

## Emerging neuropeptide systems

- [P1.1.01] **Characterization of a Novel alpha4/4-Conotoxin, Qc1.2, from Vermivorous Conus quercinus**  
CP Peng<sup>\*1</sup>, YH Han<sup>2</sup>, TS Sanders<sup>3</sup>, GC Chew<sup>3</sup>, JL Liu<sup>3</sup>, EH Hawrot<sup>3</sup>, <sup>1</sup>*Institute of Protein Research, Tongji University, Shanghai, China,* <sup>2</sup>*Institute of Biochemistry and Cell Biology, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, China,* <sup>3</sup>*Department of Molecular Pharmacology, Physiology and Biotechnology, Brown Medical School, Providence, United States*
- [P1.1.02] **Identification and Structural Characterization of vi6a, a Novel Four-loop Conotoxin Rich in Glycine**  
CG Guo<sup>1</sup>, CP Peng<sup>\*2</sup>, CC Chi<sup>3</sup>, CW Wang<sup>2</sup>, DL Lin<sup>1</sup>, <sup>1</sup>*Shanghai Institute of Material Medica, Chinese Academy of Sciences, Shanghai, China,* <sup>2</sup>*Institute of Protein Research, Tongji University, Shanghai, China,* <sup>3</sup>*Institute of Biochemistry and Cell Biology, Shanghai Institute of Biological Sciences, Chinese Academy of Sciences, Shanghai, China*
- [P1.1.03] **In vitro and in vivo pharmacological role of TLQP-21, a Chromogranin VGF-derived peptide, in the regulation of rat motor gastric functions.**  
R Possenti<sup>\*1</sup>, C Petrella<sup>2</sup>, G Improta<sup>2</sup>, M Broccardo<sup>2</sup>, A Levi<sup>3</sup>, C Severini<sup>3</sup>, <sup>1</sup>*Univ of Rome Tor Vergata, Dept Neuroscience, Italy,* <sup>2</sup>*Univ of Rome La Sapienza Dept Human Physiology and Pharmacology, Italy,* <sup>3</sup>*Institute of Neurobiology and Molecula Medicine, CNR Rome, Italy*
- [P1.1.04] **Neuropeptide S receptor expression and regulation of neurotransmitter release in rat brain**  
SK Leonard<sup>\*1</sup>, CE Beyer<sup>1</sup>, C Wantuch<sup>1</sup>, M-Y Zhang<sup>1</sup>, S Rosenzweig-Lipson<sup>1</sup>, LE Schechter<sup>1</sup>, <sup>1</sup>*Wyeth Research, United States*
- [P1.1.05] **Ascending relaxin-3 networks in mammalian brain: A review of their conserved distribution and emerging functional roles**  
AL Gundlach<sup>\*1</sup>, <sup>1</sup>*Florey Neuroscience Institutes, The University of Melbourne, Australia*
- [P1.1.06] **Newly-elucidated neuropeptides in the hippocampus: The role of the teneurin C-terminal associated peptides (TCAPs) on stress-related pathways**  
L.A. Tan<sup>\*1</sup>, A. Al Chawaf<sup>1</sup>, K. Xu<sup>1</sup>, F.J. Vaccarino<sup>1</sup>, D.A. Lovejoy<sup>1</sup>, S. Rotzinger<sup>1</sup>, <sup>1</sup>*University of Toronto, Canada*
- [P1.1.07] **Localization and characterization of teneurin C-terminal associated peptide (TCAP) expression in mouse brain**  
D.S. Chand<sup>\*1</sup>, T. Ng<sup>1</sup>, A. Kollara<sup>2</sup>, T.J. Brown<sup>2</sup>, D. Barsyte-Lovejoy<sup>1</sup>, D.A. Lovejoy<sup>1</sup>, <sup>1</sup>*University of Toronto, Canada,* <sup>2</sup>*Samuel Lunenfeld Research Institute Mount Sinai Hospital, Canada*

## Feeding behavior and appetite

- [P1.2.01] **Morphine attenuates the effect of nicotine on body weight, food intake and on serum neuropeptide Y level in rats.**  
Mozaffar Rezvanipour<sup>\*1</sup>, Saeed Esmaeili-Mahani<sup>1,2</sup>, Ali Siahposht<sup>1</sup>, Sina Rezvanipour<sup>1</sup>, <sup>1</sup>*Kerman Neuroscience Research Center (KNRC), Kerman University of Medical Sciences, Iran, Islamic Republic of,* <sup>2</sup>*Department of Biology, Faculty of Sciences, Shahid Bahonar University of Kerman, Iran, Islamic Republic of*

- [P1.2.02] **Central actions of the oligosomatostatin receptor agonist ODT8-SST: increase of food intake and decrease of body weight**  
Tamer Coskun<sup>\*1</sup>, Andreas Stengel<sup>2</sup>, Miriam Goebel<sup>2</sup>, Libbey Craft<sup>1</sup>, Lixin Wang<sup>2</sup>, Jorge Alsina-Fernandez<sup>1</sup>, <sup>1</sup>Eli Lilly and Company, United States, <sup>2</sup>UCLA, United States, <sup>3</sup>Salk Institute, United States
- [P1.2.03] **Feeding behavior, energy expenditure and obesity in mice overexpressing neuropeptide Y in noradrenergic neurons**  
ST Ruohonen<sup>\*1</sup>, L Toukola<sup>1</sup>, M R ytt <sup>2</sup>, M Kilpel inen<sup>2,3</sup>, KH Herzig<sup>2,3</sup>, E Savontaus<sup>1</sup>, <sup>1</sup>University of Turku, Finland, <sup>2</sup>University of Kuopio, Finland, <sup>3</sup>University of Oulu, Finland
- [P1.2.04] **Comparative Neuropeptidomic Analysis of Food Intake and Environmental Stress via a Multi-faceted Mass Spectrometric Approach**  
R.C. Chen<sup>\*1</sup>, L.H. Hui<sup>1</sup>, L.L. Li<sup>1</sup>, <sup>1</sup>Univeristy of Wisconsin-Madison, United States
- [P1.2.05] **The Acute and Subchronic Effects of a Brain-Penetrating, Neurotensin-1 Receptor Agonist on Feeding, Body Weight and Temperature**  
D Feifel<sup>\*1</sup>, J Goldenberg<sup>1</sup>, G Melendez<sup>1</sup>, P Shilling<sup>1</sup>, <sup>1</sup>University of California, San Diego, United States
- [P1.2.06] **Secretin and leptin increase the electrical activity of supraoptic nucleus (SON) neurons in female rats: Comparison to CCK-induced excitation**  
S Velmurugan<sup>\*1</sup>, PJ Brunton<sup>1</sup>, G Leng<sup>1</sup>, JA Russell<sup>1</sup>, <sup>1</sup>Centre for Integrative Physiology, College of Medicine and Veterinary Medicine, University of Edinburgh, United Kingdom
- [P1.2.07] **Role of Neuropeptide Y (NPY) and Alpha-Melanocyte Stimulating hormone ( $\alpha$ -MSH) in obesity induced hypertension (HPT)**  
M Baltatzi<sup>\*1</sup>, A Hatzitolios<sup>1</sup>, Ch Savopoulos<sup>1</sup>, Ch Dimitroula<sup>1</sup>, G Koliakos<sup>2</sup>, <sup>1</sup>1st Propedeutic Medical Department, AXEPA Hospital, Aristotles University of Thessaloniki, Greece, <sup>2</sup>Department of Biological Chemistry, Aristotles University of Thessaloniki, Greece

## Neurogenic inflammation and pain

- [P1.3.01] **CGRP modulates sympathetic co-transmitter release and inversely, nucleotides regulate CGRP outflow through P2Y nucleotide receptors; functional implications.**  
J. P. Huidobro-Toro<sup>\*1</sup>, C. Navarrete<sup>1</sup>, D. Hermosilla<sup>1</sup>, P. Alvarez<sup>1</sup>, M.V. Donoso<sup>1</sup>, <sup>1</sup>P. Catholic University of Chile, Chile
- [P1.3.02] **Inhibition of Adrenomedullin Receptor Blockade on The Upregulation of Nitric Oxide Synthesis and CGRP in Inflammatory Pain in Rats**  
Y. Hong<sup>\*1,2</sup>, J.-G. Chabot<sup>1</sup>, R. Quirion<sup>1</sup>, <sup>1</sup>McGill University, Canada, <sup>2</sup>Fujian Normal University, China
- [P1.3.03] **Corticotropin releasing factor receptors-1 are implicated in the sensory component of inflammatory and neuropathic pain**  
M. Hummel<sup>\*1</sup>, T. Cummons<sup>1</sup>, P. Lu<sup>1</sup>, J. Harrison<sup>1</sup>, J.D. Kennedy<sup>1</sup>, G.T. Whiteside<sup>1</sup>, <sup>1</sup>Wyeth Research, United States
- [P1.3.04] **Intrathecal Injection of Interlukin-1 $\beta$  (IL-1 $\beta$ ) Increases Pain Behavior and Blood Glucose Level: Possible Involvement of Glucocorticoid, Catechoamine, Corticotropin Releasing Hormone (CRH) and Supra Spinal Opioid System**  
Y.B. Sim<sup>\*1</sup>, S.H. Park<sup>1</sup>, S.M. Choi<sup>1</sup>, J.K. Lee<sup>1</sup>, H.W. Suh<sup>1</sup>, <sup>1</sup>Department of Pharmacology, College of Medicine, Hallym University, Korea, Republic of

- [P1.3.05] **Role of VGF in Pain Signaling**  
M. Riedl<sup>1</sup>, P. Braun<sup>1</sup>, K. Kitto<sup>1</sup>, C. Fairbanks<sup>1</sup>, L. Vulchanova\*<sup>1</sup>, <sup>1</sup>University of Minnesota, United States
- [P1.3.06] **The expression of  $\mu$ - and  $\delta$ -opioid receptors in the dorsal root ganglia and spinal cord of NOS1 and NOS2 knockout mice exposed to inflammatory pain**  
R Negrete<sup>1,2</sup>, JM Martín-Campos<sup>1</sup>, A Hervera<sup>1,2</sup>, S Leánez<sup>1,2</sup>, O Pol\*<sup>1,2</sup>, <sup>1</sup>Institut de Recerca de l'Hospital de la Sta Creu i Sant Pau. Barcelona, Spain, <sup>2</sup>Institut de Neurociències. Universitat Autònoma de Barcelona. Barcelona, Spain
- [P1.3.07] **Modulatory Effects of Neuropeptide of Bombesin on Acute Pain and Anxiety Reaction in Mice**  
A.A Vafaei\*<sup>1</sup>, A.A Taherian<sup>1</sup>, A Rashidy-Pour<sup>1</sup>, <sup>1</sup>Dept. and Research Center of Physiology, Semnan University of Medical Sciences, Iran, Islamic Republic of
- [P1.3.08] **Anticonvulsant and Analgesic Profile of NAX-5055: A High Affinity, Metabolically Stable, and Blood-Brain-Barrier Penetrant Galanin-Based Analog**  
E. Adkins-Scholl\*<sup>1,2</sup>, M.D. Smith<sup>1,2</sup>, B.D. Klein<sup>2</sup>, L. Zhang<sup>3</sup>, G. Bulaj<sup>3</sup>, H.S. White<sup>1</sup>, <sup>1</sup>University of Utah, Department of Pharmacology and Toxicology, Salt Lake City, UT 84108, United States, <sup>2</sup>Neuroadjuvants, Inc., 417 Wakara Way, Salt Lake City, UT 84108, United States, <sup>3</sup>University of Utah, Department of Medicinal Chemistry, Salt Lake City, UT 84108, United States
- [P1.3.09] **Oxytocin-induced analgesia is not mediated by the oxytocin receptor, but rather by the vasopressin-1A receptor: evidence from oxytocin- and vasopressin-receptor knockout mice**  
A Schorscher-Petcu\*<sup>1,2</sup>, S Sotocinal<sup>1</sup>, JN Crawley<sup>3</sup>, LJ Young<sup>4,5</sup>, R Quirion<sup>1,2</sup>, JS Mogil<sup>1</sup>, <sup>1</sup>McGill University, Canada, <sup>2</sup>Douglas Mental Health University Institute, Canada, <sup>3</sup>National Institute of Mental Health, United States, <sup>4</sup>Emory University, United States, <sup>5</sup>Yerkes National Primate Research Center, United States
- [P1.3.10] **Change of nicotinic receptor expression on APC cell line by the cell maturation**  
Eiichi Taira\*<sup>1</sup>, Yukiko Kondo<sup>1</sup>, Eiichi Tachikawa<sup>2</sup>, <sup>1</sup>Department of Pharmacology, Iwate medical school, Japan, <sup>2</sup>Department of Endocrine Pharmacology, Tokyo University of Pharmacy and Life Science, Japan

## Neuropeptide systems in social behavior

- [P1.4.01] **Central Amylin Expression and its Involvement in the Regulation of Maternal Behaviours**  
A Dobolyi\*<sup>1</sup>, <sup>1</sup>Semmelweis University and the Hungarian Academy of Sciences, Hungary
- [P1.4.02] **Maternal Separation Impairs Social Recognition Due to a Lack of Septal Vasopressin Responsiveness in Adult Male Rats**  
M Lukas\*<sup>1</sup>, AH Veenema<sup>1</sup>, ID Neumann<sup>1</sup>, <sup>1</sup>University of Regensburg, Germany
- [P1.4.03] **Influence of Hormone Treatment and Mating Conditions on Anxiety-related Behaviour and Central Oxytocin Release in Female Rats**  
M Waldherr<sup>1</sup>, S Baeumi<sup>1</sup>, K Nyuyki<sup>1</sup>, ID Neumann\*<sup>1</sup>, <sup>1</sup>University of Regensburg, Germany
- [P1.4.04] **Peripherally administered vasopressin V1a receptor antagonist AZN 576 increases maternal aggression**  
B.C. Nephew\*<sup>1</sup>, M. Febo<sup>1</sup>, N.G. Simon<sup>2</sup>, C.F. Ferris<sup>1</sup>, <sup>1</sup>Center for Translational Neuro-Imaging Department of Psychology, Northeastern University, United States, <sup>2</sup>Department of Biological Sciences, Lehigh University, Bethlehem PA, United States

- [P1.4.05] **Oxytocin Levels in Adult and Infant CD38 Knockout Mice Critically Relate to Social Behavior**  
H. Higashida\*<sup>1</sup>, H.-L. Liu<sup>1</sup>, O. Lopatina<sup>1</sup>, C. Higashida<sup>1</sup>, S. Yokoyama<sup>1</sup>, M. Hashii<sup>1</sup>,  
<sup>1</sup>*Kanazawa University Graduate School of Medicine, Japan*
- [P1.4.06] **Luteolin ameliorates cognition deficits in rats and inhibits the activations of MAP kinase and caspase 3 pathways in primary cultures of rat cortical cell induced by  $\beta$ -amyloid**  
Cheng Hao-Yuan<sup>1</sup>, Tsai Fan-Shiu<sup>1</sup>, Wu Chi-Rei<sup>1</sup>, Hsieh Ming-Tsuen<sup>1</sup>, Xu Hong-Xi<sup>1</sup>, Peng Wen-Huang\*<sup>1</sup>,  
<sup>1</sup>*Institute of Chinese Pharmaceutical Sciences, China Medical University, Taiwan*,  
<sup>2</sup>*Chinese Medicine Laboratory, Hong Kong Jockey Club Institute of Chinese Medicine, Hong Kong, China*,  
<sup>3</sup>*School of Chinese Medicine, Hong Kong Baptist University, Kowloon Tong, Hong Kong Special Administrative Region, P. R, China*
- [P1.4.07] **Effects of ICV Insulin-like Peptide 3 (INSL3) Administration on Social and Non-Social Behaviors in the C57BL/6J Mouse**  
AL Gundlach\*<sup>1</sup>, NS Karunaratne<sup>1</sup>, NL Jennings<sup>1</sup>, K Sedaghat<sup>1</sup>, F Lin<sup>1</sup>, JD Wade<sup>1</sup>,  
<sup>1</sup>*Florey Neuroscience Institutes, The University of Melbourne, Australia*
- [P1.4.08] **Localization of Oxytocin Receptor Expressing Neurons in Brain Using Oxt<sup>r</sup>-YFP Knockin Mice.**  
K.N. Nishimori\*<sup>1</sup>,  
<sup>1</sup>*Graduate School of Agricultural Science, Tohoku University, Japan*,  
<sup>2</sup>*Department of Physiology, Jichi Medical University, Japan*,  
<sup>3</sup>*Department of Psychiatry and Behavioral Sciences and Yerkes National Primate Research Center, Emory University, United States*,  
<sup>4</sup>*Department of Specific Organ Regulation, Osaka University Graduate School of Medicine, Japan*
- [P1.4.09] **On the Central Oxytocin System Regulation Social Cognition and Behavior**  
H.E. Ross\*<sup>1</sup>, L.J. Young<sup>1,2</sup>,  
<sup>1</sup>*Center for Behavioral Neuroscience, Yerkes National Primate Research Center, Atlanta GA, United States*,  
<sup>2</sup>*Department of Psychiatry and Behavioral Sciences, Emory University School of Medicine, Atlanta, GA, United States*
- [P1.4.10] **Examining plasma oxytocin, genes, and clinical variability in children with autism spectrum disorders**  
S Jacob\*<sup>1</sup>, C S Carter<sup>1</sup>, P Suppatkul<sup>1</sup>, H Pournajafi-Nazarloo<sup>1</sup>, C W Brune<sup>1</sup>, E H Cook<sup>1</sup>,  
<sup>1</sup>*University of Illinois at Chicago, United States*
- [P1.4.11] **Endocrine and autonomic responses following alloparenting in socially monogamous voles**  
W M Kenkel\*<sup>1</sup>, J Paredes<sup>1</sup>, H P Nazarloo<sup>1</sup>, A J Grippo<sup>1</sup>, S W Porges<sup>1</sup>, C S Carter<sup>1</sup>,  
<sup>1</sup>*University of Illinois at Chicago, United States*
- [P1.4.12] **Oxytocin injections in early life reversed negative behavioral effects of repeated handling**  
E M Boone\*<sup>1</sup>, L L Sanzenbacher<sup>1</sup>, S D Stanfill<sup>1</sup>, K L Bales<sup>1</sup>, C S Carter<sup>1</sup>,  
<sup>1</sup>*University of Illinois at Chicago, United States*
- [P1.4.13] **Sex differences in developmental effects of peptides: implications for autism?**  
C S Carter\*<sup>1</sup>,  
<sup>1</sup>*University of Illinois at Chicago, United States*

## The role of neuropeptides in neuronal plasticity

- [P1.5.01] **Effects of Deprenyl on mRNA changes of P75 receptor in adult rats after spinal cord injury by the use of pressure**  
marjan heshmati<sup>\*1</sup>, hesam amini<sup>1</sup>, <sup>1</sup>*shahed university, Iran, Islamic Republic of*
- [P1.5.02] **Effects of LHRH Antagonist Cetrorelix on Affective and Cognitive Functions in Rats**  
G. Telegdy<sup>\*1</sup>, A. Adamik<sup>1</sup>, M. Tanaka<sup>1</sup>, A.V. Schally<sup>1</sup>, <sup>1</sup>*Dept. Pathophysiology University of Szeged, Veterans Affairs Med. Center Miami FL 33101, United States* *Minor Outlying Islands*
- [P1.5.03] **TGF- $\beta$ 2 haploinsufficiency perturbs miniature potential amplitude at adult mouse neuromuscular junctions.**  
S.-W. Fong<sup>1</sup>, I.S. McLennan<sup>2</sup>, G.S. Bewick<sup>\*1</sup>, <sup>1</sup>*University of Aberdeen, United Kingdom*, <sup>2</sup>*University of Otago, New Zealand*
- [P1.5.04] **A role for TGF- $\beta$ 2 in the mature nervous system - a rapid modulator of synaptic transmission**  
S-W Fong<sup>\*1</sup>, IS McLennan<sup>1</sup>, GS Bewick<sup>1</sup>, <sup>1</sup>*University of Aberdeen, United Kingdom*, <sup>2</sup>*University of Otago, New Zealand*
- [P1.5.05] **Modulation of hippocampal theta oscillation via nociceptin opioid peptide receptors: Relevance to cognition**  
M Hajos<sup>\*1</sup>, L Scott<sup>1</sup>, B Harvey<sup>1</sup>, C Siok<sup>1</sup>, B Kocsis<sup>2</sup>, E Hajos-Korcsok<sup>1</sup>, <sup>1</sup>*1. Dept. Neuroscience, Pfizer Global Research & Development, Groton, CT, United States*, <sup>2</sup>*2. Dept. Psychiatry, Harvard Medical School, Boston, MA, United States*
- [P1.5.06] **The role of arginine vasopressin and oxytocin within the nucleus accumbens during environment elicited cocaine-conditioned response.**  
E Rodriguez<sup>\*1</sup>, <sup>1</sup>*University of Puerto Rico, Puerto Rico*, <sup>2</sup>*Novartis Genome Institute, United States*
- [P1.5.07] **The role of neurotensin during extinction of cocaine seeking behavior.**  
A Morales-Rivera<sup>\*1</sup>, N Caraballo<sup>1</sup>, J Marino<sup>1</sup>, CS Maldonado-Vlaar<sup>1</sup>, <sup>1</sup>*University of Puerto Rico, Puerto Rico*
- [P1.5.08] **Characterization of Enkephalin-Containing Neurons in the Spinal Dorsal Horn Visualized in BAC Transgenic Mice**  
T Fukushima<sup>\*1</sup>, T Kofuji<sup>2</sup>, Y Hori<sup>1</sup>, <sup>1</sup>*Department of Physiology and Biological Information, Dokkyo Medical University, School of Medicine, Kitakobayashi 880, Mibu, Tochigi 321-0293, Japan*, <sup>2</sup>*Radioisotope Laboratory, Kyorin University, School of Medicine, 6-20-2, Shinkawa, Mitaka, Tokyo, 181-8611, Japan*

## Arousal and sleep

- [P2.1.01] **Effects of Peripheral Injection of Neuropeptide of Bombesin on Sleeping Time in Mice**  
A.A Vafaei\*<sup>1</sup>, <sup>1</sup>Dept. and research center of physiology, University of Medical Sciences, Iran, Islamic Republic of
- [P2.1.02] **Cellular dissection of Drosophila circadian circuit using membrane-tethered pigment dispersing factor (PDF) neuropeptide**  
C Choi\*<sup>1</sup>, L Oksman<sup>1</sup>, MN Nitabach<sup>1</sup>, AS Kopin<sup>2</sup>, JP Fortin<sup>2</sup>, <sup>1</sup>Yale University, United States, <sup>2</sup>Tufts University School of Medicine, United States
- [P2.1.03] **sleep promotion induced by orexin-2 receptor antagonism in the rat is diminished by orexin-1 receptor blockade**  
JE Shelton\*<sup>1</sup>, L Aluisio<sup>1</sup>, P Bonaventure<sup>1</sup>, S Sutton<sup>1</sup>, T Lovenberg<sup>1</sup>, C Dugovic<sup>1</sup>, <sup>1</sup>Johnson and Johnson PRDUS, United States
- [P2.1.04] **Effect of NPY in the cholinergic basal forebrain in rat: double-immunolabeling electron microscopy and in vitro electrophysiology studies**  
L Zaborszky\*<sup>1</sup>, A Duque<sup>2</sup>, M Alreja<sup>2</sup>, S Ovsepyan<sup>1</sup>, <sup>1</sup>Rutgers University, United States, <sup>2</sup>Yale University School of Medicine, United States, <sup>3</sup>Dublin City University, Ireland

## Imaging of neuropeptidergic action in the CNS

- [P2.2.01] **Virus-based targeting of oxytocin and vasopressin neurons: a new tool for functional anatomy and physiology of hypothalamic neuropeptides.**  
S. Knobloch<sup>1</sup>, L. Hoffmann<sup>1</sup>, A.H. Cetin<sup>1</sup>, M.K. Schwarz<sup>1</sup>, P.H. Seeburg<sup>1</sup>, V. Grinevich\*<sup>1</sup>, <sup>1</sup>Max-Planck-Institute for Medical Research, Germany
- [P2.2.02] **Neuropeptide profiling of pomc cells in the mouse brain**  
Susanne Neupert\*<sup>1</sup>, Andreas Husch<sup>2</sup>, Moritz Paehler<sup>2</sup>, Peter Kloppenburg<sup>2</sup>, Reinhard Predel<sup>1</sup>, <sup>1</sup>Friedrich-Schiller University, Institute of General Zoology and Animal Physiology, Germany, <sup>2</sup>University of Cologne, Department of Biology, Institute of Zoology-Physiology, Germany
- [P2.2.03] **Developmental, behavioral and neurophysiological consequences of prenatal valproate: potential importance for the neurobiology of autism**  
AC Felix-Ortiz\*<sup>1</sup>, M Febo<sup>1</sup>, <sup>1</sup>Northeastern University, United States
- [P2.2.04] **Vasopressin v1a receptors modulate maternal bold fmri response to a novel male intruder**  
MK Caffrey\*<sup>1</sup>, BC Nephew<sup>1</sup>, M Febo<sup>1</sup>, <sup>1</sup>Northeastern University, United States

## Lessons learned from translation

- [P2.3.01] **Intranasal Oxytocin Augmentation of Antipsychotic Medication in Schizophrenia Patients**  
D Feifel\*<sup>1</sup>, K Macdonald<sup>1</sup>, A Nguyen<sup>1</sup>, H Warlan<sup>1</sup>, P Cobb<sup>1</sup>, B Galangue<sup>1</sup>, <sup>1</sup>University of California, San Diego, United States

## Neuropeptidergic control of stress responsivity

- [P2.4.01] **Microarray-directed gene discovery for neuropeptide signaling in stress**  
N. Stroth<sup>1</sup>, Y. Holighaus<sup>1</sup>, D. Ait-Ali<sup>1</sup>, L. E. Eiden<sup>\*1</sup>, D. Vaudry<sup>2</sup>, A. Ravni<sup>2</sup>, <sup>1</sup>*NIMH-IRP, United States*, <sup>2</sup>*University of Rouen, France*
- [P2.4.02] **Anxiolytic-like activity of angiotensin IV: interactions between oxytocin and AT4 receptors in the amygdala**  
J.M. Dwyer<sup>1</sup>, Q. Lin<sup>1</sup>, H-P. Ling<sup>1</sup>, L.E. Schechter<sup>1</sup>, S. Rosenzweig-Lipson<sup>1</sup>, C.E. Beyer<sup>\*1</sup>, <sup>1</sup>*Wyeth Research, United States*
- [P2.4.03] **Voluntary exercise and effects on Urocortin 1 and brain derived neurotrophic factor expression in the mouse brain**  
S Hilke<sup>\*1,2</sup>, M Huising<sup>1</sup>, S Gustafsson<sup>2</sup>, T Hökfelt<sup>3</sup>, J Vaughan<sup>1</sup>, W Vale<sup>1</sup>, <sup>1</sup>*Clayton Foundation Laboratories for Peptide Biology, The Salk Institute for Biological Studies, La Jolla, CA, United States*, <sup>2</sup>*Department of Clinical and Experimental Medicine, Linköping University, Sweden*, <sup>3</sup>*Department of Neuroscience, Karolinska Institutet, Stockholm, Sweden*
- [P2.4.04] **Opioid Suppression Of Hypothalamus-Pituitary-Adrenal (HPA) Axis Responses To Stress In Late Pregnancy Depends Upon Allopregnanolone Actions**  
PJ Brunton<sup>\*1</sup>, T Ochedalski<sup>2</sup>, A Piastowska<sup>2</sup>, E Rebas<sup>3</sup>, A Lachowicz<sup>2</sup>, JA Russell<sup>1</sup>, <sup>1</sup>*Centre for Integrative Physiology, University of Edinburgh, United Kingdom*, <sup>2</sup>*Department of Comparative Endocrinology, University of Lodz, Poland*, <sup>3</sup>*Department of Molecular Neurochemistry, University of Lodz, Poland*
- [P2.4.05] **Anxiolytic- and antidepressant-like effects of the neuropeptide somatostatin**  
E Engin<sup>\*1</sup>, D Treit<sup>2</sup>, <sup>1</sup>*University of Alberta, Canada*, <sup>2</sup>*University of Alberta, Canada*
- [P2.4.06] **Long Term Anxiety and Depression-like Behaviors after Maternal Separation in Dams Are Reversed by High Fat Diet- Impact on Hypothalamic CRF**  
J Maniam<sup>\*1</sup>, MJ Morris<sup>1</sup>, <sup>1</sup>*University of New South Wales, Australia*
- [P2.4.07] **Orexin inputs to the posterior paraventricular thalamus regulate responses to acute stress and anxiety-related behavior.**  
WA Heydendael<sup>\*1,2</sup>, S Luz<sup>1</sup>, K Sharma<sup>2</sup>, V Iyer<sup>1</sup>, S Bhatnagar<sup>1,2</sup>, <sup>1</sup>*Children's Hospital of Philadelphia, United States*, <sup>2</sup>*University of Pennsylvania, United States*
- [P2.4.08] **Anxiolytic-Like Effect of UFP-101 Microinjected into the Lateral Ventricle of Rats as Evaluated in the Elevated T-Maze**  
M Duzzioni<sup>\*1</sup>, FS Duarte<sup>1</sup>, LR Leme<sup>1</sup>, EC Gavioli<sup>2</sup>, G Caló<sup>3</sup>, R Guerrini<sup>3</sup>, <sup>1</sup>*Federal University of Santa Catarina, Brazil*, <sup>2</sup>*Federal University of Rio Grande do Norte, Brazil*, <sup>3</sup>*University of Ferrara, Italy*
- [P2.4.09] **Acute Stress Alters The Levels Of Neuropeptide Y In A Sub-population Of Adrenal Chromaffin Cells.**  
Q Wang<sup>1</sup>, P Ramamoorthy<sup>1</sup>, M Whim<sup>\*1</sup>, <sup>1</sup>*Penn State University, United States*
- [P2.4.10] **PACAP regulates immediate catecholamine release from adrenal chromaffin cells in an activity dependent manner through a protein kinase C-dependent pathway.**  
C Smith<sup>\*1</sup>, S. Chan<sup>1</sup>, B. Kuri<sup>1</sup>, <sup>1</sup>*Case Western Reserve University, United States*
- [P2.4.11] **Cortical F-Actin, the Exocytic Mode and Neuropeptide Release in Mouse Chromaffin Cells is Regulated by MARCKS and Myosin II.**  
B. Doreian<sup>\*1</sup>, T Fulop<sup>1</sup>, C Smith<sup>1</sup>, <sup>1</sup>*Case Western Reserve University, United States*

**[P2.4.12] Modified endogenous neuropeptide fragments as candidates for effective wide spectrum activity drugs creation.**

T.V. V'unova\*<sup>1</sup>, <sup>1</sup>*Institute of Molecular Genetics Russian Academy of Science, Russian Federation*

**[P2.4.13] Involvement of peptidyl glycine  $\alpha$ -amidating monooxygenase in altered adrenal medullary neuropeptide Y synthesis by intermittent hypoxia**

G Raghuraman\*<sup>1</sup>, A Kalari<sup>1</sup>, R Dhingra<sup>1</sup>, NR Prabhakar<sup>1</sup>, GK Kumar<sup>1</sup>, <sup>1</sup>*University of Chicago, United States*

## Other Themes

**[P2.5.01] SP protects cerebellar granule cells against b-amyloid-induced apoptosis by down-regulation and reduced activity of Kv4 potassium channels**

M Pieri<sup>2</sup>, G Amadoro<sup>1</sup>, I Carunchio<sup>3</sup>, R Possenti\*<sup>2</sup>, C Zona<sup>2</sup>, C Severini<sup>1</sup>, <sup>1</sup>*Institute of Neurobiology and Molecular Medicine, CNR, Rome, Italy*, <sup>2</sup>*Department of Neuroscience, University of Rome Tor Vergata, Italy*, <sup>3</sup>*Fondazione S. Lucia, Rome, Italy*

**[P2.5.02] Effects of Acute Ethanol Administration on Methionine-enkephalin Expression and Release in Regions of the Rat Brain**

Milagros Méndez\*<sup>1</sup>, Irais Guadalupe Barbosa-Luna<sup>1</sup>, José Manuel Pérez-Luna<sup>1</sup>, Annie Cupo<sup>2</sup>, Julián Oikawa<sup>3</sup>, <sup>1</sup>*Instituto Nacional de Psiquiatría Ramón de la Fuente, Mexico*, <sup>2</sup>*Université de Nice-Sophia-Antipolis, France*, <sup>3</sup>*Centro de Investigación y de Estudios Avanzados, Mexico*

**[P2.5.03] GnRH Modulates the Antianxiety and Anticonvulsant Effects of Diazepam in Mice**

N.S. Jain\*<sup>1</sup>, M.M. Wanjari<sup>2</sup>, A.K. Yawale<sup>2</sup>, S.N. Umathe<sup>2</sup>, <sup>1</sup>*J.L. Chaturvedi college of pharmacy, India*, <sup>2</sup>*Department of Pharmaceutical Sciences, RTM Nagpur University, India*

**[P2.5.04] The possible role of kappa opioid receptor activity for anticonvulsant activities of rutin in mice**

Sepideh Saroukhani\*<sup>1</sup>, Marjan Nassiri-Asl<sup>1</sup>, Farzaneh Zamansoltani<sup>1</sup>, Amir Javadi<sup>1</sup>, Abolfazl Mahyar<sup>1</sup>, <sup>1</sup>*Qazvin University of Medical Sciences, Iran, Islamic Republic of*

**[P2.5.05] Comparison of withdrawal symptoms and blood glucose level regulation induced by morphine and beta-endorphin administered intracerebroventricularly**

S.H. Park\*<sup>1</sup>, Y.B. Sim<sup>1</sup>, S.M. Choi<sup>1</sup>, J.K. Lee<sup>1</sup>, H.W. Suh<sup>1</sup>, <sup>1</sup>*Department of Pharmacology, College of Medicine, Hallym University, Korea, Republic of*

**[P2.5.06] Oxytocin decreases methamphetamine self-administration, methamphetamine hyperactivity, and relapse to methamphetamine-seeking behaviour in rats**

DS Carson\*<sup>1</sup>, JL Cornish<sup>2</sup>, AJ Guastella<sup>1</sup>, GE Hunt<sup>3</sup>, IS McGregor<sup>4</sup>, <sup>1</sup>*Brain & Mind Research Institute, University of Sydney, Sydney, Australia*, <sup>2</sup>*School of Psychology, Macquarie University, Sydney, Australia*, <sup>3</sup>*Psychological Medicine, University of Sydney, Sydney, Australia*, <sup>4</sup>*School of Psychology, University of Sydney, Sydney, Australia*

**[P2.5.07] Modulation of neuropeptide Y Y<sub>1</sub>, Y<sub>2</sub> and Y<sub>5</sub> receptors reverse specific behavioral despairs by increasing neurogenesis in the dentate gyrus in a rat model of depression**

JC Morales-Medina\*<sup>1</sup>, Y Dumont<sup>1</sup>, CE Benoit<sup>1,2</sup>, AG Beck-Sickinger<sup>3</sup>, P Sarret<sup>2</sup>, R Quirion<sup>1</sup>, <sup>1</sup>*Douglas Mental Health University Institute, McGill University, Canada*, <sup>2</sup>*Department of Physiology and Biophysics, University of Sherbrooke, Canada*, <sup>3</sup>*Institute of Biochemistry, University of Leipzig, Germany*

**[P2.5.08] Role of glutamate, its receptors and insulin-like growth factors in hypoxia induced periventricular white matter injury**

C Kaur\*<sup>1</sup>, V Sivakumar<sup>1</sup>, E.A Ling<sup>1</sup>, <sup>1</sup>*National University of Singapore, Singapore*

- [P2.5.09] **An Oscillation in Rat Tuberoinfundibular Dopamine (TIDA) Neurons: Switch to Tonic Discharge by Thyrotropin-Releasing Hormone (TRH)**  
DJ Lyons<sup>1</sup>, E Horjales-Araujo<sup>1</sup>, C Broberger<sup>\*1</sup>, <sup>1</sup>*Karolinska Institutet, Sweden*
- [P2.5.10] **Enhancement effects of nicotine on neurogenic relaxation responses in rabbit corpus cavernosum: the role of nicotinic acetylcholine receptor subtypes.**  
Ismail Mert Vural<sup>1</sup>, Gokce Sevim Ozturk Fincan<sup>1</sup>, Zeynep Sevim Ercan<sup>1</sup>, Yusuf Sarioglu<sup>\*1</sup>, <sup>1</sup>*Gazi University Faculty of Medicine, Turkey*
- [P2.5.11] **Studies on the relaxation effects of cannabinoid receptor agonists in rabbit corpus cavernosum**  
Ismail Mert VURAL<sup>1</sup>, Gokce Sevim OZTURK FINCAN<sup>1</sup>, Zeynep Sevim ERCAN<sup>1</sup>, Yusuf SARIOGLU<sup>\*1</sup>, <sup>1</sup>*Gazi University Faculty of Medicine, Turkey*
- [P2.5.12] **The effect of a ghrelin receptor (GHSR) antagonist, D-Lys3-GHRP-6, on the activation of the perioculomotor urocortin-containing neurons by ethanol.**  
S Kaur<sup>\*1</sup>, A.E. Ryabinin<sup>1</sup>, <sup>1</sup>*OHSU, United States*