

16th Annual Symposium On The Cannabinoids

2006 Program

Registration June 24, 2006 (1600-2000)

**Day 1
Sunday, June 25th**

7.50 - 8.00	<i>OPENING REMARKS</i>		
Session 1. SAR Studies and New Synthetic Molecules			
➤ Chairs: <i>Drs. Brian Thomas and Raj Razdan</i>			Page #
8.00	Yehoshua Maor, Ruth Gallily and Raphael Mechoulam	THE RELEVANCE OF THE STERIC FACTOR IN THE BIOLOGICAL ACTIVITY OF CBD DERIVATIVES – A TOOL IN IDENTIFYING NOVEL MOLECULAR TARGET FOR CANNABINOIDS	1
8.15	John W. Huffman, Lea W. Padgett, Matthew L. Isherwood, Jenny L. Wiley and Billy R. Martin	1-PENTYL-2-ARYL-4-(1- NAPHTHOYL)PYRROLES: A NEW CLASS OF HIGH AFFINITY LIGANDS FOR THE CB1 AND CB2 RECEPTORS	2
8.30	T.M. Fong, L.S. Lin, X-M Guan, D.J. Marsh, C-P Shen, J. Lao, D.S. Stribling, K.M. Rosko, H. Yu, Y. Feng, J.C. Xiao, L.H.T. Van der Ploeg, M.T. Goulet, W.K. Hagmann, T.J. Lanza, Jr., J.P. Jewell, P. Liu, S.K. Shah, H. Qi, X. Tong, J. Wang, and S. Xu, R. Gibson, B. Francis, S. Patel, A.M. Strack, D.E. MacIntyre and L.P. Shearman	DISCOVERY OF A NOVEL CB1R INVERSE AGONIST	3
8.45	Yanan Zhang, Marcus Brackeen, Anne Gilliam, Herbert Seltzman and Brian Thomas	CONFORMATIONALLY-CONSTRAINED ANALOGS OF SR141716	4
Session 2. Receptor Structure and Signal Transduction			
➤ Chairs: <i>Drs. Ruth Ross and Allyn Howlett</i>			
9.00	Itai Bab, Joseph Tam, Orr Ofek, Catherine Ledent, Ester Fride, Yankel Gabet, Ralph Müller, Andreas Zimmer, Ken Mackie, Raphael Mechoulam and Esther Shohami	INVOLVEMENT OF CB1 SIGNALLING IN BONE REMODELLING	5
9.15	Sharon Anavi-Goffer, Daniel Fleischer, Dow P. Hurst, Diane L. Lynch, Judy Barnett-Norris, Shanping Shi, Deborah L. Lewis, Somnath Mukhopadhyay, Allyn C. Howlett, Patricia H. Reggio and Mary E. Abood	HELIX 8 LEUCINE OF CB1 CANNABINOID RECEPTOR PROMOTES SELECTIVE G PROTEIN COUPLING	6
9.30	Sergio Oddi, Monica Bari, Filomena Fezza, Valeria Gasperi, Paola Spagnuolo, Nicoletta Pasquariello, Alessandro Finazzi-Agrò and Mauro Maccarrone	LIPID RAFTS, CB2 RECEPTOR SIGNALLING AND METABOLISM OF 2-ARACHIDONOYL-GLYCEROL IN HUMAN IMMUNE CELLS	7

9.45	Adèle Thomas, Gemma Baillie, Alexander Phillips, Ruth Ross and Roger Pertwee	CANNABIDIOL IS AN INVERSE AGONIST AND EXHIBITS UNEXPECTEDLY HIGH POTENCY AS AN ANTAGONIST AT MOUSE BRAIN CB1 AND HUMAN CB2 RECEPTORS	8
10.00	Ruth A. Ross, Gemma L. Baillie, Cherry Alexander, Emma Baillie, Lisa Gauson, Sarah Robertson, Lesley A. Stevenson, Kirsty Muirhead, Laurent Trembleau and Roger G. Pertwee	ALLOSTERIC MODULATION OF THE CANNABINOID CB1 RECEPTOR: NOVEL ALLOSTERIC MODULATORS	9
10.15	Allyn Howlett, Jenelle Jones and Derek Norford	CB1 CANNABINOID RECEPTORS MEDIATE TRANSLOCATION OF NO-SENSITIVE GUANYLYL CYCLASE IN NEURONAL CELLS	10
10.30 - 11.00	Coffee Break		
11.00	Christopher Kearn, Giovanna Cacciola, Tanya Daigle and Ken Mackie	RAPID RECEPTOR DESENSITIZATION MODULATES CANNABINOID RECEPTOR ACTIVATION OF P42/P44 MAP KINASE	11
11.15	Chris Breivogel and Vanita Puri	THE EFFECTS OF CHRONIC CANNABINOIDS IN BETA-ARRESTIN2 -/- MICE	12
11.30	Neta Rimmerman, Heather Bradshaw, David O'Dell and J. Michael Walker	CELLULAR SIGNALING PROPERTIES OF THE NEWLY IDENTIFIED FATTY ACID AMIDE N-PALMITOYL GLYCINE FOUND IN RAT CENTRAL NERVOUS SYSTEM AND SKIN	13
11.45	Patricia Reggio, Dow Hurst, Diane Lynch, Judy Norris, Sharon Anavi-Goffer and Mary Abood	CB1 L7.60I AND L7.60F MUTATIONS RESULT IN CONFORMATIONAL CHANGES IN HELIX 8 R7.56(400)-K7.58(402) ELBOW AND INTRACELLULAR FACE REGIONS OF CB1	14
12.00 - 12.15	Free Time		
12.15 - 13.45	Lunch		
Session 3. Bioactive Lipids & Analytical Lipidology			
➤ Chairs: <i>Drs. Rao Rapaka and Heather Bradshaw</i>			
13.45	George Kunos	MECHANISMS IN THE BIOSYNTHESIS OF CRITICAL LIPIDS	
14.00	Raphael Mechoulam	UPDATE ON NEW ENDOGENOUS LIPID LIGANDS	
14.15	J. Michael Walker	LIPIDOMIC APPROACHES TO THE IDENTIFICATION OF NOVEL, ENDOGENOUS FATTY ACYL AMIDES	15
14.30	Mauro Maccarrone, Anna Fiori, Monica Bari, Filippo Granata, Valeria Gasperi, M. Egle De Stefano, Alessandro Finazzi-Agrò and Roberto Strom	ANANDAMIDE TRANSPORT ACROSS THE BLOOD-BRAIN BARRIER	16
14.45	Alexandros Makriyannis	ANALYTICAL PROTEOMICS & FISHING FOR THE PHARMACOPHORE	
15.00	Vincenzo Di Marzo and Luciano De Petrocellis	"VANILLIPIDOMICS": AN UPDATE ON ENDOGENOUS LIPID LIGANDS OF VANILLOID RECEPTORS	17
15.15	Daniele Piomelli	LIPIDOMICS: THEN AND NOW	

15.30 - 17.30	Coffee Break / Poster Session Sessions # 2 and 4		
Session 4. Biosynthesis and Inactivation of Endocannabinoids and Related Lipids			
► Chairs: <i>Drs. Sherrye Glaser and Nephi Stella</i>			
17.30	Jenny Wang, David Woodward, Alex Kharlamb, Benjamin Cravatt, Giorgio Ortar and Vincenzo Di Marzo	LACK OF EFFECT OF FATTY ACID AMIDE HYDROLASE (FAAH) INHIBITORS ON INTRAOCULAR PRESSURE IN "GLAUCOMATOUS" MONKEYS	18
17.45	Christopher Fowler and Lina Thors	DOES THE INITIAL CELLULAR UPTAKE OF ANANDAMIDE SHOW TEMPERATURE-DEPENDENCY AND SATURABILITY?	19
18.00	Nephi Stella	IDENTIFICATION OF A NOVEL MONOACYLGLYCEROL LIPASE (MGL)	20
18.15	Andrew J. Thorpe, Joel, Schlosburg, Benjamin F. Cravatt, Billy R. Martin, Laura J. Sim-Selley and Aron H. Lichtman	FAAH (-/-) MICE EXHIBIT NORMAL CB1 RECEPTOR FUNCTION FOLLOWING ACUTE OR REPEATED ADMINISTRATION OF CANNABINOIDS	21
18.30	Heather Bradshaw, Sherry Shu-Jung Hu, Neta Rimmerman, David O'Dell, Kim Masuda, Benjamin Cravatt and J Michael Walker	NOVEL METABOLISM OF N-ARACHIDONOYL GLYCINE BY FATTY ACID AMIDE HYDROLASE	22
18.45	Bo Tan, Heather B. Bradshaw, David K. O'Dell, M. Francesca Monn, Y. William Yu, Harini Srinivasan, Jocelyn F. Krey and J. Michael Walker	RAPID IDENTIFICATION OF NOVEL ENDOGENOUS FATTY ACYL AMIDES USING NANO-LC-MS/MS AND INFORMATION-DEPENDENT ACQUISITION	23
20.00	Dinner		

Notes:

Day 2

Monday, June 26th

Session 5. Neuronal Development

► Chairs: *Drs. Tibor Harkany and Tiziana Rubino*

8.00	Paul Berghuis, Michela Matteoli, Ken Mackie and Tibor Harkany	NEURONAL GROWTH CONE GUIDANCE BY ENDOCANNABINOIDS	24
8.15	María Gómez, Mariluz Hernández, Ruth Pazos, Rosa Tolón, Julián Romero and Javier Fernández-Ruiz	THE ACTIVATION OF CANNABINOID RECEPTORS DURING BRAIN DEVELOPMENT INFLUENCES CELL ADHESION MOLECULE L1 IN RATS	25

Session 6. Nervous Function and Neuropsychiatric Disorders

► Chairs: *Drs. Tibor Harkany and Tiziana Rubino*

8.30	Emmanuel Onaivi and Hiroki Ishiguro	FURTHER EVIDENCE FOR THE INVOLVEMENT OF CB2 CANNABINOID RECEPTORS IN DEPRESSION AND SUBSTANCE ABUSE	26
8.45	József Haller, Krisztina Soproni, Balázs Varga, Beáta Németh, Éva Mikics, Tamás F. Freund, Ferenc Mátyás and Norbert Hájos	CORRELATED SPECIES DIFFERENCES IN THE EFFECTS OF CANNABINOID LIGANDS ON ANXIETY AND ON GABAERGIC / GLUTAMATERGIC SYNAPTIC TRANSMISSION	27
9.00	Tiziana Rubino, Cinzia Guidali, Natalia Realini, Daniela Viganò, Chiara Castiglioni and Daniela Parolaro	NEUROANATOMICAL SITES AND BIOCHEMICAL CORRELATES UNDERLYING CANNABINOID MODULATION OF ANXIETY	28
9.15	Aldemar Degroot and George Nomikos	CB1 RECEPTOR ANTAGONISTS IN THE PHARMACOTHERAPY OF ACTIVE AVOIDANCE RELATED ANXIETY	29
9.30	Paola Fadda, Maria Scherma, Paola Salis, Paola Mascia, Liana Fattore and Walter Fratta	INVOLVEMENT OF THE 5-HT1A SEROTONERGIC RECEPTORS IN THE ANXIETY-LIKE EFFECTS INDUCED BY THE CB1 CANNABINOID RECEPTOR AGONIST WIN55,212-2	30
9.45	Leonora Long, Daniel Malone and David Taylor	CANNABIDIOL REVERSES MK-801-INDUCED SOCIAL WITHDRAWAL IN RATS	31
10.00	Richard Musty and Richard Deyo	A CANNABIGEROL EXTRACT ALTERS BEHAVIORAL DISPAIR IN AN ANIMAL MODEL OF DEPRESSION	32
10.15	Aron Lichtman, Pattipati Naidu, Stephen Varvel, Kyunghye Ahn, Benjamin Cravatt and Billy Martin	FAAH INHIBITION AUGMENTS ANANDAMIDE'S PHARMACOLOGICAL EFFECTS BUT IS DEVOID OF ANXIOLYTIC-LIKE OR ANTIDEPRESSANT-LIKE EFFECTS	33

10.30 - 11.00

Coffee Break

Session 7. Nervous Function: Retrograde Signalling, Memory and Learning

► Chairs: *Drs. Gregory Gerdeman and Krisztina Monory*

11.00	Norbert Hajos, Judit Makara, Istvan Katona, Jan de Vente and Tamas Freund	INVOLVEMENT OF NITRIC OXIDE IN CB1 CANNABINOID RECEPTOR-MEDIATED RETROGRADE SIGNALING	34
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11.15	Henry Yin and David Lovinger	D2 RECEPTORS MEDIATE FREQUENCY-DEPENDENT PRESYNAPTIC INHIBITION VIA RETROGRADE ENDOCANNABINOID SIGNALING AT CORTICOSTRIATAL SYNAPSES	35
11.30	Csaba Foldy, Axel Neu and Ivan Soltesz	ENDOCANNABINOID MODULATION OF GABA RELEASE AT THE CCK+ INTERNEURON TO PYRAMIDAL CELL SYNAPSE, A KEY SITE FOR THE REGULATION OF HIPPOCAMPAL NETWORK OUTPUT	36
11.45	Istvan Katona, Gabriella Urban, Matthew Wallace, Catherine Ledent, Kwang-Mook Jung, Daniele Piomelli, Ken Mackie and Tamas F Freund	THE ENDOCANNABINOID SYSTEM AT GLUTAMATERGIC SYNAPSES OF THE BRAIN	37
12.00	Gregory Gerdeman, Jason Schechter and Edward French	INHIBITION OF STIMULUS-RESPONSE (HABIT) LEARNING BY STRIATAL INJECTION OF THE CB1 ANTAGONIST RIMONABANT	38
12.15 - 13.45	Lunch		
Session 8. Pain and Inflammation			
► Chairs: <i>Drs. Barbara Costa and Michael Walker</i>			
13.45	Takayuki Sugiura, Maiko Gokoh, Seishi Kishimoto and Saori Oka	PATHOPHYSIOLOGICAL ROLES OF 2-ARACHIDONOYLGLYCEROL AND THE CB2 RECEPTOR IN ALLERGIC INFLAMMATION	39
14.00	Barbara Costa, Francesca Comelli, Mariapia Colleoni and Gabriella Giagnoni	EFFECT OF CB1/TRPV1 AGONIST, ARVANIL, IN ACUTE INFLAMMATION AND IN PERSISTENT INFLAMMATORY AND NEUROPATHIC PAIN	40
14.15	Sreenivasulu Pattipati and Aron Lichtman	INHIBITION OF FAAH PRODUCES CB1 RECEPTOR MEDIATED ANTI-HYPERALGESIC EFFECTS IN COLLAGEN-INDUCED ARTHRITIC PAIN	41
14.30	Rossella Brusa, Marilena Campanella, Giorgia Quadrato, Nadia Bernardini, Chiara Foglia, Valentina Liporati, Silvia Conti, Rosalia Bertorelli, Angelo Reggiani and Massimiliano Beltramo	CB2 RECEPTOR AGONISTS PHARMACOLOGICAL PROFILING	42
14.45	Stephen Varvel, Jenny Wiley and Billy Martin	ACUTE INTERACTIONS BETWEEN CBD, CBN, AND THC FOLLOWING INTRAVENOUS OR INHALATION EXPOSURE IN THE MOUSE TETRAD	43
15.00 - 17.15	Coffee Break / Poster Session Sessions # 1, 6, 7 and 8		
Session 9. Food Intake and Energy Balance			
► Chairs: <i>Drs. Ester Fride and Jenny Wiley</i>			
17.15	Ester Fride and Nikolai Gobshtis	UNDESIRABLE WEIGHT GAIN CAUSED BY PROLONGED USE OF ANTI-DEPRESSANT MEDICATION MAY BE PREVENTED WITH RIMONABANT WITHOUT LOSS OF ANTIDEPRESSANT EFFECTIVENESS	44

17.30	Frédéric Béquet, Mathieu Desbazeille, Pascal Ludwiczak, Mohamed Maftouh, Claudine Picard, Bernard Scatton and Gérard Le Fur	CB1 RECEPTORS CONTROL ENDOCANNABINOIDS RELEASE IN THE HYPOTHALAMUS OF FREELY MOVING RATS	45
17.45	Isabel Matias, Luciano De Petrocellis, Katarzyna Starowicz, Tiziana Bisogno, Luigia Cristino and Vincenzo Di Marzo	FUNCTIONAL ACTIVITY OF CANNABINOID RECEPTORS IN MODELS OF ADIPOCYTES AND BETA-PANCREATIC CELLS	46
18.00	M. Jerry Wright Jr., James J. Burston, Darnica C. Leggett, Raj K. Razdan and Jenny L. Wiley	THE INFLUENCE OF SELECTED ENDOCANNABINOID ANALOGS ON FOOD INTAKE AND LOCOMOTION	47
18.15 - 19.00	<p>Plenary Lecture Kang Tsou Memorial Lecture Dr. Miklós Palkovits Semmelweis University “Neuroanatomical and Neurochemical Organization of the Central Regulation of Food Intake” Page P1</p>		
20.00	Boat Excursion with Dinner		

Notes:

Day 3

Tuesday, June 27th

Session 10: Immune System

► Chairs: *Drs. David Baker and Mauro Maccarrone*

8.00	Fernando Correa, Fabian Docagne, Leyre Mestre, Diego Clemente, Frida Loría, Miriam Hernangómez, Christoph Becker and Carmen Guaza	ANANDAMIDE REGULATES IL-12P40 PRODUCTION BY ACTIVATING THE PROMOTER REPRESSOR ELEMENT GA-12	48
8.15	Douglas McHugh and Ruth A. Ross	ENDOCANNABINOID METABOLITES MODULATE HUMAN NEUTROPHIL MIGRATION	49
8.30	David Baker, J. Croxford Croxford, Gareth Pryce, Samuel M. Jackson, Catherine Ledent, Giovanni Marsicano, Beat Lutz, Gavin Giovannoni, Takashi Yamamura and Roger G Pertwee	CANNABINOID-MEDIATED IMMUNOSUPPRESSION IN EXPERIMENTAL ALLERGIC ENCEPHALOMYELITIS	50
8.45	Michelle Roche, Michael Diamond, John P. Kelly and David P. Finn	CANNABINOID RECEPTOR-MEDIATED MODULATION OF LIPOPOLYSACCHARIDE-INDUCED ALTERATIONS IN PERIPHERAL CYTOKINE LEVELS, CIRCULATING LYMPHOCYTES AND HYPOTHALAMO-PITUITARY-ADRENAL AXIS ACTIVITY IN RATS	51
9.00	Evelyn Gaffal, Meliha Karsak, Regina Steuder, Andreas Zimmer and Thomas Tüting	ROLE OF THE ENDOGENOUS CANNABINOID SYSTEM IN EXPERIMENTAL CONTACT HYPERSENSITIVITY	52
9.15	Norbert Kaminski, Alison Springs and Barbara Kaplan	A PRELIMINARY IMMUNOLOGICAL CHARACTERIZATION OF CB1-/-/CB2-/- MICE AND THEIR SENSITIVITY TO IMMUNE MODULATION BY Δ^9 -TETRAHYDROCANNABINOL	53

Session 11: Cardiovascular, Gastrointestinal and Other Peripheral Functions

► Chairs: *Drs. Somnath Mukhopadhyay and David Kendall*

9.30	Emma Robinson, Sue Pyne, Nigel Pyne, Ros Brett, Kathy Kane and Simon Kennedy	EFFECT OF CANNABINOIDS ON RAT CORONARY ARTERY REACTIVITY	54
9.45	Nissar Darmani, Jennifer Crim and Jano Janoyan	SYNTHETIC AND PLANT-DERIVED CANNABINOIDS PREVENT RADIATION-INDUCED VOMITING VIA CB1-RECEPTOR	55
10.00	Raj Makwana, Areles Molleman and Mike Parsons	THE RECEPTORS MEDIATING THE INHIBITORY EFFECTS OF CANNABINOIDS ON THE ELECTRICALLY STIMULATED RAT ISOLATED MYENTERIC PLEXUS LONGITUDINAL MUSCLE PREPARATION ARE DEPENDENT ON THE FREQUENCY OF STIMULATION	56
10.15	Yosefa Avraham, Olga Zolotarev, Yossi Dagon, Iddo Magen, Raphael Mechoulam, Yaron Ilan and Elliot Berry	ENDOCANNABINOIDS AFFECT LIVER FUNCTION IN THIOACETAMIDE INDUCED HEPATIC ENCEPHALOPATHY	57
10.30 - 11.00	Coffee Break		
11.00	Marnie Duncan, Quentin Pittman, Ken Mackie, Kamala Patel and Keith Sharkey	LPS TREATMENT UPREGULATES CB2 RECEPTORS IN THE ENTERIC NERVOUS SYSTEM OF THE RAT ILEUM	58

11.15	Saoirse O'Sullivan, Andrew Bennett, David Kendall and Michael Randal	CANNABINOID LIGANDS AS ACTIVATORS OF PEROXISOME PROLIFERATOR-ACTIVATED RECEPTOR GAMMA (PPAR GAMMA)	59
11.30	Fatima Teixeira-Clerc, Boris Julien, Pascale Grenard, Jeanne Tran Van Nhieu, Vanessa Deveaux, Lyling Li, Valérie Serriere-Lanneau, Catherine Ledent, Ariane Mallat and Sophie Lotersztajn	CB1 CANNABINOID RECEPTOR ANTAGONISM: A NOVEL STRATEGY FOR THE TREATMENT OF LIVER FIBROSIS	60
11.45	Somnath Mukhopadhyay	ANANDAMIDE-MEDIATED ANGIOGENESIS: INTERPLAY BETWEEN CB1 RECEPTOR AND NON-CB1/CB2 ANANDAMIDE RECEPTOR	61
12.00 -14.00	Lunch NIDA InfoLuncheon – European/American Funding Initiatives		
Session 12: Human and Clinical Studies			
➤ Chairs: <i>Drs. Ethan Russo and Roger Pertwee</i>			
14.00	Ethan Russo	SATIVEX® CANNABIS BASED MEDICINE IMPROVES SLEEP QUALITY IN PATIENTS WITH MULTIPLE SCLEROSIS, NEUROPATHIC AND RHEUMATIC PAIN	62
14.15	Mary Lynch, Christine Short, Young Judee and Joanne Walker	REPORT ON A CASE SERIES OF PATIENTS USING A BUCCAL CANNABIS EXTRACT CONTAINING THC AND CBD FOR TREATMENT OF NEUROPATHIC PAIN AND SPASTICITY	63
14.30	Marta Duran, Sergio Abanades, Dolors Capellà and Seguivex Study Group	FOLLOW UP STUDY OF PATIENTS WITH NEUROPATHIC PAIN, SPASTICITY SECONDARY TO MULTIPLE SCLEROSIS AND ANOREXIA CAQUEXIA SYNDROME TREATED WITH A WHOLE PLANT CANNABIS EXTRACT	64
14.45	Donald Abrams, Hector Vizoso, Starley Shade, Cheryl Jay, Mary Ellen Kelly and Neal Benowitz	VAPORIZATION AS A SAFE AND EFFICIENT SMOKELESS CANNABIS DELIVERY SYSTEM	65
15.00	David Gorelick, Silvia Martins, Marc Copersino, Carl Soderstrom, Gordon Smith, Patricia Dischinger, David McDuff, J. Richard Hebel, Timothy Kerns, Shiu Ho and Kathleen Read	RISK OF CANNABIS DEPENDENCE IN CANNABIS USERS AMONG TRAUMA INPATIENTS	66
15.15	Matthew Hill, Greg Miller, Erica Carrier, Vanessa Ho, Boris Gorzalka and Cecilia Hillard	DYNAMIC REGULATION OF SERUM ENDOCANNABINOID CONTENT IN AFFECTIVE DISEASE AND FOLLOWING SOCIAL STRESS IN HUMANS	67
15.30 - 18.15	Coffee Break / Poster Session Sessions # 9 - 12		
17.45 - 18.15	Hot and Controversial Issue Session #1: “Are There CB₂ Receptors in CNS Neurons?” Chairs: Drs. Emmanuel Onaivi and Marnie Duncan		
18.15 - 19.00	Plenary Lecture Dr. Angelo Izzo “Cannabinoids and the Gut: Focus on Intestinal Motility and Secretion” Young Investigator Award <small>Page P2</small>		
20.00	Dinner		

Day 4

Wednesday, June 28th

Session 13: Reward and Abuse

► Chairs: *Drs. Daniela Parolaro and Thomas Lundqvist*

8.00	Leigh Panlilio, Marcello Solinas, Stephanie Matthews and Steven Goldberg	PREVIOUS EXPOSURE TO THC ALTERS THE REINFORCING EFFECTS AND ANXIETY-RELATED EFFECTS OF COCAINE IN RATS	68
8.15	Balapal Basavarajappa, Ninan Ipe, Thomas Cooper and Ottavio Arancio	ENDOCANNABINOIDS MEDIATE ETHANOL- INDUCED MODULATION OF EXCITATORY POSTSYNAPTIC CURRENTS IN CULTURED HIPPOCAMPAL NEURONS	69
8.30	Mariaelvina Sala, Chiara Castiglioni, Valeria Limonta, Chiara Guerini- Rocco, Alessia Zani, Simona Pegorini and Daniela Braidà	INVOLVEMENT OF THE CB1 CANNABINOID RECEPTOR ON SALVINORIN-A-INDUCED REWARD	70
8.45	Ros Brett, Claire Allison and Judith Pratt	MAPPING CANNABIDIOL-INDUCED ALTERATIONS IN REGIONAL BRAIN ACTIVITY BY 2-DEOXYGLUCOSE IMAGING	71
9.00	Raffaella Tonini, Sonia Ciardo, Milica Cerovic, Tiziana Rubino, Daniela Parolaro, Michele Mazzanti and Renata Zippel	ERK-DEPENDENT MODULATION OF CEREBELLAR SYNAPTIC PLASTICITY FOLLOWING CHRONIC Δ^2 - TETRAHYDROCANNABINOL EXPOSURE	72
9.15	Marco Pistis, Simona Perra, Giuliano Pillolla, Anna Lisa Muntoni and Miriam Melis	THE ENDOCANNABINOID SYSTEM IN THE EFFECTS OF ALCOHOL ON LIMBIC NEURONS: ELECTROPHYSIOLOGICAL EVIDENCE IN VIVO	73
9.30	Eliot Gardner, Zheng-Xiong Xi, Jeremy Gilbert, Arlene Pak, Xiao-Qing Peng and Xia Li	CB1 RECEPTOR ANTAGONIST AM251 INHIBITS COCAINE'S REWARDING EFFECTS AND COCAINE-PRIMED RELAPSE TO DRUG- SEEKING BEHAVIOR IN RATS BY A DA- INDEPENDENT MECHANISM	74
9.45	Sara Jane Ward, Frederick Henry, Ashmita Chatterjee, Tonya Gerald, Steven Franklin, Allyn Howlett and Linda Dykstra	CANNABINOID CB1 RECEPTOR DELETION AND CB1 RECEPTOR ANTAGONISM BOTH ENHANCE MORPHINE CONDITIONED PLACE PREFERENCE	75

Session 14: Cancer

► Chairs: *Drs. Raphael Mechoulam and Vincenzo Di Marzo*

10.00	Natalya Kogan, Michael Schlesinger, Ronen Beeri and Raphael Mechoulam	THE NOVEL ANTICANCER CANNABINOID QUINONE HU-331 IS MORE POTENT AND LESS CARDIOTOXIC THAN DOXORUBICIN - A COMPARATIVE IN-VIVO STUDY	76
10.15	Alessia Ligresti, Aniello Schiano Moriello, Isabel Matias, Katarzyna Starowicz, Simona Pisanti, Luciano De Petrocellis, Giuseppe Portella, Maurizio Bifulco and Vincenzo Di Marzo	ANTI-CANCER EFFECTS OF CANNABIDIOL IN HUMAN BREAST CARCINOMA: CELLULAR AND MOLECULAR MECHANISMS OF ACTION AND INHIBITION OF METASTATIC SPREADING	77
10.30 - 11.00	Coffee Break		

11.00	Simona Pisanti, Cristina Borselli, Olimpia Oliviero, Patrizia Gazzero, Chiara Laezza, Claudia Grimaldi and Maurizio Bifulco	ANANDAMIDE INHIBITS ENDOTHELIAL CELL SPROUTING ANGIOGENESIS IN VITRO AND IN VIVO	78
11.15	Burkhard Hinz, Robert Ramer and Karin Eichele	INHIBITION OF COX-2 PROTECTS HUMAN CERVICAL CARCINOMA CELLS FROM R(+)-METHANANDAMIDE-INDUCED APOPTOTIC DEATH	79
Session 15: Neuroprotection			
► Chairs: <i>Drs. Javier Fernandez-Ruiz and Julián Romero</i>			
11.30	Fabian Docagne, Vilma Muñeton, Frida Loría, Diego Clemente, Fernando Correa, Miriam Hernangómez, Leyre Mestre and Carmen Guaza	NEUROPROTECTIVE EFFECTS OF CANNABINOIDS INDUCE THERAPEUTIC PROPERTIES IN A VIRAL MODEL OF MULTIPLE SCLEROSIS	80
11.45	Joseph Tam, Alex Alexandrovich, Vincenzo Di Marzo, Stefania Petrosino, Victoria Trembovler, Andreas Zimmer, Raphael Mechoulam, Esther Shohami and Itai Bab	CB1, BUT NOT CB2, MEDIATES STIMULATION OF BONE FORMATION INDUCED BY TRAUMATIC BRAIN INJURY	81
12.00	Iddo Magen, Yosefa Avraham, Zvi Ackerman, Raphael Mechoulam and Elliot M. Berry	SR141716A IMPROVES COGNITIVE AND NEUROLOGICAL FUNCTION IN A MODEL OF SECONDARY BILIARY CIRRHOSIS IN THE RAT	82
12.15 - 13.45	Lunch		
13.45	Cristina Benito, Juan Pablo Romero, Diego Clemente, Fabian Docagne, Rosa María Tolón, Carmen Guaza and Julián Romero	IMMUNOHISTOCHEMICAL STUDY OF THE ENDOGENOUS CANNABINOID SYSTEM IN MULTIPLE SCLEROSIS POSTMORTEM HUMAN SAMPLES	83
14.00	David Fernández-López, Ignacio Lizasoain, Maria Angeles Moro, Pedro Lorenzo and Jose Antonio Martínez-Orgado	WIN 55,212-2 IMPROVES CEREBRAL TISSUE RECOVERY AFTER EXPERIMENTAL NEWBORN HYPOXIA-ISCHEMIA IN A CB1 AND CB2 RECEPTOR DEPENDENT MANNER	84
14.15	Yosef Sarne, Isabella Tselnicker, Roey Senn and Ora Keren	A SINGLE ULTRA-LOW DOSE OF THC INDUCES LONG-LASTING COGNITIVE DEFICITS IN MICE: IMPLICATIONS FOR CHRONIC EXPOSURE TO CANNABINOID DRUGS	85
14.30	Cindy Casteels, Dorien Vercammen, Karolien Goffin, Peter Vermaelen, Bert Vanbilloen, Guy Bormans and Koen Van Laere	CHRONIC EXPOSURE TO Δ^9 -TETRAHYDROCANNABINOL INDUCES INCREASED DOPAMINE TRANSPORTER AVAILABILITY	86
14.45	Aoife Gowran	LYSOSOMAL DYNAMICS IN Δ^9 -TETRAHYDROCANNABINOL-INDUCED APOPTOSIS IN RAT CORTICAL NEURONS	87
15.00	Moises Garcia-Arencibia, Sara Gonzalez, Eva de Lago, Jose Antonio Ramos, Raphael Mechoulam and Javier Fernandez-Ruiz	NEUROPROTECTION WITH CANNABINOIDS IN A RAT MODEL OF PARKINSON'S DISEASE	88
15.15 - 16.15	Coffee Break & Business Meeting		

Session 16: Non-Mammalian Organisms

➤ Chairs: *Drs. John McPartland and Maurice Elphick*

16.15	John McPartland	SPECIES TREES AND GENE TREES AS METHODS FOR INFERRING COEVOLUTION	89
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