



15th Annual Symposium On The Cannabinoids 2005 Program

Registration June 23, 2005 (1600-2000)


**Day 1
Friday, June 24th**

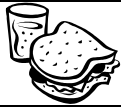

0820-0830	OPENING REMARKS		
Structure Activity Relationship Studies and New Pharmacological Tools			
<i>➤Chairs: John Huffman / Ruth Ross</i>			
0830	Huffman, J.W., Szklennik, P.V., Almond, A., Bushell, K., Hurst, D.P., Reggio, P.H., Selly, D.E., Cassidy, M.P., He, H., Wiley, J.L., and Martin, B.R.	3-Phenylacetylindoles, a New Class of Cannabimimetic Indoles	1
0845	Pertwee, R.G., Stevenson, L.A., Ross, R.A., Price, M.R., Wease, K.N., and Thomas, A.	Tetrahydrocannabivarin is Markedly more Potent as an Antagonist of R-(+)-WIN55,212 and Anandamide Than of Δ^9 -Tetrahydrocannabinol in the Mouse Isolated Vas Deferens	2
0900	Lunn, C.A., Lavey, B.J., Kozlowski, J.A., Hipkin, R.W., Lundell, D.J., Fine, J., and Bober, L.	Triaryl Bis-Sulfones as a New Class of Cannabinoid CB ₂ Receptor Inhibitors: Identification of a Lead and Initial Biological Characterization	3
0915	Martin, B.R., Wiley, J.L., Beletskaya, I., Sim-Selley, L.J., Dewey, W.L., Razdan, R.K.	Pharmacological Characterization of Water-Soluble Cannabinoids in Mice	4
0930	Muccioli, G.G., Wouter, J., Poupaert, J.H., and Lambert, D.M.	2-Thioxoimidazoilidiones and Imidazolidinediones Derivatives: Inhibition of FAAH and Binding to CB ₁ Cannabinoid Receptor	5
0945-1015	Coffee and Continental Breakfast		
Endocannabinoids, Biosynthesis and Metabolism			
<i>➤Chairs: Bela Szabo / Tiziana Bisogno</i>			
1015	Tsuboi, K., Sun, Y-X., Okamoto, Y., Araki, N., Tonai, T., and Ueda, N.	Molecular Cloning and Characterization of N-Acylethanolamine-Hydrolyzing Acid Amidase	6

1030	Morishita, J., Okamoto, Y., Tsuboi, K., Ueno, M., Sakamoto, H., Maekawa, N. and Ueda, N.	Expression Analysis of N-Acylphosphatidylethanolamine-Hydrolyzing Phospholipase D in Rat Brain Regions	7
1045	Thorpe, A.J., Cravatt, B.F., and Lichtman, A.H.	Mice Lacking Fatty Acid Amide Hydrolase Demonstrate Increased Cross-Tolerance to THC Following Suchronic Anandamide	8
1100	Felder, C.C., Moore, S.A., Chesterfield, A.K., Schober, D.A., Kidd, S.R., Nomikos, G.R., Ying, B-P., and Schaus, J.M.	Pharmacological Characterization of the Anandamide Transporter – The Missing Link in Endocannabinoid Neurotransmission	9
1115	Kaczocha, M., Hermann, A., Glaser, S.T., and Deutsch, D.G.	Anandamide Uptake and its Inhibition in Rat Basophilic Leukemia Cells	10
1130	Barker, E.L., Bardell, T.K., Yates, M.L., and McFarland, M.J.	Anandamide Uptake Via Endocytosis in Neuronal and Non-Neuronal Cell Lines	11
1145	Glaser, S.T., Gatley, S.J., and Gifford, A.N.	Imaging of the In Vivo Accumulation of [³ H] Anandamide and its Metabolites in the Mouse Brain	12
1200	Cascio, M.G., Ligresti, A., Pryce, G., Kulasegram, S., Beletskaya, I., De Petrocellis, L., Saha, B., Mahadevan, A., Bisogno, T., Baker, D., Martin, B.R., Razdan, R.K., and Di Marzo, V.	Novel Selective Inhibitors of Anandamide Re-Uptake with Anti-Spastic Activity in a Mouse Model of Multiple Sclerosis	13
1215	Szabo, B., Urbanski, M.J., and Di Marzo, V.	The Role of 2-Arachidonylglycerol in Retrograde Signalling	14
1230-1400	Lunch / Free Time		
Cannabinoid Receptor Structure, Regulation and Signal Transduction			
►Chairs: Tiziana Rubino / Chris Breivogel			
1400	Rubino, T., Viganò, D., Castiglioni, C., Premoli, F., Zippel, R., and Parolaro, D.	Role of the RAS/ERK Pathway in the CB ₁ Receptor Trafficking Following Chronic Cannabinoid Exposure	15
1415	Brown, A.J., Ueno, S., Suen, K., Dowell, S.J., and Wise, A.	Molecular Identification of GPR55 as a Third G Protein-Coupled Receptor Responsive to Cannabinoid Ligands	16
1430	Sim-Selley, L.J., Cassidy, M.P., Sylvester, J.L., He, H-J., Urban, N.H., Tao, Q., Martin, B.R., and Selley, D.E.	Agonist-Stimulated Signaling, Trafficking and Desensitization of CB ₁ Receptors in a Cultured Cell Model	17
1445	Monory, K., Massa, F., Blaudzun, H., Marsicano, G., and Lutz, B.	The Role of Different Neuronal Populations in the Pharmacological Actions of Δ ⁹ -Tetrahydrocannabinol	18
1500	Breivogel, C.	Beta-Arrestin2 Affects CB ₁ /G-Protein Coupling	19
1515	Shim, J-Y., Cowsik, S.M., Rani Grace, R.C., and Howlett, A.C.	Structural Determination of the Third Interacellular Loop and the 8 th Helix of the CB ₁ Cannabinoid Receptor	20
1530	Reggio, P.H., Nebane, N.M., Lynch, D.L., and Song, Z-H.	A CB ₁ Lipid Face V6.43A/I6.46A Mutation Completely Separates the Binding Pockets of SR141716A and WIN55212-2 vs AEA, CP55940 and HU210: Implications for Ligand Entry into CB ₁	21
1545-1815	Coffee Break / Poster Session / Controversial Issues Session #1		83-111

	Controversial Issues Session #1 -- “Is There a CB₃?” ➤Chairs: Roger Pertwee / Patti Reggio
2015	Dinner 

Day 2
Saturday, June 25th

Nervous Functions and Animal Models of Neuropsychiatric Disorders ➤Chairs: Cecilia Hillard / Steve Varvel			
0800	Hill, M.N., Carrier, E.J., Ho, W.-S.V., Meier, S., Hillard, C.J., and Gorzalka, B.B.	Pharmacologically Distinct Antidepressants Differentially Regulate the Endocannabinoid System	22
0815	Patel, S., Roelke, C.T., and Hillard, C.J.	The Anxiolytic Properties of Endocannabinoid Signaling: Implications for FAAH as a Therapeutic Target	23
0830	Musty, R.E., Gilbert, L., and Deyo, R.A.	Cannabichromene Reduces the Anxiogenic Effect of THC in Mice	24
0845	Abood, M.E., Kim, K., Moore, D.H., and Makriyannis, A.	AM1241 Slows Disease Progression in a Mouse Model of ALS	25
0900	Varvel, S.A., Wise, L.E., and Lichtman, A.H.	Facilitation of Extinction Learning Via FAAH Inhibition	26
0915-0945	Coffee and Continental Breakfast 		
0945	Lupica, C.R., Oz, M., and Hoffman, A.F.	Differential Effects of Repeated THC Exposure on Long- and Short-Term Synaptic Plasticity in the Hippocampus	27
1000	D’Souza, D.C., Braley, G., Perry, E., Mathalon, D., Ford, J., and Krystal, J.	Δ ⁹ -THC Effects on Information Processing in Humans	28
The Endocannabinoid System in Non-Mammalian Organisms ➤Chairs: Mauro Maccarrone / Ken Soderstrom			
1015	Soderstrom, K., and Tian, Q.	CB ₁ Receptor Activation Increases FOS Expression in a Subset of Brain Regions Important for Zebra Finch Vocal Learning and Production	29
1030	Johnson, F., and Soderstrom, K.	CB ₁ Immunoreactivity in the Developing Songbird Telencephalon is Influenced by Food Availability	30
1045	Siafaka-Kapadai, A., Anagnostopoulos, D., Zafiriou, M.P., Farmaki, E., and Maccarrone, M.	The Endocannabinoid System in Unicellular Eukaryotes	31
Cannabinoids and Pain ➤Chairs: Barbara Costa / John McPartland			


1100	McPartland, J.M., Giuffrida, A., Scotter, J., and Musty, R.E.	Cannabimimetic Effects of Elevated Serum Anandamide Levels from Osteopathic Manipulation	32
1115	Costa, B., Colleoni, M., Trovato, A.E., Comelli, F., Franke, C., and Giognoni, G.	Anandamide Transport and Hydrolysis as Targets for the Treatment of Neuropathic Pain: Effects of AM404 and URB597 in Rats with Chronic Constriction Injury of the Sciatic Nerve	33
1130	Bisogno, T., Maione, S., Valenti, M., de Novellis, V., Palazzo, E., Petrosino, S., Rossi, F., and Di Marzo, V.	FAAH Inhibition Elevates Endocannabinoid Levels in the Periaqueductal Grey of the Rat: Dual Effect on Nociception via CB ₁ and TRPV1 Receptors	34
1145	Stevens, D.L., Elmore, J.R., Sey, K., Williams, J., and Welch, S.P.	Enhancement of Morphine- and Tramadol- Induced Antinociception by THC in Diabetic Rodents	35
1200-1400	Lunch / Free Time		
1400-1545	Poster Session / Coffee Break		112-135
Cannabinoids in the Immune System			
➤ <i>Chairs: Thomas Klein / Dana Selley</i>			
1545	Carrier, E.J., and Hillard, C.J.	Inhibition of Nucleoside Uptake in Microglia by the Plant-Derived Cannabinoids THC and CBD	36
1600	Kiertcher, S.M., Tashkin, D.P., and Roth, M.D.	THC Modulates the Ability of Human Dendritic Cells to Stimulate Primary and Recall T Cell Responses	37
1615	McHugh, D., and Ross, R.A.	Endocannabinoids and Phytocannabinoids Inhibit Human Neutrophil Migration	38
1630	Sugiura, T., Oka, S., Gokoh, M., Kishimoto, S., and Waku, K.	Physiological Roles of 2-Arachidonylglycerol as an Endogenous CB ₂ Receptor Agonist	39
1645	Selley, D.E., Cassidy, M.P., Milstein, S., He, H-J., Sim-Selley, L., Spiegel, S., and Paugh, S.W.	Competitive Antagonism of CB1 Receptors by the Novel Immunosuppressant Drug FTY720	40
1700	Klein, T.K., Newton, C., Lu, L.T., Perkins, I., and Friedman, H.	THC Suppresses Dendritic Cell-T Cell TH1 Biasing by Inhibiting IL-12 Production and Increasing the Notch Pathway	41
1715-1830	Kang Tsou Memorial Lecture: Mechanisms of Chronic Pain States by Frank Porreca Professor of Pharmacology and Anesthesiology, University of Arizona, Tucson, AZ		
2015	Beach Banquet / Dinner		

Day 3

Sunday, June 26th


Human and Clinical Studies


➤Chairs: *Mary Lynch / Birgit Kraft*

0800	Lynch, M.E., and Young, J.	Report on a Case Series of Patients Using Medicinal Marijuana for Management of Chronic Pain Under the Canadian Medical Marijuana Access Regulations	42
0815	Kress, H.G., Nadulski, T., Frickey, N., Schnelle, M., Kaufmann, R., and Draft, B.	No Correlation of Plasma Kinetics and Clinical Effects After Standardized, Placebo-Controlled, Double-Blind Single Oral Administration of THC-Calibrated Cannabis Extract	43
0830	Kraft, B., Frickey, N., Kaufmann, R., Schnelle, M., Reif, M., Gustoff, B., and Kress, H.G.	No Analgesic and Antihyperalgesic Effects of Orally Administered Cannabis Extract in Two Different Human Pain Models	44
0845	Russo, E.B., and Robson, P.J.	Abrupt Interruption of Long-Term Treatment with Sativex was not Associated with a Withdrawal Syndrome or Serious Withdrawal Symptoms in a Sample of Patients with Multiple Sclerosis	45
0900	Ware, M., Collet, J-P., Shapiro, S., Wang, T., and the COMPASS Investigators	Cannabis for the Management of Pain – Assessment of Safety Study (COMPASS): Protocol Design	46
0915-0945	Coffee and Continental Breakfast		
0945	Wright, S., and Johnson, J.R.	A Combination of Cannabidiol and Tetrahydrocannabinol is Superior to THC Alone in the Relief of Refractory Cancer Pain	47
1000	Leweke, F.M., Koethe, D., Gerth, C.W., Nolden, B.M., Mauss, C., Schreiber, D., Hänsel, A., Neatby, M.A., Juelicher, A., and Klosterkötter, J.	Cannabidiol as an Antipsychotic. A Double-Blind, Controlled Clinical Trial on Cannabidiol vs Amisulpride in Acute Schizophrenia	48
1015	Morgenstern, H., Greenland, S., Zhang, Z-F., Cozen, W., Mack, T.M., and Tashkin, D.P.	Marijuana Use and Cancers of the Lung and Upper Aerodigestive Tract: Results of a Case-Control Study	49
1030	Teare, L.J., Zajicek, J.P., Wright, D., and Priston, M.J.	What is the Relationship Between Serum levels of Cannabinoids and Clinical Effect in Patients with Multiple Sclerosis and Does it Explain the Differences Between Pure Δ^9 -Tetrahydrocannabinol and Whole Extract of Cannabis?	50
1045	Abrams, D.I., Jay, C., Shade, S., Vizoso, H., Petersen, K., and Rowbotham, M.	The Effects of Smoked Cannabis in HIV-Related Painful Peripheral Neuropathy: Results of a Randomized, Double-Blind, Placebo-Controlled Trial	51


Cardiovascular and Gastrointestinal Functions


➤Chairs: *George Kunos / Saoirse O'Sullivan*


1100	Maor, Y., Milman, G., Horowitz, M., Mo, F-M., Kunos, G., and Mechoulam, R.	Vasorelaxant Actions and Putative Vascular Protective Properties of Arachidonoyl Serine (ARA-S), A Novel Cannabinoid-Like Substance	52
1115	Ho, W.-S.V., and Hillard, C.J.	Endogenous Cannabinoids Modulate Physiologically Relevant Neuronal Activation in the Sensory Cortex	53
1130	Pazos, M.-R., Tolón, R.M., Benito, C., González, Núñez, E., Almodóvar, F., Nevado, M., Alvarewz, M., Rodriguez, C.F., Santander, C., Aria, F., Gorgojo, J.J., and Romero, J.	Cannabinoid CB ₁ Receptors are Present in Parietal Cells of the Human Gastric Mucosa	54
1145	O'Sullivan, S.E., Tarling, E., Bennett, A.J., Kendall, D.A., and Randall, M.D.	Vascular Actions of Δ^9 -Tetrahydrocannabinol (THC) Mediated by Peroxisome Proliferator-Activated Receptor GAMMA	55
1200-1400	Lunch / Free Time		
1315-1400	NIDA Talk for Students: How to Write a Grant ➤Chairs: <i>Allyn Howlett / Rao Rapaka</i>		
1400-1545	Poster Session / Coffee Break		136-159
Advanced Therapeutic Applications: Emesis, Obesity, and Smoking Cessation ➤Chairs: <i>Gérard Le Fur / Ester Fride</i>			
1545	Darmani, N.A., Gerdes, C., and Trinh, C.	Structurally Diverse Cannabinoids Prevent Substance P-Induced Emesis via Cannabinoid CB ₁ Receptor in <i>Cryptotis Parva</i>	56
1600	Parker, L., Kwiatkowska, M., and Mechoulam, R.	Δ^9 -Tetrahydrocannabinol and Cannabidiol Interfere with Conditioned Retching Elicited by a Lithium-Paired Context in the House Musk Shrew: A Model of Anticipatory Nausea	57
1615	Matias, I., Gonthier, M-P., Monteleone, P., and Di Marzo, V.	Peripheral Up-Regulation of the Endocannabinoid System in Obesity	58
1630	Gary-bobo, M., Bensaid, M., Gallas, J-F., Janiak, P., Marini, P., Trillou, C., Chabbert, M., Cruccioli, N., Pfersdorff, C., Elachouri, G., Roques, C., Arnone, M., Croci, T., Soubrié, P., Oury-Donat, F., Maffrand, J-P., Scatton, B., Lacheretz, F., Hebert, J-M., and Le Fur, G.	CB ₁ Receptor Antagonist SR141716: Rimonabant, A New Promising Drug for the Treatment of Obesity-Associated Metabolic Syndrome Features	59
1645	Fride, E., Peretz-Ezra, D., Arshavsky, N., and Dahan, H.	CB ₁ Receptor Blockade in Newborn Mice: An Etiologic Model for “Non-Organic Failure-To-Thrive” in Infants?	60
1700	Le Fur, G.	Clinical Results with Rimonabant in the Maintenance of Abstinence from Smoking	61
Control of Reproduction ➤Chairs: <i>Herebert Schuel / Mauro Maccarrone</i>			

1715	Maccarrone, M., Barboni, B., Paradisi, A., Bernabò, N., Gasperi, V., Pistilli, M., Fezza, F., Lucidi, P., and Mattioli, M.	The Endocannabinoid System in Boar Sperm and its Involvement in Male Fertility	62
1730	Schuel, H., and Burkman, L.J.	A Tale of Two Cells: Retrograde Endocannabinoid Signaling in Neurons and Sperm	63
1745	Burkman, L.J., Schuel, H., Makriyannis, A., Bodziak, M-L., Mroz, R., and Gurunatha, R.	In Human Spermatozoa, a Cannabinoid Agonist Can Inhibit the Effects of Nicotine on Hyperactivation (HA): Potent Interaction of Two Regulatory Systems	64
1800-1830	Young Investigator Award Ceremony and Talk		
2015	Dinner		

Day 4
Monday, June 27th

Reward and Substances of Abuse			
➤ <i>Chairs: Jenny Wiley / Emmanuel Onaivi</i>			
0800	Cheer, J.F., Wassum, K.M., Wightman, M., and Wightman, R.	Endogenous Cannabinoid Tone Governs the Enhancing Effects of Cocaine on Sub-Second Dopamine Release	65
0815	Onaivi, E., Ishiguro, H., Gong, J-P., Patel, S., Meozzi, P., Myers, L., Tagliaferro, P., Leonard, C., Gardner, E., Brusco, A., Akinshola, B., Liu, Q-R., Hope, B., and Uhl, G.	Peripheral Cannabinoid CB ₂ Receptors are Expressed in the Brain and Involved in Depression and Substance Abuse	66
0830	Wiley, J.L., O'Connell, M.M., Tokarz, M.E., and Wright, Jr., M.J.	Pharmacological Effects of Δ^9 -Tetrahydrocannabinol in Adolescent Rats	67
0845	Ward, S.J., Gerald, T., Franklin, S.O., Howlett, A.C., and Dykstra L.A.	Disparate Role of Cannabinoid CB ₁ Receptors in the Reinforcing and Conditioned Learning Effects of the Sweet Non-Drug Reinforcer Ensure® in Mice	68
0900	Solinas, M., Tanda, G., Justinova, Z., Makriyannis, A., Wertheim, C., and Goldberg, S.R.	Endogenous Cannabinoids Produce Discriminative-Stimulus Effects Similar to Those of Δ^9 -Tetrahydrocannabinol	69
0915-0945	Coffee and Continental Breakfast		
The Endocannabinoid System in the Eye			
➤ <i>Chairs: Alexandros Makriyannis / Steve Yazulla</i>			
0945	Woodward, D.F., Krauss, A.H-P., Nieves, A.L., Protzman, C.E., Wang, J-W., Donde, Y., Landsverk, K., and Struble, C.	First Report on a Prostaglandin-Ethanolamide (Prostamide) Receptor Antagonist AGN204396	70

1000	Yazulla, S., and Fan, S-F.	Retrograde Endocannabinoid Effects Exerted on IK(V) of Goldfish Retinal Cone Photoreceptors	71
1015	McLaughlin, P.J., Winston, K.M., Brown, C.M., Lu, D., Thakur, G., Makriyannis, A., and Salamone, J.D.	Biphasic Effect of the Novel CB ₁ Agonist AM411 on Visual Signal Detection in Rats	72
Neuroprotection and Neurodegenerative Disorders			
➤ <i>Chairs: Vincenzo Di Marzo / Julien Romero</i>			
1030	Fernández-López, D., Martínez – Orgado, M., Nuñez, E., Romero, J., Bonet, B., Moro, M.A., and Lizasoain, I.	Neuroprotective Effect of WIN55212 in Newborn Rat Brain Slices Exposed to Oxygen-Glucose Deprivation	73
1045	de Lago, E., Minassi, A., Ramos, J.A., Di Marzo, V., and Fernandez-Ruiz, J.	Arvanil, A Hybrid Endocannabinoid and Vanilloid Compound, Behaves as an Antihyperkinetic Agent in a Rat Model of Huntington’s Disease	74
1100	Di Marzo, V., van der Stelt, M., Mazzola, C., Esposito, G., Matias, I., Steardo, L., Iuvone, T., and Drago, F.	Dual Effect of Inhibitors of Endocannabinoid Inactivation on Memory Retention in Experimental Models of Alzheimer’s Disease	75
1115	Pistis, M., Pillolla, G., Perra, S., Muntoni, A.L., Di Marzo, V., and Melis, M.	Protective Activation of Endogenous Cannabinoids During Ischemia in Dopamine Neurons	76
1130	Avraham, Y., Magen, I., Ackerman, Z., Mechoulam, R., and Berry E.M.	Are Endocannabinoids Involved in Chronic Hepatic Encephalopathy?	77
1145	Maresz, K., Ponomarev, E.D., Carrier, E.J., Novikova, M., Hillard, C.J., and Dittel, B.N.	Modulation of the Endocannabinoid CB ₂ Receptor in Microglial Cells in Response to Inflammatory Stimuli	78
1200-1330	Lunch / Free Time		
1330-1430	Business Meeting		
Cancer			
➤ <i>Chairs: Raphael Mechoulam / Harald Hansen</i>			
1430	Kogan, N.M., Blaquez, C., Gallily, R., Guzman, M., and Mechoulam, R.	HU331 and Other Cannabinoids as Anti-Angiogenic Drugs	79
1445	Storer, L.C.D., Kalutotage, A.K.L., Walker, D.A. and Parker, T.L.	The Comparable Effects of Exo- and Endogenous Cannabinoids on Apoptosis in Human Medulloblastoma and Rat Glioma Cells	80
1500	Caffarel, M.M., Sarrio, D., Palacios, J., Guzman, M., and Sanchez, C.	Effect of Cannabinoids on the Cell Cycle: Potential Therapeutic Implications in Breast Cancer	81
1515	Hansen, H.S., Petersen, G., Moesgaard, B., Schmid, P.C., Schmid, H.H.O., Broholm, H., and Kosteljanetz, M.	Endocannabinoid Metabolism in Human Glioblastomas and Meningiomas Compared to Human Non-Tumor Brain Tissue	82
1530-1815	Coffee Break / Poster Session / Controversial Issues Session #2		160-192

1745-1815	Controversial Issues Session #2 -- “Endocannabinoids in Chronic Disorders: Protective First and Too Much of a Good Thing Later?” <i>➤Chairs: Vincenzo Di Marzo / Daniela Parolaro</i>
2000	Award Banquet <i>Congratulations!</i> 



1545-1815	Day 1 – Friday, June 24th Poster Session	83-111
Structure Activity Relationship Studies and New Pharmacological Tools		
Worm, K., Zhou, Q.J., Dolle, R.E., Staley, G.J., and DeHaven, R.N.	Structure Activity Relationship Study Around a Non-Classical Cannabinoid	83
Raition, K.H., Savinainen, J.R., Laitinen, J.T., Vepsäläinen, J., Järvinen, T., and Nevalainen, T.	Novel CB ₂ Receptor Inverse Agonists	84
Makwana, R., Molleman, A., and Parsons, M.	Comparison of the Effects of Two Novel Cannabinoid Receptor Ligands (0-2050 and 0-2654) With SR141716 on Four Nerve-Smooth Muscle Preparations in Vitro	85
Thompson, A.L.S., Huffman, J.W., Wiley, J.L., and Martin, B.R.	Deoxy Analogs of CP47,497 and CP55,940 as Potential CB ₂ Selective Ligands	86
Smith, V.J., Huffman, J.W., Wiley, J.W., and Martin, B.R.	Effects of Halogen Substituents in the 1-ALKYL-3-(1-Naphthoyl) Indole Series on CB ₁ and CB ₂ Receptor Affinities	87
Minassi, A., Mainieri, F., Appendino, G., Cavallo, P., Cascio, M.G., and Di Marzo, V.	Oxy-Homologues of Anandamide and Related Endolipids. Synthesis and Biological Evaluation	88
Moussaieff, A., and Bregman, T.	Incense Acetate: A Psycho-Active Compound Derived from Frankincense, with a Partial Cannabimimetic Profile	89
Cannabinoid Receptor Structure, Regulation and Signal Transduction		
Salo, O.M.H., Savinainen, J.R., Lahtela-Kakkonen, M., Laitinen, J.T., Järvinen, T., and Poso, A.	Virtual Screening of Novel Cannabinergic Ligands Using a Comparison Model of the CB ₂ Receptor	90
Gong, J-P., Onaivi, E., and Uhl, G.	Cannabinoid CB ₂ Receptors: Immunohistochemical Localization in Rat Brain	91
Ádám, Á.S., Wenger, T., Hungund, B.L., and Csillag, A.	Localization of the CB ₁ Cannabinoid Receptor in the Chick Brain and its Implications in Passive Avoidance Learning	92
Rao, G.K., and Kaminski, N.E.	Elevation of Intracellular Calcium by Tricyclic Cannabinoids in T Cells Involves the TRPC1 Channels	93
Paldyova, E., Benyhe, S., Wenger, T., and Borsodi, A.	G-Protein Activation by Cannabinoid and Opioid Ligands	94
Yao, B., Mukherjee, S., Fan, T., Garrison, T., Daza, A., Grayson, G., Hooker, B., Hsieh, G, Dart, M., and Meyer, M.	In Vitro Pharmacological Characterization of AM1241 in Recombinant Cell Lines Expressing the Rat and Human CB ₁ and CB ₂ Receptors	95

Niehaus, J.L., and Lewis, D.L.	CB ₁ Membrane Trafficking: A Role for CRIPIb?	96
Carney, S.T., Lloyd, M.L., Howlett, A.C., and Norford, D.C.	Cannabinoid-Induced Nitric Oxide (NO) Production in N18TG2 Neuronal Cells	97
McDonald, N., Connolly, C., and Irving, A.	Regulation of CB ₁ Cannabinoid Receptor Polarity in Hippocampal Neurons	98
Liu, Y., Shi, S., and Lewis, D.	The Critical Domain of the CB ₁ Receptor That Interacts with CRIPIA	99
Chen, J-Z., and Xi, X-Q.	NMR Structural Refinement of the Homology-Built 3D CB ₂ Receptor Model	100
Barnett-Norris, J., and Reggio, P.H.	Identification of Possible CB ₁ /Dopamine D2 Heterodimer Interfaces Using Correlated Mutation Analysis	101
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