast for therapeutic advances.  (full – 2007)  
http://www.sciencedirect.com/science?_ob=ArticleURL&_uri=B6VRP-4RFCCVN-4&_user=10&_coverDate=12%2F26%2F2007&_rdoc=1&_fmt=high&_orig=gateway&_origin=gateway&
CB2 receptors in the brain: role in central immune function  (full - 2007)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219530/?tool=pmcentrez

Opposing Actions of Endocannabinoids on Cholangiocarcinoma Growth  (full - 2007)
http://www.jbc.org/content/282/17/13098.full

Endocannabinoids, cannabinoid receptors and inflammatory stress: an interview with Dr. Pál Pacher  (interview - 2007)
http://www.jleukbio.org/cgi/content/full/82/6/1390?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=880&resourcetype=HWCIT

In Vitro Anticonvulsant Action of 2-Arachidonoyl Glycerol  (abst – 2007)


The endocannabinoids anandamide and 2-arachidonoylglycerol inhibit cholinergic contractility in the human colon.  (abst – 2007)

The endocannabinoid system  (news – 2007)
http://www.xagena.it/news/medicinenews_net_news/27e9efa7a852beaa4d9e0791d2d37b1.html

The cannabinoid CB1 receptor regulates bone formation by modulating adrenergic signaling.  (full - 2008)  http://www.fasebj.org/cgi/content/full/22/1/285

Cannabinoids Inhibit HIV-1 Gp120-Mediated Insults in Brain Microvascular Endothelial Cells  (full - 2008)
http://www.jimmunol.org/cgi/content/full/181/9/6406?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=160&resourcetype=HWCIT

Endocannabinoids enhance lipid synthesis and apoptosis of human sebocytes via cannabinoid receptor-2-mediated signaling.  (full – 2008)
http://www.fasebj.org/content/22/10/3685.long

Role of activated endocannabinoid system in regulation of cellular cholesterol metabolism in macrophages  (full – 2008)
http://cardiovascres.oxfordjournals.org/content/81/4/805.full?sid=7d2438c4-a727-410f-870d-4a971695b4fb

Endocannabinoid 2-Arachidonoylglycerol Protects Neurons by Limiting COX-2 Elevation  (full – 2008)  http://www.jbc.org/content/283/33/22601.full

Endocannabinoids and nutrition.  (full – 2008)
Activating Parabrachial Cannabinoid CB1 Receptors Selectively Stimulates Feeding of Palatable Foods in Rats (full - 2008)
http://www.jneurosci.org/cgi/content/full/28/39/9702?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=0&resourcetype=HWT

Cannabinoid receptors and the regulation of bone mass (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2219540/?tool=pmcentrez

Role of endocannabinoids in cardiovascular shock. (full – 2008)
http://www.jpp.krakow.pl/journal/archive/12_08_s8/pdf/91_12_08_s8_article.pdf

Pharmacological Inhibition of CB1 Cannabinoid Receptor Protects Against Doxorubicin-Induced Cardiotoxicity (full - 2008) http://content.onlinejacc.org/cgi/content/full/50/6/528


Endocannabinoids and the Control of Energy Homeostasis (full – 2008)
http://www.ibc.org/content/283/48/33021.full?sid=931583b1-e797-43e0-8296-7fd75bb49403


Increased endocannabinoid levels reduce the development of precancerous lesions in the mouse colon. (full – 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2755791/?tool=pubmed

Mechanisms for Recycling and Biosynthesis of Endogenous Cannabinoids Anandamide and 2-Arachidonoylglycerol (full - 2008)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2581634/?tool=pmcentrez

Dysregulation of the endocannabinoid system in obesity. (abst – 2008)


The role of the CB1 receptor in the regulation of sleep. (abst – 2008)


Endocannabinoids and cannabinoid analogues block cardiac hKv1.5 channels in a cannabinoid receptor-independent manner  (full – 2009)  http://cardiovascres.oxfordjournals.org/content/85/1/56.full?sid=7d2438c4-a727-410f-870d-4a971695b4fb

Changes in the Endocannabinoid System May Give Insight into new and Effective Treatments for Cancer  (full - 2009)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2791688/?tool=pmcentrez


Endocannabinoid-mediated control of synaptic transmission.  (full – 2009)  http://physrev.physiology.org/content/89/1/309.long


Selective blockade of 2-arachidonoylglycerol hydrolysis produces cannabinoid behavioral effects  (full – 2009)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2605181/

Neuropathic Pain and Endocannabinoid-Degradation Blockade  (full – 2009)  http://jpet.aspetjournals.org/content/330/3/669.1.full?sid=af53ea87-ab4b-426e-9c7e-8f750e9c4a17

Blockade of endocannabinoid-degrading enzymes attenuates neuropathic pain. (full - 2009)  http://jpet.aspetjournals.org/content/330/3/902.full?sid=af53ea87-ab4b-426e-9c7e-8f750e9c4a17

Pretreatment with electroacupuncture induces rapid tolerance to focal cerebral ischemia through regulation of endocannabinoid system.  (full – 2009)  http://stroke.ahajournals.org/content/40/6/2157.long
Circulating endocannabinoids and N-acyl ethanolamines are differentially regulated in major depression and following exposure to social stress.  (full – 2009)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2716432/?tool=pubmed

Minocycline treatment inhibits microglial activation and alters spinal levels of endocannabinoids in a rat model of neuropathic pain  (full – 2009)  
http://www.molecularpain.com/content/5/1/35

Blockade of 2-arachidonoylglycerol hydrolysis by selective monoacylglycerol lipase inhibitor 4-nitrophenyl 4-(dibenzo[d][1,3]dioxol-5-yl(hydroxy)methyl)piperidine-1-carboxylate (JZL184) Enhances retrograde endocannabinoid signaling.  (full – 2009)  
http://jpet.aspetjournals.org/content/331/2/591.long

Unconventional neurotransmitters, neurodegeneration and neuroprotection  (full – 2009)  

The endocannabinoid 2-arachidonoylglycerol promotes sperm development through activation of cannabinoid-2 receptors  (full – 2009)  

The endocannabinoid system as a link between homoeostatic and hedonic pathways involved in energy balance regulation  (full – 2009)  
http://www.nature.com/ijo/journal/v33/n2s/full/ijo200967a.html

From endocannabinoid profiling to 'endocannabinoid therapeutics'.  (abst – 2009)  

Circulating endocannabinoid concentrations during orthostatic stress  (abst – 2009)  
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Effects of cannabinoid drugs on the reinforcing properties of food in gestationally undernourished rats.  (abst – 2009)  

International Union of Basic and Clinical Pharmacology. LXXIX. Cannabinoid Receptors and Their Ligands: Beyond CB1 and CB2  (full – 2010)  
http://pharmrev.aspetjournals.org/content/62/4/588.full.pdf+html

Enhancement of endocannabinoid signaling by fatty acid amide hydrolase inhibition: a neuroprotective therapeutic modality.  (full – 2010)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2848893/?tool=pubmed

Dietary docosahexaenoic acid supplementation alters select physiological endocannabinoid-system metabolites in brain and plasma  (full – 2010)  
http://www.jlr.org/content/51/6/1416.full.pdf+html
Abnormal mGlu 5 receptor/endocannabinoid coupling in mice lacking FMRP and BC1 RNA.  (full – 2010)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3055456/


Antitumorigenic Effects of Cannabinoids beyond Apoptosis  (full - 2010)  http://jpet.aspetjournals.org/content/332/2/336.full?sid=af53ea87-ab4b-426e-9c7e-8f750e9c4a17

Endocannabinoid Overload  (full – 2010)  http://molpharm.aspetjournals.org/content/78/6/993.full

Maternal Dietary Fat Determines Metabolic Profile and the Magnitude of Endocannabinoid Inhibition of the Stress Response in Neonatal Rat Offspring  (full – 2010)  http://endo.endojournals.org/content/151/4/1685.full?sid=f9729cff-d221-42d4-81d8-8545db5df878

Cyclooxygenase-2 Mediates Anandamide Metabolism in the Mouse Brain  (full – 2010)  http://jpet.aspetjournals.org/content/335/2/380.full?sid=af53ea87-ab4b-426e-9c7e-8f750e9c4a17

Cannabinoid Receptors as Target for Treatment of Osteoporosis: A Tale of Two Therapies  (full – 2010)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3001217/?tool=pubmed

Differential alterations of the concentrations of endocannabinoids and related lipids in the subcutaneous adipose tissue of obese diabetic patients  (full - 2010)  http://www.lipidworld.com/content/9/1/43


Energetic Metabolism and Human Sperm Motility: Impact of CB1 Receptor Activation  (full – 2010)  http://endo.endojournals.org/content/151/12/5882.full

Endogenous cannabinoid signaling is essential for stress adaptation  (full - 2010)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2889099/?tool=pmcentrez

Endocannabinoid signalling: has it got rhythm?  (full – 2010)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931554/?tool=pubmed

The endocannabinoid 2-arachidonoyl-glycerol controls odor sensitivity in larvae of Xenopus laevis.  (full – 2010)  http://www.jneurosci.org/content/30/26/8965.long

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The endocannabinoid system as a target for the treatment of neurodegenerative disease (full - 2010)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2868848/?tool=pubmed

The serine hydrolase ABHD6 controls the accumulation and efficacy of 2-AG at cannabinoid receptors.  (full – 2010)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2970523/?tool=pubmed


Endocannabinoids and Schizophrenia  (link to PDF – 2010)  http://www.mdpi.com/1424-8247/3/10/3101


Circulating endocannabinoids and N-acyl-ethanolamides in patients with sleep apnea--specific role of oleoylthanolamide. (abst – 2010)

Endocannabinoids and pregnancy. (abst – 2010)

Receptors triggered by pot may lessen hit from chronic stress (news – 2010)

Painkilling System in Brain: Too Much of a Good Thing? (news - 2010)

Alterations in Metabotropic Glutamate Receptor 1a and Regulator of G Protein Signaling 4 in the Prefrontal Cortex in Schizophrenia (news - 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165950/

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

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

The endocannabinoid system and cancer: therapeutic implication (full – 2011)

Endocannabinoids and traumatic brain injury (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2933347/

Mutations in ABHD12 cause the neurodegenerative disease PHARC: An inborn error of endocannabinoid metabolism. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2933347/

Molecular reorganization of endocannabinoid signalling in Alzheimer's disease. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3069704/pdf/awr046.pdf

Effect of dietary krill oil supplementation on the endocannabinoidome of metabolically relevant tissues from high-fat-fed mice (full – 2011)
http://www.nutritionandmetabolism.com/content/8/1/51

The activity of the endocannabinoid metabolising enzyme fatty acid amide hydrolase in subcutaneous adipocytes correlates with BMI in metabolically healthy humans (full – 2011)
http://www.lipidworld.com/content/10/1/129

Krill oil significantly decreases 2-arachidonoylglycerol plasma levels in obese subjects.


Dual inhibition of alpha/beta hydrolase domain 6 and fatty acid amide hydrolase increases endocannabinoid levels in neurons. (full – 2011) http://www.jbc.org/content/early/2011/06/10/jbc.M110.202853.long


Increasing endogenous 2-arachidonoylglycerol levels counteracts colitis and related systemic inflammation. (full – 2011) http://www.fasebj.org/content/25/8/2711.long

Protective Role of Cannabinoid Receptor Type 2 in a Mouse Model of Diabetic Nephropathy. (full – 2011) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3161308/

Cannabinoid exposure during zebra finch sensorimotor vocal learning persistently alters expression of endocannabinoid signaling elements and acute agonist responsiveness (full – 2011) http://www.biomedcentral.com/1471-2202/12/3

Cannabinoid Receptor 2 Is Critical for the Homing and Retention of Marginal Zone B Lineage Cells and for Efficient T-Independent Immune Responses (full – 2011) http://www.jimmunol.org/content/187/11/5720.full.pdf+html


The Endogenous Cannabinoid 2-Arachidonoylglycerol Is Intravenously Self-Administered by Squirrel Monkeys (full – 2011) http://www.jneurosci.org/content/31/19/7043.long#abstract-1

Complementary synaptic distribution of enzymes responsible for synthesis and inactivation of the endocannabinoid 2-arachidonoylglycerol in the human hippocampus.
Effect of an Acute Consumption of a Moderate Amount of Ethanol on Plasma Endocannabinoid Levels in Humans
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Inhibition of monoacylglycerol lipase (MAGL) attenuates NSAID-induced gastric hemorrhages in mice.
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Endocannabinoid 2-arachidonoylglycerol protects neurons against β-amyloid insults.

Endogenous Cannabinoid Production in the Rat Female Reproductive Tract Is Regulated by Changes in the Hormonal Milieu
http://www.mdpi.com/1424-8247/4/6/933

Investigations of the human endocannabinoid system in two subcutaneous adipose tissue depots in lean subjects and in obese subjects before and after weight loss

Effect of capacitation on the endocannabinoid system of mouse sperm.

Chemoenzymatic synthesis of 2-arachidonoylglycerol, an endogenous ligand for cannabinoid receptors

Administration of 2-arachidonoylglycerol ameliorates both acute and chronic Experimental Autoimmune Encephalomyelitis
http://www.unboundmedicine.com/medline/ebm/record/21406188/abstract/Administration_of_2_arachidonoylglycerol_ameliorates_both_acute_and_chronic_Experimental_Autoimmune_Encephalomyelitis

The Effect of Hypoxia on G Protein Coupled (CB1) Receptor Gene Expression in Cortical B50 Neurons in Culture
http://www.maxwellsci.com/jp/abstract.php?jid=BJPT&no=92&abs=05

Alteration of the Endocannabinoid System In Mouse Brain During Prion Disease.
http://www.unboundmedicine.com/medline/ebm/record/21195746/abstract/Alteration_of_the_Endocannabinoid_System_In_Mouse_Brain_During_Prion_Disease

Cannabinoid receptor 2 positions and retains marginal zone B cells within the splenic marginal zone.

The endocannabinoid system in the cancer therapy: an overview.

2-Arachidonoylglycerol (2-AG) Induces Corneal Epithelial Cell Migration via Cannabinoid CB1 Receptors (abst – 2011) http://abstracts.iovs.org/cgi/content/abstract/52/6/1995?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=80&sortspec=date&resourcetype=HWCIT

Fish oil promotes survival and protects against cognitive decline in severely undernourished mice by normalizing satiety signals. (abst – 2011) http://www.ncbi.nlm.nih.gov/pubmed/21109417

Increment of hypothalamic 2-arachidonoylglycerol induces the preference for a high-fat diet via activation of cannabinoid 1 receptors (abst – 2011) http://www.unboundmedicine.com/medline/ebm/record/20817042/abstract/Increment_of_hypothalamic_2-arachidonoylglycerol_induces_the_preference_for_a_high_fat_diet_via_activation_of_cannabinoid_1_receptors


Endocannabinoid CB1 receptors modulate visual output from the thalamus. (abst – 2011) http://www.ncbi.nlm.nih.gov/pubmed/21773721

Omega-3 N-acylethanolamines are endogenously synthesised from omega-3 fatty acids in different human prostate and breast cancer cell lines. (abst – 2011) http://www.ncbi.nlm.nih.gov/pubmed/21995886


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**CBR – GPR-18 CANNABINOID RECEPTOR** - activated by Abnormal CBD, N-arachidonoylglycine, O-1602, THC, Anandamide

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Overexpression of GPR40 in pancreatic beta-cells augments glucose-stimulated insulin secretion and improves glucose tolerance in normal and diabetic mice. (full – 2009) [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2671040/?tool=pubmed](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2671040/?tool=pubmed)


**CBR - GPR55/ CB3 CANNABINOID RECEPTOR** *
Activated by l-α-lysoosphatidylglycerol (LPI), and to a lesser extent possibly by THC, CBD-O-1602, PEA, 2-AG, Anandamide, Virodhamine

Cannabinoid Receptor Ligands (full - undated) [http://www.tocris.com/pdfs/cannabinoid_receptor_review/page_001.html](http://www.tocris.com/pdfs/cannabinoid_receptor_review/page_001.html)

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Endocannabinoid-mediated control of synaptic transmission.  
(full – 2009)  
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The GPR55 ligand L-alpha-lysophosphatidylinositol promotes RhoA-dependent Ca2+ signaling and NFAT activation.  
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Atypical responsiveness of the orphan receptor GPR55 to cannabinoid ligands.  
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Comparative effects of chlorpyrifos in wild type and cannabinoid Cb1 receptor knockout mice.  (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3205254/

Early onset of aging-like changes is restricted to cognitive abilities and skin structure in Cnr1(-/-) mice.  (abst – 2011)  

The role of cannabinoid receptors in bone remodeling in a CB1/2 double knockout mouse (abst – 2011)  
http://www.fasebj.org/cgi/content/meeting_abstract/25/1_MeetingAbstracts/492.5?maxtoshow=&hits=80&RESULTFORMAT=&fulltext=cannabinoid&searchid=1&FIRSTINDEX=160&sortspec=date&resourcetype=HWCIT

Cannabinoid type 1 receptor mediates depot-specific effects on differentiation, inflammation and oxidative metabolism in inguinal and epididymal white adipocytes.  (abst – 2011)  

The central cannabinoid CB1 receptor is required for diet-induced obesity and rimonabant's antiobesity effects in mice  (abst – 2011)  

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

Bodyguard for the brain  (news – 2011)  
http://www.sciencecodex.com/bodyguard_for_the_brain

Role of CB1 cannabinoid receptors on GABAergic neurons in brain aging  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3131310/?tool=pubmed

Loss of CB1 receptors leads to differential age-related changes in reward-driven learning and memory.  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3514639/

Acetaminophen differentially enhances social behavior and cortical cannabinoid levels in inbred mice.  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3389197/

Upregulation of cannabinoid type 1 receptors in dopamine D2 receptor knockout mouse is reversed by chronic forced ethanol consumption.  (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3004984/?tool=pubmed

Hypothalamic CB1 Cannabinoid Receptors Regulate Energy Balance in Mice  (full – 2012)  

Resistance to diet-induced adiposity in cannabinoid receptor-1 deficient mice is not due to impaired adipocyte function.  (full – 2012)  
http://www.nutritionandmetabolism.com/content/pdf/1743-7075-8-93.pdf
Angiotensin II induces vascular endocannabinoid release, which attenuates its vasoconstrictor effect via CB1 cannabinoid receptors. (full – 2012)
http://www.jbc.org/content/early/2012/07/11/jbc.M112.346296.full.pdf+html

How Weed Can Protect Us From Cancer and Alzheimer’s (book excerpt – 2012)
http://www.alternet.org/story/156269/how_weed_can_protect_us_from_cancer_and_alzheimer%27s

Impaired hippocampal glucoregulation in the cannabinoid CB(1) receptor knockout mice as revealed by an optimized in vitro experimental approach. (abst – 2012)


Cannabinoid CB1 receptor deficiency increases contextual fear memory under highly aversive conditions and long-term potentiation in vivo. (abst – 2012)

Age-related changes of anandamide metabolism in CB1 cannabinoid receptor knockout mice: correlation with behaviour. (abst – 2012)


Cannabinoid receptor 1 in the vagus nerve is dispensable for body weight homeostasis but required for normal gastrointestinal motility. (abst – 2012)

The CB1 Cannabinoid Receptor Drives Corticospinal Motor Neuron Differentiation through the Ctip2/Satb2 Transcriptional Regulation Axis. (abst – 2012)

Cannabinoid Modulation of Midbrain Urocortin 1 Neurones During Acute and Chronic Stress (abst – 2012)

Role of CB1 and CB2 cannabinoid receptors in the development of joint pain induced by monosodium iodoacetate. (abst – 2012) http://www.ncbi.nlm.nih.gov/pubmed/23199705

The cannabinoid receptor-2 is involved in allergic inflammation (abst – 2012)

The Dual Effect of Cannabinoid Receptor-1 Deficiency on the Murine Postoperative Ileus (full – 2013)
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0067427

Genetic Background Can Result in a Marked or Minimal Effect of Gene Knockout (GPR55 and CB2 Receptor) in Experimental Autoimmune Encephalomyelitis Models of
Multiple Sclerosis.  (full – 2013)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0076907

CB2 Receptor Deficiency Increases Amyloid Pathology and Alters Tau Processing in a Transgenic Mouse Model of Alzheimer's Disease.  (full - 2013)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3883962/

Bladder function in a cannabinoid receptor type 1 knock-out mouse.  (full – 2013)  

Developmental Role for Endocannabinoid Signaling in Regulating Glucose Metabolism and Growth.  (full – 2013)  
http://diabetes.diabetesjournals.org/content/62/7/2359.full?sid=2f5bda2b-a9c7-432a-9588-80c99189164d

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

A GPR18-based signaling system regulates IOP in murine eye.  (abst – 2013)  

Endocannabinoid system and drug addiction: new insights from mutant mice approaches.  
(abst – 2013)  

Involvement of the opioid and cannabinoid systems in pain control: new insights from knockout studies.  (abst – 2013)  

Low 17beta-Estradiol Levels in Cnr1 Knock-Out Mice Affect Spermatid Chromatin Remodeling by Interfering with Chromatin Reorganization.  (abst – 2013)  

Cardiorespiratory control as a function of wake-sleep behavior and diet in mice lacking CB1 cannabinoid receptors  (abst – 2013)  
http://www.fasebj.org/cgi/content/meeting_abstract/27/1_MeetingAbstracts/926.1?sid=eea722c0-971c-4daa-888c-38c063c19ad

Synaptic plasticity alterations associated with memory impairment induced by deletion of CB2 cannabinoid receptors.  (abst – 2013)  

Role of cannabinoid CB2 receptor in the reinforcing actions of ethanol.  (abst – 2013)  

CB1 cannabinoid receptor-mediated aggressive behavior.  (abst – 2013)  

Characterization of bladder function in a cannabinoid receptor type 2 knockout mouse in vivo and in vitro.  (abst – 2013)  
Loss of CB1 receptors leads to decreased cathepsin D levels and accelerated lipofuscin accumulation in the hippocampus. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/23954857

CB1 Receptor-Mediated Signaling Underlies the Hippocampal Synaptic, Learning and Memory Deficits Following Treatment with JWH-081, a New Component of Spice/K2 Preparations. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/24123667


Endocannabinoids decrease neuropathic pain-related behavior in mice through the activation of one or both peripheral CB1 and CB2 receptors. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/24148808

Modulation of Strain-Specific Differences in Gene Expression by Cannabinoid Type 2 Receptor Deficiency. (abst – 2013) http://www.ncbi.nlm.nih.gov/pubmed/24370613

The CB1 receptor mediates the peripheral effects of ghrelin on AMPK activity but not on growth hormone release (abst – 2013) http://www.fasebj.org/content/27/12/5112.abstract?sid=7a3e6978-9a8c-4319-bca1-9f80fed2445f

Why resolutions about taking up physical activity are hard to keep. (news – 2013) http://www.thefreelibrary.com/Why+resolutions+about+taking+up+physical+activity+are+hard+to+keep.-a0313904638


**L-α-lysoPhosphatidylinositol** – GPR-55 agonist

The GPR55 ligand L-alpha-lysophosphatidylinositol promotes RhoA-dependent Ca2+ signaling and NFAT activation. (full – 2009) http://www.fasebj.org/content/23/1/183.long

GPR55 ligands promote receptor coupling to multiple signalling pathways. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931561/?tool=pubmed
Pharmacology of GPR55 in yeast and identification of GSK494581A as a mixed-activity glycine transporter subtype 1 inhibitor and GPR55 agonist. (full – 2011)
http://jpet.aspetjournals.org/content/337/1/236.long

Lipid bilayer molecular dynamics study of lipid-derived agonists of the putative cannabinoid receptor, GPR55. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3086297/?tool=pubmed

A role for L-alpha-lysophosphatidylinositol and GPR55 in the modulation of migration, orientation and polarization of human breast cancer cells. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931574/?tool=pubmed


The L-α-lysophosphatidylinositol/GPR55 system and its potential role in human obesity. (full – 2012) http://diabetes.diabetesjournals.org/content/61/2/281.long

Modulation of L-α-lysophosphatidylinositol/GPR55 mitogen-activated protein kinase (MAPK) signaling by cannabinoids. (abst – 2012)

**MAGL/ MONOACYLGLYCEROL LIPASE** - breaks down 2-AG

Monoacylglycerol lipase inhibition by organophosphorus compounds leads to elevation of brain 2-arachidonoylglycerol and the associated hypomotility in mice. (abst – 2006)

Blockade of 2-arachidonoylglycerol hydrolysis by selective monoacylglycerol lipase inhibitor 4-nitrophenyl 4-(dibenzo[d][1,3]dioxol-5-yl(hydroxy)methyl)piperidine-1-carboxylate (JZL184) Enhances retrograde endocannabinoid signaling. (full – 2009)
http://jpet.aspetjournals.org/content/331/2/591.long

Inhibition of monoacylglycerol lipase (MAGL) attenuates NSAID-induced gastric hemorrhages in mice. (full – 2011)
http://jpet.aspetjournals.org/content/early/2011/06/09/jpet.110.175778.long

The serine hydrolases MAGL, ABHD6 and ABHD12 as guardians of 2-arachidonoylglycerol signalling through cannabinoid receptors (full – 2011)

Intrinsic Up-Regulation of 2-AG Favors an Area Specific Neuronal Survival in Different In Vitro Models of Neuronal Damage. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3527460/
Monoacylglycerol lipase is a new therapeutic target for Alzheimer’s disease
(full – 2012)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3513645/

Spinal administration of the monoacylglycerol lipase inhibitor JZL184 produces robust inhibitory effects on nociceptive processing and the development of central sensitization in the rat  (full – 2012)

Monoacylglycerol lipase – a target for drug development?  (full – 2012)

Activation of Type 5 Metabotropic Glutamate Receptors and Diacylglycerol Lipase-α Initiates 2-Arachidonoylglycerol Formation and Endocannabinoid-Mediated Analgesia.

Equipotent Inhibition of Fatty Acid Amide Hydrolase and Monoacylglycerol Lipase - Dual Targets of the Endocannabinoid System to Protect against Seizure Pathology.


Dual inhibition of MAGL and type II topoisomerase by N-phenylmaleimides as a potential strategy to reduce neuroblastoma cell growth.  (abst – 2012)

Monoacylglycerol Lipase (MAGL) Inhibition Attenuates Acute Lung Injury in Mice.
(full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3808422/

The monoacylglycerol lipase inhibitor JZL184 suppresses inflammatory pain in the mouse carrageenan model.  (full – 2013)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3717616/

Therapeutic potential of monoacylglycerol lipase inhibitors.  (abst – 2013)


In vivo characterization of the highly selective monoacylglycerol lipase inhibitor KML29: Antinociceptive activity without cannabimimetic side effects.  (abst – 2013)

(4-Phenoxyphenyl)tetrazolecarboxamides and related compounds as dual inhibitors of fatty acid amide hydrolase (FAAH) and monoacylglycerol lipase (MAGL).


Monoacylglycerol Lipase Inhibition Blocks Chronic Stress-Induced Depressive-Like Behaviors via Activation of mTOR Signaling (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/24476943


Monoacylglycerol Lipase Inhibition Blocks Chronic Stress-Induced Depressive-Like Behaviors via Activation of mTOR Signaling. (abst – 2014) http://www.ncbi.nlm.nih.gov/pubmed/24476943


**NADA/ N-ARACHIDONOYLDOPAMINE** - CB1agonist


Mechanisms of HIV-1 inhibition by the lipid mediator N-arachidonoyldopamine. (full – 2005) [http://www.jimmunol.org/content/175/6/3990.long]


Arvanil, anandamide and N-arachidonoyl-dopamine (NADA) inhibit emesis through cannabinoid CB1 and vanilloid TRPV1 receptors in the ferret. (abst – 2007) [http://www.ncbi.nlm.nih.gov/pubmed/17459108]

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 role of the CB1 receptor in the regulation of sleep. (abst – 2008) [http://www.ncbi.nlm.nih.gov/pubmed/18514375]

The biosynthesis of N-arachidonoyl dopamine (NADA), a putative endocannabinoid and endovanilloid, via conjugation of arachidonic acid with dopamine (full – 2009) [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2757501/]

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

The endocannabinoid N-arachidonoyl dopamine (NADA) selectively induces oxidative stress-mediated cell death in hepatic stellate cells but not in hepatocytes (full – 2012) [http://ajpgi.physiology.org/content/302/8/G873.long]

The endocannabinoid N-arachidonoyldopamine (NADA) exerts neuroprotective effects after excitotoxic neuronal damage via cannabinoid receptor 1 (CB(1)). (abst – 2012) [http://www.ncbi.nlm.nih.gov/pubmed/22186081]
The endocannabinoid anandamide is a precursor for the signaling lipid N-arachidonoyl glycine by two distinct pathways (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2689249/?tool=pubmed

N-arachidonoyl glycine (article – 2009)

N-arachidonoyl glycine, an abundant endogenous lipid, potently drives directed cellular migration through GPR18, the putative abnormal cannabidiol receptor. (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931560/

N-arachidonoyl glycine, an endogenous lipid that acts as a vasorelaxant via nitric oxide and large conductance calcium-activated potassium channels. (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2865488/

Toxicology studies with N-acetylglycine. (abst – 2010)

Resolution of inflammation by N-arachidonoylglycine. (full – 2011)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3196844/

siRNA knockdown of GPR18 receptors in BV-2 microglia attenuates N-arachidonoyl glycine-induced cell migration. (full – 2012)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3493281/

Δ9-Tetrahydrocannabinol and N-arachidonoyl glycine are full agonists at GPR18 receptors and induce migration in human endometrial HEC-1B cells (full – 2012)

N-arachidonoyl glycine induces macrophage apoptosis via GPR18. (abst – 2012)


A GPR18-based signaling system regulates IOP in murine eye. (abst – 2013)

The Novel Endocannabinoid Receptor GPR18 is Expressed in the Rostral Ventrolateral Medulla and Exerts Tonic Restraining Influence on Blood Pressure. (full – 2014)
http://jpet.aspetjournals.org/content/early/2014/01/15/jpet.113.209213.long
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/

**OEA /OLEOYLETHANOLAMIDE** - an anandamide analog, GPR 119 agonist


Anandamide degradation and N-acylethanolamines level in wild-type and CB1 cannabinoid receptor knockout mice of different ages (full – 2001) http://onlinelibrary.wiley.com/doi/10.1046/j.1471-4159.2001.00413.x/full


The postmortal accumulation of brain N-arachidonylethanolamine (anandamide) is dependent upon fatty acid amide hydrolase activity. (full – 2005) http://www.jlr.org/content/46/2/342.long


'Entourage' effects of N-palmitoylethanolamide and N-oleoylethanolamide on vasorelaxation to anandamide occur through TRPV1 receptors. (full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2597234/?tool=pubmed


The lipid messenger OEA links dietary fat intake to satiety. (full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2528830/?tool=pubmed

Endogenous and synthetic agonists of GPR119 differ in signalling pathways and their effects on insulin secretion in MIN6c4 insulinoma cells. (full – 2008) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2572640/?tool=pubmed


GPR119 is essential for oleoylethanolamide-induced glucagon-like peptide-1 secretion from the intestinal enteroendocrine L-cell. (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2671052/?tool=pubmed


Circulating endocannabinoids and N-acyl ethanolamines are differentially regulated in major depression and following exposure to social stress. (full – 2009) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2716432/?tool=pubmed


The fat-induced satiety factor oleoylethanolamide suppresses feeding through central release of oxytocin. (full – 2010) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2900249/?tool=pubmed


Plasma anandamide and other N-acylethanolamines are correlated with their corresponding free fatty acid levels under both fasting and non-fasting conditions in women (full – 2010) http://www.nutritionandmetabolism.com/content/7/1/49

Dietary docosahexaenoic acid supplementation alters select physiological endocannabinoid-system metabolites in brain and plasma (full – 2010) http://www.jlr.org/content/51/6/1416.full.pdf+html


N-Acylethanolamine Levels and Expression of Their Metabolizing Enzymes during Pregnancy (full – 2010) http://endo.endojournals.org/content/151/8/3965.full

Endocannabinoids and Human Sperm Cells (link to PDF - 2010) http://www.mdpi.com/1424-8247/3/10/3200


Administration of URB597, oleoylethanolamide or palmitoylethanolamide increases waking and dopamine in rats. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3136458/?tool=pubmed

Sympathetic activity controls fat-induced oleoylethanolamide signaling in small intestine. (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3084524/?tool=pubmed

Lipid transport function is the main target of oral oleoylethanolamide to reduce adiposity in high-fat-fed mice  (full – 2011)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3111743/?tool=pubmed

Effect of dietary krill oil supplementation on the endocannabinoidome of metabolically relevant tissues from high-fat-fed mice (full – 2011)  
http://www.nutritionandmetabolism.com/content/8/1/51

The cytoprotective effects of oleoylethanolamide in insulin-secreting cells do not require activation of GPR119. (abst – 2011)  

Anandamide and its congeners inhibit human plasma butyrylcholinesterase. Possible new roles for these endocannabinoids? (abst – 2011)  

Gut fat sensing in the negative feedback control of energy balance--recent advances. (abst – 2011)  

The fatty acid amide hydrolase inhibitor URB597 exerts anti-inflammatory effects in hippocampus of aged rats and restores an age-related deficit in long-term potentiation (full – 2012)  
http://www.jneuroinflammation.com/content/9/1/79

β−Amyloid exacerbates inflammation in astrocytes lacking fatty acid amide hydrolase through a mechanism involving PPAR-α, PPAR-γ and TRPV1, but not CB1 or CB2 receptors  (full – 2012)  

The cytoprotective effects of oleoylethanolamide in insulin-secreting cells do not require activation of GPR119. (full - 2012)  

Endocannabinoids measurement in human saliva as potential biomarker of obesity. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3409167/?tool=pubmed

Plasma Endocannabinoid Alterations in Individuals with Substance Use Disorder are Dependent on the "Mirror Effect" of Schizophrenia. (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3457074/

The endocannabinoid system in the rat dorsolateral periaqueductal grey mediates fear-conditioned analgesia and controls fear expression in the presence of nociceptive tone (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423235/
Acute Stress Increases Circulating Anandamide and Other N-Acylethanolamines in Healthy Humans (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3442338/

Targeting cannabinoid receptor CB2 in cardiovascular disorders: promises and controversies (full – 2012)  

Temporal changes in N-acylethanolamine content and metabolism throughout the peri-adolescent period (full – 2012)  
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3510355/

Endocannabinoids in stressed humans (abst – 2012)  
http://www.journaldatabase.org/articles/endocannabinoids_stressed_humans.html

Synthesis of oleoylethanolamide using lipase. (abst – 2012)  

Orally administered oleoylethanolamide protects mice from focal cerebral ischemic injury by activating peroxisome proliferator-activated receptor α. (abst – 2012)  

Stimulating beta cell replication and improving islet graft function by GPR119 agonists. (abst – 2012)  

Hedonic eating is associated with increased peripheral levels of ghrelin and the endocannabinoid 2-arachidonoyl-glycerol in healthy humans: a pilot study. (abst – 2012)  

The Volitional Nature of Nicotine Exposure Alters Anandamide and Oleoylethanolamide Levels in the Ventral Tegmental Area. (abst – 2012)  

Optimized synthesis and characterization of N-acylethanolamines and O-acylethanolamines, important family of lipid-signalling molecules. (abst – 2012)  

Plasma concentrations of endocannabinoids and related primary Fatty Acid amides in patients with post-traumatic stress disorder. (full – 2013)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0062741

Anandamide Levels Fluctuate in the Bovine Oviduct during the Oestrous Cycle. (full – 2013)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0072521

Voluntary Running in Young Adult Mice Reduces Anxiety-Like Behavior and Increases the Accumulation of Bioactive Lipids in the Cerebral Cortex (full – 2013)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0081459

Full Inhibition of Spinal FAAH Leads to TRPV1-Mediated Analgesic Effects in Neuropathic Rats and Possible Lipoxygenase-Mediated Remodeling of Anandamide
Metabolism  (full – 2013)  
http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0060040

The Endocannabinoid System and Sex Steroid Hormone-Dependent Cancers  

Endocannabinoid and Cannabinoid-Like Fatty Acid Amide Levels Correlate with Pain-Related Symptoms in Patients with IBS-D and IBS-C: A Pilot Study.  
(full – 2013)  http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3874007/

Brain Molecules and Appetite: The Case of Oleoylethanolamide  
(link to PDF – 2013)  http://www.eurekaselect.com/107948/article

Biosynthetic Pathways of Bioactive N-Acylethanolamines in Brain  
(link to PDF – 2013)  http://www.eurekaselect.com/107971/article

Mechanisms of vasorelaxation induced by oleoylethanolamide in the rat small mesenteric artery.  


The cannabinoid TRPA1 agonist cannabichromene inhibits nitric oxide production in macrophages and ameliorates murine colitis.  

Taste sensitivity to 6-n-propylthiouracil is associated with endocannabinoid plasma levels in normal-weight individuals.  

Circulating endocannabinoids in insulin sensitive vs. Insulin resistant obese postmenopausal women. A MONET group study.  

Alterations in the endocannabinoid system in the rat valproic acid model of autism.  

Elevated brain cannabinoid CB1 receptor availability in post-traumatic stress disorder: a positron emission tomography study.  

Detection of the endocannabinoid metabolome in human plasma and breast milk  
(abst – 2013)  http://www.fasebj.org/cgi/content/meeting_abstract/27/1_MeetingAbstracts/45.8?sid=eea722c0-971c-4daa-8b8c-38c063c19ad

Quantification of endocannabinoids in postmortem brain of schizophrenic subjects.
Analysis of the "endocannabinoidome" in peripheral tissues of obese Zucker rats.  
Mechanisms of vasorelaxation induced by oleoylethanolamide in the rat small mesenteric artery. 
Exogenous Delta9-Tetrahydrocannabinol Influences Circulating Endogenous Cannabinoids in Humans. 
The satiety signal oleoylethanolamide stimulates oxytocin neurosecretion from rat hypothalamic neurons. 
Evaluation of the insulin releasing and antihyperglycaemic activities of GPR55 lipid agonists using clonal beta-cells, isolated pancreatic islets and mice. 
Plasma Anandamide and Related N-acyl ethanolamide Levels are not Elevated in Pregnancies Complicated by Hyperemesis Gravidarum. 
The endocannabinoid system mediates aerobic exercise-induced antinociception in rats. 
Oleoylethanolamide reduces L-DOPA-induced dyskinesia via TRPV1 receptor in a mouse model of Parkinson’s disease. 
Brain Region-Specific Changes in N-Acylethanolamine Contents with Time of Day. 
The cannabinoid TRPA1 agonist cannabichromene inhibits nitric oxide production in macrophages and ameliorates murine colitis. 
Effects of Acute Stress on Cardiac Endocannabinoids, Lipogenesis, and Inflammation in Rats. 
The Effect of Mifepristone (RU486) on the Endocannabinoid System in Human Plasma and First Trimester Trophoblast of Women undergoing Termination of Pregnancy.

OMEGA-3/ CB1 CONNECTION*  - without Omega 3, new CB1 receptors are made imperfectly - also see NUTRITION – HEMP SEED OIL, CBR- CB1 receptors
Nutrition for Moms-to-be!  (article - undated)

Omega-3 and Omega-6 Essential fatty Acids (EFA)  (infomercial/ad – undated)

Effect of maternal under-nutrition on pup body weight and hypothalamic endocannabinoid levels.  (abst – 2003)  

Oily fish makes 'babies brainier'  (news - 2006)  (hemp seed - at the end)
http://news.bbc.co.uk/2/hi/health/4631006.stm

Effect of dietary hempseed intake on cardiac ischemia-reperfusion injury.  (full – 2007)
http://ajpregu.physiology.org/content/292/3/R1198.long

Endocannabinoids and nutrition.  (full – 2008)

Review of Nutritional Attributes of GOOD OIL (Cold Pressed Hemp Seed Oil)  (full – 2008)
http://www.goodwebsite.co.uk/kingsreport.pdf

Deficit in prepulse inhibition in mice caused by dietary n-3 fatty acid deficiency.  (full – 2009)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2852869/

Benefit of Hemp Oil  (news – 2009)
http://www.livestrong.com/article/31903-hemp-seed-oil-benefits/

Cannabinoid receptor-dependent and -independent anti-proliferative effects of omega-3 ethanolamides in androgen receptor-positive and -negative prostate cancer cell lines.  (full – 2010)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2930808/?tool=pubmed

Maternal Dietary Fat Determines Metabolic Profile and the Magnitude of Endocannabinoid Inhibition of the Stress Response in Neonatal Rat Offspring  (full – 2010)
http://endo.endojournals.org/content/151/4/1685.full?sid=f9729cff-d221-42d4-81d8-8545db5df878

Dietary docosahexaenoic acid supplementation alters select physiological endocannabinoid-system metabolites in brain and plasma  (full – 2010)
http://www.jlr.org/content/51/6/1416.full.pdf+html

Effect of dietary fat on endocannabinoids and related mediators: consequences on energy homeostasis, inflammation and mood.  (abst – 2010)

Effect of dietary krill oil supplementation on the endocannabinoidome of metabolically relevant tissues from high-fat-fed mice  (full – 2011)
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**OMEGA-6 /ENDOCANNABINOID CONNECTION** - endocannabinoids are made from Omega 6

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