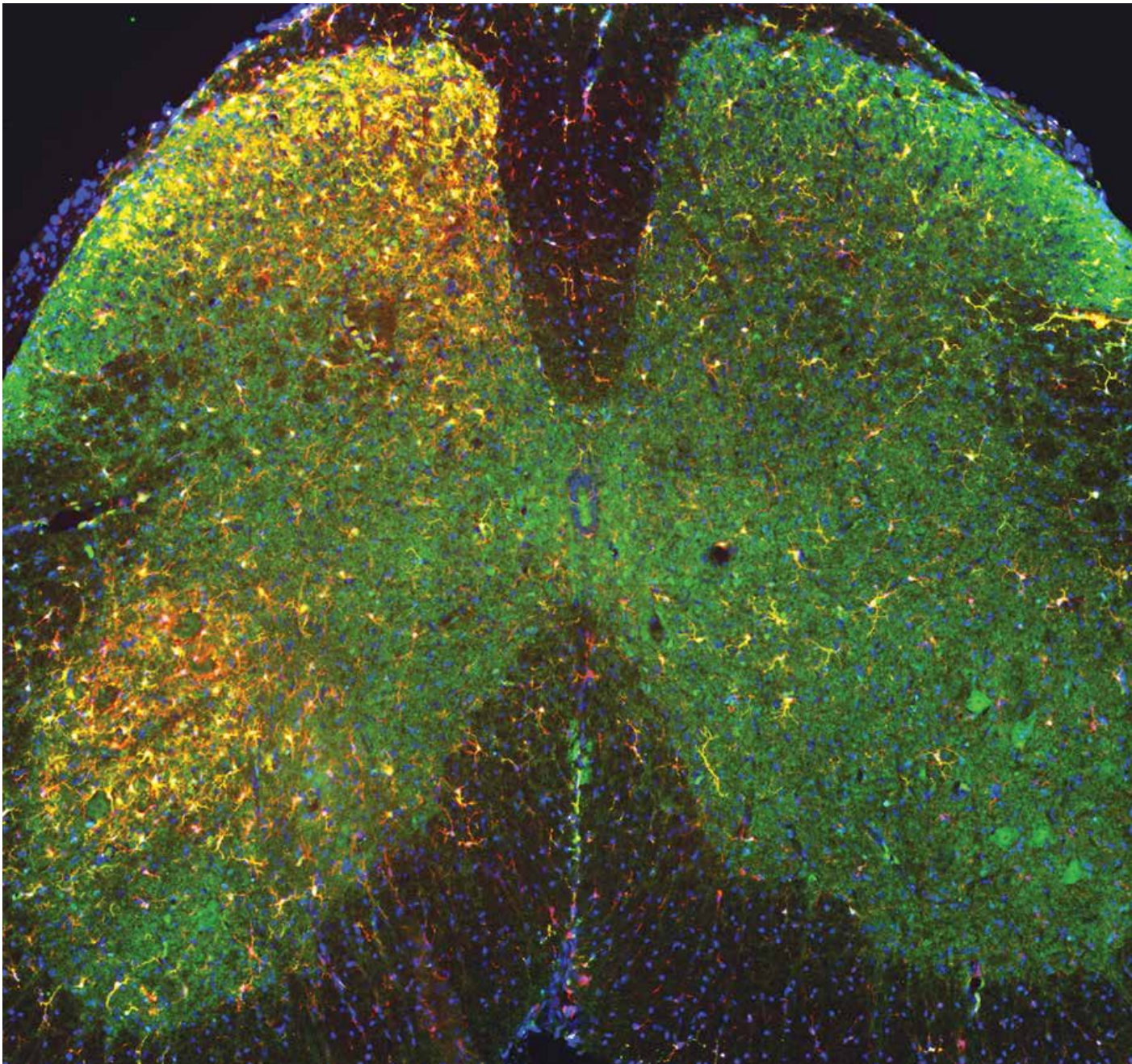
Neuroscience 2015

Chicago | October 17-21

Friday to Saturday

Scientific Session Listings 1–95

Society for Neuroscience



Information at a Glance

Important Phone Numbers

Annual Meeting Headquarters Office
Logistics and Programming
Logistics
McCormick Place: Hall A, (312) 791-6700

Programming
McCormick Place: Hall A, (312) 791-6705

Volunteer Leadership Lounge
McCormick Place: S505A, (312) 791-6735

General Information Booths
McCormick Place:
Gate 3 Lobby, (312) 791-6724
Hall A (312) 791-6725

Press Offices
Press Room
McCormick Place: Room S501ABC
(312) 791-6730

Exhibit Management
McCormick Place: Hall A, (312) 791-6740

First Aid and Hospital Numbers
First Aid Station
McCormick Place: Level 2.5S, (312) 791-6060

Mercy Hospital
2525 S Michigan Avenue
Chicago, IL 60616
(312) 567-2000

Physicians Immediate Care
811 S. State Street
Chicago, IL 60605
(312) 566-9510

Walgreens Pharmacy
(closest to McCormick Place)
3405 S. Martin Luther King Drive
Chicago, IL 60616
(312) 326-4064

Venues
McCormick Place
2301 S. Martin Luther King Drive
Chicago, IL 60616

Fairmont Chicago, Millennium Park Hotel
200 N. Columbus Drive
Chicago, IL 60601
(312) 565-8000

Hyatt Regency Chicago Downtown Hotel
(not connected to McCormick Place)
151 E. Wacker Drive
Chicago, IL 60601
(312) 565-1234

Key to Poster Floor by Themes
The poster floor begins with Theme A and ends with Theme H. Refer to the poster floor map at the end of this booklet.

Theme

- **A** Development
- **B** Neural Excitability, Synapses, and Glia: Cellular Mechanisms
- **C** Disorders of the Nervous System
- **D** Sensory and Motor Systems
- **E** Integrative Systems: Neuroendocrinology, Neuroimmunology and Homeostatic Challenge
- **F** Cognition and Behavior
- **G** Novel Methods and Technology Development
- **H** History, Teaching, Public Awareness, and Societal Impacts in Neuroscience

Note: Theme H Posters will be located in Hall A beginning at 1 p.m. on Saturday, Oct. 17, and will remain posted until 5 p.m., Sunday, Oct. 18.

Cover Image: This image shows a transverse section of mouse lumbar spinal cord taken 7 d after partial sciatic nerve ligation. The section is stained for microglial markers Iba1 (red) and phosphorylated p-38 MAPK (green), as well as the nuclear marker DAPI (blue). The orphan G-protein receptor 84 (GPR84) is markedly induced in macrophages and microglia during inflammation, and it contributes to the development of mechanical and thermal hypersensitivity.

Louise S.C. Nicol, John M. Dawes, Federica La Russa, Athanasios Didangelos, Anna K. Clark, Clive Gentry, John Grist, John B. Davies, Marzia Malcangio, and Stephen B. McMahon, 2015, *The Journal of Neuroscience*, 35(23): 8959-8969.

Friday Workshops

✍ Preregistration Required $ Course Fee Networking
Professional Development Public Outreach Online Content

Professional Development, Advocacy, and Networking Resources

WORKSHOP FEES

Neurobiology of Disease Workshop $35

Short Courses 1 and 2
(Includes electronic syllabus and lunch)
Student member.....$150
Student nonmember.....$225
Postdoctoral member.....$225
Faculty member.....$295
Faculty nonmember.....$445

Short Course 3
(Includes electronic syllabus)
Student member.....$100
Student nonmember.....$150
Postdoctoral member.....$150
Faculty member.....$200
Faculty nonmember.....$300
(breakfast, lunch, and reception)

Note: Preregistration is required for Short Courses and the Neurobiology of Disease Workshop. Register at SfN.org/registration.

Friday, October 16

NEUROBIOLOGY OF DISEASE WORKSHOP

Support contributed by the National Institute of Neurological Disorders and Stroke of the National Institutes of Health under Award Number R25N5054767. The content does not necessarily represent the official views of the National Institutes of Health.

Human Brain Malformations: From Genetics to Therapeutics ✍ $🕮 💻

Organizers: Peter Crino, MD, PhD; Mustafa Sahin, MD, PhD
8 a.m.–5 p.m.
McCormick Place: S100B
Contact: training@sfn.org

Brain malformations, especially those affecting the cerebral cortex, are common causes of intellectual disability and epilepsy. Recent advances in genetics, imaging, and cell biology have substantially increased our knowledge of the mechanisms underlying cortical development and how it can go awry. In this workshop, leading experts will review some of the genes, cellular pathways, processes, and structures commonly affected in brain malformations including PI3K/mTOR signaling, tubulin, reelin, and cilia.

SHORT COURSE 1

Partially supported by an educational grant from Otsuka America Pharmaceutical, Inc and Lundbeck

Using iPS Cells and Reprogramming to Model Neural Development and Disease ✍ $🕮

Organizer: Kevin Eggan, PhD
8 a.m.–6 p.m.
McCormick Place: S401
Contact: training@sfn.org

Stem cell and reprogramming technologies offer exciting opportunities to access human brain cell types and even tissues for studies of development and disease. As methods and techniques for both stem cell differentiation and transcription factor induced reprogramming evolve, the robustness, reproducibility, and utility of these methods continues to improve. In this short course, leaders in developing and implementing these approaches will discuss their work with a view to help attendees utilize these approaches in their own research. Specifically, we will cover the generation of neural cell types from pluripotent stem cells and, by direct reprogramming/trans-differentiation, new methods for three dimensional culture, genome editing and use of these approaches in the design of disease-relevant assay systems.

SHORT COURSE 2

The Impact of Human Genetics and Genomics in Neurobiology: From Disease Discovery to Fundamental Mechanisms (and Back) ✍ $🕮

Organizer: Nicholas Katsanis, PhD
8:30 a.m.–6 p.m.
McCormick Place: S406A
Contact: training@sfn.org

The accessibility of whole exome and whole genome sequencing for a variety of clinical indications is a significant scientific achievement. These technologies have already produced thousands of exomes and partial genomes from humans and model organisms, showing the amount and types of genetic variation that exists between individuals and within populations. The sheer number of individuals sequenced has begun to offer the statistical power needed to understand the genetic architecture of both rare and complex disorders. The use of these technologies around the globe has changed the types of questions being asked and the method by which these questions are being pursued. However, significant conceptual and technical challenges remain. This short course will explore how current genomic tools and platforms are used for rare and common disorders, describe what analytic tools and approaches might be most appropriate for specific questions, and consider how genomic, phenotypic, and functional evidence can accelerate both fundamental discovery and application.

SHORT COURSE 3

Optimizing Experimental Design for High-Quality Science ✍ $🕮 💻

Organizers: Mara Dierssen, MD, PhD; Magda Giordano, PhD; Chris McBain, PhD; Charles Mobbs, PhD; John Ngai, PhD; Rae Nishi, PhD
1–5:30 p.m.
McCormick Place: N227
Contact: mpd@sfn.org

The scientific community has become increasingly concerned about issues related to data reproducibility and experimental design. Issues include, but are not limited to: bias for positive results, the “p-hacking” effect, lack of sufficient replication of experiments, pooling data from different experiments, lack of randomization and/or blinding, chance observations, data selection, group compilation, and lack of rigorous training in statistics and analysis. Attendees will learn experimental and analytical design elements that are crucial for the interpretation of neuroscience research results, such as methodological parameters that can introduce bias, influence robustness, or may be subject to biological variability, and the biological and sociological underpinnings of scientific bias. Existing policies on data deposition and presentation will additionally be covered. Lectures will be interspersed with small group discussion opportunities to allow ample time for the examination of case studies.

Complete Session Listing

Saturday PM

DIALOGUES BETWEEN NEUROSCIENCE AND SOCIETY *McCormick Place*

001. Neuroscience and the Law: Strange Bedfellows

Sat. 11:00 AM - 1:00 PM — Hall B1

Speaker: J. S. RAKOFF*, U.S. District Court, Southern District of New York.*

Support contributed by: Elsevier

Neuroscience is a hot topic with lawyers and judges, as recent advances in our understanding of the brain have raised important and unexpected implications for the development and application of legal principles. These implications, however, can sometimes be overstated, which presents a potential for abuse and warrants caution. Hear Senior U. S. District Judge Jed S. Rakoff, a founding member of the MacArthur Foundation Project on Law and Neuroscience, explore the legal and ethical questions raised as neuroscience enters the courtroom and affects the judicial system.

EMPIRICAL APPROACHES TO NEUROSCIENCE AND SOCIETY SYMPOSIUM *McCormick Place*

002. ● Statistics and Computation for an Increasingly Quantitative Scientific Future

Sat. 1:30 PM - 4:00 PM — S100A

Speaker: R. BALICE-GORDON. *Neuroscience and Pain Research Unit, Pfizer, Inc.*

The replication of scientific studies is a widely-recognized challenge in neuroscience and requires practical solutions, which can impact research, funding, publishing, and training. Speakers will discuss best practices in experimental design, statistical rigor, impact on animal use, methodological descriptions, reagent validation and sharing, data sharing, and the impact these have on funding and publishing practices. This symposium will also explore the role of inherent scientific biases and how these might be mitigated to achieve higher standards of reproducibility.

1:30 **2.01** Introduction.

1:35 **2.02** A publisher's perspective on reproducibility and robustness in science. K. BROSE. *Cell Press-Neuron.*

2:10 **2.03** Quality improvement in the lab: Take care or beware. W. J. KOROSHETZ. *Nat. Inst. of Neurological Disorders and Stroke.*

2:45 **2.04** Rigor and rewards: Brain drain, brain circulation, and professional movement in biomedical research. J. ILLES. *Nat. Core for Neuroethics and Div. of Neurology, Univ. of British Columbia.*

3:20 **2.05** Statistical rigor and the perils of chance. K. S. BUTTON. *Dept. of Psychology, Univ. of Bath*

3:55 **2.06** Closing Remarks.

SYMPOSIUM *McCormick Place*

003. How Does the Brain Implement Adaptive Decision Making to Eat? — CME

Sat. 1:30 PM - 4:00 PM — S100B

Chair: V. COMPAN

Adaptive decision-making to eat is crucial for survival, but in anorexia nervosa, the brain persistently supports reduced food intake despite a growing need for energy. How the brain persists in reducing food intake to the point of death despite the evolution of mechanisms to ensure survival by governing adaptive eating behaviors remains just as mysterious as the switch from anorexia to bulimia. Neural substrates belong to the reward-habit system and could differ from overeating-induced obesity.

1:30 **3.01** Introduction.

1:35 **3.02** Neural circuits associated with persistent restrictive food choice in Anorexia Nervosa. B. WALSH. *Columbia University/NY State Psychiatric Inst.*

2:10 **3.03** Are extremes of consumption in eating disorders related to an altered balance between reward and inhibition? W. KAYE. *UCSD.*

2:45 **3.04** The switch from anorexia to cocaine or food abuse involves the serotonin 4 receptors. V. COMPAN. *Univ.*

3:20 **3.05** Amodal brain activation and functional connectivity in response to high-energy-density food cues in obesity. A. GELIEBTER. *Mt. Sinai St. Luke's Hosp.*

3:55 **3.06** Closing Remarks.

SYMPOSIUM *McCormick Place*

004. Dysregulation of Mechanistic Target of Rapamycin Signaling in Mouse Models of Autism — CME

Sat. 1:30 PM - 4:00 PM — S406A

Chair: R. S. ZUKIN

Autism is a widespread disorder characterized by deficits in social interactions, communication, and repetitive/stereotypic behaviors. Despite the wide diversity of genes implicated in autism, they appear to converge on common biological pathways to give rise to autism-relevant behaviors. Ground-breaking discoveries in this area in the past 2-3 years implicate over-activated mTOR signaling is a major player in impaired synaptic plasticity, neural networks, and behaviors in autism spectrum disorders.

1:30 **4.01** Introduction.

1:35 **4.02** Dysregulation of mTOR signaling in mouse models of autism. R. ZUKIN. *Albert Einstein Col. Med.*

2:10 **4.03** Dysregulated translation in neurodevelopmental disorders. E. KLANN. *New York Univ.*

2:45 **4.04** Disrupted Homer scaffolds mediate abnormal signaling to the mTOR pathway in a mouse model of autism. K. M. HUBER. *Univ. Texas Southwestern Med. Ctr.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:20 **4.05** mTOR complexes in autism spectrum disorder. M. COSTA-MATTIOLI. *Baylor Col. of Med.*

3:55 **4.06** Closing Remarks.

MINISYMPOSIUM *McCormick Place*

005. Epigenetic Landscape of Stress and Addiction: Novel Therapeutic Possibilities — CME

Sat. 1:30 PM - 4:00 PM — S105

Chair: J. CADET
Co-Chair: E. BINDER

At this minisymposium, speakers will describe the transcriptional and epigenetic mechanisms by which stress and drugs of abuse modify the functionality of reward circuitries. They will also discuss how individual and environmental resilience factors may impact these molecular events. Behavioral and pharmacologic approaches that prevent or alter drug- and/or stress-induced epigenetic changes in the brain may promote long-term abstinence by preventing relapse to drug self-administration.

1:30 **5.01** Introduction.

1:35 **5.02** Epigenetic regulation of brain reward circuits. J. DAY. *Univ. of Alabama.*

1:55 **5.03** ● Stress-induced epigenetic changes in the FKBP5 locus. E. BINDER. *Emory Univ.*

2:15 **5.04** Transcriptional and epigenetic bases of incubation of methamphetamine craving. J. CADET. *NIH/NIDA Intramural Res. Program.*

2:35 **5.05** Transcriptional and epigenetic effects of alcohol exposure. K. SCHUEBEL. *NIH/NIAAA Intramural Res. Program.*

2:55 **5.06** The impact of exposure of drugs of abuse on future generations. F. VASSOLER. *Tufts Univ.*

3:15 **5.07** Biological resilience to harsh and non-supporting parenting. S. JAFFEE. *Univ. of Pennsylvania.*

3:35 **5.08** Closing Remarks.

MINISYMPOSIUM *McCormick Place*

006. Dorsal Striatum: From Microcircuits and Modulation to *In Vivo* Function — CME

Sat. 1:30 PM - 4:00 PM — S103

Chair: J. HJERLING-LEFFLER
Co-Chair: D. ROBBE

Dorsal striatum receives sensorimotor and higher-order information through a wide range of synaptic inputs, including those from the cortex and the thalamus. The integration of this information is fine-tuned by neuromodulators affecting cortical and subcortical motor systems. This minisymposium will present data from connected areas of research that aim at understanding the cellular diversity, connectivity, modulation, and *in vivo* function of the dorsal striatal network and how malfunction might lead to disease.

1:30 **6.01** Introduction.

1:35 **6.02** Single-cell RNA sequencing reveals striatal neuronal populations. J. HJERLING-LEFFLER. *Karolinska Inst.*

1:55 **6.03** Organization of interneuron systems in the neostriatum. T. KOÓS. *Rutgers Univ.*

2:15 **6.04** Regulators of dopamine transmission in the dorsal striatum. S. J. CRAGG. *Univ. Oxford.*

2:35 **6.05** The dorsolateral striatum multiplexes contextual and movement-related information to constrain execution of motor habits. D. ROBBE. *INMED.*

2:55 **6.06** Type-dependent information processing in the rodent striatum. D. COHEN. *Bar Ilan Univ.*

3:15 **6.07** Modeling Tourette syndrome pathophysiology through targeted manipulation of striatal interneurons. C. J. PITTENGER. *Yale Univ.*

3:35 **6.08** Closing Remarks.

MINISYMPOSIUM *McCormick Place*

007. Axonal Transport Defects in Neurodegenerative Diseases: Mechanisms and Molecular Components Involved — CME

Sat. 1:30 PM - 4:00 PM — S406B

Chair: G. MORFINI
Co-Chair: S. BRADY

To date, there is significant consensus on the notion that deficits in axonal transport represent an important pathogenic event common to many neurodegenerative diseases. However, little is known about mechanisms and specific molecular components mediating these deficits. These topics will be the main subject of discussion at this minisymposium.

1:30 **7.01** Introduction.

1:35 **7.02** Mechanisms mediating deficits in axonal transport of mitochondria in Parkinson's disease *Drosophila* models. P. HOLLEMBECK. *Purdue Univ.*

1:55 **7.03** Mechanisms and restoration of BDNF transport defects in Alzheimer's disease. M. A. SILVERMAN. *Simon Fraser Univ.*

2:15 **7.04** Mechanisms mediating axonal transport deficits induced by Alzheimer's disease-related forms of tau protein. N. M. KANAAN. *Michigan State Univ.*

2:35 **7.05** RAN-translated c9orf72 peptides promote alterations in axonal transport and synaptic through a kinase-dependent mechanism. Y. SONG. *Yale Sch. of Med.*

2:55 **7.06** Inhibition of axonal transport through activation of p38 MAPK by misfolded ALS-linked proteins. J. E. MCKEON. *Univ. of Massachusetts Med. Sch.*

3:15 **7.07** A novel mechanism linking activation of specific MAP kinases to deficits in axonal transport in Huntington's disease. G. MORFINI. *Univ. of Illinois.*

3:35 **7.08** Closing Remarks.

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

SPECIAL LECTURE *McCormick Place*

008. Making, Breaking, and Linking Engrams — CME

Sat. 2:00 PM - 3:10 PM — Hall B1

Speaker: S. A. JOSSELYN*, Hosp. for Sick Children.*

A fundamental goal of neuroscience is to understand how information is encoded, stored, linked, and used in the brain. The physical or functional representation of a memory (the memory trace or "engram") is thought to be sparsely encoded over a distributed memory network. However, identifying the precise neurons that make up a given engram has challenged scientists since Karl Lashley conceded defeat in his "search for the engram" in 1950. This lecture will discuss new insights into how engrams are formed, linked, and used.

PRESIDENTIAL SPECIAL LECTURE *McCormick Place*

009. ● Themes and Variations in Circuits and Behavior — CME

Sat. 5:15 PM - 6:25 PM — Hall B1

Speaker: C. BARGMANN*, Howard Hughes Med. Institute, The Rockefeller Univ.*

Support contributed by: Amgen, Inc.

Behavior is variable, both within and between individuals. The nematode worm *C. elegans* allows scientists to explore how genes, neurons, circuits, and the environment interact to give rise to flexible behaviors. Studies of *C. elegans* foraging behaviors have provided insights into three levels of behavioral variability: the gating of information flow by circuit state over seconds, the extrasynaptic regulation of circuits by neuropeptides and neuromodulators over minutes, and natural genetic variation.

NANOSYMPOSIUM

010. Postnatal Neurogenesis

Theme A: Development

Sat. 1:00 PM – *McCormick Place,* N426A

1:00 **10.01** TLR9 signaling in microglia attenuates seizure-induced aberrant neurogenesis in the adult hippocampus. T. MATSUDA*; N. MURAO; Y. KATANO; B. JULIANDI; J. KOHYAMA; S. AKIRA; T. KAWAI; K. NAKASHIMA. *Grad. Sch. of Med. Sciences, Kyushu Univ., Sch. of Medicine, Keio Univ., World Premier Intl. Immunol. Frontier Res. Center, Osaka Univ., Grad. Sch. of Biol. Sciences, NAIST.*

1:15 **10.02** Adult neural progenitor cells regulate hippocampal seizure response via secreted VEGF. E. D. KIRBY*; T. WYSS-CORAY. *Stanford Univ.*

1:30 **10.03** Early events in the development of adult-born dentate granule cells - role of STK25/STRAD. S. RAO*; S. GE; M. SHELLY. *Stony Brook Univ., Program In Neurosci.*

1:45 **10.04** C-myc couples proliferation to differentiation in adult neurogenesis. A. M. DENLI*; G. SENTURK; S. SCHAFER; C. ZHAO; M. N. KAGALWALA; I. S. GALLINA; M. PENA; F. H. GAGE. *Salk Inst. For Biol. Studies.*

2:00 **10.05** The Netrin/RGM receptor, Neogenin, controls adult neurogenesis by promoting neuroblast migration and cell cycle exit in the rostral migratory stream. H. M. COOPER*; D. BRADFORD; A. WHITE; C. O'LEARY. *Queensland Brain Ins.*

2:15 **10.06** Involvement of CREB-Sirt1-Hes1 circuitry in neural stem cell response to glucose availability. L. LEONE*; S. FUSCO; S. A. BARBATI; D. SAMENGO; R. PIACENTINI; G. TOIETTA; G. MAULUCCI; G. PANI; C. GRASSI. *Univ. Cattolica, Med. Sch., Univ. Cattolica Med. Sch., Regina Elena Natl. Cancer Inst., Univ. Cattolica Med. Sch., Univ. Cattolica Med. Sch.*

2:30 **10.07** BubR1 insufficiency impairs adult hippocampal neurogenesis and cognitive function. C. CHO*; C. CHOI; Y. ZHONGXI; Y. GU; M. JANG. *Mayo Clin., First Hosp. of Jilin Univ., SUNY at Stony Brook, Mayo Clin.*

2:45 **10.08** Olfactory perceptual learning shapes morphology of adult-born granule cells and their inputs from locus coeruleus. X. YIN*; J. FOREST; M. MIDROIT; J. SACQUET; N. KUCZEWSKI; M. RICHARD; N. MANDAIRON; A. DIDIER. *CNRS, Univ. Claude Bernard Lyon 1.*

3:00 **10.09** FGF13 deficiency causes impaired neurogenesis in the developing mouse brain. Q. YANG*; Y. ZHAI; W. LI; J. ZHOU. *Shanghai Inst. For Biol. Sci.*

3:15 **10.10** Adult hippocampal neurogenesis confers resilience to chronic psychosocial stress. C. ANACKER*; V. M. LUNA; M. A. LEE; R. HEN. *Columbia Univ. Med. Ctr. and Res. Fndn. for Mental Hyg.*

3:30 **10.11** Systemic factors mediate exercise-induced enhancement of adult hippocampal neurogenesis. M. J. BETLEY*; Z. DE MIGUEL; A. JARKE; B. LEHALLIER; D. BERDNIK; T. WYSS-CORAY. *Stanford Univ., Heidelberg Univ.*

3:45 **10.12** ENaC serves as an electrochemical sensor regulating adult neural stem cells. D. PETRIK*; S. GRADE; M. GÖTZ. *Helmholtz Centrum Munich.*

4:00 **10.13** Elevated p62/SQSTM1 determines the fate of autophagy-deficient neural stem cells through increasing superoxide. C. WANG*; S. CHEN; S. YEO; G. KARSLI-UZUNBAS; E. WHITE; N. MIZUSHIMA; H. W. VIRGIN; J. GUAN. *Univ. of Cincinnati, Rutgers Cancer Inst. of New Jersey, Dept. of Biochem. and Mol. Biology, The Univ. of Tokyo, Dept. of Pathology and Immunology, Washington Univ. Sch. of Med.*

4:15 **10.14** Lineage tracing of neuronal progenitor cells expressing dlx Genes in the zebrafish brain. M. EKKER*; C. M. SOLEK; S. FENG; E. MAHONEY. *Univ. of Ottawa, Univ. of Ottawa.*

NANOSYMPOSIUM

011. Alzheimer's Disease: Experimental Therapeutics

Theme C: Disorders of the Nervous System

Sat. 1:00 PM – *McCormick Place,* S403

1:00 **11.01** ● A novel metabolic gene therapy-based strategy for the treatment of Alzheimer's disease. P. LEONE*; S. W. J. MCPHEE; J. S. FRANCIS. *Rowan-SOM, Asklepios Biopharmaceutical.*

1:15 **11.02** Reduced incidence of Alzheimer's Dementia in solid organ transplant recipients treated with calcineurin inhibitors. G. TAGLIALATELA*; C. RASTELLINI; L. CICALESE. *Univ. Texas Med. Br., Univ. Texas Med. Br.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

1:30 **11.03** Targeting subcellular pools of Amyloid-β oligomers in living cells through intrabodies: A new concept of conformational-selective interference to study the Alzheimer's disease pathogenesis. G. MELI; A. MANCA; V. LA MARCA; F. RUGGERI; C. SCOPA; R. SCARDIGLI; A. CATTANEO*. *European Brain Res. Inst. - Rita Levi-Montalcini, Scuola Normale Superiore.*

1:45 **11.04** ● Passive vaccination targeting pyroglutamate-3 Aβ reduces Aβ plaque burden without microhemorrhage and partially rescues cognitive deficits in aged APP/PS1dE9 mice. H. CREHAN*; M. KLEINSCHMIDT; E. FITZPATRICK; S. CHOWDHURY; K. LE; J. L. FROST; B. O'NUALLAIN; B. J. CALDARONE; H. DEMUTH; J. RAHFELD; I. LUES; S. SCHILLING; C. A. LEMERE. *Brigham & Women's Hosp., Harvard Med. Sch., Probiodrug AG, Fraunhofer Inst. for Cell Therapy and Immunol., Harvard NeuroDiscovery NeuroBehaviour Lab., Fraunhofer Inst. for Cell Therapy and Immunol.*

2:00 **11.05** Reduced efficacy of anti-Aβ immunotherapy in a mouse model of amyloid deposition and vascular cognitive impairment co-morbidity. E. M. WEEKMAN*; C. N. CAVERLY; T. J. KOPPER; T. L. SUDDUTH; D. M. WILCOCK. *Univ. of Kentucky.*

2:15 **11.06** Intranasal treatment, a new tool to deliver BDNF into the brain: Effects in a murine model of Alzheimer's disease. C. CRISCUOLO*; C. FABIANI; S. CAPSONI; A. CATTANEO; L. DOMENICI. *CNR - Neurosci. Inst., Univ. of L'Aquila, Scuola Normale Superiore, European Brain Res. Inst. - EBRI.*

2:30 **11.07** Metabotropic glutamate receptor 5 is a potential therapeutic target for Alzheimer's disease. C. J. WESTMARK*; M. J. FILON; L. I. STEINBERG; E. P. WALLACE; S. L. WRIGHT; R. K. MAGANTI. *Univ. Wisconsin.*

2:45 **11.08** ● P2Y6 receptors as a novel disease modifying strategy for Alzheimer's disease. P. G. HAYDON*; J. LEE; R. T. DOYLE; J. DONG. *Tufts Univ. Sch. of Med., Sage Partner Intl.*

3:00 **11.09** Counteracting impaired lipidation of apoE4 and the associated brain pathology and cognitive deficits by the ABCA1 agonist peptide CogpepB. A. BOEHM-CAGAN; J. O. JOHANSSON; J. K. BIELICKI; D. M. MICHAELSON*. *Tel Aviv Univ., Artery Therapeut., Lawrence Berkeley Lab., Tel-Aviv Univ.*

3:15 **11.10** Candesartan prevents glutamate-induced inflammation in cultured primary neurons. J. M. SAAVEDRA*; A. G. ELKAHLOUN; R. HAFKO. *Georgetown Univ. Med. Ctr., NIH, NIMH.*

3:30 **11.11** Effects of Antiparkinsonian Agents on β-amyloid and α-synuclein Oligomer Formation *in vitro*. K. ONO*; J. TAKASAKI; R. TAKAHASHI; T. IKEDA; M. YAMADA. *Sch. of Medicine, Showa Univ., Kanazawa Univ.*

3:45 **11.12** A novel virus-like particle based vaccine against tau pathology. N. M. MAPHIS*; E. CROSSEY; J. PEABODY; F. A. J. AHMAD; D. PEABODY; B. CHACKERIAN; K. BHASKAR. *Univ. of New Mexico, Univ. of New Mexico.*

4:00 **11.13** Histamine H3 Inverse agonist or antagonist with partial H4 agonist activity reduces amyloid-beta peptide induced brain pathology in Alzheimer's disease. R. PATNAIK*; A. SHARMA; S. D. SKAPER; D. F. MURESANU; R. J. CASTELLANI; A. NOZARI; H. S. SHARMA. *Indian Inst. of Technology,Banaras Hindu Univ., Uppsala Univ. Hopsital, Univ. of Padova, Univ. of Med. & Pharm., Univ. of Maryland Sch. of Med., Massachusetts Gen. Hospital, Harvard Univ.*

NANOSYMPOSIUM

012. Therapeutics of Parkinson's Disease: Clinical Studies

Theme C: Disorders of the Nervous System

Sat. 1:00 PM – *McCormick Place,* N230

1:00 **12.01** ● Nilotinib significantly alters blood and CSF α-Synuclein and p-Tau levels, inhibits dopamine breakdown and increases neuro-restorative markers in an open-labelled Parkinson's disease with dementia and Lewy body dementia trial. F. L. PAGAN*. *Medstar Georgetown Univ. Hosp.*

1:15 **12.02** ● Stopping progression of Parkinson's disease with the drug phenylbutyrate. C. R. FREED*; M. WANG; J. CUMMISKEY; K. B. BJUGSTAD; B. A. SYMMES; C. A. JOHNSON; R. C. MURPHY; M. A. LEEHEY; W. ZHOU. *Univ. Colorado Sch. of Med., Univ. Colorado Sch. of Med., Univ. Colorado Sch. of Med.*

1:30 **12.03** The relationship between physical fitness and neurocognitive function in humans with Parkinson's disease. A. M. WEINSTEIN*; G. GROVE; S. BURKE; S. WINTER; K. I. ERICKSON. *Univ. of Pittsburgh, Ctr. for the Neural Basis of Cognition.*

1:45 **12.04** Exercise modality differentially improves bradykinesia and hypokinesia in Parkinson's disease: Rct comparing pilates to general exercise. K. L. DOYLE*; K. A. PICKETT; J. C. LAZARUS. *Univ. of Wisconsin -- Madison.*

2:00 **12.05** Postoperative management of deep brain stimulation candidates; visits during the first year and beyond. E. L. HARGREAVES*; R. J. DIPAOLA; D. P. SCHNEIDER; S. F. DANISH; D. L. CAPUTO. *Robert Wood Johnson Med. School- Rutgers Univer, Robert Wood Johnson Med. School-Rutgers Univer.*

2:15 **12.06** Phase optimized closed-loop deep brain stimulation for Parkinson's disease. A. HOLT BECKER*; M. SHINN; T. I. NETOFF. *Univ. of Minnesota, Univ. of Minnesota.*

2:30 **12.07** ● Active contact location, depression, and cognitive performance in subthalamic nucleus deep brain stimulation. D. FLODEN*; C. M. MATIAS; C. WATHEN; A. G. MACHADO. *Cleveland Clin., Univ. of Sao Paulo, Cleveland Clin.*

2:45 **12.08** Impulsivity after administration of the dopamine agonist ropinirole. W. D. BYBLOW*; H. J. MACDONALD; C. M. STINEAR; J. P. COXON; A. X. REN; S. CRAMER; J. KAO; L. MACDONALD; B. SNOW. *Univ. of Auckland, Monash Univ., Univ. of California-Irvine, Auckland City Hosp.*

3:00 **12.09** Increased nicotinic acetylcholine α4β2 receptor density in patients with Parkinson's disease and L-Dopa induced dyskinesia. I. U. ISAIAS*; J. BRUMBERG; N. G. POZZI; F. STEIGERWALD; G. MAROTTA; S. KLEBE; M. M. REICH; C. LAPA; K. HERRMANN; A. BUCK; J. VOLKMANN; S. SAMNICK. *Uni. Hosp. and Julius-Maximillian-University, Uni. Hosp. and Julius-Maximillian-University, Fondazione IRCCS Ca' Granda – Ospedale Maggiore Policlinico.*

3:15 **12.10** Human leukocyte antigen-a critically determines neural stem cell transplant acceptance in a humanized mouse model. K. W. IM*; K. R. DOTY; D. GATE; J. C. BIANCOTTI; T. TOWN. *USC.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

NANOSYMPOSIUM

013. Rett Syndrome

Theme C: Disorders of the Nervous System

Sat. 1:00 PM – *McCormick Place,* S102

1:00 **13.01** Robustly dysregulated miRNAs downstream of MeCP2 control human prenatal brain development through differential effects on autism-related signaling pathways. N. MELLIOS*; D. FELDMAN; S. D. SHERIDAN; P. K. IP; S. KWOK; B. ROSEN; B. CRAWFORD; Y. LI; R. JAENISCH; S. J. HAGGARTY; M. SUR. *MIT/ Picower Inst. For Learning and Memory, MIT, Massachusetts Gen. Hospital, Harvard Med. Sch., Whitehead Inst. for Biomed. Res.*

1:15 **13.02** Characterization of a novel phosphorylation site of MeCP2 that might be involved in neuronal morphogenesis and chromatin related functions. G. STEFANELLI*; M. S. CHEEMA; M. COSTA; C. KILSTRUP-NIELSEN; J. AUSIÓ; N. LANDSBERGER. *San Raffaele Scientific Inst., Univ. of Victoria, Natl. research center CNR, Univ. of Insubria.*

1:30 **13.03** Aberrant astrocyte maturation contributes to Rett Syndrome pathogenesis. N. L. PACHECO*; L. HOLT; D. K. CROSSMAN; M. L. OLSEN. *Univ. of Alabama At Birmingham.*

1:45 **13.04** To move or not to move: Is acetylated tubulin the answer For Rett Syndrome? W. GOLD*; T. LACINA; S. WILLIAMSON; L. CANTRILL; J. CHRISTODOULOU. *NSW Ctr. For Rett Syndrome Res., Discipline of Paediatrics & Child Health, Univ. of Sydney, Australia., Hochschule Mannheim - Univ. of Applied Sciences, faculty of Biotech., NSW Ctr. for Rett Syndrome Research, Western Sydney Genet. Program, Children's Hosp. at Westmead, Sydney, Australia, Microscope Facility, Kids Res. Institute, Children's Hosp. at Westmead, Sydney, Australia, Discipline of Genet. Medicine, Sydney Med. School, Univ. of Sydney, Australia.*

2:00 **13.05** Deficiency of mecp2 in glutamatergic neurons leads to severe neurological dysfunctions caused by altered neuronal activity. X. MENG*; W. WANG; H. LU; H. ZOGHBI. *BAYLOR COLLEGE OF MEDICINE, Jan and Dan Duncan Neurolog. Res. Institute, Texas Children's Hosp., Baylor Col. of Med., Howard Hughes Med. Inst.*

2:15 **13.06** Impaired vocal perception in a mouse model of Rett syndrome is caused by abnormal plasticity of auditory cortical inhibitory circuits. B. Y. LAU*; K. KRISHNAN; S. D. SHEA. *Cold Spring Harbor Lab.*

2:30 **13.07** Role of MeCP2 in mitochondrial impairments and myelin defects. A. R. DAVE*; L. K. BUCH; K. M. SHARMA; P. P. PILLAI. *The Maharaja Sayajirao Univ. of Baroda.*

2:45 **13.08** A novel mGlu5 positive allosteric modulator improves phenotype and rescues synaptic plasticity defects in a mouse model of Rett syndrome. R. G. GOGLIOTTI*; R. KLAR; A. GHOSHAL; R. ZAMORANO; J. M. ROOK; S. STAUFFER; C. MALOSH; P. N. VINSON; C. K. JONES; C. W. LINDSLEY; P. CONN; C. M. NISWENDER. *Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ.*

NANOSYMPOSIUM

014. Auditory System: Sensory Transduction and Hair Cell Differentiation

Theme D: Sensory and Motor Systems

Sat. 1:00 PM – *McCormick Place,* S402

1:00 **14.01** Mechanisms and mechanosensitivity: Exceptional cadherins for hearing and balance. M. SOTOMAYOR*; R. ARAYA-SECCHI; Y. NARUI; C. CHEN; C. KLANSECK; L. WIMALASENA. *The Ohio State Univ.*

1:15 **14.02** TRPA1 channels regulate cochlear amplification through active shape changes of supporting cells in the inner ear. A. C. VELEZ-ORTEGA*; S. E. EDELMANN; C. PARK; R. STEPANYAN; K. Y. KWAN; G. P. SINHA; D. P. COREY; G. I. FROLENKOV. *Univ. of Kentucky, UCLA, Harvard Med. Sch.*

1:30 **14.03** Tmc1 mutagenesis and cysteine modification highlight amino acid residues critical for sensory transduction in mouse inner ear hair cells. X. LIU; B. PAN; Y. ASAI; K. KURIMA; A. J. GRIFFITH; J. R. HOLT*. *Boston Children's Hosp. / Harvard Med. Sch., Univ. of the Ryukyus, NIH.*

1:45 **14.04** Hair cell encoding of intensity in the zebrafish lateral line. J. G. TRAPANI*; A. ORDOOBADI; T. SOMMERS; R. AZIZ-BOSE. *Amherst Col.*

2:00 **14.05** Cochlear cell differentiation and regeneration: Role of ephrins and Eph receptors. B. MALGRANGE*; S. MATEO-SANCHEZ; L. SCHOONAERT; W. ROBBERECHT; A. DAVY; L. NGUYEN; J. DEFOURNY. *Univ. of Liege, Univ. of Leuven, Univ. of Toulouse.*

2:15 **14.06** Epigenetic DNA demethylation induces inner ear stem cells to differentiate into sensory hair cells. Z. HU; Y. ZHOU*. *Wayne State Univ. Sch. of Med., Wayne State Univ.*

2:30 **14.07** Gap junction gene Panx1 deficiency can induce hearing loss. H. ZHAO*; Y. ZHU; C. LIANG; J. CHEN. *Univ. Kentucky Med. Sch.*

NANOSYMPOSIUM

015. Insula: Somatotopy, Emotion, and Cognition

Theme D: Sensory and Motor Systems

Sat. 1:00 PM – *McCormick Place,* S401

1:00 **15.01** High-resolution mapping of somatotopic organization in the human insular cortex using ultra-high-field (7 Tesla) fMRI. G. DESBORDES*; J. KIM; J. R. POLIMENI; V. NAPADOW. *Massachusetts Gen. Hosp., Harvard Med. Sch., Korea Inst. of Oriental Med.*

1:15 **15.02** Neuroeconometrics of neural networks underlying asset trading: Toward the prediction and prevention of major asset-price bubbles. J. L. HARACZ*; C. BATTISTA; M. HOFFMAN; D. MARINAZZO. *UC Berkeley, Indiana Univ., Stanford Univ., Bergische Univ., Ghent Univ.*

1:30 **15.03** Role of the Insula in Anxiety. J. STEHBERG*; R. MORAGA-AMARO; R. DIAZ-GALARCE; S. ROJAS; D. QUINTANA. *Univ. Andres Bello, Univ. Andres Bello.*

1:45 **15.04** The right anterior insula modulates cortico-striatal glutamatergic connections during unsuccessful behavior inhibition: An fMRI effective connectivity study. R. LIMONGI*; F. J. PÉREZ. *Univ. Diego Portales Facultad De Psicología.*

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* Indicates abstract's submitting author

2:00 **15.05** Neural attunement to the emotions of others. Y. GOLLAND*; N. LEVIT-BINNUN; T. HENDLER; Y. LERNER. *Interdisciplinary Ctr. (IDC),Herzliya, Interdisciplinary Ctr. (IDC), Tel Aviv Univ., Tel Aviv Sourasky Med. Ctr., Tel Aviv Univ., Tel Aviv Univ., Tel Aviv Sourasky Med. Ctr.*

2:15 **15.06** Category-independent value and salience signals in the human brain. Z. ZHANG*; D. B. EHRLICH; J. FANNING; W. CHEN; D. LEE; I. LEVY. *Yale Univ., Yale Sch. of Med., Southwest Univ., Yale Sch. of Med., Yale Univ., Yale Sch. of Med.*

2:30 **15.07** Correlates of the social stereotype threat and socioeconomic status effects in the human brain: A meta-analysis. A. N. SOKOLOV*; M. A. PAVLOVA; E. SIMOES. *Women's Hospital, Univ. of Tübingen Med. Sch., Univ. of Tübingen Med. Sch.*

NANOSYMPOSIUM

016. Oral Motor and Speech

Theme D: Sensory and Motor Systems

Sat. 1:00 PM – *McCormick Place,* N226

1:00 **16.01** Sensorimotor cortical hemodynamics following hand and orofacial motor tasks and pulsed cutaneous stimulation. A. ODER ROSNER*; S. M. BARLOW. *Univ. of Nebraska-Lincoln.*

1:15 **16.02** Neuroplasticity of face sensorimotor cortex induced by tooth extraction in C57BL/6 mice. Y. HAYASHI; J. LEE; D. CHOCRON; P. CHERKAS; B. SESSLE; L. AVIVI-ARBER*. *Kanagawa Dent. Univ., Univ. of Toronto, Univ. of Toronto.*

1:30 **16.03** Molecular inquiry of vocal dysfunction in the periaqueductal gray of a PINK1 knockout rat model of Parkinson's disease. C. A. KELM-NELSON*; S. A. STEVENSON; M. R. CIUCCI. *Univ. Wisconsin-Madison, Univ. Wisconsin-Madison.*

1:45 **16.04** The motor organization of positive and negative vocalizations in the midbrain periaqueductal gray. H. H. SUBRAMANIAN*; M. ARUN; P. A. SILBURN; G. HOLSTEGE. *The Univ. of Queensland, The Univ. of Queensland.*

2:00 **16.05** Encoding saltatory tactile velocity in the human orofacial somatosensory system using fMRI. R. CUSTEAD*; H. OH; S. M. BARLOW. *Univ. of Nebraska, Univ. of Nebraska, Univ. of Nebraska.*

2:15 **16.06** Spectral profiles of local field potentials of somatosensory and motor cortices during feeding. K. TAKAHASHI*; Y. NAKAMURA; K. A. BROWN; F. I. ARCE-MCSHANE; C. F. ROSS; N. G. HATSOPOULOS. *Univ. of Chicago, Niigata Univ., New York Univ.*

2:30 **16.07** Pyramidal neurons in the agranular insular cortex receives sensory inputs from the tongue: An *in vivo* whole-cell patch-clamp study. K. ADACHI*; M. KOBAYASHI; H. SAKAGAMI; N. KOSHIKAWA. *Meikai Univ. Sch. of Dent., Nihon Univ. Sch. of Dent.*

2:45 **16.08** ● In search of functional neural biomarkers of dysphagia to quantify treatment effects in mouse models. T. E. LEVER*; K. L. ROBBINS; M. J. ALLEN; R. SHARMA; K. TAKAHASHI; M. M. THAKKAR; G. N. DESOUZA. *Univ. of Missouri Sch. of Med., Univ. of Missouri Sch. of Med., Univ. of Chicago, Univ. of Missouri.*

3:00 **16.09** Inflammation as a contributor to ingestive dysfunction in a PINK1 knockout rat model of Parkinson's disease. K. YANG*; M. R. CIUCCI. *Univ. of Wisconsin-Madison, Univ. of Wisconsin - Madison.*

3:15 **16.10** Auditory predictions of self-produced speech are task-dependent. C. A. NIZIOLEK*; S. S. NAGARAJAN; J. F. HOUDE. *Univ. of California San Francisco.*

3:30 **16.11** ● Coherent activity in the orofacial sensorimotor cortex follows a spatiotemporal pattern. F. ARCE-MCSHANE; N. G. HATSOPOULOS; K. TAKAHASHI; B. J. SESSLE; C. F. ROSS*. *Univ. of Chicago, Univ. of Chicago, Univ. of Toronto, Univ. of Chicago.*

3:45 **16.12** Developmental changes of dendritic properties in rat jaw-closing motoneurons. S. NAKAMURA*; S. NAGATA; K. NAKAYAMA; A. MOCHIZUKI; M. KIYOMOTO; M. YAMAMOTO; T. INOUE. *Dept. of Oral Physiology, Showa Univ. Sch. of Dent., Dept. of Periodontology, Showa Univ. Sch. of Dent.*

NANOSYMPOSIUM

017. Circadian Entrainment Mechanisms and Consequences

Theme E: Integrative Systems: Neuroendocrinology, Neuroimmunology, and Homeostatic Challenge

Sat. 1:00 PM – *McCormick Place,* S404

1:00 **17.01** Kv12-encoded K+ channels regulate neuronal excitability in the suprachiasmatic nucleus. T. HERMANSTYNE*; D. GRANADOS-FUENTES; E. D. HERZOG; J. M. NERBONNE. *Washington University, St. Louis Sch. of Med., Washington University, St. Louis.*

1:15 **17.02** Desynchronized suparachiasmatic nucleus and affective disorder pathogenesis. M. BEN HAMO*; L. S. DUGE; H. O. DE LA IGLESIA. *Univ. of Washington.*

1:30 **17.03** Scheduled locomotor exercise improves aberrant rhythms in neural and locomotor circadian function through alteration of GABAergic activity in the suprachiasmatic nuclei. A. T. HUGHES*; R. E. SAMUELS; M. D. C. BELLE; S. WEGNER; H. D. PIGGINS. *Univ. of Manchester, Univ. of Manchester.*

1:45 **17.04** Astrocytes regulate the tonic GABA current in suprachiasmatic nucleus neurons. C. N. ALLEN; O. CRAVETCHI; M. WILLIAMS; R. P. IRWIN; S. A. AICHER; M. MOLDAVAN*. *Oregon Health&Science Univer., Oregon Health&Science Univer., Oregon Health&Science Univer.*

2:00 **17.05** Simulated light therapy enhances recognition memory and alters daily rhythms in hippocampal gene expression. J. A. EVANS*; A. DELLAPOLLA; B. CALLIF; M. HURLEY; K. BAKER. *Marquette Univ.*

2:15 **17.06** Dim light at night inhibits hippocampal neurogenesis in mice. C. A. WYSE; N. KANGASMAA; L. DESBONNET; S. MACDONALD; A. RUSSELL; S. M. BIELLO*. *Univ. Glasgow.*

2:30 **17.07** Regulation of hippocampal circadian rhythms by glycogen synthase kinase 3 (GSK3). K. L. GAMBLE*; R. C. BESING; C. O. ROGERS; J. R. PAUL; L. M. HABLITZ; R. L. JOHNSON; L. L. MCMAHON. *UAB Med. Ctr., Univ. of Alabama at Birmingham.*

2:45 **17.08** Exercise impacts alters organization of circadian system in female mice housed under 20 h light cycles. M. E. HARRINGTON*; F. CHIFAMBA; W. WANG; S. HUYNH; P. MOLYNEUX; T. L. LEISE. *Smith Col., Smith Col., Amherst Col.*

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▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 **17.09** In a rat model of shift-work clock genes expression is altered in a tissue specific manner. C. CÓRDOBA*; M. BASUALDO; E. ESPITIA-BAUTISTA; R. M. BUIJS; C. ESCOBAR. *Facultad De Medicina, Univ. Nacional Autónom, Inst. de Investigaciones Biomédicas, UNAM, Facultad de Medicina, Facultad de Medicina, UNAM.*

3:15 **17.10** Hypothalamic neurons and locomotor activity in old female rhesus macaques. D. H. EGHLIDI*; L. LUNA; D. BROWN; S. KOHAMA; H. URBANSKI. *Div. of Neurosci. Oregon Natl. Primate Res. Ctr., Univ. de Valparaíso.*

3:30 **17.11** Ontogeny of circadian rhythms and the timing of birth. C. A. VANIA; C. A. MARTIN-FAIREY; S. K. ENGLAND; A. T. C. SUN; C. L. SIMMS; E. D. HERZOG*. *Washington Univ. In St. Louis, Washington University, Sch. of Med.*

NANOSYMPOSIUM

018. Multivariate Approaches to Studying Medial Temporal and Prefrontal Contributions to Human Memory

Theme F: Cognition and Behavior

Sat. 1:00 PM – *McCormick Place,* N227

1:00 **18.01** The dynamics of hippocampal and prefrontal neural representations track the evolution of attentional biases during learning. M. L. MACK*; A. R. PRESTON; B. C. LOVE. *The Univ. of Texas At Austin, Univ. Col. London.*

1:15 **18.02** Temporal context processing within hippocampal subfields. F. WANG*; K. WOISARD; R. DIANA. *Dept. of Psychology, Virginia Tech.*

1:30 **18.03** The neural correlates of episodic memory transformation in humans. M. J. SEKERES*; J. A. E. ANDERSON; G. WINOCUR; M. MOSCOVITCH; C. L. GRADY. *Rotman Res. Inst., Univ. of Toronto, Trent Univ.*

1:45 **18.04** Learning-related changes in item representations reveal dissociable integration and separation signatures in hippocampus and prefrontal cortex. M. L. SCHLICHTING*; J. A. MUMFORD; A. R. PRESTON. *Univ. Texas Austin, Univ. Wisconsin-Madison.*

2:00 **18.05** Action-based predictive coding from different timescales of memory. N. C. HINDY*; F. Y. NG; N. B. TURK-BROWNE. *Princeton Univ., Princeton Univ.*

2:15 **18.06** Changing the past: The interplay of replay and uncertainty in retrospective revaluation. I. MOMENNEJAD*; A. R. OTTO; N. DAW; K. A. NORMAN. *Princeton Univ., New York Univ., Princeton Univ.*

2:30 **18.07** Differentiation of neural patterns during reinstatement vs scene construction. A. ZADBOOD*; Y. LEONG; J. CHEN; U. HASSON. *Psychology Department, Princeton Univ., Princeton Neurosci. Institue, Princeton Univ., Psychology Department, Stanford Univ.*

2:45 **18.08** Hippocampal and cortical organization of memories for items in context. L. A. LIBBY*; C. RANGANATH. *UC Davis, UC Davis.*

3:00 **18.09** Differentiation of neural representations during processing of multiple information streams. J. CHEN*; M. CHOW; K. A. NORMAN; U. HASSON. *Princeton Neurosci. Inst., Princeton Univ.*

3:15 **18.10** Attention promotes episodic encoding by stabilizing hippocampal representations. M. ALY*; N. B. TURK-BROWNE. *Princeton Univ.*

NANOSYMPOSIUM

019. Social Cognition: Neural Processes and Disorders

Theme F: Cognition and Behavior

Sat. 1:00 PM – *McCormick Place,* S405

1:00 **19.01** Imaging real-time tactile social interaction with two-person dual coil fMRI. V. RENVALL*; J. KAURAMÄKI; S. MALINEN; R. HARI; L. NUMMENMAA. *Aalto Univ. Sch. of Sci., Aalto Univ. Sch. of Sci., Aalto Univ. Sch. of Sci., Univ. of Turku.*

1:15 **19.02** Dynamics of neuromagnetic response to biological motion in adolescence. M. PAVLOVA*; C. BIDET-ILDEI; A. N. SOKOLOV. *Univ. of Tübingen Med. Sch., Univ. of Poitiers.*

1:30 **19.03** Modulation of early visual cortex activity by social features. M. GAMER*; J. PETH. *Univ. of Wuerzburg, Univ. Med. Ctr. Hamburg-Eppendorf.*

1:45 **19.04** Social prospection: A predictive coding model of mental state inference! J. KOSTER-HALE*; F. CUSHMAN. *Harvard Univ.*

2:00 **19.05** Rest cerebral blood flow in the superior temporal sulcus (STS) correlates with social perception impairments in children with autism spectrum disorder (ASD). A. SAITOVITCH; H. LEMAITRE; E. RECHTMAN; N. CHABANE; A. PHILIPPE; Y. SAMSON*; D. GRÉVENT; R. CALMON; N. BODDAERT; F. BRUNELLE; M. ZILBOVICIUS. *INSERM unity 1000, UMR 1163, Paris Descartes University, Inst. IMAGINE., Salpetriere.*

2:15 **19.06** MEG source modeling during imitation, observation, and resting state in children on the autism spectrum. M. DATKO*; R. GOUGELET; M. METKE; T. DONOGHUE; M. KIRCHGESSNER; N. CASTRO; M. HUANG; J. PINEDA. *UC San Diego, UC San Diego, UC San Diego, UC San Diego.*

2:30 **19.07** Effect of social disability on resting state brain networks in adults with autism or social anxiety. M. COFFMAN*; D. GRACANIN; J. LISINSKI; S. LACONTE; S. WHITE; J. A. RICHEY. *Virginia Tech., Virginia Tech.*

2:45 **19.08** Neural bases of core and conceptual self: Implications for the representation of other persons and groups of people. J. H. DRUCKER*; L. W. BARSALOU; L. F. BARRETT. *Emory Univ., Atlanta VAMC, Harvard Med. School, Massachusetts Gen. Hosp., Northeastern Univ.*

3:00 **19.09** FMRI evidence of altered implicit self-processing in adolescent depression. M. B. HARMS*; H. SCOTT; G. SMYDA; K. M. THOMAS; K. QUEVEDO. *Inst. of Child Develop., Dept. of Psychiatry, Univ. of Minnesota, Univ. of Pittsburgh, Sch. of Publ. Hlth.*

3:15 **19.10** Von Economo neurons and fork cells express a neurochemical signature linked to autonomic functioning. A. A. DIJKSTRA; L. LIN; S. E. GAUS; W. W. SEELEY*. *Univ. of California, San Francisco, UCSF.*

3:30 **19.11** Reward wins - increased activation of the mesocorticostriatal salience network in human reactive aggression. G. GAN*; R. N. PRESTON-CAMPBELL; J. L. STEINBERG; S. D. LANE; T. MALONEY; M. A. PARVAZ; S. J. MOELLER; R. Z. GOLDSTEIN; N. ALIA-KLEIN. *Icahn Sch. of Med. At Mount Sinai, Virginia Commonwealth Univ., Univ. of Texas Hlth. Sci. Ctr.*

3:45 **19.12** Brain regions influencing implicit violent attitudes. I. CRISTOFORI*; W. ZHONG; V. MANDOSKE; A. CHAU; F. KRUEGER; M. STRENZIOK; J. GRAFMAN. *Rehabil. Inst. of Chicago, Northwestern Univ., George Mason Univ., George Mason Univ., Northwestern Univ.*

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* Indicates abstract's submitting author

NANOSYMPOSIUM

020. Reward and Uncertainty

Theme F: Cognition and Behavior

Sat. 1:00 PM – *McCormick Place,* N228

1:00 **20.01** What do you do when you don't know what to do: Probing for informativeness on latent states during value-based decision making. J. COCKBURN*; M. J. FRANK. *Caltech, Brown Univ.*

1:15 **20.02** Age-related alterations in decision policy under conditions of uncertain strategy choices in mice. R. D. COLE; J. A. FRANCESCONI; A. YU; V. V. PARIKH*. *Temple Univ., Univ. of California San Diego.*

1:30 **20.03** Population dynamics of reward and uncertainty in frontal and parietal cortex. N. C. FOLEY; J. P. GOTTLIEB*. *Columbia Univ. Med. Ctr.*

1:45 **20.04** Distinct mechanisms for behavioral control under uncertainty in the primate basal forebrain. I. E. MONOSOV*; N. LEDBETTER. *Washington Univ. Sch. of Med.*

2:00 **20.05** Neurons in posterior cingulate cortex encode information signals and regulate behavioral plasticity. M. L. PLATT*; J. GARIÉPY; D. L. BARACK. *Duke Univ.*

2:15 **20.06** Competing neural representations of choice alternatives in orbitofrontal cortex during value-based decisions. E. L. RICH*; J. D. WALLIS. *UC Berkeley.*

2:30 **20.07** Metaplasticity as the neural substrates for choice under uncertainty. S. FARASHAHI; C. H. DONAHUE; H. SEO; D. LEE; A. SOLTANI*. *Dartmouth Col., Gladstone Inst. of Neurolog. Dis., Yale Univ. Sch. of Med.*

2:45 **20.08** The attentional modulation of the activity of value-sensitive orbitofrontal neurons. T. YANG*; Y. XIE; C. CHEN; C. NIE. *Inst. of Neurosci.*

DYNAMIC POSTERS

DP01. Dynamic Posters–Saturday Afternoon

Sat. 1:00 PM – *McCormick Place*, Hall A

All dynamic poster presentations will take place during the full four-hour session time. The theme of the dynamic poster being presented is indicated by the letter in the leftmost column.

B DP01 **DP01.01** ● Bk channels are critical for synaptic depression underlying sensory filtering associated with cognition. *T. ZAMAN; M. SMOKA; S. SCHMID. *Anat. and Cell Biol., Schulich Sch. of Med. & Dent.*

B DP02 **DP01.02** Single molecule imaging with monovalent quantum dot-aptamer conjugates. K. E. KITKO; D. M. BAILEY; *Q. ZHANG. *Program in Interdisciplinary Materials Sci., Pharmacol., Vanderbilt Univ.*

C DP03 **DP01.03** Altered striatal functional connectivity and its relationship to cognitive and motivational processes in traumatic brain injury. *S. DE SIMONI; P. O. JENKINS; J. J. FLEMINGER; A. E. JOLLY; J. H. COLE; D. J. SHARP. *Imperial Col. London, Imperial Col.*

C DP04 **DP01.04** Effect of tsDCS applied with different electrode configurations on the lumbar spinal circuits. *A. KUCK; H. VAN DER KOOIJ; D. F. STEGEMAN; E. H. F. VAN ASSELDONK. *Lab. of Biomechanical Engin., Univ. of Twente, Dept. of Neurol., Radboud Univ. Med. Ctr.*

C DP05 **DP01.05** Behavioral characterization and pharmacological validation of chronic social defeat stress mouse model. **I. MORGANSTERN; S. DAVIS; K. HOMA; T. HANANIA. *Behavioral Pharmacol., Psychogenics.*

D DP06 **DP01.06** Nonlinear integration of core and matrix thalamic input within somatosensory neocortical circuitry. *J. A. PRASAD; B. CHAMBERS; J. N. MACLEAN; S. M. SHERMAN. *Univ. of Chicago, Dept. of Neurobio., Committee on Computat. Neurosci., Univ. of Chicago.*

D DP07 **DP01.07** Event-related causality in a cortical sensorimotor control network during precise finger force generations. *M. SCHUBERT; C. REINSBERGER; J. BAUMEISTER. *Sports Med., Univ. of Paderborn.*

E DP08 **DP01.08** Whole-population network dynamics in neuroendocrine dopamine neurons. *C. T. PEREZ; A. STAGKOURAKIS; A. HELLYSAZ; J. VAN LUNTEREN; I. DEHNISCH; C. BROBERGER. *Neurosci., Med. Biochem. and Biophysics, Karolinska Inst., Radboud Univ. Nijmegen, Neurosci., Karolinska Institutet.*

F DP09 **DP01.09** Dopamine is co-released from the locus coeruleus into the dorsal hippocampus. *K. A. KEMPADOO; E. V. MOSHAROV; S. CHOI; D. L. SULZER; E. R. KANDEL. *Columbia Univ.*

F DP10 **DP01.10** An aggregate rate code represents reward intensity in midbrain dopamine neurons and in their afferents: evidence from optical self-stimulation for two-stage integration of reward signals. *I. TRUJILLO-PISANTY; P. SOLIS; K. CONOVER; P. SHIZGAL. *Psychology (CSBN), Concordia Univ.*

THEME H POSTER *McCormick Place*

021. History of Neuroscience

Theme H posters will be on display from Sat. 1 p.m.-Sun. 5 p.m., with one-hour presentations occuring either Saturday afternoon (presentation numbers ending in SA) or Sunday morning (presentation numbers ending in SU)—McCormick Place, Hall A

1:00 CC15 **21.01SA** Beritashvili and Tolman: Pioneers of animal spatial behavior. M. G. TSAGARELI. *Ivane Beritashvili Exptl. Biomedicine Ctr.*

2:00 CC16 **21.02SA** Mirrors in old master and modern art and contemporary clinical and basic cognitive neuroscience. E. L. ALTSCHULER; V. RAMACHANDRAN. *Temple Univ. Sch. of Med., UCSD.*

3:00 CC17 **21.03SA** The history of myelin. A. I. BOULLERNE. *Univ. of Illinois at Chicago.*

4:00 CC18 **21.04SA** Albert von Kölliker: Founder of systematic histology and comparative embryology. N. E. KINNEY. *Southeast Missouri State Univ.*

1:00 CC19 **21.05SA** Escaping the tyranny of Yerkes-Dodson: Creating and sustaining new complex behaviors - the 'Frontopolar Cortex exception' and human ascendance and survival. S. CURTIS. *True North, LLC.*

2:00 CC20 **21.06SA** The interventricular foramen - an example of a scientific argument carried out in public. B. W. BAKKUM. *Illinois Coll Optometry.*

3:00 CC21 **21.07SA** Is the cortical column an organizational unit of the cortex? A historical reconstruction (1955-2015). P. HAUEIS. *Berlin Sch. of Mind & Brain, Max Planck Inst. for Human Cognitive and Brain Sci.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

4:00 CC22 **21.08SA** Translating Morris water maze results across species and environments. N. ATANASOVA. *The Univ. of Toledo.*

1:00 CC23 **21.09SA** The historical brain specimens of C.F. Gauss and C.H.Fuchs, their mix-up and its implications. R. SCHWEIZER; G. HELMS; J. FRAHM. *Biomed NMR Forschungs GmbH, MPI biophys Chem., Univ. Med. Ctr.*

2:00 CC24 **21.10SA** Hieronymus Fabricius and the lateral fissure of Sylvius. A. PARENT. *Psychiat. & Neurosci. Dept, Univ. Laval.*

THEME H POSTER *McCormick Place*

022. Teaching Neuroscience in K-12

Theme H posters will be on display from Sat. 1 p.m.-Sun. 5 p.m., with one-hour presentations occuring either Saturday afternoon (presentation numbers ending in SA) or Sunday morning (presentation numbers ending in SU)—McCormick Place, Hall A

8:00 CC25 **22.01SU** Worm School: A collaborative research project engages high school students in authentic research. E. M. WATERS; S. WALLACE; S. SHAHAM. *Rockefeller Univ., Rockefeller Univ.*

9:00 CC26 **22.02SU** Engaging high school students in neuroinformatics projects. A. DELPRATO; W. E. CRUSIO. *Univ. Bordeaux and CNRS, BioScience Project.*

10:00 CC27 **22.03SU** Neuroscience education, making a difference at Magruder high school in Montgomery County, Maryland. A. J. FOBBS; D. A. TWOMBLY; T. CRUZ; R. SORENSEN; P. WILLIAMS; M. BACHMAN; L. C. EVANS. *Dept. of Def., Eunice Kennedy Shriver Natl. Inst. of Child Hlth. and Human Develop., Natl. Inst. of Drug Abuse, Paul Williams and Associates, Univ. of Maryland, Col. Zadok Magruder High Sch.*

11:00 CC28 **22.04SU** Evaluation of five learning activities associated with live-cell imaging microscopy in a high school neuroscience curriculum for scientifically gifted students. K. SUEN; W. TANG; W. CHAN; C. CHANG. *Po Leung Kuk Laws Fndn. Col., The Univ. of Hong Kong.*

8:00 CC29 **22.05SU** Promoting neuroscience awareness in Central Pennsylvania. K. VENKITESWARAN; Q. VO; Z. NASSRALLAH; S. RAVI; A. BARBER; T. SUBRAMANIAN. *Penn St Hershey Med. Ctr. & Col. Med., Penn State Col. of Med.*

9:00 CC30 **22.06SU** UCLA neuroscience outreach: Growth of an effective community resource. C. YAEGER; N. HARDY; D. ALEXANDER; R. ROMERO; C. EVANS; W. GE; E. M. CARPENTER. *UCLA, UCLA, UCLA Sch. Med.*

10:00 CC31 **22.07SU** NeuroCamp: A UCLA Brain Research Institute outreach effort encouraging STEM education pathways for high schoolers. W. GRISHAM; W. WALWYN; E. CARPENTER; J. B. WATSON; S. KU; M. NELSON; A. CARLSON; D. SAXON; I. DAHILIG; J. CHANG; S. LE; N. ASKARINAM; N. SCHOTTLER. *UCLA, David Geffen Sch. Med. UCLA, UCLA, Claremont McKenna Col., Trinity Col.*

11:00 CC32 **22.08SU** From participants to researchers: An interactive neuroscience program for high school students. I. DAVIDESCO; L. KAGGEN; J. MCCLINTOCK; M. WESTERLUND; M. OOSTRIK; L. WAN; M. DING; D. POEPPEL; S. DIKKER. *New York Univ., Trevor Day Sch., Magdatt, Univ. of Florida, Max-Planck-Institute, Utrecht Univ.*

8:00 CC33 **22.09SU** Firing on all synapses: A brain awareness program that inspires kids and enriches mentors. K. J. THIEL; C. B. BANKS; F. BOLS; C. CROMBEZ; A. MILLER; A. SACKA; K. E. TAYLOR; K. J. VOGEL; S. ZAVEDYUK. *Madonna Univ.*

9:00 CC34 **22.10SU** NYC public education outreach in the brain sciences: A blueprint for developing new outreach programs. F. D. UQUILLAS; K. BACHI; P. MALAKER; A. ZILVERSTAND; N. ALIA-KLEIN; R. Z. GOLDSTEIN. *Icahn Sch. of Med. At Mount Sinai.*

10:00 CC35 **22.11SU** ▲ Have brains, will travel: An interactive brain-drug workshop for tweens. S. C. PAGE; S. ROBINSON. *Oberlin Col.*

11:00 CC36 **22.12SU** Bloomin' Brains: A summer neuroscience camp for middle school students. E. H. CHUDLER; K. M. STRAUS. *Cnt Sensorimotor Neural Engin., Univ. of Washington.*

8:00 CC37 **22.13SU** Effects of teacher professional development and instructional practices on student knowledge of neuroscience. J. M. DUBINSKY; K. EDWARDS; M. HOELSCHER; M. MICHLIN; G. ROEHRIG. *Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota.*

9:00 CC38 **22.14SU** Developing education and research at Macaiba ELS-IIN Brazil. E. MORYA; F. BRASIL; R. MOIOLI; M. F. P. ARAÚJO; H. SIMPLÍCIO; M. A. FREIRE; M. NICOLELIS. *Inst. Santos Dumont, Duke Univ.*

10:00 CC39 **22.15SU** Stereology in a biological context with the integration of mathematics, design and modeling: Synaptic structures and organelles to tissue tumors. R. L. COOPER; M. SANDEN; A. S. COOPER; R. M. KRALL. *Univ. Kentucky, Univ. Kentucky, Univ. of Ky.*

11:00 CC40 **22.16SU** Expectancy of Joint and Divided attention during prediction errors between teachers and students. J. F. GOMEZ-MOLINA; A. L. GOMEZ-MOLINA; C. A. PALADINI. *Intl. Group of Neurosci., Univ. of Texas at San Antonio, UTSA.*

8:00 CC41 **22.17SU** ▲ Hands on activities that help teach brain awareness. L. TOWNLEY; B. S. M. OBAYOMI; I. SINAKEVITCH; D. P. BALUCH. *Arizona State Univ.*

9:00 CC42 **22.18SU** Brain Awareness Week and limbic learning. N. R. MYSLINSKI; J. RO. *Univ. Maryland Sch. Dent. DNPS 8th Floor.*

10:00 CC43 **22.19SU** ▲ Building neuroscience at Lake Forest College: Integration of curriculum with public education, k-5 outreach, and peer learning. S. G. CHIREN; K. A. HUBER; S. BELLO-ROJAS; S. K. DEBBURMAN. *Lake Forest Col.*

11:00 CC44 **22.20SU** Science after school--way cool! K. S. CURTIS. *Oklahoma State Univ. Ctr. For Hlth. Sci.*

8:00 CC45 **22.21SU** Withdrawn.

9:00 CC46 **22.22SU** SOS: The brain in the park at the Brain Awareness Week: Communicating and teaching neuroscience in Ribeirão Preto - Brazil. L. D. GODOY; E. H. L. UMEOKA; N. GARCIA-CAIRASCO. *Univ. of Sao Paulo, Univ. of São Paulo, Univ. of Sao Paulo.*

10:00 CC47 **22.23SU** BrainSTEM: A neuroscience outreach program for high school students. A. H. BRADY; Z. FORRESTER-FRONSTIN; S. HIRSH; S. E. JARRIN; A. KARIMI; B. M. ROBERTS; N. K. SMITH. *St. Mary's Col. of Maryland.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

11:00 CC48 **22.24SU** Bridge to Neuroscience Workshop: Taking neuroscience to high school and undergraduate students in Puerto Rico. A. COLON-RODRIGUEZ; E. S. RODRÍGUEZ-TAPIA; C. T. TIERNAN; W. D. ATCHISON. *Michigan State Univ., Michigan State Univ., Michigan State Univ., Michigan State Univ.*

THEME H POSTER *McCormick Place*

023. Teaching Neuroscience to Undergraduates: Simulations and Social Media

Theme H posters will be on display from Sat. 1 p.m.-Sun. 5 p.m., with one-hour presentations occuring either Saturday afternoon (presentation numbers ending in SA) or Sunday morning (presentation numbers ending in SU)—McCormick Place, Hall A

1:00 CC49 **23.01SA** The 27th northeast under/graduate research organization for neuroscience (NEURON) conference held at Quinnipiac University in Hamden, CT. A. J. BETZ; T. AHERN; C. FRYE; S. RASKIN. *Quinnipiac Univ., State Univ. of New York at Albany, Trinity Col.*

2:00 CC50 **23.02SA** Faculty for Undergraduate Neuroscience (FUN): Multiple mechanisms for supporting the development of undergraduate students and faculty in the neurosciences. L. A. GABEL; A. J. STAVNEZER; J. S. SMITH. *Lafayette Col., Col. of Wooster, Saginaw Valley State Univ.*

3:00 CC51 **23.03SA** Nu rho psi, the national honor society in neuroscience. G. A. MICKLEY; L. A. BECKER; G. A. COUSENS; E. P. WIERTELAK. *Nu Rho Psi, Univ. of Evansville, Drew Univ., Macalester Col.*

4:00 CC52 **23.04SA** Peer-reviewed and pubmed-listed innovative ideas for neuroscience education: The journal of undergraduate neuroscience education. E. P. WIERTELAK; B. R. JOHNSON; G. DUNBAR. *Macalester Col., Cornell Univ., Central Michigan Univ.*

1:00 CC53 **23.05SA** ▲ Grey Matters Journal: A unique approach to neuroscience outreach and education. A. BOSMA-MOODY; L. SELBY. *Univ. of Washington.*

2:00 CC54 **23.06SA** Students teaching students: Brain Awareness Week as a co-curricular addition to an undergraduate neuroscience program. K. M. BARTLOW; H. R. LERNER; B. MECHLIN. *Earlham Col., Earlham Col.*

3:00 CC55 **23.07SA** Simulations of neuronal functioning using MATLAB in 1.5 hour undergraduate labs. D. NICHOLS; A. F. GRANT; S. M. SHIELDS. *Roanoke Col.*

4:00 CC56 **23.08SA** Web based simulator (Neuromembnrane) for teaching neuroscience. D. W. ALI; G. FUNK; K. JONES. *Univ. Alberta, Univ. Alberta, Univ. Alberta.*

1:00 CC57 **23.09SA** Global learning in neuroscience: Scientific research, student career development and intercultural experiences. M. G. RUSCIO; C. KOREY. *Col. of Charleston.*

2:00 CC58 **23.10SA** ▲ The potential contribution of IMPULSE to international medical undergraduate education. K. SASSER; R. SLEDGE; E. ARTZ; H. JOHNSON; E. MOORE; Z. KAPLAN; C. QUICK; S. SNOUSE; A. VORSTER; L. JONES. *Appalachian State Univ., Univ. of the Free State.*

3:00 CC59 **23.11SA** FraidyRat: A realistic simulation allowing student experiments on the neuroscience of fear conditioning. F. B. KRASNE; W. E. GRISHAM. *UCLA.*

4:00 CC60 **23.12SA** Teaching introductory neurobiology online: New approaches to mastering the fundamentals. S. DIETZ. *Cornell Univ.*

1:00 CC61 **23.13SA** Mobile app for interactive demonstration of efficient visual and auditory neural codes. G. H. MOE; M. V. ALBERT; K. LÄUFER; G. K. THIRUVATHUKAL; M. MAKARIOUS. *Loyola Univ. Chicago, Loyola Univ. Chicago.*

2:00 CC62 **23.14SA** Computational neuroscience course projects - a high-impact teaching and learning approach. S. OPRISAN. *Col. of Charleston.*

3:00 CC63 **23.15SA** ▲ Pencil-and-paper neural networks: An undergraduate laboratory exercise in computational neuroscience. J. A. WESTERBERG; E. N. SUTTER; K. M. CRISP. *St. Olaf Col., St. Olaf Col.*

4:00 CC64 **23.16SA** Science Case Network: Creating a working group for case studies in neuroscience. L. A. ROESCH; K. FRENZEL. *Emory Univ.*

1:00 CC65 **23.17SA** Social Media: Creating a community online to enhance learning neuroscience in the classroom. M. H. RAY. *Alverno Col.*

2:00 CC66 **23.18SA** Encountering the “crisis of replicability” with undergraduates. J. WONG; W. GRISHAM; A. ELIAZ; S. JIANG; S. KU; M. NELSON; C. TSAI; M. GEARY; K. J. SCHAFF. *UCLA, UCLA, UCLA, UCLA, UCLA.*

3:00 CC67 **23.19SA** NeuWriteSD: Using the group blog format to approach science communication in novel ways. C. P. PROFACI; M. SAPIURKA; A. L. JUAVINETT. *UCSD.*

4:00 CC68 **23.20SA** ▲ Using social media as a neuroscience outreach and recruiting tool. A. DAGNER; A. J. GRIPPO. *Northern Illinois Univ.*

1:00 CC69 **23.21SA** MAPPED repository: A comparative database of biologically inspired cognitive architectures (BICA). A. V. SAMSONOVICH; C. LEBIERE; F. E. RITTER. *George Mason Univ., Carnegie Mellon Univ., Pennsylvania State Univ.*

2:00 CC70 **23.22SA** Application of intelligent mobile terminal in cancer-pain management. F. JIANG; G. DING. *Xinhua Hosp. Affiliated To Shanghai Jiao Tong U, Xinhua Hosp. Affiliated To Shanghai Jiao Tong Univ. Sch. of Med.*

THEME H POSTER *McCormick Place*

024. Teaching Neuroscience to Undergraduates: Courses and Programs

Theme H posters will be on display from Sat. 1 p.m.-Sun. 5 p.m., with one-hour presentations occuring either Saturday afternoon (presentation numbers ending in SA) or Sunday morning (presentation numbers ending in SU)—McCormick Place, Hall A

1:00 CC71 **24.01SA** Providing an ecologically balanced environment for maintaining the marine mollusc *Aplysia* californica, a model system for teaching electrophysiology. C. E. KEHL; D. LYTTLE; H. CHIEL. *Case Western Reserve Univ., Case Western Reserve Univ.*

2:00 CC72 **24.02SA** An inexpensive and easily constructed running wheel for earthworms. W. J. WILSON; B. A. JOHNSON; M. M. WICKENS. *Albion Coll.*

3:00 CC73 **24.03SA** From slices to loaf: Teaching neuroanatomical spatial relations by assembling structures within student segmented brain slices into 3D printed models. R. W. SIKES; A. M. MARKOWSKI. *Northeastern Univ.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract’s submitting author

4:00 CC74 **24.04SA** ▲ SoLoArc: A free-field, multisensory localization tool for scientific inquiry in undergraduate education. J. A. WESTERBERG; A. R. BALHORN; R. S. TYSHYNSKY; J. L. LOEBACH. *St. Olaf Col., St. Olaf Col., St. Olaf Col.*

1:00 CC75 **24.05SA** Mechatronic engineering working for neuroscience. Olfactory event-related potentials. M. J. ROJAS; F. LEON. *Univ. Nacional Colombia, Univ. Nacional Colombia.*

2:00 CC76 **24.06SA** Student dissociation of data in articles from those in textbooks. S. WOOD. *Univ. of Toronto.*

3:00 CC77 **24.07SA** Teaching undergraduate students how to "think like a neuroscientist" using a flipped classroom approach. M. R. PENNER; K. S. GIOVANELLO. *Univ. of North Carolina.*

4:00 CC78 **24.08SA** Applying the "flipped classroom" approach to teaching hybrid neuroscience courses. L. L. MCGREW. *Belmont Univ.*

1:00 DD1 **24.09SA** Active-learning through the incorporation of research into an introductory course: Strategies and challenges. J. M. OMELIAN; S. I. SOLLARS. *Univ. of Nebraska at Omaha.*

2:00 DD2 **24.10SA** Incorporating active learning strategies in an undergraduate Neurobiology course. M. W. CHU. *UCSD.*

3:00 DD3 **24.11SA** Using active learning strategies to enhance student's cognitive skill in science education. R. BARBOZA; R. S. MOREIRA; M. FERRARI. *Federal Univ. of Sao Paulo, Inst. De Biociencias - Univ. De Sao Paulo.*

4:00 DD4 **24.12SA** ▲ Teaching behavioral neuroscience and research methods using zebrafish. N. E. WREN; C. M. VELEZ; R. RYDER; J. L. PIPERNO; M. E. HARRINGTON. *Smith Col., Smith Col.*

1:00 DD5 **24.13SA** Learning principles of scientific experimental design through student-centric journal club. B. S. CARTER; D. E. HAMILTON; R. C. THOMPSON. *Oberlin Col., Univ. of Michigan, Univ. of Michigan, Univ. of Michigan.*

2:00 DD6 **24.14SA** Freshman research immersion: Transforming freshman into researchers. C. Y. OSTOCK; C. BISHOP; M. M. E. FEGLEY; N. E. STAMP. *Binghamton Univ., Binghamton Univ., Binghamton Univ., Binghamton Univ.*

3:00 DD7 **24.15SA** A summer seminar series with five regional neuroscience programs. J. R. YATES; A. STAVNEZER. *Ohio Wesleyan Univ., Col. of Wooster.*

4:00 DD8 **24.16SA** ▲ A undergraduate education module based on a research question: The effects of muscle injury on synaptic transmission, axon conduction and muscle physiology in relation to deep tissue injury. A. THENAPPAN; E. BURNS; M. VAUGHN; E. DUPONT-VERSTEEGDEN; R. L. COOPER. *Univ. of KY., Univ. of Ky, Univ. of Ky, Univ. of Ky.*

1:00 DD9 **24.17SA** Introducing neuroscience-based clinical cases to large science undergraduate classes by using tutor-less problem-based learning method: Effects on generic problem-solving skills. A. KLEGERIS; S. BARCLAY MCKEOWN; H. HURREN; M. J. STUART; L. J. SPIELMAN. *Univ. of British Columbia Okanagan Campus, Univ. of British Columbia Okanagan Campus.*

2:00 DD10 **24.18SA** Searching for an index of states (sleep/alert-like), projections (Inward/Outward) and forms (Joint/Separated) of Attention in humans, ants and bacteria. J. F. GOMEZ-MOLINA; M. CORREDOR-RODRÍGUEZ; U. M. RICOY; A. GOMEZ-MOLINA; F. LOPERA; A. A. RESTREPO-VELÁSQUEZ. *Intl. Group of Neurosci., Univ. of Antioquia, Northern New Mexico Col., Intl. Group of Neurosci. (Col, USA member), Intl. Group of Neurosci. (Col, USA member), EAFIT Univ.*

3:00 DD11 **24.19SA** The crayfish caudal photoreceptor: A non-visual photoreceptor embedded in a central nervous system. B. R. JOHNSON; R. A. WYTTENBACH; R. R. HOY. *Cornell Univ., Emory Univ.*

4:00 DD12 **24.20SA** Optogenetics in chick embryos as a platform for classroom-based, authentic research experiences for underserved undergraduate students. A. A. SHARP; S. FROMHERZ; J. R. WHITAKER; K. S. RENZAGLIA. *SIU Sch. Med., SIU.*

1:00 DD13 **24.21SA** Enhancing the teaching of respiratory neurobiology using student based research that delivers enhanced carbon dioxide to participants while observing avoidance behavior and anxiety vulnerability. P. F. MARTINO; D. P. MILLER; J. MILLER; T. K. MULLARNEY-REGETZ. *Carthage Col., Carthage Col., VA Med. Ctr.*

2:00 DD14 **24.22SA** Investigating the behavioral and molecular mechanisms behind alcohol sensitivity and tolerance in *Drosophila* melanogaster in upper-level genetics and neurobiology courses. J. A. SEGGIO; M. J. CARSON; J. A. ROLING; J. A. HICKS. *Bridgewater State Univ.*

3:00 DD15 **24.23SA** Integrating nervous system morphophysiology to neurological practices for undergraduate students. D. PARIZOTTO; H. C. MARCUSSO; R. R. RAMOS; R. N. ISAYAMA. *UNICASTELO, UNICASTELO.*

4:00 DD16 **24.24SA** Transforming connections for success in neuroscience and STEM: A new program for underrepresented and at-risk students. N. G. SIMON; V. C. WARE. *Lehigh Univ., Lehigh Univ.*

1:00 DD17 **24.25SA** ▲ Heart rate conditioning in an undergraduate lab using an Iphone. J. SINGH; N. ZACCONE; J. MA; N. DESOUKY; K. BLYVERKET; J. C. NEILL. *Long Island Univ., Long Island Univ. - Post.*

2:00 DD18 **24.26SA** Incorporating an ERP project into undergraduate instruction. E. NYHUS; N. CURTIS. *Bowdoin Col.*

3:00 DD19 **24.27SA** Hispanic-serving institution: Taking neuropsychology students from the classroom to the community. H. L. YOUNG. *Notre Dame De Namur Univ.*

4:00 DD20 **24.28SA** Increased confidence in using primary literature is related to term paper length in an undergraduate group of Occupational Therapy students. A. K. PACK. *Utica Col.*

1:00 DD21 **24.29SA** A truly hands-on laboratory experience: Multisensory adaptations to teach introductory neuroscience to a visually impaired undergraduate student. A. N. FRICKS-GLEASON; J. S. LAW. *Regis Univ.*

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* Indicates abstract's submitting author

025. Teaching Neuroscience to Graduate Students

Theme H posters will be on display from Sat. 1 p.m.-Sun. 5 p.m., with one-hour presentations occuring either Saturday afternoon (presentation numbers ending in SA) or Sunday morning (presentation numbers ending in SU)—McCormick Place, Hall A

1:00 DD22 **25.01SA** A student-led graduate seminar familiarizes students with neuroscientific techniques and improves oral presentation skills. D. J. DITULLIO; C. X. HE; A. M. ANDREWS. *UCLA, David Geffen Sch. of Med., David Geffen Sch. of Med.*

2:00 DD23 **25.02SA** Dementia in 3D: A case-based instructional module exploring the impact of cerebral vascular anatomy in subcortical pathology leading to dementia. J. BERGDEN; J. H. CALDWELL; M. PASCOE; W. F. HUGHES. *Univ. of Colorado Anschutz Med. Campus, Univ. of Colorado Anschutz Med. Campus, Emeritus Rush Univ. Med. Ctr.*

3:00 DD24 **25.03SA** Removing the barriers to managing both medical and illicit substance use in community practice settings: A thought experiment and educational tool development. M. A. BEAZELY. *Univ. of Waterloo, Sch. of Pharm.*

4:00 DD25 **25.04SA** Preparing a workforce to meet the challenges of large-scale data in neuroscience: The iNeuro Project. W. E. GRISHAM; B. LOM; L. MCCAULEY. *UCLA, Davidson Col., Wind River Data Services.*

1:00 DD26 **25.05SA** Data, tools and models of neuroscience on J-Node neuroinformatics platforms. Y. YAMAGUCHI; H. KASHIOKA; T. MIYAKAWA; K. TAKAO; R. KANZAKI; H. IKENO; T. FURUICHI; Y. OKAMURA-OHO; S. SATOH; T. IIJIMA; S. KAKEI; H. WAGATSUMA; Y. HAYASHI; T. NOMURA; Y. ISONO; Y. OKUMURA; S. SUENAGA; I. ISHII; A. HONDA; S. USUI. *NIJC, RIKEN BSI, NICT CiNet, Fujita Hlth. Univ., NIPS, Tokyo Univ., Univ. of Hyogo, Tokyo Univ. of Sci., RIKEN BReNt, Univ. of Electro-Communications, Tohoku Univ., Tokyo Metropolitan Inst. of Med. and Sci., Kyusyu Inst. of Technol., RIKEN BSI, Osaka Univ., Toyohashi Univ. of Technol.*

2:00 DD27 **25.06SA** Interactive training software for designing, conducting and documenting rigorous preclinical experiments on drug dependence. D. H. MALIN; C. P. WARD; S. A. HETHERINGTON; J. J. IZYGON; D. M. NGHIEM; N. KELLING; W. R. BURAS. *Univ. Houston-Clear Lake Mail Code 265, Univ. of Houston-Clear Lake, Tietronix Software, Inc.*

3:00 DD28 **25.07SA** Bringing neuroscience from classroom to the community. R. XIA. *Univ. of St. Mary.*

4:00 DD29 **25.08SA** An analysis about the necessities of knowledge integration in neuroscience in a population of university students and professors. D. B. PAZ-TREJO; P. TORRES-CARRILLO; J. VAZQUEZ-RAMIREZ; P. ZARATE-GONZALEZ; H. SANCHEZ-CASTILLO. *Univ. Nacional Autonoma de Mexico, Sociedad Iberoamericana de Neurociencia Aplicada.*

1:00 DD30 **25.09SA** Transdisciplinary education in the human brain project. E. WINTERSTELLER; C. RIEDL; A. SARIA. *Med. Univ. Innsbruck.*

THEME H POSTER *McCormick Place*

026. Teaching Neuroscience: Community Outreach

Theme H posters will be on display from Sat. 1 p.m.-Sun. 5 p.m., with one-hour presentations occuring either Saturday afternoon (presentation numbers ending in SA) or Sunday morning (presentation numbers ending in SU)—McCormick Place, Hall A

8:00 DD31 **26.01SU** Neuroscience programs at IARPA. R. VOGELSTEIN; A. H. RUSSELL; B. S. MINNERY. *Office of the Director of Natl. Intelligence.*

9:00 DD32 **26.02SU** Society for neuroscience Ottawa chapter - continued growth and success. K. FARMER; N. RUSTOM; S. SANTONI; S. KING; M. BEDARD; N. PROWSE; C. CRUMP; Z. DWYER; S. COATES; S. CHIN; S. BELLEVUE; J. HOWELL; E. ALI; K. DIXON; M. WELLMAN; R. WOODS; J. K. SZYSZKOWICZ; A. ABIZAID. *Carleton Univ., Carleton Univ.*

10:00 DD33 **26.03SU** ▲ Promoting child brain development and health through classroom neuroscience education. J. AYERS; A. VERBURG; D. GRIESAN; L. MCWHIRTER; E. HOBBS; J. TORRES; C. KRAFT; B. NICKOLOFF; V. WILLIAMS; E. METZGER; D. FARRANT; B. ORTIZ TORRES; J. ROUTH; M. T. BANICH; M. K. LEBOURGEOIS; N. K. SPEER. *Univ. of Colorado Boulder, Univ. of Colorado Boulder, Univ. of Colorado Boulder, Univ. of Colorado Boulder.*

11:00 DD34 **26.04SU** Retrospective study of mother-child attachment during the first year of life and its relation with development in preschool. J. J. LARA-AVELLA; J. CAICEDO-MERA; Z. DUENAS. *Univ. Nacional De Colombia, Univ. Nacional De Colombia.*

8:00 DD35 **26.05SU** NIH contributions to the BRAIN Initiative. A. ADAMS; G. FARBER; T. INSEL; W. KOROSHETZ; M. MOTT; K. RAMOS; N. TALLEY; S. L. WHITE; A. WILLARD. *NIH, NIH.*

9:00 DD36 **26.06SU** Beware of food commercials on television, and TV programs without commercials are not trust worthy either: They can bias our attention to food and make us fat. K. R. VIACAVA; G. WEYDMANN; A. TIETZE; M. DUARTE; R. SANTOLIM; B. FELIZARDO; L. BIZARRO. *UFRGS and Georgetown Univ., Univ. do Vale do Rio dos Sinos, Univ. Federal do Rio Grande do Sul, Inst. Porto Alegre - IPA.*

10:00 DD37 **26.07SU** Brain Tricks - Sensation and Perception: An interactive exhibit for Brain Awareness Week and beyond. D. L. ROBINSON; J. BESHEER; T. H. MCKIM. *Univ. of North Carolina.*

11:00 DD38 **26.08SU** Sleep as the forgotten piece of athletic performance and recovery: Public outreach to competitive fitness communities. A. J. BRAGER. *Morehouse Sch. of Med.*

8:00 DD39 **26.09SU** Northwestern University Brain Awareness Outreach cultivates excitement for neuroscience within the Chicago community. L. K. SHANAHAN; N. M. FREDERICK; N. E. BUSH; E. B. RYAN; S. R. MCIVER. *Northwestern Univ.*

9:00 DD40 **26.10SU** NW Noggin: Collaborative brain/art educational outreach in the Pacific Northwest - students, scientists and artists teach and learn about neuroscience through art. W. S. GRIESAR; J. LEAKE. *Washington State Univ. Vancouver.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

10:00 DD41 **26.11SU** Two levels of consciousness to understand own life and brain systems - education program of “gnothi seauton - knowing yourself through your body”. Y. ATOMI; M. SHIMIZU; E. FUJITA; T. ATOMI; N. HIROSE; K. HASEGAWA. *Tokyo Univ. of Agr. and Technol., Grad. Sch. of Tokyo Metropolitan Univ., Teikyo Univ. of Sci., Japan Aerospace Exploration Agency.*

11:00 DD42 **26.12SU** Withdrawn.

8:00 DD43 **26.13SU** Bloomsburg University’s 5th annual Brain Awareness Week: Outreach to preschool, elementary, middle, and high school by undergraduates in central Pennsylvania. J. A. JOHNSON; K. A. BYRNE; C. M. DUNN; F. L. ELEZOVIC. *Bloomsburg Univ.*

9:00 DD44 **26.14SU** Florianópolis’ Brain Awareness Week 2015: Outreach children to elderly in south of Brazil. A. GUERRA DE SOUZA; E. PAVESI; M. GIACHERO; C. H. DE PIERI; T. C. M. DE LIMA. *Univ. Federal De Santa Catarina.*

10:00 DD45 **26.15SU** 2015 regional brain awareness program in eastern Kentucky. I. M. WHITE; J. HUFF; K. CRISP; W. WHITE. *Morehead State Univ.*

11:00 DD46 **26.16SU** Expanding Brain Awareness Week. L. GOLDEN; A. ROLLER; P. DAVIS; M. A. LEA; J. DUNCAN; N. BOOKER; M. SCHMIDT. *Univ. of Mississippi Med. Ctr., Millsaps Col.*

8:00 DD47 **26.17SU** Increasing neuroscience awareness in the capital across generations: BAW 2015. E. BRIGNONI-PEREZ; S. M. ASHBURN; C. E. LEONARD. *Georgetown Univ.*

9:00 DD48 **26.18SU** Break out your inner Neuroscientist! Educational outreach by FSU Neuroscience. M. A. GREENWOOD; S. B. OGDEN; L. L. ELVIR; M. J. BUTLER; C. B. MASKE; K. L. FERGUSON; A. B. PAEDAE; A. DENOBREGA; P. S. EASTHAM. *Florida State Univ., Florida State Univ.*

10:00 DD49 **26.19SU** The 2015 United States regional brain bee championship and limbic learning. J. D. GREENSPAN; S. C. TRYON; N. MYSLINSKI. *Univ. Maryland Dent. Sch., Univ. South Carolina.*

11:00 DD50 **26.20SU** The 2015 International Brain Bee championship. D. SEMINOWICZ; N. R. MYSLINSKI; L. J. RICHARDS. *Univ. of Maryland, Baltimore, The Univ. of Queensland, St Lucia Campus.*

8:00 DD51 **26.21SU** Braintells: A teaching model for educating students and families on cognitive deficits. S. O. AHMAD; C. BRASIC-ROYEEN; C. PROVAZNIK. *St. Louis Univ., St. Louis Univ.*

9:00 DD52 **26.22SU** Assessment of “Get to Know Your Brain!”: A neuroscience educational outreach event. B. A. PUDER. *Samuel Merritt Univ.*

10:00 DD53 **26.23SU** The paradox of arsenic: Anticancer drug or toxicant? A. M. FLOREA; D. BÜSSELBERG. *Heinrich Heine Univ. Düsseldorf, Uniklinikum, Weill Cornell Med. Col. in Qatar.*

11:00 DD54 **26.24SU** Introducing the multinational neurocysticercosis awareness campaign. M. BORZELLO; S. CLARK; S. S. CASH; F. MATEEN. *Massachusetts Gen. Hospital, Harvard Med. Sc.*

8:00 DD55 **26.25SU** The AIRInforma experiment: Peer-reviewed public dissemination of science in Italy. I. CRISTOFORI; F. FORNERIS; L. CASSETTA; G. GRASSELLI; C. SALVI; T. GRAVINA. *Brain Injury Research, Rehabil. Inst. of Chicago, and Dept. of Physical Med. and Rehabilitation, Northwestern Univ., AIRI (International Assn. of Italian Researchers), The Armenise-Harvard Lab. of Structural Biol. Dept. of Biol. and Biotech. Univ. of Pavia, MRC Ctr. for Reproductive Health, Queen’s Med. Res. Institute, Univ. of Edinburgh, Univ. of Chicago, Dept. of Psychology, Univ. of Milano-Bicocca, Dept. of Mechanical Systems and Infrastructures, Guglielmo Marconi Univ.*

9:00 DD56 **26.26SU** New to science policy? The “Whys” and “Hows” of delving into the world of advocacy. R. D. HENDRIX. *Univ. of Arkansas For Med. Sci.*

10:00 DD57 **26.27SU** Creating a unified voice to advocate for science. M. W. MCNERNEY; S. FARRIS. *Society for Neurosci.*

THEME H POSTER *McCormick Place*

027. Ethical and Policy Issues in Neuroscience

Theme H posters will be on display from Sat. 1 p.m.-Sun. 5 p.m., with one-hour presentations occuring either Saturday afternoon (presentation numbers ending in SA) or Sunday morning (presentation numbers ending in SU)—McCormick Place, Hall A

1:00 DD58 **27.01SA** Supporting neurological difference on college campuses: The neurodiversity initiative at the College of William & Mary. J. A. BURK; J. L. ZEMAN; K. A. WULF; J. E. ROBISON; C. L. DICKTER. *Col. of William & Mary.*

2:00 DD59 **27.02SA** Research Integrity and misconduct. E. RUNKO; R. AMBALAVANAR; B. MOZER; A. P. RUNKO. *Natl. Sci. Fndn., Office of Res. Integrity, U.S. Dept. of Hlth. and Human Services.*

3:00 DD60 **27.03SA** Cognitive testing and mental health policies: Translation concerns with mobile technology. K. RUGGERI; J. L. ANDREWS; S. MENON; E. MARTIN; Á. MAGUIRE. *Univ. of Cambridge, Univ. of Cambridge, Univ. of Cambridge.*

4:00 DD61 **27.04SA** Ethical considerations in autism research. T. B. FRANKLIN. *Psychology and Neurosci.*

1:00 DD62 **27.05SA** Integrating neuroscience and health psychology to improve the effectiveness of behaviour change interventions. J. MARTIN; T. L. WEBB; L. LEVITA; E. KIRKHAM; F. R. ELAHI; P. NORMAN; C. J. MARTIN. *The Univ. of Sheffield, The Univ. of Sheffield.*

2:00 DD63 **27.06SA** Broadening participation in neuroscience STEM professions: Impact of disparities in federal funding for neuroscience training. E. E. SERRANO. *New Mexico State Univ.*

3:00 DD64 **27.07SA** Creating a connection: Science advocacy amongst legislators. R. A. MAKINSON. *Univ. of Cincinnati.*

4:00 DD65 **27.08SA** Assessing the impact of team, multidisciplinarity, and collaboration in neuroscience research publications. N. G. AZOULAY; G. WEBER. *Elsevier Inc., Harvard Extension Sch., Harvard Univ.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract’s submitting author

POSTER

028. Neurogenesis and Gliogenesis: Lineage and Cell Fate

Theme A: Development

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 A1 **28.01** Clonally related interneurons disperse both within and across functional boundaries within the forebrain. C. MAYER*; X. H. JAGLIN; C. L. CEPKO; S. HIPPENMEYER; G. FISHELL. *NYU Neurosci. Inst., Departments of Genet. and Ophthalmology and HHMI, IST Austria.*

2:00 A2 **28.02** Wide dispersion and diversity of clonally related inhibitory neurons. C. C. HARWELL*. *Harvard Med. Sch.*

3:00 A3 **28.03** Rewiring local inhibitory microcircuits by direct lineage reprogramming of neocortical projection neurons. M. A. MOSTAJO RADJI*; Z. YE; J. R. BROWN; C. ROUAUX; G. S. TOMASSY; T. K. HENSCH; P. ARLOTTA. *Harvard Univ., Harvard Univ., Harvard Univ.*

4:00 A4 **28.04** Genetic fate mapping of neocortical chandelier cell specification. S. M. KELLY*; M. MOISSIDIS; M. HE; Y. KIM; Z. HUANG. *Cold Spring Harbor Lab., Stony Brook Univ.*

1:00 A5 **28.05** Study on lineage-specific gabaergic interneurons with brainbow vectors. M. WANG*; Y. H. FU; Y. C. YU. *Inst. of Brain Science, Fudan Univ.*

2:00 A6 **28.06** T-box transcription factor Tbr2 controls multiple aspects of cortical projection neuron differentiation. A. MIHALAS*; R. DAZA; K. RAMOS; E. YOUNG; R. HEVNER. *Seattle Children's Res. Inst., Univ. of Washington, Univ. of San Diego, Seattle Children's Res. Institute; Univ. of Washington.*

3:00 A7 **28.07** Excessive Wnt/beta-catenin signaling promotes midbrain floor plate neurogenesis, but results in vacillating dopamine progenitors. N. NOURI*; M. PATEL; M. JOKSIMOVIC; J. POULIN; A. ANDEREGG; M. M. TAKETO; Y. MA; R. AWATRAMANI. *Northwestern Univ., Univ. of Chicago, Med. Col. of Wisconsin, Kyoto Univ., Northwestern Univ.*

4:00 A8 **28.08** Single cell rna sequencing uncovers close relationship between dopamine and subthalamic nucleus neuron lineages. N. KEE*; L. DAHL; E. JOOMARDI; N. VOLAKAKIS; L. GILLBERG; Å. BJÖKLUND; H. STORVALL; R. SANDBERG; T. PERLMANN. *LICR, Karolinska Inst., LICR, SciLife Lab.*

1:00 A9 **28.09** Role of retinoic acid receptor beta in development and homeostasis of mouse striatum. W. KREZEL*; M. RATAJ-BANIOWSKA; A. NIEWIADOMSKA-CIMICKA; A. PODLESNY-DRABINIOK; T. YE; D. DEMBELE; P. DOLLÉ. *IGBMC.*

2:00 A10 **28.10** The clonal organization of the mammalian CNS: Numerical quanta of cerebellar cells define highly specified developmental lineage relationships. K. HERRUP*; K. TSE; K. K. Y. CHAN; K. NEVES; H. CHOW; S. HERCULANO-HOUZEL. *Hong Kong Univ. of Sci. & Technol., Hong Kong Univ. of Sci. & Technol., Univ. Federal do Rio de Janeiro, Inst. for Advanced Studies.*

3:00 A11 **28.11** Role of intermediate progenitors in the specification of cortical pyramidal neuron subtypes. J. M. LEVINE*; D. HUILGOL; Z. HUANG. *Cold Spring Harbor Lab., Stony Brook Univ., Stony Brook Univ.*

4:00 A12 **28.12** GFAP+ and Oct4+ neural stem cells give rise to distinct neural progenitor cells in the perinatal mouse brain. S. YAMMINE*; J. GOSIO; D. VAN DER KOOY. *Univ. of Toronto, Univ. of Toronto.*

1:00 A13 **28.13** Single-cell and bulk RNA-Seq reveal distinct cell states within the oligodendrocyte lineage in the mouse brain. G. CASTELO-BRANCO*; S. MARQUES; A. ZEISEL; D. VANICHKINA; S. SAMUDYATA; A. MUNOZ MANCHADO; R. TAFT; J. HJERLING-LEFFLER; S. LINNARSSON. *Karolinska Institutet, Karolinska Institutet, Univ. of Queensland.*

2:00 A14 **28.14** Neurotrophic factor-α1 (NF-α1): A key factor for down-regulating neural stem cell proliferation and promoting differentiation to astrocytes. P. SELVARAJ*; S. MURTHY; C. LEE; M. LANE; N. CAWLEY; I. MERCHENTHALER; S. AHN; P. LOH. *NICHD-NIH, Univ. of Maryland.*

POSTER

029. Axon Growth and Guidance: Extrinsic Mechanisms

Theme A: Development

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 A15 **29.01** Exosomes derived from cerebral endothelial cells locally promote distal axonal growth. Y. ZHANG*; M. CHOPP; C. LI; X. LIU; X. WANG; L. ZHANG; Z. ZHANG. *HENRY FORD HOSPITAL, OAKLAND UNIVERSITY.*

2:00 A16 **29.02** Expression pattern of guidance cues and extracellular matrix molecules in the prosomere 1 during posterior commissure development. K. STANIC*; N. SALDIVIA; M. GONZALEZ; B. FÖRSTERA; J. R. BENITEZ; H. MONTECINOS; T. CAPRILE. *Univ. De Concepcion, Univ. de Concepcion, Univ. De Concepcion.*

3:00 A17 **29.03** Neurotropin abrogates lidocaine-induced suppression of neurite growth in cultured rat spinal neurons. R. ISONAKA*; A. TAKEUCHI; T. KATAKURA; K. HOSONO; T. KAWAKAMI. *Kitasato Univ. Sch. of Med., Kitasato Univ. Sch. of Med.*

4:00 A18 **29.04** ● Development of an automated growth cone collapse assay. P. JOYCE*; M. MANGAN; A. CURNOCK; S. MEISLER. *Vertex Pharmaceuticals (Europe) Ltd, Vertex Pharmaceuticals Inc.*

1:00 A19 **29.05** Nerve growth factor (NGF) facilitates innervation of perivascular nerves in tumor neovasculatures of mouse corneal. H. KAWASAKI*; S. TAKATORI; Y. SONE; E. OCHI; A. MATSUYAMA; M. GODA. *Departmen of Clin. Pharm., Departmen of Clin. Pharmacy, Matsuyama Univ., Grad Sch. Med. Dent. Pharm Okayama Univ.*

2:00 A20 **29.06** Semaphorin 3C released by a biocompatible hydrogel guides and promotes axonal growth of rodent and human dopaminergic neurons. O. A. CARBALLO MOLINA*; A. SÁNCHEZ-NAVARRO; A. LÓPEZ-ORNELAS; A. CAMPOS-ROMO; I. VELASCO. *UNAM, Periférica de Neurociencias de la Facultad de Medicina - UNAM en el Inst. Nacional de Neurología y Neurocirugía.*

3:00 A21 **29.07** Reaching new distances: Extending neuronal regeneration with nanogrooves. M. FORNARO*; C. SIGERSON; H. SHARTHIYA; C. DIPOLLINA; D. GIAMBALVO; J. GASIOROWSKI. *Midwestern Univ., Midwestern Univ.*

4:00 A22 **29.08** Reelin control of retina ganglion cells synaptic lamination. F. DEL BENE*; T. O. AUER; N. TESTA; J. CONCORDET; V. DI DONATO. *Inst. Curie - Ctr. de Recherche, Muséum Natl. d'Histoire Naturelle.*

1:00 A23 **29.09** Engineering a 3d platform to mimic *in vivo* neural network morphology and activity. C. S. LIU*; M. LEE; B. J. SLATER; G. NASERI KOUZEHGARANI; M. YU; O. V. CANGELLARIS; D. A. LLANO; H. KONG; M. U. GILLETTE. *Univ. of Illinois, Univ. of Illinois, Univ. of Illinois, Univ. of Illinois, Univ. of Illinois.*

2:00 A24 **29.10** Neurite outgrowth of dorsal root ganglion neurons via sensing environmental rigidity. Y.-C. CHUANG*; C. CHEN. *MM Program, TIGP, IBMS, Academia Sinica, Inst. of Biochem. and Mol. Biology, Natl. Yang-Ming Univ., Taiwan Mouse Clinic, Natl. Comprehensive Mouse Phenotyping and Drug Testing Center, Academia Sinica.*

3:00 A25 **29.11** ▲ Slit-roundabout signaling during post optic commissure formation in zebrafish forebrain development. N. E. WREN*; J. M. SCHNABL; B. EDENS; E. DESCHENE; J. PARK; A. ANTOINE; K. ALLIGOOD; M. HARDY; C. CHEN; M. J. F. BARRESI. *Smith Col., Univ. of Massachusetts Amherst, Univ. of Utah.*

4:00 A26 **29.12** Schwann cell-derived exosomes enhance neurite extension of adult sensory neurons via modulation of axonal guidance pathways. F. PICOU*; B. DIAZ; D. DIAZ DOMINGUEZ; P. MANQUE; F. A. COURT. *Pontifical Univ. Catolica De Chile, Univ. Mayor.*

1:00 A27 **29.13** Nerve Growth Factor regulates TRPV2 via ERK signaling to enhance neurite outgrowth. V. Y. MOISEENKOVA-BELL*; M. R. COHEN; W. M. JOHNSON; J. M. PILAT; J. KISELAR; A. DEFRANCESCO-LISOWITZ; R. ZIGMOND. *Case Western Reserve Univ.*

2:00 A28 **29.14** Dystroglycan regulates visual circuit development. K. WRIGHT*; R. CLEMENTS. *Oregon Hlth. and Sci. Univ.*

3:00 A29 **29.15** Intermediate progenitors facilitate intracortical progression of thalamocortical afferents and interneurons through cxcl12 chemokine signaling. P. ABE*; Z. MOLNAR; Y. TZENG; D. LAI; S. J. ARNOLD; R. STUMM. *Jena Univ. Hospital, Friedrich Schiller Unive, Univ. of Oxford, Natl. Taiwan Univ., Natl. Taiwan Univ. Hosp. and Natl. Taiwan Univ. Col. of Med., Univ. Hosp. Freiburg.*

4:00 A30 **29.16** The role of growth cone invadosomes in chemotrophic axon guidance within 3D collagen gels. C. A. SHORT*; S. M. O'TOOLE; M. SANTIAGO-MEDINA; T. M. GOMEZ. *Univ. of Wisconsin.*

1:00 A31 **29.17** Molecular mechanisms of MAG and myelin-induced Smad2 phosphorylation. J. L. C. CADIEUX; S. SELAMAT; S. S. HANNILA*. *Univ. of Manitoba.*

2:00 A32 **29.18** A quantitative study of the locally synthesized proteins in the axons of rat cortical neurons in culture. H. CHUNG*. *Instituate of Mol. Medicine, Natl. Tsing H.*

POSTER

030. Activity-Dependent Neural Circuit Development and Plasticity

Theme A: Development

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 A33 **30.01** Long-term 2-photon imaging of thalamocortical connectivity refinement in the neonatal mouse barrel cortex. S. NAKAZAWA*; H. MIZUNO; T. IWASATO. *Natl. Inst. of Genet., SOKENDAI (The Grad. Univ. for Advanced Studies).*

2:00 A34 **30.02** Activity-dependent controls over L4 glutamatergic interneuron identity. I. VITALI*; L. TELLEY; S. BARISELLI; N. HURNI; A. DAYER; C. BELLONE; D. JABAUDON. *Univ. of Geneva, Univ. of Lausanne.*

3:00 A35 **30.03** Cortical feedback regulates feedforward retinogeniculate remodeling during a thalamic critical period. A. THOMPSON*; L. MIN; M. FAGIOLINI; C. CHEN. *Harvard Univ., Harvard Univ., Harvard Univ., Harvard University, Children's Hosp. Boston.*

4:00 A36 **30.04** Physical exercise-induced neurotransmitter re-specification in the adult mouse brain. H. LI*; K. JACKSON; N. SPITZER. *UCSD.*

1:00 A37 **30.05** Early BDNF signaling can substitute for visual experience in maintenance of receptive field refinement in dark-reared adults. D. B. MUDD; T. S. BALMER; S. L. PALLAS*. *Georgia State Univ., Oregon Hlth. & Sci. Univ.*

2:00 A38 **30.06** Effects of Chronic Hypoxia on Excitatory/Inhibitory balance in postnatal development. D. XENOS*; M. KAMCEVA; N. SALMASO; F. VACCARINO. *Yale Univ., Carleton Univ., Yale Univ., Yale Univ.*

3:00 A39 **30.07** Investigating intracellular signaling events involved in neurotransmitter-receptor matching. D. R. HAMMOND-WEINBERGER*; N. C. SPITZER. *UCSD, Kavli Inst. for Brain and Mind.*

4:00 A40 **30.08** The effects of post-pubertal aging on the juvenile-induced changes in the development of the prefrontal cortex. B. T. HIMMLER*; S. M. PELLIS; B. KOLB. *Univ. of Lethbridge.*

1:00 A41 **30.09** Postnatal expression of Arx in GABAergic interneurons is critical for proper network function in the mouse hippocampus. D. J. JOSEPH*; A. J. MCCOY; R. RISBUD; E. D. MARSH. *Children's Hosp. of Philadelphia.*

2:00 A42 **30.10** Mir 132 regulates the development of binocular matching of orientation preference in the mouse visual cortex. R. MAZZIOTTI; P. TOGNINI; J. TOLA; G. CHELINI; D. NAPOLI; D. SILINGARDI; N. BERARDI*; G. DELLA SALA; E. PUTIGNANO; L. BARONCELLI; T. PIZZORUSSO. *Univ. of Florence, Inst. Neurosci. del CNR, Scuola Normale Superiore.*

3:00 A43 **30.11** ● Developmental trajectories of parvalbumin-positive chandelier and basket cells in prefrontal cortex circuits. T. MIYAMAE*; O. KRIMER; D. A. LEWIS; G. GONZALEZ-BURGOS. *Univ. of Pittsburgh Sch. of Med.*

4:00 A44 **30.12** Expression of Npas4 mRNA in telencephalic areas of adult and postnatal mouse brain. U. H. WINZER-SERHAN*; J. C. DAMBORSKY. *Texas A&M Hlth. Sci. Ctr.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

1:00 A45 **30.13** Short term potentiation induced by theta burst stimulation in CA1 pyramidal cells depends on activation of protein-G. M. OUARDOUZ*. *NRAC.*

2:00 A46 **30.14** Activity-dependent dynamics of CREB in cortical neurons: A single-molecule imaging study. H. KITAGAWA; N. SUGO*; N. YAMAMOTO. *Osaka Univ.*

3:00 A47 **30.15** Hypoxia-ischemia induces gephyrin misfolding via calcineurin-dependent dephosphorylation of growth-associated protein 43 in developing cortical neurons. C. WANG; H. LIN; P. HSU; Y. KUO; C. WENG; C. LEE; W. CHIEN; C. LIN; Y. LEE*. *Natl. Yang-Ming Univ., Natl. Yang-Ming Univ., Taipei Veterans Gen. Hosp., Kang-Ning Junior Col. of Med. Care and Mgmt., Natl. Yang-Ming Univ.*

POSTER

031. Transplantation and Regeneration

Theme A: Development

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 A48 **31.01** Transplantation of pro-oligodendroblasts, preconditioned by lps-stimulated microglia, promotes recovery after acute contusive spinal cord injury. X. LIN*; T. ZHAO; M. WALKER; A. DING; M. JIANG; J. CAO; S. LIN; X. XU; S. LIU. *The Acad. of Military Med. Sci. of the Ch, Gen. Hosp. of Jinan Military Region, Indiana Univ. Sch. of Med.*

2:00 A49 **31.02** hiPSC-derived NSC grafting intervention early after hippocampus injury preserves memory and mood function and reduces the occurrence of seizures. B. HATTIANGADY*; A. BATES; S. SHIN; B. SHUAI; X. RAO; M. C. VEMURI; A. K. SHETTY. *Insti. for Regenerative Med, TAMHSC Col. of Med., Olin E. Teague Veterans Med. Center, Central Texas Veterans Hlth. Care Syst., Texas A&M Hlth. Sci. Ctr. Col. of Med., Thermo Fisher Scientific.*

3:00 A50 **31.03** Effective transplantation of cones and cone-like cells into the diseased retina is dependent upon the recipient environment. P. V. WALDRON*; G. GRIMALDI; A. B. GRACA; F. DI MARCO; C. HIPPERT; J. CLAUDIO RIBEIRO; S. J. I. BLACKFORD; N. AGHAIZU; Y. DURAN; A. J. SMITH; J. W. B. BAINBRIDGE; J. SOWDEN; R. R. ALI; R. A. PEARSON. *Univ. Col. London, Univ. Col. London, Univ. Col. London.*

4:00 A51 **31.04** ● Dopamine neurons derived from human iPSCs retain midbrain phenotype in animal models of Parkinson's disease. D. R. WAKEMAN*; B. M. HILLER; D. J. MARMION; C. W. MCMAHON; G. T. CORBETT; J. MA; J. H. KORDOWER. *Rush Univ., Cell. Dynamics International, Inc.*

1:00 A52 **31.05** Embryonic stem cell-derived neural progenitors: Interactions with the neurovasculature. C. LASSITER*; J. GAL; S. BECKER; L. GRABEL. *Wesleyan Univ.*

2:00 A53 **31.06** ● Construction of a spinal cord-like tissue *in vitro* to repair spinal cord injury. B. Q. LAI*, JR; Y. S. ZENG. *Sun Yat-Sen Univ., Sun Yat-Sen Univ.*

3:00 A54 **31.07** Enhanced GABAergic circuitry following Adeno-Associated Virus-Mediated Neuroligin2 overexpression in the hippocampus of adult mice. M. A. VAN ZANDT*; S. MAISEL; S. SHRESTHA; J. GUPTA; K. BUMSCH; F. HARRSCH; J. R. NAEGELE. *Wesleyan, Wesleyan Univ.*

4:00 A55 **31.08** Assessment of therapeutic efficacy and fate of GDNF expressing human induced pluripotent stem cell-derived neural precursor cells in cervical spinal cord injury. M. KHAZAEI*; N. NAGOSHI; H. NAKASHIMA; K. SATKUNENDRARAJAH; A. BADNER; A. MANN; M. SAYEG; M. G. FEHLINGS. *Toronto Western Res. Inst., Univ. of Toronto, Univ. of Toronto.*

1:00 A56 **31.09** Human neural stem cells restore cognitive impairment through trophic support in the Q140 knock-in mouse model of Huntington's disease. A. RELAÑO GINÉS*; C. ZHU; A. GALSTYAN; K. MOWRIS; M. S. LEVINE; L. M. THOMPSON; M. CHESSELET. *David Geffen Sch. of Medicine, Univ. of California, Los Angeles, Semel institute for Neurosci. and Human Behavior, Univ. of California, Los Angeles, Univ. of California, Irvine.*

2:00 A57 **31.10** Survival and innervation of midbrain dopamine neurons derived from human embryonic stem cells transplanted in rodent and primate models of Parkinson's disease. D. J. MARMION*; B. M. HILLER; H. B. DODIYA; S. KRIKS; Z. XIE; D. J. SURMEIER; L. STUDER; J. H. KORDOWER; D. R. WAKEMAN. *Rush Univ., Mem. Sloan-Kettering Cancer Ctr., Northwestern Univ.*

3:00 A58 **31.11** Integration of human embryonic stem cell-derived retinal ganglion cells after *in vivo* transplantation. X. ZHANG*; P. VENUGOPALAN; K. TENERELLI; C. SUN; J. GALVAO; K. MULLER; J. L. GOLDBERG. *UCSD, Univ. of Miami, California State Univ. San Marcos.*

4:00 A59 **31.12** Embryonic cell-derived cells as biosensors of regions that support neuronal differentiation within the adult brain. O. COLLAZO-NAVARRETE*; G. MAYA-ESPINOSA; D. MILLAN-ALDACO; M. PALOMARES-RIVERO; G. GUERRERO-FLORES; R. DRUCKER-COLIN; L. COVARRUBIAS-ROBLES; M. GUERRA-CRESPO. *Universidad Nacional Auntonoma de México, Universidad Nacional Autónoma de México, Universidad Nacional Autónoma de México, Universidad Nacional Autónoma de México.*

1:00 A60 **31.13** A nanofiber guided approach for the integration of human neural precursors into the cochlea. S. HACKELBERG*; S. J. TUCK; A. RASTOGI; C. WHITE; L. LIU; D. M. PRIESKORN; R. MILLER; J. M. MILLER; J. M. COREY; R. K. DUNCAN. *Univ. of Michigan, Univ. of Michigan, VA Ann Arbor Healthcare Ctr. (VAAAHC), The Univ. of Michigan.*

2:00 A61 **31.14** Transplantation of mesenchymal stromal cells increases the survival and regeneration of retinal ganglion cells after optic nerve injury in adult rats. L. A. MESENTIER-LOURO; C. ZAVERUCHA-DO-VALLE; A. J. SILVA-JUNIOR; L. C. TEIXEIRA-PINHEIRO; G. NASCIMENTO-DOS-SANTOS; F. GUBERT; A. P. FIGUEIRÊDO; A. TORRES; B. D. PAREDES; C. TEIXEIRA; F. TOVAR-MOLL; M. F. SANTIAGO; R. MENDEZ-OTERO*. *Univ. Federal do Rio de Janeiro, Inst. Nacional de Ciência e Tecnologia de Biologia Estrutural e Bioimagem, Natl. Ctr. of Structural Biol. and Bioimaging (CENABIO), D'Or Inst. for Res. and Educ. (IDOR), Inst. of Biomed. Sci. (ICB), Univ. Federal do Rio de Janeiro, Universidade Federal Do Rio De Janeiro.*

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* Indicates abstract's submitting author

POSTER

032. Adolescent Development: Mechanisms of Vulnerability

Theme A: Development

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 A62 **32.01** Chronic adolescent consumption of caffeine mixed alcohol significantly increases ΔFosB expression in the nucleus accumbens. M. T. ROBINS*; R. M. VAN RIJN. *Purdue Univ.*

2:00 A63 **32.02** The effects of amphetamine on synaptic plasticity in the medial prefrontal cortex are more pronounced in adolescent- compared to adult-exposed rats. S. KANG*; C. L. COX; J. M. GULLEY. *Univ. of Illinois At Urbana Champaign, Univ. of Illinois At Urbana Champaign, Michigan State Univ., Univ. of Illinois At Urbana Champaign.*

3:00 A64 **32.03** ▲ Age- and sex-dependent differences in acquisition and persistence of methamphetamine self-administration. E. R. HANKOSKY*; R. M. HAAKE; A. R. GOLD; E. C. KROEGER; J. M. GULLEY. *Univ. of Illinois, Univ. of Illinois.*

4:00 A65 **32.04** Can environmental enrichment protect against oxidative stress, parvalbumin loss, and behavioral deficits after early life stress? A preliminary study. V. THOMPSON; C. DO PRADO; H. LEE; F. HOLLAND; H. C. BRENHOUSE*. *Northeastern Univ., PUCRS, Northeastern Univ.*

1:00 A66 **32.05** ● The effects of unit dose on age- and sex-dependent differences in methamphetamine self-administration. S. R. WESTBROOK*; E. R. HANKOSKY; R. M. HAAKE; M. R. DWYER; J. M. GULLEY. *Univ. of Illinois Urbana-Champaign.*

2:00 A67 **32.06** DCC receptors control the development of fine axonal structure of mesocortical dopamine neurons and determine behavioral inhibition in adult mice. L. M. REYNOLDS*; M. WODZINSKI; C. MANITT; E. NESTLER; C. FLORES. *McGill Univ., Douglas Mental Hlth. Univ. Inst., Icahn Sch. of Med. at Mount Sinai, McGill Univ.*

3:00 A68 **32.07** Caffeine potentiates cocaine effects on dopamine signaling more in adolescent than adult rat ventral striatum. Q. D. WALKER*; M. PUSTJOVESKY; C. M. KUHN. *Duke Univ.*

4:00 A69 **32.08** Transient NMDAR blockade during adolescence selectively disrupts the frequency-dependent heterosynaptic inhibition of basolateral amygdalar transmission in the adult prefrontal cortex. D. R. THOMASES*; S. BELTON; K. Y. TSENG. *Rosalind Franklin Univ. of Med. and Sci., Depaul Univ.*

1:00 A70 **32.09** ● Effects of amphetamine exposure during adolescence on orbitofrontal cortex neurons that encode goal-directed and habitual behaviors. L. R. HAMMERSLAG*; A. J. CONTRERAS-ROGERS; P. B. SHAH; A. N. MARKS; J. M. GULLEY. *Univ. of Illinois - Urbana Champaign, Univ. of Illinois - Urbana Champaign.*

2:00 A71 **32.10** Effect of peridolescent dopaminergic perturbation on adult dopamine circuit activity and dopamine-regulated behaviors. D. SURI*; N. CHUMA; M. ANSORGE. *NYS Psychiatric Inst., Columbia Univ., Columbia Univ.*

3:00 A72 **32.11** Mouse strain differences in midbrain dopamine neuron firing during adolescence. A. PLACZEK*; J. LOGUE; M. SIMMONS. *Mercer Univ. Sch. of Med.*

4:00 A73 **32.12** Communication during a dyadic social interaction in school-age children with high functioning autism and children with williams syndrome. P. T. LAI*; M. IGNACIO; M. B. KIM; U. BELLUGI; J. REILLY. *Salk Inst. LCN-B, San Diego State Univ., Salk Inst. for Biol. Studies.*

1:00 A74 **32.13** Evidence that behavioural phenotypic effects of increased 5-HT transporter expression are mediated by a neurodevelopmental mechanism. A. SENGUPTA*; S. MCHUGH; A. TAYLOR; T. SHARP; D. BANNERMAN. *Univ. of Oxford, Univ. of Oxford, Univ. of Oxford.*

2:00 A75 **32.14** An investigation into the effects of developmental exposure to Bisphenol-S on anxiety in rats. H. A. MOLENDA-FIGUEIRA*; R. S. KLISH; S. F. KREUL; T. R. BECKER; K. L. FLETTY; S. N. HASEKER. *Univ. of Wisconsin-Stevens Point.*

3:00 A76 **32.15** Developmental and sex-dependent effects of early life stress on glutamate receptor expression. P. GANGULY*; H. C. BRENHOUSE. *Northeastern Univ., Northeastern Univ.*

4:00 A77 **32.16** Behavioral alterations induced by adolescent chronic social instability stress are correlated with downregulation of nectin-3 in medial PFC in mice. J. LI*; X. WANG; H. WANG; Y. SU; T. SI. *Inst. of Mental Health, Peking Univ., Zhejiang Univ. Sch. of Med.*

1:00 A78 **32.17** ● Consumption of a high-fat diet during adolescence results in long-lasting impairments in sensorimotor gating and stress reactivity. P. KALYAN-MASIH*; J. VEGA-TORRES; T. HEERS; J. D. FIGUEROA. *Loma Linda Univ. Sch. of Med.*

2:00 A79 **32.18** DISC1 mutation in astrocytes synergistically interacts with adolescent cannabis exposure to affect cognitive function in adult mice. S. ABAZYAN*; B. ABAZYAN; O. MYCHKO; A. SHEVELKIN; C. YANG; A. KAMIYA; M. PLETNIKOV. *Johns Hopkins Univ.*

3:00 A80 **32.19** Age related differences in the neural representation of magnitude discrimination and cognitive impulsivity in the orbitofrontal cortex. L. R. AMODEO*; J. D. ROITMAN. *Univ. of Illinois, Chicago.*

4:00 A81 **32.20** Adult mesocorticolimbic tyrosine hydroxylase activity is increased by adolescent social defeat. M. A. WEBER*; J. L. SCHOLL; R. T. PAULSEN; G. L. FORSTER; K. J. RENNER; M. J. WATT. *Univ. of South Dakota, Univ. of South Dakota.*

1:00 A82 **32.21** ▲ The novel endocannabinoid degradation inhibitor, MJN110, dose-dependently alters social behavior and medial prefrontal cortex activation in adolescent male rats. R. L. JONSCHER*; E. E. BOXER; E. C. LOETZ; A. ALESSI; M. T. ISHIKI; S. T. BLAND. *Univ. of Colorado-Denver, Univ. of Colorado-Denver, Univ. of Colorado-Denver.*

2:00 A83 **32.22** ▲ Monoacylglycerol lipase (MAGL) inhibition differentially alters phosphorylation of mTOR in medial prefrontal cortex neurons and astrocytes in adolescent rats. E. C. LOETZ*; R. JONSCHER; E. BOXER; Z. NARROWE; B. GREENWOOD; S. T. BLAND. *Univ. of Colorado Denver, Univ. of Colorado Denver.*

3:00 A84 **32.23** ▲ Effect of monoacylglycerol lipase (MAGL) inhibition on aggression in female rats after postweaning social isolation. J. FONTENOT; H. HAMIDU; M. ISHIKI; E. LOETZ; S. T. BLAND*. *Univ. of Colorado, Denver, Univ. of Colorado, Denver.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
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* Indicates abstract's submitting author

4:00 A85 **32.24** Effects of paradoxical sleep deprivation on adolescent mice. L. TUAN*; L. LEE. *Natl. Taiwan Univ., Natl. Taiwan Univ., Natl. Taiwan Univ.*

1:00 A86 **32.25** Altered plasma sulfate and eaat3 expressions in a mouse model of autism, BTBR T+Itpr3tf/J (BTBR). S. KIM*; M. HILGART; A. WADOOD; R. SHYTLE. *Univ. of South Florida.*

2:00 A87 **32.26** Exercise in adolescent rats reduces renewal of extinguished instrumental behavior. M. C. EDDY*; J. T. GREEN. *Univ. of Vermont.*

POSTER

033. Synaptic Signaling: Retrograde Messengers

Theme B: Neural Excitability, Synapses, and Glia: Cellular Mechanisms

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 A88 **33.01** The endocannabinoid system is altered in mice bred for high voluntary wheel running. Z. THOMPSON*; D. ARGUETA; J. KAUR; T. GARLAND, Jr.; N. V. DIPATRIZIO. *Univ. of California, Riverside, Univ. of California, Riverside, Univ. of California, Riverside, Univ. of California, Riverside.*

2:00 A89 **33.02** GABAergic transmission and reduced modulation by endocannabinoids in adult rat rostral ventromedial medulla (RVM) neurons following persistent inflammation. M. LI*; K. L. SUCHLAND; S. L. INGRAM. *Oregon Hlth. & Sci. Univ.*

3:00 A90 **33.03** CB1R activation enhances hippocampal excitatory neurotransmission in female adolescent rats. C. G. REICH*. *Ramapo Col. of New Jersey.*

4:00 A91 **33.04** Peroxide-dependent sulfenylation of monoacylglycerol lipase regulates endocannabinoid signaling. K. JUNG*; E. Y. DOTSEY; A. BASIT; D. WEI; J. DAGLIAN; F. VACONDIO; A. ARMIROTTI; M. MOR; D. PIOMELLI. *Univ. of California, Irvine, Univ. of California, Irvine, Inst. Italiano di Tecnologia, Univ. of Parma, Univ. of California, Irvine.*

1:00 A92 **33.05** Enhanced glutamatergic synaptic plasticity in the hippocampal CA1 field of food-restricted rats: Involvement of CB1 receptors. G. TALANI*; V. LICHERI; F. BIGGIO; V. LOCCI; C. M. MOSTALLINO; V. MELIS; L. DAZZI; G. SITZIA; G. BIGGIO; E. SANNA. *of Neuroscience, Natl. Res. Council, Univ. of Cagliari.*

2:00 A93 **33.06** Diacylglycerol lipase is a substrate for PKA: Examining the role of dopamine and PKA in 2-arachidonoylglycerol mobilization. B. C. SHONESY*; J. R. STEPHENSON; C. R. MARKS; S. PATEL; R. J. COLBRAN. *Vanderbilt Univ. Med. Ctr., Vanderbilt Univ. Med. Ctr.*

3:00 A94 **33.07** Far-reaching effects of fatty acid amide hydrolase knock out on the lipidome. H. B. BRADSHAW*; E. LEISHMAN; K. MACKIE; B. CORNETT. *Indiana Univ., Indiana Univ.*

4:00 A95 **33.08** A pro-nociceptive phenotype revealed in mice lacking fatty-acid amide hydrolase. L. M. CAREY*, IV; R. SLIVICKI; E. LEISHMAN; B. CORNETT; K. MACKIE; H. BRADSHAW; A. G. HOHMANN. *Indiana Univ.*

1:00 A96 **33.09** Opposing effects on the arachidonic acid derivative lipidome in ABHD12 and MAGL knock outs. E. LEISHMAN*; K. SPORK; A. STRAIKER; K. MACKIE; H. BRADSHAW. *Indiana Univ.*

2:00 A97 **33.10** Endosomal adaptor protein APPL1, a new player in signaling from synapse to nucleus. Y. WU*; Y. YAN; X. LV; J. LUO; S. QIU. *Zhejiang Univ.*

3:00 A98 **33.11** Endocannabinoids in excitatory synaptic scaling. Y. SONG*; J. ZHANG; C. CHEN. *LSUHSC.*

4:00 A99 **33.12** TRPV1 and CB1 receptors in the vMPFC modulate autonomic responses in rats submitted to acute restraint stress. T. B. MORAES NETO*; A. FASINI; F. M. A. CORRÊA; L. B. M. RESSTEL. *Univ. of Sao Paulo - Sch. of Med. of Ribeirao Preto.*

POSTER

034. Opioid and Peptide Receptors

Theme B: Neural Excitability, Synapses, and Glia: Cellular Mechanisms

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 A100 **34.01** Estradiol rapidly attenuates ORL-1 receptor-mediated inhibition of proopiomelanocortin neurons via Gq-coupled, membrane-initiated signaling. K. M. CONDE*; C. MEZA; M. KELLY; K. SINCHAK; E. WAGNER. *Western Univ. of Hlth. Sci., Western Univ. of Hlth. Sci., Oregon Hlth. and Sci. Univ., California State University, Long Beach.*

2:00 A101 **34.02** Inhibition of c-Src blocks morphine analgesic tolerance. F. BULL*; D. BAPTISTA-HON; S. KING; W. WALWYN; T. G. HALES. *Univ. of Dundee, UCLA.*

3:00 A102 **34.03** Coherent regulation of opioid genes within and across CNS regions: Interactions of co-expressing spinal circuits. G. Y. BAKALKIN*; M. ANDERSSON; V. GALATENKO; H. WATANABE; X. ZHOU; A. IATSYSHYNA; W. SUN; I. MITYAKINA; O. KONONENKO; I. BAZOV; T. YAKOVLEVA; D. SARKISYAN; N. MARKLUND; A. TONEVITSKY; D. L. ADKINS. *Dept. of Pharmaceut. Biosciences, Uppsala Univ., Uppsala Univ., Moscow State Univ., Inst. of Mol. Biol. and Genet., Uppsala Univ., Uppsala Univ. Hosp., Med. Univ. of South Carolina Charleston.*

4:00 A103 **34.04** Synapse-specific persistent activation of VTA kappa opioid receptors following acute stress. A. M. POLTER*; R. CHEN; R. M. ST. LAURENT; J. A. KAUER. *Brown Univ., Brown Univ.*

1:00 A104 **34.05** Variable sensitivity to morphine mediated Ferritin Heavy Chain upregulation in cortical neuronal subpopulations. B. S. NASH*; K. TARN; J. H. PITCHER; O. MEUCCI. *Drexel Univ. Col. of Med., Drexel Univ. Col. of Med.*

2:00 A105 **34.06** Enkephalin-evoked catecholamine secretion in adrenal tissue. L. DUNAWAY*; L. SOMBERS. *North Carolina State Univ., North Carolina State Univ.*

3:00 A106 **34.07** A novel rabbit monoclonal antibody against the N-terminus of the rat mu-opioid receptor (MOR): Selectivity for rat but not mouse MOR. M. RAMSDEN*; S. SCHNELL; M. WESSENDORF; A. KALYUZHNY. *R&D Systems Inc., Univ. of Minnesota.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

4:00 A107 **34.08** β2-AR antagonist ICI 118,551 reduces OIH after chronic opioids administration in mice. A. SAMOSHKIN*; O. KAMBUR; J. WIESKOPF; J. MOGIL; E. KALSO; L. DIATCHENKO. *McGill Univ., Univ. of Helsinki, McGill Univ., Univ. of Helsinki, McGill Univ.*

1:00 A108 **34.09** CRF-BP and $CRF_{2\alpha}R$ interact primarily in the endoplasmic reticulum. P. SLATER; M. ANDRES; K. GYSLING*. *Pontificia Univ. Catolica de Chile, Pontificia Univ. Catolica de Chile.*

2:00 B1 **34.10** Interaction between dopamine D1 and type-2β corticotropin releasing hormone receptors. H. E. YARUR*; M. ANDRES; K. GYSLING. *Pontificia Univ. Católica de Chile.*

3:00 B2 **34.11** *In vitro* and *in vivo* characterization of RF313, the first orally available NPFF receptor antagonist. F. SIMONIN*; J. HUMBERT; I. BERTIN; R. QUILLET; V. UTARD; M. SCHMITT; J. BOURGUIGNON; G. SIMONNET; E. LABOUREYRAS; V. ANCEL; V. SIMONNEAUX; B. BUCHER; T. SORG; H. MEZIANE; B. PETIT-DEMOULIÈRE; E. SCHNEIDER; B. ILIEN; F. BIHEL; K. ELHABAZI. *Univ. De Strasbourg-CNRS, Univ. de Strasbourg - CNRS, Univ. de Bordeaux Segalen-CNRS, CNRS, Univ. de Strasbourg - CNRS, Univ. de Strasbourg-CNRS-INSERM.*

4:00 B3 **34.12** Signaling cascades of Humanin and the derivatives through Folmyl peptide receptor like-1 (FPRL-1): Possibility of EGFR involvement. Y. KITA*; N. HARADA; H. INUI; T. ARAKAWA; T. NIIKURA. *Osaka Prefecture Univ., Osaka Prefecture Univ., Osaka Prefecture Univ., Alliance Protein Labs., Sophia Univ.*

1:00 B4 **34.13** Interactions between vasoactive intestinal polypeptide and dopamine in the olfactory bulb. K. S. KORSHUNOV*; P. Q. TROMBLEY. *Florida State Univ., Florida State Univ.*

2:00 B5 **34.14** ▲ Localization of AGRP immunoreactivity in the mouse hippocampus that expresses eGFP-tagged GHSR1a. B. GONZALEZ; M. ISOKAWA*. *Univ. Texas-Brownsville.*

3:00 B6 **34.15** ● Structure based design of dual orexin receptor antagonists with a differentiated kinetic profile from suvorexant. K. A. BENNETT; S. J. AVES; J. A. CHRISTOPHER; M. CONGREVE; A. S. DORE; J. C. ERREY; J. C. PATEL; R. MOULD; B. G. TEHAN; A. ZHUKOV; F. MARSHALL; A. BROWN*. *Heptares Therapeut. Ltd.*

4:00 B7 **34.16** Latrophilin1 adhesion GPCR signals through G protein coupling. O. V. NAZARKO*; A. KIBROM; D. ARAÇ. *Univ. of Chicago.*

1:00 B8 **34.17** Conserved expression of the gpr151 receptor in habenular axonal projections of vertebrates. B. ANTOLIN-FONTES*; J. BROMS; A. TINGSTRÖM; I. IBAÑEZ-TALLON. *The Rockefeller Univ., Lund Univ.*

2:00 B9 **34.18** CGRP mediated neuroprotection against homocysteine-induced neurotoxicity in rat central and peripheral neurons. P. A. ABUSHIK; G. BART; D. A. SIBAROV; S. M. ANTONOV*; R. GINIATULLIN. *Sechenov Inst. of Evolutionary Physiol. and Biochem., Univ. of Eastern Finland.*

3:00 B10 **34.19** Stress-induced analgesia: A sequential cascade involving neuropeptide s, orexins, substance p, glutamate and endocannabinoids. L. CHIOU*; Y. CHIU; G. CALO'; R. GUERRINI. *Natl. Taiwan University, Med. Col., Grad. Inst. Brain and Mind Sci., Natl. Taiwan University, Med. Col., Univ. of Ferrara, Univ. of Ferrara.*

4:00 B11 **34.20** ▲ Delta-opioid receptor recycles from late endosomal compartments. I. CHARFI*; G. PINEYRO. *Sainte-Justine Res. Ctr., Univ. of Montreal.*

POSTER

035. Sodium Channels, Hearing and Communication Neuroscience, and Other Non-Selective Cation Channels

Theme B: Neural Excitability, Synapses, and Glia: Cellular Mechanisms

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 B12 **35.01** Control of neuronal excitability by glycogen synthase kinase 3 in the nucleus accumbens. M. N. NENOV*; F. SCALA; E. CROFTON; Y. ZHANG; N. PANOVA; T. GREEN; M. D'ASCENZO; F. LAEZZA. *Univ. of Texas Med. Br., Inst. of Human Physiology, Med. School, Univ. Cattolica.*

2:00 B13 **35.02** Multi-electrode array (MEA) analysis of disease-causing Nav1.7 A1632G mutation in inherited erythromelalgia, a chronic pain syndrome. Y. YANG*; J. HUANG; M. ESTACION; D. B. HORTON; S. D. DIB-HAJJ; S. G. WAXMAN. *VA CT Healthcare Syst., VA healthercare, VA healthercare, Nemours A.I. duPont Hosp. for Children.*

3:00 B14 **35.03** Identification of new druggable pockets at the FGF14: Voltage-gated sodium channel 1.6 complex. S. R. ALI*; Z. LIU; A. K. SINGH; M. N. NENOV; J. ZHOU; F. LAEZZA. *Univ. of Texas Med. Br.*

4:00 B15 **35.04** The background sodium channel NALCN regulates basal excitability of chemosensitive retrotrapezoid nucleus neurons and stimulation of breathing by CO2. Y. SHI*; C. ABE; B. HOLLOWAY; S. SHU; E. PEREZ-REYES; R. STORNETTA; P. GUYENET; D. BAYLISS. *Univ. of Virginia.*

1:00 B16 **35.05** FHF2A negatively regulates resurgent currents in sensory neurons . C. M. BARBOSA NUNEZ*; T. R. CUMMINS. *Indiana Univ.*

2:00 B17 **35.06** Electrophysiological phenotyping of human cortical neurons in slices and dissociated culture. A. ULYANOVA*; J. LEE; S. BREM; T. LUCAS; D. M. O'ROURKE; M. GROVOLA; J. WANG; Y. NA; J. SINGH; D. H. SMITH; J. KIM; J. EBERWINE; J. SUL; M. S. GRADY; J. A. WOLF. *Univ. of Pennsylvania, Univ. of Pennsylvania, Univ. of Pennsylvania, Philadelphia Veterans Affairs Med. Ctr.*

3:00 B18 **35.07** Triciribine potentiates Nav1.6-encoded currents and increases excitability of medium spiny neurons in the nucleus accumbens. F. SCALA*; M. N. NENOV; M. A. ALSHAMMARI; T. F. JAMES; N. I. PANOVA; C. GRASSI; M. D'ASCENZO; F. LAEZZA. *Univ. Cattolica Del Sacro Cuore, Univ. of Texas Med. Br.*

4:00 B19 **35.08** What is the high sodium channel density in the axon initial segment good for? A. NEEF*; E. LAZAROV; M. DANNEMEYER; M. J. GUTNICK; F. WOLF. *MPI For Dynamics and Self-Organization, Bernstein Ctr. for Computat. Neurosci., Hebrew Univ., Georg August Univ.*

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▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

1:00 B20 **35.09** The effect of NKCC1 on aquaporin-4 induced astrocyte swelling. R. KATADA*; K. SUGIMOTO; K. NAKAMA; H. YOSHIZAWA; H. MATSUMOTO. *Osaka Univ. Fac. of Med.*

2:00 B21 **35.10** Gain-of-function Nav1.9 F1689L mutation in idiopathic small nerve fiber neuropathy. B. S. TANAKA*; M. ESTACION; J. G. J. HOEIJMAKERS; M. M. GERRITS; G. LAURIA; I. S. J. MERKIES; C. G. FABER; S. DIB-HAJJ; S. G. WAXMAN. *Yale Univ. Sch. of Med., Veterans Affairs Med. Ctr., Univ. Med. Ctr. Maastricht, Univ. Med. Ctr. Maastricht, IRCCS Fndn. Carlo Besta, Spaarne Hosp.*

3:00 B22 **35.11** Sodium channel accessory β4 subunits control long-term depression in nucleus accumbens medium spiny neurons. S. SAHA*; X. JI; G. E. MARTIN. *Brudnick Neuropsychiatric Res. Inst.*

4:00 B23 **35.12** Evaluation of Cacna1g as a candidate modifier of epilepsy in the Scn2aQ54 mouse model. J. CALHOUN*; N. A. HAWKINS; N. J. ZACHWIEJA; J. A. KEARNEY. *Northwestern Univ.*

1:00 B24 **35.13** Gain-of-function mutation in voltage-sensing domain of $Na_v1.8$ associated with idiopathic small fiber neuropathy. J. HUANG*; P. ZHAO; J. G. J. HOEIJMAKERS; M. M. GERRITS; G. P. LAURIA; C. G. FABER; I. S. J. MERKIES; S. D. DIB-HAJJ; S. G. WAXMAN. *Yale Univ. Sch. of Medicine/Veterans Affairs Med. Ctr., Univ. Med. Ctr. Maastricht, Univ. Med. Ctr. Maastricht, Fondazione IRCCS Inst. Neurologico 'Carlo Besta', Spaarne Hosp.*

2:00 B25 **35.14** Hlf is a genetic modifier of epilepsy caused by sodium channel mutation. N. HAWKINS*; J. KEARNEY. *Northwestern Univ.*

3:00 B26 **35.15** ● Nav1.7 selective sodium channel inhibitor CNV1014802 attenuates stimulus-evoked action potential activity in hyperexcitable DRG neurons expressing inherited erythromelalgia mutations. S. D. DIB-HAJJ*; M. ESTACION; D. DERJEAN; V. MORISSET; S. TATE; S. G. WAXMAN. *Neurosci & Regen Res. Ctr, Yale Sch. Med., Convergence Pharmaceuticals an affiliate of Biogen Idec.*

4:00 B27 **35.16** Isoform- and age-dependent effects of deltamethrin on voltage-gated sodium channel expression and function. T. F. JAMES*; J. P. MAGBY; F. LAEZZA; J. R. RICHARDSON. *Univ. of Texas Med. Br., Rutgers Univ.*

1:00 B28 **35.17** ● Nav1.7 inhibitor reduces stimulus-evoked action potential activity from small diameter trigeminal ganglion neurons. M. R. ESTACION*; D. DERJEAN; S. TATE; V. MORISSET; S. WAXMAN. *Yale Univ. Sch. of Med., Veteran Affairs Med. Ctr., Convergence Pharmaceuticals.*

2:00 B29 **35.18** ▲ DV21 decreases excitability of cortical pyramidal neurons and acts in epilepsy. P. SUN*; X. LI. *Zhejiang Univ., Zhejiang Univ.*

3:00 B30 **35.19** Strain-dependent differences in voltage-gated sodium currents in the Scn2aQ54 mouse model of epilepsy. C. H. THOMPSON; J. A. KEARNEY*; A. L. GEORGE, Jr. *Northwestern Univ.*

4:00 B31 **35.20** Biophysical and pharmacological properties of human Nav1.9 stably expressed in HEK 293 cells. Z. LIN*; S. SANTOS; K. M. PADILLA; D. PRINTZENHOFF; N. A. CASTLE. *Pfizer Inc.*

1:00 B32 **35.21** Interplay between CRMP2 phosphorylation and SUMOylation determines NaV1.7 trafficking. A. MOUTAL*; E. T. DUSTRUDE; X. YANG; Y. WANG; M. KHANNA; R. KHANNA. *Univ. of Arizona.*

2:00 B33 **35.22** Disease mutations affecting calmodulin and FGF13 interaction with Nav1.2 voltage-dependent sodium channel increase persistent sodium current. H. YAN*; C. WANG; G. S. PITT. *Duke Univ. Med. Ctr.*

3:00 B34 **35.23** ▲ Modulation of the cardiac sodium channel Nav1.5 by the antiepileptic agent lacosamide. N. ELIA; X. XIONG; S. DHILLON; P. CHEN; A. MONTALVO; S. TANG; D. H. FELDMAN; C. LOSSIN*. *UC Davis - Sch. of Med.*

4:00 B35 **35.24** Modulation of hyperpolarization-activated cation currents (Ih) by ethanol in rat hippocampal CA3 pyramidal neurons and influence on neuronal excitability. V. LICHERI; G. TALANI; A. A. GORULE; L. FIRINO; L. COCCO; G. BIGGIO; E. SANNA*. *Univ. Cagliari, Natl. Res. Council.*

1:00 B36 **35.25** ▲ Changes in Ih current channel's subunits 2 and 4 during the expression of cocaine sensitization. C. E. MARÍA-RÍOS*; A. MONTIEL-RAMOS; B. SANTOS-VERA; A. VAQUER-ALICEA; R. VÁZQUEZ-TORRES; C. A. JIMÉNEZ-RIVERA. *Univ. Of Puerto Rico Med. Sci. Campus, Univ. of Puerto Rico Río Piedras Campus.*

2:00 B37 **35.26** ▲ Determining the distribution and functional role of HCN channels in a collision sensitive neuron. E. SUNG*; R. B. DEWELL; S. J. COX; F. GABBIANI. *Rice Univ., Baylor Col. of Med.*

3:00 B38 **35.27** Influence of active dendrites on membrane resonance and temporal synchrony in a looming sensitive neuron. R. B. DEWELL*; F. GABBIANI. *Baylor Col. of Med., Rice Univ.*

4:00 B39 **35.28** Alterations in cerebellar stellate cell hyperpolarization-activated currents following fear learning. K. L. CARZOLI*; J. LIU. *LSUHSC.*

POSTER

036. Presynaptic Structure and Neurotransmitter Release I

Theme B: Neural Excitability, Synapses, and Glia: Cellular Mechanisms

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 B40 **36.01** ▲ The supramammillary-dentate gyrus pathway: Evidence for a unique glutamate and gaba co-transmission. L. CASTILLO; A. IVANOV; A. GHESTEM; E. KROOK-MAGNUSON; I. SOLTESZ; C. BERNARD; M. ESCLAPEZ*. *INSERM UMR 1106 - INS, Aix-Marseille Univ., Univ. of Minnesota, Univ. of California Irvine.*

2:00 B41 **36.02** Presynaptic NMDA receptors act via RIM1αβ to control the readily-releasable pool in layer-5 pyramidal neurons. T. ABRAHAMSSON*; R. P. COSTA; K. BUCHANAN; D. ELGAR; A. BLACKMAN; J. OYRER; A. TUDOR-JONES; M. VAN ROSSUM; P. J. SJÖSTRÖM. *The Res. Inst. of the McGill Univ. He, Univ. of Edinburgh, Univ. Col. London.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 B42 **36.03** Investigation of calcium currents upon overexpression of αCav2.1 in the Calyx of Held. M. LUEBBERT*; B. DAS; W. DONG; K. GOFF; R. RICHARD; N. KAMASAWA; S. M. YOUNG, Jr. *Max Planck Florida Inst. For Neurosci., Florida Atlantic Univ., Max Planck Florida Inst. For Neurosci.*

4:00 B43 **36.04** Artificial nanostructures mimicking the extracellular environment: Sculpting neurotransmission during maturation of hippocampal synapses. N. P. PAMPALONI*; D. SCAINI; S. BOSI; M. PRATO; L. BALLERINI. *SISSA, Univ. of Trieste, sissa.*

1:00 B44 **36.05** Disturbances in presynaptic active zone structure-function relationships in Lambert-Eaton myasthenic syndrome. T. B. TARR*; J. MA; M. DITTRICH; S. D. MERINEY. *Univ. of Pittsburgh, Carnegie Mellon Univ.*

2:00 B45 **36.06** Reduced endogenous calcium buffering speeds active zone calcium signaling. S. J. HALLERMANN*; I. DELVENDAHL; J. LUKASZ; C. BAADE; V. MATVEEV; E. NEHER. *Univ. Leipzig, New Jersey Inst. of Technol., Max-Planck-Institute for Biophysical Chem.*

3:00 B46 **36.07** Novel functions of ADF/cofilin-dependent actin dynamics in neurotransmitter release and mouse behavior. M. B. RUST*; A. GÖRLICH; M. WOLF; A. ZIMMERMANN; C. GURNIAK; M. SASSOÈ-POGNETTO; E. FRIAUF; W. WITKE. *Mol. Neurobio. Group, Univ. of Kaiserslautern, Univ. of Bonn, Univ. of Turin.*

4:00 B47 **36.08** ▲ Distinct molecular signatures of NE and ATP containing vesicles in vascular sympathetic nerves. J. WALIA*; B. LI; C. GERSHOME; D. POBURKO. *Biomed. Physiol. and Kinesiology, SFU, Ctr. for Cell Biology, Development, and Disease, SFU.*

1:00 B48 **36.09** All-or-none axonal Ca^{2+} dynamics in recurrent circuits of the hippocampus. I. RAN*; R. W. TSIEN. *NYU Langone Med. Ctr., NYU Neurosci. Inst.*

2:00 B49 **36.10** Impaired endosomal system mediated by Cathepsin D produces defects in GABAergic synaptic transmission. X. LI*; Y. LI; H. YU; Z. ZHANG; Y. LIU; L. QIN; Z. XU; Z. GAO; S. DUAN. *Zhejiang Univ., Nantong Univ.*

3:00 B50 **36.11** Hydrogen peroxide modulates synaptic transmission in ventral horn neurons of the rat spinal cord. M. OHASHI; T. KOHNO*; N. OHASHI; T. HIRANO; K. WATANABE; H. SHOJI; N. ENDO. *Niigata Univ. Grad Sch. Med. & Dent. Sci.*

4:00 B51 **36.12** Synaptic functions of γRIM proteins. S. FERRANDO-COLOMER*; K. MICHEL; D. DIETRICH; S. SCHOCH. *Univ. Bonn Med. Sch., Inst. of Neuropathology and Dept. of Epileptology, Univ. Bonn Med. Sch.*

1:00 B52 **36.13** α-Synuclein interacts with Hsc70: A possible mechanism underlying the synaptic vesicle recycling defects in Parkinson's disease models. S. M. BANKS*; D. J. BUSCH; P. A. OLIPHINT; R. B. WALSH; J. M. GEORGE; E. M. LAFER; J. R. MORGAN. *The Marine Biol. Lab., The Univ. of Texas at Austin, The Univ. of Texas at Austin, Brandeis Univ., Queen Mary Univ. of London, The Univ. of Texas Hlth. Sci. Ctr.*

2:00 B53 **36.14** Distinct functional roles for P/Q- and N-type voltage-gated calcium channels in synchronous glutamate release. S. CHAMBERLAND*; A. EVSTRATOVA; K. TÓTH. *CRULRG.*

3:00 B54 **36.15** Ultrastructural and functional fate of recycled vesicles in hippocampal synapses. S. REY*; C. SMITH; M. W. FOWLER; F. CRAWFORD; J. J. BURDEN; K. STARAS. *Univ. of Sussex, MRC LMCB, UCL.*

4:00 B55 **36.16** Role of reduced synaptobrevin 2 levels in age-related cognitive decline. A. OROCK*; S. LOGAN; W. E. SONNTAG; F. DEAK. *Univ. of Oklahoma Hlth. Sci. Ctr., Univ. of Oklahoma Hlth. Sci. Ctr., Univ. of Oklahoma Hlth. Sci. Ctr.*

1:00 B56 **36.17** Examining the role of Neurexins in the Formation and Maturation of Synapses between Hippocampal Neurons. D. P. QUINN; A. KOLAR; J. P. FAWCETT; S. R. KRUEGER*. *Dalhousie Univ., Dalhousie Univ., Dalhousie Univ.*

2:00 B57 **36.18** The PXDLS-binding cleft of Ribeye is required for normal synaptic ribbon function. C. LV; E. PRESCOTT; S. VIVIANO; J. SANTOS-SACCHI; D. P. ZENISEK*. *Yale Univ. Sch. Med.*

3:00 B58 **36.19** ● ▲ Sparse SCN VIP projections to the PVN consistent with paracrine signaling. J. M. WEBB*; C. MAZUSKI; E. HERZOG; C. WEICHSELBAUM; D. CAI; D. ROOSSIEN. *Washington Univ. In St. Louis, Washington Univ., Univ. of Michigan Med. Sch.*

4:00 B59 **36.20** The structural basis of priming of docked synaptic vesicles at the frog's neuromuscular junction. J. JUNG*; J. A. SZULE; U. J. MCMAHAN. *Texas A&M Univ.*

POSTER

037. Synaptic Organization in Hippocampus

Theme B: Neural Excitability, Synapses, and Glia: Cellular Mechanisms

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 B60 **37.01** ● Interaction of inputs in hippocampal granule cells with inhibitory connections. N. NAKAJIMA; H. HAYAKAWA; T. KITAJIMA; T. AIHARA*. *Tamagawa Univ., Kyoto Inst. of Technol., Universiti Teknologi Malaysia.*

2:00 B61 **37.02** High frequency filters with variable gain in the dentate gyrus generated by differential inhibition onto developing and mature granule cells. M. B. PARDI; M. B. OGANDO; A. F. SCHINDER; A. MARIN-BURGIN*. *Ibioba-conicet-Partner Inst. of the Max Planck, Fundacion Inst. Leloir.*

3:00 B62 **37.03** Balance between excitatory and inhibitory synaptic inputs in principal neurons in the hippocampal CA1 and Dentate Gyrus regions resulting from electrical stimulation in an *ex vivo* mouse model. S. D. DE KNECHT*; P. CHAMEAU; W. WADMAN. *Univ. of Amsterdam, Univ. of Amsterdam.*

4:00 B63 **37.04** Frequency-dependent input processing in hippocampal CA1 pyramidal neurons. C. L. COMBE*; R. TIKIDJI-HAMBURYAN; C. C. CANAVIER; S. GASPARINI. *Louisiana State Univ. Hlth. Sci. Ctr., Louisiana State Univ. Hlth. Sci. Ctr., Louisiana State Univ. Hlth. Sci. Ctr., Louisiana State Univ. Hlth. Sci. Ctr.*

1:00 B64 **37.05** Regulation of entorhinal cortical input to hippocampal granule cells by local inhibitory network in the dentate gyrus. Y. MIRCHEVA*; K. TOTH. *Ctr. De Recherche De L'Institut Universitaire En.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

2:00 B65 **37.06** Knockout of CRMP-1 diminished intracellular calcium signal and decreased colocalization of synaptophysin and PSD-95 in primary hippocampal neurons. Y. TSAI*; S. LIN; T. CHIN; S. HUANG. *Natl. Def. Med. Ctr., Chung Yuan Christian Univ.*

3:00 B66 **37.07** The parasubiculum heterosynaptically modulates the strength of piriform cortex inputs to the medial entorhinal cortex. D. W. SPARKS*; C. A. CHAPMAN. *Concordia Univ.*

4:00 B67 **37.08** Synaptic integration gradients in dendrites of hippocampal CA1 interneurons reflect heterogeneity of the local excitatory input. O. CAMIRÉ*; I. LAZAREVICH; V. KAZANTSEV; L. TOPOLNIK. *IUSMQ, Univ. Laval, Nizhny Novgorod State Univ.*

1:00 B68 **37.09** Increased dosage of high affinity kainate receptor gene grik4 alters synaptic transmission and produces autism spectrum disorders features. M. I. ALLER*; V. PECORARO; A. V. PATERNAIN; S. CANALS; J. LERMA. *Inst. de Neurociencias.*

2:00 B69 **37.10** Role of neurexin 2 (nrxn2) in cortex and hippocampus: Synaptic analysis of conditional nrxn2 knockout mice. L. Y. CHEN*; P. ZHOU; A. ORTIZ; T. HUYNH-TRAN; T. C. SUDHOF. *Stanford Univ.*

3:00 B70 **37.11** Input-specific synaptic differences in hippocampal CA1 parvalbumin-positive fast-spiking basket cells. J. CORNFORD*; D. KULLMANN. *UCL.*

4:00 B71 **37.12** Gap junction channels in the hippocampal plasticity in an *in vivo* model of high neuronal activation. E. R. KINJO*; B. A. SANTOS; G. S. V. HIGA; M. M. G. AGUIAR; É. SOUSA; A. H. KIHARA. *UNIVERSIDADE FEDERAL DO ABC, UNIVERSIDADE DE SÃO PAULO, UNIVERSIDADE FEDERAL DO ABC.*

POSTER

038. Short Term Plasticity

Theme B: Neural Excitability, Synapses, and Glia: Cellular Mechanisms

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 B72 **38.01** Short-term potentiation of dendritic Na^+ spikes and action potentials after high frequency stimulation at Schaffer collateral-CA1 synapses. W. YU; J. KWON; J. SOHN; S. LEE; W. HO*. *Seoul Natl. Univ. Col. Med., KAIST.*

2:00 B73 **38.02** Determinants of synaptic heterogeneity at the mature calyx of Held synapse. A. FEKETE*; L. WANG. *The Hosp. for Sick Children.*

3:00 B74 **38.03** Influence of a single session of maximal intensity aerobic exercise on the post-translational modification and trafficking of plasticity-related receptor proteins within the motor cortex. J. S. THACKER*; W. R. STAINES; J. G. MIELKE. *Univ. of Waterloo, Univ. of Waterloo.*

4:00 B75 **38.04** Effects of dopaminergic D2 receptor activation on layer I and layer V evoked excitatory synaptic responses in mouse medial prefrontal cortex. J. M. LEYRER*; M. P. THOMAS. *Univ. Of Northern Colorado, Univ. of Northern Colorado.*

1:00 B76 **38.05** Effects of irregular (Poisson) conditioning trains on synaptic plasticity between individual neurons in layer 4 of mouse visual cortex. J. WU*; M. J. FRIEDLANDER. *Virginia Tech. Carilion Res. Inst.*

2:00 B77 **38.06** A role for hippocampal PSA-NCAM and NMDA-NR2B receptor in flavonoid-induced spatial memory improvements in young rats. C. RENDEIRO*; A. FOLEY; C. M. WILLIAMS; C. REGAN; J. P. E. SPENCER. *Univ. of Illinois, Berand Neuropharmacology, NovaUCD, Belfield Innovation Park, UCD, Belfield, Univ. of Reading.*

3:00 B78 **38.07** Short-term facilitation is predominantly mediated by presynaptic Ca^{2+} current facilitation at Purkinje cell - Purkinje cell synapses. F. DÍAZ-ROJAS*; T. SAKABA; S. KAWAGUCHI. *Doshisha Univ.*

4:00 B79 **38.08** Acute presynaptic loading of α-syunclein impairs synaptic fidelity by slowing vesicle endocytosis at glutamatergic synapses. K. EGUCHI*; Z. TAOUFIQ; T. TAKAHASHI. *Okinawa Inst. of Sci. and Technol. Grad. Univ.*

1:00 B80 **38.09** Stress contagions at glutamate synapses in the paraventricular nucleus of the hypothalamus. T. STERLEY*; D. BAIMOUK; J. BAINS. *Univ. of Calgary.*

2:00 B81 **38.10** An event-driven model of short-term presynaptic dynamics based on detailed molecular simulations with MCell. J. W. GARCIA*; T. M. BARTOL; D. J. SPENCER; T. J. SEJNOWSKI. *Salk Inst. for Biol. Studies, Howard Hughes Med. Inst.*

3:00 B82 **38.11** Post-synaptic Pannexin-1 alters synaptic fidelity in the CA3-CA1 synapse of the hippocampus. J. BIALECKI*; N. L. WEILINGER; M. N. HILL; R. J. THOMPSON. *Hotchkiss Brain Inst., Hotchkiss Brain Inst., Hotchkiss Brain Inst.*

4:00 B83 **38.12** Differences in short-term plasticity cause a reduction in excitatory drive onto CA1 interneurons relative to pyramidal cells during temporally complex input patterns. L. E. DOBRUNZ*; Q. LI; A. F. BARTLEY; H. SUN. *Univ. of Alabama @ Birmingham, Univ. of Virginia.*

1:00 B84 **38.13** feedforward SHORT-TERM memory in Hippocampus: Spine to network. S. YANG*; S. YANG; C. TANG. *Incheon Natl. Univ., Ctr. for Integrative Neurosci., Univ. of Maryland Sch. of Med.*

2:00 B85 **38.14** Short-term plasticity as a homeostatic mechanism in the lateral amygdala. A. E. FINK*; T. J. MADARASZ; J. E. LEDOUX. *New York Univ.*

3:00 B86 **38.15** Paired-pulse modulation of axonal spikes at the hippocampal mossy fibers. H. KAMIYA*. *Hokkaido Univ. Grad. Sch. of Med.*

4:00 B87 **38.16** CaMKIIβ is localized in dendritic spine in a drebrin-dependent and drebrin-independent manners. H. YAMAZAKI*; T. SHIRAO. *Gunma Univ. Grad. Sch. of Med., Gunma Univ. Grad. Sch. of Med.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

POSTER

039. Neuroinflammation and Alzheimer's Disease

Theme C: Disorders of the Nervous System

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 B88 **39.01** Microglial amylin receptors: A novel target for the actions of beta amyloid (Aβ) protein. J. H. JHAMANDAS*; V. VUKOJEVIC; D. MACTAVISH; W. FU. *Univ. of Alberta.*

2:00 B89 **39.02** T-cell mediated inflammation is involved in pathogenesis in Alzheimer's disease mouse model. J. BLOEMER*; M. AHUJA; E. ABDEL-REHMAN; D. BHATTACHARYA; S. BHATTACHARYA; A. ALHOWAIL; F. ALJADANI; D. KATZ; R. AMIN; V. SUPPIRAMANIAM; M. DHANASEKARAN. *Auburn Univ.*

3:00 B90 **39.03** Inflammation alters APP glycosylation relevant to Alzheimer's disease. T. JEAN-LOUIS*; P. ROCKWELL; M. FIGUEIREDO-PEREIRA. *Hunter Col., The Grad. Center, CUNY.*

4:00 B91 **39.04** ▲ Gender related cognitive differences in response to chronic inflammation and passive immunotherapy in an Alzheimer's disease mouse model. L. EUGENIN-VON BERNHARDI*; A. PEÑAILILLO; N. SALGADO; R. VON BERNHARDI. *Pontificia Univ. Católica de Chile, Pontificia Univ. Católica de Chile.*

1:00 B92 **39.05** Effect of inflammation and anti-Aβ immunotherapy on the pattern of microglia activation and their association with β amyloid plaques in an Alzheimer's disease animal model. R. VON BERNHARDI*; N. SALGADO; G. RAMÍREZ; P. NAVARRO. *Pontificia U Catolica De Chile, Fac Med.*

2:00 B93 **39.06** The role of the TRIF-dependent pathway in β-amyloidosis and neuroinflammation in a mouse model of Alzheimer's disease. J. LIM; J. YANG; J. KOU; R. LALONDE; K. FUKUCHI*. *Univ. of IL Col. of Med. At Peoria, Univ. of Rouen.*

3:00 B94 **39.07** Acceleration of amyloidosis by inflammation in the amyloid-beta marmoset monkey model of Alzheimer's disease. I. H. PHILIPPENS*. *Biomed. Primate Res. Ctr. (BPRC).*

4:00 B95 **39.08** Changes in amyloid deposition and neuroinflammation with age and its relationship with learning deficits in a mouse model of Alzheimer's disease. S. ZHU*; J. WANG; X. LI. *Univ. of Manitoba, Univ. of Manitoba, Univ. of Alberta.*

1:00 B96 **39.09** ● Oleamide identified in a fermented dairy product activates microglial phagocytosis via peroxisome proliferator-activated receptor γ and suppresses inflammatory response via cannabinoid receptor type 2. Y. ANO*; T. KUTSUKAKE; M. KITA; K. UCHIDA; H. NAKAYAMA. *Kirin Company, Limited, the Univ. of Tokyo.*

2:00 B97 **39.10** Glial cells mediate cell cycle-related neuronal death induced by inflammatory challenge: Evidence from a pure neuronal culture model. Y. ZHANG*; C. HUI; K. HERRUP. *Hong Kong Univ. of Sci. and Technol.*

3:00 B98 **39.11** Distribution of glia maturation factor and mitochondrial uncoupling protein-2 and -4 in neuronal degeneration. A. ZAHEER*; R. THANGAVEL; D. KEMPURAJ; S. ZAHEER. *Univ. of Iowa, VAHCS, Univ. of Iowa.*

4:00 B99 **39.12** Investigating the role of glia in the amyloid beta-associated pathogenesis of Alzheimer's disease using *Drosophila* as a model system. A. RAY*; E. J. MUENZEL; S. D. SPEESE; M. A. LOGAN. *Jungers Center, Oregon Hlth. and Sci. Univ.*

1:00 B100 **39.13** ▲ Determining the neuroinflammatory phenotype in a model of amyloid deposition and vascular cognitive impairment after anti-Aβ immunotherapy. C. N. CAVERLY*; E. M. WEEKMAN; T. J. KOPPER; T. L. SUDDUTH; D. M. WILCOCK. *Univ. of Kentucky.*

2:00 B101 **39.14** Molecular interaction between naturally secreted Amyloid β oligomers, GLT-1 downregulation and NF-kB activation in astrocytes. J. M. ZUMKEHR*; M. KITAZAWA. *UC Merced.*

3:00 B102 **39.15** C5a enhances the injury to primary neurons elicited by fibrillar amyloid beta. M. X. HERNANDEZ*; P. NAMIRANIAN; E. NGUYEN; A. J. TENNER. *UC-Irvine.*

4:00 B103 **39.16** ▲ Elevated homocysteine results in activation of microglia and pro-inflammatory cytokine production both *in vitro* and *in vivo.* F. GONZALEZ OREGON; T. L. SUDDUTH; E. M. WEEKMAN; D. M. WILCOCK*. *Univ. of Kentucky, Univ. of Kentucky.*

1:00 B104 **39.17** Identifying stimulators of TYROBP-associated M2 microglial phagocytosis of amyloid beta *in vitro*. J. DE VRY*; P. VANDORMAEL; T. VANMIERLO; J. HENDRIKS; B. BRÔNE; J. PRICKAERTS. *Maastricht Univ., Univ. Hasselt, Univ. Hasselt.*

2:00 B105 **39.18** Withdrawn.

3:00 B106 **39.19** Changes in SR-A expression in aged APP/PS1 mice: Their dependence on activation of the TGFβ pathway and their consequence in inflammatory activation of glia. F. A. CORNEJO*; N. SALGADO; M. ANDRÉS; R. VON BERNHARDI. *Pontificia Univ. Católica De Chile.*

4:00 B107 **39.20** Comparison of cell culture systems for the study of microglial biology in Alzheimer's disease. N. TAUB; E. GROSS; M. FROSCHAUER; B. HUTTER-PAIER*. *QPS Austria Gmbh.*

1:00 B108 **39.21** Type 2 diabetes mellitus is associated with alterations in astrocyte and neuronal metabolism. H. S. WAAGEPETERSEN*; J. V. ANDERSEN; M. HOHNHOLT. *Univ. of Copenhagen.*

2:00 B109 **39.22** Microglia heterogeneity in the hippocampus of Alzheimer's disease, dementia with Lewy bodies, and hippocampal sclerosis of aging. A. D. BACHSTETTER*; L. J. VAN ELDIK; E. T. IGHODARO; E. L. ABNER; P. T. NELSON. *Univ. of Kentucky, Univ. of Kentucky.*

3:00 B110 **39.23** Trem2 has age-dependent effects on myeloid cell activation and pathology in Alzheimer's disease mouse models. T. R. JAY*; S. BEMILLER; A. HIRSCH; M. BROIHIER; C. MILLER; B. T. LAMB; G. E. LANDRETH. *Case Western Reserve Univ., Cleveland Clin. Lerner Res. Inst.*

4:00 B111 **39.24** Diabetes mellitus induces vascular damage, inflammation and neuronal loss in a murine model of Alzheimer's disease. J. RAMOS RODRÍGUEZ*; C. INFANTE-GARCIA; L. GALINDO-GONZALEZ; M. GARCIA-ALLOZA. *Sch. of Medicine. Univ. of Cadiz.*

● Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

1:00 B112 **39.25** Interleukin 1: A major player in Alzheimer-related autophagic dysfunction. P. A. PARCON*; L. LIU; R. A. JONES; R. E. MRAK; W. T. GRIFFIN. *UAMS, UAMS, Univ. of Toledo Hlth. Sci. Campus.*

2:00 C1 **39.26** Restoration of the peripheral immune/inflammatory response correlates with brain injury recovery in a murine model of Alzheimer's disease. G. DI BENEDETTO; G. FUCCIO SANZÀ; G. CANTARELLA; R. BERNARDINI*. *Univ. Catania Sch. of Med.*

3:00 C2 **39.27** Oxidative damage and antioxidant response during the progression of Alzheimer's pathology in Tg2576 mouse neocortex. A. FRACASSI; G. TAGLIALATELA; S. MORENO*. *Univ. Roma Tre, Univ. of Texas Med. Br.*

4:00 C3 **39.28** Type I and II interferon responses are altered in the choroid plexus and in the hippocampus of a mouse model of Alzheimer's disease. S. D. MESQUITA; A. C. FERREIRA; A. RODRIGUES*; F. GAO; G. COPPOLA; D. H. GESCHWIND; J. C. SOUSA; M. CORREIA-NEVES; N. SOUSA; J. A. PALHA; F. MARQUES. *Univ. of Minho, Life and Hlth. Sci. Res. Inst. (ICVS), Program in Neurogenetics, Dept. of Neurology, David Geffen Sch. of Med. - Univ. of California, Los Angeles, CA, USA*.

1:00 C4 **39.29** Repeated exposure to poly i:c leads to elevations in hippocampal amyloid-beta, cognitive dysfunction, and sustained deficits in burrowing. J. D. WHITE*; M. J. EIMERBRINK; A. D. HARDY; D. KRANJAC; K. C. PAULHUS; G. W. BOEHM; M. J. CHUMLEY. *Texas Christian Univ., Texas Christian Univ., Texas Christian Univ., Stanford Univ. Sch. of Med.*

2:00 C5 **39.30** Tau oligomers co-localize with inflammatory markers in Frontal Temporal Lobe dementia. A. N. NILSON*; K. ENGLISH; J. E. GERSON; R. KAYED. *Univ. of Texas Med. Br., Univ. of Texas Med. Br., Univ. of Texas Med. Br.*

POSTER

040. Alzheimer's Disease: Beyond Abeta and Tau

Theme C: Disorders of the Nervous System

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 C6 **40.01** m6a regulatory proteins in human Alzheimer's disease neurons. A. LICHT-MURAVA*; S. ILYAS; P. KATSEL; P. ROUSSOS; M. BERRI; G. RECHAVI; V. HAROUTUNIAN. *Icahn Sch. of Med. At Mount Sinai, Sheba Med. Ctr.*

2:00 C7 **40.02** Association of Alcadein alpha with kinesin light chain is regulated by phosphorylations at cytoplasmic acidic region. Y. SOBU*; S. HATA; T. SUZUKI. *Grad. Sch. of Pharm.Sci. Hokkaido Univ.*

3:00 C8 **40.03** Assessment of Parkinson's disease specific microRNA in Alzheimer's disease. S. MUKHOPADHYAY*. *Grand Valley State Univ.*

4:00 C9 **40.04** A role of aquaporine-4 in immune responses in Alzheimer's disease model mice. T. NIIKURA*; H. WADA; M. YASUI; Y. ABE. *Sophia Univ., Keio Univ. Sch. of Med.*

1:00 C10 **40.05** Differential associations between retinal ganglion cell thickness and white matter integrity among healthy normal, cognitive impairment, and Alzheimer's disease. S. LIU*; Y. ONG; S. HILAL; Y. LOKE; C. CHEN; C. CHEUNG; J. ZHOU. *Natl. Univ. of Singapore, Singapore Natl. Eye Ctr., Natl. Univ. of Singapore.*

2:00 C11 **40.06** A role for the Alzheimer's disease risk factor CD2AP in mediating blood-brain barrier integrity in mice. J. COCHRAN*; T. RUSH; S. C. BUCKINGHAM; E. D. ROBERSON. *Univ. of Alabama at Birmingham.*

3:00 C12 **40.07** Proteasome and autophagic degradation in an *in vitro* model of Alzheimer's disease. R. C. CHANG*; S. S. Y. CHENG; C. H. L. HUNG. *Lab. of Neurodegenerative Diseases, LKS Fac. of Medicine, Univ. of Hong Kong, State Key Lab. of Brain and Cognitive Sciences, The Univ. of Hong Kong.*

4:00 C13 **40.08** Long-term brain pathology in a mixed model of Alzheimer's disease and type 2 diabetes. C. INFANTE GARCIA*; J. RAMOS-RODRIGUEZ; A. GARCIA-ALCINA; M. GARCIA-ALLOZA. *Sch. of Medicine. Univ. De Cadiz.*

1:00 C14 **40.09** ΔFosB and epigenetic gene regulation in Alzheimer's disease. J. YOU*; M. PYFER; I. PETROF; K. MURALIDHARAN; C. FU; U. TOSI; B. CORBETT; X. ZHANG; E. NESTLER; J. CHIN. *Thomas Jefferson Univ., Icahn Sch. of Med. at Mount Sinai.*

2:00 C15 **40.10** Quantification of cytosine modifications in Alzheimer's disease. E. M. ELLISON; M. A. BRADLEY-WHITMAN; M. A. LOVELL*. *Univ. Kentucky.*

3:00 C16 **40.11** Clusters of damaged neuronal terminals (dystrophic neurites) form around ruptured capillaries in Alzheimer's disease. G. K. HANSRA*; K. M. CULLEN; G. POPOV; P. O. BANCZEK. *The Univ. of Sydney.*

4:00 C17 **40.12** Differential gene expression profiles in vascular dementia and Alzheimer's disease. E. MCKAY*; J. S. BECK; M. E. WINN; K. DYKEMA; A. P. LIEBERMAN; H. L. PAULSON; S. E. COUNTS. *Michigan State Univ., Michigan State Univ., Michigan State Univ., Van Andel Res. Inst., Univ. of Michigan, Univ. of Michigan, Michigan State Univ., Mercy Hlth. St. Mary's.*

1:00 C18 **40.13** Generation of isogenic iPS cells to address the effects p25/Cdk5 activity on AD pathology. J. SEO*; Y. LIN; R. MADABHUSHI; L. TSAI. *MIT.*

2:00 C19 **40.14** Phosphorylation of FGF14 at S226 in the tg2675 mouse model of Alzheimer's disease is rescued by PPAR-gamma agonist RSG. W. HSU*; E. WOLD; A. OCON; S. ALI; N. PANOVA; J. HAIDACHER; L. DENNER; K. T. DINELEY; F. LAEZZA. *UTMB Galveston, UTMB Galveston, UTMB Galveston, UTMB Galveston, UTMB Galveston.*

3:00 C20 **40.15** Ubiquitin specific protease (USP)-13 regulates Parkin function and modulates intracellular Aβ and extracellular plaque levels in AD models. M. HEBRON*; I. LONSKAYA; Y. FENG; M. IBA; C. MOUSSA. *Georgetown Univ.*

4:00 C21 **40.16** Aldehyde dehydrogenase 2 null mice as an oxidative stress-based model of cognitive impairment and sporadic Alzheimer's disease that displays both neuronal and vascular pathologies. A. ELHARRAM; Y. D'SOUZA; R. D. ANDREW; B. BENNETT*. *Queen's Univ.*

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* Indicates abstract's submitting author

1:00 C22 **40.17** The effects of metabolic syndrome in the brain structures and its implications in the pathogenesis of neurodegenerative disease. L. PEREIRA*; J. J. MELOT; E. CASTRO; C. M. MORÁN. *San Juan Bautista Sch. of Med., Univ. del Turabo, Univ. de Puerto Rico - Cayey.*

2:00 C23 **40.18** An insight on new roles of the proteasome complex on organelle axonal transport. M. G. OTERO*; T. M. M. SAEZ; M. ALLOATTI; L. E. CROMBERG; T. FALZONE. *Inst. de Biologia Celular y Neurociencia, Inst. de Biologia y Medicina Exptl.*

3:00 C24 **40.19** Streptozotocin-induced neurodegeneration involves NADPH oxidase activation. K. G. RAVELLI*; B. A. ROSÁRIO; M. S. HERNANDES; L. R. G. BRITTO. *Univ. of São Paulo.*

4:00 C25 **40.20** Small Rho GTPases affect production and localization of Alzheimer's disease proteins: APP, Aβ, and Tau. R. CHABAYTA*; P. MODY; J. REDDY; D. L. HYNDS. *Texas Woman's Univ.*

1:00 C26 **40.21** Kir6.2 is increased in astrocytes of the 3xtg mouse hippocampus. C. M. GRIFFITH*; A. A. SHARP; X. X. YAN; P. R. PATRYLO. *Southern Illinois Univ. Sch. of Med., Southern Illinois Univ., Southern Illinois Univ. Sch. of Med., Central South Univ. of Xiangya Sch. of Med.*

2:00 C27 **40.22** Reduction of Alzheimer's disease beta-amyloid pathology in the absence of gut microbiota. T. HARACH*. *EPFL.*

3:00 C28 **40.23** Decline in central cholinergic activity alters central and peripheral immune response. B. KORIN*; T. BEN-SHAANAN; H. AZULAY-DEBBY; F. HAKIM; A. ROLLS. *Technion, Rambam Hlth. Care Campus.*

4:00 C29 **40.24** Neuronal cell cycle re-entry and mTOR: How insulin resistance promotes Alzheimer's disease. A. NORAMBUENA; H. WALLRABE; L. MCMAHON; E. SWANSON; S. THOMAS; D. BAERTHLEIN; A. SILVA; E. KODIS; J. W. MANDELL; S. ODDO; G. S. BLOOM*. *Univ. of Virginia, Banner Sun Hlth. Res. Inst., Univ. of Arizona Col. of Med.*

1:00 C30 **40.25** 17 KDa and 23 KDa FGF-2 affect astrocyte proliferation and survival differentially. Y. CHENG*; Z. LI; P. Y. LOH. *NIH/NICHD, NIH/NICHD.*

2:00 C31 **40.26** Sex biases in susceptibility and severity of neurological disorders. R. S. NOWAKOWSKI*; J. L. BUNDY; C. M. VIED. *FSU Col. of Med.*

3:00 C32 **40.27** miR-146a dysregulates mitochondrial function and glycolysis. S. JUN*; S. N. SARKAR; J. W. SIMPKINS. *West Virginia Univ. Hlth. Sci. Ctr.*

4:00 C33 **40.28** The relationship between proteasome activity and changes in cellular levels of atp in a *Drosophila* model of Alzheimer's disease. T. SCHMIDT-GLENEWINKEL*; M. JANSEN; A. RASHID; J. NETHERCOTT; I. ONYEJIUKWA; S. BENNETT; A. KLEIN. *Hunter Col. of CUNY, Grad. Ctr. of CUNY.*

1:00 C34 **40.29** Preliminary investigation on the antidepressive effect of chronic oxotremorine treatment in a rodent model of Alzheimer's disease. D. V. NAIR*; M. M. AL-BADRI; H. PENG; J. PACHECO-QUINTO; C. B. ECKMAN; D. IACONO; E. A. ECKMAN. *Atlantic Hlth. Systems, Morristown, NJ and Biomed. Res. Inst. of New.*

POSTER

041. Mechanisms of Cell Death and Dysfunction in Parkinson's Disease

Theme C: Disorders of the Nervous System

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 C35 **41.01** Impaired alpha synuclein membrane interaction promotes aggregation and neurotoxicity in Parkinson's disease. D. YSSELSTEIN*; M. JOSHI; V. MISHRA; A. M. GRIGGS; G. P. MCCABE; L. A. STANCIU; C. B. POST; J. ROCHET. *Purdue Univ., Purdue Univ., Purdue Univ.*

2:00 C36 **41.02** Reduced cytosolic calcium caused by SERCA activation is an early and pathogenic event in the cellular stress caused by alpha-synuclein oligomers. C. BETZER*; L. BERKHOUDT LASSEN; M. BRINI; T. CALI; A. OLSEN; W. GAI; J. ANDERSEN; P. JENSEN. *Aarhus Univ., Univ. of Padova, Aarhus Univ., Flinders Sch. of Med.*

3:00 C37 **41.03** The hyperpolarization-activated current as a determinant of selective nigrostriatal degeneration in Parkinson's disease. G. MANNAIONI*; R. NARDUCCI; F. RESTA; C. CARBONE; G. PROVENSI; A. COSTA; A. MASI. *Univ. of Florence.*

4:00 C38 **41.04** Effects of agricultural pesticides on synaptic function. K. MYERS*; C. MARTIN; C. AAMODT; D. E. KRANTZ; F. E. SCHWEIZER. *David Geffen Sch. of Medicine, UCLA, UCLA, UCLA, UCLA.*

1:00 C39 **41.05** Glycosylation of synaptic vesicle glycoprotein 2C (SV2C) affects vesicular packaging of dopamine. K. STOUT*; M. OZAWA; A. DUNN; C. HOFFMAN; M. WANG; G. MILLER. *Emory Univ., Emory Univ.*

2:00 C40 **41.06** SSAO/VAP-1 is altered in Parkinson's disease: Possible role of the vascular system. M. SOLE*; M. UNZETA; T. VALENTE. *Inst. de Neurociences/ Universitat Autonoma de Barcelona, Dptm. Cerebral Ischemia and Neurodegeneration. Inst. of Biomed. Res. of Barcelona (IIBB)-Spanish Natl. Res. Council (CSIC). Inst. d'Investigacions Biomèdiques August-Pi i Sunyer (IDIBAPS).*

3:00 C41 **41.07** Global profiling of HSP90 complexes in human pluripotent stem cell-derived midbrain dopamine neurons. S. KISHINEVSKY*; J. SHIM; W. TAI; E. MOSHAROV; A. RODINA; J. PHILLIP; S. CHUNG; T. TALDONE; M. ALPAUGH; A. KRUG; S. GUTBIER; A. KAVALIER; T. MILNER; M. LEIST; S. GROSS; H. ERDJUMENT-BROMAGE; R. HENDRICKSON; G. CHIOSIS; L. STUDER. *Mem. Sloan Kettering Cancer Ctr., Soonchunhyang Inst. of Medi-bio Sci. (SIMS), Mem. Sloan Kettering Cancer Ctr., Columbia Univ. Med. Ctr., Univ. of Konstanz, Weill Cornell Med. Col.*

4:00 C42 **41.08** Disruption of the synaptic vesicle glycoprotein 2C (SV2C) in Parkinson's disease. A. DUNN*; K. A. STOUT; A. BERNSTEIN; M. WANG; Y. LI; W. CAUDLE; G. W. MILLER. *Emory Univ.*

1:00 C43 **41.09** A computational model of protein handling pathways in Parkinson's disease using SEED. B. BEHROUZ*; J. J. MORRISON; J. W. RYAN; A. M. GREEN; L. SCHAPPELL; K. S. INMAN; A. D. LEE. *Neuroinitiative.*

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2:00 C44 **41.10** Antagonistic signaling mediated by the nuclear factor-kappa B and p38 regulates dopaminergic apoptotic cell death induced by gene (alpha [α]-synuclein)-environment (paraquat and manganese) interactions. A. ANANDHAN; P. HERNANDEZ-FRANCO; R. M. FOGUTH; R. FRANCO*. *Univ. of Nebraska-Lincoln.*

3:00 C45 **41.11** Testosterone increases oxidative stress-induced neuroinflammation in dopamine neurons. S. HOLMES*; R. L. CUNNINGHAM. *Univ. of North Texas Hlth. Sci. Ctr.*

4:00 C46 **41.12** Characterization of monocyte sub-populations in PD patients and different mouse models for PD. C. BLIEDERHAEUSER*; V. GROZDANOV; L. ZONDLER; P. J. MCLEAN; F. GILLARDON; A. C. LUDOLPH; J. H. WEISHAUPT; K. M. DANZER. *Ulm Univ., Mayo Clinics, Boehringer Ingelheim.*

1:00 C47 **41.13** Inflammatory response to alpha-synuclein by monocytic cells from healthy controls and patients with Parkinson's disease. V. GROZDANOV*; C. BLIEDERHAEUSER; W. P. RUF; R. LANGOHR; L. ZONDLER; A. C. LUDOLPH; J. H. WEISHAUPT; K. M. DANZER. *Univ. of Ulm.*

2:00 C48 **41.14** Content of alpha-synuclein in erythrocyte-derived microvesicles: Implications for Parkinson's disease. J. LAMONTAGNE-PROULX*; I. ST-AMOUR; N. CLOUTIER; G. CISBANI; K. COULOMBE; S. MASON; A. HUBERT; C. GILBERT; N. DUPRÉ; M. LANGLOIS; S. LACROIX; R. BARKER; É. BOILARD; F. CICCHETTI. *Ctr. De Recherche Du CHUL, Ctr. De Recherche Du CHUL, John van Geest Ctr. for Brain Repair, Hôpital de l'Enfant-Jésus, Ctr. De Recherche Du CHUL.*

3:00 C49 **41.15** Park2-/- rats have a decreased ratio of tetrameric to monomeric alpha-synuclein in the striatum. A. MOSZCZYNSKA*; B. A. KILLINGER; L. XU; A. DUTTA. *Wayne State Univ., Wayne State Univ.*

4:00 C50 **41.16** ▲ L-DOPA as an inducer of reactive oxygen species in different brain structures. A. L. CASTRO CRUZ; J. RAMOS*; M. T. IBARRA-GUTIERREZ; A. L. GUTIERREZ-VALDEZ; M. AVILA-COSTA; V. ANAYA-MARTINEZ. *FES Iztacala, Univ. Autonoma De La Ciudad De Mexico.*

1:00 C51 **41.17** Exploring the potential of phospho-ubiquitin antibodies as a biomarker tool for aging and disease. F. C. FIESEL*; M. CASTANEDES-CASEY; D. DICKSON; Z. WSZOLEK; P. MCLEAN; H. MELROSE; W. SPRINGER. *Mayo Clin.*

2:00 C52 **41.18** miRNAs and their involvement in the pathology of dopamine neurons in Parkinson's disease. K. C. SONNTAG*; C. E. BRIGGS; T. W. WOO; L. K. IYER. *McLean Hospital/Harvard Med. Sch., Tufts Univ. Sch. of Med., Tufts Univ. Sch. of Med.*

3:00 C53 **41.19** ● Differential striatal FosB and ΔFosB mRNA expression after acute, sub-chronic or chronic levodopa treatment in a rat model of Parkinson´s disease. V. PALAFOX*; V. SOSTI; J. KULISEVSKY; J. AGUILERA; I. LIMON. *Benemerita Univ. Autonoma De Puebla, Laboratori de Neuropsicofarmacologia, Inst. de Recerca de l´Hospital de la Santa Creu I de Sant Pau, Dept. de Bioquímica i de Biología Mol. and Inst. de Neurociències.*

4:00 C54 **41.20** Kv1.3 mediates cholinergic hyperexcitability in a mouse model of Parkinson's disease. C. TUBERT*; I. R. E. TARAVINI; G. SANCHEZ; A. PROST; L. RELA; M. G. MURER. *Ifibio-houssay-conicet-University of Buenos Aires, ININFA-CONICET-University of Buenos Aires, Departament of Physiology-School of Medicin-University of Buenos Aires.*

1:00 C55 **41.21** Vagus nerve stimulation activates pparγ as a mechanism to treat Parkinson's disease. H. A. BOGER*; R. GREGORY; K. HELKE; S. HAYS; V. HINSON; A. FARRAND. *Med. Univ. of South Carolina, Univ. of Texas at Dallas.*

2:00 C56 **41.22** p53-dependent regulation of autophagy by c-Abl in Parkinson's disease. R. KARIM*; E. LIAO; M. K. LEE. *Univ. of Minnesota.*

3:00 C57 **41.23** Acute administration of pramipexole alters Akt/GSK-3β signaling in the ventral pallidum. S. A. GRASSO; A. L. PERSONS*; S. E. TEDFORD; A. H. NEWMAN; T. C. NAPIER. *Rush Univ. Med. Ctr., NIDA IRP.*

POSTER

042. Huntington's Disease Clinical

Theme C: Disorders of the Nervous System

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 C58 **42.01** Huntington's disease biomarker progression profile identified by transcriptome sequencing in peripheral blood. W. M. VAN ROON-MOM*; E. VAN DUIN; R. A. C. ROOS; R. C. VAN DER MAST; G. B. VAN OMMEN; J. T. DEN DUNNEN; P. A. C. 'T HOEN; A. MASTROKOLIAS. *Leiden Univ. Med. Ctr.*

2:00 C59 **42.02** ● BN82451B in Huntington's disease: On the way to translational biomarkers. P. E. CHABRIER*; E. APARICIO; A. BAUCHET; S. ROLLAND; A. MANON; P. PLAS; M. ROCHER; L. NAUDIN; Z. ZHANG; V. PIERRON; C. BENSTAALI; L. VIGNAUX; M. GALCERA; P. ROUBERT; F. SCHMIDLIN. *IPSEN INNOVATION, IPSEN Biosci., Grenoble Inst. des Neurosciences.*

3:00 C60 **42.03** Altered striatal resting state functional connectivity in children at risk for Huntington's disease. J. LEE*; E. AXELSON; J. BRUSS; V. MAGNOTTA; P. NOPOULOS. *Univ. of Iowa, Univ. of Iowa, Univ. of Iowa, Univ. of Iowa.*

4:00 C61 **42.04** Abnormal functional connectivity in Huntington's disease during a sequential motor task. C. GARCIA-GORRO*; E. CAMARA; A. VILA BALLO; N. RODRIGEZ-DECHICHA; S. MARTINEZ-HORTA; I. VAQUER; M. CALOPA; J. PEREZ; E. MUÑOZ; P. SANTACRUZ; J. M. RUIZ; C. MARECA; N. CABALLOL; J. KULISEVSKY; S. SUBIRA; R. DE DIEGO-BALAGUER. *Cognition and Brain Plasticity, Univ. of Barcelona, Cognition and Brain Plasticity Unit, IDIBELL, Fundacio Sociosanitaria de Barcelona. Hosp. Duran i Reynals, Unitat de Trastorns de Moviment. Departament de Neurologia. Hosp. de la Santa Creu i Sant Pau, Hosp. Universitari de Bellvitge, IDIBAPS, Hosp. Clin., Hosp. Mare de Deu de la Merce, Hosp. de Sant Joan Despi Moises Broggi, ICREA. Univ. of Barcelona.*

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1:00 C62 **42.05** Equilibrative nucleoside transporter 1 (ENT1) as a biomarker of Huntington's disease. X. GUITART; W. REA; I. DETTORI; A. MELANI; F. PEDATA; M. NARAYANAN; Y. CHERN; S. FERRE*. *NIDA, IRP, NIH, DHHS, Univ. of Florence, NIAID, IRP, NIH, DHHS, Inst. of Biomed. Sciences, Academia Sinica.*

2:00 C63 **42.06** Decisions relating to risk in patients with Huntington´s disease. A. CAMPOS-ROMO*; V. H. GALVEZ ZÚÑIGA; L. BAYLISS AMAYA; A. OCHOA MORALES; J. FERNANDEZ RUIZ. *UNAM, Inst. Nacional de Neurología y Neurocirugía "Manuel Velasco Suárez", Inst. de Neuroetología Univ. Veracruzana, Inst. Nacional de Neurología y Neurocirugía "Manuel Velasco Suárez", Inst. Nacional de Neurología y Neurocirugía "Manuel Velasco Suárez", Univ. Nacional Autónoma de México.*

3:00 C64 **42.07** Regional stability of mutant htt mrna in post-rnai-induced degradation. W. LIU*; E. L. PFISTER; L. A. KENNINGTON; N. ARONIN. *UMass Med. Sch.*

4:00 C65 **42.08** ▲ Utility of genetic testings for clinically suspected Huntington's disease and Spinocerebellar Ataxias from Movement Disorder clinic in India. S. D. VENKATESH*. *Nimhans.*

1:00 C66 **42.09** An original approach for personalized parcellation of macaque MR brain images: Application to caudate volume estimation in a model of Huntington's disease. Y. BALBASTRE*; M. E. VANDENBERGHE; J. FLAMENT; A. HÉRARD; P. GIPCHTEIN; S. WILLIAMS; N. SOUEDET; M. GUILLERMIER; A. BUGI; A. PERRIER; R. ARON-BADIN; P. HANTRAYE; J. MANGIN; T. DELZESCAUX. *CEA / Mircen, CNRS, Inserm, AFM - I-STEM, AFM - I-STEM, Inserm, CEA / NeuroSpin.*

2:00 C67 **42.10** ● ▲ Acute chlorpyrifos exposure induces oxidative stress and mitochondrial dysfunction in a striatal cell model of Huntington's disease. G. A. DOMINAH*; G. F. KWAKYE. *Oberlin Col., Oberlin Col.*

3:00 C68 **42.11** Pridopidine selectively occupies sigma-1 rather than dopamine D2 receptors at low, behaviorally active doses. K. SAHLHOLM*; J. W. A. SIJBESMAA; B. MAAS; C. KWIZERA; D. MARCELLINO; N. K. RAMAKRISHNAN; R. A. J. O. DIERCKX; P. H. ELSINGA; A. VAN WAARDE. *Karolinska Institutet, Univ. Med. Ctr. Groningen, Univ. of La Laguna Sch. of Med.*

4:00 C69 **42.12** Cerebrospinal fluid from HD subjects seeds aggregation of mutant huntingtin. Z. TAN*; W. DAI; J. PAULSEN; L. THOMPSON; C. GLABE; W. CHIU; S. POTKIN. *Univ. California Irvine, Baylor Col. of Med., Univ. of Iowa, Univ. of California Irvine, Univ. California Irvine Sch. Med.*

POSTER

043. Traumatic Brain Injury: Cellular and Molecular Mechanisms

Theme C: Disorders of the Nervous System

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 C70 **43.01** Differential profiles of molecular pathology following repeat concussion in an animal model of projectile concussive impact (PCI) injury. C. M. CARTAGENA*; A. M. BOUTTE; H. HWANG; D. JOHNSON; F. C. TORTELLA; D. A. SHEAR. *Walter Reed Army Inst. of Res.*

2:00 C71 **43.02** Effects of diffuse axonal injury (DAI) in the retinal-thalamic pathway upon the synaptic input and intrinsic properties of relay cells in the dorsal lateral geniculate nucleus (dLGN). C. W. JURGENS*; V. C. PATEL; T. E. KRAHE; J. T. POVLISHOCK. *Virginia Commonwealth Univ. Med. Ctr.*

3:00 C72 **43.03** Structural studies of plasticity in dorsal lateral geniculate nucleus following TBI. V. C. PATEL*; T. E. KRAHE; J. T. POVLISHOCK. *Virginia Commonwealth Univ.*

4:00 C73 **43.04** Acute traumatic injury to human and porcine astrocytes associates with new biomarker release and proteolytic cleavage. I. B. WANNER*; J. HALFORD; K. ITAMURA; J. LEVINE; S. SHEN; J. A. LOO; T. C. GLENN; S. MONDELLO; D. W. DIETRICH; K. BARAZANJI; A. GIGLIOTTI; A. W. MAYER. *UCLA, UCLA, UCLA, Univ. of Messina, Univ. of Miami, U.S. Army Aeromedical Res. Lab., Univ. of New Mexico.*

1:00 C74 **43.05** Neurotrauma in young mice induces changes in neuroprotectin D1 (NPD1) and other lipid mediators in brain and serum. J. L. ROSSI*; E. J. KNOTT; C. L. DAVIDSON; T. TODD; B. JUN; L. H. HOLLIER; N. G. BAZAN. *LSUHSC, LSU Hlth. Sci. Ctr.*

2:00 C75 **43.06** Newly identified role for Arylsulfatase B in the upregulation of chondroitin-4-sulfate glycosaminoglycans after brain injury. M. GUIZZETTI*; S. BHATTACHARYYA; X. ZHANG; L. FEFERMAN; W. D. JOHNSON; F. C. TORTELLA; J. K. TOBACMAN. *Oregon Hlth. & Sci. University; VA Portland He, Univ. of Illinois at Chicago and Jesse Brown VA Med. Ctr., Walter Reed Army Inst. of Res.*

3:00 C76 **43.07** Ephrin signaling in axon regeneration as a target for the treatment of traumatic brain injury. A. GIARRATANA; A. PALMIERI; S. TENG; J. PARK; R. ZHOU; J. ALDER; S. THAKKER-VARIA*. *Rutgers University-Robert Wood Johnson Med. Sch., Rutgers Univ.*

4:00 C77 **43.08** Diffusion MR imaging reveals abnormalities in the corpus callosum after single TBI versus overlying cortex after repetitive TBI. F. YU*; D. SHUKLA; R. ARMSTRONG; B. DARDZINSKI; R. SELWYN. *Uniformed Service Univ., Uniformed Service Univ., Uniformed Service Univ., Univ. of New Mexico.*

1:00 C78 **43.09** The role of par1 in regulating neuroinflammation following traumatic brain injury. V. L. DIBONA*; K. KRAUSE; L. BERNARD; Q. WU; D. CROCKETT; H. ZHANG. *Rutgers Univ. / RWJMS, Rutgers Univ.*

2:00 C79 **43.10** Magnetic resonance spectroscopy (MRS) of post-traumatic epileptogenesis. A. YASMIN*; O. GRÖHN; A. PITKÄNEN; R. IMMONEN. *Univ. of Eastern Finland.*

3:00 C80 **43.11** Intracerebroventricular transplantation of adult neural stem cells after traumatic brain injury: A proof-of-concept for activation of host neural stem cells in the subventricular zone. G. SULLIVAN*; R. C. ARMSTRONG. *USUHS.*

4:00 C81 **43.12** A translational approach to the innate immune responses following TBI: Exploring the nexus of the post injury proinflammatory cytokine mediated responses with the intracellular p38 MAPK signal transduction pathway. L. J. VAN ELDIK*; S. J. WEBSTER; D. S. GOULDING; D. M. WATTERSON; A. D. BACHSTETTER. *Univ. of Kentucky, Northwestern Univ.*

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* Indicates abstract's submitting author

1:00 C82 **43.13** Alterations in glutamate regulation after chronic lateral fluid percussion injury. J. L. MCGUIRE*; E. A. K. DEPASQUALE; A. E. GARDNER; R. E. MCCULLUMSMITH. *Univ. of Cincinnati.*

2:00 C83 **43.14** Serine-threonine kinase signaling in traumatic brain injury. E. DEPASQUALE*; J. L. MCGUIRE; C. DORSETT; C. L. FLOYD; R. E. MCCULLUMSMITH. *Univ. of Cincinnati, Univ. of Alabama Birmingham.*

3:00 C84 **43.15** Deletion of androgen receptor affects the expression of p53 and p62 in mice with traumatic brain injury. Y. CHEN; C. TSENG; L. YANG*. *Taipei Med. Univ., Taipei Med. Univ., Taipei Med. Univ.*

4:00 C85 **43.16** Hippocampal neuron loss, white matter damage and behavioral alterations following a fluid percussion injury in mice: A role for CD74? L. A. SHAPIRO*; A. OBENAUS; S. MUKHERJEE; R. TOBIN; K. NEWELL-ROGERS. *Texas A&M Univ. COM, Loma Linda, Texas A&M Univ. HSC.*

1:00 C86 **43.17** Proteolytic cleavage of L1CAM is a redundant feature after traumatic brain injury in mice. L. S. DANGEL*; W. BOBKIEWICZ; A. SEBASTIANI; S. THAL; K. ENDRESS; M. SCHAEFER. *Universitätsmedizin Mainz.*

2:00 C87 **43.18** Pediatric traumatic brain injury induces selective loss of cortical inhibitory function. J. NICHOLS*; J. NEWBERN; T. ANDERSON. *Arizona State Univ., Univ. of Arizona - Col. of Med. Phoenix.*

3:00 C88 **43.19** Pathological deficits in the chronic stage of traumatic brain injury: Characterization of the secondary cell death in adult rats exposed to controlled cortical impact injury. H. V. NGUYEN*; S. A. ACOSTA; N. TAJIRI; J. HOOVER; M. ELIAS; S. REYES; Y. KANEKO; C. V. BORLONGAN. *Univ. of South Florida, Univ. of South Florida.*

4:00 C89 **43.20** Repeated binge alcohol and traumatic brain injury results in decreased neural stem cell response. S. T. TON*; I. VAAGENES; S. TSAI; C. PAPADOPOULOS; G. KARTJE. *Loyola Univ. Chicago, Hines VA Hosp., Loyola Univ. Chicago.*

1:00 C90 **43.21** Oxidative stress and inflammation associated with impairments in social familiarity-induced anxiolysis after mild blast-induced traumatic brain injury. S. M. VEGA ALVAREZ*; N. RACE; E. LUNGWITZ; T. R. WARNER; G. ACOSTA; W. TRUITT; R. SHI. *Purdue Univ., Purdue Univ., Purdue Univ., Indiana Univ. Sch. of Med., Indiana Univ. Sch. of Med., Indiana Univ. Sch. of Med.*

2:00 C91 **43.22** The acute effects of a blast overpressure on astrocytes in rat organotypic hippocampal slice cultures. A. P. MILLER*; A. S. SHAH; B. V. APERI; B. D. STEMPER; A. GLAVASKI-JOKSIMOVIC. *Med. Col. of Wisconsin, Med. Col. of Wisconsin, Clement J. Zablocki Veterans Affairs Med. Ctr.*

3:00 C92 **43.23** Susceptibility to Parkinson's disease following a mild-blast traumatic brain injury. G. G. ACOSTA*; N. RACE; G. KUZIEL; L. ZHENG; A. AMBAW; E. WALLS; C. ROCHET; R. SHI. *Purdue Univ., Purdue Univ., Indiana Univ. Sch. of Med., Purdue Univ., Purdue Univ.*

4:00 C93 **43.24** *In vivo* 2-photon imaging of neuronal activity and neuro-vascular unit disruption in somatosensory cortex in mouse model of traumatic brain injury. M. K. JAISWAL*; F. W. LISCHKA; X. XU; Z. GALDZICKI. *Ctr. For Neurosci. and Regenerative Med., USUHS, Sch. of Med.*

1:00 C94 **43.25** Tryptophan metabolism after blast-induced traumatic brain injury. P. ARUN*; D. M. WILDER; W. B. RITTASE; M. A. MCCUISTION; S. A. OGUNTAYO; Y. WANG; I. D. GIST; J. B. LONG. *Walter Reed Army Inst. of Res.*

2:00 C95 **43.26** Repetitive mild traumatic brain injury induces ventriculomegaly and cortical thinning in juvenile rats. C. GODDEYNE; J. NICHOLS; C. WU; K. MAGNUSON; Z. KILLEEN; T. R. ANDERSON*. *Univ. of Arizona - Col. of Med. Phoenix, Arizona State Univ., Univ. of Arizona-Com PHX.*

3:00 C96 **43.27** Septal and periventricular changes in a mouse model of repetitive concussive traumatic brain injury. R. ACABCHUK*; R. WOLFERZ, Jr.; L. TALBOT; M. STERM; M. SOLOWAY; M. ANGOA-PEREZ; D. BRIGGS; D. KUHN; J. CONOVER. *Univ. of Connecticut, John D. Dingell VA Med. Ctr. and Wayne State Univ. Sch. of Med.*

4:00 D1 **43.28** Blast injury increases amyloid-beta deposition in cortical areas but not in subcortical visual pathways in young adult APP/PS1 mice. E. E. ABRAHAMSON; Z. MI; L. SHAO; D. S. RUDD; M. M. HARPER; M. D. IKONOMOVIC*. *Univ. of Pittsburgh, Geriatric Res. Educ. and Clin. Center, VA Pittsburgh Healthcare Syst., Ctr. for the Prevention and Treatment of Visual Loss, Iowa City Dept. of Veterans Affairs.*

1:00 D2 **43.29** A novel, quantitative, multi-analyte immunoassay to detect neuroinflammation following traumatic brain injury. M. ANDERSON; G. HICKEY*; I. O'BRIEN; P. YOUNGE; L. LEONG. *Bio-Techne Inc.*

2:00 D3 **43.30** Neurological consequences of mechanistically distinct toll-like receptor 4 signaling in the normal and injured brain. A. A. KORGAONKAR*; K. C. H. PANG; V. SANTHAKUMAR. *Rutgers New Jersey Med. Sch., Neurobehavioral Res. Lab.*

POSTER

044. Traumatic Brain Injury: Human Studies I

Theme C: Disorders of the Nervous System

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 D4 **44.01** Callosal function in pediatric traumatic brain injury linked to disrupted white matter integrity. E. L. DENNIS*; M. ELLIS; S. MARION; Y. JIN; C. KERNAN; T. BABIKIAN; R. MINK; C. BABBITT; J. JOHNSON; C. GIZA; R. ASARNOW; P. THOMPSON. *Imaging Genet. Center, SNII, Keck Som USC, UCLA, Fuller Theological Seminary Sch. of Psychology, Harbor-UCLA Med. Ctr. and Los Angeles BioMedical Res. Inst., Miller Children's Hosp., LAC+USC Med. Ctr., Mattel Children's Hosp., UCLA.*

2:00 D5 **44.02** Identification of signature biomarkers in adult female athletes following mild traumatic brain injury. K. A. BLACKNEY*; L. FISCHER; T. DOHERTY; R. MENON; R. BARTHA; D. FRASER; A. BROWN; G. DEKABAN. *Robarts Res. Inst., Univ. of Western Ontario, Fowler-Kennedy Sports Med. Clin., Univ. of Western Ontario, Robarts Res. Inst., Children's Hlth. Res. Inst., Univ. of Western Ontario`.*

3:00 D6 **44.03** ● Traumatic Brain Injury and its implication for Anaesthesia. Y. O. OKUNOREN-OYEKENU*; A. OYEKENU; P. EKWERE; M. O. DAWODU; O. OKUNOREN; A. OLAWUYI; A. AGBOOLA. *Ondo State Trauma and Surgical Ctr.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

4:00 D7 **44.04** ▲ Prevalence of memory loss following traumatic brain injury from blast versus non-blast exposure in a veteran population. J. RAMOS*; K. L. PANIZZON; A. PAPAZYAN; W. STEFANOS; J. WATSON; E. A. LICHT; R. A. WALLIS. *VA West Los Angeles Med. Ctr., VA West Los Angeles Med. Ctr., VA Greater Los Angeles Healthcare Syst., VA Greater Los Angeles Healthcare Syst., David Geffen Sch. of Med. at UCLA.*

1:00 D8 **44.05** Characterization of the epigenomic status of the us oef/oif war veterans: A pilot clinical study. N. CHAKRABORTY; R. YANG; S. MUHIE; A. GAUTAM; D. DONOHUE; J. L. MEYERHOFF*; D. AMARA; R. YEHUDA; C. MARMAR; R. HAMMAMIEH; M. JETT. *USACEHR, Advanced Biomed. Cancer Research, NCI, Georgetown Univ., NYU Sch. of Med., Mount Sinai Sch. of Med.*

2:00 D9 **44.06** Gray matter density and volume neuroimaging characterization of U.S. Military Veterans and retired National Football League players vulnerable to mild traumatic brain injury. A. A. HERROLD*; B. C. HARTON; X. WANG; T. PARRISH; Y. CHEN; J. L. REILLY; H. C. BREITER; T. L. B. PAPE. *Edward Hines Jr. VA Hosp., Northwestern University, Feinberg Sch. of Med., Chicago Assn. for Res. and Educ. in Sci., Northwestern University, Feinberg Sch. of Med., Massachusetts Gen. Hosp., Northwestern University, Feinberg Sch. of Med.*

3:00 D10 **44.07** Disambiguating structural and non-structural coma using network reachability analysis. M. KAFASHAN; S. RYU; D. ROBERTS; L. EISENMAN; T. T. KUMMER; S. CHING*. *Washington Univ. In St. Louis, Washington Univ. in St. Louis, Washington Univ. Sch. of Med., Washington Univ. in St. Louis.*

4:00 D11 **44.08** The computer assisted rehabilitation environment as a tool for differentiating traumatic brain injury from post-traumatic stress disorder: A retrospective analysis of three virtual environments. M. M. ONAKOMAIYA*; S. E. KRUGER; K. B. HIGHLAND; M. J. ROY. *Walter Reed Natl. Military Med. Ctr., Cherokee Nation Technol. Solutions, Uniformed Services Univ. of the Hlth. Sci., Uniformed Services Univ. of the Hlth. Sci., Henry M. Jackson Fndn.*

1:00 D12 **44.09** EEG correlates of enduring pscho-affective alterations in athletes with a history of concussion. R. MOORE*; W. SAUVE; D. ELLEMBERG. *Univ. of Montreal.*

2:00 D13 **44.10** The effect of claustrum lesions on human consciousness and recovery of function. A. CHAU*; A. M. SALAZAR; F. KRUEGER; I. CRISTOFORI; J. GRAFMAN. *Rehabil. Inst. of Chicago, Oncovir Inc., George Mason Univ., Northwestern Univ.*

3:00 D14 **44.11** Mapping white matter changes in the corpus callosum following pediatric mild traumatic brain injury. S. WILCOX*; P. SERRANO; M. O'BRIEN; L. BECERRA; D. BORSOOK. *P.A.I.N Group, Boston Children's Hosp.*

POSTER

045. Traumatic Brain Injury: Therapeutic Strategies I

Theme C: Disorders of the Nervous System

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 D15 **45.01** Microglia activation phenotypes and their modulation following experimental TBI. A. KUMAR*; J. BARRETT; D. ALVAREZ-CRODA; B. STOICA; F. TCHANTCHOU; A. FADEN; D. LOANE. *Univ. of Maryland, Posgrado en Neuroetologia, Univ. Veracruzana.*

2:00 D16 **45.02** New developments in calcium-channel targeted therapeutics in AD: Preventing pathology from cellular to network levels. G. E. STUTZMANN*; M. GARSTKA; N. KAPECKI; E. HILL; S. CHAKROBORTY; C. A. BRIGGS; A. GILMAN-SACHS; K. BEAMAN; W. FROST. *Rosalind Franklin Univ. /Chicago Med. Sch., Rosalind Franklin Univ. /Chicago Med. Sch., Rosalind Franklin Univ. / Chicago Med. Sch., Rosalind Franklin Univ. /Chicago Med. Sch.*

3:00 D17 **45.03** Intranasally delivered Wnt-3a enhances therapeutic effects of transplanted iPS cell-derived neural progenitor cells and increased endogenous regenerative activities after traumatic brain injury. Z. WEI*; X. GU; T. C. DEVEAU; J. LEE; M. M. WINTER; S. YU; L. WEI. *Emory Univ.*

4:00 D18 **45.04** Boosting the power of exercise for brain trauma recovery using the capacity of a flavonoid derivative to activate BDNF-TrkB signaling. F. GOMEZ-PINILLA*; R. AGRAWAL; Y. ZHUANG; Z. YING; F. HONG. *UCLA, UCLA.*

1:00 D19 **45.05** ● Tau oligomers and traumatic brain injury: Toxicity and potential drug targets. B. E. HAWKINS*; J. GERSON; U. SENGUPTA; D. CASTILLO-CARRANZA; D. PROUGH; D. DEWITT; R. KAYED. *Univ. of Texas Med. Br., Univ. of Texas Med. Br., Univ. of Texas Med. Br., Univ. of Texas Med. Br.*

2:00 D20 **45.06** Ephrin-B3 restricts endogenous neural stem cell migration in the peri-lesional region following traumatic brain injury. K. J. DIXON*; E. J. PEREZ; J. MIER; A. TURBIC; A. M. TURNLEY; D. J. LIEBL. *Virginia Commonwealth Univ., Univ. of Miami, Univ. of Melbourne, Univ. of Miami.*

3:00 D21 **45.07** ▲ Metabolite of gelatinase inhibitor prodrug attenuates brain damage and improves sensorimotor functions in a mouse model of severe traumatic brain injury. R. NIZAM*; Z. CHEN; B. TOMLINSON; O. HADASS; W. SONG; M. IKEJIRI; M. JUÁREZ; S. CHEN; J. CUI; S. MOBASHERY; M. CHANG; Z. GU. *Univ. of Missouri - Columbia, Univ. of Missouri - Columbia, Univ. of Missouri - Columbia, Univ. of Notre Dame, Univ. of Missouri - Columbia, Univ. of Missouri - Columbia, Harry S. Truman Mem. Veterans' Hosp.*

4:00 D22 **45.08** Veliparib suppresses microglial activation after brain trauma in rats and pigs. K. A. IRVINE*; J. XU; R. K. BISHOP; P. SINGH; A. SONDAG; K. HAMEL; V. COPPES; D. J. KAPFHAMER; S. WON; S. PANTER; R. A. SWANSON. *UCSF/VA/NCIRE.*

1:00 D23 **45.09** ● Neuroprotection against traumatic brain injury through disrupting the interaction of nNOS with PSD95. W. QU*; N. LIU; X. WU; Y. WANG; Y. SUN; Y. LAI; A. SHEKHAR; X. XU. *Indiana Univ. Sch. of Med., Jilin Univ., Indiana Univ. Bloomington.*

2:00 D24 **45.10** Suppression of Ca^{2+}-independent PLA2γ increased mitochondrial damage after *in vitro* traumatic brain injury. J. JI*; H. CHAO; H. CHEN; N. LIU. *Univ. of Pittsburgh, Nanjing Med. Univ., Nanjing Med. Univ., Nanjing Univ.*

3:00 D25 **45.11** ▲ Implantable fibrin cylinders that recruit new cells into the striatum and cortex. A. CLARK*; L. E. HAGER; E. M. PRICE. *Marshall Univ., Marshall Univ.*

4:00 D26 **45.12** Amelioration of traumatic brain injury-induced cerebrovascular hyper-permeability by adipose tissue derived stromal vascular fraction cells. N. MURADASHVILI*; R. TYAGI; J. DALE; R. L. BENTON; S. C. TYAGI; J. B. HOYING; D. LOMINADZE. *Univ. of Louisville, Univ. of Louisville, Univ. of Louisville.*

1:00 D27 **45.13** ● Effects of laquinimod on microglia and monocytes following traumatic brain injury. A. KATSUMOTO*; A. S. MIRANDA; O. BUTOVSKY; Z. FANEK; R. M. RANSOHOFF; B. T. LAMB. *Cleveland Clin., Federal Univ. of Minas Gerais, Brigham and Women's Hosp. Harvard Med. Sch.*

POSTER

046. Spinal Cord Injury: Restorative Therapeutic Strategies

Theme C: Disorders of the Nervous System

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 D28 **46.01** Rewiring of spinal respiratory neural network via cervical glutamatergic interneurons preserves respiratory function following chronic cervical spinal cord injury (cSCI). K. SATKUNENDRARAJAH*; S. K. KARADIMAS; M. KHAZAEI; P. MERCADO; G. YAO; K. JACQUES-SMITH; M. G. FEHLINGS. *Toronto Western Res. Inst.*

2:00 D29 **46.02** Altered co-activation across the frequency spectrum of lower extremity muscles in individuals with incomplete spinal cord injury. S. S. LEE*; T. LAM; K. PAUHL; E. HARDER; J. M. WAKELING. *Northwestern Univ., The Univ. of British Columbia, Simon Fraser Univ.*

3:00 D30 **46.03** Optical dissection of cortical plasticity during recovery from spinal cord injury. E. R. HOLLIS*; N. ISHIKO; C. LU; A. HAIMOVICH; Y. ZOU. *Univ. Calif San Diego.*

4:00 D31 **46.04** Pten deletion promotes regeneration of corticospinal tract axons one year after spinal cord injury. K. LIU*; S. ZHENG. *HKUST.*

1:00 D32 **46.05** The role of RhoA in retrograde neuronal death and axon regeneration after spinal cord injury. J. HU*; G. ZHANG; W. RODEMER; M. SELZER. *Temple Univ. Sch. of Med.*

2:00 D33 **46.06** Targeting protease activated receptor 2 to improve recovery after spinal cord injury. M. RADULOVIC*; H. YOON; J. WU; K. MUSTAFA; M. G. FEHLINGS; I. SCARISBRICK. *Mayo Grad. Sch., Mayo Clin., Mayo Clin., Toronto Western Res. Inst.*

3:00 D34 **46.07** A clinically relevant injectable matrix for Schwann cell transplantation following spinal cord injury. S. R. CERQUEIRA*; Y. LEE; R. CORNELISON; C. SCHMIDT; M. BUNGE. *Miami Project To Cure Paralysis, J. Crayton Pruitt Family Dept. of Biomed. Engineering, Univ. of Florida.*

4:00 D35 **46.08** Engineered hydrogels supporting fast neurite extension. N. BROGUIERE*; G. PALAZZOLO; M. ZENOBI-WONG. *ETH Zürich.*

1:00 D36 **46.09** Exercise-dependent modulation of neuro-urological health following spinal cord injury. L. R. MONTGOMERY*; A. N. HERRITY; S. J. HARKEMA; C. H. HUBSCHER. *Univ. of Louisville, Univ. of Louisville, Univ. of Louisville, Univ. of Louisville.*

2:00 D37 **46.10** ● Restoring walking ability in individuals with severe spinal cord injury using a closed-loop spinal magnetic stimulation. Y. NAKAO*; S. SASADA; K. KATO; T. MURAYAMA; S. KADOWAKI; S. YOSHIDA; M. IIZUKA; T. KOMIYAMA; Y. UGAWA; Y. NISHIMURA. *Natl. Inst. For Physiological Sci., The Grad. Univ. for Advanced studies, SOKENDAI, Sagami Woman's Univ., Keio Univ., Chiba rehabilitation Ctr., Fukushima Med. Univ., Hlth. Sci. Univ. of Hokkaido, Chiba Univ.*

3:00 D38 **46.11** The spinal cord lesion: Relationship to muscle changes and motor deficits. A. C. SMITH*; T. PARRISH; M. HOGGARTH; M. WASIELEWSKI; H. KIM; T. G. HORNBY; J. ELLIOTT. *Northwestern Univ., Rehabil. Inst. of Chicago.*

4:00 D39 **46.12** Nociceptive stimulation activates caspase 1 following spinal cord injury by inducing pathologic purinergic signaling. J. TURTLE*; J. A. REYNOLDS; M. M. STRAIN; Y. J. HUANG; S. M. GARRAWAY; J. W. GRAU. *Texas A&M Univ., Emory Univ. Sch. of Med.*

1:00 D40 **46.13** Impact of sustained sublesional nociception on locomotor recovery following a complete spinal lesion in mice. R. JEFFREY-GAUTHIER*; K. BERTHELET; M. PICHÉ; H. LEBLOND. *Univ. Du Québec À Trois-Rivières.*

POSTER

047. HIV Neuroinflammation

Theme C: Disorders of the Nervous System

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 D41 **47.01** HIV-1 transgenic rat: Alterations in naturally rewarding voluntary wheel running and medium spiny neurons of the nucleus accumbens. M. N. CRANSTON*; R. M. BOOZE; S. B. HARROD; R. F. ROSCOE, Jr.; C. F. MACTUTUS. *Univ. of South Carolina.*

2:00 D42 **47.02** nNOS positive interneuron subpopulations in CA1 subregions are selectively vulnerable to HIV-1 Tat. W. D. MARKS; C. J. SCHIER; K. F. HAUSER*; S. FITTING. *Virginia Commonwealth Univ., Univ. of North Carolina at Chapel Hill.*

3:00 D43 **47.03** Exposure to HIV-1 Tat protein modulates forebrain glutamate levels and increases depression-like behavior. J. P. MCLAUGHLIN*; M. L. GANNO; S. O. EANS; J. M. MEDINA; H. M. STACY; T. E. GILLIS; A. N. ROCK; D. MINTZOPOULOS; J. J. PARIS; M. J. KAUFMAN. *Univ. of Florida, Torrey Pines Inst. for Mol. Studies, McLean Hosp., Virginia Commonwealth Univ.*

4:00 D44 **47.04** A unique subset of CD8 T cells (CD4DIMCD8Bright T Cells) is associated with HIV control in the CNS and better neuropsychological function. M. H. RICHARDS*; V. LUTGEN; S. NARASIPURA; L. AL-HARTHI. *Rush Univ. Med. Ctr., Rush Univ. Med. Ctr.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

1:00 D45 **47.05** Effect of antiretroviral therapy on HIV-1 tat protein-induced neurotoxicity. W. M. DANIELS*; S. ZULU; V. RUSSELL; M. MABANDLA. *Univ. of Kwazulu-Natal.*

2:00 D46 **47.06** Involvement of potassium channel KV1.3 in HIV Tat-induced oligodendrocyte/myelin injury. H. LIU*; J. LIU; G. TU; H. XIONG. *Univ. of Nebraska Med. Ctr.*

3:00 D47 **47.07** Methamphetamine potentiates HIV-1gp120-induced microglia neurotoxicity via potassium channel K_V1.3. J. LIU*; H. LIU; E. XU; G. TU; H. XIONG. *Univ. NE Med. Ctr.*

4:00 D48 **47.08** Lrrk2 kinase inhibition attenuates inflammasome priming in microglia. P. MILLER-RHODES*; C. KIM; S. LU; H. GELBARD. *Univ. of Rochester Med. Ctr.*

1:00 E1 **47.09** Cocaine- and methamphetamine-induced disruption of striatal dopamine and medium spiny neurons in HIV-1 transgenic rats. M. JAVADI PAYDAR*; R. F. ROSCOE, Jr; C. F. MACTUTUS; R. M. BOOZE. *Univ. of South Carolina.*

2:00 E2 **47.10** Dickkopf-related protein 1 is associated with hiv-associated neurocognitive impairment. C. YU*; M. SEATON; S. LETENDRE; R. HEATON; L. AL-HARTHI. *Rush Univ., UCSD.*

3:00 E3 **47.11** HIV induces a unique neurotoxic phenotype in human monocyte-derived macrophages that is suppressed by nerve growth factor and the neurotrophin ligand, LM11A-31. K. S. WILLIAMS*; J. A. SEAWELL; V. ZHURAVLEVA; R. B. MEEKER. *Univ. of North Carolina Sch. of Med., UNC Chapel Hill, UNC Chapel Hill.*

4:00 E4 **47.12** ● Independent and combined effects of methamphetamine and HIV gp120 protein on neural microstructure in mice using diffusion tensor imaging. B. S. MCKENNA; G. G. BROWN*; S. ARCHIBALD; M. SCADENG; R. BUSSELL; J. KESBY; A. MARKOU; S. SEMENOVA. *Univ. of California San Diego, VASDHS, Univ. of California San Diego, Univ. of California San Diego.*

1:00 E5 **47.13** The critical role of the inflammatory cytokine interleukin-1 beta and the iron storage protein ferritin heavy chain in synaptodendritic injury during HIV infection. L. FESTA*; C. GUTOSKEY; A. GRAZIANO; B. WATERHOUSE; O. MEUCCI. *Drexel Univ. Col. of Med., Drexel Univ. Col. of Med.*

2:00 E6 **47.14** ▲ Neurotrophin/CXCR4 receptor interactions regulate calcium activity and HIV-induced neurotoxin secretion in human monocyte-derived macrophages. V. ZHURAVLEVA; K. WILLIAMS; J. SEAWELL; R. B. MEEKER*. *Univ. of North Carolina.*

3:00 E7 **47.15** NeuroAIDS in NSG mice with humanized brain and hematolymphoid tissue. W. LI*; L. WU; J. KNIBBE; S. GORANTLA; H. E. GENDELMAN; L. Y. POLUEKTOVA. *Univ. of Nebraska Med. Ctr.*

4:00 E8 **47.16** Gene expression changes consistent with neuroAIDS and impaired working memory in HIV-1 transgenic rats. P. P. SANNA*; C. LEFEBVRE; O. GEORGE; M. MORALES; G. F. KOOB; E. MASLIAH; A. CALIFANO; V. REPUNTE-CANONIGO. *Scripps Res. Inst., INSERM, Gustave Roussy Inst., Committee for the Neurobio. of Addictive Disorders, Natl. Inst. on Drug Abuse, Natl. Inst. on Alcohol Abuse and Alcoholism, Univ. of California at San Diego, Columbia Univ., The Scripps Res. Inst.*

1:00 E9 **47.17** Protective effects of the lignan secoisolariciresinol diglucoside (SDG) against oxidant stress, neuroinflammation, and HIV neurotoxicity. M. A. ERICKSON*; J. KING; A. ODELEYE; K. SETO; R. PIETROFESA; C. AKAY ESPINOZA; B. WINKELSTEIN; M. CHRISTOFIDOU-SOLOMIDOU; K. JORDAN-SCIUTTO. *Univ. of Pennsylvania, Ursinus Col., Univ. of Virginia, Univ. of Pennsylvania, Univ. of Pennsylvania.*

2:00 E10 **47.18** Cathepsin B released from HIV-infected macrophages is internalized by neurons and induces apoptosis in rat primary cortical neurons. Y. M. CANTRES-ROSARIO*; M. PLAUD; Y. GERENA; R. J. NOEL, Jr.; L. M. MELENDEZ. *Univ. of Puerto Rico, Med. Sci. Campus, Univ. of Puerto Rico, Med. Sci. Campus, Ponce Res. Inst.*

3:00 E11 **47.19** Changes of mitochondrial homeostasis in hippocampus of hiv transgenic(tg26) mice. P. R. GUDA*; T. MAKAR; S. RAY; A. SAGI; J. BRYANT. *10-2-884/1, Univ. of maryland, VA Maryland Hlth. care system, Inst. of Human Virology.*

4:00 E12 **47.20** HIV-1 Tat-mediated neurotoxicity and anxiety-like behavior of mice may be protected by the pregnane neurosteroid, allopregnanolone. J. J. PARIS*; D. CHEN; S. KIM; P. E. KNAPP; K. F. HAUSER. *Virginia Commonwealth Univ., Virginia Commonwealth Univ., Virginia Commonwealth Univ.*

1:00 E13 **47.21** Enhanced expression of immunoreactive L-type calcium channels in the mesocorticolimbic pathway of HIV-1 transgenic rats. W. N. WAYMAN*; A. L. PERSONS; T. C. NAPIER. *Rush Univ.*

2:00 E14 **47.22** IFNβ protects cerebrocortical neurons in a CCL4-dependent fashion against HIV-1 gp120-induced injury. V. E. THANEY*; M. M. HOEFER; M. KAUL. *Sanford Burnham Med. Res. Inst., Univ. of California San Diego.*

3:00 E15 **47.23** M1/M2 polarization and type 1 interferon response in morphine-potentiated LP-BM5 murine AIDS. V. D. MCLANE*; C. L. WILLIS; L. CAO. *Univ. of New England, Univ. of Maine.*

4:00 E16 **47.24** Pharmacologic targeting of host innate immune responses decreases viral replication in a brain slice culture model of HSV encephalitis. D. R. WILCOX*; W. J. MULLER; R. LONGNECKER. *Northwestern Univ. Sch. of Med., Northwestern Univ. Sch. of Med.*

1:00 E17 **47.25** Modeling HIV-1-induced platelet-mediated dysfunction of the blood-brain barrier in mice. L. JONES*; V. SINGH; D. DAVIDSON; S. MAGGIRWAR. *Univ. of Rochester Med. Ctr., Natl. Inst. for Occup. Safety and Hlth.*

2:00 E18 **47.26** Denoising of diffusion MRI boosts power to detect Hepatitis C effects on the brain in HIV+ adults. D. SCHONFELD*; T. M. NIR; N. JAHANSHAD; C. R. K. CHING; X. HUA; A. GONGVATANA; B. NAVIA; R. A. COHEN; P. M. THOMPSON. *Imaging Genet. Center/Keck Sch. of Med. of, UCSD, Tufts Univ. Sch. of Med., Tufts Sch. of Med., Univ. of Florida Col. of Med., Brown Univ. Sch. of Med.*

3:00 E19 **47.27** Effect of autophagy on L-type calcium channel current induced by gp120V3 loop in hippocampus neurons. J. DONG*; Y. XING; Q. YU; J. WANG; G. CHEN; M. JIANG; L. LIN; S. LIU; Y. XU. *Jinan Univ., Jinan Univ., Indiana Univ., Jinan Univ.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

4:00 E20 **47.28** Cognitive impairment in HIV: Assessment using manual, saccadic, and traditional neuropsychological measures. T. SHIRAZI*; A. SUMMERS; S. STEINBACH; B. SMITH; S. KAPETANOVIC; A. NATH; M. ETTENHOFER; J. SNOW. *NIMH, NINDS, Uniformed Services Univ. of the Hlth. Sci.*

1:00 E21 **47.29** Wnt7a skews monocyte differentiation: Relevance to neuroAIDS. J. WALLACE*; L. AL-HARTHI. *Rush Univ. Med. Ctr., Rush Univ. Med. Ctr.*

2:00 E22 **47.30** High-resolution shape analysis in HIV+ adults reveals associations between neurocognitive performance and subcortical morphometry. C. CHING*; B. GUTMAN; T. NIR; D. SCHONFELD; N. JAHANSHAD; X. HUA; A. GONGVATANA; B. NAVIA; R. COHEN; P. THOMPSON. *UCLA, Imaging Genet. Center, Inst. for Neuroimaging & Informatics, Univ. of Southern California, Dept. of Psychiatry, Univ. of California, San Diego, Dept. of Publ. Health, Infection Unit, Tufts Univ. Sch. of Med., Dept. of Aging and Geriatric Research, Univ. of Florida, Gainesville.*

POSTER

048. Schizophrenia: Developmental Animal Models

Theme C: Disorders of the Nervous System

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 E23 **48.01** Adolescent cannabinoid exposure increases the susceptibility for a schizophrenia-like phenotype in a novel rodent model. D. D. AGUILAR*; S. M. PEREZ; A. GIUFFRIDA; D. J. LODGE. *UTHSCSA.*

2:00 E24 **48.02** Telomere shortening in the hippocampus is associated with the negative symptoms of schizophrenia. K. TORIUMI*; M. MIYASHITA; T. ICHIKAWA; A. KOBORI; Y. HORIUCHI; M. ARAI; I. NOHARA; N. OBATA; H. HASHIMOTO; M. ITOKAWA; M. ARAI. *Tokyo Metropolitan Inst. of Med. Sci., Shinshu Univ., Meiji Pharmaceut. Univ., Osaka Univ., Osaka Univ., Osaka Univ.*

3:00 E25 **48.03** Determination of mitochondrial activity in a mice juvenile two-hit model of schizophrenia. C. MONPAYS*; J. DESLAURIERS; P. SARRET; S. GRIGNON. *Univ. De Sherbrooke, Univ. De Sherbrooke, Univ. de Sherbrooke.*

4:00 E26 **48.04** Adolescent cannabinoid administration negatively impacts the dopaminergic system and cognition in normal rats, but provides a protective effect in MAM schizophrenia model. F. V. GOMES*; F. S. GUIMARAES; A. A. GRACE. *Univ. of Pittsburgh, Med. Sch. of Ribeirao Preto - Univ. of Sao Paulo.*

1:00 E27 **48.05** ▲ Developmental antioxidant treatment in the neonatal ventral hippocampal lesion model of schizophrenia: Effects on executive function and control. D. ACS; B. BENANZEA-FONTEM; D. LAFFERTY; A. H. BRADY*. *St. Mary's Col. of Maryland.*

2:00 E28 **48.06** ▲ Inhibition of luteinizing hormone rescues recognition memory and raises hippocampal GAD67 in an animal model of schizophrenia. C. E. LYONS*; A. W. SCHALER; A. J. RIORDAN; J. FRIED; T. A. PAINE; J. E. THORNTON. *Oberlin Col.*

3:00 E29 **48.07** GABAergic promoter remodeling in an immune-mediated neurodevelopmental mouse model with relevance to schizophrenia. M. A. LABOUESSE*; E. DONG; W. LANGHANS; D. GRAYSON; A. GUIDOTTI; U. MEYER. *ETH Zurich, Univ. of Illinois at Chicago, Univ. of Zurich-Vetsuisse.*

4:00 E30 **48.08** Interactions between testosterone and brain-derived neurotrophic factor on brain development - with relevance to schizophrenia. X. DU*; M. VAN DEN BUUSE; R. A. HILL. *The Florey Inst. of Neurosci. and Mental He, La Trobe Univ.*

1:00 E31 **48.09** Accelerated GSK3β activity promotes spine elimination by facilitating LTD in developing prefrontal cortex in a schizophrenia model. B. XING*; W. GAO. *Drexel Univ. Col. of Med.*

2:00 E32 **48.10** A methionine induced prenatal animal model of schizophrenia. L. WANG*; A. ALACHKAR; S. LEE; Z. WANG; G. ABBOTT; O. CIVELLI. *Univ. of California, Irvine.*

3:00 E33 **48.11** Role of Prenatal methionine load in Schizophrenia. A. ALACHKAR*; L. WANG; S. LEE; Z. WANG; G. ABBOTT; O. CIVELLI. *Univ. of California Irvine.*

4:00 E34 **48.12** Altered context processing in the MAM rat model of schizophrenia: Relationship to dopamine dysfunction. K. M. GILL*; A. GRACE. *Univ. Pittsburgh, Univ. Pittsburgh.*

1:00 E35 **48.13** Heightened amygdala theta response oscillation in rats with MAM model of schizophrenia. Y. DU*; A. A. GRACE. *Univ. of Pittsburgh, Univ. of Pittsburgh.*

2:00 E36 **48.14** Adolescent cannabinoid exposure leads to molecular and neuronal alterations in the mesocorticolimbic system and behavioural impairments resembling schizophrenia symptomology. J. RENARD*; M. LOUREIRO; L. G. ROSEN; W. J. RUSHLOW; S. R. LAVIOLETTE. *Western Ontario Univ.*

3:00 E37 **48.15** Downregulation of parvalbumin in the prefrontal cortex during adolescence causes enduring disruptions of prefrontal processing of ventral hippocampal inputs. A. CABALLERO*; D. R. THOMASES; E. FLORES-BARRERA; K. Y. TSENG. *Rosalind Franklin Univ.*

4:00 E38 **48.16** ● Aspirin treatment prevents behavioral deficits in a maternal immune activation model in mice. A. KHAN*; J. LUCERO; M. BEHRENS; M. A. GEYER; S. B. POWELL. *Univ. of California San Diego, Salk Inst. for Biol. Studies, Res. Service, VA San Diego Healthcare Syst.*

1:00 E39 **48.17** Prenatal dynamics of kynurenine pathway metabolism in rodents. N. GOEDEN*; A. POCIVAVSEK; F. M. NOTARANGELO; S. BEGGIATO; A. BONNIN; R. SCHWARCZ. *USC, Univ. of Maryland Sch. of Med., Keck Sch. of Med. of the Univ. of Southern California.*

2:00 E40 **48.18** A test of the aversive versus the rewarding effects of nicotine in rats neonatally treated with quinpirole: Analysis of brain plasticity mechanisms. S. L. KIRBY; E. D. CUMMINS; D. J. PETERSON; A. R. DENTON; J. M. DOSE*; R. W. BROWN. *East TN State Univ., St. Norbert Col.*

3:00 E41 **48.19** Maternal, placental and fetal KYNA production in mouse tissue slices. S. BEGGIATO*; F. M. NOTARANGELO; R. SCHWARCZ. *Maryland Psychiatric Research, Univ. of Maryl.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

4:00 E42 **48.20** Neonatal quinpirole treatment enhances nicotine self-administration in adult rats. R. W. BROWN*; L. A. BEUTTEL; E. M. ODINEAL; E. D. CUMMINS; G. KASSEM; C. A. BRADLEY; M. I. PALMATIER. *East TN State Univ.*

1:00 E43 **48.21** ▲ Evaluation of chronic administration of nicotine in the NVHL model of schizophrenia. A. OSTOS VALVERDE*; D. B. PAZ-TREJO; A. MARTÍNEZ-TORRES; H. SANCHEZ-CASTILLO. *Univ. Nacional Autonoma De Mexico, Inst. de Neurobiologia, UNAM, Sociedad Iberoamericana de Neurociencia Aplicada.*

2:00 E44 **48.22** Prolonged impact of perinatal exposure to phencyclidine on brain arginine metabolism in rats. Y. R. JING*; L. T. KNOX; H. ZHANG; P. LIU. *Univ. of Otago.*

3:00 E45 **48.23** The role of the α7 and α4β2 nicotinic receptors in nicotine sensitization and neural plasticity of adolescent rats neonatally treated with quinpirole: Effects on mTOR. D. J. PETERSON*; E. D. CUMMINS; S. L. KIRBY; M. E. HOWELL; C. A. STUART; R. W. BROWN. *East TN State Univ., East TN State Univ.*

4:00 E46 **48.24** Neonatal functional inactivation of the prefrontal cortex results in increased dopaminergic responses in the core part of the nucleus accumbens to MK801 administration in adult rats. E. TAGLIABUE; S. EYBRARD; A. E. LOUILOT*. *INSERM U1114- Fac. of Medicine- U.d.S.*

1:00 E47 **48.25** The neurotrophic factor-like (Cerebrolysin) reduces alterations in myelin and the neurogenesis in dorsal hippocampus induced by the neonatal ventral hippocampal lesion. R. A. VAZQUEZ*, SR; A. ADAME; E. MASLIAH; G. FLORES. *Inst. De Fisiología Benemérita Univ. Autónoma De Puebla, Univ. de California San Diego, Benemerita Univ. Autónoma de Puebla.*

2:00 E48 **48.26** ▲ Postnatal NMDA receptor antagonism models positive and cognitive, but not negative, symptoms of schizophrenia in adult rats. D. C. LOWES*; T. A. PAINE. *Oberlin Col.*

3:00 F1 **48.27** Lack of preventive effect of acute DHA and subacute EPA/DHA combination on PPI disruption in a murine juvenile two-hit model of schizophrenia. R. GIRARD; C. MAURICE-GELINAS; C. FAYE; G. PARE; C. MONPAYS; J. DESLAURIERS; P. SARRET; S. GRIGNON*. *Univ. De Sherbrooke, Faculté de Pharmacie, Univ. Paris-Sud, UCSD.*

POSTER

049. Schizophrenia: Molecular and Cellular Mechanisms

Theme C: Disorders of the Nervous System

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 F2 **49.01** Cannabinoid transmission in the ventral hippocampus modulates excitatory neuronal activity in the nucleus accumbens and induces schizophrenia-like disturbances in emotional processing and social cognition behaviors. M. LOUREIRO*; J. RENARD; L. G. ROSEN; S. R. LAVIOLETTE. *Univ. of Western Ontario, Univ. of Western Ontario.*

2:00 F3 **49.02** Developmental vitamin D deficiency leads to multiple changes in basal neurotransmitter levels in the neonate rat brain. T. H. BURNE*; K. M. TURNER; S. ALEXANDER; D. EYLES; J. J. MCGRATH; J. P. KESBY. *Queensland Brain Inst., UCSD.*

3:00 F4 **49.03** Effects of the antioxidant n-acetyl cysteine on behavioral and neurophysiological deficits induced by developmental NMDA-R antagonism. A. J. PHENSY*; C. DRISKILL; V. JEEVAKUMAR; S. BREWER; C. DE LA HOZ; S. KROENER. *Univ. of Texas At Dallas - BBS, Univ. of Texas At Dallas.*

4:00 F5 **49.04** Scopolamine produces greater attenuation of forced swim immobility in mice housed in a short-active photoperiod. Z. A. COPE*; D. DULCIS; J. W. YOUNG. *Univ. of California San Diego, VA San Diego Hlth. Care Service.*

1:00 F6 **49.05** ● SGE-516, a novel allosteric modulator of synaptic and extra-synaptic GABAA receptors, has an anxiolytic-like effect *in vivo*. R. S. HAMMOND*; M. A. ACKLEY; C. MACIAG; G. M. BELFORT; G. MARTINEZ-BOTELLA; F. G. SALITURO; J. J. DOHERTY; A. J. ROBICHAUD. *Sage Therapeut.*

2:00 F7 **49.06** ● New insights for development of a selective muscarinic M1 agonist. C. H. CROY*; D. EVANS; B. LIU; M. BURES; E. COLVIN; A. MOGG; L. BROAD; P. GOLDSMITH; C. FELDER. *Eli Lilly and Co., Eli Lilly and Co., Eli Lilly and Co., Eli Lilly and Co.*

3:00 F8 **49.07** Enhanced endocannabinoid signaling amplifies neural activity flow through the hippocampal trisynaptic circuit and promotes safety learning. J. STEPAN; V. MICALE; J. DINE*; C. WOTJAK; M. EDER. *Max Planck Inst. of Psychiatry, Central European Inst. of Technol.*

4:00 F9 **49.08** ▲ Cannabinoid Receptor 1 interaction with Epigenetic mechanisms. J. S. DESAI; H. KUSUMO; S. C. PANDEY; D. P. GAVIN*. *Jesse Brown VA Med. Ctr., Univ. of Illinois at Chicago.*

1:00 F10 **49.09** The T-type calcium channel antagonist Z944 disrupts prepulse inhibition in three strains of rats. J. G. HOWLAND*; W. N. MARKS; Q. GREBA; S. M. CAIN; T. P. SNUTCH. *Univ. Saskatchewan, Univ. of Saskatchewan, Univ. of British Columbia.*

2:00 F11 **49.10** Tardive dyskinesia induced by prolonged antipsychotic treatments in a non-human primate model is associated with Akt/GSK-3ß kinase activities. G. A. HERNANDEZ*; S. MAHMOUDI; M. CYR; P. J. BLANCHET; D. LÉVESQUE. *Univ. de Montreal, Univ. de Montréal, Univ. du Québec à Trois-Rivières, Univ. de Montréal.*

3:00 F12 **49.11** ● Preclinical development of a novel class of competitive inhibitors of the Glycine Transporter-1 (GlyT-1) for the treatment of cognitive deficits. N. MOORE*; A. RASSOULPOUR; C. CIOFFI; S. LIU; P. GUZZO; M. LUCHE; A. MHYRE. *Brains On-Line LLC, AMRI, Concerted Therapeut. Inc., Fred Hutchinson Cancer Res. Ctr.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

4:00 F13 **49.12** ● *in vivo* evaluation of target occupancy by positron emission tomography (PET) and pharmacodynamic assessment of ABT-419, a glycine transporter-1 (GlyT1) inhibitor in non-human primates (NHP). A. M. BASSO*; R. RAJAGOVINDAN; J. WANG; A. E. TOVCIMAK; Y. LAO; C. KALVASS; M. J. VOORBACH; A. GIAMIS; D. REUTER; S. CASSAR; P. JACOBSON; R. CARR; E. VAN DER KAM; B. BEHL; G. B. FOX; J. D. BEAVER. *AbbVie, AbbVie, AbbVie, AbbVie.*

1:00 F14 **49.13** ● Known CNS medications produce distinct behavioral profiles in a larval zebrafish high content phenotypic screen. G. CAREY*; T. EVRON; A. VELENICH; D. LENSEN; D. KOKEL; R. T. PETERSON. *Teleos Therapeut., UCSF Sch. of Med., Massachusetts Gen. Hosp.*

2:00 F15 **49.14** Involvement of long noncoding RNA-NEAT1 and paraspeckles proteins in oligodendrogenesis - relevance to schizophrenia. V. HAROUTUNIAN*; P. FAM; W. TAN; M. PLETNIKOV; S. NAKAGAWA; P. KATSEL. *Neurobio. Labs., JJ Peters VA Med. Ctr., Icahn Sch. of Med. at Mount Sinai, Johns Hopkins Univ. Sch. of Med., RIKEN.*

POSTER

050. Alcohol Seeking, Reward, and Relapse

Theme C: Disorders of the Nervous System

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 F16 **50.01** Using IntelliCage to study alcohol drinking behavior in mice. M. VEREMIEVA*; T. PIEPPONEN; J. ANDRESSOO; V. VOIKAR; M. AIRAVAARA. *Univ. of Helsinki, Univ. of Helsinki, Univ. of Helsinki.*

2:00 F17 **50.02** Ethanol self-administration and decision making in a free reward choice task in the rat. J. J. MCGRAW; L. C. ZONA; H. C. CROMWELL*. *Bowling Green State Univ., Bowling Green State Unviersity.*

3:00 F18 **50.03** Insular cortex and alcohol consumption: Neurons encode reward expectancy during a operant conditioning task. S. VICENCIO*; M. AGUILAR; P. MALDONADO. *ICBM, Fac. of Medicine, Univ. De Chile., Univ. of California.*

4:00 F19 **50.04** Inactivation of CeA neuronal ensembles prevents alcohol drinking in dependent and non dependent rats. G. DE GUGLIELMO*; B. HOPE; O. GEORGE. *The Scripps Res. Inst., Natl. Inst. on Drug Abuse, Natl. Inst. of Hlth.*

1:00 F20 **50.05** The role of the ventral hippocampus in ethanol drinking and glutamate release in the nucleus accumbens. W. C. GRIFFIN*, III; H. L. HAUN; L. N. LUDERMAN; K. E. KOCH; M. KATES; H. A. BOGER; H. C. BECKER. *Med. Univ. South Carolina, Med. Univ. South Carolina, Med. Univ. South Carolina.*

2:00 F21 **50.06** Evaluating the reward- enhancing effects of nicotine on ethanol self-administration in male and female rats. S. BARRETT*; S. LYON; S. PITTENGER; N. DUSZENKO; O. LOH; R. A. BEVINS. *Univ. of Nebraska - Lincoln.*

3:00 F22 **50.07** ▲ The effect of environmental enrichment on behavioral economic demand for ethanol and sucrose in Long-Evans rats. M. R. FARRELL; L. LANSBERRY; R. CAUGHRON; M. P. MARTINETTI*. *The Col. of New Jersey.*

4:00 F23 **50.08** Efficacy of delta opioid receptor agonist induced β-Arrestin 2 recruitment positively correlates with alcohol intake in mice. T. CHIANG*; K. SANSUK; R. M. VAN RIJN. *Purdue Univ., Purdue Univ.*

1:00 F24 **50.09** ▲ Intravenous caffeine increases oral ethanol self-administration in rats. E. WILLIAMS; C. N. SWYMER; M. R. KELLICUT-JONES; A. M. BROWN; C. A. BRADLEY; M. I. PALMATIER*. *East Tennessee State Univ.*

2:00 F25 **50.10** Oxytocin reduces binge-like alcohol drinking. C. E. KING; L. N. LUDERMAN; W. C. GRIFFIN; J. F. MCGINTY; H. C. BECKER*. *Med. Univ. South Carolina, Med. Univ. South Carolina, Med. Univ. South Carolina.*

3:00 F26 **50.11** Effects of ghrelin antagonist D-Lys3-GHRP-6 on alcohol consumption may be mediated by the Urocortin 1 peptide. J. L. GOMEZ*; A. E. RYABININ. *Oregon Hlth. & Sci. Univ.*

4:00 F27 **50.12** Ketamine reduces alcohol intake in olfactory bulbectomized rats. J. KUCEROVA; Z. BABINSKA; Y. TIZABI*. *Fac. of Medicine, Masaryk Univ., Central European Inst. of Technol., Howard Univ. Col. Med.*

1:00 F28 **50.13** Moxidectin alters dopamine levels and reduces ethanol intake in female mice: Implications for developing novel therapeutic agents for alcohol use disorder. N. HUYNH; N. ARABIAN; J. THUY; H. PEI; L. ASATRYAN; S. LOUIE; M. JAKOWEC; D. L. DAVIES*. *USC, USC.*

2:00 F29 **50.14** Mechanical stimulation of the HT7 acupuncture point reduces ethanol self-administration in rats. S. KANG*; Y. RYU; O. KWON; S. YEON; S. CHO; K. CHOI; J. KIM; M. KIM; Y. SHIN; J. CHOI. *Korea Inst. of Oriental Med.*

3:00 F30 **50.15** ▲ The effects of brief conditioning trial duration on ethanol-induced conditioned place preference in mice. E. M. JOHNSON; S. D. DICKINSON*. *St. Olaf Col.*

4:00 F31 **50.16** Potential roles of the nucleus accumbens and amygdala mGluR5 in the acquisition and expression of ethanol-induced place preference. J. LEE; S. YOON*; J. SEO. *Korea Inst. of Toxicology, Korea Inst. of Toxicology.*

1:00 F32 **50.17** Role of projections from dorsal medial prefrontal cortex to nucleus accumbens core in context-induced reinstatement of ethanol seeking. P. C. BIANCHI*; R. M. LEÃO; P. E. CARNEIRO-DE-OLIVEIRA; F. C. CRUZ; C. PLANETA. *UNESP - State Univ. of São Paulo, USP - Univ. of São Paulo.*

2:00 F33 **50.18** Decreased neurogranin in the nucleus accumbens promotes the reward motivation and reinforcement for ethanol seeking. H. NAM*; J. M. SULLIVAN; O. ALFREDO; D. J. HINTON; D. CHOI. *LSU Hlth. Sci. Center-Shreveport, Mayo Clin. Col. of Med.*

3:00 F34 **50.19** Target-specific ablation of medial prefrontal cortex projections in extinction and reinstatement of alcohol-seeking behavior. C. KEISTLER*; J. M. BARKER; E. M. HAMMARLUND; C. W. BOND; M. XU; C. PITTENGER; R. J. DILEONE; J. R. TAYLOR. *Yale Univ., Med. Univ. of South Carolina, Yale Univ., Yale Univ.*

4:00 F35 **50.20** ▲ Interactive effects of ethanol and HIV-1 viral proteins on novelty-seeking behaviors. T. WINGO; T. NESIL; S. CHANG; M. D. LI*. *Univ. of Virginia, Inst. of NeuroImmunology Pharmacol., Seton Hall Univ.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

1:00 F36 **50.21** Brain activation to cannabis- and alcohol-related words in alcoholism. T. SCHULTE*; A. LE BERRE; M. SERVENTI; J. METZLER; E. V. SULLIVAN; A. PFEFFERBAUM; E. M. MÜLLER-OEHRING. *SRI Intl., Palo Alto Univ., Stanford Univ. Sch. of Med.*

POSTER

051. Cocaine: Neural Mechanisms of Reinforcement and Relapse I

Theme C: Disorders of the Nervous System

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 F37 **51.01** Cocaine-induced alterations in structural plasticity in the dmPFC of rats during early withdrawal. B. M. SIEMSEN*; P. MULHOLLAND; J. KOERBER; S. LANDER; P. KALIVAS; J. MCGINTY. *Med. Univ. of South Carolina.*

2:00 F38 **51.02** Alterations in dmPFC neuronal activity during and immediately after cocaine self-administration. T. S. DENNIS*; J. A. KOERBER; T. C. JHOU; J. F. MCGINTY. *Med. Univ. of South Carolina.*

3:00 F39 **51.03** Inhibition of Src family kinases prevents the suppressive effect of BDNF on cocaine-seeking. S. M. BARRY*; E. L. HERZIG; J. F. MCGINTY. *Med. Univ. of South Carolina.*

4:00 F40 **51.04** Involvement of CaMKII within the prefrontal cortex and the nucleus accumbens in the effects of Taar1 agonist on reinstatement of cocaine seeking in rats. J. LIU*; J. LI. *Univ. at Buffalo, SUNY.*

1:00 F41 **51.05** nNOS-expressing interneurons: A master switch for nucleus accumbens plasticity underlying cocaine relapse. A. W. SMITH*; J. L. HEINSBROEK; M. D. SCOFIELD; M. R. LORANG; P. W. KALIVAS. *Med. Univ. of South Carolina, Col. of Charleston.*

2:00 F42 **51.06** Electrochemical detection of glutamate- and Gq-dreadd-evoked nitric oxide release in the nucleus accumbens. M. D. SCOFIELD*; A. W. SMITH; C. D. GIPSON; H. A. BOGER; P. W. KALIVAS. *Med. Univ. of South Carolina, Med. Univ. of South Carolina.*

3:00 F43 **51.07** ● Integrins and integrin linked kinase as a signaling pathway for mmp-9 induction of transient synaptic plasticity in cocaine relapse. C. GARCIA-KELLER*; S. SPENCER; M. D. SCOEFIELD; A. N. PHOENIX; P. W. KALIVAS. *Med. Univ. of South Caroline.*

4:00 F44 **51.08** Overexpression of acid-sensing ion channel 1A in the nucleus accumbens core potentiates cocaine-seeking, but not food-seeking, behavior in rats. V. A. MULLER EWALD*; C. V. COSME; A. L. GUTMAN; W. R. WORTH; M. NOTERMAN; Y. LU; J. A. WEMMIE; R. T. LALUMIERE. *Univ. of Iowa, Univ. of Iowa, Univ. of Iowa, Univ. of Iowa.*

1:00 G1 **51.09** ● Systemic administration of a kainate receptor antagonist attenuates cocaine seeking and alcohol preference in rats. D. VAN NEST*; N. HERNANDEZ; J. MAURER; M. DE BIASI; H. R. KRANZLER; H. D. SCHIMDT; R. C. PIERCE. *Univ. of Pennsylvania.*

2:00 G2 **51.10** The role of projections from the nucleus accumbens shell to the ventral pallidum in mood and motivation for cocaine. A. L. LORIAUX*; D. W. SELF. *UT Southwestern Med. Ctr.*

3:00 G3 **51.11** Loss of BDNF-TrkB-PLCγ signaling in accumbens shell neurons attenuates cocaine-induced dendritic spine formation. E. M. ANDERSON*; A. WISSMAN; D. GUZMAN; C. COWAN; D. SELF. *UT Southwestern, McLean Hosp.*

4:00 G4 **51.12** Vagus nerve stimulation modulates plasticity in the prefrontal cortex-amygdala pathway and enhances extinction of drug-seeking behavior. J. PRUETT*; E. NICKEL; J. DELEON; S. KROENER. *Univ. of Texas At Dallas, Sch. of Behavioral and Brain Sci.*

1:00 G5 **51.13** Riluzole impairs reinstatement to cocaine seeking. M. T. SEPULVEDA-ORENGO*; A. C. AURIEMMA; K. L. HEALEY; J. A. ROJAS; K. J. REISSNER. *Univ. of North Carolina@Chapel Hill.*

2:00 G6 **51.14** Regulation of glutamate transporter-1 gene expression by cocaine self-administration and withdrawal. R. KIM*; M. T. SEPULVEDA-ORENGO; K. J. REISSNER. *UNC Chapel Hill.*

3:00 G7 **51.15** Subpopulations of adenosine a2a receptors in the nucleus accumbens play different roles in cocaine seeking. N. HAYNES*; C. E. O'NEILL; S. LEVIS; D. SCHREINER; J. STAFFORD; R. K. BACHTELL. *Univ. of Colorado.*

4:00 G8 **51.16** Deep brain stimulation (DBS) of nucleus accumbens afferent structures attenuates the reinstatement of cocaine seeking. L. A. GUERCIO*; H. SCHMIDT; R. PIERCE. *Univ. of Pennsylvania.*

1:00 G9 **51.17** Cav1.2 channel-mediated regulation of GluA1 phosphorylation and trafficking in the hippocampus is essential for extinction of cocaine conditioned place preference. C. BURGDORF*; K. C. SCHIERBERL; A. S. LEE; F. HOFMANN; R. L. HUGANIR; A. M. RAJADHYAKSHA. *Weill Cornell Med. Col., Tech. Univ. Munich, Johns Hopkins Univ. Sch. of Med.*

2:00 G10 **51.18** Cav1.3 L-type Ca^{2+} channels: Role in VTA dopamine neurons on cocaine's behavioral effects and genetic variants in cocaine dependent humans. A. MARTINEZ*; J. HAO; R. RICE; J. STRIESSNIG; S. HAN; A. M. RAJADHYAKSHA. *Weill Cornell Med. Col., New York Presbyterian Hosp., Univ. of Innsbruck, Univ. of Innsbruck, Univ. of Iowa.*

3:00 G11 **51.19** L-type calcium channels in the ventral tegmental area mediate cue-induced cocaine-seeking. E. J. NUNES*; S. M. HUGHLEY; W. SOLECKI; A. M. RAJADHYAKSHA; N. A. ADDY. *Yale Univ., Weill Cornell Med. Col., Yale Univ., Yale Univ.*

4:00 G12 **51.20** ● Role of intra-accumbens brain-derived neurotrophic factor on cue-induced reinstatement after cocaine self-administration. A. BOBADILLA*; C. GARCIA-KELLER; S. MCWHIRTER; P. W. KALIVAS. *Med. Univ. of South Carolina.*

1:00 G13 **51.21** Fluoxetine potentiates methylphenidate-induced behavioral stereotypies and subsequent cocaine self-administration in rats. M. MARINELLI; J. A. BEVERLEY; L. LAMOUREUX; H. STEINER*. *Chicago Med. School/ RFUMS.*

2:00 G14 **51.22** Food restriction stress enhances cocaine seeking and VTA dopamine neuron activity. A. GORDON*; M. MARINELLI; V. S. RAMACHANDRA. *UT Austin.*

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▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 G15 **51.23** The LPO: Role on dopaminergic transmission, drug taking, and seeking. R. G. WILL*; R. C. TWINING; V. S. RAMACHANDRA; M. MARINELLI. *Univ. of Texas Austin, Marquette Univ., Univ. of Texas.*

4:00 G16 **51.24** Pharmacological antagonism of the toll-like receptor 4 attenuates cocaine induced reinstatement. K. T. BROWN*; C. ONEIL; S. LEVIS; T. FABISIAK; A. NORTHCUTT; L. WATKINS; R. BACHTELL. *Univ. of Colorado Boulder.*

1:00 G17 **51.25** The role of HCRTr1 in the VTA on Dopamine signaling; implications for addiction. D. L. BERNSTEIN*; C. BASS; K. LEVY; R. A. ESPAÑA. *Drexel Univ., Univ. of Buffalo.*

2:00 G18 **51.26** Increased expression of 5-HT6 Receptors in the indirect pathway reduces cocaine self-administration. M. BRODSKY*; A. W. GIBSON; D. SMIRNOV; S. NAIR; J. F. NEUMAIER. *Univ. of Washington, Univ. of Washington.*

3:00 G19 **51.27** Phasic dopamine release in the nucleus accumbens during cocaine self-administration under different operant requirements. I. OLIVA*; M. WANAT. *UNIVERSITY OF TEXAS AT SAN ANTONIO.*

POSTER

052. Learning, Memory, Dependence, and Addiction

Theme C: Disorders of the Nervous System

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 G20 **52.01** Region-specific role of DNA methylation in the reconsolidation of appetitive and aversive memories associated with morphine in rats. J. ZHANG*; P. LIU; N. SUI. *Inst. of Psychology, Chinese Acad. of Scienc, Inst. of Psychology, Chinese Acad. of Sci.*

2:00 G21 **52.02** Blocking infralimbic basic fibroblast growth factor (bFGF or FGF2) facilitates extinction of drug seeking. M. HAFENBREIDEL*; C. RAFA TODD; C. W. SMIES; R. C. TWINING; D. MUELLER. *Univ. of Wisconsin-Milwaukee.*

3:00 G22 **52.03** PKA mediates prelimbic neuronal excitability underlying cocaine-associated memory retrieval. H. YOUSUF*; J. M. OTIS; M. K. FITZGERALD; D. MUELLER. *Univ. of Wisconsin-Milwaukee, Univ. of North Carolina-Chapel Hill.*

4:00 G23 **52.04** The role of medial prefrontal cortex gap junction communication in retrieval and extinction of cocaine seeking. M. FITZGERALD*; J. L. BURKARD; A. GASPARINI; A. ANDERSON; D. MUELLER. *Univ. of Wisconsin - Milwaukee.*

1:00 G24 **52.05** Identification of distinct neuronal ensembles selectively activated by discrete cues associated with cocaine or heroin seeking in rats. F. RUBIO*; D. CAPRIOLI; F. SOTO DEL VALLE; M. VENNIRO; V. WALLACE; Y. SHAHAM; B. HOPE. *Behavioral Neurosci. Res. Branch, NIDA IRP, NIH.*

2:00 G25 **52.06** Interleukin-1 in the dorsal hippocampus is a novel mediator of acquisition of heroin-conditioned immunosuppression. C. LEBONVILLE*; M. E. JONES; L. W. HUTSON; R. A. FUCHS; D. T. LYSLE. *Univ. of North Carolina At Chapel Hill, Washington State Univ.*

3:00 G26 **52.07** Dopamine D3 receptor activity and downstream calcium/calmodulin signaling targets are altered within the basolateral amygdala as a function of opiate exposure state. L. G. ROSEN*; W. J. RUSHLOW; S. R. LAVIOLETTE. *The Univ. of Western Ontario.*

4:00 G27 **52.08** Remembering to abstain: The impact of working memory on length of first quit attempt in drug users. T. E. MOSES*; E. DUNNE; J. J. ROSE; W. W. LATIMER. *Lehman Col., Univ. of Florida.*

1:00 G28 **52.09** PP1/GSK3 signaling pathway is involved in the reconsolidation of cocaine reward memory. X. SHI*; J. PALMA; E. M. UNTERWALD. *Temple Univ. Sch. of Med.*

2:00 G29 **52.10** Transcriptional and epigenetic factors underlying the extinction of nicotine-seeking behaviour in the rat. M. R. CASTINO*; N. A. YOUNGSON; D. BAKER-ANDRESEN; V. S. RATNU; T. W. BREDY; K. J. CLEMENS. *Univ. of New South Wales, Univ. of New South Wales, The Univ. of Queensland, Univ. of California.*

3:00 G30 **52.11** Timing of SCH 23390 administration influences extinction of conditioned hyperactivity in mice. A. S. RAUHUT*; K. A. RATNER; S. BUCK; E. SUNG. *Dickinson Col., Dickinson Col.*

4:00 G31 **52.12** Modeling Pavlovian alcohol seeking in rats using a retractable sipper to study both appetitive and consummatory behavior. R. U. COFRESI*; S. M. LEWIS; N. CHAUDHRI; H. J. LEE; M. H. MONFILS; R. A. GONZALES. *The Univ. of Texas At Austin, Concordia Univ.*

1:00 G32 **52.13** Nicotine attenuates the effects of HIV-1 proteins on the neural circuitry of working and contextual memory. T. NESIL*; J. CAO; Z. YANG; S. L. CHANG; M. D. LI. *Univ. of Virginia, Seton Hall Univ., Seton Hall Univ.*

2:00 G33 **52.14** Common brain mechanism underlying pathological gambling and problematic pornography consumption. M. K. GOLA*; M. WORDECHA; G. SESCOUSSE; B. KOSSOWSKI; M. WYPYCH; M. LEW-STAROWICZ; A. MARCHEWKA. *UCSD, Inst. For Neural Computation, Polish Acad. of Science, Inst. of Psychology, Nencki Inst. of Exptl. Biology, Polish Acad. of Sci., Radboud University, Donders Inst. for Brain, Cognition and Behavior, Dept. of Psychiatry, Inst. of Psychiatry and Neurol.*

3:00 G34 **52.15** ▲ Acute methamphetamine produces long-term deficits in hippocampal-dependent spatial learning and memory retention, decreases PKMzeta, GluA2 and dopamine 1 receptors (D1), and increases microglial expression. S. BRAREN*; D. DRAPALA; J. AVILA; P. A. SERRANO. *Hunter Col., The Grad. Ctr. of CUNY.*

4:00 G35 **52.16** Activation and transition of the ventral and dorsal striatum during cue reactivity in Internet gaming disorder. L. LIU*; J. ZHANG; L. WANG; B. LIU; S. MA; Y. YAO; X. FANG. *Inst. of Developmental Psychology, Beijing Normal University, State Key Lab. of Cognitive Neurosci. and Learning and IDG/McGovern Inst. for Brain Res.*

1:00 G36 **52.17** High fat dieting delays the extinction of conditioned preference for places paired to palatable food and upregulates addiction biomarkers in the nucleus accumbens. J. M. PÉREZ-ORTÍZ*; A. GALIANA; E. SALAS; C. GONZÁLEZ-MARTÍN; M. GARCÍA-ROJO; L. F. ALGUACIL. *Univ. Gen. Hosp. of Ciudad Real.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

2:00 G37 **52.18** Chronic fluoxetine ameliorates long-term trace conditioning deficits in mice exposed to chronic nicotine during adolescence. D. A. CONNOR*; T. J. GOULD. *Temple Psychology, Temple Univ.*

3:00 G38 **52.19** ▲ Individual differences in voluntary alcohol consumption predict reversal learning performance in rats. M. GALLO; N. BRIGHT; H. FISHER; M. GREER; A. PAJSER; M. RAY; M. WANG; C. L. PICKENS*. *Kansas State Univ.*

4:00 G39 **52.20** The neural responses of cognitive performance deficits in Internet gaming disorder during prospective memory task. J. CHUN*; J. KIM; A. PYEON; H. CHO; J. CHOI; D. KIM. *The Catholic Univ. of Korea Col. of Medici.*

1:00 G40 **52.21** Age and dose are important factors in the acquisition phase of the tobacco dependence animal model. C. GELLNER*. *Univ. of California, Irvine.*

2:00 G41 **52.22** The effects of chronic Cigarette Smoke Extract exposure on somatic withdrawal in adolescent rats. D. REYNAGA*; A. REZK; C. PON; D. GHOBRIAL; F. LESLIE. *Univ. of California Irvine.*

POSTER

053. Neurodegeneration Drug Discovery: Other

Theme C: Disorders of the Nervous System

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 G42 **53.01** A high-throughput phenotypic screen to identify compounds that protect human astrocytes from oxidative stress: A proof-of-concept study using stem cell-derived astrocytes for neurodegenerative disease drug discovery. N. THORNE*; N. MALIK; S. SHAH; J. ZHAO; B. CLASS; F. AGUISANDA; N. SOUTHALL; M. XIA; M. RAO; W. ZHENG. *NCATS/NIH, NIAMS/NIH, NIH Ctr. for Regenerative Med.*

2:00 G43 **53.02** Minocycline inhibits inflammatory responses but does not prevent neuronal loss in a mouse model of neurodegeneration. G. CHEN*; S. CHENG; J. HOU; C. ZHANG. *Nanjing Univ.*

3:00 G44 **53.03** cGMP/CREB signaling as therapeutic target for the chronic or acute treatment of Alzheimer's disease, migraine and epilepsy. M. BEN AISSA*; R. P. GANDHI; S. H. LEE; A. PRADHAN; I. GAISINA; G. R. THATCHER. *Dept. of Medicinal Chem. and Pharmacognos, Col. of medecine, UIC.*

4:00 H1 **53.04** ● Identification and characterization of a novel and highly potent agonist of the human Smoothened receptor. J. A. VAN BERGEIJK*; L. A. SMYTH; S. RENNER; A. HEUTLING; M. SCHMIDT; A. H. MEYER. *Abbvie Deutschland GmbH & Co. KG, Abbvie Deutschland GmbH & Co. KG.*

1:00 H2 **53.05** 7,8-Dihydroxyflavone protects mitochondrial injury by regulating energy metabolism in an animal model of multiple sclerosis. T. K. MAKAR*; V. NIMMAGADDA; P. GUDA; S. JUDGE; D. TRISLER; C. BEVER. *Univ. of Maryland Baltimore, VA Maryland Hlth. care system.*

2:00 H3 **53.06** Computer modeling for binding prediction and characterization of cdk5-p5 association. A. CARDONE; A. HASSAN; M. BRADY; R. SRIRAM; H. C. PANT*. *NIST, Univ. of Maryland, NIH, NIH.*

3:00 H4 **53.07** Targeting inflammation and synaptic plasticity for the treatment of stress disorder and depression. J. WANG*; G. HORDES; S. GOLDEN; W. BI; W. ZHAO; L. HO; S. RUSSO; G. M. PASINETTI. *Mt Sinai Sch. Med., James J. Peters Veterans Affairs Med. Ctr., Icahn Sch. of Med. of Mount Sinai.*

4:00 H5 **53.08** A synthetic steroid 5α-androst-3β,5,6β-triol functions as a novel neuroprotectant against ischemic stroke via multiple mechanisms. S. LIN*; Y. HUANG; Y. ZHOU; J. CHEN; T. LENG; H. HU; M. YAN; L. TANG; Y. LI; P. QIU; W. YIN; J. ZHANG; Z. XIONG; D. DUAN; J. LIN; H. SHI; Y. WANG; G. YAN. *Guangzhou Cellprotek Pharmaceut. Co. Ltd., Zhongshan Sch. of Medicine, Sun Yat-Sen Univ., Morehouse Sch. of Med., Sch. of Pharmaceut. Sciences, Sun Yat-Sen Univ., university of nevada, Stony Brook Univ.*

1:00 H6 **53.09** Structural and functional rejuvenation of the aged and of the neurodegenerative brain by an approved anti-asthmatic drug. J. MARSCHALLINGER; B. KLEIN; I. SCHÄFFNER; R. GELFERT; S. ILLES; L. GRASSNER; M. JANSSEN; P. ROTHENEICHNER; C. SCHMUCKERMAIR; R. CORAS; M. BOCCAZZI; M. CHISHTY; F. LAGLER; M. RENIC; F. RIVERA; H. BAUER; N. SINGEWALD; I. BLÜMCKE; U. BOGDAHN; S. COUILLARD-DESPRES; D. C. LIE; E. ROCKENSTEIN; E. MASLIAH; M. P. ABBRACCHIO; L. J. AIGNER*. *Paracelsus Med. Univ., Helmholtz Zentrum München, German Res. Ctr. for Envrn. Health,, Leopold-Franzens-University of Innsbruck, Friedrich-Alexander-University Erlangen-Nürnberg, Univ. of Milan, Pharmidex, Univ. of Zagreb Sch. of Med., Univ. Hosp. Regensburg, UCSD.*

2:00 H7 **53.10** ● NDC-1308, a small molecule with remyelinating activity for treatment of secondary progressive multiple sclerosis patients. S. H. NYE*; J. G. YARGER. *ENDECE Neural, LLC.*

3:00 H8 **53.11** ● ISP - An *in vivo* based systems pharmacology platform for phenotypic characterization of CNS treatments, translational modelling and drug discovery. P. SVENSSON*; S. WATERS; C. SONESSON; E. LJUNG; B. SVANBERG; N. WATERS. *Integrative Res. Labs. (IRL).*

4:00 H9 **53.12** ● Prediction of glutamatergic neurotoxicity of drugs and pollutants by biosimulation: Cholinesterase inhibitors (AChEI) and metallic nanoparticles (MNPs). R. GREGET; L. BARBIER; S. DADAK; F. LALOUE; J. C. BOUTEILLER; L. FAGNI; F. DORANDEU; S. BISCHOFF*; M. BAUDRY; S. MOUSSAOUI. *Rhenovia Pharma, Armed forces biomedical institute, Inst. de génomique fonctionnelle (IGF), USC, Rhenovia Inc, Western Univ. of Hlth. Sci.*

1:00 H10 **53.13** Combined Ca^{2+} channel/NMDAR antagonism reduces excessive voltage-gated Ca^{2+} influx in pyramidal neurons from the medial prefrontal cortex of HIV-1 transgenic rats. C. KHODR*; S. DAVE; L. CHEN; C. ZHANG; L. AL-HARTHI; X. HU. *Rush Univ. Med. Ctr., Rush Univ. Med. Ctr.*

2:00 H11 **53.14** ● Human stem cell-based high-throughput screening platform for neurodegenerative diseases. Z. DU*; S. ZHANG. *Univ. Wisconsin.*

3:00 H12 **53.15** Extracellular zinc changes the kinetics of streptokinase in thrombolysis *in vitro*. Z. WANG*; Y. LI. *Ohio Univ.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

4:00 H13 **53.16** Addressing innovation in CNS drug discovery: Preclinical proof of concept for parallel campaigns that employ either functional or single molecular target approaches for delivery of novel candidates that attenuate synaptic and cognitive dysfunction. D. WATTERSON*; O. ARANCIO; S. M. ROY; L. VAN ELDIK. *Northwestern Univ. Feinberg Sch. of Med., Columbia Univ., Univ. of Kentucky.*

1:00 H14 **53.17** ● Etiology-based drug discovery is a route for new amyotrophic lateral sclerosis (ALS) therapeutics. T. J. LUKAS*; H. ARRAT; T. SIDDIQUE. *Northwestern Univ., Northwestern Univ.*

2:00 H15 **53.18** A peptidylic inhibitor approach to suppress polyglutamine disease toxicity. E. CHAN*; T. ZHANG; H. TSOI; I. PENG; K. LAU; J. NGO. *The Chinese Univ. of Hong Kong.*

3:00 H16 **53.19** ● Shared genetic etiology underlying Alzheimer's disease and type 2 diabetes. K. HAO; A. F. DINARZO; W. LUO; S. LI; R. CHEN; L. HO; G. M. PASINETTI*. *Icahn Sch. of Med. at Mount Sinai, Icahn Sch. of Med. at Mount Sinai, Mount Sinai Sch. of Med., James J. Peters Veterans Affairs Med. Ctr.*

4:00 H17 **53.20** Exploration of human cannabinoid 2 receptor binding site using AM1336, a novel covalent ligand. S. MALLIPEDDI*; N. ZVONOK; A. MAKRIYANNIS. *Northeastern Univ., Northeastern Univ., Northeastern Univ.*

1:00 H18 **53.21** Targeting the kynurenine pathway of tryptophan metabolism: A structural biology approach. L. PIDUGU*; B. ROTH; C. BEATO; S. MALIK; R. BADDAM; T. L. WANG; D. N. PATTERSON; K. VARNEY; G. COSTANTINO; R. SCHWARCZ; D. J. WEBER; E. A. TOTH. *CBT, Univ. of Maryland Sch. of Med., Università degli Studi di Parma, Univ. of Maryland Sch. of Medicine.*

2:00 H19 **53.22** ▲ Alpha-synuclein familial mutant analysis in yeast models. C. ALVARADO*; M. TEMBO; N. KUKULKA; M. MUNOZ; S. K. DEBBURMAN. *Lake Forest Col., Lake Forest Col.*

3:00 H20 **53.23** ● ▲ Tetramer-abolishing alpha-synuclein variants cause neurotoxicity and inclusion formation: Clearance mechanisms and relevance for Parkinson's disease. V. VON SAUCKEN*; A. J. NEWMAN; T. BARTELS; U. DETTMER; D. SELKOE. *Brigham and Women's Hosp. and Harvard Med. S.*

4:00 H21 **53.24** ● A functional phenotypic screening *in vitro* assay for novel Parkinson's drugs - comparing effects of human iPSC-derived dopaminergic neuronal networks and primary mouse midbrain cultures. B. M. BADER*; A. PIELKA; C. EHNERT; K. JUEGELT; A. GRAMOWSKI-VOSS; O. H. SCHROEDER. *NeuroProof GmbH.*

1:00 H22 **53.25** Effects of binge ethanol exposure on transient receptor potential melastatin 7 expression in brain microvascular endothelial cells of the HIV-1 transgenic rats. M. L. MACK; Y. WEI; M. D. LI; S. L. CHANG*. *Seton Hall Univ., Univ. of Virginia.*

2:00 H23 **53.26** Synthesis of high surface area gold nanoparticle for brain disease drug carrier. M. PARK; S. CHUNG*. *Dept. of Physiology, Yonsei Univ. Col. of Med.*

POSTER

054. Neurodegeneration Drug Discovery

Theme C: Disorders of the Nervous System

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 H24 **54.01** Histamine H3 receptor inverse agonist, SUVN-G3031 produces procognitive effects without affecting sleep in preclinical animal models. V. BENADE*; S. DARIPELLI; J. THENTU; R. MEDAPATI; R. SUBRAMANIAN; V. MEKALA; A. SHINDE; L. KOTA; N. GANGADASARI; V. GOYAL; S. PANDEY; R. NIROGI. *Suven Life Sci. Ltd.*

2:00 H25 **54.02** ● Pharmacological profile of S 76892, a new ligand at nicotinic α7-subtype receptors. C. LOUIS*; N. ROGEZ; J. THOMAS; G. DAS DORES; A. HUGOT; M. GANDON; V. BERTAINA-ANGLADE; A. KRAZEM; D. BÉRACOCHÉA; D. BERTRAND; D. RIMET; T. PILLOT; M. BERTRAND; I. BOTEZ; J. FOURQUEZ; L. DANOBER; P. LESTAGE. *Inst. de Recherches Servier, Inst. de Recherches Servier, Biotrial, CNRS, HiQScreen, SynAging, Inst. de Recherches Servier, Inst. de Recherches Servier.*

3:00 H26 **54.03** Step (striatal enriched protein tyrosine phosphatase) regulates tyrosine hydroxylase through bdnf signaling. P. K. KURUP*; J. XU; R. A. VIDEIRA; R. WICKAM; N. ADDY; G. BALTAZAR; A. NAIRN; P. LOMBROSO. *Yale Univ. Sch. Med., Hlth. Sci. Res. Center, CICS-UBI, Yale Univ. Sch. Med., Yale Univ. Sch. Med.*

4:00 H27 **54.04** Novel small molecule triazolopyrimidine derivatives exhibit microtubule-stabilizing activity and represent potential therapeutic candidates for Alzheimer's disease and related tauopathies. J. KOVALEVICH; A. CORNEC; Y. YAO; M. JAMES; A. CROWE; V. M. Y. LEE; J. Q. TROJANOWSKI; A. B. SMITH, III; C. BALLATORE; K. R. BRUNDEN*. *Univ. Pennsylvania, Univ. of Pennsylvania.*

1:00 H28 **54.05** ● Clinical pharmacology of the 5-HT6 antagonist, RVT-101: Summary of phase 1 studies. I. LOMBARDO; L. FRIEDHOFF*; S. PISCITELLI; G. RAMASWAMY. *Axovant Sciences, Inc, Roivant Sciences, Inc, Axovant Sciences, Inc.*

2:00 H29 **54.06** ▲ Effects of inhibiting STriatal-Enriched protein tyrosine Phosphatase (STEP) on dendritic morphology in mice with Alzheimer's disease. J. B. BENEDICT*; M. CHATTERJEE; J. ELLMANN; A. NAIRN; P. LOMBROSO. *Yale Univ., Yale Univ., Yale Univ., Yale Univ., Yale Univ.*

3:00 H30 **54.07** ● Selective sphingosine-1-phosphate receptor 5 agonists can modulate lipid content in the brain and thereby potentially treat neurodegenerative disorders. E. VAN DER KAM*; S. C. TURNER; M. OCHSE; J. VAN BERGEIJK; R. MUELLER; M. MEZLER; K. HEMPEL; A. HOBSON; C. M. HARRIS; A. BESPALOV; A. HAHN; B. RENDENBACH-MUELLER. *AbbVie Deutschland Gmbh & CO KG, AbbVie Deutschland GmbH and Co KG, AbbVie Deutschland GmbH and Co KG, AbbVie Deutschland GmbH and Co KG, AbbVie Bioresearch Ctr., AbbVie Deutschland GmbH and Co KG.*

4:00 H31 **54.08** SUVN-D4010: Novel 5-HT4 receptor partial agonist for the treatment of Alzheimer's disease. N. MUDDANA*; R. SUBRAMANIAN; R. MEDAPATI; R. ABRAHAM; V. BENADE; R. PALACHARLA; A. MANOHARAN; V. GOYAL; S. PANDEY; M. RASHEED; S. RAVELLA; R. NIROGI. *Suven Life Sci.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

1:00 H32 **54.09** ▲ Pharmacological inhibition of striatal-enriched protein tyrosine phosphatase (STEP) with TC-2153 attenuates seizure frequency and severity in the pilocarpine model of temporal lobe epilepsy. D. B. LAWRENCE*; R. M. SAMPLES; F. A. HARRSCH; E. S. WEISS; M. R. PELTON; M. VAN ZANDT; M. CHATTERJEE; T. BAGULEY; J. ELLMAN; A. C. NAIRN; P. J. LOMBROSO; J. R. NAEGELE. *Wesleyan Univ., Yale Univ., Yale Univ., Yale Univ., Yale Univ.*

2:00 H33 **54.10** Development of a novel and robust pharmacological model of okadaic acid-induced Alzheimer's disease in zebrafish. S. NADA; F. E. WILLIAMS; Z. A. SHAH*. *Univ. of Toledo, Univ. of Toledo Col. of Pharm. and Pharmaceut. Sci., Univ. of Toledo Col. of Pharm. and Pharmaceut. Sci.*

3:00 H34 **54.11** Adenosine A2A receptor expression in human brain and beneficial effects of A2A receptor blockade in aging and models of neurodegenerative disease. A. G. ORR*; K. HO; A. LUNDQUIST; G. SHLAGER; S. LEE; D. H. KIM; X. WANG; W. GUO; G. YU; E. MASLIAH; W. W. SEELEY; L. MUCKE. *Gladstone Inst. of Neurolog. Dis., Univ. of California, Univ. of California, Univ. of California, Univ. of California.*

4:00 H35 **54.12** Safety, tolerability and pharmacokinetics of a potent and selective H3 receptor inverse agonist, SUVN-G3031 following single and multiple ascending doses in healthy adult subjects. G. BHYRAPUNENI*; K. MUDIGONDA; K. PENTA; N. MUDDANNA; R. PALACHARLA; P. JAYARAJAN; R. ABRAHAM; R. SUBRAMANIAN; V. GOYAL; S. PANDEY; R. BOGGAVARAPU; D. AJJALA; A. SHINDE; R. NIROGI. *Suven Life Sci.*

1:00 H36 **54.13** Inhibitors of STEP as a novel treatment of fragile-x-syndrome. M. CHATTERJEE*; J. KWON; J. BENEDICT; E. FOSCUE; T. BAGULEY; J. ELLMANN; A. NAIRN; P. LOMBROSO. *Yale, Yale, Yale, Yale.*

2:00 H37 **54.14** ▲ Exercise regulates STEP (STriatal-Enriched protein tyrosine Phosphatase) through BDNF signaling. M. POWELL*; D. GHOSH; E. P. FOSCUE; A. C. NAIRN; P. J. LOMBROSO. *Yale Univ., Yale Univ., Yale Univ.*

3:00 H38 **54.15** ● Discovery and clinical development of npt088, a general amyloid interaction motif (gaim)-immunoglobulin fusion protein. J. M. LEVENSON*; K. S. GANNON; J. C. CARROLL; S. SCHROETER; V. CULLEN; E. ASP; C. CHUNG; M. GARTNER; M. LULU; M. PROSCHITSKY; H. TSUBERY; R. KRISHNAN; E. ROCKENSTEIN; E. MASLIAH; M. NADEEM; E. J. MUFSON; M. GRAY; M. GRUNDMAN; R. BALES; J. WRIGHT; B. SOLOMON; F. HEFTI; R. FISHER. *NeuroPhage Pharmaceuticals, Inc., NeuroPhage Pharmaceuticals, Inc., NeuroPhage Pharmaceuticals, Inc., Univ. of California San Diego, Barrow Neurologic Inst., NeuroPhage Pharmaceuticals, Inc., NeuroPhage Pharmaceuticals, Inc., NeuroPhage Pharmaceuticals, Inc., Tel Aviv Univ.*

4:00 H39 **54.16** ● PD-61-W3 (Synuclere™) reduces and detoxifies alpha-synuclein aggregates and improves motor dysfunction: Development of a potential novel Parkinson's disease-modifying therapeutic. L. A. ESPOSITO*; K. L. HANSON; J. CUMMINGS; M. YADON; T. M. CHONG; T. LAKE; Q. HU; J. CAM; A. D. SNOW. *ProteoTech Inc.*

1:00 H40 **54.17** ● ▲ Clinical development of a bioactive dietary polyphenol preparation for treating patients with mild cognitive impairment and prediabetes. L. DUBNER*; L. HO; J. WANG; P. B. ROSENBERG; G. M. PASINETTI. *Icahn Sch. of Med. At Mount Sinai, James J. Peters Veterans Affairs Med. Ctr., Johns Hopkins Sch. of Med.*

2:00 H41 **54.18** Active cytosolic Rac1 and nuclear RhoA: Effects on neurite morphology. J. M. REDDY*; N. G. R. RAUT; D. L. HYNDS. *Texas Woman's Univ.*

3:00 H42 **54.19** Regulation of rac1-gtp by statin therapy in a genetically modified mouse model of autism spectrum disorders. Q. LING; M. V. TEJADA-SIMON*. *Univ. Houston.*

4:00 H43 **54.20** ● PTI-51-CH3 (TauPro™) and PTI-80 are novel small molecule tau aggregation inhibitors and pre-clinical candidates for the treatment of tauopathies. K. L. HANSON; J. CAM; J. CUMMINGS; L. A. ESPOSITO; T. LAKE; T. M. CHONG; A. D. SNOW; Q. HU. *ProteoTech, Inc.*

1:00 H44 **54.21** ● Intestinal microbiota-derived phenol acids are capable of accumulating in the brain and interfere with β-amyloid oligomerization. L. HO*; J. FAITH; G. M. PASINETTI. *The Icahn Sch. of Med. at Mount Sinai, The Icahn Sch. of Med. at Mount Sinai, The Icahn Sch. of Med. at Mount Sinai, James J. Peters Veterans Affairs Med. Ctr.*

2:00 H45 **54.22** Implications of activated Rho GTPases in different subcellular locations. D. L. HYNDS*; N. G. R. RAUT; R. CHABAYTA; K. RHODEN; F. SAMUEL; J. REDDY. *Texas Woman's Univ.*

3:00 H46 **54.23** Upregulation of protein farnesylation in Alzheimer's disease. A. JEONG; D. CAO; S. CHENG; M. DISTEFANO; D. BENNETT; L. LI*. *Univ. of Minnesota, Univ. of Minnesota, Rush Univ.*

4:00 H47 **54.24** Deficiency of geranylgeranyltransferase-1 reduces spine density and synaptic plasticity. D. A. HOTTMAN*; S. CHENG; L. YUAN; M. BERGO; W. G. WOOD; L. LI. *Univ. of Minnesota, Univ. of Minnesota, Univ. of Gothenburg, Univ. of Minnesota.*

1:00 H48 **54.25** Statin-encapsulating nanoparticles as a potential therapeutic strategy for the management of inflammatory peripheral nerve disorders. K. A. LANGERT*; E. B. STUBBS, Jr. *Hines VA Hosp., Edward Hines Jr. VA Hosp.*

2:00 I1 **54.26** Geranylgeranylation regulates Rho GTPase mRNA expression and protein stability. C. L. PERVAN*; E. B. STUBBS, Jr. *Edward Hines, Jr. VA Hosp., Loyola Univ. Chicago.*

POSTER

055. Neurodegeneration Drug Discovery: AD, PD, and Gene Therapy

Theme C: Disorders of the Nervous System

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 I2 **55.01** Evaluation of olfactory ensheathing glia gene reprogramming by recombinant adeno-associated viral vector type 2 *in vitro* and *in vivo*. L. A. CARVALHO*; L. C. VITORINO; H. PETRS-SILVA; S. ALLODI. *Univ. Federal do Rio de Janeiro, Univ. Federal do Rio de Janeiro.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

2:00 I3 **55.02** Trans-splicing gene therapy for dominant diseases: Evidence of *in vivo* efficiency in a mouse model of retinitis pigmentosa induced by mutation of the rhodopsin gene. A. -. BEMELMANS*; A. BERGER; S. MAIRE; C. JOSÉPHINE; M. DESROSIERS; M. GAILLARD; P. HANTRAYE; J. SAHEL. *CEA, Inst. de la Vision, Univ. Paris VI.*

3:00 I4 **55.03** Non-invasive intrathecal AAV-10 vector-mediated administration of Neurotrophin-3 (AAV10-NT3-gfp) at chronic stage of contusion spinal cord injury (SCI) in rats. V. L. ARVANIAN*; H. PETROSYAN; V. ALESSI; J. M. LEVINE. *VA Med. Ctr., Stony Brook Univ.*

4:00 I5 **55.04** Evaluation of three partial sequences of human TH promoter to specifically target dopaminergic neurons in a context of gene therapy for Parkinson's disease. A. ROLLAND*; T. KAREVA; O. YARYGINA; N. KHOLODILOV; R. E. BURKE. *Columbia Univ.*

1:00 I6 **55.05** Adeno-associated viral vector serotype 5 (AAV5) mediates efficient neuronal and astrocytic therapeutic transgene expression in the substantia nigra pars compacta (SNpc). J. MUDANNAYAKE*; D. FONG; A. MURAVLEV; D. YOUNG. *Univ. of Auckland.*

2:00 I7 **55.06** Translating an optogenetic gene therapy approach for treatment of neuropathic pain in humans. C. TOWNE; J. AGUADO; A. ARGUELLO; C. B. DISCENZA; S. KHAN; T. GALFIN; S. GEHRKE; S. P. BRAITHWAITE*; M. G. KAPLITT. *Circuit Therapeut.*

3:00 I8 **55.07** ● Widespread gene delivery to the nonhuman primate brain for the treatment of Huntington's disease. L. M. STANEK*; P. HADACZEK; B. MASTIS; M. KELLY; C. O'RIORDAN; P. PIVIROTTO; J. BRINGAS; A. CIESIELSKA; W. SAN SEBASTIAN RAMIREZ; S. CHENG; K. BANKIEWICZ; L. SHIHABUDDIN. *Genzyme, A Sanofi Co., Univ. of California San Francisco, Genzyme, A Sanofi Co., Genzyme, A Sanofi Co., Genzyme, A Sanofi Co.*

4:00 I9 **55.08** Evaluation of compound gene therapy in combination with physical exercise in the treatment of chronic SCI neuropathic pain. S. JERGOVA*; C. E. GORDON; S. GAJAVELLI; E. DUGAN; J. ZADINA; J. SAGEN. *Univ. of Miami, Miller Sch. of Med., Tulane University, Southeast Louisiana Veterans Hlth. Care Syst.*

1:00 I10 **55.09** *In vivo* 5-HT6 receptor occupancy-an assessment with radiolabeled and non-radiolabeled Lu AE60157 as a tracer in rats. J. THENTU; S. M. IRAPPANAVAR*; G. BHYRAPUNENI; R. ALETI; N. MUDDANA; A. SHINDE; R. BADANGE; R. NIROGI. *SUVEN LIFE SCIENCES LTD.*

2:00 I11 **55.10** A novel aryl 2-cylcopropylamine improves motor impairment in a rat model of Parkinson's disease. B. D. BRADARIC*; D. MCCAFFERTY; F. NWOGBO; K. ALSER; L. OLIVERE; N. STEDER, III; A. L. PERSONS; T. C. NAPIER. *Rush Univ. Med. Ctr., Rush Univ. Med. Ctr., Duke Univ., Rush Univ. Med. Ctr.*

3:00 I12 **55.11** Induction of phase II detoxification enzymes through Nrf2 pathway provides protective effects in cerebral ischemic stroke. P. KUO*; B. A. SCOFIELD; D. A. BROWN; J. YEN. *Indiana Univ. Sch. of Med., Manchester Univ. Col. of Pharm.*

4:00 I13 **55.12** Glutamate transporter activator Parawixin-10 present neuroprotective activity in rats submitted to endothelin-1 experimental model of Stroke. J. L. LIBERATO*; J. MARIN-PRIDA; T. BRONHARA; M. V. B. CELANI; L. GOBBO, Neto; N. P. LOPES; W. F. SANTOS. *UNIVERSITY OF SÃO PAULO, Inst. de Neurociências e Comportamento – INeC, Inst. de Farmacia y Alimentos – IFAL, Fac. of Philosophy Sci. and Literature of Ribeirão Preto, UNIVERSITY OF SÃO PAULO,, Fac. of Philosophy Sci. and Literature of Ribeirão Preto, UNIVERSITY OF SÃO PAULO, Fac. of Pharmaceut. Sci. of Ribeirão Preto, UNIVERSITY OF SÃO PAULO, Fac. of Philosophy Sci. and Literature of Ribeirão Preto, UNIVERSITY OF SÃO PAULO.*

1:00 I14 **55.13** Action of copaxone at the mitochondrial level in EAE. V. K. NIMMAGADDA*; P. GUDA; C. BEVER; T. MAKAR. *Univ. of Maryland Baltimore, VA Maryland Hlth. care system.*

2:00 I15 **55.14** ▲ Lack of additive effect of D-cycloserine and cerebrolysin to inhibit formation of kynurenic acid in rat liver homogenate. H. BARAN*; B. KEPPLINGER. *Karl Landsteiner Res. Inst. Mauer.*

3:00 I16 **55.15** Identification of hypothalamus biomarkers in orexin knockout and ataxin mouse models of narcolepsy: A proteomic quantitative approach. S. AZZAM*; P. J. SHIROMANI; P. FENG; K. P. STROHL. *Case Western Reserve Univ., Med. Univ. of South Carolina, Case Western Reserve Univ., UH Case Med. Ctr.*

4:00 I17 **55.16** ● Increased myeloperoxidase expression in brain areas affected by neurodegeneration in Alzheimer's and Parkinson's disease. S. GELLHAAR; D. SUNNEMARK; H. ERIKSSON; L. OLSON; D. GALTER*. *Karolinska Institutet, Dept. of Neurosci., AstraZeneca R&D.*

1:00 I18 **55.17** ● Deletion of Nogo Receptor 1 enhances fear extinction in adulthood. S. M. BHAGAT*; B. S. MCEWEN; J. R. TAYLOR; S. M. STRITTMATTER. *Yale Univ., Rockefeller Univ., Yale Univ.*

2:00 I19 **55.18** Elevation of peripheral BDNF promoter methylation predicts the risk of Alzheimer's disease. L. CHANG*; H. JI; G. LIU; S. DUAN; Q. WANG. *Zhejiang Provincial Key Lab. of Pathophysiol, Ningbo Key Lab. of Behavioral Neuroscience, Sch. of Medicine, Ningbo Univ.*

3:00 I20 **55.19** Impact of environmental toxicants on mitochondrial dynamics and function in neurons. L. ZHANG; B. GATENO; E. TRUSHINA*. *Mayo Clin.*

4:00 I21 **55.20** Elevated OPRD1 promoter methylation in Alzheimer's disease patients. Q. WANG*; H. JI; L. CHANG; G. LIU; S. DUAN. *Ningbo University, Med. Sch., Ningbo University, Med. Sch.*

1:00 I22 **55.21** Modeling neurological disorders using human induced Pluripotent Stem cells-derived neurons. B. B. DOROTHEE*; E. GRAS LAVIGNE; L. THON; C. BADJA; M. OUAMER; R. STEINSCHNEIDER; F. MAGDINIER. *Neuron Experts, INSERM UMR_U910 GMGF.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

POSTER

056. Pain, Headache and Migraine

Theme C: Disorders of the Nervous System

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 I23 **56.01** ● *in vivo* preclinical efficacy of Nav1.7 inhibitors in pain and olfactory models. R. SANOJA*; F. ZHAO; M. HOLAHAN; C. WINKELMANN; C. BURGEY; A. HOUGHTON. *Merck and Co., Inc.*

2:00 I24 **56.02** Effect of tumor necrosis factor inhibition on central nervous system structure and function in rheumatoid arthritis patients. M. BJORNSDOTTER*; S. TÖYRÄ SILVERSWÄRD; L. LEIFSDOTTIR; H. BACKLUND-WASLING; H. OLAUSSON; M. BOKAREWA. *Univ. of Gothenburg, Dept. of Rheumatology and Inflammation Research, Sahlgrenska Univ. Hospital, Univ. of Göteborg, IKE, Linkoping Univ.*

3:00 I25 **56.03** Analgesic and anti-inflammatory activities of water extract of Euphorbia thymifolia (Euphorbiaceae). E. NGO BUM*; K. NGO NGIMOUT; J. K. S. NJAPDOUNKE; G. N. C. NKANTCHOUA; G. N. C. NKANTCHOUA. *Univ. Ngaoundere, Cameroon.*

4:00 I26 **56.04** Oxaliplatin-induced neuropathic pain is prevented by A3 adenosine receptor agonists through spinally mediated mechanisms of action that engage IL-10 signaling. C. WAHLMAN*; K. JANES; K. JACOBSON; D. SALVEMINI. *St. Louis Univ., Natl. Inst. of Diabetes and Digestive and Kidney Dis.*

1:00 I27 **56.05** Effects of palmitoylethanolamide upon cyclooxygenase enzyme activity. L. E. GABRIELSSON*; C. FOWLER. *Umea Univ.*

2:00 I28 **56.06** AN363, a novel GABAA α2/3/5 receptor subtype selective positive allosteric modulator for treatment of chronic pain. D. AMRUTKAR; P. AHRING; T. DYHRING; K. S. NIELSEN*; T. JACOBSEN; J. LARSEN. *Saniona A/S.*

3:00 I29 **56.07** FTY720, a functional antagonist of sphingosine-1-phosphate receptor subtype 1, prevents bortezomib-induced neuropathic pain through modulation of spinal neuro-inflammation. K. STOCKSTILL*; K. JANES; D. SALVEMINI. *St. Louis Univ. Sch. of Med.*

4:00 I30 **56.08** ● Preclinical profiling of a novel mglur8 positive allosteric modulator. M. COSDEN*; S. STACHEL; Y. ZHOU; J. J. RENGER; R. E. DROLET. *Merck and Co., Inc., Merck.*

1:00 I31 **56.09** ● F17475, a glutamatergic/NMDA receptor antagonist with a safer profile than ketamine: Activity in a rat model of post-operative pain. R. Y. DEPOORTERE*; B. VACHER; A. AUCLAIR; J. C. MARTEL; P. HEUSLER; P. MOSER; M. GEORGY; T. CLERC. *Lab. Pierre Fabre, PFI, Lab. Pierre Fabre.*

2:00 I32 **56.10** ● Selective enhancement of slow inactivation of Nav1.7 WT and pain-linked gain-of-function mutations. A. LAMPERT; A. O. O'REILLY; M. POHLER; J. MAJERCAK; R. KLEIN*. *RWTH Aachen Univ. Hosp., Friedrich-Alexander Univ. Erlangen-Nürnberg, Merck Sharp and Dohme.*

3:00 I33 **56.11** A meta-regression analysis of placebo response in clinical trials of neuropathic pain. A. H. TUTTLE*; S. TOHYAMA; J. KIMMELMAN; T. RAMSAY; G. J. BENNETT; P. SCHWEINHARDT; J. S. MOGIL. *McGill Univ., Alan Edwards centre for research on pain, McGill Univ., Ottawa Hosp. Res. Inst., McGill Univ., McGill Univ.*

4:00 I34 **56.12** ● Kinetic analysis of membrane potential dye response to NaV1.7 channel activation identifies antagonists with pharmacological selectivity against Nav1.5. M. F. FINLEY*; A. CONVERSO; M. CLEMENTS; C. DALEY; R. KRAUS; W. LEMAIRE; M. LAYTON; K. SOLLY; D. STAAS; J. WANG; M. LAI; J. CASSADAY; T. KREAMER; X. LI. *Merck, Merck, Merck.*

1:00 I35 **56.13** A novel functional assay for both μ-opioid receptor and nociception receptor. J. WU*; J. SCHOCH; M. WERGER; A. CIPPITELLI; L. TOLL. *Torrey Pines Inst. For Mol. Studies.*

2:00 I36 **56.14** Antihyperalgesic effects of the α2 GABA-A and α3 GABA-A receptor positive allosteric modulator HZ-166 on pain-related stimulation and depression of behavior. B. D. FISCHER*; M. M. POE; J. M. COOK. *Cooper Med. Sch. of Rowan Univ., Univ. of Wisconsin.*

3:00 I37 **56.15** ● Electrophysiology studies and homology modeling to increase the selectivity of NaV1.7 inhibitors. R. KLEIN; A. ROECKER; M. CLEMENTS*; C. DALEY; D. WANG; M. LAYTON; V. SANTARELLI; J. MAJERCAK; R. KRAUS; A. HOUGHTON. *Merck.*

4:00 I38 **56.16** Stimulation of soluble guanylate cyclase triggers migraine-associated pain. A. A. PRADHAN*; A. F. TIPTON; R. GHANDI; L. SEGURA; A. ACHARYA; G. THATCHER. *UIC, UIC.*

1:00 I39 **56.17** ● Inhibition of electrical-field stimulation-evoked signals in cultured mouse DRG neurons by sodium channel inhibitors is highly predictive of their ability to increase the threshold to action potential firing as measured by current clamp. C. DALEY II*; J. WANG; I. GREGAN; A. HOUGHTON; M. KARLSSON; S. LARDELL; C. LINDWALL-BLOM; P. KARILA. *Merck, Cellectricon.*

2:00 I40 **56.18** Inhibition of soluble guanylate cyclase alleviates migraine-associated pain. A. F. TIPTON*; R. GANDHI; Y. WANG; G. THATCHER; A. A. PRADHAN. *Univ. of Illinois At Chicago, Univ. of Illinois at Chicago.*

3:00 I41 **56.19** ● Effect of SUVN-H1106036, a CB2 receptor agonist, on spinal wide dynamic range neuronal activity in neuropathic rats. V. GOURA; A. K. SHINDE*; A. VUYYURU; R. KALLEPALLI; P. JAYARAJAN; R. ABRAHAM; S. DARIPELLI; V. KAMUJU; G. BHYRAPUNENI; V. BHATTA; K. KANDUKURI. *Suven Life Sci.*

4:00 I42 **56.20** ● Dural sensory innervation expresses unique opioid and adrenergic receptor subtypes: Implications for migraine pathology and treatment. F. L. RICE; J. R. BOURGEOIS; J. Y. XIE; C. M. KOPRUZINSKI; N. EYDE; F. PORRECA; P. J. ALBRECHT*. *Integrated Tissue Dynamics, LLC, Albany Med. Coll, Univ. of Arizona.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

POSTER

057. Auditory Processing: Adaptation, Learning, and Memory

Theme D: Sensory and Motor Systems

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 I43 **57.01** *In vivo* imaging of mouse auditory cortex during associative fear learning. S. N. GILLET*; H. K. KATO; M. A. JUSTEN; J. S. ISAACSON. *UC San Diego, UC San Diego.*

2:00 I44 **57.02** Experience-dependent modulation of sound representations in mouse primary auditory cortex. H. K. KATO*; S. N. GILLET; J. S. ISAACSON. *UCSD Sch. of Med.*

3:00 I45 **57.03** Neural coding of self-generated sounds in mouse auditory cortex. D. M. SCHNEIDER*; R. MOONEY. *Duke Univ.*

4:00 I46 **57.04** The effects of pre and post-natal exposure to extremely low frequency electric fields on mismatch negativity component of the auditory event-related potentials. P. A. YARGICOGLU*; D. AKPINAR; D. KANTAR GOK; M. ASLAN; S. OZEN. *Akdeniz University,Faculty of Medicine, Dept. of Biophysics, Akdeniz University, Fac. of Medicine, Dept. of Biophysics, Akdeniz University, Fac. of Medicine, Dept. of Biochem., Akdeniz University, Engin. Faculty,Department of Electrical and Electronics Engin.*

1:00 I47 **57.05** Magnitude of stimulus deviance influences on mismatch activity in common marmosets. M. KOMATSU*; K. TAKAURA; N. FUJII. *RIKEN Brain Sci. Inst.*

2:00 I48 **57.06** Priming effect of a stimulus-repetition: Repetitive presentation of a stimulus facilitates the cortical response to the other stimuli subsequent to the repetition. K. TAKAURA*; M. KOMATSU; N. FUJII. *RIKEN Brain Sci. Inst. - Wako.*

3:00 J1 **57.07** Multiple mechanisms for stimulus-specific adaptation in the primary auditory cortex. R. G. NATAN*; J. J. BRIGUGLIO; L. MWILAMBWE-TSHILOBO; E. M. GOLDBERG; M. N. GEFFEN. *Univ. of Pennsylvania, The Children's Hosp. of Philadelphia, Univ. of Pennsylvania.*

4:00 J2 **57.08** On reward prediction errors and sensory representations: A role for dopamine in refining perception. R. HOLCA-LAMARRE*; K. OBERMAYER; J. LUECKE. *Technische Univ. Berlin, Bernstein Ctr. for Computat. Neurosci., Univ. Oldenburg.*

1:00 J3 **57.09** Neural evidence for non-reward prediction errors in the sensory domain. G. HORGA*; E. JUNG. *Columbia Univ. Med. Ctr. (NYSPI), Barnard Col.*

2:00 J4 **57.10** Activity of neurons in lateral prefrontal cortex during performance of an auditory short-term memory task. B. H. SCOTT*; P. YIN; L. H. LEE; A. BROWN; M. MISHKIN. *NIMH, Univ. of Maryland.*

3:00 J5 **57.11** How the brain discovers patterns in sound sequences. M. CHAIT*; N. BARASCUD; T. PETSAS; M. PEARCE; K. FRISTON. *UCL, QMUL.*

4:00 J6 **57.12** Cortico-striatal interactions during reversal learning with different reinforcement schedules in a two-way active avoidance task. A. L. SCHULZ*; M. L. WOLDEIT; A. I. GONCALVES; M. BROSCH; F. W. OHL. *Leibniz Inst. for Neurobio., Otto von Guericke Univ.*

1:00 J7 **57.13** Auditory discriminative fear conditioning utilizing a visual secondary reinforcer. J. M. BOWDEN*; S. J. CONNELL; A. POREMBA. *Univ. of Iowa.*

2:00 J8 **57.14** Neural correlates of audiomotor map learning. M. THOMPSON*; A. B. HERMAN; D. C. HARRELL; J. HOUDE; S. NAGARAJAN. *UCSF, Univ. of California, Berkeley, Univ. of California, San Francisco.*

3:00 J9 **57.15** Human auditory cortical response to low-level acoustic features shifts during perceptual enhancement. C. HOLDGRAF*; W. DE HEER; B. PASLEY; J. RIEGER; J. LIN; N. CRONE; R. T. KNIGHT; F. THEUNISSEN. *Helen Wills Neurosci. Inst., Univ. of California, Berkeley, Univ. of California, Berkeley, Univ. of California, Irvine, The Johns Hopkins Univ. Sch. of Med.*

4:00 J10 **57.16** ● Cortical neuroplasticity in single-sided deafness before and after cochlear implantation. H. GLICK*; A. SHARMA. *Univ. of Colorado.*

1:00 J11 **57.17** Perceptual learning of auditory frequency discrimination transfers to untrained frequencies with TPE training. C. YU*; Y. XIONG; Y. ZHANG. *Peking Univ., Beijing Normal Univ.*

POSTER

058. Retina: Photoreceptors

Theme D: Sensory and Motor Systems

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 J12 **58.01** Trafficking of HCN1 in the early secretory pathway: Discovery of two counteracting ER trafficking signal using Xenopus photoreceptors as a model system. S. A. BAKER*; J. G. LAIRD; D. M. YAMAGUCHI; Y. PAN. *Univ. of Iowa.*

2:00 J13 **58.02** Development of cone opsin expression in a transgenic zebrafish line with crx-driven trβ2. S. S. PATTERSON*; T. YOSHIMATSU; T. SURESH; R. F. NELSON. *NINDS, Univ. of Washington.*

3:00 J14 **58.03** Statistical analysis of zebrafish locomotor response. Y. LIU*; R. CARMER; G. ZHANG; P. VENKATRAMAN; S. A. BROWN; C. P. PANG; M. ZHANG; Y. F. LEUNG; P. MA. *Univ. of Georgia, Purdue Univ., Purdue Univ., Chinese Univ. of Hong Kong, Chinese Univ. of Hong Kong, Shantou Univ., Purdue Univ.*

4:00 J15 **58.04** Understanding the contributions of photoreceptors to the visual motor response. P. VENKATRAMAN*; R. CARMER; C. PANG; M. ZHANG; Y. LEUNG. *Purdue Univ., Purdue Univ., Chinese Univ. of Hong Kong, Joint Shantou Intl. Eye Center, Shantou Univ. & The Chinese Univ. of Hong Kong, Purdue Univ. and Indiana Univ. Sch. of Med.*

1:00 J16 **58.05** Psychophysical estimation of cone connectivity and noise in the human retina. A. S. MCKEOWN*; K. S. BRUCE; W. M. HARMENING; L. C. SINCICH. *Univ. of Alabama At Birmingham, Univ. of Alabama Birmingham, Univ. of Bonn.*

2:00 J17 **58.06** ● Cone signal summation varies with inter-cone distance in the human retina. K. S. BRUCE*; W. M. HARMENING; W. S. TUTEN; A. S. MCKEOWN; A. ROORDA; L. C. SINCICH. *Univ. of Alabama At Birmingham, Univ. of Bonn, Univ. of California Berkeley, Univ. of Alabama Birmingham.*

3:00 J18 **58.07** Rgma inhibits angiogenesis via neogenin. K. HARADA*; Y. FUJITA; T. YAMASHITA. *Dept. of Mol. Neuroscience, Grad. Sch.*

4:00 J19 **58.08** ● Immunoreactivity of the protein Cryptochrome (CRY) in retina of crayfish Procambarus clarkii. R. LOREDORANJEL*; E. ESCAMILLA-CHIMAL. *UNAM.*

1:00 J20 **58.09** Toxicity of intravitreal administration of anti-VEGF drugs to the retina. S. ALLODI*; A. O. FONTES; R. M. JAPIASSU; G. HOLLMANN; M. A. FUSCO. *Inst. Biofisica Carlos Chagas Filho, UFRJ, Federal Univ. of Rio de Janeiro, Federal Univ. of São Paulo, Brazilian Navy.*

2:00 J21 **58.10** Role of sigma receptors in the viability of retinal pigment epithelial cells -- studies using the crispr-cas9 system. T. A. MAVLYUTOV*; A. YAO; U. CHU; M. CHU; L. ZHAO; H. YANG; C. R. MCCURDY; A. E. RUOHO; L. GUO. *Univ. of Wisconsin, Univ. of Wisconsin, Univ. of Mississippi.*

3:00 J22 **58.11** Light modulates body metabolism through melanopsin photodetection system. C. LEE*; Y. ZOU; S. CHEN. *Natl. Taiwan Univ.*

4:00 J23 **58.12** Targeted modulation of Crb1 protein within the recipient retina to improve photoreceptor transplantation efficiency. A. B. GRACA*; A. GEORGIADIS; C. HIPPERT; P. V. WALDRON; A. J. SMITH; R. R. ALI; R. A. PEARSON. *Univ. Col. London.*

1:00 J24 **58.13** How visual asymmetry starts in pigeons - characterizing Melanopsin as a potential trigger. R. KLOSE*; F. STRÖCKENS; K. SPOIDA; S. HERLITZE; O. GÜNTÜRKÜN. *Ruhr-University Bochum.*

2:00 J25 **58.14** Müller cells as light guiding fibers in caiman. A. ZAYAS-SANTIAGO*; A. SAVVINOV; S. AGTE; Y. RIVERA; J. BENEDIKT; L. A. CUBANO; A. REICHENBACH; S. N. SKATCHKOV. *Univ. Central Del Caribe, Univ. de Puerto Rico, Recinto de Río Piedras, Univ. of Leipzig, Univ. Central Del Caribe, Univ. Central Del Caribe.*

3:00 J26 **58.15** ● Phthalazinone pyrazole enhances photoreceptor differentiation and survival: Implications for a multitarget mechanism of action. J. A. FULLER*; D. HELM; I. RUCZINSKI; K. J. WAHLIN; C. BERLINICKE; R. MACARTHUR; P. K. DRANCHAK; M. MATTHES; M. M. LAVAIL; B. KUSTER; J. INGLESE; D. J. ZACK. *Johns Hopkins Sch. Med., Technische Univ. Muenchen, Johns Hopkins Sch. of Publ. Hlth., NIH Natl. Ctr. for Advancing Translational Sci., UCSF, UCSF.*

4:00 J27 **58.16** A new role for AMP-activated protein kinase (AMPK) in the circadian regulation of L-type voltage-gated calcium channels (L-VGCCs) in retinal photoreceptors. C. C. HUANG; L. SHI; C. LIN; A. J. KIM; M. L. KO; G. Y. KO*. *Texas A&M Univ.*

1:00 J28 **58.17** Ursodeoxycholic acid attenuates endoplasmic reticulum stress-related pericyte loss in diabetic retinopathy of streptozotocin-treated mice. J. CHOI*; Y. CHUNG; Y. HAN; J. KOH; Y. YOON. *Asan Inst. For Life Sci., Ajou Univ. Sch. of Med., Asan Med. Center, Univ. of Ulsan Col. of Med., Asan Med. Center, Univ. of Ulsan Col. of Med.*

2:00 J29 **58.18** Generation of Sox4 mutant zebrafish using CRISPR/Cas9. W. WEN*; L. PILLAI-KASTOORI; S. WILSON; A. KRISHNA; A. MORRIS. *Univ. of Kentucky, Univ. of Kentucky.*

3:00 J30 **58.19** ▲ Identification and characterization of intrinsically photosensitive retinal ganglion cells in the common snapping turtle, Chelydra serpentina. C. R. HELLER; S. C. BEHLING; E. N. SUTTER; A. E. TURNER; E. A. ULANDAY; J. A. DEMAS*. *St. Olaf Col., St. Olaf Col., St. Olaf Col.*

4:00 J31 **58.20** Transcriptome analysis of ipRGCs with next-generation sequence. N. LIOU*; H. WANG; S. CHEN. *Natl. Taiwan Univ., Natl. Taiwan Univ.*

1:00 J32 **58.21** Molecular and functional characterization of opsins and TRP channels in compound eyes of the cockroach, Periplaneta americana. A. S. FRENCH*; P. H. TORKKELI; S. MEISNER; H. LIU; E. IMMONEN; R. FROLOV; M. WECKSTROM. *Dalhousie Univ., Univ. of Oulu.*

2:00 J33 **58.22** Mammalian cone photoreceptors are capable of extraordinarily rapid release and maintain a large number of ribbon-tethered vesicles in reserve. C. P. GRABNER*; S. H. DEVRIES. *Chad Grabner, Northwestern Univ. Feinberg Sch. of Med.*

3:00 J34 **58.23** A threshold non-linearity at the mammalian cone photoreceptor basal synapse. S. H. DEVRIES*. *Northwestern Univ. Med. Sch.*

4:00 J35 **58.24** Integration of luminance, chromatic signals and melanopsin activation in human ipRGC processing. P. BARRIONUEVO*; D. CAO. *Univ. of Illinois At Chicago.*

POSTER

059. Population Coding in Striate Cortex

Theme D: Sensory and Motor Systems

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 J36 **59.01** Turtle visual cortex studied by combining wide-field calcium imaging and electrophysiology. M. A. LAUTERBACH*; M. HEMBERGER; M. SHEIN-IDELSON; G. LAURENT. *Max Planck Inst. For Brain Res.*

2:00 J37 **59.02** Intra-areal patterns found in spontaneous cortical activity. H. XU*; P. LI; C. HAN; S. ZHU; Y. FANG; M. CHEN; J. HU; H. MA; Z. JI; C. FANG; H. D. LU. *SKLCNL, Beijing Normal Univ., Inst. of Neuroscience, CAS.*

3:00 J38 **59.03** Coordinated neocortical activity at cellular resolution during visual processing. Z. MA*; Y. KARIMIPANAH; J. MILLER; R. YUSTE; R. WESSEL. *Washington Univ. In St. Louis, Columbia Univ.*

4:00 J39 **59.04** Characterizing soloists and choristers in primary visual cortex. L. BACHATENE*; V. BHARMAURIA; S. CATTAN; N. CHANAURIA; J. ROUAT; S. MOLOTCHNIKOFF. *Univ. De Montréal, Univ. de Sherbrooke.*

● Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

1:00 J40 **59.05** Irregular spiking and broad bate distributions both arise as emergent properties of sparsely connected recurrent networks. Y. KARIMIPANAH*; Z. MA; R. WESSEL. *Washington Univ. In St.Louis, Washington Univ. In St.Louis.*

2:00 J41 **59.06** Dynamics of cortical noise correlations during vision. N. WRIGHT*; M. HOSEINI; W. P. CLAWSON; J. POBST; T. CROCKETT; W. L. SHEW; R. WESSEL. *Washington Univ. In St. Louis, Univ. of Arkansas, Univ. of Arkansas.*

3:00 J42 **59.07** Dissecting the inhibitory mechanisms of reliable coding in mouse primary visual cortex. R. V. RIKHYE*; M. SUR. *MIT.*

4:00 J43 **59.08** Scaling properties of dimensionality reduction for neural populations and network models. R. WILLIAMSON*; B. COWLEY; A. LITWIN-KUMAR; B. DOIRON; A. KOHN; M. SMITH; B. YU. *Carnegie Mellon Univ., Univ. of Pittsburgh, Columbia Univ., Albert Einstein Col. of Med.*

1:00 J44 **59.09** Adaptive tuning of mutual information in visual cortex. W. CLAWSON*; N. C. WRIGHT; J. YANG; R. WESSEL; W. L. SHEW. *Univ. of Arkansas, Washington Univ.*

2:00 J45 **59.10** Intermittent ensemble oscillations emerge dynamically from cortical circuits of irregular spiking neurons. M. HOSEINI*; J. POBST; N. WRIGHT; W. CLAWSON; W. SHEW; R. WESSEL. *Washington Univ. In St. Louis, Univ. of Arkansas, Univ. of Arkansas.*

3:00 J46 **59.11** Sparseness and redundancy of visual stimulus encoding in primary visual cortex. S. P. DUARTE*; J. SCHUMMERS. *Max Planck Florida Inst.*

4:00 J47 **59.12** Early cortical spontaneous activity reflects the structure of mature sensory representations. B. HEIN*; G. B. SMITH; D. WHITNEY; K. NEUSCHWANDER; D. FITZPATRICK; M. KASCHUBE. *Frankfurt Inst. For Advanced Studies, Max-Planck Florida Inst.*

1:00 J48 **59.13** Sibling rivalry and cooperation among excitatory neurons in the neocortex. C. R. CADWELL*; X. JIANG; P. BERENS; P. G. FAHEY; D. YATSENKO; E. FROUDARAKIS; A. S. ECKER; A. S. TOLIAS. *Baylor Col. of Med., Bernstein Ctr. for Computat. Neurosci., Univ. of Tübingen, Univ. of Tübingen, Max Planck Inst. for Biol. Cybernetics, Rice Univ.*

2:00 K1 **59.14** Representation of the polarity of luminance transitions in layer 2/3 neurons of ferret visual cortex. D. E. WHITNEY*; G. B. SMITH; M. KASCHUBE; D. FITZPATRICK. *Max Planck Inst., Frankfurt Inst. for Advanced Studies.*

3:00 K2 **59.15** Experience-dependent and independent development of feature-selective synchronization in rat visual cortex. A. W. ISHIKAWA*; Y. KOMATSU; Y. YOSHIMURA. *Natl. Inst. For Physiological Sciencesphysi.*

4:00 K3 **59.16** Patterns of neural activity in visual cortex of the developing ferret: A comparison of awake and anesthetized states. G. B. SMITH*; D. E. WHITNEY; B. HEIN; K. NEUSCHWANDER; M. KASCHUBE; D. FITZPATRICK. *Max Planck Florida Inst. For Neurosci., Frankfurt Inst. for Advanced Studies.*

1:00 K4 **59.17** The structure of response correlation matrix is stable in the primate visual cortex and reveals the anatomical boundary of V1 and V2. S. ESTEKI; L. E. HALLUM; V. GARCÍA-MARÍN; J. G. KELLY; R. KIANI*. *New York Univ.*

2:00 K5 **59.18** Behavioral-state dependence of cortical activity and visual encoding in a genetic model of autism. M. VINCK*; J. MOSSNER; J. CARDIN. *Yale Univ.*

3:00 K6 **59.19** Method for analyzing neuronal response variability based on frequency response amplitude. A. RAHIMABADI*; M. ALIKHANI; V. DAVOODNIA; M. ZANGANE; H. RAHIMI NASRABADI; R. LASHGARI. *Inst. For Res. In Fundamental Sci., school of electrical engineering, iran university of science and technology, national brain mapping center, Shahid Beheshti medical university.*

4:00 K7 **59.20** The stabilized supra linear network (SSN) model explains feature-specific surround suppression in V1. D. OBEID; K. D. MILLER*. *Columbia Univ., Columbia Univ.*

1:00 K8 **59.21** Vertical and horizontal structures of neuronal correlations in the cat primary visual cortex. H. TANAKA*; H. TAMURA; I. OHZAWA. *Kyoto Sangyo Univ., Osaka Univ.*

2:00 K9 **59.22** Adaptation to sensory input tunes visual cortex to criticality. W. L. SHEW*; W. CLAWSON; Y. KARIMIPANAH; J. POBST; N. C. WRIGHT; R. WESSEL. *Univ. of Arkansas, Washington Univ.*

POSTER

060. Visual cognition: Decision Making

Theme D: Sensory and Motor Systems

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 K10 **60.01** Difference of VEFs with mental arithmetic tasks and verbal fluency task. Y. GOTO*. *Intl. Univ. of Hlth. and Welfare.*

2:00 K11 **60.02** Impact of visual familiarity on neuronal representations in inferior temporal cortex and behavior. K. MOHAN*; W. J. JOHNSTON; D. J. FREEDMAN. *The Univ. of Chicago.*

3:00 K12 **60.03** Sequential processing of sensory and decision signals in posterior parietal cortex. G. IBOS*; D. J. FREEDMAN. *The Univ. of Chicago, The Univ. of Chicago.*

4:00 K13 **60.04** Task dependence of visual and mnemonic encoding in parietal and prefrontal cortices. A. SARMA*; X. WANG; D. J. FREEDMAN. *Univ. of Chicago, New York Univ.*

1:00 K14 **60.05** Semi-chronic population recordings from parietal and prefrontal networks during a rapid spatial categorization task. N. Y. MASSE*; J. M. HODNEFIELD; D. J. FREEDMAN. *Univ. of Chicago.*

2:00 K15 **60.06** Neurons in the lateral prefrontal cortex compensate for the asymmetries of their sensory inputs during memory-guided comparisons of visual motion. K. MICHALOPOULOS*; P. M. SPINELLI; T. PASTERNAK. *Univ. of Rochester, Univ. of Rochester.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 K16 **60.07** Mechanisms of perceptual learning and learning interference in visual categorization. L. SHA*; R. KIANI. *New York Univ.*

4:00 K17 **60.08** Post-error adjustments of decision strategy are informed by decision confidence. B. PURCELL*; R. KIANI. *New York Univ.*

1:00 K18 **60.09** Making decisions about observed actions. A. PLATONOV*. *Univ. of Prma.*

2:00 K19 **60.10** Dissociable adjustments at abstract accumulator and motor preparation levels in different urgency regimes. N. A. STEINEMANN*; R. G. O'CONNELL; S. P. KELLY. *Neural Systems Lab, City Col. of New York, Trinity Col. Dublin, Univ. Col. Dublin.*

3:00 K20 **60.11** Laminar differences in neural activity covarying with action choice in dorsal premotor cortex. C. CHANDRASEKARAN*; D. PEIXOTO; W. T. NEWSOME; K. V. SHENOY. *Stanford Univ., Stanford Univ., Champalimaud Neurosci. Inst., Stanford Univ., Stanford Univ. / HHMI, Stanford Univ., Stanford Univ.*

4:00 K21 **60.12** Dorsal premotor cortex reflects decision making only when concrete actions are available. M. WANG*; C. CHANDRASEKARAN; D. PEIXOTO; W. T. NEWSOME; K. V. SHENOY. *Stanford Univ., Stanford Univ., Stanford Univ., Champalimaud Neurosci. Inst., Stanford Univ. / HHMI, Stanford Univ.*

1:00 K22 **60.13** What does LIP do when a decision is dissociated from planning the next eye movement? N. SO*; M. N. SHADLEN. *Columbia Univ. Med. Ctr., Kavli Inst. for Brain Sci., Howard Hughes Med. Inst.*

2:00 K23 **60.14** Primate saccade target selection relies on feedback competitive signal integration. J. GOOSSENS*; J. KALISVAART; A. NOEST; A. VAN DEN BERG; R. MASSOUDI; P. BREMEN. *Donders Inst. For Brain Cognitin and Behaviour, Dept. Cognitive Neurosci.*

3:00 K24 **60.15** Monkeys behaving badly: Probing macaque subjects' internal task strategies with psychophysical reverse correlation. A. G. BONDY*; B. G. CUMMING. *Natl. Eye Institute, NIH, Brown Univ.*

4:00 K25 **60.16** Uncertainty decoded from population activity in macaque primary visual cortex is used in perceptual decisions. E. Y. WALKER*; R. J. COTTON; W. J. MA; A. S. TOLIAS. *Baylor Col. of Med., New York Univ.*

1:00 K26 **60.17** Serial dependence in visual perception and stimulus representation in primary visual cortex. E. ST. JOHN-SAALTINK*; P. KOK; H. C. LAU; F. P. DE LANGE. *Radboud Univ., Univ. of California Los Angeles.*

2:00 K27 **60.18** The interplay between long-and short-term memory traces in sequential visual decision making. J. FISER*; J. ARATO; A. KOBLINGER. *Central European Univ.*

3:00 K28 **60.19** Dissociating sensory from decision processes in human perceptual decision making. P. MOSTERT*; P. KOK; F. P. DE LANGE. *Donders Inst. For Brain, Cognition & Behaviour.*

4:00 K29 **60.20** Eye-opener: Pupil dilation signals decision uncertainty. A. E. URAI*; J. W. DE GEE; T. H. DONNER. *Univ. Med. Ctr. Hamburg-Eppendorf, Univ. of Amsterdam, Univ. of Amsterdam.*

1:00 K30 **60.21** Decision-related pupil dilation reflects locus coeruleus activity and altered visual evidence accumulation. J. W. DE GEE*; N. A. KLOOSTERMAN; S. NIEUWENHUIS; T. KNAPEN; T. H. DONNER. *Univ. Med. Ctr. Hamburg-Eppendorf, Univ. of Amsterdam, Univ. of Amsterdam, Leiden Univ., VU Univ.*

2:00 K31 **60.22** Decision-related oscillatory activity in human visual cortex is linked to pupil dilation. T. MEINDERTSMA*; N. A. KLOOSTERMAN; G. NOLTE; A. K. ENGEL; T. H. DONNER. *Univ. of Amsterdam, Univ. of Amsterdam, Univ. Med. Ctr. Hamburg-Eppendorf.*

3:00 K32 **60.23** Effects of noradrenaline on visual evidence accumulation in human cortex. N. A. KLOOSTERMAN*; J. W. DE GEE; T. H. DONNER. *Univ. of Amsterdam, Amsterdam Brain and Cognition, Univ. Med. Ctr. Hamburg-Eppendorf.*

4:00 K33 **60.24** Circuit mechanisms underlying visual responses of the anterior cingulate cortex. R. HUDA*; G. PHO; I. R. WICKERSHAM; M. SUR. *Picower Inst. for Learning and Memory, MIT, McGovern Inst. for Brain Research, MIT.*

POSTER

061. Eye Movements and Perception

Theme D: Sensory and Motor Systems

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 K34 **61.01** Characteristics of eye-position gain field populations in AIT and LIP determined through genetic algorithm modeling of monkey data. S. R. LEHKY*; M. E. SERENO; A. B. SERENO. *Salk Inst., Univ. of Oregon, Univ. of Texas Hlth. Sci. Ctr.*

2:00 K35 **61.02** Anticipating a moving target: Role of vision and reinforcement. A. MONTAGNINI*; J. DAMASSE; L. MADELAIN; L. PERRINET. *Inst. de Neurosciences De La Timone, Univ. de Lille Nord de France.*

3:00 K36 **61.03** Eyes off the prize: Impact of visual discomfort in college population. J. F. AWAD*; K. LEE; T. GORJI; A. S. HOCHMAN; S. A. DREW. *California State University, Northridge, California State University, Northridge, California State University, Northridge.*

4:00 K37 **61.04** Palisade endings are a constant feature in the extraocular muscles of frontal-eyed, but not lateral-eyed, animals. R. BLUMER*; B. MAURER; J. STREICHER; B. GESSBAUER; E. PECHRIGGL; M. BLUMER; M. A. DAVIS-LÓPEZ DE CARRIZOSA; A. K. HORN; P. J. MAY; R. R. DE LA CRUZ; A. M. PASTOR. *Med. Univ. Vienna, Med. Univ. Innsbruck, Univ. de Sevilla, Ludwig-Maximillian Univ. Munich, Univ. of Mississippi Med. Ctr.*

1:00 K38 **61.05** Frontal Eye Fields read out, but do not assign, priority. D. K. WOOD*; E. BERTHIAUME; J. I. GLASER; P. N. LAWLOR; P. RAMKUMAR; K. P. KÖRDING; M. A. SEGRAVES. *Northwestern Univ., Rehabil. Inst. of Chicago.*

2:00 K39 **61.06** Representation of visual salience by frontal eye field neurons. A. ASADOLLAHI*; H. SHAHABI; F. DIDEHVAR; M. MOGHIMI; M. PARSA GHARAMALEKI; B. NOUDOOST. *Ferdowsi Univ. of Mashhad, Montana State Univ.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 K40 **61.07** Neural basis of spatial mislocalization during smooth eye-movements. F. BREMMER*; S. DOWIASCH; G. BLOHM. *Philipps-Universität Marburg, Queen's Univ.*

4:00 K41 **61.08** ● Informing participants impacts minute-by-minute blink count, but not average blink rate. N. SHAAFI KABIRI; C. R. BROOKS; N. KASTHURI; T. COMERY; K. C. THOMAS; P. J. FRIED*. *Boston Univ. Sch. of Med., Pfizer Inc, Beth Israel Deaconess Med. Ctr.*

1:00 K42 **61.09** Frontal eye field correlates of saccade remapping and planning in natural scenes. J. I. GLASER*; P. RAMKUMAR; P. N. LAWLOR; D. K. WOOD; M. A. SEGRAVES; K. P. KORDING. *Rehabil. Inst. of Chicago, Northwestern Univ.*

2:00 L1 **61.10** Brain circuits underlying visual stability across eye movements: Oscillatory dynamics disentangle processing of multiple items. D. MCLELLAND*; J. SCHUSTER; F. HAMKER; R. VANRULLEN. *Ctr. De Recherche Cerveau & Cognition, Technische Univ. Chemnitz.*

3:00 L2 **61.11** Directional precision for saccades and smooth pursuit in humans and macaque monkeys. J. CHURAN*; D. BRAUN; F. BREMMER; K. R. GEGENFURTNER. *Philipps-University, Justus-Liebig-University.*

4:00 L3 **61.12** Clinical utility of a rapid objective tool for diagnosing concussions via involuntary aspects of eye movements. N. L. PORT*; A. MADSEN; W. MEANS; T. LEELAND. *Indiana Univ.*

1:00 L4 **61.13** Natural viewing and pursuit behavior in marmosets performing foraging tasks. J. F. MITCHELL*; S. U. NUMMELA; C. T. MILLER. *Univ. of Rochester, Psychology, UCSD.*

2:00 L5 **61.14** Female sex steroid dynamics may modulate retinal-based horizontal smooth pursuit pathways. E. CURRIE*; M. F. WESNER. *Lakehead Univ., Lakehead Univ.*

3:00 L6 **61.15** ▲ Conjugate eye movements to monocularly-visible and cyclopean targets. J. S. DECKER*; C. AURA; K. SCHULTZ; P. GAMLIN. *Univ. of Alabama At Birmingham.*

4:00 L7 **61.16** A computational model for feature integration across saccadic eye movements. Y. MOHSENZADEH*; J. CRAWFORD. *Ctr. For Vision Research, York U, Ctr. For Vision Research, York Universiy.*

1:00 L8 **61.17** Fmri targeted electrophysiology of a cyclopean stereomotion-in-depth region in rhesus monkeys. K. SCHULTZ*; M. WARD; M. BOLDING; P. GAMLIN. *Univ. Alabama-Birmingham, Univ. of Alabama at Birmingham.*

POSTER

062. Persistent Pain Treatment

Theme D: Sensory and Motor Systems

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 L9 **62.01** ● External directed high intensity focused ultrasound for migraine treatment in rodents. J. G. PILITSIS*; L. GEE; G. GHOSHAL; I. WALLING; C. E. BURDETTE. *Albany Med. Col., Albany Med. Col., Acoustic MedSystems Inc, Albany Med. Ctr.*

2:00 L10 **62.02** Chronic peripheral nerve injury produces phase-selective suppression of voluntary wheel activity in rats consistent with the duration of bilateral sensory allodynia. R. WHITEHEAD*; M. S. SUN; J. J. SANCHEZ; H. MARTIN; E. MILLIGAN. *Univ. of New Mexico, Univ. of New Mexico.*

3:00 L11 **62.03** ● Donepezil completely reverses fibromyalgia-like pain in intermittent cold stress model mice. H. NEYAMA*; T. MUKAE; H. UEDA. *Nagasaki Univ.*

4:00 L12 **62.04** AAV6 based delivery of zeta inhibitory peptide to dorsal root ganglion neurons and its effect on nerve-injury induced neuropathic pain. G. FISCHER*; Z. LIU; Q. HOGAN; H. YU. *VAMC, Med. Col. of Wisconsin, Med. Col. of Wisconsin, VAMC.*

1:00 L13 **62.05** The antinociceptive effect of light emitting diode irradiation on incised wound is via inhibition of cyclooxygenase-2 and prostaglandin E2. P. TAN*; C. LIU. *Dept. of Anesthesiology, E-Da Hospital/I-Shou Univ., Natl. Sun Yat-Sen Univ.*

2:00 L14 **62.06** Intrathecal bone marrow stromal cells inhibit neuropathic pain via TGF-β secretion and target dorsal root ganglia via CXCL12. G. CHEN*; C. PARK; R. XIE; R. JI. *Duke Univ. Med. Ctr.*

3:00 L15 **62.07** Co-adminstration of melatonin attenuates morphine tolerance and preserves morphine's antinociceptive effect in spinal nerve ligation rats. J. KAO*; C. WONG. *Cathay Gen. Hosp., Natl. Def. Med. Ctr., Cathay Gen. Hosp.*

4:00 L16 **62.08** Analgesic and neuro-protective effect of acrolein-scavenger of phenelzine for rats with spinal cord injury. Z. CHEN*; J. PARK; G. GLEN; R. TIAN; S. VEGA-ALVAREZ; P. CAO; R. SHI. *Shanghai Jiao Tong Univ. Sch. of Med., Col. of Vet. Med. and Weldon Sch. of Biomed. Engineering, Purdue Univ., Dept. of Orthopedics, Rui-Jin Hospital, Sch. of Medicine, Shanghai Jiao-tong Univ.*

1:00 L17 **62.09** ▲ Virtual reality and modulation of embodiment for controlling chronic pain. M. SOLCÀ*; R. RONCHI; J. BELLO RUIZ; T. SCHMIDLIN; A. SERINO; B. HERBELIN; F. LUTHI; J. BEAULIEU; A. SCHNIDER; A. GUGGISBERG; O. BLANKE. *Ecole Polytechnique Fédérale De Lausanne, Ecole Polytechnique Fédérale de Lausanne, Clinique romande de réadaptation suvacare, Geneva Univ. Hosp. and Fac. of Med., Geneva Univ. Hosp. and Fac. of Med., Geneva Univ. Hosp. and Fac. of Med.*

2:00 L18 **62.10** ▲ miRNA-132-3p plays a role in chronic neuropathic pain. M. LEINDERS*; N. ÜÇEYLER; C. SOMMER; L. SORKIN. *Univ. of Würzburg, Univ. of California San Diego, UCSD.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 L19 **62.11** Carbamazepine potentiates the effectiveness of morphine in a rodent model of neuropathic pain. A. L. RANDOLPH; M. S. RIPSCH; Y. M. ALLETTE; M. R. DUE; Y. KIM; C. ALBANY; F. A. WHITE*. *Indiana Univ. Sch. of Med., Richard Roudebush VA Med. Ctr., Indiana Univ. Sch. of Med., Indiana Univ. Sch. Med.*

4:00 L20 **62.12** Spinal manual therapy effects on experimental pain. S. M. ONIFER*; W. R. REED; R. S. SOZIO; C. R. LONG. *Palmer Ctr. For Chiropractic Res., Palmer Ctr. For Chiropractic Res., Palmer Ctr. For Chiropractic Res.*

1:00 L21 **62.13** ● Field stimulation of the dorsal root ganglion reduced noxious stimulation-induced cortical activation. C. PAWELA; Z. LI; A. KACZMAROWSKI; Q. H. HOGAN*. *Med. Col. of Wisconsin.*

2:00 L22 **62.14** ● Creation of a brain-penetrant peptide-neurotensin(8-13) conjugate exerting analgesic activities after systemic administration. J. COTE*; M. DEMEULE; N. BEAUDET; A. REGINA; K. BELLEVILLE; A. LAROCQUE; J. LONGPRÉ; J. LACHOWICZ; J. CASTAIGNE; P. SARRET. *Univ. De Sherbrooke (FMSS), Angiochem Inc.*

3:00 L23 **62.15** Depletion of heat sensitive TRPV1 positive cutaneous nociceptors by infrared light. M. I. NEMENOV; F. L. RICE*. *Lasmed LLC, Standord Univ., Integrated Tissue Dynamics LLC.*

4:00 L24 **62.16** Amount of exercise is not related to exercise-induced analgesia in a rat model of persistent inflammatory pain. F. TARUM*; M. PITHCER; R. IMRAN; M. BUSHNELL. *NIH, NIH.*

1:00 L25 **62.17** ● Effects of kilohertz-frequency spinal cord stimulation on conduction in dorsal column axons. N. D. CROSBY*; J. J. JANIK; W. M. GRILL. *Duke Univ., Stryker Corp., Duke Univ., Duke Univ., Duke Univ.*

2:00 L26 **62.18** Transcranial static magnetic field stimulation for chronic neuropathic pain modulation. B. NANDAKUMAR*; G. H. BLUEMENTHAL; A. GRAZIANO; G. FOFFANI; A. OLIVIERO; K. A. MOXON. *Drexel Univ., Drexel Univ. college of medicine, Hosp. Nacional de Parapléjicos,SESCAM, HM Puerta del Sur and CEU-San Pablo Univ., Hosp. Nacional de Parapléjicos,SESCAM.*

3:00 L27 **62.19** ● Small molecule inhibitors of protein-protein interactions as novel analgesics. W. LEE*; Z. XU; N. ASHPOLE; A. HUDMAN; P. KULKARNI; G. THAKUR; Y. LAI; A. HOHMANN. *Indiana Univ., Indiana Univ., Indiana Univ., Indiana Univ. Sch. of Med., Northeastern Univ., Gill Ctr. for Biomolecular Sci.*

4:00 L28 **62.20** The electrophysiological property and anti-hyperalgesic activity of sophoraflavanone G and 6-prenylnaringenin, novel T-type calcium channel blockers. S. ONO*; M. ICHII; S. YAMAOKA; F. SEKIGUCHI; T. FUJITA; T. DEGUCHI; M. TSUBOTA; H. NISHIKAWA; S. YOSHIDA; K. MURATA; H. MATSUDA; N. TOYOOKA; T. OHKUBO; A. KAWABATA. *Kinki Univ. Sch. Pharm., Kinki Univ. Sch. Sci. Engineer., Grad. Sch. Sci. Technol., Univ. Toyama, Dep. Physiol. Sci. Mol. Biol., Fukuoka Dent. Coll.*

1:00 L29 **62.21** ● Interfering with chronic inflammatory pain: The case of Dicer-substrate siRNAs targeting the CCL2/CCR2 chemokine system. M. DANSEREAU*; A. M. JACOBI; S. S. ROSE; M. A. BEHLKE; J. LONGPRE; P. SARRET. *Univ. De Sherbrooke, Integrated DNA Technologies Inc.*

2:00 L30 **62.22** Inhibition of spinal microglia and astrocytes contributes to the anti-allodynic effect of electroacupuncture in neuropathic pain induced by spinal nerve ligation. L. YI*; J. DU; Y. QIU; J. FANG; J. LIU; J. ZHU; J. FANG. *Zhejiang Chinese Med. Univ., Dept. of Acupuncture and Rehabil., The Third Affiliated Hosp. of Zhejiang Chinese Med. Univ.*

3:00 L31 **62.23** Mechanical hypersensitivity reversal with drug-loaded nanoemulsion in a CCI model. M. SALEEM*; K. VASUDEVA; S. K. PATEL; K. T. HITCHENS; A. STEVENS; J. M. JANJIC; J. A. POLLOCK. *Duquesne Univ., Duquesne Univ., Duquesne Univ., Carnegie Mellon Univ.*

POSTER

063. Pain Models: Behavior I

Theme D: Sensory and Motor Systems

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 L32 **63.01** ● Adult-onset deletion of Nav1.7 in conditional knockout mice. S. D. SHIELDS*; R. M. REESE; L. DENG; K. SCEARCE-LEVIE; D. H. HACKOS. *Genentech.*

2:00 L33 **63.02** ● Fully implantable wireless microLEDs for optogenetic control of pain circuitry. M. PULLEN-COLON*; S. PARK; D. S. BRENNER; G. SHIN; C. D. MORGAN; B. A. COPITS; H. CHUNG; K. NOH; S. DAVIDSON; S. OH; J. YOON; K. JANG; V. K. SAMINENI; M. NORMAN; J. G. GRAJALES-REYES; S. K. VOGT; T. KIM; M. C. MONTANA; J. P. GOLDEN; M. R. BRUCHAS; J. A. ROGERS; R. W. GEREAU, IV. *Washington Univ. In St Louis, Univ. of Illinois at Urbana-Champaign, Sch. of Materials Sci. and Engin.*

3:00 L34 **63.03** Non-reflexive measures of persistent pain in mice. T. SHEAHAN*; E. R. SIUDA; R. W. GEREAU; J. P. GOLDEN. *Washington Univ. In St. Louis.*

4:00 L35 **63.04** The role of the lateral habenula in the affective dimension of pain. M. M. WHITE*; S. A. MORRIS BOBZEAN; C. A. SALCIDO; L. I. PERROTTI; P. N. FUCHS. *Univ. of Texas At Arlington.*

1:00 L36 **63.05** Assessing contending motivational drives of hunger and pain in an operant multi-approach avoidance paradigm. C. A. SALCIDO*; A. L. HARRIS BOZER; C. T. MCNABB; M. M. WHITE; P. N. FUCHS. *Univ. of Texas at Arlington, NIH, Univ. of Texas at Arlington.*

2:00 L37 **63.06** Spinal cord stimulation in an ovine model of neuropathic pain measured through von Frey filaments, gait analysis, and dorsal horn recordings. J. W. MILLER*; C. G. REDDY; S. WILSON; B. D. DALM; S. SAFAYI; K. ABODE-IYAMAH; S. K. SHIVAPOUR; S. VILJOEN; D. C. FREDERICKS; K. N. GIBSON-CORLEY; N. M. GROSLAND; N. U. JERATH; K. STONER; R. REALE; H. OYA; N. D. JEFFERY; T. J. BRENNAN; G. T. GILLIES; M. A. HOWARD, III. *Univ. of Iowa Hosp. and Clinics, Iowa State Univ., Univ. of Iowa Hosp. and Clinics, Univ. of Iowa Hosp. and Clinics, Univ. of Iowa, Univ. of Iowa Hosp. and Clinics, Univ. of Iowa Hosp. and Clinics, Univ. of Virginia.*

3:00 L38 **63.07** A novel platform for genetic dissection of nociceptive sensitization to cold. H. N. TURNER*; E. SUMNER; C. LANDRY; M. GALKO. *MD Anderson Cancer Ctr., Neurosci. Program, Univ. of Texas Grad. Sch. of Biomed. Sci. at Houston, Univ. of Texas Grad. Sch. of Biomed. Sci. at Houston, ProDev Engin.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

4:00 L39 **63.08** Persistent thermal allodynia evoked by nerve growth factor (NGF) is mediated by TRPV1 and oxidative mechanisms. M. ESKANDER*; S. RUPAREL; P. CHEN; X. GAO; K. HARGREAVES. *UTHSCSA, UTHSCSA.*

1:00 L40 **63.09** Psychosocial stress and susceptibility to chronic postsurgical pain in the rat. V. ARORA*; C. E. MORADO-URBINA; C. ASCHENBRENNER; K. HAYASHIDA; T. J. MARTIN; J. C. EISENACH; C. M. PETERS. *Wake Forest Univ. Sch. of Hlth. Sci.*

2:00 L41 **63.10** Effects of chronic pain on hippocampal microglia and development of depressive-like behaviors. M. CARDER; B. LAMB; L. SEMKE; M. LEONG; M. LENDE; L. YUAN; V. DURIC*. *Des Moines Univ.*

3:00 L42 **63.11** ▲ Comparison of the analgesic effects of amphetamine and caffeine on tail-flick nociception following repeated forced exercise. S. PIERCE; L. PEREZ; L. MININBERG; J. A. SCHROEDER*. *Connecticut Coll.*

4:00 L43 **63.12** ● Pain-related behaviors in nonhuman primate models of knee osteoarthritis. S. NEMOTO*; S. OGAWA; Y. AWAGA; M. TAKASHIMA; K. SUEHIRO; T. KAMADA; A. HAMA; A. MATSUDA; H. TAKAMATSU; K. UMEMURA. *Hamamatsu Pharma Res. Inc., Hamamatsu Pharma Research, Inc., Hamamatsu Univ. Sch. of Med.*

1:00 L44 **63.13** ▲ Spinal dopamine / morphine interactions in the D3 receptor knockout animal model of Restless Legs Syndrome (RLS). A. P. YLLANES; S. SAMIR; K. L. BREWER; S. CLEMENS*. *East Carolina Univ., East Carolina Univ.*

2:00 M1 **63.14** ▲ Validation of the kaolin/carrageenan model as an experimental model of osteoarthritis in rats. F. PINTO-RIBEIRO*; D. AMORIM; A. DAVID-PEREIRA; A. LIMA; R. NOGUEIRA; N. SEVIVAS; A. ALMEIDA. *Escola de Ciencias da Saude, ICVS/3B's - PT Government Associate Lab., Life and Hlth. Sci. Res. Inst. (ICVS), Sch. of Hlth. Sci. (ECS), Campus of Gualtar, Univ. of Minho, 4750-057 Braga, Portugal.*

3:00 M2 **63.15** Effects of chemotherapy exposure on pain sensitivity in the developing rat. K. A. SCHAPPACHER*; M. L. BACCEI. *Univ. of Cincinnati.*

4:00 M3 **63.16** An over ground testing apparatus for evaluation of spinal cord injury associated neuropathic pain. E. A. DUGAN*; J. SAGEN. *Univ. of Miami.*

1:00 M4 **63.17** A novel method to study oral cancer pain. L. CHODROFF*; M. BENDELE; M. HENRY; S. RUPEREL. *Univ. of Texas Hlth. Sci. Ctr., Univ. of Texas Hlth. Sci. Ctr. at San Antonio.*

2:00 M5 **63.18** Activation of membrane estrogen receptors rapidly attenuates opioid receptor-like 1 (ORL1) receptor-mediated modulation of nerve injury-induced hypersensitivity in the rat spinal cord. D. M. HECKARD*; S. S. MOKHA. *Meharry Med. Col.*

3:00 M6 **63.19** Connotative meaning of the concepts of lumbago and sciatica in patients with chronic lumbar pain through a model of Natural Semantic Network. R. CORONADO-ZARCO; E. CRUZ-MEDINA; I. ZARCO DE CORONADO*; S. I. MACÍAS-HERNÁNDEZ. *Inst. Nacional de Rehabilitación, Inst. Nacional de Rehabilitación, UNAM, Inst. Nacional de Rehabilitación.*

4:00 M7 **63.20** Post-ganglion spinal nverve injury causes more severe radiculopathy: From humans to animal studies. J. LIN*; Y. YU; C. CHEN; Y. CHIANG. *Taipei Med. Univ. Hosp., Taipei Med. Univ., Taipei Med. Univ. Hosp., Inst. of Biomed. Sciences, Academia Sinica, Academia Sinica.*

1:00 M8 **63.21** Assessment of gait deficiencies to provide a functional endpoint in the spinal nerve ligation model and spared nerve injury model in rats. A. NURMI; L. TOLPPANEN*; T. HEIKKINEN; R. HODGSON; A. ZAINANA. *Charles River Discovery Services.*

2:00 M9 **63.22** A novel model of spontaneous pain behaviors in rats generated by controllable electrical stimulation of the peripheral nerve. A. HARRIS*; A. LI; M. M. KAJUMBA; J. N. STRAND; P. N. FUCHS; Y. B. PENG. *Tarleton State Univ., Univ. of Texas at Arlington, Univ. of Cincinnati.*

3:00 M10 **63.23** ● NeuroDigm GEL(TM) model of neuropathic pain in rats: A nonsurgical model with an analgesic profile as seen in man. D. A. FITTS*; J. L. BRYANT; M. R. HANNAMAN. *Univ. Of Washington (retired), Univ. of Maryland, NeuroDigm Corp.*

4:00 M11 **63.24** ● Prospective multi-center validation of a burrowing paradigm as an ethologically-relevant readout in a rat model of acute inflammation-evoked pain. K. RUTTEN*; R. WODARSKI; A. DELANEY; C. ULTENIUS; R. MORLAND; A. LINDSTEN; -. EUROPAIN BURROWING STUDY GROUP; A. S. C. RICE. *Grünenthal, GmbH, Imperial Col. London, Karolinska Institutet, Lundbeck A/S, Multiple Res. Centers:.*

1:00 M12 **63.25** Meningeal application of low pH, IL-6 and allyl isothiocyanate produces migraine-related behavior in mice. C. C. BURGOS-VEGA*; G. TREVISAN; L. QUIGLEY; T. PRICE; G. DUSSOR. *UT DALLAS, Federal Univ. of Santa Maria, UT DALLAS.*

2:00 M13 **63.26** EEG analysis of a rodent headache model. A. MELO-CARRILLO; R. NOSEDA; F. J. FLORES; R. BURSTEIN; A. M. STRASSMAN*. *Beth Israel Deaconess Med. Ctr., MIT.*

3:00 M14 **63.27** Development of a conditioned place preference model to evaluate post-TBI headache in rats. J. SAGEN*; S. JERGOVA; D. HOPMAN; J. MATOS; O. FURONES-ALONSO; H. BRAMLETT; S. IZENWASSER. *Univ. Miami,Sch Med., Avans Univ., Univ. Miami,Sch Med.*

POSTER

064. Pain Models: Behavior II

Theme D: Sensory and Motor Systems

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 M15 **64.01** Optogenetic investigation of the MRGPRD nociceptors in behaving transgenic mice. I. DAOU*; A. R. ASE; P. SEGUELA. *Montreal Neurolog. Institute, McGill Univ.*

2:00 M16 **64.02** ● Optogenetic inhibition of specific populations of sensory neurons mediating bladder nociception. A. D. MICKLE*; V. K. SAMINENI; S. PARK; M. PULLEN; J. GRAJALES-REYES; C. D. MORGEN; J. RODGERS; R. W. GEREAU, IV. *Washington Univ., Washington Univ. Pain Ctr., Univ. of Illinois.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 M17 **64.03** Optogenetic inhibition of the corticalstriatal circuit intensifies sensory and affective symptoms of chronic neuropathic pain. R. YANG*; H. LIN; J. WANG; C. SU; T. R. MANDERS. *NYU Med. Sch.*

4:00 M18 **64.04** A mouse model of oxaliplatin-induced neuropathic pain. T. T. AHTONIEMI*; A. ZAINANA; L. KOISTINEN; R. HODGSON; A. NURMI. *Charles River Discovery Res. Services.*

1:00 M19 **64.05** Short-term sleep disturbance-induced stress does not affect basal pain perception, but does delay postsurgical pain recovery. Y. TAO*; P. WANG; J. CAO; L. LIANG; B. M. LUTZ; A. BEKKER. *Rutgers, The State Univ. of New Jersey.*

2:00 M20 **64.06** Endothelin-type A receptors are necessary for pain hypersensitivity in a mouse model of Sickle Cell Disease. B. LUTZ*; Y. TAO. *Rutgers New Jersey Med. Sch.*

3:00 M21 **64.07** Continuous home cage monitoring of wheel-running in male and female rats: A clinically relevant method to assess nociception. R. KANDASAMY*; J. J. CALSBEEK; M. M. MORGAN. *Washington State Univ., Washington State Univ. Vancouver.*

4:00 M22 **64.08** Short-term perioperative stress does not alter basal pain perception, but does exacerbate postsurgical pain. J. CAO*; P. WANG; V. TIWARI; L. LIANG; B. M. LUTZ; W. ZANG; A. BEKKER; X. GAO; Y. TAO. *Rutgers New Jersey Med. Sch., New Jersey Med. School, Rutgers, Johns Hopkins Univ. Sch. of Med., New Jersey Med. School, Rutgers, Col. of Basic Medicine, Zhengzhou Univ.*

1:00 M23 **64.09** Intense and mild stress can cause stress-induced analgesia on the formalin pain test two weeks after MRI restraint training. L. A. LOW*; L. C. BAUER; I. RAUF; L. HYSON; C. BUSHNELL. *Natl. Inst. of Health/NCCIH.*

2:00 M24 **64.10** Evaluation of the antinociceptive and anti-inflammatory effect and gastric safety of the combination of docosahexaenoic acid and naproxen in rats. A. G. ARROYO LIRA*; E. A. PINEDA PEÑA; A. E. CHÁVEZ PIÑA. *ESCUELA NACIONAL DE MEDICINA Y Homeopatía DEL INST.*

3:00 M25 **64.11** Effect of joint immobilization by cast on the pain threshold, the itch sensation and the negative component of pain. K. NODA*; M. OGATA; H. AKITA; H. ISHIBASHI. *Sch. Allied Hlth. Sci. Kitasato Univ.*

4:00 M26 **64.12** Radiculopathy induces spontaneous and reflex pain that is attenuated by meloxicam in a rat model of nerve root trauma. C. WEISSHAAR; B. PHILIPS; B. A. WINKELSTEIN*. *Univ. of Pennsylvania, Univ. of Pennsylvania.*

1:00 M27 **64.13** Involvement of opioid or GABA systems in the ventrolateral periaqueductal gray on analgesia associated to tonic immobility. A. M. PÁEZ*; P. VÁZQUEZ LEÓN; C. CAMPOS-RODRÍGUEZ; E. RAMÍREZ SAN JUAN. *Azcapotzalco, Inst. Politécnico Nacional.*

2:00 M28 **64.14** ● Transcranial direct current stimulation reverses hyperalgesia and alters cytokines in neuropathic pain model. I. L. TORRES*; S. G. CIOATO; L. F. MEDEIROS; P. MARQUES FILHO; R. VERCELINO; A. SOUZA; V. L. SCARABELOT; C. OLIVEIRA; L. S. ADACHI; J. R. ROZISKY; W. CAUMO. *UFRGS - Univ. Federal Do Rio Grande Do Sul, Laboratório de Farmacologia da Dor e Neuromodulação: Investigações Pré-clínicas, Dept. de Farmacologia - UFRGS, Unidade de Experimentação Animal, Grupo de Pesquisa e Pós-Graduação do Hosp. de Clínicas de Porto Alegre, Programa de Pós-Graduação em Medicina: Ciências Médicas, Univ. Federal do Rio Grande do Sul, Programa de Pós-Graduação em Ciências Biológicas: Fisiologia – UFRGS.*

3:00 M29 **64.15** Itch-related scratching and alloknesis elicited by cinnamaldehyde in mice. E. E. CARSTENS*; M. IODI CARSTENS; T. NGUYEN. *Univ. California Davis.*

4:00 M30 **64.16** Is the chronic constriction injury model in the mouse an adequate screening model for analgesic activity? D. PUSHETT*; E. ESNEAULT; C. LE CUDENNEC; B. HELARD; V. CASTAGNE. *Porsolt SAS.*

1:00 M31 **64.17** Pain transmission within peripheral sensory ganglia. K. OMOTO*; K. MARUHAMA; Y. YAMAMOTO; T. SUGIMOTO; O. MATSUSHITA; J. K. NEUBERT; Y. MATSUKA. *Tokushima Univ. Grad. Sch., Okayama Univ. Grad. Sch. of Medicine, Dent. and Pharmaceut. Sci., Okayama Univ. Grad. Sch. of Medicine, Dent. and Pharmaceut. Sci., Univ. of Florida.*

2:00 M32 **64.18** A role for neurokinin neurotransmission in forebrain septal region in nociception. S. NG*; S. KHANNA. *Natl. Univ. of Singapore.*

3:00 M33 **64.19** A role for septal glutamatergic network in modulation of nociception. K. IBRAHIM*; S. KHANNA. *Natl. Univ. of Singapore.*

4:00 M34 **64.20** A new pre-clinical animal model for oral ulcer pain following orthodontic wire appliance. M. ITO; K. ONO; S. HITOMI; K. YAMAGUCHI; T. KAWAMOTO; K. INENAGA*. *Kyushu Dent. Univ.*

1:00 M35 **64.21** Genotype-dependent exacerbation of nerve injury-induced pain, anxiety and depressive behaviour in rats. E. M. JENNINGS; N. N. BURKE; M. ROCHE; D. P. FINN*. *Natl. Univ. Ireland, Galway, Natl. Univ. Ireland, Galway, Natl. Univ. Ireland, Galway, Natl. Univ. Ireland, Galway.*

2:00 M36 **64.22** ▲ Peripheral serotonin evokes sexually dimorphic and estrous cycle dependent pain behaviors in male and female rats. W. L. BENTON; Y. J. LEE; R. H. BESHER; D. L. AVERITT*. *Texas Woman's Univ., Texas Woman's Univ.*

POSTER

065. Somatosensory Thalamocortical Processes

Theme D: Sensory and Motor Systems

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 M37 **65.01** Controlling transmission of sensory information by optical manipulation of the thalamo-cortical pathway in the anesthetized mouse. P. BORDEN*; A. D. ORTIZ; H. J. V. ZHENG; G. B. STANLEY. *Georgia Tech.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

2:00 M38 **65.02** Information coding through adaptive control of synchronized thalamic bursting. C. WHITMIRE*; C. WAIBLINGER; C. SCHWARZ; G. STANLEY. *Georgia Tech/ Emory, Univ. of Tübingen.*

3:00 M39 **65.03** Thalamic control of sensory perception in the awake behaving rat. C. WAIBLINGER*; C. J. WHITMIRE; C. SCHWARZ; G. B. STANLEY. *Georgia Tech. and Emory, Hertie Inst. for Clin. Brain Res., Werner Reichardt Ctr. for Integrative Neurosci.*

4:00 M40 **65.04** Effects of spatial and cross-modal focusing of attention on somatosensory neuronal activity in primate thalamus. E. MEFTAH*; A. CYBULSKA-KLOSOWICZ; E. C. CHAPMAN. *Univ. De Montreal, Lab. of Neuroplasticity, Nencki Inst.*

1:00 M41 **65.05** Vibrotactile perception is enhanced by anodal transcranial direct current stimulation, tDCS, of primary somatosensory cortex, S1. S. LABBÉ*; E. MEFTAH; E. C. CHAPMAN. *Univ. De Montréal.*

2:00 M42 **65.06** Local and thalamic origins of ongoing and sensory evoked cortical synaptic correlations. B. MOHAR*; K. COHEN-KASHI MALINA; I. LAMPL. *Weizmann Inst. of Sci., Janelia Res. Campus.*

3:00 M43 **65.07** Spatiotemporal dynamics of sensory processing in the rat whisker tactile system. D. HIRAI*; K. SHIBATA; K. C. NAKAMURA; T. TANAKA; H. HIOKI; T. KANEKO; T. FURUTA. *Grad. Sch. of Medicine, Kyoto Univ., Interdisciplinary Grad. Sch. of Sci. and Engineering, Tokyo Inst. of Technol.*

4:00 M44 **65.08** Early experience is associated with individual differences in brain organization and thalamic connectivity in prairie voles (Microtus ochrogaster). A. M. SEELKE*; A. PERKEYBILE; K. BALES; L. KRUBITZER. *Univ. California, Davis, Northeastern Univ., Univ. of California, Davis.*

1:00 M45 **65.09** Effects of bicuculline and NMDA on the vibrotactile responses of cortical neurons in the rat SI cortex. B. VARDAR*; B. GÜÇLÜ. *Bogazici Univ.*

2:00 M46 **65.10** Whisking-related changes in neuronal firing and membrane potential dynamics in the somatosensory thalamus of awake mice. N. L. URBAIN*; P. SALIN; L. GENTET; C. PETERSEN. *CRNL INSERM U1028, CNRS UMR 5292, EPFL, CRNL, INSERM U1028-CNRS UMR5292, CRNL, INSERM U1028-CNRS UMR5292.*

3:00 M47 **65.11** The modulation of oral sensory information in the trigeminal and thalamic nuclei during superior laryngeal nerve stimulation. S. SAKAI*; T. SUZUKI; K. TSUJI; J. MAGARA; T. TSUJIMURA; M. INOUE. *Niigata Univ.*

4:00 M48 **65.12** Representation of object properties and hand kinematics in somatosensory (S1) and posterior parietal cortex (PPC). E. P. GARDNER*; J. L. BAKER; J. RYOU; J. CHEN. *New York Univ. Sch. Med., Weill Cornell Med. Col.*

1:00 N1 **65.13** Selective activation of infragranular layers of vibrissal primary motor cortex inhibits vibrissal sensory pathway via corticofugal projections. M. LOHSE*; E. SADER; L. UPTON; E. MANN. *Univ. of Oxford.*

2:00 N2 **65.14** ● Distinct mGlu2 and mGlu3 receptor functions in modulation of sensory responses and burst firing in the ventrobasal thalamus during vibrissa stimulation. T. E. SALT*; S. A. NEALE; C. S. COPELAND. *UCL Inst. Ophthalmology, Neurexpert Ltd.*

3:00 N3 **65.15** Layer- and cell-type segregation of thalamocortical input from POm in somatosensory cortex. N. AUDETTE*; M. MATSUSHITA; A. L. BARTH. *Carnegie Mellon Univ., Carneie Mellon Univ., Carnegie Mellon Univ.*

4:00 N4 **65.16** Functional consequences of bilateral facial maps along the thalamocortical system. V. TSYTSAREV*; H. ARAKAWA; P. GASPAR; A. CHEDOTAL; R. S. ERZURUMLU. *Univ. of Maryland, Case Western Reserve Univ., Inserm-UMRS 839, Inst. du Fer a Moulin, Univ. of Maryland Sch. of Med.*

1:00 N5 **65.17** Effect of long-range feedback connections from motor cortex and thalamus to somatosensory cortex. T. ZOLNIK; R. N. SACHDEV*; M. LARKUM. *Humboldt Univ., Charite-Berlin, Humboldt University, Berlin.*

POSTER

066. Spinal Cord Injury: Neuroplasticity

Theme D: Sensory and Motor Systems

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 N6 **66.01** Therapeutic window for correcting dendritic spine dysgenesis in SCI induced neuropathic pain. A. M. TAN*; S. LIU; M. HILL; P. ZHAO; S. G. WAXMAN. *Yale University/VA Connecticut Healthcare Syst.*

2:00 N7 **66.02** Awake behaving electrophysiological correlates of weakness and spasticity after cervical hemi-contusion in the rat. P. D. GANZER*; E. MEYERS; R. L. RENNAKER, II; M. P. KILGARD. *Univ. of Texas At Dallas, Univ. of Texas at Dallas, Univ. of Texas at Dallas.*

3:00 N8 **66.03** Decoupling of hand and arm movements after spinal cord injury. F. J. CALABRO*; M. A. PEREZ. *Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Miami.*

4:00 N9 **66.04** Altered suppression of corticospinal drive prior to an upcoming action after spinal cord injury. P. FEDERICO*; M. A. PEREZ. *Univ. of Miami, Univ. of Pittsburgh.*

1:00 N10 **66.05** Strengthening corticospinal synaptic transmission in a lower-limb muscle. M. URBIN*; M. A. PEREZ. *Washington Univ. Sch. of Med., Univ. of Pittsburgh, Univ. of Miami.*

2:00 N11 **66.06** Subcortical contribution to bimanual force coupling after spinal cord injury. J. LONG; T. TAZOE; M. OUDEGA*; M. A. PEREZ. *Univ. of Miami, Univ. of Pittsburgh.*

3:00 N12 **66.07** Late TMS-induced I-waves detect loss of voluntary motor output after spinal cord injury. J. CIRILLO*; M. A. PEREZ. *Univ. of Auckland, Univ. of Auckland, Univ. of Pittsburgh, Univ. of Miami.*

4:00 N13 **66.08** Control of diaphragm activity after SCI in the absence of supraspinal input: The contribution of interneurons. J. M. CREGG*; L. T. LANDMESSER; J. SILVER. *Case Western Reserve Univ.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

1:00 N14 **66.09** ● Modulation of the proteoglycan receptor PTPσ induces neuronal protease release to overcome Chondroitin Sulfate Proteoglycan inhibition of axon regeneration. A. TRAN*; B. T. LANG; J. SILVER. *Case Western Reserve Univ., Athersys.*

2:00 N15 **66.10** Effect of spinal cord injury on the expression of c-Fos in the cerebellum of male rats. C. A. PEREZ-ESTUDILLO*; E. CHANG-MOYA; M. L. LOPEZ-MERAZ; C. MORGADO-VALLE; L. BELTRAN-PARRAZAL; A. J. MARTINEZ-CHACON; G. A. CORIA-AVILA; J. MANZO. *Univ. Veracruzana, Ctr. de Investigaciones Cerebrales, U.V., Ctr. de Investigaciones Biomedicas, U.V.*

3:00 N16 **66.11** The 5-HT1 receptors are involved in the increased ability of AADC cells to produce 5-HT following spinal cord injury. L. REN*; K. ZHANG; L. CHEN; H. HULTBORN. *Lab. of Spinal Injury and Rehabil., Chengde Med. U, Chengde Med. Univ., Univ. of Copenhagen.*

4:00 N17 **66.12** Opening a window of delayed spinal plasticity following ischemic brain injury. A. M. WIERSMA*; I. R. WINSHIP. *Neurochemical Res. Unit, Neurosci. and Mental Hlth. Institute, Univ. of Alberta.*

1:00 N18 **66.13** The firing properties of deep dorsal horn neurons following acute spinal cord injury during administration of agonists for NMDA and 5HT1 receptors. T. THAWEERATTANASINP*; C. J. HECKMAN; V. M. TYSSELING. *Northwestern University, Feinberg Sch. of Medici, Northwestern University, Feinberg Sch. of Med., Northwestern University, Feinberg Sch. of Med.*

2:00 N19 **66.14** Changes of calbindin-D28k immunoreactive neurons in the thoracic spinal cord after space flight. P. M. MASLYUKOV*; V. PORSEVA; A. STRELKOV; V. SHILKIN. *Yaroslavl Med. Acad.*

3:00 N20 **66.15** ● Dentification of neuroregeneration promoting and inhibiting proteins present in cellular cultures of the olfactory ensheathing cell (oecs). M. Y. SANCHEZ*, III; R. M. GOMEZ B; J. J. NIÑO; R. H. BUSTOS; M. A. DOMINGUEZ; D. VARGAS; M. F. QUIROZ-P. *Univ. Nacional De Colombia, Univ. de la Sabana, Fundación para el desarrollo de la neutro-regeneración en Colombia, Fundación para el desarrollo de la neutro-regeneración en Colombia, Univ. de la Sabana, Univ. de la Sabana, Univ. de la Sabana, Univ. de la Sabana.*

4:00 N21 **66.16** Loss of descending serotonergic fibers transforms how GABA regulates nociceptive systems within the spinal cord: Role of KCC2. Y. HUANG*; K. H. LEE; J. W. GRAU. *Texas A&M Univ., Univ. of Pittsburgh Med. Ctr.*

1:00 N22 **66.17** Intelligence and functional connectivity in people with Cerebral Palsy. R. E. ALCAIDE*; J. E. HUGGINS; S. WARSCHAUSKY. *Univ. of Michigan, Univ. of Michigan.*

POSTER

067. Reflexes and Reflex Modulation

Theme D: Sensory and Motor Systems

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 N23 **67.01** The effect of movement speed of visuomotor task on the activity of spinal inhibitory circuits. S. KUBOTA*; M. HIRANO; Y. KOIZUME; S. TANABE; K. FUNASE. *Hiroshima Univ., Res. Fellow of the Japan Society for the Promotion of Sci., Fujita Hlth. Univ.*

2:00 N24 **67.02** Reduced post-activation depression of the soleus H-reflex and root evoked potential following transcranial magnetic stimulation. J. ANDREWS*; R. STEIN; F. ROY. *Univ. of Alberta, Univ. of Alberta.*

3:00 N25 **67.03** Machine learning classification of a hemiplegic and healthy patellar tendon reflex pair through an iPod wireless gyroscope platform. R. C. LEMOYNE*; T. MASTROIANNI. *Independent, Northern Arizona Univ., Independent.*

4:00 N26 **67.04** Patterns of postural recovery in response to reflexly induced perturbation. B. TAHAYORI*; M. RAZEGHI; D. M. KOCEJA. *Indiana Univ., Shiraz Univ. of Med. Sci., Indiana Univ.*

1:00 N27 **67.05** Effects of postural orientation and weight bearing on soleus H-reflex in young and elderly subjects. M. R. ENYART*; A. PHIPPS; K. KITANO; D. KOCEJA. *Indiana Univ., Indiana Univ.*

2:00 N28 **67.06** Ipsilateral and contralateral reflex modulation during tied-belt and split-belt locomotion in spinal-transected cats. M. HURTEAU*; Y. THIBAUDIER; C. DAMBREVILLE; V. KUCZYNSKI; A. FRIGON. *Univ. De Sherbrooke.*

3:00 N29 **67.07** ▲ Rat hind limb nociceptive withdrawal response to heat and mechanical stimuli depends on initial paw posture but not stimulus location. G. VERDI*; T. L. BERRENA; K. M. SEAMON; C. A. CHRZAN; M. HARTMANN; B. C. GUMPERT; M. N. KABORE; K. MOORE; C. L. CLELAND. *James Madison Univ., James Madison Univ.*

4:00 N30 **67.08** ▲ Dependence of the nociceptive withdrawal response of the tail on stimulus location and intensity. Q. KANG*; S. J. THAI; J. KIM; J. A. BRAUN; C. L. CLELAND. *James Madison Univ.*

1:00 N31 **67.09** Postural modulation of the nociceptive withdrawal response of the tail in intact, unanaesthetized rats. J. KIM*; Q. KANG; C. L. CLELAND. *James Madison Univ.*

2:00 N32 **67.10** Post-stroke disruption of bilateral lower limb neuromuscular control in response to a unilateral gait perturbation. B. SHARAFI*; Y. Y. DHAHER. *Liberty Mutual Inst. For Safety, Northwestern Univ.*

3:00 N33 **67.11** Effects of wrist orientation and level of muscle activation on the magnitude of reciprocal inhibition and cutaneous reflexes in forearm muscles. Y. SUN*; E. ZEHR. *Rehabil. Neurosci. Laboratory, Univ. Victoria, Human Discovery Science, Intl. Collaboration on Repair Discoveries (ICORD), Ctr. for Biomed. Research, Univ. of Victoria, Div. of Med. Sciences, Univ. of Victoria.*

4:00 N34 **67.12** ● Topographic organization of responses evoked by discrete cutaneous stimulation of the foot dorsum during locomotion. G. E. PEARCEY*; T. KLARNER; T. S. BARSS; Y. SUN; C. KAUPP; T. NAKAJIMA; T. KOMIYAMA; B. MUNRO; E. ZEHR. *Univ. of Victoria, Univ. of Victoria, Intl. Collaboration on Repair Discoveries, Kyorin Univ. Sch. of Med., Chiba Univ., Natural Motion Div., Univ. of Victoria.*

1:00 N35 **67.13** Can five weeks of arm cycling training improve walking and neurological integrity in chronic stroke? C. KAUPP*; T. KLARNER; Y. SUN; N. ZAPOTOCZNY; H. CULLEN; T. S. BARSS; G. E. PEARCEY; E. P. ZEHR. *Univ. of Victoria, Univ. of Victoria, Intl. Collaboration on Repair Discoveries, Univ. of Victoria.*

2:00 N36 **67.14** ● Effects of tonic cutaneous input on sensory feedback transmission in the upper limb. T. S. BARSS*; G. E. P. PEARCEY; B. MUNRO; E. P. ZEHR. *Rehab Neuro Lab., Intl. Collaboration on Repair Discoveries, Univ. of Victoria, Natural Motion Div., Univ. of Victoria.*

3:00 N37 **67.15** Fatiguing contractions of paretic knee extensors do not exacerbate stretch reflex responses. R. BERRIOS*; M. KIRKING; H. KUHNEN; S. HUNTER; B. SCHMIT; A. HYNGSTROM. *Marquette Univ.*

4:00 N38 **67.16** The effect of fatigue on interlimb communication. S. GERVASIO*; A. J. T. STEVENSON; N. MRACHACZ-KERSTING. *Aalborg Univ.*

1:00 N39 **67.17** The roles of contralateral conditioning and ipsilateral control stimulus intensities on soleus h-reflex modulation. A. M. PHIPPS; M. R. ENYART; K. KITANO; D. M. KOCEJA*. *Indiana Univ., Indiana Univ.*

2:00 N40 **67.18** ● Idiopathic adolescent scoliosis; evidence of neuromuscular and respiratory alteration of motor drive as a possible etiology. M. M. SABBAHI*; M. BADGHAISH; F. OVAK BITTAR; H. ALROWAYEH; E. ABD EL KAFY; M. ALAYAT. *Texas Woman's Univ., Umm Al Qura University, Fac. of Applied Med. Sciences., Texas electrophysiology Services, Kuwait University, Fac. of Allied Hlth. Sciences, Physical Therapy Department., Umm Al Qura University, Fac. of Applied Med. Sciences, Makkah, KSA.*

3:00 N41 **67.19** Double-step torques reveal a fixed 50 ms delay in integrating multi-joint motion for corrective action. I. KURTZER*. *New York Inst. of Technol. - Col. of Oste.*

4:00 N42 **67.20** Motor equivalence during whole body reaching in healthy young adults. Y. TOMITA*; A. G. FELDMAN; M. F. LEVIN. *McGill Univ., Ctr. for Interdisciplinary Res. in Rehabil. of Greater Montreal (CRIR), Univ. of Montreal.*

1:00 N43 **67.21** Control of posture and movement with respect to gravity by setting the referent orientation of the body. A. MULLICK*; S. HSU; S. K. SUBRAMANIAN; N. TURPIN; A. G. FELDMAN; M. F. LEVIN. *McGill Univ., Ctr. for Interdisciplinary Res. in Rehabil. of Greater Montreal (CRIR), McGill Univ., Univ. of Montreal.*

2:00 N44 **67.22** Threshold position resetting suppresses both stretch reflexes and background muscle activity in arm muscles in response to prolonged muscle lengthening. N. A. TURPIN; R. RAHAL; S. K. SUBRAMANIAN; M. F. LEVIN; A. G. FELDMAN*. *Univ. Montreal, Ctr. for Interdisciplinary Res. in Rehabil. of Greater Montreal (CRIR), Univ. Montreal, McGill.*

3:00 N45 **67.23** The long-latency stretch response accounts for kinematic redundancy of the arm. J. WEILER*; P. GRIBBLE; A. PRUSZYNSKI. *The Univ. of Western Ontario.*

4:00 N46 **67.24** Heightened attention to proprioceptive feedback is not sufficient for long-latency reflex modulation during arm posture. E. H. E. WALKER*; R. RUIZ-TORRES; E. J. PERREAULT; L. E. MILLER. *Northwestern Univ., Rehabil. Inst. of Chicago, Northwestern Univ., Northwestern Univ.*

1:00 N47 **67.25** Muscle innervation patterns for human wrist control as biofeedback signals for robotic rehabilitation. A. CUPPONE*; M. SEMPRINI; V. SQUERI; J. KONCZAK. *Inst. Italiano Di Tecnologia, Univ. of Minnesota.*

2:00 N48 **67.26** A geometric model of defensive peripersonal space. R. J. BUFACCHI*; M. LIANG; L. D. GRIFFIN; G. D. IANNETTI. *UCL, Tianjin Med. Univ., UCL.*

3:00 O1 **67.27** Influence of task complexity on brainstem contributions to motor execution after stroke. H. LEE; C. HONEYCUTT; R. L. HECKMAN*; E. J. PERREAULT. *Rehabil. Inst. of Chicago, Northwestern Univ., Arizona State Univ., Arizona State Univ., Sensory Motor Performance Program, Northwestern Univ.*

4:00 O2 **67.28** Effect of sodium channel blockers on the initiation of swallows in anesthetized guinea pigs. K. TSUJI*; T. TSUJIMURA; M. INOUE; B. J. CANNING. *Niigata Univ. Grad. Sch. of Med. and Dent. Sci., Johns Hopkins Asthma and Allergy Ctr.*

POSTER

068. Motoneuron Disease: Cellular Mechanisms I

Theme D: Sensory and Motor Systems

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 O3 **68.01** ER-mitochondria communication breakdown in ALS. H. KAWAMATA*; C. KONRAD; A. ARREGUIN; G. MANFREDI. *BMRI, Weill Med. Col. of Cornell Univ., BMRI Weill Med. Col. of Cornell Univ.*

2:00 O4 **68.02** ● Motor Physiology in C9orf72 amyotrophic lateral sclerosis-frontotemporal dementia. M. FLOETER*; T. J. LEHKY; L. BRAUN; D. BAGEAC; B. TRAYNOR; O. SCHANZ. *NIH, NIH, NIH.*

3:00 O5 **68.03** Elevated CDK5 activity leads to dysregulated axonal transport in neurons. E. KLINMAN*; E. L. F. HOLZBAUR. *Univ. of Pennsylvania Sch. of Med., Univ. of Pennsylvania Perelman Sch. of Med.*

4:00 O6 **68.04** A novel link between C9ORF72 expansion and phosphorylated TDP-43 aggregation. T. NONAKA*; G. SUZUKI; F. KAMETANI; M. HASEGAWA. *Tokyo Metropolitan Inst. of Med. Sci.*

1:00 O7 **68.05** Involvement of muscle-specific mirna-206 in the spinal muscular atrophy pathogenesis. M. M. BOIDO*; V. VALSECCHI; E. DE AMICIS; A. PIRAS; A. VERCELLI. *Univ. of Turin, Karolinska Institutet.*

2:00 O8 **68.06** TDP-43 influences synaptic function through translational regulation of synaptic mRNA targets. A. COYNE*; J. JOHANNESMEYER; D. ZARNESCU. *Univ. of Arizona.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 O9 **68.07** ▲ Early connectivity defects of corticospinal motor neurons in ALS. D. HELLER*; J. H. JARA; P. SHEETS; M. NIGRO; M. MARTINA; G. M. G. SHEPHERD; P. H. OZDINLER. *Northwestern University, Feinberg Sch. of Med., Northwestern University, Feinberg Sch. of Med., Northwestern University, Robert Lurie Cancer Ctr., Northwestern University, Cognitive Neurol. and Alzheimer's Dis. Ctr.*

4:00 O10 **68.08** Aberrant nuclear pore pathology in c9orf72 als-ftd and neurodegeneration. J. C. GRIMA*; M. J. ELRICK; K. RUSSELL; L. PETRUCELLI; R. H. BROWN; L. W. OSTROW; C. J. DONNELLY; R. SATTLER; J. D. ROTHSTEIN. *Johns Hopkins Univ. Sch. of Med., Mayo Clin., Univ. of Massachusetts Med. Sch.*

1:00 O11 **68.09** Molecular classification of amyotrophic lateral sclerosis by unsupervised clustering of gene expression in motor cortex. G. MORELLO; E. ARONICA; F. BAAS; A. IYER; A. TEN ASBROEK; S. CAVALLARO*. *Italian Natl. Res. Council, Dept. of 1(Neuro) Pathology, Academic Med. Center, Amsterdam, the Netherlands. Swammerdam Inst. for Life Sciences, Ctr. for Neuroscience; Univ. of Amsterdam, Amsterdam, The Netherlands., Neurogenetics,Academic Med. Ctr., Dept. of (Neuro) Pathology, Academic Med. Center, Amsterdam, the Netherlands., Dept. of Neurogenetics, Academic Med. Center, Amsterdam, the Netherlands.*

2:00 O12 **68.10** TDP-43 accumulation causes aberrant motor neuron excitability. Y. LIU*; H. DONG; R. D. DAYTON; R. L. KLEIN; M. P. MATTSON. *Natl. Inst. on Aging, the Second Hosp. of Hebei Med. Univ., Louisiana State Univ.*

3:00 O13 **68.11** The role of mitophagy and parkin in SOD1-ALS. G. M. PALOMO; A. ARREGUIN; J. MAGRANE; G. MANFREDI*. *Feil Family Brain and Mind Res. Institute, Weill Med. Col. of Cornell Univ., Weill Med. Col. Cornell Univ.*

4:00 O14 **68.12** AlsinKO-UeGFP mice, the CSMN reporter line for Alsin, display CSMN-specific cellular defects without major cell loss. M. GAUTAM*; G. SEKERKOVA; J. H. JARA; M. V. YASVOINA; H. DENG; M. MARTINA; P. H. ÖZDINLER. *Dept. of Neurology, Northwestern Univ., Northwestern Univ., Northwestern Univ.*

1:00 O15 **68.13** Expression of Stasimon rescues select defects in the sensory-motor circuit of SMA mice. C. M. SIMON*; F. LOTTI; E. BIANCHETTI; S. TISDALE; G. Z. MENTIS; L. PELLIZZONI. *Motor Neuron Ctr.*

2:00 O16 **68.14** Activation of the sigma-1 receptor (Sig-1R) by ligands or ER stress results in increased receptor mobility, subcellular redistribution and the modulation of the Unfolded Protein Response. A. Y. WONG*; P. CHUDALAYANDI; E. HRISTOVA; N. AHLSKOG; J. K. NGSEE; R. BERGERON. *Univ. of Ottawa, Ottawa Hosp. Res. Inst.*

3:00 O17 **68.15** Expression of human FUS induces an early loss of CCAP neurons resulting in wing expansion and cuticle tanning defects in *Drosophila*. J. A. STEYAERT; N. WILMANS; W. SCHEVENEELS; P. VAN DAMME; W. L. ROBBERECHT; P. CALLAERTS; E. BOGAERT; L. M. VAN DEN BOSCH*. *Lab. of Neurobiology, Vesalius Res. Center, VIB, Leuven, Belgium, Univ. Hosp. Leuven, Dept. of Neurol., Lab. of Behavioral and Developmental Genetics, VIB, KU Leuven.*

4:00 O18 **68.16** Cellular localization of ALS-linked FUS regulates neurite fragmentation under oxidative stress. M. JUN; H. RYU; W. JEONG; Y. LEE; J. LEE*. *Hannam Univ.*

1:00 O19 **68.17** The respiratory motor system in amyotrophic lateral sclerosis - dendritic growth and regression is coupled with motor neuron loss and impaired respiratory function. M. C. BELLINGHAM*; M. J. FOGARTY; E. W. H. MU; J. R. DRIEBERG-THOMPSON; N. A. LAVIDIS; P. G. NOAKES. *Univ. of Queensland, Univ. of Queensland, Univ. of Queensland.*

2:00 O20 **68.18** Active zone degeneration causes neuromuscular junction denervation in ALS model rodents. H. NISHIMUNE*; S. TUNGTUR; J. A. STANFORD; T. TANAKA; L. L. NADEAU. *Univ. of Kansas Sch. of Med., Univ. of Kansas Sch. of Med.*

3:00 O21 **68.19** Immortalized human neuronal progenitor cells (ReNcell CX) are an ideal model to investigate the inhibition of adult neurogenesis in the SVZ mediated by TGF-β. S. KUESPERT*; E. ZITZELSPERGER; S. PETERS; S. KLATT; T. BRUUN; L. AIGNER; U. BOGDAHN. *Univ. Hosp. Regensburg, Univ. Hosp. Regensburg, Paracelsus Med. Univ.*

4:00 O22 **68.20** Reciprocal binding between SMN and the COPI coatomer subunit alpha-COP is required for neuronal morphology in cell and animal models of spinal muscular atrophy. S. K. CUSTER*; H. LI; L. T. HAO; C. E. BEATTIE; E. J. ANDROPHY. *Indiana Univ. Sch. of Med., The Ohio State Univ.*

1:00 O23 **68.21** Poly(A)-binding protein nuclear 1 suppresses TDP-43 toxicity and aggregation in ALS disease models. C. CHOU*; O. M. ALEXEEVA; Y. ZHANG; F. LIU; B. MO; K. R. WILLIAMS; D. C. ZARNESCU; N. T. SEYFRIED; G. J. BASSELL; W. ROSSOLL. *Emory Univ., Emory Univ., Xiangya Hospital, Central South Univ., the Second Hosp. of Jilin Univ., Univ. of Arizona, Emory Univ., Emory Univ.*

2:00 O24 **68.22** Iron accumulation promotes TACE-mediated TNF-α secretion and neurodegeneration in a mouse model of ALS. J. LEE*; J. SHIN; B. GWAG; E. CHOI. *Korea Univ., Ajou Univ., GNT Pharma.*

POSTER

069. Motoneuron Disease

Theme D: Sensory and Motor Systems

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 O25 **69.01** Monocyte subtypes in ALS. L. J. ZONDLER*; S. KHALAJI; K. MUELLER; C. BLIEDERHAEUSER; V. GROZDANOV; W. P. RUF; A. FREISCHMIDT; P. WEYDT; K. E. GOTTSCHALK; A. C. LUDOLPH; K. M. DANZER; J. H. WEISHAUPT. *Ulm Univ., Ulm Univ.*

2:00 O26 **69.02** Cell-to-cell transmission of TDP-43 across axon terminals. M. FEILER*; B. STROBEL; A. FREISCHMIDT; A. HELFERICH; B. BREWER; D. LI; D. THAL; A. C. LUDOLPH; K. M. DANZER; J. H. WEISHAUPT. *Ulm Univ., Boehringer Ingelheim Pharma GmbH & Co. KG, Ulm Univ., Vanderbilt Univ.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 O27 **69.03** Transplantation of human neural progenitor cells expressing GDNF into the motor cortex as a therapeutic strategy for treating amyotrophic lateral sclerosis. G. M. THOMSEN*; G. G. GOWING; J. VIT; O. SHELEST; D. RUSHTON; P. SUEZAKI; C. N. SVENDSEN. *Cedars-Sinai Med. Ctr.*

4:00 O28 **69.04** The neurotoxin psychosine disorganizes plasma membrane lipids in the Krabbe disease. L. D'AURIA*; M. MARSHALL; E. LI; C. REITER; G. LI; R. VAN BREEMEN; M. ESCOLAR; E. BONGARZONE. *UIC, UIC, Univ. of Pittsburgs.*

1:00 O29 **69.05** SMN functions as a chaperone for neuronal mRNP complex assembly. P. G. DONLIN-ASP*; C. FALLINI; J. P. ROUANET; S. P. H. HUANG; K. R. WILLIAMS; G. J. BASSELL; W. ROSSOLL. *Emory Univ. Sch. of Med.*

2:00 O30 **69.06** Vulnerable motor units become hypoexcitable before denervation in mouse models of ALS. L. MARTINEZ-SILVA; D. ZYTNICKI; M. MANUEL*. *CNRS / Univ. Paris Descartes.*

3:00 O31 **69.07** Neurodegeneration-linked nuclear loss of RNA/DNA binding protein TDP-43 impairs DNA double-strand break repair in neuronal genomes. E. N. GUERRERO*; J. MITRA; P. HEGDE; H. WANG; J. RAO; M. HEGDE. *INDICASAT-AIP, Houston Methodist Res. Inst., Acharaya Nagarjuna Univ.*

4:00 O32 **69.08** Subclinical abnormal sensory-motor integrations at spinal level in ALS patients. V. MARCHAND-PAUVERT*. *Inserm.*

1:00 O33 **69.09** ● Non-invasive muscle impedance measurements correlate to muscle force in ALS mice. J. LI*; B. SANCHEZ; A. PACHECK; S. RUTKOVE. *Harvard Med. School, Beth Israel Deaconess Med. Ctr.*

2:00 O34 **69.10** ▲ Early and late somatosensory evoked potential impairment in amyotrophic lateral sclerosis. S. SANGARI*; V. MARCHAND-PAUVERT. *UMPC/INSERM/ CNRS, INSERM.*

3:00 O35 **69.11** ● Role of ADARB2 in GLUA2 editing deficiency in C9ORF72 amyotrophic lateral sclerosis and frontotemporal dementia. E. F. MENDEZ*; E. L. DALEY; X. TANG; S. VIDENSKY; R. SATTLER. *Johns Hopkins Univ., Johns Hopkins Univ.*

4:00 O36 **69.12** PGC-1alpha signalling system in mouse models of FUS- and SOD1-related amyotrophic lateral sclerosis. H. BAYER; K. LANG; J. HANSELMANN; I. MERDIAN; L. DUPUIS; P. WEYDT*; A. WITTING. *Ulm Univ., INSERM.*

1:00 O37 **69.13** Leveraging informatics to assess the SOD1 G93A amyotrophic lateral sclerosis mouse model. R. KIM*; C. IRVIN; J. KNIPE; C. S. MITCHELL. *Georgia Inst. of Technol.*

2:00 O38 **69.14** Analysis of SOD1 transmission to motor neurons in a SOD1G85R mouse amyotrophic lateral sclerosis (ALS) model. E. V. THOMAS*; W. A. FENTON; M. NAGY; D. LI; J. M. MCGRATH; A. L. HORWICH. *Yale Univ., Yale Univ., Yale Univ., Yale University/Howard Hughes Med. Inst.*

3:00 O39 **69.15** Effects of caspase-3 cleavage-resistant Eaat2 on the Sod1-G93A mouse model of amyotrophic lateral sclerosis. L. T. ROSENBLUM*; P. PASINELLI; D. TROTTI. *Dept. of Neurosci., Thomas Jefferson Univ.*

4:00 O40 **69.16** Astrocyte Cx43 contributes to motor neuron toxicity in ALS. A. A. ALMAD*; A. DORESWAMY; S. K. GROSS; N. HAUGHEY; N. J. MARAGAKIS. *Johns Hopkins Univ., Johns Hopkins Univ., Johns Hopkins Univ.*

1:00 O41 **69.17** Disease-promoting immunological alterations in patients with amyotrophic lateral sclerosis. S. T. PETERS*; S. KÜSPERT; E. ZITZELSPERGER; S. KLATT; M. RIEMENSCHNEIDER; L. AIGNER; T. BRUUN; U. BOGDAHN. *Univ. Hosp. Regensburg, Univ. Hosp. Regensburg, Univ. Hosp. Regensburg, Paracelsus Med. Univ.*

2:00 O42 **69.18** ● Antisense oligonucleotide treatment protects against neuromuscular denervation in the SOD1-G93A mouse model of ALS as evaluated by a pre-symptomatic electrophysiological measure. B. J. FARLEY*; N. T. COMFORT; J. L. GOODMAN; A. M. KUSZPIT; T. COLE; H. KORDASIEWICZ; E. SWAYZE; A. MCCAMPBELL; M. WITTMANN. *Biogen, Isis Pharmaceuticals.*

3:00 O43 **69.19** Inhibition of p38 MAPK alpha rescues retrograde axonal transport defects in ALS. K. L. GIBBS*; B. KALMAR; M. AHMED; E. BROWNE; C. DAVIES; L. GREENSMITH; G. SCHIAVO. *Inst. of Neurol., GlaxoSmithKline Res. and Develop. China Singapore Res. Ctr.*

4:00 O44 **69.20** S6K-mediated cellular change in a mouse model of ALS. S. KUO*; C. J. HECKMAN. *Northwestern Univ., Rehabil. Inst. of Chicago.*

1:00 O45 **69.21** Exocytosis regulates the trafficking of GABA and glycine heterotransporters in spinal cord glutamatergic synapses: A mechanism for the excessive heterotransporter-induced glutamate release in amyotrophic lateral sclerosis. C. USAI*; M. MILANESE; T. BONIFACINO; E. FEDELE; C. REBOSIO; L. CATTANEO; F. BENFENATI; G. BONANNO. *Natl. Rese Council, Univ. of Genoa, Italian Inst. of Technol. and Univ. of Genoa.*

2:00 O46 **69.22** A temporal assessment of excitability in the SOD1 G93A Amyotrophic Lateral Sclerosis mouse model. I. VERNON*; Y. SHI; M. JENSEN; Z. SEILING; C. S. MITCHELL. *Georgia Inst. of Technol.*

3:00 O47 **69.23** Hyperexcitability in synaptic activity as a component of excitotoxicity in adult mouse model of amyotrophic lateral sclerosis. C. HECKMAN*; M. JIANG. *Northwestern Univ., Northwestern Univ.*

POSTER

070. Gait and Posture: Afferent Control

Theme D: Sensory and Motor Systems

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 O48 **70.01** Split-belt treadmill adaptation in trans-tibial amputees. B. P. SELGRADE*; M. E. TONEY; Y. CHANG. *Georgia Inst. of Technol.*

2:00 P1 **70.02** Effects of decreased contralateral afferent feedback on ipsilateral motor output during pedaling. Y. CHANG*; T. L. NORMAN. *Georgia Inst. of Technol.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 P2 **70.03** Interlimb reflexes following ipsilateral knee joint rotations are suppressed in an unstable walking environment. A. J. STEVENSON*; S. S. GEERTSEN; T. SINKJÆR; J. B. NIELSEN; N. MRACHACZ-KERSTING. *Ctr. for Sensory-Motor Interaction, Aalborg Univ., Dept. of Nutrition, Exercise and Sports, Univ. of Copenhagen, Dept. of Neurosci. and Pharmacology, Univ. of Copenhagen, The Danish Natl. Res. Fndn.*

4:00 P3 **70.04** Postural responses to various frequencies of vibration of the triceps surae and forefoot sole during quiet standing. M. NAKA*; K. FUJIWARA; N. KIYOTA. *Morinomiya Univ. of Med. Sci., Kanazawa Gakuin Univ., Japan Hlth. Care Col.*

1:00 P4 **70.05** Flexor and extensor muscle recruitment during repetitive leg movements in chick embryos. S. SUN*; N. S. BRADLEY. *USC.*

2:00 P5 **70.06** Early activation of ankle muscles following light touch displacement at the fingertip during treadmill walking. T. SHIVA; J. FORERO; J. E. MISIASZEK*. *Univ. of Alberta, Univ. Alberta.*

3:00 P6 **70.07** Modulation of afferent feedback from paw pad afferents affects interlimb coordination and adaptation to split-belt treadmill locomotion in the cat. H. PARK; R. MEHTA; S. P. DEWEERTH; B. I. PRILUTSKY*. *Georgia Inst. Technol.*

4:00 P7 **70.08** Gait characteristics of children walking barefoot and with socks. C. W. CHAU*; L. ALBERT; A. AUFIERO; L. MOCK; K. WARD. *Nazareth Col.*

1:00 P8 **70.09** Development of a reliable proprioception measure during gait using a robotised ankle-foot orthosis and its relationship with static and dynamic balance. J. BOUFFARD*; A. FOURNIER-BELLEY; D. MORIN; C. MERCIER; J. ROY; L. J. BOUYER. *Univ. Laval, Univ. Laval.*

2:00 P9 **70.10** Comparing the contribution of length and force feedback to ankle extension during stance in the treadmill trained spinal cat. A. J. KRUPKA*; D. HIGGIN; B. I. PRILUTSKY; A. N. KLISHKO; I. RYBAK; M. A. LEMAY. *Temple Univ., Drexel Univ. Col. of Med., Georgia Inst. of Technol.*

3:00 P10 **70.11** The effects of plantar vibration stimulation on lower limb muscle activity during stepping. S. MITCHELL-EWART; M. CANNING; S. D. PERRY*. *Wilfrid Laurier Univ.*

4:00 P11 **70.12** Withdrawn.

1:00 P12 **70.13** Cortical recovery rate of proprioceptive responses to passive finger movements. E. SMEDS; R. K. HARI*; H. PIITULAINEN; M. BOURGUIGNON; V. JOUSMÄKI. *Dept. of Neurosci. and Biomed. Engin., Aalto Univ.*

POSTER

071. Cortical Planning and Execution: Electroencephalogram

Theme D: Sensory and Motor Systems

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 P13 **71.01** Analysis of EEG microstates dynamics captures whole-brain states during reaching and grasping movements. E. PIRONDINI*; M. COSCIA; J. MILLÁN; D. VAN DE VILLE; S. MICERA. *Ecole Polytechnique Federale de Lausanne, Ecole Polytechnique Federale De Lausanne, Ecole Polytechnique Federale De Lausanne, Univ. of Geneva, Scuola Superiore Sant'Anna.*

2:00 P14 **71.02** Pain-related suppression of beta oscillations facilitate movement initiation. S. COOMBES*; E. OFORI; J. CHUNG; G. MISRA. *Univ. of Florida.*

3:00 P15 **71.03** ▲ Effect of competition and prior probability of optional actions on beta-band EEG during preparation of movement. Y. MATSUMOTO*; A. FUJIKAWA; R. TAMAMURA; Y. KAKIMOTO; O. ARAKI. *Tokyo Univ. of Sci., Tokyo Univ. of Sci.*

4:00 P16 **71.04** Increased amplitude and earlier onset of EEG readiness potentials preceding voluntary actions associated with sensory consequences. D. REZNIK*; S. SIMON; R. MUKAMEL. *Tel-Aviv Univ.*

1:00 P17 **71.05** Dependence of lateralized readiness potential on the prior probability of target-movement in a Go/Nogo task. A. FUJIKAWA; Y. MATSUMOTO; R. TAMAMURA; Y. KAKIMOTO; O. ARAKI*. *Tokyo Univ. of Sci.*

2:00 P18 **71.06** Differential effects of continuous theta burst stimulation (cTBS) over left premotor cortex (PMC) and right prefrontal cortex (PFC) on modulating upper limb somatosensory input. M. J. BROWN*; W. R. STAINES. *Univ. of Waterloo.*

3:00 P19 **71.07** The influence of movement observation on movement execution: An EEG study on automatic imitation. L. ZAPPAROLI*; J. KILNER. *Univ. of Milano-Bicocca, Inst. of Neurol., IRCSS Galeazzi.*

4:00 P20 **71.08** Phase-difference analysis of EEG-data in movement related tasks reveals common underlying network of synchronous activity. N. ROSJAT*; S. POPOVYCH; B. WANG; L. LIU; T. TOTH; S. VISWANATHAN; C. GREFKES; G. R. FINK; S. DAUN-GRUHN. *Univ. of Cologne, Cognitive Neuroscience, Inst. of Neurosci. and Med. (INM-3), Res. Ctr. Jülich, Dept. of Neurology, Univ. Hosp. Cologne.*

1:00 P21 **71.09** ● Network effects on individual movement representations: Evidence from an EEG study. B. WANG*; S. VISWANATHAN; R. ABDOLLAHI; N. ROSJAT; S. POPOVYCH; S. DAUN-GRUHN; C. GREFKES; G. FINK. *Forschungszentrum Juelich, Dept. of Neurology, Univ. Hosp. Cologne, Dept. of Animal Physiology, Inst. of Zoology, Univ. of Cologne.*

2:00 P22 **71.10** Phase-locking in the delta-theta band is an EEG marker of movement execution. S. GRUHN*; S. POPOVYCH; N. ROSJAT; B. WANG; L. LIU; C. GREFKES; G. R. FINK. *Univ. of Cologne, Univ. of Cologne, Res. Ctr. Juelich, Univ. of Cologne, Res. Ctr. Juelich.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 P23 **71.11** Delay differential analysis: A framework for multimodal non-linear classification of Parkinson's disease. M. E. HERNANDEZ*; J. WEYHENMEYER; C. LAINSCSEK; T. SEJNOWSKI; H. POIZNER. *UIUC, Indiana Univ. Sch. of Med., The Salk Inst. for Biol. Studies, UCSD.*

4:00 P24 **71.12** The neurophysiological correlate of perceptual sensory attenuation measured using a force-matching paradigm. C. E. PALMER*; M. DAVARE; J. M. KILNER. *Inst. of Neurology, Univ. Col. London, KU Leuven.*

POSTER

072. Cortical Planning and Execution: Neuroimaging

Theme D: Sensory and Motor Systems

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 P25 **72.01** Shared patterns of activation during tool-use and tool-making in the human brain: An ALE meta-analysis. L. D. REYES*; S. BIANCHI; C. C. SHERWOOD. *The George Washington Univ.*

2:00 P26 **72.02** Brain reorganization following upper limb motor rehabilitation in patients with multiple sclerosis. L. BONZANO*; A. TACCHINO; G. BRICHETTO; L. ROCCATAGLIATA; A. DESSYPRIS; P. FERACO; L. LOPES DE CARVALHO; M. BATTAGLIA; G. MANCARDI; M. BOVE. *Univ. Genoa, Multiple Sclerosis Italian Fndn.*

3:00 P27 **72.03** Age-specific cortical control during quadriceps activation: A fNIRS investigation. E. MORA*; R. MEHTA; S. MAPAR. *Texas A&M Univ. - TAMHSC Sch. of Publ. Hea, Independent.*

4:00 P28 **72.04** Reliability of functional near-infrared spectroscopy during expert juggling. R. WOLLNY*; C. ANDRÄ; M. CLAUß; J. MEHNERT; D. CARIUS. *Martin Luther Univ. Halle-Wittenberg, Univ. of Leipzig, Max Planck Inst. for Human Cognitive and Brain Sci.*

1:00 P29 **72.05** Distributed representation of movement hierarchy in human neocortex. A. YOKOI*; U. HERTZ; E. BAMBER; J. DIEDRICHSEN. *Inst. of Cognitive Neurosci., Osaka Univ., Univ. of Cambridge.*

2:00 P30 **72.06** Interactions between different parieto-frontal cortical pathways during action execution. G. MALFATTI*; A. LINGNAU; L. TURELLA. *Univ. of Trento, Univ. of Trento.*

3:00 P31 **72.07** Visual gain induced changes in visuomotor system activity in chronic stroke. D. B. ARCHER*; G. MISRA; C. PATTEN; S. MARBLE; S. COOMBES. *Univ. of Florida.*

4:00 P32 **72.08** Precise hemodynamic control of primary motor cortical activity using an adaptive feedback paradigm. E. OBLAK*; M. U. JAKOB; J. S. SULZER. *The Univ. of Texas at Austin, ETH Zurich.*

1:00 P33 **72.09** Neural correlates of nonlinear integration of visual and proprioceptive feedback during wrist stabilization. A. J. SUMINSKI*; R. A. SCHEIDT. *Milwaukee Sch. of Engin., Marquette.*

2:00 P34 **72.10** Comparison of decoders in multi-voxel pattern analysis for identifying task-specific resting-state brain activity in primary motor cortex. T. KUSANO*; H. KURASHIGE; I. NAMBU; Y. MORIGUCHI; T. HANAKAWA; Y. WADA; R. OSU. *Nagaoka Univ. of Technol., Univ. of Tokyo, Nagaoka Univ. of Technol., Gunma Univ., Natl. Ctr. of Neurol. and Psychiatry, Advanced Telecommunications Res. Inst. Intl.*

3:00 P35 **72.11** Getting a handle on Virtual Tools: An examination of the neuronal activity associated with virtual tool use. A. RENO*; K. FERCHO; R. FINN; T. BOSCH; L. A. BAUGH. *Univ. of South Dakota.*

4:00 P36 **72.12** Cortical activity during expert juggling. D. CARIUS*; C. ANDRÄ; M. CLAUß; J. MEHNERT; M. BUNK; R. WOLLNY. *Martin Luther Univ. Halle-Wittenberg, Univ. of Leipzig, Max Planck Inst. for Human Cognitive and Brain Sci., Inst. of Applied Athletics Training.*

1:00 P37 **72.13** Brain connectivity associated with muscle synergies in humans. M. RANA; M. S. YANI; S. ASAVASOPON; B. E. FISHER; J. J. KUTCH*. *USC, Loma Linda Univ.*

2:00 P38 **72.14** Sensorimotor plasticity following speech motor adaptation. M. DARAINY*; S. VAHDAT; D. J. OSTRY. *McGill Univ., Univ. of montreal.*

3:00 P39 **72.15** Learning the exotic: Effects of direct experience with unfamiliar tools on motor resonance during tool use action observation. T. J. BOSCH*; K. FERCHO; A. RENO; L. A. BAUGH. *Univ. of South Dakota.*

4:00 P40 **72.16** Virtually perfect recall: An examination of the memory systems involved in the recall of complex virtual tool use. K. A. FERCHO*; A. RENO; T. BOSCH; L. A. BAUGH. *Univ. of South Dakota.*

1:00 P41 **72.17** Persistent left hemisphere asymmetries in the structure of lower sensory and motor pathways in chronic right hand amputees. H. PENG*; C. M. CIRSTEA; S. H. FREY. *Univ. of Missouri-Columbia.*

POSTER

073. Neuroendocrine Anatomy and Physiology

Theme E: Integrative Systems: Neuroendocrinology, Neuroimmunology, and Homeostatic Challenge

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 P42 **73.01** ▲ Hydrogen sulfide plays a propyretic role during endotoxic shock. R. RESTREPO FERNÁNDEZ*; R. SORIANO; H. D.C. FRANCESCATO; J. SABINO; T. MACHADO COIMBRA; L. BRANCO. *Univ. De São Paulo, Univ. De São Paulo.*

2:00 Q1 **73.02** NGF-induced PC12 cell differentiation and survival is inhibited by vasoinhibins. Z. MELO*; B. MORENO-CARRANZA; R. M. AROÑA; C. CLAPP; G. MARTINEZ DE LA ESCALERA. *Univ. Nacional Autonoma de Mexico.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 Q2 **73.03** ▲ Artificial rearing condition affects the prolactin and growth hormone secretion in a primary culture of rat anterior pituitary cells. C. G. TORIZ*; C. SOLANO AGAMA; E. L. AGUIRRE-BENITEZ; A. MARTÍNEZ; I. JIMÉNEZ ESTRADA; J. HERNÁNDEZ FALCÓN; A. I. MELO SALAZAR; M. GONZÁLEZ DEL PLIEGO; M. E. MENDOZA GARRIDO. *CINVESTAV-IPN, CINVESTAV, UNAM, CIRA, CINVESTAV-lab Tlaxcala, UNAM.*

4:00 Q3 **73.04** The spatial relationships between endocrine cells in the anterior pituitary gland and blood vessels. M. YOSHITOMI; K. OHTA; A. TOGO; K. NAKAMURA; M. MORIOKA*. *Kurume Med. Sch., Kurume Univ. Sch. of Med.*

1:00 Q4 **73.05** Neuroendocrine characterization of cell lines derived from adult female mouse hypothalamus. S. F. BAMJI; B. N. RADDE; P. MULUHNGWI; C. M. KLINGE; C. CORBITT*. *Univ. Louisville, Univ. Louisville, Univ. Louisville.*

2:00 Q5 **73.06** ▲ Perinatal ethanol exposure alters the hypothalamus-pituitary-thyroid axis. A. J. HOLDERMAN*; R. LAWRENCE. *Viterbo Univ., Viterbo Univ.*

3:00 Q6 **73.07** Neurokinin 3 receptor associates with transcription factor c-Fos and nuclear proteins in paraventricular neurons of the hypothalamus following osmotic challenge in rats. A. THAKAR*; T. R. MORDHORST; F. W. FLYNN. *Univ. of Wyoming, Univ. of Wyoming.*

4:00 Q7 **73.08** Neuromorphological reconstruction using Brainbow reveals novel target regions innervated by magnocellular hypothalamic neurons in zebrafish larvae. U. HERGET*; A. GUTIERREZ-TRIANA; S. RYU. *Max Planck Inst. For Med. Res., Ctr. for Organismal Studies.*

1:00 Q8 **73.09** Hypertonicity-sensitive theta oscillations in hypothalamic paraventricular nucleus and intracerebral projecting axon-collaterals of individual vasopressinergic magnocellular neurons using *in vivo* extracellular recording and juxtacellular labeling and neuroanatomy methods. V. S. HERNANDEZ*; M. M. MARQUEZ; E. VAZQUEZ-JUAREZ; L. ZHANG. *Dept. of Physiology, Fac. of Medicine, Natl. Autonomous Univ. of Mexico.*

2:00 Q9 **73.10** Perinuclear organization of neurokinin B terminals at NK3 receptor expressing neurons in the paraventricular nucleus. T. R. MORDHORST; R. GRENVIK; A. THAKAR; F. W. FLYNN*. *Univ. Wyoming.*

3:00 Q10 **73.11** A novel DiI staining methodology to examine effects of estradiol on dendritic spine morphology in the arcuate nucleus of the female rat. L. M. RUDOLPH*; P. E. MICEVYCH. *Univ. of California Los Angeles.*

4:00 Q11 **73.12** The effect of diet-induced obesity on estradiol-induced hormonal surges in female rats. S. BLYTHE*; A. E. GONZALEZ-IGLESIAS; R. BERTRAM; G. WHITWORTH; N. TOPORIKOVA. *Washington & Lee Univ., Florida State Univ., Florida State Univ.*

1:00 Q12 **73.13** Ovarian steroids regulate gene expression in the dorsal raphe of old female macaques. S. G. KOHAMA; C. L. BETHEA*; A. P. REDDY; H. F. URBANSKI. *Oregon Natl. Primate Res. Ctr.*

2:00 Q13 **73.14** The hormone prolactin is a novel survival factor for the retinal pigment epithelium through anti-oxidant actions. S. THEBAULT; A. MARTINEZ-TORRES*; R. MELÉNDEZ GARCÍA; D. ARREDONDO ZAMARRIPA; N. ADÁN; E. ARNOLD; G. BAEZA CRUZ; J. R. RIESGO-ESCOVAR; B. ORDAZ; F. PEÑA-ORTEGA; C. CLAPP. *INB-UNAM.*

3:00 Q14 **73.15** Amylin induces neurogenesis-like processes in the AP of adult rats. C. LIBERINI*; C. NEUNER BOYLE; T. A. LUTZ. *Univ. of Zurich, Institue of Vet. Physiol., institue of Vet. Physiol.*

4:00 Q15 **73.16** Characterization of the HAP1-immunoreactive cells in the subiculum and retrohippocampal formation in rat. G. WROBLEWSKI*; M. N. ISLAM; R. FUJINAGA; M. R. JAHAN; C. MATSUO; J. NEMOTO; K. TANAKA; K. ISHII; A. YANAI; K. SHINODA. *Yamaguchi Univ. Sch. of Med.*

1:00 Q16 **73.17** Interaction between serum and brain insulin like growth factor-1 participates in recovery after brain injury. A. SANTI*; L. GENIS; A. TRUEBA-SAINZ; R. HERRO; T. NISHIJIMA; J. PIRIZ; I. TORRES-ALEMAN. *Inst. Cajal, CIBERNED, Tokyo Metropolitan Inst., Buenos Aires Univ.*

2:00 Q17 **73.18** Membrane associated androgen receptor associated with G-proteins. J. G. CONTRERAS*; B. SNYDER; S. HOLMES; R. L. CUNNINGHAM. *UNTHSC, UNTHSC.*

3:00 Q18 **73.19** Maternal high fat diet consumption during pregnancy and lactation affects cholinergic anti-inflammatory pathway in offspring mice. T. BALIANI; S. F. LEMES; T. FANTE; A. REGINATO; C. M. SILVA; M. MILANSKI; A. S. TORSONI; M. A. TORSONI*. *Faculdade De Ciências Aplicadas/Unicamp.*

4:00 Q19 **73.20** *In vivo* electrophysiological evidence demonstrating the anti-opioid effect of the neuropeptide FF system. J. KIM*; C. H. BROWN; G. M. ANDERSON. *Univ. of Otago.*

1:00 Q20 **73.21** ● Genetic variations in the glucocorticoid and mineralcorticoid receptor genes are associated with disrupted hypothalamic functional connectivity and elevated nocturnal cortisol secretion in depression. K. D. SUDHEIMER*; J. KELLER; R. O'HARA; G. MURPHY; A. F. SCHATZBERG. *Stanford Univ.*

2:00 R1 **73.22** Glucocorticoid receptors in the arcuate nucleus mediate a fast feedback of corticosterone secretion. L. A. LEON*; D. HERRERA MORO CHAO; M. C. BASUALDO SIGALES; R. M. BUIJS. *Univ. Nacional Autonoma De Mexico.*

POSTER

074. Neuroinflammation: Endogenous and Exogenous Modulation

Theme E: Integrative Systems: Neuroendocrinology, Neuroimmunology, and Homeostatic Challenge

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 R2 **74.01** PARP-1 regulates neuroinflammatory phospholipase A2 (PLA2) and HMBG1 in alcohol-binged rat adult brain slice cultures. M. A. COLLINS*; N. TAJUDDIN; E. J. NEAFSEY; H. KIM. *Loyola Univ. Chicago, NIAAA.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

2:00 R3 **74.02** Prenatal LPS exposure preferentially increases kynurenine pathway metabolism in the fetal brain. F. M. NOTARANGELO*; K. S. WONS; R. SCHWARCZ. *Univ. of Maryland Sch. of Med.*

3:00 R4 **74.03** Pleiotrophin differentially modulates microglial response and astrocytosis in LPS- and amphetamine-induced neuroinflammation. G. HERRADON*; C. PEREZ-GARCÍA; E. GRAMAGE; R. FERNÁNDEZ-CALLE; M. FERRER-ALCÓN; M. URIBARRI; M. VICENTE-RODRÍGUEZ. *Pharmacol. Lab, CEU San Pablo Univ., BRAINco Biopharma.*

4:00 R5 **74.04** Physical deformations of perivascular and meningeal spaces and immune cell activation caused by cortical spreading depression in the mouse. A. SCHAIN*; R. BURSTEIN. *Beth Israel Deaconess Med. Ctr.*

1:00 R6 **74.05** Disturbance of neurobehavioral performance and dopaminergic neuronal injury in the adult rat brain following neonatal exposure to interleukin-1beta. L. FAN*; L. TIEN; Y. PANG; S. LU; H. ZHU; J. SHEN; J. P. SHAFFERY; X. DAI; A. J. BHATT; R. D. SAVICH. *Univ. Mississippi Med. Ctr., Fu Jen Catholic Univ., Univ. Mississippi Med. Ctr., Univ. Mississippi Med. Ctr.*

2:00 R7 **74.06** Diet-induced obesity prolongs neuroinflammation in latent herpes simplex virus-(HSV)-1 infected mice by increasing microglia activation and infiltrating monocytes. K. A. M. WHITE; S. R. HUTTON; J. M. WEIMER*; P. A. SHERIDAN. *Sanford Res., Univ. of North Carolina Chapel Hill, Univ. of North Carolina Chapel Hill.*

3:00 R8 **74.07** Acute Hyperbilirubinaemia induces Endoplasmic Reticulum (ER) Stress and NFκB driven neurodegeneration in a mouse model. E. SCHIAVON*; J. L. SMALLEY; I. D. FORSYTHE. *Univ. of Leicester, Univ. of Leicester.*

4:00 R9 **74.08** IL-6 signaling exacerbates brain damage progression but reduces peripheral sickness measures following soman-induced status epilepticus. J. IRWIN*; L. SHUMWAY; J. CHANDLER; K. LAITIPAYA; T. FERRARA-BOWENS; M. WEGNER; E. A. JOHNSON. *USAMRICD, USAMRICD.*

1:00 R10 **74.09** Cerebellar inflammation and dysfunction in a rabbit model of cerebral palsy. S. NARAYAN*; Z. ZHANG; E. NANCE; S. KANNAN. *Johns Hopkins Univ.*

2:00 R11 **74.10** Cannabidiol reduces LPS-induced activation and oxidative stress in primary microglial culture via PPARgamma receptor. A. B. SONEGO*; J. E. SEPULVEDA-DIAZ; P. P. MICHEL; E. A. DEL-BEL; F. S. GUIMARAES; R. RAISMAN-VOZARI. *Univ. of Sao Paulo, Sorbonne Univ. UPMC UM75 INSERM U1127, Univ. of Sao Paulo, Univ. of Sao Paulo.*

3:00 R12 **74.11** Toxic role of prostaglandin E2 receptor EP1 after intracerebral hemorrhage in mice. J. WANG*; X. ZHAO; T. WU; C. CHANG; H. WU; X. HAN; Q. LI; Y. GAO; T. MARUYAMA; J. ZHANG. *Johns Hopkins Univ., Sch. of Med., Ono Pharmaceut. Co. Ltd., Johns Hopkins Univ., Sch. of Med.*

4:00 R13 **74.12** Quantitative SPECT/CT imaging of neuroinflammation in neurodegenerative disease models. T. HUHTALA; A. ZAINANA; M. BJÖRKMAN; J. RYTKÖNEN; T. PARKKARI; O. M. KONTKANEN*; P. J. SWEENEY; A. NURMI. *Charles River Discovery Res. Services.*

1:00 R14 **74.13** CD36 signaling in resident brain cells mediates post-ischemic brain injury by promoting free radical production in infiltrating neutrophils. L. GARCIA-BONILLA*; G. RACCHUMI; M. MURPHY; J. ANRATHER; C. IADECOLA. *Weill Cornell Med. Col.*

2:00 R15 **74.14** Neonatal lipopolysaccharide-induced long-lasting learning impairment and hippocampal injury was attenuated by IL-1 receptor antagonist in adult rats. L. TIEN*; Y. LEE; J. LEE; L. FAN. *Fu Jen Catholic Univ., Taipei Med. Univ., Univ. of Mississippi Med. Ctr.*

3:00 R16 **74.15** Sepsis stimulates gliogenesis but has no significant impact on neurogenesis in the dentate gyrus. A. KUNZE*; P. BLÜMEL; B. GRÜNEWALD; S. KEINER; F. WOITKE; O. WITTE; C. GEIS; C. REDECKER. *Univ. Jena, Ctr. for Sepsis Control and Care.*

4:00 R17 **74.16** Role of thyroid transcription factor-1 in transcriptional regulation of heme oxygenase-1 under neuroinflammation condition. B. JEONG*; J. KIM; B. LEE. *Univ. of Ulsan, Incheon Natl. Univ.*

1:00 R18 **74.17** ▲ Relationship of serum complement component 3 and behavioral alterations differs between male and female lupus-prone MRL/MpJ-Faslpr/J mice. M. J. LARSON*; E. LUCKHARDT; A. FRANZ; L. SHIUE; C. QUINLAN; K. D. STRAND. *Concordia Col. CPO 4279, Concordia Col., Concordia Col., Univ. of Minnesota, Univ. of Notre Dame, Concordia Col.*

2:00 R19 **74.18** Gestational diabetes mellitus in pregnant rats induces chronic neuroinflammation, synaptic degradation and behavioral changes in the offspring. B. VUONG; G. ODERO; M. STEVENSON; S. M. KERELIUK; T. J. PEREIRA; V. W. DOLINSKY; T. M. KAUPPINEN*. *Univ. of Manitoba, Univ. of Manitoba, the Children's Hosp. Res. Inst. of Manitoba.*

3:00 R20 **74.19** Antidepressant effect of Agmatine against lipopolysaccharide induced Depression in mice. N. B. GAWALI*; V. BULANI; A. CHOWDHURY; P. KOTHAVADE; M. GURSAHANI; A. JUVEKAR. *Inst. of Chem. Technology, Mumbai.*

4:00 S1 **74.20** Modulation of S1P receptors at the Blood Brain Barrier can influence its response to inflammatory stimuli. S. F. SPAMPINATO*; B. OBERMEIER; A. COTLEUR; A. LOVE; Y. TAKESHITA; R. RANSOHOFF. *Univ. of Catania, Lerner Research- Cleveland Clin. Fundation, Dept. of Neurol. and Clin. Neurosci.*

1:00 S2 **74.21** Characterization of lipopolysaccharide-induced TLR4 neuroinflammatory signaling and the effects of fentanyl in CHME-5 human microglial cells. L. K. FIGUEROA*; S. DAS; C. W. STEVENS; R. L. DAVIS. *Oklahoma State Univ. Ctr. For Hlth. Sci., Oklahoma State Univ. Ctr. For Hlth. Sci.*

2:00 S3 **74.22** Neuronflammation markers in the substantia nigra associated to L-DOPA-induced dyskinesia. E. DEL BEL*; M. -. -. -. BORTOLANZA; R. KWIATKOSKI; F. E. PADOVAN-NETO. *Univ. of Sao Paulo- Ribeirao Preto Dent. Sch., Univ. of Sao Paulo-FORP, Univ. of Sao Paulo-FORP.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 S4 **74.23** Decreased neutrophil effectiveness and recruitment grants neuroprotection in knockout mice following soman-induced seizure. K. LAITIPAYA*; J. F. IRWIN; J. CHANDLER; L. SHUMWAY; T. FERRARA-BOWENS; M. D. WEGNER; E. A. JOHNSON. *USAMRICD, USAMRICD.*

4:00 S5 **74.24** Transcriptome data from multiple cell types isolated from adult murine CNS tissue reveals cell type specific response to CNS insults. K. SRINIVASAN*; B. A. FRIEDMAN; D. HANSEN. *Genentech Inc.*

1:00 S6 **74.25** Inhibition at various locations within the TNF signaling pathway after soman-induced seizures in mice. J. K. CHANDLER*; T. M. FERRARA-BOWENS; J. F. IRWIN; K. LAITIPAYA; L. J. SHUMWAY; M. D. WEGNER; E. A. JOHNSON. *US Army Med. Res. Inst. of Chem. Def.*

2:00 S7 **74.26** Depressed basal neuronal activity in a genetic model of type-1 diabetes is correlated with proinflammatory secretion of HMBG1. J. S. THINSCHMIDT*; M. FEBO; L. M. COLON PEREZ; S. CABALLERO; M. B. GRANT. *Univ. Florida, Univ. Florida, Indiana Univ. Sch. of Med.*

3:00 S8 **74.27** Role of Toll like receptors in neurogenesis. S. KRISHNASAMY*; S. THAMMISETTY; Y. WENG; M. LALANCETTE-HÉBERT; J. KRIZ. *Inst. Universitaire En Santé Mentale De Québec.*

4:00 S9 **74.28** Dysregulation of the astrocytic S100B/RAGE system in ALS models. F. MICHETTI*; C. DONNO; P. ANDJUS; N. D'AMBROSI. *Univ. Cattolica S. Cuore, Univ. of Belgrade.*

1:00 S10 **74.29** Blood-derived macrophages do not contribute to the inflammatory response after cranial irradiation. W. HAN*; K. ZHOU; T. UMEKAWA; C. ZHU; K. BLOMGREN. *Karolinska Institutet, The Third Affiliated Hosp. of Zhengzhou Univ., Univ. of Gothenburg, Univ. of Gothenburg, Queen Silvia Children's Hosp.*

2:00 S11 **74.30** Time-specific changes in kainic acid-induced mesial temporal lobe epilepsy: Transcriptomic and immunohistochemical evaluation. M. E. HAMBY*; S. M. FALLON; J. A. TAMM; J. SERRATS; M. J. DENBLEYKER; A. ABDOURAHMAN; G. TERRY; R. B. NELSON; B. M. CAMPBELL; P. D. WES; T. MÖLLER; N. BREYSSE. *Lundbeck Res. USA.*

POSTER

075. Cells and Circuits of Stress

Theme E: Integrative Systems: Neuroendocrinology, Neuroimmunology, and Homeostatic Challenge

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 S12 **75.01** NPY and CRF induce bi-directional, long-term morphological effects on BLA pyramidal cells as structural correlates of stress resilience and vulnerability. S. D. MICHAELSON*; A. P. MIRANDA; H. SILVEIRA VILLARROEL; A. MCKINTY; K. EPPLER; J. WANG; Y. QIU; J. H. URBAN; W. F. COLMERS. *Univ. of Alberta, Rosalind Franklin Univ. of Med. and Sci.*

2:00 S13 **75.02** Characterization of Y2 receptor-expressing cells in the basolateral amygdala. M. G. DEJOSEPH; J. P. MACKAY; W. F. COLMERS; J. H. URBAN*. *Chicago Med. Sch/Rosalind Franklin Univ. Med. & Sci., Univ. of Alberta.*

3:00 S14 **75.03** HCN1 channel expression in the BLA and anxiety-related behavior. M. BOMPOLAKI*; W. F. COLMERS; J. H. URBAN. *Rosalind Franklin Univ. of Med. and Sci., Univ. of Alberta, Rosalind Franklin Univ. of Med. and Sci.*

4:00 S15 **75.04** Muscarinic receptors modulate intrinsic GABAergic transmission in the bed nucleus of stria terminalis. J. GUO*; Y. YANG; D. G. RAINNIE. *Yerkes Primate Res. Center, Emory Univ.*

1:00 S16 **75.05** Chronic stress modulates synaptic strength in the bed nucleus of the stria terminalis. S. E. DEWITT*; A. MENIGOZ; J. GUO; D. G. RAINNIE. *Emory Univ., Emory Univ.*

2:00 S17 **75.06** Dopamine (D1R) antagonist suppresses corticolimbic oscillations and fear learning. T. E. MADSEN*; C. HSU; C. N. COLLINS; J. S. PITTS; D. G. RAINNIE. *Emory Univ., GRU Med. Col. of Georgia, Agnes Scott Col.*

3:00 S18 **75.07** High frequency stimulation changes *in vitro* basolateral amygdala excitability. B. O'FLAHERTY*; D. RAINNIE. *Emory Univ., Emory Univ.*

4:00 S19 **75.08** Mapping the excitatory afferents onto corticotropin releasing factor neurons in the bed nucleus of the stria terminalis. T. FETTERLY*; K. M. HOLLERAN; E. K. AWAD; Y. SILBERMAN; D. G. WINDER. *Vanderbilt Univ. Med. Ctr., Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ.*

1:00 S20 **75.09** Guanfacine activates crf-negative bnst neurons: Interaction with hcn channels? N. A. HARRIS*; S. A. FLAVIN; E. K. AWAD; Y. SILBERMAN; D. G. WINDER. *Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ.*

2:00 T1 **75.10** Association of N-cadherin levels and downstream effectors of Rho-GTPases with dendritic spine loss induced by chronic stress in rat hippocampal neurons. J. L. FIEDLER*; P. CATAÑEDA; M. A. MUÑOZ-LLANOS; G. GARCÍA-ROJO; R. MARQUEZ; M. GARCÍA-PÉREZ; P. S. ROJAS; E. ALIAGA. *Fac. of Chem. and Pharmacol. Sciences;, Univ. Metropolitana de Ciencias de la Educación, Pontificia Univ. Católica de Valparaíso.*

3:00 T2 **75.11** The Rho-Kinase Inhibitor, Fasudil, prevents depressive-like behavior and hippocampal dendritic spine loss promoted by chronic restraint stress in rats. G. GARCÍA ROJO*; N. VILCHES; A. GARCÍA; F. AGUAYO; J. L. FIEDLER. *Univ. De Chile.*

4:00 T3 **75.12** ▲ Effect of stress on specific microRNAs levels that target genes coding for key proteins involved in spine morphology. M. A. GARCÍA PÉREZ*; M. A. MUÑOZ-LLANOS; X. XU; J. CIDLOWSKI; F. AGUAYO; G. GARCÍA-ROJO; J. L. FIEDLER; A. A. PACHECO. *Univ. of Chile, NIEHS.*

1:00 T4 **75.13** Relationship between FMRP and MMP9 in an acute restraint stress model in rats: A possible cross-regulation mechanism. F. I. AGUAYO*, SR; P. ROJAS; A. A. PACHECO; G. J. GARCÍA-ROJO; M. GARCÍA-PÉREZ; M. MUÑOZ-LLANOS; R. MÁRQUEZ; J. L. FIEDLER. *Facultad De Ciencias Químicas Y Farmacéticas - Uni, Univ. Andrés Bello.*

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▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

2:00 T5 **75.14** ● Finding the missing heritability in GWAS: U-statistics of genetically structured data in subgroup analyses of epilepsy, autism and migraines. K. M. WITTKOWSKI*; E. EISING; C. DADURIAN; B. BIGGIO; G. M. TERWINDT; M. D. FERRARI; I. HEADACHE GENETICS CONSORTIUM; A. M. J. M. MAAGDENBERG. *The Rockefeller Univ., Leiden Univ., The Rockefeller Univ., IHGC.*

3:00 T6 **75.15** Paracrine signaling via connexin hemichannels contributes to the propagation of ionizing radiation-induced DNA damage in brain microvascular endothelial cells. E. DECROCK*; D. HOORELBEKE; M. DE BOCK; H. THIERENS; B. DESCAMPS; C. VANHOVE; L. LEYBAERT. *Ghent Univ., Ghent Univ., Ghent Univ.*

4:00 T7 **75.16** Glucocorticoid receptor-regulated transcription of transposable elements. R. G. HUNTER*; B. B. GRIFFITHS. *Univ. of Massachusetts, Boston, Univ. of Massachusetts Boston.*

1:00 T8 **75.17** Adult vitamin D deficiency does not alter adult neurogenesis but is associated with impaired performance on a hippocampal-dependent task. N. GROVES*; R. SULLIVAN; P. JOSH; J. MCGRATH; T. BURNE. *Queensland Brain Inst.*

2:00 T9 **75.18** Amygdalar miR-15a regulation of FKBP5 is essential for intact behavioral response to chronic stress. N. VOLK*; J. PAPE; S. BEN-DOR; R. ZWANG; S. GIL; E. B. BINDER; A. CHEN. *Weizmann Inst. of Sci., Max Planck Inst. of Psychiatry, Max Planck Inst. of Psychiatry, Weizmann Inst. of Sci.*

3:00 T10 **75.19** Chronic stress modulates the physiological effects of SIRT1 activity in the dentate gyrus of mouse hippocampus. D. YU*; D. HOMIACK; L. A. SCHRADER. *Tulane Univ., Tulane Univ.*

4:00 T11 **75.20** Study of a newly identified molecule that respond to a stress hormone, glucocorticoid. K. KOIZUMI*; K. NAKAO; H. NAKAJIMA. *Kanazawa Univ., Saitama Med. Univ., Ageo Central Gen. Hosp.*

1:00 T12 **75.21** Altered coding- and noncoding RNA expression in the bed nucleus of the stria terminalis of suicide subjects. T. M. KLEIN GUNNEWIEK*; A. JAGER; J. C. GLENNON; T. KOZICZ; A. ASCHRAFI. *Radboudumc, Radboudumc.*

2:00 T13 **75.22** Chronic early life stress alters circadian clock gene expression in the adrenal glands and liver of neonatal rats with no change in corticosterone secretion. C. WALKER*; S. KIESSLING; L. LIN; N. CERMAKIAN. *McGill Univ., McGill Univ., McGill Univ.*

3:00 T14 **75.23** 5alpha-reductase mediates stress response circuitry. G. L. OSTERHAUS*; S. C. GODAR; L. J. MOSHER; C. M. JONES; M. BORTOLATO. *Univ. of Kansas, Univ. Kansas.*

4:00 T15 **75.24** Neurons born during chronic social stress conditions are more vulnerable to a subsequent stress later in life. Z. DE MIGUEL*; U. HADITSCH; T. D. PALMER; A. AZPIROZ; R. M. SAPOLSKY. *Stanford University. Dept. of Biology, Neurol, Univ. of Basque Country. Dept. of Psychobiology, Stanford University. Inst. for Stem Cell Biol. and Regenerative Med.*

1:00 T16 **75.25** 5alpha-reductase 2 plays a key role in reward and stress. S. C. GODAR*; G. L. OSTERHAUS; L. J. MOSHER; M. BORTOLATO. *Univ. of Kansas.*

2:00 T17 **75.26** Glucocorticoid receptor and fkbp5 expression and epigenetic variation in teenage and adult suicide. H. S. RIZAVI*; D. GRAYSON; H. ZHANG; G. N. PANDEY. *Univ. Illinois Chicago.*

3:00 T18 **75.27** Optogenetic investigation of the anterior bed nuclei of the stria terminalis (aBST) in the inhibition of the neuroendocrine stress response. S. B. JOHNSON*; R. M. ANDERSON; M. L. HUFF; S. A. ROMIG-MARTIN; R. M. GLANZ; M. C. MILLER; R. T. LALUMIERE; J. J. RADLEY. *Univ. of Iowa.*

4:00 T19 **75.28** Stimulatory action of tobacco-specific carcinogen on the keratinocytes and cancer cells proliferation: Neurotransmitters receptor-mediated effects. D. G. BERNABE*; F. VERZA; G. MIYAHARA; S. OLIVEIRA. *São Paulo State Univ., São Paulo State Univ., São Paulo State Univ.*

1:00 T20 **75.29** Drug discovery for the treatment of neuropsychiatric disorders using the zebrafish model system. J. BURGSTALLER*; D. BARBER; M. SCHÖNBERGER; K. SLANCHEV; D. TRAUNER; H. BAIER. *Max Planck Inst. of Neurobio., Ludwig-Maximilians-University.*

2:00 U1 **75.30** ● Imaging the neural circuitry of life threat in prairie voles. J. R. YEE*; W. KENKEL; A. PERKEYBILE; K. MOORE; P. KULKARNI; S. W. PORGES; C. F. FERRIS; C. CARTER. *Northeastern Univ., Indiana Univ., Univ. of North Carolina at Chapel Hill, Northeastern Univ., Indiana Univ.*

POSTER

076. Stress in Juveniles and Adolescents

Theme E: Integrative Systems: Neuroendocrinology, Neuroimmunology, and Homeostatic Challenge

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 U2 **76.01** Characterization of effects of n3- versus n-6 PUFA rich diets in the juvenile period on emotional responses, corticosterone secretion and neuroendocrine pathways. J. RAYMOND*; H. PLAMONDON. *Univ. of Ottawa, Univ. of Ottawa.*

2:00 U3 **76.02** Social instability stress in adolescence reduces social interactions with novel peers and improves social memory in male rats. T. E. HODGES*; M. L. MARCOLIN; J. L. BAUMBACH; C. M. MCCORMICK. *Brock Univ., Brock Univ., Brock Univ.*

3:00 U4 **76.03** Social instability stress in adolescence alters the effects of social context on ethanol consumption. M. D. MARCOLIN*; T. E. HODGES; J. L. BAUMBACH; C. M. MCCORMICK. *Brock Univ., Brock Univ.*

4:00 U5 **76.04** The impact of repeated social stress on the juvenile prefrontal cortex: Neuronal function and synaptic communication. K. R. URBAN*; J. LI; R. J. VALENTINO. *Children's Hosp. of Philadelphia, Univ. of Pennsylvania.*

1:00 U6 **76.05** The effects of food restriction and exercise on anxiety-related behaviors and cognitive functions in male and female adolescent mice. Y. CHEN*; C. AOKI. *New York Univ.*

2:00 U7 **76.06** Leveraging dynamic changes in neural circuitry during adolescence to persistently attenuate fear memories. S. S. PATTWELL*; C. LISTON; D. JING; I. NINAN; R. YANG; B. CASEY; K. DEISSEROTH; F. S. LEE. *Fred Hutchinson Cancer Res. Ctr., Weill Cornell Med. Col., NYU Sch. of Med., Howard Hughes Med. Institute, Stanford Univ.*

3:00 U8 **76.07** The anxiogenic effects of pre-reproductive stress (PRS) in female rats on their female offspring are partially reversed by maternal post-stress treatment with fluoxetine and NBI 27914. H. ZAIDAN*; I. GAISLER-SALOMON. *Univ. of Haifa.*

4:00 U9 **76.08** Impact of juvenile stress on adult fear learning and dendritic morphology in the basolateral amygdala. R. A. SKIPPER*; C. L. WELLMAN; M. R. HERBST; J. J. QUINN. *Indiana Univ., Miami Univ.*

1:00 U10 **76.09** Access to palatable food alters gastrin-releasing peptide and dopamine signalling in the medial prefrontal cortex of adult rats exposed to juvenile stress. E. ALI*; J. C. MACKAY; M. AUDET; J. S. JAMES; C. CAYER; P. KENT; Z. MERALI. *Carleton Univ., Inst. of Mental Hlth. Res., Univ. of Ottawa.*

2:00 U11 **76.10** Changes in the regulation and function of the HPA axis induced by juvenile social isolation in rats. M. SERRA*; G. BOERO; F. BIGGIO; M. PISU. *Univ. of Cagliari, Univ. of cagliari, Univ. of Cagliari, Inst. of Neurosci. CNR.*

3:00 U12 **76.11** Overcrowding causes variations in hair corticosterone concentration in juvenile male Wistar rats. M. J. ROJAS*; D. GONZÁLEZ-UARQUIN; L. F. CARDENAS; J. S. MEYER. *Univ. Nacional Colombia, Univ. Nacional Colombia, Univ. de los Andes, Univ. of Massachusetts Amherst.*

POSTER

077. Thermoregulation and Energy Metabolism

Theme E: Integrative Systems: Neuroendocrinology, Neuroimmunology, and Homeostatic Challenge

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 U13 **77.01** Circadian variability of body temperature responses to Methamphetamine (Meth). A. BEHROUZVAZIRI*; Y. YOO; E. MOROZOVA; M. ZARETSKAIA; D. RUSYNIAK; D. ZARETSKY; Y. MOLKOV. *Indiana Univ. Purdue Univ. Indianapolis, Indiana Univ., Indiana Univ. Sch. of Med.*

2:00 U14 **77.02** ● N-methylserotonin from Japanese pepper (Zanthoxylum piperitum), soy isoflavones, black cohosh extract, and combinations thereof regulate skin temperature in a female rat model of menopause-related hot flash. M. J. WEISER*; V. GRIMSHAW; K. WYNALDA; M. H. MOHAJERI; C. M. BUTT. *DSM, DSM.*

3:00 U15 **77.03** Amphetamine enhances endurance by increasing heat dissipation. Y. YOO*; E. MOROZOVA; A. BEHROUZVAZIRI; M. ZARETSKAIA; M. B. BROWN; D. RUSYNIAK; D. ZARETSKY; Y. MOLKOV. *IUPUI, Indiana Univ., Indiana Univ. Sch. of Med., Indiana Univ. Sch. of Hlth. and Rehabil. Sci.*

4:00 U16 **77.04** Estradiol modulates temperature regulation in the female mouse. E. M. BLACKMORE; S. J. KRAJEWSKI-HALL; N. E. RANCE*. *Univ. of Arizona Col. of Med., Univ. of Arizona.*

1:00 U17 **77.05** Heat shock factor 1-deficiency affects systemic control of body temperature. A. STAHR*; M. INGENWERTH; E. NOICHL; H. KORF; H. REINKE; C. VON GALL. *Heinrich-Heine-University, Inst. of Anat. II, Goethe-University, Dr. Senckenbergische Anatomie, Inst. of Anat. II, Heinrich-Heine-University, Inst. of Clin. Chem.*

2:00 U18 **77.06** Nitrous oxide evokes neuroendocrine stress and heat conservation responses. S. AL-NOORI; A. CIMPAN; Z. MALTZER; J. ZOU; K. J. KAIYALA; D. S. RAMSAY*. *Univ. Washington, Univ. Washington, Univ. Washington.*

3:00 U19 **77.07** Predator odor rapidly increases skeletal muscle thermogenesis in rats. N. Y. MAVUNDZA*; M. E. SMYERS; R. M. CAMP; J. D. JOHNSON; C. M. NOVAK. *Kent State Univ., Kent State Univ.*

4:00 U20 **77.08** Ventromedial hypothalamic melanocortin receptor activation differentially impacts skeletal muscle energetic pathways in lean vs. obesity-prone rats. C. K. GAVINI*; S. L. BRITTON; L. G. KOCH; C. M. NOVAK. *Kent State Univ., Univ. of Michigan.*

1:00 U21 **77.09** Neuronal regulation of vitamin B12 metabolism under selenium-biased versus glutathione-biased redox conditions. Y. LI*; R. DETH. *Northeastern Univ., Nova Southeastern Univ.*

2:00 U22 **77.10** Cerebral IL-17A improves glucose metabolism through AKT signaling. J. YANG*; J. KOU; J. LIM; R. LALONDE; K. FUKUCHI. *Univ. of Illinois Col. of Med. At Peoria, Univ. of Rouen.*

3:00 U23 **77.11** NF-κB regulates neuronal bioenergetics *in vitro*. W. SNOW*; S. K. ROY CHOWDHURY; J. DJORDJEVIC; D. MCCALLISTER; C. CADONIC; P. FERNYHOUGH; B. C. ALBENSI. *St. Boniface Hosp. Res. Ctr., Univ. of Manitoba, Univ. of Manitoba.*

4:00 U24 **77.12** Modulation of neuronal mitochondrial motility and calcium responses by solutions enriched with oxygen nanobubbles. M. V. IVANNIKOV*; M. SUGIMORI; R. LLINAS. *NYU Sch. of Med.*

1:00 U25 **77.13** Mouse chronic subordination stress to model eating disorder-based metabolic dysfunctions. M. RAZZOLI*; V. SANGHEZ; A. BARTOLOMUCCI. *Univ. of Minnesota, LABiomed Res. Inst. at Harbor UCLA Med. Cente.*

2:00 U26 **77.14** Behavioral, metabolic, and iron defects associated with loss of Ncb5or in the mouse cerebellum. M. A. STROH*. *Univ. of Kansas Med. Ctr.*

3:00 U27 **77.15** Contribution of centrally acting hormones amylin and ghrelin on the adipose tissue transformation in burn victims. M. K. SARAF*; D. N. HERNDON; C. PORTER; R. RADHAKRISHNAN; M. CHONDRONIKOLA; T. CHAO; L. S. SIDOSSIS. *P.G.I.M.E.R., UTMB, SHC, UTMB.*

4:00 U28 **77.16** The effect of early life methyl donor supplementation on obesity development. S. E. MCKEE*; T. M. REYES. *Univ. of Pennsylvania, Univ. of Cincinnati.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

1:00 U29 **77.17** Fast-cyclic voltammetry reveals altered oxygen homeostasis in the nucleus tractus solitarii of the spontaneously hypertensive rat. P. S. HOSFORD*; J. MILLAR; A. G. RAMAGE; A. V. GOURINE; N. MARINA. *Univ. College, London, QMUL Sch. of Med. and Dent.*

2:00 U30 **77.18** Changes in brain melanocortin system with calorie restriction-induced adaptive thermogenesis and suppressed physical activity. S. MUKHERJEE*; S. L. BRITTON; L. G. KOCH; C. M. NOVAK. *Kent State Univ., Univ. of Michigan Med. Sch., Kent State Univ.*

3:00 U31 **77.19** ▲ Metabolic glucose, insulin and leptin circadian rhythms are altered by perinatal cafeteria diet in rats. D. J. BUSTAMANTE-VALDEZ; P. DURAN*. *Facultad De Ciencias, UNAM.*

4:00 U32 **77.20** Brain glycogen fuels the exercising brain to maintain endurance capacity. T. MATSUI*; H. OMURO; Y. LIU; T. SHIMA; M. SOYA; M. HAMASAKI; S. MIYAKAWA; H. SOYA. *Univ. of Tsukuba.*

1:00 U33 **77.21** Role of TRPV4 in prediabetic obese peripheral nerve. C. AVOUNDJIAN; B. COOPERMAN; L. R. BANNER*. *California State Univ. Northridge.*

POSTER

078. Motor and Sequence Learning

Theme F: Cognition and Behavior

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 U34 **78.01** Implicit motor learning in the absence of sensory-prediction errors. D. GRAEUPNER*; P. A. BUTCHER; J. A. TAYLOR. *Princeton Univ., Princeton Univ.*

2:00 U35 **78.02** Modifying the discrete sequence production task for a multi day tdcs study in young and older adults. B. GREELEY*; J. BARNHOORN; W. VERWEY; R. SEILDER. *Univ. of Michigan, Univ. of Michigan, Univ. of Twente, Univ. of Michigan, Univ. of Michigan.*

3:00 U36 **78.03** Fine motor control is associated with individual fitness level in older adults. C. VOELCKER-REHAGE*; L. HUEBNER; B. GODDE. *Jacobs Univ. Bremen, Technische Univ. Chemnitz.*

4:00 U37 **78.04** Motor plasticity in assembly-line workers: Effects of repeated work task changes on manual dexterity and related brain function. B. GODDE*; J. OLTMANNS; C. VOELCKER-REHAGE; U. M. STAUDINGER. *Jacobs Univ., Columbia Aging Ctr.*

1:00 U38 **78.05** Task-related alpha power during a fine motor control task in young and older adults. L. HUEBNER*; B. GODDE; C. VOELCKER-REHAGE. *Jacobs Univ. Bremen, Technische Univ. Chemnitz.*

2:00 U39 **78.06** A cognitive framework for explaining serial processing and sequence execution strategies. W. B. VERWEY*; C. H. SHEA; D. L. WRIGHT. *Univ. of Twente, Texas A&M Univ.*

3:00 U40 **78.07** Age effects on the transfer of sequence knowledge between different types of movements. J. S. BARNHOORN*; F. DÖHRING; E. H. F. VAN ASSELDONK; W. B. VERWEY. *Univ. of Twente, Saarland Univ.*

4:00 U41 **78.08** Age related differences in scheduling observational and physical practice. F. DÖHRING*; S. PANZER. *Saarland Univ.*

1:00 U42 **78.09** Functional Connectivity patterns in the cerebellar-thalamic-cortical network predicts retention in locomotor adaptation. L. SHMUELOF*; S. BAR-HAIM; F. MAWASE. *Ben-Gurion Univ. of the Negev, Ben-Gurion Univ. of the Negev, Ben-Gurion Univ. of the Negev, Johns Hopkins Univ.*

2:00 V1 **78.10** Error estimation training enhances motor learning in older adults. Y. CHEN*; M. KWON; A. CASAMENTO MORAN; M. W. BEIENE; B. G. GRUBBS; F. T. FIOL; K. GAUGER; E. A. CHRISTOU. *Univ. of Florida.*

3:00 V2 **78.11** Rapid learning of higher-order statistics in implicit sequence learning. K. R. THOMPSON; P. J. REBER*. *Northwestern Univ., Northwestern Univ.*

4:00 V3 **78.12** The influence of biomechanics and cognitive demands on locomotor sequence learning. G. BORIN; J. T. CHOI*. *Univ. of Massachusetts Amherst.*

1:00 V4 **78.13** Transfer of sequence-specific and non-specific motor skills after constant and variable training. D. M. MUSSGENS*; F. ULLÉN. *NINDS, Karolinska Institutet.*

2:00 V5 **78.14** Explicit knowledge in a motor sequence depends on strategy. M. JAYNES*; M. SCHIEBER; J. MINK. *Univ. of Rochester Med. Ctr.*

3:00 V6 **78.15** Long-term stability of implicit sequential memory: One-year consolidation of probabilistic sequence learning. A. KÓBOR*; K. JANACSEK; Á. TAKÁCS; D. NEMETH. *Res. Ctr. For Natural Sciences, HAS, Inst. of Cognitive Neurosci. and Psychology, Res. Ctr. for Natural Sciences, Hungarian Acad. of Sci., Inst. of Psychology, Eötvös Loránd Univ.*

4:00 V7 **78.16** Changes in NREM2 sleep spindle frequency play a causal role in motor sequence learning consolidation. S. LAVENTURE*; S. FOGEL; G. ALBOUY; O. LUNGU; C. VIEN; P. SÉVIGNY-DUPONT; C. SAYOUR; J. CARRIER; H. BENALI; J. DOYON. *Univ. De Montreal, Univ. of Western Ontario, Katholieke Univ. Leuven, Univ. Pierre-et-Marie-Curie.*

1:00 V8 **78.17** Predicting individual differences in sequence learning from oscillatory activity in human MEG-data. F. ROUX*; R. FROST; M. CARREIRAS. *Basque Ctr. On Cognition, Brain and Language, The Hebrew Univ. Jerusalem, BCBL. Basque Ctr. on Cognition, Brain and Language, BCBL. Basque Ctr. on Cognition, Brain and Language., Ikerbasque, Basque Fndn. for Sci., UPV/EHU, Univ. del Pais Vasco.*

2:00 V9 **78.18** The impact of predictability on implicit motor and perceptual sequence learning. L. KATZ; B. FLYNN; C. SINGH; C. SEMERJIAN; L. IZRAYLOV; M. MALABANAN; J. CUDIA; L. H. LU*. *Roosevelt Univ.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

POSTER

079. Human Cognition and Behavior: Functional Mechanisms of Attention

Theme F: Cognition and Behavior

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 V10 **79.01** Fluctuations in processing time are reflected in the shape of early visual evoked potentials. M. J. RIBEIRO*; J. S. PAIVA; M. CASTELO-BRANCO. *Univ. Coimbra, Univ. of Coimbra.*

2:00 V11 **79.02** Individual differences in steady-state visual evoked potential measures of attention predict psychological differences during decision making. M. D. NUNEZ*; J. VANDEKERCKHOVE; R. SRINIVASAN. *Univ. of California, Irvine, Univ. of California, Irvine.*

3:00 V12 **79.03** ▲ Individual differences in ERP components associated with signal detection and distractor resistance. H. WILLIAMS; K. KIM; W. J. GEHRING; C. LUSTIG*. *Univ. of Michigan, Univ. of Texas Hlth. Sci. Ctr. at Houston, Univ. of Michigan, Univ. of Michigan.*

4:00 V13 **79.04** Distinct mechanisms for distractor suppression and target facilitation. M. P. NOONAN*; N. ADAMYAN; A. PIKE; F. PRINTZLAU; B. CRITTENDEN; M. G. STOKES. *Univ. of Oxford, Univ. Paris Descartes, Univ. of Oxford.*

1:00 V14 **79.05** Can top-down control override learning experience? A. SCHUBÖ*; H. KADEL; T. FELDMANN-WÜSTEFELD. *Philipps Univ.*

2:00 V15 **79.06** ERP evidence of reafferent priming of V1 feedforward circuits by spatial attention during dynamic vision. A. ROYSTON*; J. NAPAN; K. ANDERSON; A. HABERMAN; S. J. LUCK; S. A. HILLYARD; W. M. USREY; G. R. MANGUN. *Univ. of California Davis, Univ. of California San Diego.*

3:00 V16 **79.07** Learning-dependent changes in neural mechanisms underlying selective attention. S. ITTHIPURIPAT*; K. CHA; A. BYERS; J. SERENCES. *UCSD, UCSD.*

4:00 V17 **79.08** Predictability or relevance for the task.. Who drives spatial attention? An EEG study. N. DO CARMO BLANCO*; J. JOZEFOWIEZ; J. J. B. ALLEN. *Univ. De Lille, Univ. of Arizona.*

1:00 V18 **79.09** Mnemonic target representation in a visual detection task. N. MYERS; G. ROHENKOHL; V. WYART; M. WOOLRICH; A. NOBRE; M. STOKES*. *Oxford Univ., Ernst Strüngmann Inst. (ESI) for Neurosci., Lab. de Neurosciences Cognitives (Inserm U960).*

2:00 V19 **79.10** How does spontaneous brain activity interact with evoked activity? Non-additive interaction, phase-dependence and scale-free properties. Z. HUANG*; J. ZHANG; A. LONGTIN; G. DUMONT; N. W. DUNCAN; J. POKORNY; P. QIN; R. DAI; F. FERRI; X. WENG; G. NORTHOFF. *Univ. of Ottawa, Hangzhou Normal Univ., Univ. of Toronto.*

3:00 V20 **79.11** Task-independent correlations predict task-evoked BOLD response similarity in frontoparietal association cortex. M. L. WASKOM*; A. D. WAGNER. *Stanford Univ., Stanford Univ.*

4:00 V21 **79.12** Stimuli-based phasic components of task-induced deactivation during sustained attention. K. SHATTUCK*; J. W. VANMETER. *Georgetown Univ.*

1:00 V22 **79.13** ● Intracranial Gamma-band coherence is influenced by task and experience. T. LIVNE*; A. DAITCH; C. HACKER; N. SZRAMA; G. SHULMAN; E. LEUTHARDT; M. CORBETTA. *Washington Univ. Sch. of Med. In St. Lo, stanford school of medicine, Washington Univ. Sch. of Med. in St. Louis.*

2:00 V23 **79.14** Gamma-band synchrony measures indicate differential prefrontal and parietal contributions to signal detection and top-down control. K. KIM*; H. WILLIAMS; W. J. GEHRING; M. SARTER; C. LUSTIG. *Univ. of Texas Houston, Univ. of Michigan.*

3:00 V24 **79.15** Feature-based attention modulates correlated BOLD activity in the visual cortex. Y. LIU*; H. J. ALITTO; A. ROYSTON; G. R. MANGUN; W. M. USREY. *Univ. of California, Davis, Univ. of California, Davis, Univ. of California, Davis, Univ. of California, Davis, Univ. of California, Davis.*

4:00 V25 **79.16** Causal role of IPS and TPJ in selective attention in multi-target environments. M. PRAß*; H. KARNATH; B. DE HAAN. *Ctr. of Neurology, Univ. of Tuebingen.*

1:00 V26 **79.17** Attention alters animal and action representation in highly-distributed, functionally-defined cortical parcels. S. A. NASTASE*; M. VISCONTI DI OLEGGIO CASTELLO; Y. O. HALCHENKO; A. C. CONNOLLY; N. N. OOSTERHOF; M. I. GOBBINI; J. V. HAXBY. *Dartmouth Col., Geisel Sch. of Med. at Dartmouth, Univ. of Trento, Univ. of Bologna.*

2:00 V27 **79.18** Semantic relationships of real-world objects bias visual attention. G. L. MALCOLM*; C. NAH; S. SHEREMATA; S. SHOMSTEIN. *Natl. Inst. of Mental Hlth., The George Washington Univ., Florida Atlantic Univ.*

3:00 V28 **79.19** Alpha oscillation as a clock for visual processing -Illusory jitter frequency correlated with individual alpha frequency-. S. MINAMI*; K. AMANO. *Osaka Univ., CiNet.*

4:00 V29 **79.20** Reconstructing spatial attention maps from EEG alpha activity. J. J. FOSTER*; D. W. SUTTERER; J. T. SERENCES; E. K. VOGEL; E. AWH. *Univ. of Oregon, UCSD, UCSD.*

1:00 V30 **79.21** Task-dependent change of alpha oscillation frequency and its functional significance. I. BABU HENRY SAMUEL*; C. WANG; M. DING. *Univ. of Florida.*

2:00 V31 **79.22** Modulation of visual perception by low frequency oscillations. S. NELLI*; J. SERENCES. *UC San Diego.*

3:00 V32 **79.23** EEG phase shift caused by visual-spatial attention accompanies ventriloquism effect. T. KUMAGAI; H. MIZUHARA*. *Kyoto Univ.*

4:00 V33 **79.24** Attention modulates large-scale synchronization of low-frequency oscillations in multisensory processing. J. DAUME*; U. FRIESE; F. GÖSCHL; P. WANG; P. KÖNIG; A. K. ENGEL. *Univ. Med. Ctr. Hamburg-Eppendorf, Osnabrück Univ.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

1:00 V34 **79.25** Neural oscillations in temporal pole: Local and global network in a-synchronous audio-visual speech matching task. T. OHKI*; A. GUNJI; Y. TAKEI; H. TAKAHASHI; Y. KANEKO; Y. KITA; N. HIRONAGA; S. TOBIMATSU; M. INAGAKI; K. HIRAKI. *Univ. of Tokyo, Natl. Inst. of Mental Health, Natl. Ctr. of Neurol. and Psychiatry, Yokohama Natl. Univ., Gunma Univ. Grad. Sch. of Med., Natl. Ctr. of Neurol. and Psychiatry, Natl. Ctr. of Neurol. and Psychiatry, Kyushu Univ., Natl. Ctr. of Neurol. and Psychiatry, The Univ. of Tokyo.*

2:00 V35 **79.26** The representational similarity of face morphs predicts performance in an independent visual search task. J. LEE*; J. J. GENG. *Ctr. For Mind and Brain, UC Davis.*

POSTER

080. Human Cognition: Control and Flexibility

Theme F: Cognition and Behavior

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 V36 **80.01** Effortful control relates to intrinsic functional connectivity in dlPFC and dACC. N. THAI*; B. C. TABER-THOMAS; M. MAGGI; K. E. PEREZ-EDGAR; P. M. COLE. *The Pennsylvania State Univ.*

2:00 V37 **80.02** Monitoring, extracting, and encoding indicators of cognitive workload(MEDIC). B. K. BRACKEN*; N. PALMON; B. D. FREDERICK; N. J. COOKE; V. ROMERO; D. KOELLE; J. PFAUTZ. *Charles River Analytics, Charles River Analytics, McLean Hospital/Harvard Med. Sch., Arizona State Univ.*

3:00 V38 **80.03** Reward pays the cost of noise reduction in cognitive and motor control. S. G. MANOHAR*; K. MUHAMMED; M. HUSAIN. *Dept. of Exptl. Psychology, Univ. of Oxford.*

4:00 V39 **80.04** Inferior parietal lobules plays an important role in individual differences in executive function: A study with fMRI and SNP. Y. UEDA*; Y. KIKUNO; H. YAMAMOTO; J. SAIKI. *Kyoto Univ., Nagasaki Univ.*

1:00 V40 **80.05** Development of functional networks supporting delay of gratification in young children. A. T. PARK*; P. K. SAXLER; A. B. CYR; J. D. E. GABRIELI; A. P. MACKEY. *MIT.*

2:00 V41 **80.06** Influence of gender performance stereotype on the error-related negativity. D. S. LELAND*; K. A. ROLEFSON; S. E. BADOUR; G. L. BYE; C. M. BRENNAN; R. S. BELOTT. *Univ. of Wisconsin-Eau Claire.*

3:00 V42 **80.07** ▲ Mindfulness-of-breathing exercise affects eeg alpha-power measures of self-monitoring. H. BING-CANAR; J. PIZZUTO; R. COMPTON*. *Haverford Col.*

4:00 V43 **80.08** Withholding a reward-driven action: Studies of corticospinal dynamics and the effect of cognitive depletion. S. FREEMAN*; D. LU; A. ARON. *UCSD.*

1:00 V44 **80.09** ● Sex differences in neural processing during fMRI monetary incentive delay performance. M. R. MITCHELL*; P. D. WORHUNSKY; I. M. BALODIS; M. C. STEVENS; G. D. PEARLSON; M. N. POTENZA. *Yale Univ. Sch. of Med., Olin Neuropsychiatry Res. Center, Hartford Hosp.*

2:00 V45 **80.10** Prefrontal activation across time during executive tasks in young adults: A NIRS study. J. K. LANGE; A. L. SMILEY-OYEN*. *Iowa State Univ.*

3:00 V46 **80.11** Orienting- and executive control deficits after exposure to life-threatening events. C. S. SKAFTNES*; A. SOLBAKK; T. ENDESTAD. *Univ. of Oslo, Dept. of Neuropsychology, Helgeland Hospital, Mosjøen, Norway, Dept. of Neurosurgery, Oslo Univ. Hospital-Rikshospitalet, Oslo, Norway.*

4:00 V47 **80.12** fMRI activation of dorsal and ventral right inferior frontal cortex in a context-dependent stop signal task indicates different roles in motor control. K. Z. XU*; A. W. SALI; B. A. ANDERSON; S. YANTIS; S. M. COURTNEY. *Johns Hopkins Univ., Johns Hopkins Univ. Sch. of Med., Kennedy Krieger Inst.*

1:00 V48 **80.13** Distinct roles for left and right rostrolateral prefrontal cortex in information integration: A multivariate fMRI study. T. HUANG*; R. C. O'REILLY. *Natl. Taiwan Univ., Univ. of Colorado Boulder.*

2:00 W1 **80.14** ▲ Tracking changes in EEG, mindful awareness, stress, and neuro-phenomena as personal perspective changes to universal perspective through Guided Subtraction Meditation. G. K. SCHEINER*; G. Z. SOGHOYAN; R. J. GOUGELET; A. M. VAHID; J. A. PINEDA. *UCSD, Univ. of California San Diego, Univ. of California San Diego.*

3:00 W2 **80.15** The wandering brain: Individual differences in grey and white matter structure predict frequency of goal-related and emotionally positive mind-wandering. K. C. FOX*; M. S. JARRETT; M. GIRN; A. RAUSCHER; K. CHRISTOFF. *Univ. of British Columbia.*

4:00 W3 **80.16** Time course of conflict processing modulated by brief mindfulness meditation. Y. TANG*; R. TANG; M. POSNER. *Texas Tech. Univ., The Univ. of Texas at Austin, Univ. of Oregon.*

1:00 W4 **80.17** ● Is increased beta band power in the subthalamic nucleus related to global suppression of cortico-spinal excitability during behavioral response inhibition? A. GHAHREMANI*; J. R. WESSEL; K. UDUPA; U. SAHA; M. HODAIE; A. M. LOZANO; S. K. KALIA; A. R. ARON; R. CHEN. *Toronto Western Res. Inst., Inst. of Med. Sci., UCSD, Div. of Neurosurgery, Dept. of Surgery,University of Toronto, Div. of Neurology, Dept. of Med.*

2:00 W5 **80.18** Effects of socioeconomic status on executive impairment in young smokers. R. L. ANTONIO; S. POMPEIA*. *Univ. Federal de São Paulo - UNIFESP, UNIFESP.*

3:00 W6 **80.19** Cognitive control modulates task representations in occipital and prefrontal cortex. L. S. LOOSE*; D. WISNIEWSKI; M. RUSCONI; J. HAYNES. *Charité Universtitätsmedizin Berlin, Charité - Universitätsmedizin, Technische Unviersität Dresden, Charité - Universitätsmedizin, Humbolt Univ. zu Berlin, Charité - Universitätsmedizin, Humboldt Univ. zu Berlin.*

4:00 W7 **80.20** Dissociable electrophysiological correlates of proactive and reactive control during response inhibition. K. FUKUDA*; J. D. SCHALL; G. F. WOODMAN. *Vanderbilt Univ.*

1:00 W8 **80.21** Training divides neural representations to conquer multitasking costs. K. G. GARNER*; P. E. DUX. *Univ. of Queensland.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

2:00 W9 **80.22** Greater distribution of executive control networks supports cognitive reserve in bilingual older adults. T. B. WENG*; E. GUZMÁN-VÉLEZ; G. COOKE; A. Z. BURZYNSKA; C. N. WONG; E. MCAULEY; A. F. KRAMER; D. TRANEL; M. W. VOSS. *The Univ. of Iowa, Univ. of Illinois at Urbana-Champaign.*

3:00 W10 **80.23** Subcortical response increase to uncertainty and deviations from expectation. A. MESTRES-MISSE*; R. TRAMPEL; R. TURNER; S. A. KOTZ. *Univ. of Manchester, Max Planck Inst. for Human Cognitive and Brain Sci.*

4:00 W11 **80.24** Cognitive control by disinhibition: A cortical model of decision making and multiple-item working memory. D. STANDAGE*; M. PARE; G. BLOHM. *Queen's Univ.*

1:00 W12 **80.25** Examining changes in cortical activity associated with switching attention between tasks of different modalities. J. L. TOMLIN*; W. E. MCILROY. *Univ. of Waterloo.*

2:00 W13 **80.26** Effects of tolcapone and bromocriptine on cognitive flexibility in an anti-saccade task. I. G. CAMERON*; D. WALLACE; A. AL-ZUGHOUL; A. S. KAYSER; M. D'ESPOSITO. *Donders Inst. for Brain, Cognition and Behavio, Univ. of California, San Francisco, Univ. of California, Berkeley.*

3:00 W14 **80.27** Efficiency of brain network dynamics associated with cognitive ability. D. H. SCHULTZ*; M. W. COLE. *Rutgers-Newark.*

4:00 W15 **80.28** Executive functions of children within a social street context in the downtown area of guadalajara. C. A. CASTAÑEDA NAVARRETE*; T. VILLASEÑOR CABRERA*; M. JIMÉNEZ MALDONADO*; A. JARNE ESPARCIA*. *Univ. of Guadalajara, Univ. of Guadalajara, Univ. of Barcelona.*

POSTER

081. Value-Based Human Decision Making

Theme F: Cognition and Behavior

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 W16 **81.01** Cognitive effort and the opportunity cost of time: A behavioral examination. R. OTTO*; N. DAW. *New York Univ.*

2:00 W17 **81.02** Measuring the subjective cost of physical effort. P. S. HOGAN*; C. D. FRYDMAN; V. S. CHIB. *Johns Hopkins Univ. Sch. of Med., USC Marshall Sch. of Business, Kennedy Krieger Inst.*

3:00 W18 **81.03** The influence of habitual physical exercise on effort discounting in decision making. J. BERNACER*; E. LUIS; I. MARTINEZ-VALBUENA; M. MARTINEZ; N. PUJOL; D. RAMIREZ-CASTILLO; M. A. PASTOR. *Univ. De Navarra, Mind-Brain Group (ICS) Univ. De Navarra, Functional Neuroimaging Laboratory, Neurosciences Department, Ctr. for Applied Med. Research, Univ. of Navarra, Dept. of Neurology, Clinica Univ. de Navarra.*

4:00 W19 **81.04** Option generation and option switching decision-making in apathy - a disorder of motivation. Y. ANG*; M. HUSAIN. *Univ. of Oxford.*

1:00 W20 **81.05** Neural processes underlying reward-saving behavior in human amygdala and prefrontal cortex. L. ZANGEMEISTER*; F. GRABENHORST; W. SCHULTZ. *Univ. of Cambridge.*

2:00 W21 **81.06** Ventrolateral prefrontal activity reflects increases in object value induced by larger choice sets. J. FUJIWARA*; N. USUI; S. EIFUKU; T. IIJIMA; M. TAIRA; K. TSUTSUI; P. N. TOBLER. *Fukushima Med. Univ., Tokyo Med. and Dent. Univ., Tohoku Univ., Univ. of Zurich.*

3:00 W22 **81.07** Neural Representation of Value of Information. K. KOBAYASHI*; M. HSU. *Univ. of California, Berkeley.*

4:00 W23 **81.08** Neuroanatomical correlates of economic rationality in aging - Testing GARP. H. CHUNG*; A. TYMULA; P. GLIMCHER. *New York Univ., Univ. of Sydney, New York Univ.*

1:00 W24 **81.09** The diversity of distributed decisions. M. E. WHEELER*; E. J. PETERSON. *Georgia Inst. of Technol., UCSD.*

2:00 W25 **81.10** Dorsal anterior cingulate and ventromedial prefrontal cortex have inverse roles in both foraging and economic choice. A. SHENHAV*; M. A. STRACCIA; J. D. COHEN; M. M. BOTVINICK. *Princeton Neurosci. Institute, Princeton Univ.*

3:00 W26 **81.11** Neural mechanisms of demand avoidance. C. Z. SAYALI*; B. CIULLO; D. BADRE. *Brown Univ.*

4:00 W27 **81.12** Risky decision-making in college smokers. J. S. RODEFER*. *Valdosta State Univ.*

1:00 W28 **81.13** Episodic memories predict adaptive value-based decision-making. L. E. HUNTER*; O. FELDMANHALL; V. MURTY; L. DAVACHI; E. A. PHELPS. *New York Univ., New York Univ., Nathan Kline Inst.*

2:00 W29 **81.14** Market experience attenuates the endowment effect through modulation of anterior insula: A training study. L. TONG*; K. J. YE; H. C. NUSBAUM; A. HORTACSU. *The Univ. of Chicago, The Univ. of Chicago.*

3:00 W30 **81.15** The effects of incentive valence on instrumental performance. J. GALARO*; P. CELNIK; V. S. CHIB. *Johns Hopkins Univ.*

4:00 W31 **81.16** Why do we take so long when faced with two good options? J. DRUGOWITSCH*; S. TAJIMA; A. POUGET. *Univ. of Geneva.*

1:00 W32 **81.17** Value-based biasing of decision variable dynamics under speed pressure. K. AFACAN; A. BLANGERO; S. KELLY*. *The City Col. of New York, Oxford Univ., Univ. Col. Dublin.*

2:00 W33 **81.18** ▲ Investigating cortical networks to characterize neural dynamics of reward based decision making. H. COURELLIS*; J. IVERSEN; D. PETERSON; H. POIZNER; G. CAUWENBERGHS. *UCSD, UCSD, UCSD.*

3:00 W34 **81.19** Value aftereffects: Evidence for dynamic adaptation in the valuation process of human subjects. M. KHAW*; P. W. GLIMCHER; K. LOUIE. *New York Univ.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

4:00 W35 **81.20** The representational space of value-based decisions during model-based and model-free reinforcement learning. M. N. HEBART*; G. E. WIMMER; J. GLÄSCHER. *Dept. of Systems Neurosci.*

1:00 W36 **81.21** Neural mechanisms supporting persistent maladaptive food choices. K. E. FOERDE*; J. STEINGLASS; D. SHOHAMY; B. T. WALSH. *New York Univ., New York State Psychiatric Inst., Columbia Univ. Med. Ctr., Columbia Univ.*

POSTER

082. Social Decision Making

Theme F: Cognition and Behavior

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 W37 **82.01** A systematic comparison of models of generosity. C. DI TELLA*; P. GLIMCHER; W. MA. *NYU.*

2:00 W38 **82.02** Gender difference in the performance of cheater-detection in social exchange: An eye-tracker study. M. WATABE*; Y. UEDA; T. KATO; M. SHINADA; T. YAMAGISHI. *Monash Univ., Kyoto Univ., Kyushu Univ., Tokyo Gakugei Univ., Hitotsubashi Univ.*

3:00 W39 **82.03** Mechanisms of decision making in criminal trials. J. R. LAW; J. A. G. SKENE; J. M. PARELMAN; D. H. BESKIND; N. VIDMAR; R. M. CARTER; J. M. PEARSON; J. SKENE*. *Duke Univ., Univ. of Colorado Boulder, Duke Univ., Univ. of Colorado Boulder, Duke Univ.*

4:00 W40 **82.04** The effect of testosterone on the Ultimatum Game: A single-dose administration study. E. KOPSIDA*; J. BERREBI; P. PETROVIC; M. INGVAR. *Karolinska Insitute.*

1:00 W41 **82.05** Making better decisions by predicting others' minds. N. MA*; N. HARASAWA; K. UENO; N. ICHINOHE; M. HARUNO; K. CHENG; H. NAKAHARA. *RIKEN, Brain Sci. Inst., RIKEN, Brain Sci. Inst., Natl. Ctr. of Neurol. and Psychiatry, Natl. Inst. of Information and Communications Technol., RIKEN, Brain Sci. Inst.*

2:00 W42 **82.06** Neural mechanisms for deciding with rewards to others. H. FUKUDA*; N. MA; S. SUZUKI; N. HARASAWA; K. UENO; J. L. GARDNER; N. ICHINOHE; M. HARUNO; K. CHENG; H. NAKAHARA. *RIKEN, BSI, Univ. of Tokyo, RIKEN,BSI, Caltech, Hokkaido Univ., Stanford Univ., Natl. Inst. of Neuroscience, NCNP, Ctr. for Information and Neural Networks, NICT.*

3:00 W43 **82.07** Neural correlates of creative thinking. K. UEDA*; R. HIKICHI; M. NAKAO; T. NODA. *Grad. Sch. of Engineering, The Univ. of Tokyo, Natl. Ctr. of Neurol. and Psychiatry.*

4:00 W44 **82.08** Same costs cost different: The effect of prosociality on third-party punishment using feedback-related negativity. Y. CHENG*; C. QU. *Dartmouth Col., South China Normal Univ.*

1:00 W45 **82.09** ▲ Differences in people choosing cooperatively versus competitively during social dilemmas: An EEG spectral analysis. A. J. WILSON*; B. S. ROBINSON; N. J. A. WAN; K. E. JORDAN. *Western Illinois Univ., Utah State Univ.*

2:00 W46 **82.10** Distinct neuronal bases involved in the proposer and responder condition of the ultimatum game. S. K. HORAT*; G. FAVRE; F. R. HERRMANN; P. MISSONNIER; M. C. G. MERLO. *Univ. of Fribourg, Univ. Hosp. of Geneva, Mental Hlth. Network Fribourg (RFSM).*

3:00 W47 **82.11** A multi-variate pattern analysis investigation of strategic thinking and deception in a dynamic, competitive game. W. F. BRODERICK; R. M. CARTER; M. TEPPER; J. GARIEPY; M. L. PLATT; G. SAPIRO; S. A. HUETTEL*. *Duke Univ., Univ. of Colorado, Duke Univ.*

4:00 W48 **82.12** Functional connectivity reveals network abnormalities during explicit and implicit moral reasoning in psychopathy. K. J. YODER*; J. DECETY. *Univ. of Chicago.*

1:00 X1 **82.13** Within-trial repetitive transcranial magnetic stimulation affects belief bias in conditional reasoning. M. ROSER*; J. S. T. EVANS; L. S. CARROLL; N. A. MCNAIR; G. FUGGETTA; A. KHARKO. *Plymouth Univ., Plymouth Univ., The Univ. of Sydney, Univ. of Leicester.*

2:00 X2 **82.14** Disgust sensitivity and pupillometric responses independently predict the effect of disgust stimuli on moral judgments. J. Z. LIM*; M. LEE; K. WONG; O. MULLETTE-GILLMAN. *Duke-Nus Grad. Med. Sch., Natl. Univ. of Singapore, Duke-NUS Grad. Med. Sch., Natl. Univ. of Singapore.*

3:00 X3 **82.15** Choking under pressure due to high incentives as a change in state distinct from motivated performance. T. G. LEE*; D. A. BARANY; S. T. GRAFTON. *UC Santa Barbara.*

4:00 X4 **82.16** Predicting the preferences of others relies on self- and other-related prediction errors. G. ROSENBLAU*; C. KORN; B. VANDER WYK; K. PELPHREY. *Yale Univ., Dept. of Psychiatry, Psychotherapy, and Psychosomatics; Univ. of Zurich.*

1:00 X5 **82.17** ▲ The use of strategy during social dilemmas: An EEG spectral analysis. N. J. A. WAN*; B. S. ROBINSON; A. J. WILSON; K. E. JORDAN. *Utah State Univ., Western Illinois Univ.*

2:00 X6 **82.18** Modeling social influence on human decision-making with reinforcement learning theory. L. ZHANG*; J. GLÄSCHER. *Univ. Med. Ctr. Hamburg Eppendorf.*

POSTER

083. Memory Consolidation and Reconsolidation: Behavior

Theme F: Cognition and Behavior

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 X7 **83.01** Astrocyte-neuronal lactate metabolism in memory formation during rat development. E. CRUZ*; A. TRAVAGLIA; C. M. ALBERINI. *New York Univ.*

2:00 X8 **83.02** High fat diets negatively impact female rodent learning and memory early in development and is counteracted by enriched environments. I. C. SUMAYA*; A. K. SUTER; S. HUSSAIN; N. RAMIREZ ; C. DAWSON; S. MOMI; S. WILLIAMS. *CSU, Bakersfield.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 X9 **83.03** ▲ Effects of enriched environment in persistence of social memory. L. F. JAIMES*; A. R. P. CAIXETA; A. F. S. ALMEIDA; G. S. PEREIRA. *Federal Univ. Minas Gerais.*

4:00 X10 **83.04** Age curve for memory expression: Adult rats perform better than juvenile and middle-aged animals in the precision of fear conditioning context discrimination, Morris water maze and object location. A. P. CRESTANI*; L. DE OLIVEIRA ALVARES; J. HAUBRICH; F. SANTANA; R. O. SIERRA; J. QUILLFELDT. *Univ. Federal Do Rio Grande Do Sul, Federal Univ. of Rio Grande do Sul.*

1:00 X11 **83.05** Assessing the development of spatial memory consolidation in juvenile and adolescent rats. N. TZAKIS*; N. GILL; T. BOSNIC; M. R. HOLAHAN. *Carleton Univ.*

2:00 X12 **83.06** ▲ Differential consolidation of explicit and implicit memories under general anesthesia. G. CHÁVEZ MARCHETTA*; I. BALDERAS; C. J. RODRIGUEZ-ORTIZ; J. L. MCGAUGH; F. BERMUDEZ-RATTONI. *Univ. Nacional Autónoma De México, IFC-UNAM, Ctr. for Neurobio. of Learning and Memory, Univ. of California.*

3:00 X13 **83.07** Increased task demand during a spatial memory retention test recruits the anterior cingulate cortex. J. CARR; N. M. FOURNIER; H. LEHMANN*. *Trent Univ.*

4:00 X14 **83.08** Single bout of resistance exercise improves hippocampal memory consolidation. J. C. SOARES*; J. FERNANDES; L. G. Z. BALIEGO; R. M. ARIDA. *Univ. Federal de São Paulo, Univ. Federal de São Paulo.*

1:00 X15 **83.09** Functional inactivation of hippocampus during memory consolidation of mixed choice task applied through the first learning trials is sufficient to suppress the use of hippocampal strategy for the subsequent trials. A. SERGEEVA; K. UZHCA; L. URPA; B. GROSS; G. R. POE*. *Univ. of Michigan, New York Univ., Univ. Michigan.*

2:00 X16 **83.10** The amnesia induced by post-reactivation anisomycin-impaired reconsolidation of object location memory causes the brain to reengage the acquisition mechanisms of when there was no prior knowledge of that memory. J. J. ZHANG*; K. NADER. *McGill Univ.*

3:00 X17 **83.11** The endocannabinoid system mediates stress-induced amnesia. A. BUSQUETS-GARCIA*; M. GOMIS-GONZÁLEZ; R. SRIVASTAVA; L. CUTANDO; A. ORTEGA-ALVARO; S. RUEHLE; F. REMMERS; L. BELLOCHIO; L. BINDILA; G. MARSICANO; B. LUTZ; R. MALDONADO; A. OZAITA. *Neurocenter Magendie U862-Inserm, Laboratori de Neurofarmacologia. Departament de Ciències Experimentals i de la Salut. Univ. Pompeu Fabra, Inst. of Physiological Chemistry, Univ. Med. Ctr. of the Johannes Gutenberg Univ. Mainz.*

4:00 X18 **83.12** Selective erasure of neural engrams of nicotine-associated memories to prevent nicotine craving and relapse. Y. XUE*; J. DENG; Y. CHEN; S. SUN; L. ZHANG; L. ZHANG; L. LU. *Natl. Inst. on Drug Dependence, Peking Univ., Inst. of Mental Health/Peking Univ. Sixth Hosp. and Key Lab. of Mental Hlth.*

1:00 X19 **83.13** Histidine decarboxylase (HDC) and histaminergic receptors gene expression (H1, H2 and H3) acts distinctly along the timeline in the medial prefrontal cortex, dorsal hippocampus and amygdala after an aversive experience. L. CANTO DE SOUZA*; R. MATTIOLI. *Univ. De Sao Paulo - FFCLRP/USP, Univ. Federal de São Carlos.*

2:00 X20 **83.14** A sex difference in the bidirectional effects of the CB1 antagonist/inverse agonist rimonabant on consolidation of cocaine-associated memory in mice. S. HU*; H. CHANG. *Natl. Cheng Kung Univ., Natl. Cheng Kung Univ.*

3:00 X21 **83.15** The naturally-occurring compound Garcinia indica impairs the reconsolidation of a cocaine-associated memory. M. S. MONSEY*; H. SANCHEZ; J. R. TAYLOR. *Yale Univ. Sch. of Med.*

POSTER

084. Learning and Memory: Aging I

Theme F: Cognition and Behavior

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 X22 **84.01** Age-related decline of spatial discrimination performance based on difficulty may reflect pattern separation deficits. S. A. JOHNSON*; L. S. GAYNOR; P. K. SACKS; S. M. TURNER; W. M. YODER; B. K. ORMEROD; A. P. MAURER; J. L. BIZON; S. N. BURKE. *Univ. of Florida, Biomed. Engin., Inst. on Aging.*

2:00 X23 **84.02** Nonlinear oscillations of the hippocampus. A. P. MAURER*; S. N. BURKE; A. SHEREMET. *Univ. of Florida, Univ. of Florida.*

3:00 X24 **84.03** Reductions in GABA(B) receptor signaling contribute to age-related impairments in behavioral flexibility. S. BEAS*; J. A. MCQUAIL; B. SETLOW; J. BIZON. *Univ. of Florida McKnight Brain Inst., Univ. of Florida McKnight Brain Inst.*

4:00 X25 **84.04** ▲ Age-related impairments in object-place associations signify a decline in systems-level neural communication. J. E. REASOR*; A. R. HERNANDEZ; S. M. TURNER; S. E. BATHLE; S. A. JOHNSON; A. P. MAURER; S. N. BURKE. *McKnight Brain Institute, Univ. of Florida, Biomed. Engin.*

1:00 X26 **84.05** NR2A-containing NMDARs in the PFC are required for working memory and predict age-related cognitive decline. J. A. MCQUAIL*; B. S. BEAS; K. L. SIMPSON; K. B. KELLY; C. J. FRAZIER; B. SETLOW; J. L. BIZON. *Univ. of Florida, Univ. of Florida, Univ. of Florida.*

2:00 X27 **84.06** ▲ An open-source software suite for collecting and analyzing spontaneous object recognition data. N. TOPPER*; R. NDUM; A. R. HERNANDEZ; S. A. JOHNSON; J. REASOR; J. MIZELL; S. TURNER; A. P. MAURER; S. N. BURKE. *McKnight Brain Institute, Univ. of Florida, Biomed. Engin., Inst. on Aging.*

3:00 X28 **84.07** Object-place paired associations require interactions between prefrontal and perirhinal cortices. A. R. HERNANDEZ*; J. E. REASOR; S. M. TURNER; S. E. BARTHLE; S. A. JOHNSON; J. L. BIZON; A. P. MAURER; S. N. BURKE. *McKnight Brain Institute, Univ. of Florida, Biomed. Engin.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

4:00 X29 **84.08** Subregional and behaviorally-relevant transcriptional changes related to GABA and glutamate signaling in the aged rodent prefrontal cortex. C. M. HERNANDEZ*, III; J. A. MCQUAIL; B. S. BEAS; B. SETLOW; J. L. BIZON. *Univ. of Florida, Univ. of Florida.*

1:00 X30 **84.09** ▲ Chronic variable stress recapitulates age-related changes to glutamate and GABA receptors in the PFC. M. M. BRUNER; J. A. MCQUAIL; I. M. BACKES; R. R. CLIFTON; B. SETLOW; D. A. SCHEUER; J. L. BIZON*. *Univ. of Florida Col. of Med., Univ. of Florida Col. of Med., Univ. of Florida Col. of Med.*

2:00 X31 **84.10** ▲ Cholinergic modulation of spatial discrimination performance in young and aged rats. L. S. GAYNOR; S. J. JOHNSON; P. K. SACKS; A. P. MAURER; J. L. BIZON; S. N. BURKE*. *Univ. of Florida, Biomed. Engin., Inst. on Aging.*

3:00 X32 **84.11** Aging alters excitatory and inhibitory modulation of GABAergic interneurons in layer 2/3 of the rodent medial prefrontal cortex. K. B. KELLY*; J. A. MCQUAIL; C. M. HERNANDEZ; J. L. BIZON; C. J. FRAZIER. *Univ. of Florida, Univ. of Florida.*

4:00 X33 **84.12** ▲ A low-cost, open-source gait tracker for rodents. R. NDUM*; N. C. TOPPER; A. R. HERNANDEZ; S. N. BURKE; A. P. MAURER. *McKnight Brain Institute, Univ. of Florida, Inst. on Aging, Biomed. Engin.*

1:00 X34 **84.13** The effects of sleep deprivation on spatial representations in young and aged adult mice during the object-place recognition task. R. K. YUAN*; I. A. MUZZIO. *Univ. of Pennsylvania.*

2:00 X35 **84.14** Post-translational modifications of the NMDA receptor GluN2B subunit in the frontal cortex of old mice are related to spatial learning and cognitive flexibility. K. R. MAGNUSSON*; D. R. ZAMZOW; V. ELIAS; V. ACOSTA; E. ESCOBEDO. *Oregon State Univ.*

3:00 X36 **84.15** ▲ Social memory of old-age mice and the effects of juvenile interactions. A. S. ALMEIDA*; A. R. P. CAIXETA; G. S. PEREIRA. *Inst. De Ciências Biológicas-Univ. Federal De Minas Gerais.*

4:00 X37 **84.16** Contextual fear memory is impaired in middle-aged breeders vs non-breeders. L. A. WILMOTT*; S. M. NEUNER; T. M. SHAPAKER; R. W. WILLIAMS; C. C. KACZOROWSKI. *The Univ. of Tennessee Hlth. Sci. Ctr., Univ. of Tennessee Hlth. Sci. Ctr., The Univ. of Tennessee Hlth. Sci. Ctr.*

1:00 X38 **84.17** Nest building and circadian rhythm activity is impaired in APOE4 mice compared to C57 mice. K. BOGGS*; K. A. PEDEMONTE; C. L. C. NEELY; S. A. STAVROU; S. N. HOWELL; L. BOZZELLI; J. M. FLINN. *George Mason Univ., Georgetown Univ.*

2:00 X39 **84.18** Disparate brain lipid profiles in mouse models of IGF-1 deficiency. S. LOGAN*; J. E. SANDERS; N. M. ASHPOLE; R. S. BRUSH; R. E. ANDERSON; W. E. SONNTAG. *Univ. of Oklahoma HSC, Univ. of Oklahoma HSC.*

3:00 X40 **84.19** Early life IGF-1 deficiency results in age-related cognitive impairment. E. L. HODGES; N. M. ASHPOLE; W. E. SONNTAG*. *Univ. of Oklahoma HSC, Univ. of Oklahoma HSC.*

POSTER

085. Temporal Processing in Septal, Prefrontal, and Hippocampal Circuits

Theme F: Cognition and Behavior

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 X41 **85.01** A novel slow (1-3 Hz) oscillatory cell type in the lateral septum. J. R. HINMAN*; J. R. CLIMER; G. W. CHAPMAN; M. E. HASSELMO. *Boston Univ.*

2:00 X42 **85.02** Medial septal infusion of a serotonin 1A receptor agonist anxiolytic reduces theta frequency in the medial entorhinal cortex. C. MONAGHAN*; G. CHAPMAN, IV; M. HASSELMO. *Boston Univ., Boston Univ., Boston Univ.*

3:00 X43 **85.03** *In vivo* rebound spike characteristics of medial entorhinal cortex cells. Y. TSUNO*; G. CHAPMAN; M. E. HASSELMO. *Boston Univ., Boston Univ.*

4:00 X44 **85.04** Optogenetic silencing of septal cholinergic cells, memory and hippocampal theta. J. R. CLIMER*; M. E. HASSELMO. *Boston Univ., Boston Univ., Boston Univ.*

1:00 X45 **85.05** Task-relevant dynamics of neural network activity in mouse prefrontal cortex. H. TSENG*; X. HAN. *Boston Univ.*

2:00 X46 **85.06** Cholinergic modulation of cortico-cortical interaction. N. JAMES; H. GRITTON; N. KOPELL; X. HAN*. *Boston Univ., Boston Univ.*

3:00 X47 **85.07** Alpha coherence between frontal and auditory cortex during extinction learning in mice. N. JAMES*; H. GRITTON; Z. YAO; N. KOPELL; X. HAN. *Boston Univ.*

4:00 X48 **85.08** Representations of novel and familiar object-place associations differ during slow and fast gamma rhythms in the hippocampus of freely behaving rats. C. ZHENG*; K. W. BIERI; L. L. COLGIN. *Univ. of Texas At Austin, The Univ. of Texas at Austin, The Univ. of Texas at Austin.*

1:00 Y1 **85.09** Hippocampal place cells exhibit distinct spatial coding modes in mice. B. J. GEREKE*; D. T. JONES; L. L. COLGIN. *The Univ. of Texas at Austin, The Univ. of Texas at Austin.*

2:00 Y2 **85.10** CA3 slow gamma power is driving CA1 theta phase in rat hippocampus. H. JIANG*; A. BAHRAMISHARIF; M. VAN GERVEN; K. W. BIERI; L. L. COLGIN; O. JENSEN. *Donders Inst., Dept. of Psychiatry, Academic Med. Ctr., Ctr. for Learning and Memory, The Univ. of Texas at Austin.*

3:00 Y3 **85.11** Chemogenetic activation of hippocampal area CA2 neurons increases gamma oscillations in hippocampus and prefrontal cortex. G. M. ALEXANDER*; L. Y. BROWN; S. FARRIS; C. B. PANTAZIS; D. J. LUSTBERG; B. GLOSS; N. W. PLUMMER; P. JENSEN; S. M. DUDEK. *Natl. Inst. of Envrn. Hlth. Sci., Univ. of North Carolina, Rutgers Univ.*

4:00 Y4 **85.12** Pattern separation of spiketrains by individual granule cells of the dentate gyrus. A. MADAR*; L. A. EWELL; M. V. JONES. *Univ. of Wisconsin-Madison, UCSD.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

1:00 Y5 **85.13** Study of the interval timing with administration of NMDA antagonist in rats. S. SAKATA*; A. UJITA; M. HATTORI. *Hiroshima Univ., Hiroshima Univ., Hiroshima Univ.*

2:00 Y6 **85.14** Theta sequence generation by excitatory-inhibitory interactions in CA1 networks. A. CHADWICK*; M. VAN ROSSUM; M. NOLAN. *Univ. of Edinburgh.*

3:00 Y7 **85.15** Bi-directional optogenetic modulation of prefrontal parvalbumin neuron activity in spatial working memory. C. K. YOUNG*; M. CARLÉN. *Karolinska Institutet.*

4:00 Y8 **85.16** The role of the nucleus reuniens of thalamus in synchronization of oscillations of the prefrontal cortex and hippocampus in urethane anesthetized rats. B. KOCSIS*; F. PETTERSSON SVENSSON; A. T. ROY. *Harvard Med. Sch.*

1:00 Y9 **85.17** A variable oscillator underlies the measurement of time intervals in the medial prefrontal cortex during classical eyeblink conditioning in rabbits. C. R. CARO-MARTÍN; R. LEAL-CAMPANARIO; R. SÁNCHEZ-CAMPUSANO; J. M. DELGADO-GARCÍA; A. GRUART*. *Pablo de Olavide Univ.*

2:00 Y10 **85.18** Prelimbic cortex infusion of SSRI fluoxetine reduces the effects of emotional distracters on interval timing. A. R. MATTHEWS*; M. BUHUSI; C. V. BUHUSI. *Utah State Univ.*

3:00 Y11 **85.19** Latent variable modeling of hippocampal replay. E. ACKERMANN*; C. KEMERE. *Rice Univ.*

4:00 Y12 **85.20** Cortical stroke alters temporal processing of cortico-hippocampal circuits. J. W. HE*; Y. NISHIJIMA; Y. AKAMATSU; J. LIU. *UC San Francisco/SFVAMC.*

1:00 Y13 **85.21** Synaptic-functional and behavioral states characterizing intrinsic and extrinsic hippocampal circuits during operant conditioning in rats. R. SANCHEZ-CAMPUSANO*; I. FERNÁNDEZ-LAMO; A. GRUART; J. DELGADO-GARCÍA. *Biophysic and Med. Physic Center. Univ. de Oriente, Pablo de Olavide Univ.*

POSTER

086. Cortical and Hippocampal Circuits: Spatial Navigation

Theme F: Cognition and Behavior

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 Y14 **86.01** The role of the dorsomedial striatum in spatial working memory. H. AKHLAGHPOUR*; J. WISKERKE; J. CHOI; J. AU; I. B. WITTEN. *Princeton Univ.*

2:00 Y15 **86.02** Ventral striatum represents rewards before the orbitofrontal cortex in the Restaurant Row task. Y. A. BRETON*; B. J. SCHMIDT; A. D. REDISH. *Univ. of Minnesota.*

3:00 Y16 **86.03** Systemic injection of clonidine, α2-adrenergic receptor agonist, differentiates prospective spatial representation between options in hippocampal neural ensemble activity. S. AMEMIYA*; A. D. REDISH. *Univ. of Minnesota.*

4:00 Y17 **86.04** Sequential activity during theta and sharp wave ripples supports flexible decision making. A. E. PAPALE*; M. C. ZIELINSKI; L. M. FRANK; S. P. JADHAV; A. D. REDISH. *Grad. Program in Neurosci., Brandeis Univ., UCSF, Brandeis Univ., Univ. of Minnesota.*

1:00 Y18 **86.05** Functional coupling between ventral striatum and orbitofrontal cortex in rats running a decision task. J. J. STOTT*; A. D. REDISH. *Univ. of Minnesota, Univ. of Minnesota.*

2:00 Y19 **86.06** Rats titrate to different adjusted delays on parallel foraging and decision-making (delay-discounting) tasks. E. C. CARTER; D. W. STEPHENS; A. D. REDISH*. *Univ. of Minnesota, Univ. Minnesota.*

3:00 Y20 **86.07** Disrupting awake sharp-wave ripples increases vicarious trial and error behavior. M. C. ZIELINSKI*; A. E. PAPALE; A. D. REDISH; L. M. FRANK; S. P. JADHAV. *Brandeis Univ., Univ. of Minnesota, Univ. of Minnesota, UCSF, Brandeis Univ.*

4:00 Y21 **86.08** Anterior cingulate cortex-hippocampal interactions during goal-driven behaviors. J. Y. YU*; A. LOBACK; I. GROSSRUBATCHER; D. LIU; L. M. FRANK. *UCSF, Princeton Univ.*

1:00 Y22 **86.09** Spatially periodic firing in grid cells requires local inhibition through parvalbumin interneurons. Q. CAO*; C. MIAO; E. I. MOSER; M. MOSER. *Kavli Inst. For Systems Neuroscience, CNC, NTNU.*

2:00 Y23 **86.10** Local deformations in the entorhinal grid cell pattern. M. HAGGLUND*; M. MOSER; E. I. MOSER. *Kavli Institute, CNC.*

3:00 Y24 **86.11** Retrosplenial-parahippocampal projections in the rat are present and adult-like before eye-opening. J. SUGAR*; M. P. WITTER. *Norwegian Univ. of Sci. and Technol.*

4:00 Y25 **86.12** Topography of place maps along the CA3-to-CA2 axis of the hippocampus. L. LU*; K. M. IGARASHI; M. P. WITTER; E. I. MOSER; M. MOSER. *Kavli Inst. For Systems Neurosci. and Ctr. For Neural Computation, NTNU.*

1:00 Y26 **86.13** Temporal spike coordination in the prefrontal-thalamo-hippocampal circuit during trajectory decisions. H. T. ITO*; E. I. MOSER; M. MOSER. *NTNU.*

2:00 Y27 **86.14** Commisural connections of the medial entorhinal cortex in rodents. K. ZHENG*; Ø. W. SIMONSEN; M. P. WITTER. *Kavli Inst/Cnc, NTNU.*

3:00 Y28 **86.15** Optogenetic characterization of stellate cells in medial entorhinal cortex layer II. D. C. ROWLAND; E. R. SKYTØEN; R. NAIR; C. G. KENTROS; E. I. MOSER*; M. MOSER. *NTNU Kavli Inst. Systems Neurosci, Kavli Inst. Systems Neurosci.*

4:00 Y29 **86.16** Entorhinal speed cells project to the hippocampus. J. YE*; S. ZHANG; E. KROPFF; M. MOSER; E. MOSER. *Kavli Inst. For Systems Neuroscience, NTNU, Sch. of Life Sciences, Tsinghua Univ., Leloir Institute, IIBBA - CONICET.*

1:00 Y30 **86.17** Clonal architecture of the network supporting spatial representation in the medial entorhinal cortex. F. DONATO*; R. I. JACOBSEN; M. MOSER; E. I. MOSER. *Kavli Inst. For Systems Neurosci.*

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2:00 Y31 **86.18** Speed cells in the medial entorhinal cortex. E. KROPFF CAUSA*; J. E. CARMICHAEL; E. I. MOSER; M. MOSER. *Leloir Inst. - IIBBA - CONICET, Kavli Inst. For Systems Neurosci. and Ctr. For Neural Computation, NTNU, Univ. of Waterloo.*

3:00 Y32 **86.19** Hippocampal remapping after partial inactivation of the medial entorhinal cortex. C. MIAO*; Q. CAO; H. T. ITO; H. YAMAHACHI; M. P. WITTER; M. MOSER; E. I. MOSER. *Kavli Inst. For Systems Neuroscience, CNC, NTNU.*

4:00 Y33 **86.20** Grid synchronization in merged space. T. WERNLE*; M. MØRREAUNET; E. I. MOSER; M. MOSER. *Kavli Institute/CNC The Fac. of Medicine, NTNU.*

1:00 Y34 **86.21** Body and world-centered coordinate transformations in the parietal-hippocampal network. A. A. WILBER*; I. SKELIN; B. L. MCNAUGHTON. *Univ. of California, Irvine, Univ. of Lethbridge.*

2:00 Y35 **86.22** A methodological pipeline for serial-section imaging and tissue realignment for whole-brain functional connectomics. B. J. CLARK*; L. MESINA; A. A. WILBER; A. DEMECHA; C. E. L. STARK; B. L. MCNAUGHTON. *The Univ. of New Mexico, Univ. of Lethbridge, Univ. of California, Irvine.*

3:00 Y36 **86.23** Low and high frequency electrical perforant pathway stimulation as conditioned stimuli for active avoidance learning: A combined fMRI and electrophysiological study. S. RIEMANN*; F. ANGENSTEIN. *DZNE.*

4:00 Y37 **86.24** From default to adjusted. How BOLD fMRI responses relate to neuronal activity in the rat hippocampus during repetitive stimulations. F. ANGENSTEIN*; C. HELBING; S. RIEMANN. *Deutsches Zentrum Für Neurodegenerative Erkrankungen (DZNE).*

POSTER

087. Emotion: Brain Imaging

Theme F: Cognition and Behavior

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 Y38 **87.01** Understanding emotion in the brain: Comparing categorical and dimensional models of emotion using multivariate pattern analysis. J. C. FOO*; K. SAKAI. *Univ. of Tokyo, Tamagawa Univ.*

2:00 Y39 **87.02** Control of attentional gain modulation by affective valence. X. ZHANG*; Z. SAFIULLAH; S. JAPEE; L. G. UNGERLEIDER. *Natl. Inst. of Hlth. (NIH).*

3:00 Y40 **87.03** Valence-general attentional resource for emotional information revealed by activation of the ventral part of the anterior cingulate cortex. T. MINAMOTO*; M. OSAKA; N. OSAKA. *Natl. Inst. of Information and Communicatio, Osaka Univ., Kyoto Univ.*

4:00 Y41 **87.04** Neural substrates of romantic love: A positron emission tomography study. A. T. SASAKI*; K. MIZUNO; K. TAKAHASHI; Y. WADA; M. TANAKA; A. ISHII; K. TAJIMA; N. TSUYUGUCHI; K. WATANABE; S. ZEKI; Y. WATANABE. *RIKEN Ctr. for Life Sci. Technologies, Osaka City Univ. Grad. Sch. of Med., Osaka City Univ., Univ. Col. London.*

1:00 Y42 **87.05** Investigating the effect of goal-directed eye movements during extinction on amygdala activity and long-term expression of fear memory. L. D. DE VOOGD*; J. W. KANEN; K. ROELOFS; G. FERNÁNDEZ; E. J. HERMANS. *Radboud Univ. Nijmegen Med. Ctr., Dept. for Cognitive Neuroscience, Radboudumc, Behavioural Sci. Institute, Radboud Univ.*

2:00 Y43 **87.06** Dynamic shifts in large-scale brain network balance in response to acute stress. C. B. YOUNG*; G. RAZ; D. EVERAERD; C. F. BECKMANN; I. TENDOLKAR; T. HENDLER; G. FERNANDEZ; E. J. HERMANS. *Northwestern Univ., Radboud Univ. Med. Ctr., Radboud Univ. Med. Ctr., Maastricht Univ., Radboud Univ. Med. Ctr., Univ. Hosp. Essen, Tel Aviv Univ.*

3:00 Y44 **87.07** Altered resting state functional connectivity in the medial temporal lobe subsystem of the default mode network in posttraumatic stress disorder. D. R. MILLER*; S. M. HAYES; J. P. HAYES; J. M. SPIELBERG; G. LAFLECHE; M. VERFAELLIE. *Boston Univ. Sch. of Med., VA Boston Healthcare Syst., VA Boston Healthcare Syst., Boston Univ. Sch. of Med., VA Boston Healthcare Syst.*

4:00 Z1 **87.08** ▲ Negatively connoted music increases brain activity in the prefrontal cortex: A nirs study. S. CROWEL; Z. MESSER; J. ADAY; C. BRATONIA; M. ZIAT*. *Northern Michigan Univ.*

1:00 Z2 **87.09** A multivariate analysis of brain networks involved in facial gaze and emotion processing. M. ZIAEI*; W. VON HIPPEL; J. HENRY; N. EBNER; H. BURIANOVÁ. *Univ. of Queensland, Univ. of Florida, Ctr. for Advanced Imaging.*

2:00 Z3 **87.10** Differences in resting-state functional connectivity 24-hours after delay and trace fear conditioning. L. HOPKINS*; D. H. SCHULTZ; F. J. HELMSTETTER. *Univ. of Wisconsin-Milwaukee, Rutgers Univ.*

3:00 Z4 **87.11** Imaging of social cognition in low-functioning autism. A. G. MCKECHANIE*; T. J. MOORHEAD; C. THORBURN; N. ROBERTS; E. C. JOHNSTONE; D. G. C. OWENS; A. C. STANFIELD. *Univ. of Edinburgh, The Univ. of Edinburgh.*

4:00 Z5 **87.12** The effects of early adversity on emotional appraisal: Implications for amygdala-mPFC circuit development. M. R. VANTIEGHEM*; L. GABARD-DURNAM; J. FLANNERY; B. GOFF; D. GEE; K. HUMPHREYS; E. TELZER; C. CALDERA; T. HARE; N. TOTTENHAM. *Columbia Univ., Univ. of Oregon, Univ. of California Los Angeles, Weill Cornell Med. Sch., Tulane Univ. Sch. of Med., Univ. of Illinois at Urbana-Champaign, Univ. of Zurich.*

1:00 Z6 **87.13** ▲ Resting state conectivity of the amygdala after the exposure to a stressful video. D. VÁZQUEZ CARRILLO*; J. MARTÍNEZ-SOTO; S. ALCAUTER; E. PASAYE; L. GONZALES-SANTOS; F. A. BARRIOS. *Univ. Nacional Autónoma De México (UNAM), Univ. de Guanajuato.*

2:00 Z7 **87.14** Temporal dynamics of fear learning and generalization in the human brain. S. NASR*; E. A. BOEKE; S. N. DECROSS; R. P. F. WOLTHUSEN; R. B. H. TOOTELL; M. R. MILAD; D. J. HOLT. *Martinos Ctr. For Biomed. Imaging, Massachusetts Gen. Hosp., Martinos Ctr. for Biomed. Imaging.*

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▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 Z8 **87.15** ▲ Dissociable Neural correlates of positive and negative emotions during human sound processing. N. OKAMOTO*; M. HARUNO. *Kyoto Univ., CiNet NICT.*

4:00 Z9 **87.16** Neural specificity in processing visual and auditory socially-relevant information as revealed by fMRI. J. WHITEHEAD*; J. L. ARMONY. *McGill Univ., Douglas Mental Hlth. Univ. Inst., BRAMS Laboratory, Ctr. for Res. on Brain, Music and Language, McGill Univ.*

1:00 Z10 **87.17** ▲ A meta-analytic review of the role of ventromedial prefrontal cortex and amygdala in emotion regulation. S. TSAI*; C. R. LI. *Natl. Yang-Ming Univ., Yale Univ.*

2:00 Z11 **87.18** The effect of dynamic facial expressions on subsequent emotional information processing: An fMRI study. S. KIM*; H. YOON; S. KIM. *Korea Univ.*

3:00 Z12 **87.19** Working memory load enhanced interpersonal reconnection. K. SAKAKI*; T. NOZAWA; R. YOKOYAMA; Y. SASAKI; R. KAWASHIMA. *Tohoku Univ. (IDAC), Kobe Univ.*

4:00 Z13 **87.20** Distinct contributions of acoustic parameters in the recognition of emotional prosody. D. BENIS*; J. PERON; T. OTT; S. FRÜHHOLZ; D. GRANDJEAN. *Univ. of Geneva.*

1:00 Z14 **87.21** ▲ Behavioral and ERP responses to emotionally evocative images among high and low trait anger college age men. K. ROSS; D. ADDLEMAN; A. EARLY; C. REYES; S. BAKER; H. O'HORA; R. E. PHINNEY; W. M. STRUTHERS; H. WHITNEY; N. THOM*. *Wheaton Col., Wheaton Col., Wheaton Col., Wheaton Col.*

2:00 Z15 **87.22** (Unable to attend) Neural mechanisms of communication via facial expression. S. V. SHEPHERD*; W. A. FREIWALD. *The Rockefeller Univ.*

3:00 Z16 **87.23** Early social experience influences cortical gray matter integrity in chimpanzees (Pan troglodytes): A sourced-based morphometry analysis. K. R. DAVIDEK*; W. D. HOPKINS. *Georgia State Univ., Georgia State Univ.*

POSTER

088. Emotion: Information Processing

Theme F: Cognition and Behavior

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 Z17 **88.01** Electroencephalographic correlation during visual, maternal and erotic stimulation in mothers at different stages of postpartum. M. PÉREZ-HERNÁNDEZ*; R. M. HIDALGO-AGUIRRE; M. HERNÁNDEZ-GONZÁLEZ; C. AMEZCUA; M. A. GUEVARA. *Inst. De Neurociencias, Inst. De Neurociencias.*

2:00 Z18 **88.02** Evoked neural harmonics during naturalistic viewing: Dissociable effects of perceptual quality and hedonic content. V. MISKOVIC*; K. KUNTZELMAN; N. HANSEN; N. FLETCHER. *Binghamton Univ.*

3:00 Z19 **88.03** Emotional music and voices: A magnetoencephalography study. K. LOGIE-HAGEN*; S. RIGOULOT; J. L. ARMONY; P. JOLICOEUR. *McGill, Intl. Lab. for Brain, Music, and Sound Res. (BRAMS), Douglas Mental Hlth. Univ. Inst., Univ. de Montréal, Ctr. de Recherche en Neuropsychologie et Cognition (CERNEC).*

4:00 Z20 **88.04** ▲ Altruism effects on event-related potentials following violent video game play. R. D. FARERO*; J. J. FOWLER; J. HOST; K. BRALEY; C. PHIEL; M. A. KISLEY; D. S. ALBECK. *Univ. of Colorado Denver Dept. of Psychology, Univ. of Colorado Denver Dept. of Integrative Biol., Univ. of Colorado, Colorado Springs Dept. of Psychology.*

1:00 Z21 **88.05** The magnitude of violent acts committed in a video game alters the EEG response to violent images shown after playing the game. D. S. ALBECK*; J. J. FOWLER; C. PHIEL; M. A. KISLEY; J. HOST; K. BRALEY; R. FARERO. *UC Denver, UC Denver, Univ. of Colorado Colorado Springs, UC Denver.*

2:00 Z22 **88.06** Emergent cortical dynamics during aesthetic experiences. K. KONTSON*; M. MEGJHANI; J. BRANTLEY; J. G. CRUZ-GARZA; S. NAKAGOME; D. ROBLETO; M. WHITE; E. CIVILLICO; J. CONTRERAS-VIDAL. *U.S. Food and Drug Admin., Univ. of Houston, Menil Collection.*

3:00 Z23 **88.07** Personality traits predict insular activation during anticipation of affective pictures: An fMRI. K. MAKITA*; N. KANAYAMA; T. UYAMA; G. OKADA; T. SASAOKA; M. MACHIZAWA; K. ONODA; S. YAMAWAKI. *Hiroshima Univ., Shimane Univ.*

4:00 Z24 **88.08** Increased dorsomedial prefrontal cortex and precuneus activation precede correct emotion identification. M. A. ORLOFF*; M. C. COFFMAN; A. TRUBANOVA; M. RULOFF; S. W. WHITE; D. GRACANIN; I. KIM; M. A. BELL; S. M. LACONTE; J. A. RICHEY. *Virginia Tech.*

1:00 Z25 **88.09** Beyond eyeballing: Modelling event-related pupil responses with canonical response functions. C. W. KORN*; D. R. BACH. *Univ. of Zurich, Univ. Col. London.*

2:00 Z26 **88.10** Exploring the origins of learned salience: Valuable, risky, novel, and aversive. W. GRIGGS; A. GHAZIZADEH; O. HIKOSAKA*. *Natl. Eye Inst., NIH.*

3:00 Z27 **88.11** Noradrenergic mechanisms of arousal-biased competition in memory. D. CLEWETT*; M. SAKAKI; S. NIELSEN; G. PETZINGER; M. MATHER. *USC, Univ. of Reading.*

4:00 Z28 **88.12** ● Tasteful packaging: How health and ethical messaging can affect the consumer experience. M. M. NIEDZIELA*; A. JORDAN; H. STONE; M. ROSAZZA. *HCD Res.*

1:00 Z29 **88.13** Functional interaction between amygdala and orbitofrontal cortex during the processing of emotionally salient auditory stimuli depends on the emotional valence of the stimuli. Z. CHEN; H. LIN; L. PARKKONEN; J. WEI; J. DONG; Y. MA; S. CARLSON*. *Univ. of Helsinki, Aalto Univ. Sch. of Sci., Kunming Inst. of Zoology, Chinese Acad. of Sci.*

2:00 Z30 **88.14** Song preference measured by behaviors depends on song similarity in female zebra finch. R. TABATA*; K. HOTTA; K. OKA. *Grad. Sch. of Sci. and Technology, Keio Un.*

3:00 Z31 **88.15** The influence of social skill training on the ability of emotional face recognition. I. B. F. GREBOT; W. C. DE SOUZA*; A. M. M. NOZIMA; J. S. R. AGUIAR; G. F. S. FERREIRA. *Univ. of Brasília, Univ. Brasilia, Ctr. universitário IESB.*

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* Indicates abstract's submitting author

4:00 Z32 **88.16** Motion and emotion: Depression reduces psychomotor performance and alters affective movements in caregiving interactions. K. S. YOUNG*; C. E. PARSONS; A. STEIN; M. KRINGELBACH. *UCLA, Univ. of Oxford, Aarhus Univ.*

1:00 Z33 **88.17** Conditioned place preference successfully established in typically developing children. B. L. THOMPSON*; L. HILLER; S. TAKATA. *Univ. of Southern California, USC.*

2:00 Z34 **88.18** Developmental changes in the perception of voluntary and involuntary emotional vocalizations. S. H. CHEN*; S. KRISHNAN; S. EVANS; S. GULDNER; A. A. GOMES; N. KHAMOSIA; S. SCOTT. *Inst. of Cognitive Neurosci.*

3:00 Z35 **88.19** ▲ Compounds found in energy drinks can differentially affect depression in adolescent and adult male rats. K. H. CHAUHAN*; S. L. PEREZ; K. URIBE; D. WOO; U. AKPARA; M. EVELYN; S. SINGH; M. MURITALA; S. AYO; F. JACQUES; S. SOYEMI; A. COLE; P. DUVALSAINT; D. PETERS; A. ELZANIE; D. HARRIS; S. MARACHERIL; M. A. GUZMAN; A. ALEXANDER –STREET; K. Y. SALAS-RAMIREZ. *Sophie Davis Sch. of Biomed. Education, CCNY, Lehman College, CUNY, City College, CUNY.*

POSTER

089. Emotion Processing: Neurophysiology

Theme F: Cognition and Behavior

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 Z36 **89.01** ▲ Correlational EEG study between love, attachment, and the mirror neuron system. E. SHAKOOR*; J. E. FISHBEIN; M. PALOMINO; J. A. PINEDA. *UCSD.*

2:00 Z37 **89.02** Theta oscillations in human approach-avoidance conflict relate to threat memories. S. KHEMKA*; G. BARNES; R. J. DOLAN; D. R. BACH. *Univ. of Zurich, Univ. of Zurich, Wellcome Trust Ctr. for Neuroimaging.*

3:00 Z38 **89.03** Insular lesion and attenuated sensitivity to the emotions of others. Y. TERASAWA*; Y. KUROSAKI; Y. IBATA; Y. MORIGUCHI; S. UMEDA. *Keio Univ., Hlth. Sci. Univ. of Hokkaido, Nasu Red Cross Hospital,, Natl. Ctr. of Neurol. and Psychiatry, Keio Univ.*

4:00 Z39 **89.04** Electrophysiological correlates of subliminal affective face priming. M. TANAKA*; T. MAEKAWA; K. OGATA; N. TAKAMIYA; E. YAMADA; S. TOBIMATSU. *Neurolog. Institute, Grad. Sch. of Med., Kyushu university of Hlth. and welfare, Prefectural Univ. of Hiroshima, Saiseikai Kanagawa-ken Hosp.*

1:00 Z40 **89.05** Decoding of emotional states during watching movies using multimodal neurophysiological signals. J. CHOI*; J. CHOI; K. KIM. *Yonsei Univ.*

2:00 Z41 **89.06** ▲ Neural responses to emotion: An event-related potentials study. E. ZHANG*. *Univ. of Shanghai For Sci. & Technol.*

3:00 Z42 **89.07** Time course and localization of brain activity in humor comprehension: An ERP/sLORETA study. M. SHIBATA*; Y. TERASAWA; T. OSUMI; K. MASUI; A. SATO; S. UMEDA. *Keio Univ., Hiroshima Shudo Univ., Japan Society for the Promotion of Sci.*

4:00 Z43 **89.08** Network interactions during affective picture processing: An ECOG study. A. TRONGNETRPUNYA*; F. BARTSCH; J. CIBULA; A. KEIL; M. DING. *Univ. of Florida, Univ. of Florida, Univ. of Florida, Univ. of Florida.*

1:00 Z44 **89.09** N170 Differences on emotion recognition between deaf/ hard of hearing and normally hearing individuals. C. C. MORALES*; A. V. GONZALEZ; E. M. DUBON; J. P. ABARA; S. KANG. *California State Univ. Northridge, California State Univ. Northridge.*

2:00 AA1 **89.10** ▲ Self-other differences in mu event-related desynchronization correlate with self-reported perspective-taking. T. DEPAOLA*; D. J. BARBERA; C. WOODRUFF. *Northern Arizona Univ.*

3:00 AA2 **89.11** Effects of parasympathetic activation on neural responses during emotional reactivity and regulation in adolescents. D. G. GHAHREMANI; D. VRANEK; A. HOLOVATYK; A. DEAN; E. D. LONDON*. *UCLA, UCLA.*

4:00 AA3 **89.12** Measuring engagement in movie trailers using behavioral and neural responses. D. KANG*; J. KIM; D. JANG; Y. CHO; S. KIM. *UNIST, Hanyang Univ., Korea Univ.*

1:00 AA4 **89.13** The parietal cortex and the fearful face recognition. K. ZHAO*; W. ZHOU; Y. LI; T. YU; L. WANG. *Chinese Acad. of Sci., Key Lab. of Mental Health, Inst. of Psychology, Chinese Acad. of Sci., Tsinghua Univ. Yuquan Hosp., Beijing Haidian Hosp., Xuanwu Hospital, Capital Med. Univ., CAS Ctr. for Excellence in Brain Sci.*

2:00 AA5 **89.14** ▲ Contralateral attention-related attenuation of occipitotemporal electrocortical activity by backward masked snakes & guns. I. BEUNTELLO; W. RIZER; J. M. CARLSON*. *Northern Michigan Univ., Northern Michigan Uniersity.*

3:00 AA6 **89.15** Heart rate variability in dogs: Toward a valid behavioral model of empathy in companion animals. J. MANOR*; M. BOTTEN; W. CHU; E. P. WIERTELAK. *Macalester Col.*

4:00 AA7 **89.16** Changes in autonomic arousal elicited by human amygdala stimulation are parameter-dependent. J. T. WILLIE*; C. S. INMAN; D. I. BASS; R. E. GROSS; S. HAMANN. *Emory Univ. Sch. of Med., Emory Univ.*

1:00 AA8 **89.17** The effects of RMTg lesions on the response of nigral dopamine neurons to footshock and habenula stimulation: An electrophysiological study in anesthetized rats. P. D. SHEPARD*; H. L. PALACOROLLA; P. L. BROWN; D. B. BRADY; R. P. MCMAHON; G. I. ELMER. *Univ. of Maryland Sch. of Med.*

POSTER

090. Sensory and Motor Systems in Vertebrates

Theme F: Cognition and Behavior

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 AA9 **90.01** Spatial working memory compared in pigeons and humans. J. E. WOLF; J. F. MAGNOTTI; J. O. TAYLOR; R. LEE; K. J. LEISING*. *Texas Christian Univ., Baylor Col. of Med., Texas Christian Univ.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

2:00 AA10 **90.02** A comparison of c-fos expression in avian hippocampus after relational task and associative task. O. F. LAZAREVA*; M. J. ACERBO; M. STACHO; O. GÜNTÜRKÜN; A. GERTSBERG; J. RICK; K. PANFIL; J. FEUCHT. *Drake Univ., Iowa State Univ., Ruhr-Universität Bochum.*

3:00 AA11 **90.03** Blockade of GABA and glutamate receptors in nucleus subpretectalis/interstitio-pretecto-subpretectalis impairs figure-ground discrimination in pigeons. M. J. ACERBO*; O. F. LAZAREVA; S. ATTERBERG; H. MOSES. *Iowa State Univ., Drake Univ.*

4:00 AA12 **90.04** Mechanosensory specialization of duck trigeminal ganglia neurons occurs before hatching. E. R. SCHNEIDER*; E. O. ANDERSON; M. MASTROTTO; W. LAURSEN; E. O. GRACHEVA; S. N. BAGRIANTSEV. *Yale Univ. Sch. of Med., Yale Univ. Sch. of Med.*

1:00 AA13 **90.05** Pretecto-hypothalamic circuit is essential for prey perception and feeding behavior in zebrafish. A. MUTO*; K. KAWAKAMI. *Natl. Inst. of Genet.*

2:00 AA14 **90.06** Oscillatory movement correlates with sensory noise in active electrosense. C. CHEN*; I. D. NEVELN; M. A. MACIVER. *Northwestern Univ., Northwestern Univ.*

3:00 AA15 **90.07** Non-periodic responses to sinusoidal electric stimulation in ampullary electroreceptors of glass catfish. Y. ADACHI*; K. TATENO. *Kyushu Inst. of Technol., Kyushu Inst. of Technol.*

4:00 AA16 **90.08** The role of SK channels in optimizing neural processing and behavioural perception of natural stimuli in the electronsensory system. C. HUANG*; M. J. CHACRON. *McGill Univ., McGill Univ.*

1:00 AA17 **90.09** An optimal neural encoding model predicts anti-correlated spike-trains in the p-type afferents of a weakly electric fish. E. C. JOHNSON; D. L. JONES; R. RATNAM*. *Univ. of Illinois at Urbana-Champaign.*

2:00 AA18 **90.10** Dopaminergic modulation of pre-pulse inhibition in larval zebrafish. J. P. BARRIOS*; S. ANJEWIERDEN; J. NEWTON; S. LUKS-MORGAN; R. DHINGRA; A. D. DOUGLASS. *Univ. of Utah, Univ. of Utah.*

3:00 AA19 **90.11** Neurotoxicity of inorganic mercury in white seabream (Diplodus sargus) - morphofunctional brain alterations and behavioural shifts following waterborne exposure and post-exposure periods. S. PUGA; P. PEREIRA; F. PINTO-RIBEIRO; J. RAIMUNDO; O. ARAÚJO; M. PACHECO; A. A. ALMEIDA*. *Life and Hlth. Sci. Res. Inst. (ICVS), Sch. of Hlth. Sciences, Univ. of Minho, Campus Gualtar, 4710-057; ICVS/3B's - PT Government Associate Laboratory, Braga/Guimarães, Dept. of Biol. and CESAM, Univ. of Aveiro, 3810-193, IPMA - Portuguese Inst. for the Sea and Atmosphere, Av. Brasília, 1449-006, Univ. Minho.*

4:00 AA20 **90.12** Stimulus-evoked serotonin dynamics in a teleost sensory system. H. FOTOWAT*; E. HARVEY-GIRARD; R. CACHOPE; J. F. CHEER; R. KRAHE; L. MALER. *Univ. of Ottawa, CHDI, Univ. of Maryland, McGill Univ.*

1:00 AA21 **90.13** Social isolation alters socially induced serotonergic fluctuations in the inferior colliculus. S. M. KEESOM*; L. M. HURLEY. *Indiana Univ.*

2:00 AA22 **90.14** Seeing with sound - auditory-visual information transfer in Egyptian fruit bats. W. METZNER*; C. SCHILLING; A. GRINNELL. *UCLA, Univ. Ulm.*

3:00 AA23 **90.15** Neural activity in the SC of a flying echolocating bat. N. B. KOTHARI*; M. J. WOHLGEMUTH; C. F. MOSS. *Johns Hopkins Univ.*

4:00 AA24 **90.16** On holey ground: Vibrissal touch aids the placement of safe footing during locomotion. K. ARKLEY*; B. T. O'CONNOR; R. A. GRANT; B. MITCHINSON; T. J. PRESCOTT. *Univ. of Sheffield, Manchester Metropolitan Univ.*

1:00 AA25 **90.17** Sub-second structure in mouse behavior. A. B. WILTSCHKO*; M. J. JOHNSON; G. IURILLI; R. E. PETERSON; J. M. KATON; S. L. PASHKOVSKI; V. M. ABRAIRA; R. P. ADAMS; S. R. DATTA. *Harvard Med. Sch., Harvard Univ., Harvard Med. Sch.*

2:00 AA26 **90.18** Dopamine agonist SKF 38393 increase syntactic grooming chains in high-yawning rats. J. EGUIBAR*; C. CORTES; A. TRUJILLO. *Benemerita Univ. Autonoma de Puebla, Benemerita Univ. Autonoma de Puebla, Benemerita Univ. Autonoma de Puebla.*

3:00 AA27 **90.19** ● Speed vs accuracy: Nervous systems tradeoffs using robust control. Y. NAKAHIRA*; J. C. DOYLE. *Caltech, Caltech.*

POSTER

091. Biochemical Techniques

Theme G: Novel Methods and Technology Development

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 AA28 **91.01** Blood- and CSF-based biomarkers of Alzheimer's disease, mild cognitive impairment and vascular dementia among Panamanians. A. E. VILLARREAL*; S. E. O'BRYANT; M. EDWARDS; S. GRAJALES; G. BRITTON. *INDICASAT AIP, Inst. for Aging & Alzheimer's Dis. Research, Univ. of North Texas Hlth. Sci. Ctr., Univ. of North Texas, Inst. de Investigaciones Científicas y Servicios de Alta Tecnología (INDICASAT AIP).*

2:00 AA29 **91.02** Development of boron-doped diamond microelectrodes for human use: Pre-clinical animal trials. E. N. NICOLAI*; S. PAEK; P. H. MIN; J. R. TOMSHINE; M. P. MARSH; M. L. SETTELL; S. CHANG; K. E. BENNET; D. JANG; F. S. MANCIU; K. H. LEE. *Mayo Clin., Mayo Clin., Hanyang Univ., Univ. of Texas.*

3:00 AA30 **91.03** AB oligomers and AD. J. KALININA*; M. S. MICHENER; B. E. SMITH; E. PARKER; J. A. STONE; E. VAN MAANEN; G. WILCOCK; D. SMITH; D. WARDEN; C. L. MASTERS; Q. LI; C. J. FOWLER; C. J. WINROW; M. J. SAVAGE. *Merck & Co., LAP&P consultants, Oxford Univ., Melborne Univ.*

4:00 AA31 **91.04** ● Evaluating transcytosis of bivalent and monovalent transferrin receptor antibodies *in vitro.* F. LIU*; S. TSCHANG; J. PEREIRA; J. CROY; J. LU; R. DEMATTOS; M. RACKE. *Eli Lilly & Co.*

1:00 AA32 **91.05** Cocaine induced glucose and dopamine fluctuations simultaneously recorded at single striatal locations using fast-scan cyclic voltammetry. S. SMITH*; W. GARRISON; C. LEE; A. KOMSA; L. SOMBERS. *North Carolina State Univ., North Carolina State Univ.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

2:00 AA33 **91.06** ● Label-free method for characterization of diprenorphine binding to active and inactive state u-opioid receptors using LC-MS/MS detection. T. EESSALU*; M. JOHNSON; L. MARTIN; K. BURRIS; V. BARTH; T. WIERNICKI. *Eli Lilly & Co, Eli Lilly & Co, Eli Lilly & Co.*

3:00 AA34 **91.07** ● An ultrasensitive immunoassay detects soluble Aβ oligomers in Tg mice prior to memory loss. E. N. CLINE; K. L. VIOLA; M. G. ROLLINS; S. N. MOHAMMAD; L. R. ZIESKE; W. L. KLEIN*. *Northwestern Univ., Singulex, Inc.*

4:00 AA35 **91.08** Anticonvulsant effects of non-selective nonsteroidal anti-inflammatory drug and cyclooxygenase-2 selective inhibitor in the zebrafish seizure model. P. G. BARBALHO*. *Univ. of Campinas.*

1:00 AA36 **91.09** ● Multiplex immunoassay detection of neurodegenerative and cytokine biomarkers in cerebrospinal fluid. A. J. SAPORITA*; J. MISTRY; J. HWANG. *EMD Millipore.*

2:00 AA37 **91.10** Crossing the blood-cerebrospinal fluid barrier in the mouse choroid plexus with an engineered receptor/ligand system. H. R. MENDEZ-GOMEZ*; A. GALERA-PRAT; C. MEYERS; J. SINGH; W. CHEN; M. CARRION; N. MUZYCZKA. *Univ. of Florida, Powell Gene Therapy Ctr. and UF Genet. Inst., Inst. Cajal, Inst. Madrileño de Estudios Avanzados en Nanociencia.*

3:00 AA38 **91.11** Differentiation of analytes using multiple fast-scan cyclic voltammetry. D. KIM*; Y. OH; H. SHIN; C. PARK; K. E. BENNET; I. KIM; D. JANG; K. H. LEE. *Hanyang Univ., Mayo Clin.*

4:00 AA39 **91.12** Measurement of dopamine absolute concentration using multiple fast-scan cyclic voltammetry. Y. OH*; D. KIM; H. SHIN; C. PARK; K. E. BENNET; I. KIM; D. JANG; K. H. LEE. *Hanyang Univ., Mayo Clin.*

1:00 AA40 **91.13** Engineering an “armor-plated” horseradish peroxidase (HRP) for connectomic studies. M. G. PAEZ SEGALA*; R. FETTER; J. SIMPSON; L. LOOGER. *Janelia Farm, HHMI, Janelia Res. Campus, HHMI, Janelia Res. Campus, HHMI, Janelia Res. Campus, HHMI.*

2:00 AA41 **91.14** Development of a surface plasmon resonance assay for characterization of small molecule binding kinetics and mechanism of binding to kynurenine 3-monooxygenase. S. PODA*; M. KOBAYASHI; R. NACHANE; V. MENON; A. S. GANDHI; D. P. BUDAC; G. LI; B. M. CAMPBELL; L. TAGMOSE. *Lundbeck USA, ZoBio. BV.*

3:00 AA42 **91.15** Gamma amino-butyric-acid measurement by an electrochemiluminescence method in small samples with high sensitivity. J. C. SALAZAR SANCHEZ*; A. MORALES-VILLAGRAN. *Univ. De Guadalajara.*

4:00 AA43 **91.16** ● Afferent-specific neurochemical profiling of multiple glutamatergic inputs to the nucleus accumbens by combined optogenetics and microdialysis application. N. SUTO*; A. MATZEU; A. LAQUE; M. W. BUCZYNSKI; S. AZUMA; T. KERR; D. WATRY; R. MARTIN-FARDON; L. H. PARSONS; F. WEISS; P. P. SANNA; T. C. JHOU. *The Scripps Res. Inst., Eicom, Med. Univ. of South Carolina.*

1:00 AA44 **91.17** ▲ Fibrin-based microenvironments for *in vitro* studies of adult neurogenesis. L. HAGER*; A. CLARK; E. PRICE. *Marshall Univ., Marshall Univ.*

2:00 AA45 **91.18** Development of a colorimetric assay for the identification of novel compounds as potential therapeutics for Alzheimer’s disease. P. L. FERNANDEZ; D. DOENS; O. LARIONOV; A. TRSITAN; A. KHAN; G. B. BRITTON*; R. LLEONART. *INDICASAT AIP, Univ. of Texas San Antonio.*

3:00 AA46 **91.19** Exploring methods of cholinergic denervation of the rat ventral tegmental area. J. L. FULLERTON*. *Strathclyde Univ.*

4:00 AA47 **91.20** Real time observation of rodent cerebral metabolism by dissolution dynamic nuclear polarization. D. DOWNES*; B. LAMA; J. COLLINS; M. FEBO; J. LONG. *Univ. of Florida.*

1:00 AA48 **91.21** Adenosine as a parameter to determine the quality of the rapid microwave fixation of rat brain for the determination of cAMP and cGMP in braintissue. A. RASSOULPOUR; F. HELFRICH; M. G. VAN DER HART*. *Brains On-Line.*

2:00 BB1 **91.22** A rapid method of isolating purified population of Schwann cells for spinal cord transplantation. W. WU*; W. QU; X. XU. *Indiana Univ. Sch. of Med.*

3:00 BB2 **91.23** A method to determine *ex vivo* insulin responsiveness in synaptosomes isolated from frozen brain tissue. W. FRANKLIN*; G. TAGLIALATELA. *UTMB At Galveston, UTMB At Galveston.*

4:00 BB3 **91.24** Technologies for targeting and manipulating cells based on intracellular products. C. TANG*; S. RUDOLPH; T. SZIKRA; E. DROKHLYANSKY; G. KOZOROVITSKIY; M. TEXEIRA; O. DHANDE; V. E. ABRAIRA; S. CHOI; S. WANG; B. GUO; S. LAPAN; I. R. DREW; B. L. SABATINI; A. HUBERMAN; B. ROSKA; W. G. REGEHR; C. L. CEPKO. *Harvard Med. Sch., Friedrich Miescher Inst. for Biomed. Res., Northwestern Univ., Univ. of California San Diego, Harvard Med. School, HHMI, Univ. of California San Diego.*

1:00 BB4 **91.25** Two-photon optogenetics with near-infrared light-activated cyclases and FRET sensors for studying the role of cAMP and cGMP in living neurons. M. VALENCIA*; T. T. LUYBEN; K. OKAMOTO. *Mount Sinai Hosp., Univ. of Toronto.*

2:00 BB5 **91.26** Two-photon optogenetics for controlling the activity of PDEs in living neurons. F. BERGIN*; K. OKAMOTO. *Samuel Lunenfeld Res. Inst.*

3:00 BB6 **91.27** Optical inactivation technology of synaptic AMPA receptors *in vivo*. K. TAKEMOTO*; H. IWANARI; T. NAGAI; T. HAMAKUBO; T. TAKAHASHI. *Yokohama City Univ., The Univ. of Tokyo, Osaka Univ.*

4:00 BB7 **91.28** ● Development of boron-doped diamond microelectrodes for human use: Electrode engineering and fabrication. J. TOMSHINE*; K. BENNET; F. MANCIU; M. MARSH; M. SETTELL; E. NICOLAI; K. LEE. *Mayo Clin., Univ. of Texas at El Paso.*

1:00 BB8 **91.29** Carbon nanofiber microelectrode needle array fabrication and characterization. M. P. MARSH*; J. E. KOEHNE; C. KIMBLE; S. CHANG; P. MIN; R. ANDREWS; M. MEYYAPPAN; K. E. BENNET; K. H. LEE. *Mayo Clin., NASA Ames Res. Ctr., Mayo Clin., Mayo Clin., Mayo Clin.*

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* Indicates abstract’s submitting author

POSTER

092. Bioinformatics

Theme G: Novel Methods and Technology Development

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 BB9 **92.01** Mechanistic modeling of spike-timing dependent plasticity of basal ganglia neurons. I. PROKIN; S. VALTCHEVA; L. VENANCE; H. BERRY*. *INRIA, Ctr. for Interdisciplinary Res. in Biology, INSERM U1050 / CNRS UMR7241, Col. de France.*

2:00 BB10 **92.02** A systematic approach to analyze the impact of p53 mutations on p53-mdm2 interaction using machine learning. S. YEGUVAPALLI*; K. CHITRALA; P. H. REDDY. *Sri Venkateswara Univ., Texas Tech. Univ. Hlth. Sci. Ctr., Sri Venkateswara Univ., Texas Tech. Univ. Hlth. Sci. Center, Garrison Inst. on Aging.*

3:00 BB11 **92.03** Model-based control of spreading depression. S. VAN WERT*; S. J. SCHIFF. *The Pennsylvania State Univ., The Pennsylvania State Univ.*

4:00 BB12 **92.04** ● Validation of a novel 3D particle tracking tool for next generation neuroscience microscopy. S. V. ALWORTH*; M. J. JONES; V. CHOU; D. VAN VACTOR; J. S. J. LEE. *DRVision Technologies LLC, Harvard Med. Sch.*

1:00 BB13 **92.05** Neuronal network bump attractors augmented by calcium up-regulation of Ih in a multiscale computer model of prefrontal cortex. A. SEIDENSTEIN*; S. A. NEYMOTIN; A. FESHARAKI; M. L. HINES; R. A. MCDOUGAL; A. S. BULANOVA; W. W. LYTTON. *NYU-Polytechnic Sch. of Engin., SUNY Downstate Med. Ctr., Downstate Med. Ctr., Yale.*

2:00 BB14 **92.06** Enhanced neuronal growth by intracellular stimulation. H. LEE*; I. KIM; Y. HA; H. CHOI; S. YI. *Brain Korea 21 Plus Project For Med. Science, Y, Dept. of Materials Sci. and Engineering, Yonsei Univ.*

3:00 BB15 **92.07** Sharing electrophysiological data and the CARMEN project. L. S. SMITH*; E. SERNAGOR. *Univ. of Stirling, Univ. of Newcastle.*

4:00 BB16 **92.08** NeuroGPS-Tree: Automatic reconstruction of a large-scale neuronal population with dense neurites. S. ZENG*. *Huazhong Univ. of Sci. & Technol.*

1:00 BB17 **92.09** Dissociable functional activation within MTL during pattern separation measured using high-resolution BOLD fMRI at 7 Tesla. S. DAS*; J. DUDA; J. WU; M. DAFFNER; M. ELLIOTT; L. MANCUSO; L. WISSE; P. YUSHKEVICH; D. WOLK. *Univ. of Pennsylvania, Univ. of Pennsylvania, Univ. of Pennsylvania, Univ. of Pennsylvania, Univ. of Pennsylvania, Univ. of Pennsylvania.*

2:00 BB18 **92.10** Consistent data organization made easy: Versatile format for data and metadata. A. STOEWER; C. J. KELLNER; A. SOBOLEV; M. SONNTAG; J. BENDA; T. WACHTLER*; J. GREWE. *Ludwig-Maximilians-Univ Munich, Eberhard Karls Univ.*

3:00 BB19 **92.11** Parallel Reaction-Diffusion simulation in NEURON. C. TROPPER*; L. ZHONGWEI; R. A. MCDOUGAL; M. HINES; W. LYTTON. *McGill Univ., McGill Univ., NUDT, Yale Univ., SUNY Downstate.*

4:00 BB20 **92.12** Molecular Networking of oxytocin in Brain- relevance to Alzheimer's pathology. I. TEJADA*; J. KOSAGISHARAF. *INDICASAT AIP.*

1:00 BB21 **92.13** Improving accuracy of site-specific selection pressure analysis of deeply conserved post-synaptic proteins. M. PAJAK*; C. R. BRAMHAM; T. I. SIMPSON. *Univ. of Edinburgh, Univ. of Bergen, BIOSS.*

2:00 BB22 **92.14** A novel approach to study network interactions in cortical cultures. A. WILDEMAN; J. E. JURELLER; J. C. WANG; J. D. MARKS; W. VAN DRONGELEN*. *Univ. of Chicago, Univ. of Chicago, Univ. of Chicago, Univ. Chicago.*

3:00 BB23 **92.15** Whole exome sequencing identifies new genes associated with sporadic trios in ALS. K. B. AHMETI; F. FECTO*; K. B. AHMETI; Y. YANG; N. SIDDIQUE; J. YAN; M. PERICAK-VANCE; H. DENG; Y. MA; T. SIDDIQUE. *Northwestern Univ. Feinberg Sch. of Med., Univ. of Miami, Ann & Robert H. Lurie Children's Hosp. of Chicago.*

4:00 BB24 **92.16** Hybrid 1d/3d reaction-diffusion in the neuron simulator. R. A. MCDOUGAL*; A. S. BULANOVA; M. L. HINES; W. W. LYTTON. *Yale Univ., SUNY Downstate, Kings County Hosp.*

1:00 BB25 **92.17** Integrating and mining the widespread h3k4me3 epigenomic landscape and cell-type specific regulation in human prefrontal cortex and blood. A. DINCER*; E. SCHADT; B. ZHANG; D. GAVIN; C. XU; J. DUDLEY; S. AKBARIAN. *Mt. Sinai Med. Sch., Dept. of Genet. and Genomic Sciences, Icahn Sch. of Med. at Mount Sinai, New York, NY Icahn Inst. for Genomics and Multiscale Biology, Icahn Sch. of Med. at Mount Sinai, Friedman Brain Institute, Dept. of Psychiatry and Neuroscience,Icahn Sch. of Med. at Mount Sinai, Jesse Brown Veterans Affairs Med. Ctr.*

POSTER

093. Computation

Theme G: Novel Methods and Technology Development

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 BB26 **93.01** Self-organized information routing and processing in neuronal networks. C. KIRST*. *The Rockefeller Univ.*

2:00 BB27 **93.02** Life after streamlines: Describing structural connectivity with Reeb graphs. M. CIESLAK*; J. SUN; L. VOLZ; S. SURI; S. T. GRAFTON. *UCSB, Univ. of California, Santa Barbara, Univ. of California, Santa Barbara, Univ. of California, Santa Barbara.*

3:00 BB28 **93.03** Reliability at a macroscopic level in recurrent neural networks: An approach based on canonical correlation analysis. H. SUETANI*. *Oita Univ.*

4:00 BB29 **93.04** Network models of sequence generation and memory. K. RAJAN*; C. D. HARVEY; D. W. TANK. *Princeton Univ., Harvard Med. Sch., Princeton Univ.*

1:00 BB30 **93.05** Probabilistic synaptic transmission and spike correlations in recurrent cortical networks. M. LEONE*; G. OCKER; B. DOIRON. *Carnegie Mellon Univ., Univ. of Pittsburgh.*

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▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

2:00 BB31 **93.06** Development of a mathematical model of mitochondrial bioenergetics in cortical neurons. C. CADONIC*; E. THOMSON; W. SNOW; S. ROY CHOWDHURY; D. MCALLISTER; J. FIEGE; P. FERNYHOUGH; S. PORTET; B. C. ALBENSI. *Univ. of Manitoba, St. Boniface Hosp. Res., Univ. of Manitoba, Univ. of Manitoba, Univ. of Manitoba, Univ. of Manitoba.*

3:00 BB32 **93.07** Critical role of topography in determining spatio-temporal network dynamics in a large-scale model of hippocampus. P. HENDRICKSON*; G. J. YU; D. SONG; T. W. BERGER. *USC, USC.*

4:00 BB33 **93.08** Biomechanics of membrane deformation under time-varying magnetic field - a shell model. H. YE*; A. CURCURU. *Dept. of Biol., Loyola Univ. Chicago.*

1:00 BB34 **93.09** ▲ Factors influencing current flow through the skin during transcranial electrical stimulation: Role of waveform, tissue properties, and macro-pores. N. KHADKA*; B. GULEYUPOGLU; D. Q. TRUONG; V. PATEL; C. THOMAS; O. SEIBT; A. MOKREJS; M. BIKSON. *City Univ. of New York, City Col., City Univ. of New York, City Col., City Univ. of New York,City college.*

2:00 BB35 **93.10** Quantitative analysis on the impacts of dendritic morphology on neuron electrophysiology simulations. X. LIU; N. GOUWENS; Z. ZHOU; M. HAWRYLYCZ; C. KOCH; A. ARKHIPOV; H. PENG*. *Allen Inst. For Brain Sci.*

3:00 BB36 **93.11** Reestablishing Ca^{2+} amplitude and speed during deep sleep in Alzheimer's disease with EEG-triggered TES/TMS: Neuromodulation of abnormal columnar states. J. F. GOMEZ-MOLINA*; U. M. RICOY; J. VELEZ-M.D.; D. SEPULVEDA-FALLA. *Intl. Group of Neurosci., New Mexico Col., Northern New Mexico Col. NM, Intl. Group of Neurosci., Univ. Med. Ctr. Hamburg-Eppendorf and Neurosci. Group of Antioquia, Fac. of Medicine, Univ. of Antioquia, Medellin, Colombia.*

4:00 BB37 **93.12** Exploring the effects of spatial constraints on cell network formation in the dentate gyrus. A. MERGENTHAL*; T. BERGER. *USC.*

1:00 BB38 **93.13** Computational study of local field potentials in a heterogeneous 3D model of rat hippocampus. K. LOIZOS*; J. CLINE; G. YU; P. HENDRICKSON; G. LAZZI; T. BERGER. *Univ. of Utah, USC.*

2:00 BB39 **93.14** Neurodata Without Borders (NWB) - a common neurophysiology file format. K. B. GODFREY; J. L. TEETERS; C. FRIEDSAM; B. WARK; R. YOUNG; J. BERG; S. R. OLSEN*; G. DENISOV; N. LI; S. PERON; H. ASARI; A. PEYRACHE; T. BLANCHE; A. GARNER; J. SIEGLE; N. GOUWENS; A. ARKHIPOV; S. DURAND; S. DE VRIES; D. FENG; M. CHUN; K. D. HARRIS; K. SVOBODA; G. BUZSAKI; M. MEISTER; C. KOCH; C. DANG; F. T. SOMMER. *Allen Inst. For Brain Sci., Redwood Ctr. for Theoretical Neuroscience, UC Berkeley, Physion LLC, Howard Hughes Med. Inst., Howard Hughes Med. Inst., Caltech, New York Univ., The Kavli Fndn., Univ. Col. London.*

3:00 BB40 **93.15** Beer-lambert optical law applied to early steps of phototransduction. E. M. SALIDO*; L. SERVALLI; J. C. GOMEZ; C. VERRASTRO. *Natl. Technological Univ. (UTN).*

4:00 BB41 **93.16** Single neuron model with multiple biological characteristics. F. FENG*; A. ALTURKI; A. NAIR; P. SAMARTH; S. NAIR. *Univ. of Missouri-Columbia.*

1:00 BB42 **93.17** Analysis of the dependence of spike generation on the past neuronal activity. T. YAMANOBE*. *Hokkaido University, Sch. of Med.*

2:00 BB43 **93.18** Origin of the kink of somatic action potentials. M. TELENCZUK*; B. FONTAINE; R. BRETTE. *Inst. De La Vision, Univ. of Leuven.*

3:00 BB44 **93.19** Emergent anatomical and functional organization of place bias cells in the dentate in a large-scale biologically realistic model of the rat hippocampus. G. J. YU*; P. HENDRICKSON; D. SONG; T. W. BERGER. *USC, USC.*

4:00 BB45 **93.20** Nonlinear modeling of calcium dynamics in glutamatergic postsynaptic spine for large scale simulations. E. Y. HU*; J. BOUTEILLER; D. SONG; M. BAUDRY; T. W. BERGER. *USC, Western Univ.*

POSTER

094. Computation: Other

Theme G: Novel Methods and Technology Development

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 BB46 **94.01** The role of cellular membrane properties in generating synchronous activity in inhibitory networks. S. RICH*; V. BOOTH; M. ZOCHOWSKI. *Univ. of Michigan, Univ. of Michigan, Univ. of Michigan.*

2:00 BB47 **94.02** Dynamic patterns in a two-dimensional neural field with refractoriness. Y. QI*; P. GONG. *Univ. of Sydney.*

3:00 BB48 **94.03** Optimal feature integration in a critical, balanced network model. N. TOMEN*; U. ERNST. *Univ. of Bremen.*

4:00 BB49 **94.04** Controllability of brain networks. S. GU*; F. PASQUALETTI; M. CIESLAK; S. T. GRAFTON; D. S. BASSETT. *Univ. of Pennsylvania, Univ. of California, Riverside, Univ. of California, Santa Barbara, Univ. of Pennsylvania.*

1:00 BB50 **94.05** Exponentially-many states and robust error correction in Hopfield networks. R. CHAUDHURI*; I. FIETE. *The Univ. of Texas at Austin.*

2:00 BB51 **94.06** How distinct is computational complexity from Shannon information? A. R. CASTI*. *Fairleigh Dickinson Univ.*

3:00 BB52 **94.07** Maintaining balance in networks with heterogeneous degree distributions. R. PYLE*; R. ROSENBAUM. *Notre Dame, Notre Dame.*

4:00 BB53 **94.08** Plasticity-induced sensitization in recurrent E-I networks. G. KUMAR*; S. CHING. *Washington Univ. in St. Louis, Washington Univ. in St. Louis.*

1:00 BB54 **94.09** A modeling study of the dynamics of memory retrieval. Y. GU*; P. GONG. *Univ. of Sydney.*

2:00 BB55 **94.10** High dimensional firing rate dynamics in spatially extended asynchronous networks. R. ROSENBAUM*. *Univ. of Notre Dame.*

3:00 BB56 **94.11** Different models of network connectivity can explain "non-random" features of cortical microcircuits. M. VEGUÉ*; A. ROXIN. *Ctr. De Recerca Matemàtica.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

4:00 BB57 **94.12** ▲ Electrode-position- and equivalent-current-dipole-source-localization-based brain functional connectivity networks using scalp-recorded EEGs: A comparison of Alzheimer's disease patients and healthy subjects. R. URATA; T. YAMAZAKI*; Y. KUROIWA. *Kyushu Inst. of Technol., Kyushu Inst. of Technol., Med. Office, Ministry of Finance.*

1:00 BB58 **94.13** ● Quantifying neural information content: A case study of the impact of hippocampal adult neurogenesis through computational modeling. C. M. VINEYARD*; S. J. VERZI; C. D. JAMES; J. B. AIMONE. *Sandia Natl. Labs.*

2:00 BB59 **94.14** An information-theoretical interpretation for neural modulation of spike-timing dependent plasticity: Towards cellular-based computational psychiatry. T. ISOMURA*; K. SAKAI; Y. SATO; K. KOTANI; Y. JIMBO. *The Univ. of Tokyo, The Univ. of Tokyo, The Univ. of Tokyo.*

3:00 BB60 **94.15** Measuring causality in simulations of large scale brain networks. M. MANNINO*; S. BRESSLER. *Florida Atlantic Univ., Florida Atlantic Univ.*

4:00 BB61 **94.16** Continuous parameter working memory in a balanced chaotic neural network. N. SHAHAM*; Y. BURAK. *Hebrew Univ. of Jerusalem, Hebrew Univ. of Jerusalem.*

1:00 BB62 **94.17** Persistent delay activity in a neuron-glia network model. M. DE PITTÀ*; H. BERRY; N. BRUNEL. *The Univ. of Chicago, INRIA Rhône-Alpes, The Univ. of Chicago.*

2:00 BB63 **94.18** Interactions between neural circuits that mediate social and nonsocial behaviors. J. HURTADO*; D. F. RAMIREZ; T. J. SEJNOWSKI. *Univ. Autonoma De Occidente, The Salk Inst. for Biol. Studies.*

3:00 BB64 **94.19** ▲ Low-dimensional attractor of neural activity from optogenetic data. P. G. LYNN*; L. EVANS; S. OPRISAN; T. TOMPA; A. LAVIN. *Col. of Charleston, Col. of Charleston, Col. of Charleston, Med. Univ. of South Carolina.*

4:00 BB65 **94.20** Robustness of pair-correlated network activity in the presence of noise. J. NEUMAN*; W. VAN DRONGELEN; J. COWAN. *Univ. of Chicago, Univ. of Chicago, Univ. of Chicago.*

1:00 BB66 **94.21** Calcium imaging reveals multiple conduction systems in hydra. C. DUPRE*; R. YUSTE. *Columbia Univ.*

2:00 BB67 **94.22** Stability of strongly coupled inhibitory-excitatory networks with realistic synaptic dynamics. K. DIPIETRO*. *Univ. of Notre Dame.*

3:00 BB68 **94.23** ● Finding the right firing rate and growing the right synapses: Maximizing the emergence of characteristic neural circuit features through maximal self-organization. Z. TOSI*. *Indiana Univ. Bloomington.*

4:00 BB69 **94.24** Phase resetting induced by concurrent stimuli. S. OPRISAN*; K. M. VOLLMER; D. AUSTIN; L. EVANS. *Col. of Charleston, Col. of Charleston, Col. of Charleston, Col. of Charleston.*

1:00 BB70 **94.25** The anatomical origin of locally generated and induced oscillations in a model of the cortical microcircuit. H. BOS*; J. SCHÜCKER; M. DIESMANN; M. HELIAS. *Jülich Res. Ctr. and JARA, RWTH Aachen Univ., RWTH Aachen Univ.*

2:00 BB71 **94.26** Withdrawn.

3:00 BB72 **94.27** Evoked responses in recurrent networks with multiple sub-populations. J. ALJADEFF; M. STERN; O. BARAK*. *Univ. of Chicago, Technion.*

4:00 BB73 **94.28** Stochastic network plasticity as Bayesian inference. R. LEGENSTEIN*; D. KAPPEL; S. HABENSCHUSS; W. MAASS. *Graz Univ. of Technol. - ATU57477929.*

1:00 BB74 **94.29** Temporal scaling in functionally feedforward recurrent neural network models. N. HARDY*; D. V. BUONOMANO. *UCLA, Brain Res. Inst.*

2:00 BB75 **94.30** Dimensionality reduction and extrinsic modulation of cortical spiking networks. J. B. AIMONE*; C. E. WARRENDER; C. D. JAMES. *Sandia Natl. Labs., Sandia Natl. Labs.*

POSTER

095. Computation: Networks and Experimentation

Theme G: Novel Methods and Technology Development

Sat. 1:00 PM – *McCormick Place,* Hall A

1:00 BB76 **95.01** Automatic identification and classification of Hydra behaviors. S. HAN*; E. TARALOVA; R. YUSTE. *Columbia Univ.*

2:00 BB77 **95.02** Withdrawn.

3:00 BB78 **95.03** Generation of age-specific atlases for the segmentation of pediatric brains from magnetic resonance images. A. J. METZGER*; A. BENAVIDES; V. MAGNOTTA; P. NOPOULOS. *Univ. of Iowa, Univ. of Iowa, Univ. of Iowa.*

4:00 BB79 **95.04** The effect of task complexity on the stability of functional network communities. S. FUERTINGER*; K. SIMONYAN. *Icahn Sch. of Med. At Mount Sinai, Icahn Sch. of Med. at Mount Sinai.*

1:00 BB80 **95.05** Time warping as a source of trial-to-trial neural variability. P. N. LAWLOR*; B. DEKLEVA; T. CYBULSKI; L. MILLER; K. KORDING. *Rehabil. Inst. of Chicago, Northwestern Univ., Northwestern Univ.*

2:00 BB81 **95.06** Computer simulation of global brain dynamics at the neuronal resolution. R. KOBAYASHI*; M. SHIMONO. *Natl. Inst. of Informatics, Univ. of Indiana.*

3:00 BB82 **95.07** Exploiting sensory reactivation from memory to validate directed functional connectivity measures with fMRI and MEG. R. D. MILL*; A. BAGIĆ; W. SCHNEIDER; M. COLE. *Rutgers Univ., Univ. of Pittsburgh, Rutgers Univ.*

4:00 BB83 **95.08** The role of fasciculation in forming the connectome of the Xenopus tadpole spinal cord: A computational study. R. BORISYUK*; R. MERRISON-HORT; O. DAVIS; S. R. SOFFE. *Plymouth Univ., Brighton and Sussex Med. Sch., Univ. of Bristol.*

1:00 BB84 **95.09** How recurrent networks respond to complex stimulus sequences. A. P. PONZI*; J. R. WICKENS. *OIST.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

2:00 BB85 **95.10** ▲ Secondary data analysis of sert knockout and wild-type mice using fastica to isolate active circuitry. D. MCCOY*; A. GONZALES; R. E. JACOBS; V. D. CALHOUN; E. L. BEARER. *Univ. of New Mexico Hlth. Sci. Ctr., Univ. of New Mexico, Beckman Inst. of the California Inst. of Technol., The Mind Res. Network.*

3:00 BB86 **95.11** Braintrinsic: A virtual reality-compatible tool for exploring intrinsic topologies of the human brain connectome. O. A. AJILORE*; G. CONTE; A. YE; A. FORBES; A. LEOW. *Univ. of Illinois-Chicago, Univ. of Illinois at Chicago, Univ. of Illinois at Chicago, Univ. of Illinois at Chicago.*

4:00 BB87 **95.12** Mechanisms underlying the modulation of motor patterns during epidural electrical stimulation of the lumbar spinal cord. M. CAPOGROSSO*; E. FORMENTO; E. MARTIN MORAUD; G. COURTINE; S. MICERA. *Ecole Polytechnique Federale De Lausanne, Scuola Superiore Sant'Anna.*

1:00 BB88 **95.13** Reliability of structural connectivity hubs in human brain network. E. VACHON-PRESSEAU*; S. BERGER; P. TÉTREAULT; A. APKARIAN; M. N. BALIKI. *Northwestern Univ., Northwestern university.*

2:00 BB89 **95.14** Intrinsic and dynamic functional network architectures shape task-evoked activation patterns in the human brain. M. W. COLE*; D. S. BASSETT; D. H. SCHULTZ. *Rutgers Univ., Univ. of Pennsylvannia.*

3:00 BB90 **95.15** A bidirectional interface for closed-loop hybrid neural systems. F. D. BROCCARD*; M. L. KHRAICHE; G. A. SILVA; G. CAUWENBERGHS. *UCSD, UCSD.*

4:00 BB91 **95.16** Variational auto-encoder with convolutional neural network for complex image classification task. Y. JANG*; H. CHOI; J. PARK; J. JUN; D. KIM. *KAIST.*

1:00 BB92 **95.17** Stability of latency and topology in functional networks of the human neo-cortex. J. CHAPETON*; S. INATI; K. ZAGHLOUL. *NIH.*

2:00 BB93 **95.18** Virtual slice in 3D: Constructing and cutting a full-scale computational model of the dentate gyrus. I. RAIKOV*; C. J. SCHNEIDER; I. SOLTESZ. *Univ. of California, Irvine, Univ. of California, Irvine.*

3:00 CC1 **95.19** Diffusion-based connectivity of the thalamus to the default-mode network. S. I. CUNNINGHAM*; D. TOMASI; N. D. VOLKOW. *Natl. Inst. of Health, NIAAA, Natl. Inst. of Health, NIDA.*

4:00 CC2 **95.20** Neuronal wiring specificity within and across connectomes. M. BERNING*; M. HELMSTAEDTER. *Max Planck Inst. For Brain Res.*

1:00 CC3 **95.21** Incremental learning of deep neural networks mitigating catastrophic forgetting. H. CHOI*; J. JUN; Y. JANG; J. PARK; D. KIM. *KAIST.*

2:00 CC4 **95.22** Si elegans - An open access neurocomputational platform for testing behavioral paradigms in *C. elegans*. A. BLAU*; K. APPIAH; F. CALLALY; A. COFFEY; G. EPELDE; L. FERRARA; F. KREWER; P. LEŠKOVSKÝ; P. MACHADO; B. MC GINLEY; M. MCGINNITY; F. MORGAN; A. MUJIKA; A. PETRUSHIN; J. WADE. *The Italian Inst. of Technol. (IIT), Nottingham Trent Univ. (NTU), Natl. Univ. of Ireland (NUIG), Vicomtech-IK4 (VT), The Italian Inst. of Technol. (IIT), Univ. of Ulster (UU).*

3:00 CC5 **95.23** Computational modeling of the relationship between current dipoles and neural activity. S. J. HESPRICH*; S. A. BEARDSLEY. *Marquette Univ., Marquette Univ.*

4:00 CC6 **95.24** Intrinsic functional connectivity in valuation- and salience-sensitive networks provide a neural classifier for Autism Spectrum Disorder. M. GHANE*; J. A. RICHEY; R. MÜLLER; K. T. KISHIDA. *Virginia Polytechnic Inst. and State Universit, Virginia Polytechnic Inst. and State Univ., San Diego State Univ., Virginia Tech. Carilion Res. Inst.*

1:00 CC7 **95.25** Context-dependent filtering as an emergent property of high dimensional networks. M. S. GOLDMAN*; K. R. ALLEN. *Univ. California Davis, MIT.*

• Indicated a real or perceived conflict of interest, see page 79 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

Conflict of Interest Statements

The following presenters, signified by a dot (•) in the program, indicated a real or perceived conflict of interest. Presenters listed without a dot in the program had no financial relationships to disclose.

PRESENTATION NUMBER	STATEMENT
DP01.01	**T. Zaman:** Employment/Salary (full or part-time); University of Western Ontario.
002	**R. Balice-Gordon:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Pfizer, Inc.
009	**C. Bargmann:** Other; AstraZeneca PLC.
5.03	**E. Binder:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); co.inventor on patent on FKBP5 SNPs and antidepressant therapy.
11.01	**P. Leone:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); RowanSOM. **S.W.J. McPhee:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Asklepios Biopharmaceutical. **J.S. Francis:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); RowanSOM.
11.04	**C.A. Lemere:** Other; Unpaid position on Probiodrug AG Scientific Advisory Board.
11.08	**P.G. Haydon:** A. Employment/Salary (full or part-time); GliaCure, Inc. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; GliaCure, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); GliaCure, Inc.
12.01	**F.L. Pagan:** A. Employment/Salary (full or part-time); Georgetown University Hospital. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Lewy Body Foundation, Georgetown University Hospital. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Georgetown University Medical Center's CRU. D. Fees for Non-CME Services Received Directly from Commercial Interest or their Agents (e.g., speakers' bureaus); Teva, Acadia, US World Meds, Lunbeck, Abvie, Merz.
12.02	**C.R. Freed:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Hyperion Pharmaceuticals.
12.07	**A.G. Machado:** F. Consulting Fees (e.g., advisory boards); Spinal Modulation, Functional Neuromodulation. Other; Distribution rights Enspire.
16.08	**T.E. Lever:** A. Employment/Salary (full or part-time); University of Missouri. **K.L. Robbins:** A. Employment/Salary (full or part-time); University of Missouri. **M.J. Allen:** A. Employment/Salary (full or part-time); University of Missouri. **R. Sharma:** A. Employment/Salary (full or part-time); University of Missouri. **K. Takahashi:** A. Employment/Salary (full or part-time); University of Chicago. **M.M. Thakkar:** A. Employment/Salary (full or part-time); University of Missouri. **G.N. DeSouza:** A. Employment/Salary (full or part-time); University of Missouri.
16.11	**F. Arce-McShane:** A. Employment/Salary (full or part-time); NIH RO1DE023816. **N.G. Hatsopoulos:** A. Employment/Salary (full or part-time); University of Chicago. **K. Takahashi:** A. Employment/Salary (full or part-time); NIH RO1DE023816. **C.F. Ross:** A. Employment/Salary (full or part-time); University of Chicago. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; CIHR Grant MOP-4918, NIH RO1DE023816.
23.20SA	**A.J. Grippo:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); NIH.
25.06SA	**D.H. Malin:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Tietronix Software, Inc. **C.P. Ward:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Tietronix Software, Inc. **S.A. Hetherington:** A. Employment/Salary (full or part-time); Employment, Tietronix Software. **W.R. Buras:** A. Employment/Salary (full or part-time); Employment, Tietronix Software.
26.21SU	**S.O. Ahmad:** A. Employment/Salary (full or part-time); Saint Louis University. **C. Brasic-Royeen:** A. Employment/Salary (full or part-time); Saint Louis University. **C. Provaznik:** A. Employment/Salary (full or part-time); Saint Louis University.
27.02SA	**E. Runko:** A. Employment/Salary (full or part-time); Research Integrity and Administrative Investigations Division, Office of the Inspector General, National Science Foundation. **R. Ambalavanar:** A. Employment/Salary (full or part-time); Division of Investigative Oversight, Office of Research Integrity, U.S. Department of Health and Human Services. **B. Mozer:** A. Employment/Salary (full or part-time); Division of Investigative Oversight, Office of Research Integrity, U.S. Department of Health and Human Services. **A.P. Runko:** A. Employment/Salary (full or part-time); Division of Investigative Oversight, Office of Research Integrity, U.S. Department of Health and Human Services.
27.08SA	**N.G. Azoulay:** A. Employment/Salary (full or part-time); Elsevier Inc.
29.04	**P. Joyce:** A. Employment/Salary (full or part-time); Vertex Pharmaceuticals Europe Ltd. **M. Mangan:** A. Employment/Salary (full or part-time); Vertex Pharmaceuticals Europe Ltd. **A. Curnock:** A. Employment/Salary (full or part-time); Vertex Pharmaceuticals Europe Ltd. **S. Meisler:** A. Employment/Salary (full or part-time); Vertex Pharmaceuticals Incorporated.
30.11	**D.A. Lewis:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Pfizer. F. Consulting Fees (e.g., advisory boards); Autifony Therapeutics, Bristol-Myers Squibb, Concert Pharmaceuticals, Sunovion Pharmaceuticals.
31.04	**D.R. Wakeman:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Cellular Dynamics International, Inc.
31.06	**B.Q. Lai:** Other; This research was supported by grants from the Chinese National Natural Science Foundation (No. 81330 028; U1301223). **Y.S. zeng:** Other; Chinese National Natural Science Foundation (No. 81330 028; U1301223).
32.05	**J.M. Gulley:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or

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	consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Abbott Nutrition.
32.09	**L.R. Hammerslag:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Abbott Nutrition. **J.M. Gulley:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Abbott Nutrition.
32.17	**P. Kalyan-Masih:** A. Employment/Salary (full or part-time); Loma Linda University School of Medicine. **J.D. Figueroa:** A. Employment/Salary (full or part-time); Loma Linda University School of Medicine.
34.15	**K.A. Bennett:** A. Employment/Salary (full or part-time); Heptares Therapeutics Ltd. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Heptares Theapeutics Ltd. **S.J. Aves:** A. Employment/Salary (full or part-time); Heptares Therapeutics Ltd. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Heptares Theapeutics Ltd. **J.A. Christopher:** A. Employment/Salary (full or part-time); Heptares Therapeutics Ltd. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Heptares Therapeutics Ltd. **M. Congreve:** A. Employment/Salary (full or part-time); Heptares Therapeutics Ltd. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Heptares Theapeutics Ltd. **A.S. Dore:** A. Employment/Salary (full or part-time); Heptares Therapeutics Ltd. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Heptares Theapeutics Ltd. **J.C. Errey:** A. Employment/Salary (full or part-time); Heptares Therapeutics Ltd. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Heptares Theapeutics Ltd. **J.C. Patel:** A. Employment/Salary (full or part-time); Heptares Therapeutics Ltd. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Heptares Theapeutics Ltd. **R. Mould:** A. Employment/Salary (full or part-time); Heptares Therapeutics Ltd. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Heptares Theapeutics Ltd. **B.G. Tehan:** A. Employment/Salary (full or part-time); Heptares Therapeutics Ltd. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Heptares Theapeutics Ltd. **A. Zhukov:** A. Employment/Salary (full or part-time); Heptares Therapeutics Ltd. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Heptares Theapeutics Ltd. **F. Marshall:** A. Employment/Salary (full or part-time); Heptares Therapeutics Ltd. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Heptares Theapeutics Ltd. **A. Brown:** A. Employment/Salary (full or part-time); Heptares Therapeutics Ltd. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Heptares Therapeutics Ltd.
35.15	**D. Derjean:** A. Employment/Salary (full or part-time); Convergence Pharmaceuticals an affiliate of Biogen Idec. **V. Morisset:** A. Employment/Salary (full or part-time); Convergence Pharmaceuticals an affiliate of Biogen Idec. **S. Tate:** A. Employment/Salary (full or part-time); Convergence Pharmaceuticals an affiliate of Biogen Idec.
35.17	**D. Derjean:** A. Employment/Salary (full or part-time); Convergence Pharmaceuticals. **S. Tate:** A. Employment/Salary (full or part-time); Convergence Pharmaceuticals. **V. Morisset:** A. Employment/Salary (full or part-time); Convergence Pharmaceuticals.
36.19	**C. Mazuski:** A. Employment/Salary (full or part-time); Washington University in St. Louis. **E. Herzog:** A. Employment/Salary (full or part-time); Washington University in St. Louis. **C. Weichselbaum:** A. Employment/Salary (full or part-time); Washington University in St. Louis. **D. Cai:** A. Employment/Salary (full or part-time); University of Michigan. **D. Roossien:** A. Employment/Salary (full or part-time); University of Michigan.
37.01	**T. Aihara:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); JSPS KAKENHI 15K00325, MEXT–Supported Program for the Strategic Research Fundation at Private Universities, 2013–2017.
39.09	**Y. Ano:** A. Employment/Salary (full or part-time); Kirin Company, Limited. **T. Kutsukake:** A. Employment/Salary (full or part-time); Kirin Company, Limited. **M. Kita:** A. Employment/Salary (full or part-time); Kirin Company, Limited. **K. Uchida:** A. Employment/Salary (full or part-time); the University of Tokyo. **H. Nakayama:** A. Employment/Salary (full or part-time); the University of Tokyo.
41.19	**V. Palafox:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; CONACYT-MEXICO, VIEP-BUAP.
42.02	**P.E. Chabrier:** A. Employment/Salary (full or part-time); Ipsen Innovation. **E. Aparicio:** A. Employment/Salary (full or part-time); Ipsen Innovation. **A. Bauchet:** A. Employment/Salary (full or part-time); Ipsen Innovation. **S. Rolland:** A. Employment/Salary (full or part-time); Ipsen Innovation. **A. Manon:** A. Employment/Salary (full or part-time); Ipsen Innovation. **P. Plas:** A. Employment/Salary (full or part-time); Ipsen Innovation. **M. Rocher:** A. Employment/Salary (full or part-time); Ipsen Innovation. **L. Naudin:** A. Employment/Salary (full or part-time); Ipsen Innovation. **Z. Zhang:** A. Employment/Salary (full or part-time); Ipsen Innovation. **V. Pierron:** A. Employment/Salary (full or part-time); Ipsen Innovation. **C. Benstaali:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Ipsen Innovation. **L. Vignaux:** A. Employment/Salary (full or part-time); Ipsen Innovation. **M. Galcera:** A. Employment/Salary (full or part-time); Ipsen Innovation. **P. Roubert:** A. Employment/Salary (full or part-time); Ipsen Innovation. **F. Schmidlin:** A. Employment/Salary (full or part-time); Ipsen Innovation.
42.10	**G.F. Kwakye:** A. Employment/Salary (full or part-time); Oberlin College. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Oberlin College Office of Foundation, Government, and Corporate Grants.
44.03	**A. Agboola:** A. Employment/Salary (full or part-time); ondo state trauma and surgical center, Nigeria.
45.05	**B.E. Hawkins:** A. Employment/Salary (full or part-time); University of Texas Medical Branch. **J. Gerson:** A. Employment/Salary (full or part-time); University of Texas Medical Branch. **U. Sengupta:** A. Employment/Salary (full or part-time); University of Texas Medical Branch. **D. Castillo-Carranza:** A. Employment/Salary (full or part-time); University of Texas Medical Branch. **D. Prough:** A. Employment/Salary (full or part-time); University of Texas Medical Branch. **D. DeWitt:** A. Employment/Salary (full or part-time); University of Texas Medical Branch. **R. Kayed:** A. Employment/Salary (full or part-time); University of Texas Medical Branch.
45.09	**W. Qu:** Other; Jilin university.

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45.13	**A. Katsumoto:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; TEVA Pharmaceutical Industries. **O. Butovsky:** B. Contracted Research/ Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; TEVA Pharmaceutical Industries. **Z. Fanek:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; TEVA Pharmaceutical Industries. **B.T. Lamb:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; TEVA Pharmaceutical Industries.
46.10	**Y. Nishimura:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; PRESTO.
47.12	**A. Markou:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; I have received contract support from Forest Laboratories and Astra-Zeneca during the last 3 years.
48.16	**M.A. Geyer:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); San Diego Instruments. F. Consulting Fees (e.g., advisory boards); Abbott, Dart Neuroscience, Neurocrine, Omeros, Otsuka, Sunovion.
49.05	**R.S. Hammond:** A. Employment/Salary (full or part-time); Sage Therapeutics. **M.A. Ackley:** A. Employment/Salary (full or part-time); Sage Therapeutics. **C. Maciag:** A. Employment/Salary (full or part-time); Sage Therapeutics. **G.M. Belfort:** A. Employment/Salary (full or part-time); Sage Therapeutics. **G. Martinez-Botella:** A. Employment/ Salary (full or part-time); Sage Therapeutics. **F.G. Salituro:** A. Employment/Salary (full or part-time); Sage Therapeutics. **J.J. Doherty:** A. Employment/Salary (full or part-time); Sage Therapeutics. **A.J. Robichaud:** A. Employment/Salary (full or part-time); Sage Therapeutics.
49.06	**C.H. Croy:** A. Employment/Salary (full or part-time); Eli Lilly and Company. **D. Evans:** A. Employment/Salary (full or part-time); Eli Lilly and Company. **B. Liu:** A. Employment/ Salary (full or part-time); Eli Lilly and Company. **M. Bures:** A. Employment/Salary (full or part-time); Eli Lilly and Company. **E. Colvin:** A. Employment/Salary (full or part-time); Eli Lilly and Company. **A. Mogg:** A. Employment/ Salary (full or part-time); Eli Lilly and Company. **L. Broad:** A. Employment/Salary (full or part-time); Eli Lilly and Company. **P. Goldsmith:** A. Employment/Salary (full or part-time); Eli Lilly and Company. **C. Felder:** A. Employment/Salary (full or part-time); Eli Lilly and Company.
49.11	**N. Moore:** A. Employment/Salary (full or part-time); Brains On-line LLC. **A. Rassoulpour:** A. Employment/Salary (full or part-time); Brains On-line LLC. **C. Cioffi:** A. Employment/ Salary (full or part-time); AMRI. **S. Liu:** A. Employment/ Salary (full or part-time); Concerted Therapeutics Inc. **P. Guzzo:** A. Employment/Salary (full or part-time); Concerted Therapeutics Inc. **M. Luche:** A. Employment/Salary (full or part-time); AMRI. **A. Mhyre:** A. Employment/Salary (full or part-time); Fred Hutchinson Cancer Research.
49.12	**A.M. Basso:** A. Employment/Salary (full or part-time); AbbVie. **R. Rajagovindan:** A. Employment/Salary (full or part-time); AbbVie. **J. Wang:** A. Employment/Salary (full or part-time); AbbVie. **A.E. Tovcimak:** A. Employment/Salary (full or part-time); AbbVie. **Y. Lao:** A. Employment/Salary (full or part-time); AbbVie. **C. Kalvass:** A. Employment/ Salary (full or part-time); AbbVie. **M.J. Voorbach:** A. Employment/Salary (full or part-time); AbbVie. **A. Giamis:** A. Employment/Salary (full or part-time); AbbVie. **D. Reuter:** A. Employment/Salary (full or part-time); AbbVie. **S. Cassar:** A. Employment/Salary (full or part-time); AbbVie. **P. Jacobson:** A. Employment/Salary (full or part-time); AbbVie. **R. Carr:** A. Employment/Salary (full or part-time); AbbVie. **E. van der Kam:** A. Employment/Salary (full or part-time); AbbVie. **B. Behl:** A. Employment/Salary (full or part-time); AbbVie. **G.B. Fox:** A. Employment/Salary (full or part-time); AbbVie. **J.D. Beaver:** A. Employment/Salary (full or part-time); AbbVie.
49.13	**G. Carey:** A. Employment/Salary (full or part-time); Galen Carey, PhD Teleos Therapeutics, Tama Evron, PhD Teleos Therapeutics, Andrea Velenich, PhD Teleos Therapeutics, Dennis Lensen, PhD Teleos Therapeutics. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Adam Rosenberg, Dave Kokel PhD, Galen Carey PhD, Randall T Peterson. **T. Evron:** A. Employment/Salary (full or part-time); Teleos Therapeutics. **A. Velenich:** A. Employment/Salary (full or part-time); Teleos Therapeutics. **D. Lensen:** A. Employment/Salary (full or part-time); Teleos Therapeutics. **D. Kokel:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/ patent holder, excluding diversified mutual funds); Teleos Therapeutics. **R.T. Peterson:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/ patent holder, excluding diversified mutual funds); Teleos Therapeutics.
51.07	**C. Garcia-Keller:** A. Employment/Salary (full or part-time); Medical University of South caroline. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; NIH grant DA003906, NIH grant DA012513. **S. Spencer:** A. Employment/Salary (full or part-time); Medical University of South caroline. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; NIH grant DA003906, NIH grant DA012513. **M.D. Scoefield:** A. Employment/ Salary (full or part-time); Medical University of South caroline. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; NIH grant DA003906, NIH grant DA012513. **P.W. Kalivas:** A. Employment/Salary (full or part-time); Medical University of South caroline. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; NIH grant DA003906, NIH grant DA012513.
51.09	**D. Van Nest:** A. Employment/Salary (full or part-time); University of Pennsylvania. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Eli Lilly.
51.20	**A. Bobadilla:** A. Employment/Salary (full or part-time); MUSC, Fyssen Foundation. **C. Garcia-Keller:** A. Employment/Salary (full or part-time); MUSC. **P.W. Kalivas:** A. Employment/Salary (full or part-time); MUSC. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; DA003906; DA12513.
53.04	**J.A. Van Bergeijk:** A. Employment/Salary (full or part-time); AbbVie Inc. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator

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	or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; German Ministry for Education and Research (BMBF).
53.10	**S.H. Nye:** A. Employment/Salary (full or part-time); Full time, ENDECE Neural, LLC. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/ patent holder, excluding diversified mutual funds); ENDECE Neural, LLC. **J.G. Yarger:** A. Employment/Salary (full or part-time); ENDECE Neural, LLC. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); ENDECE Neural, LLC.
53.11	**P. Svensson:** A. Employment/Salary (full or part-time); Integrative Research Laboratories (IRL). E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Integrative Research Laboratories (IRL). **S. Waters:** A. Employment/Salary (full or part-time); Integrative Research Laboratories (IRL). E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Integrative Research Laboratories (IRL). **C. Sonesson:** A. Employment/Salary (full or part-time); Integrative Research Laboratories (IRL). E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Integrative Research Laboratories (IRL). **E. Ljung:** A. Employment/ Salary (full or part-time); Integrative Research Laboratories (IRL). E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Integrative Research Laboratories (IRL). **B. Svanberg:** A. Employment/Salary (full or part-time); Integrative Research Laboratories (IRL). E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Integrative Research Laboratories (IRL). **N. Waters:** A. Employment/Salary (full or part-time); Integrative Research Laboratories (IRL). E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Integrative Research Laboratories (IRL).
53.12	**S. Moussaoui:** Other; New affiliation, Firalis, Huningue, France.
53.14	**Z. Du:** A. Employment/Salary (full or part-time); BRAINXELL. **S. Zhang:** A. Employment/Salary (full or part-time); BRAINXELL.
53.17	**T.J. Lukas:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Questcor Pharmaceuticals.
53.19	**L. Ho:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); LH is among the inventors of a patent using grape seed extract (GSE) in neurodegenerative diseases (Patent number 8747924; Methods for preventing and treating neurodegenerative diseases). **G.M. Pasinetti:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/ patent holder, excluding diversified mutual funds); GMP is among the inventors of a patent using grape seed extract (GSE) in neurodegenerative diseases (Patent number 8747924; Methods for preventing and treating neurodegenerative diseases).
53.23	**D. Selkoe:** F. Consulting Fees (e.g., advisory boards); Prothena Biosciences.
53.24	**B.M. Bader:** A. Employment/Salary (full or part-time); NeuroProof GmbH, Rostock, Germany. **A. Pielka:** A. Employment/Salary (full or part-time); NeuroProof GmbH, Rostock, Germany. **C. Ehnert:** A. Employment/Salary (full or part-time); NeuroProof GmbH, Rostock, Germany. **K. Juegelt:** A. Employment/Salary (full or part-time); NeuroProof GmbH, Rostock, Germany. **A. Gramowski-Voss:** A. Employment/Salary (full or part-time); NeuroProof GmbH, Rostock, Germany. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NeuroProof GmbH, Rostock, Germany. **O.H. Schroeder:** A. Employment/Salary (full or part-time); NeuroProof GmbH, Rostock, Germany. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NeuroProof GmbHNeuroProof GmbH, Rostock, Germany.
54.02	**C. Louis:** A. Employment/Salary (full or part-time); Institut de Recherches Servier. **N. Rogez:** A. Employment/ Salary (full or part-time); Institut de Recherches Servier. **J. Thomas:** A. Employment/Salary (full or part-time); Institut de Recherches Servier. **G. Das Dores:** A. Employment/ Salary (full or part-time); Institut de Recherches Servier. **A. Hugot:** A. Employment/Salary (full or part-time); Institut de Recherches Servier. **M. Gandon:** A. Employment/ Salary (full or part-time); Institut de Recherches Servier. **V. Bertaina-Anglade:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Biotrial. **A. Krazem:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; CNRS/Université de Bordeaux. **D. Béracochéa:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; CNRS/Université de Bordeaux. **D. Bertrand:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; HiQScreen. **D. Rimet:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; SynAging. **T. Pillot:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; SynAging. **M. Bertrand:** A. Employment/ Salary (full or part-time); Institut de Recherches Servier. **I. Botez:** A. Employment/Salary (full or part-time); Institut de Recherches Servier. **J. Fourquez:** A. Employment/ Salary (full or part-time); Institut de Recherches Servier. **L. Danober:** A. Employment/Salary (full or part-time); Institut de Recherches Servier. **P. Lestage:** A. Employment/Salary (full or part-time); Institut de Recherches Servier.
54.05	**I. Lombardo:** A. Employment/Salary (full or part-time); Axovant Sciences, Inc. **L. Friedhoff:** A. Employment/Salary (full or part-time); Axovant Sciences, Inc. **S. Piscitelli:** A. Employment/Salary (full or part-time); Roivant Sciences, Inc. **G. Ramaswamy:** A. Employment/Salary (full or part-time); Axovant Sciences, Inc.
54.07	**E. Van Der Kam:** A. Employment/Salary (full or part-time); AbbVie Deutschland GmbH & Co KG. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); AbbVie Inc. **S.C. Turner:** A. Employment/Salary (full or part-time); AbbVie Deutschland GmbH & CO KG. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); AbbVie Inc. **M. Ochse:** A. Employment/Salary (full or part-time); AbbVie Deutschland GmbH & CO KG. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/ patent holder, excluding diversified mutual funds); AbbVie Inc. **J. van Bergeijk:** A. Employment/Salary (full or part-time); AbbVie Deutschland GmbH & CO KG. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); AbbVie Inc. **R. Mueller:** A. Employment/Salary (full

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	or part-time); AbbVie Deutschland GmbH & CO KG. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); AbbVie Inc. **M. Mezler:** A. Employment/Salary (full or part-time); AbbVie Deutschland GmbH & CO KG. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/ patent holder, excluding diversified mutual funds); AbbVie Inc. **K. Hempel:** A. Employment/Salary (full or part-time); AbbVie Deutschland GmbH & CO KG. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); AbbVie Inc. **A. Hobson:** A. Employment/Salary (full or part-time); AbbVie Bioresearch Center. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); AbbVie Inc. **C.M. Harris:** A. Employment/Salary (full or part-time); AbbVie Bioresearch Center. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); AbbVie Inc. **A. Bespalov:** A. Employment/Salary (full or part-time); AbbVie Deutschland GmbH & CO KG. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); AbbVie Inc. **A. Hahn:** A. Employment/Salary (full or part-time); AbbVie Deutschland GmbH & CO KG. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); AbbVie Inc. **B. Rendenbach-Mueller:** A. Employment/Salary (full or part-time); AbbVie Deutschland GmbH & CO KG. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); AbbVie Inc.
54.15	**J.M. Levenson:** A. Employment/Salary (full or part-time); NeuroPhage Pharmaceuticals. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NeuroPhage Pharmaceuticals. **K.S. Gannon:** A. Employment/Salary (full or part-time); NeuroPhage Pharmaceuticals. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neurophage Pharmaceuticals. **J.C. Carroll:** A. Employment/Salary (full or part-time); NeuroPhage Pharmaceuticals. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NeuroPhage Pharmaceuticals. **S. Schroeter:** A. Employment/Salary (full or part-time); NeuroPhage Pharmaceuticals. E. 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Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NeuroPhage Pharmaceuticals. **R. Krishnan:** A. Employment/Salary (full or part-time); NeuroPhage Pharmaceuticals. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NeuroPhage Pharmaceuticals. **E. Rockenstein:** F. Consulting Fees (e.g., advisory boards); NeuroPhage Pharmaceuticals. **E. Masliah:** B. Contracted Research/ Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; NeuroPhage Pharmaceuticals. **M. Nadeem:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; NeuroPhage Pharmaceuticals. **E.J. Mufson:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; NeuroPhage Pharmaceuticals. F. Consulting Fees (e.g., advisory boards); NeuroPhage Pharmaceuticals. **M. Gray:** A. Employment/Salary (full or part-time); NeuroPhage Pharmaceuticals. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NeuroPhage Pharmaceuticals. **M. Grundman:** A. Employment/Salary (full or part-time); NeuroPhage Pharmaceuticals. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NeuroPhage Pharmaceuticals. **R. Bales:** A. Employment/Salary (full or part-time); NeuroPhage Pharmaceuticals. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NeuroPhage Pharmaceuticals. **J. Wright:** A. Employment/Salary (full or part-time); NeuroPhage Pharmaceuticals. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NeuroPhage Pharmaceuticals. **B. Solomon:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NeuroPhage Pharmaceuticals. F. Consulting Fees (e.g., advisory boards); NeuroPhage Pharmaceuticals. **F. Hefti:** A. Employment/Salary (full or part-time); NeuroPhage Pharmaceuticals. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NeuroPhage Pharmaceuticals. **R. Fisher:** A. Employment/Salary (full or part-time); NeuroPhage Pharmaceuticals. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NeuroPhage Pharmaceuticals.
54.16	**L.A. Esposito:** A. Employment/Salary (full or part-time); ProteoTech Inc. **K.L. Hanson:** A. Employment/Salary (full or part-time); ProteoTech Inc. **J. Cummings:** A. Employment/Salary (full or part-time); ProteoTech Inc. **M. Yadon:** A. Employment/Salary (full or part-time); ProteoTech Inc. **T.M. Chong:** A. Employment/Salary (full or part-time); ProteoTech Inc. **T. Lake:** A. Employment/Salary (full or part-time); ProteoTech Inc. **Q. Hu:** A. Employment/ Salary (full or part-time); ProteoTech Inc. **J. Cam:** A. Employment/Salary (full or part-time); ProteoTech Inc. **A.D. Snow:** A. Employment/Salary (full or part-time); ProteoTech Inc.
54.17	**L. Ho:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); LH is among the inventors of a patent using grape seed extract (GSE) in

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	neurodegenerative diseases (Patent number 8747924; Methods for preventing and treating neurodegenerative diseases). **J. Wang:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); JW is among the inventors of a patent using grape seed extract (GSE) in neurodegenerative diseases (Patent number 8747924; Methods for preventing and treating neurodegenerative diseases). **G.M. Pasinetti:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/ patent holder, excluding diversified mutual funds); GMP is among the inventors of a patent using grape seed extract (GSE) in neurodegenerative diseases (Patent number 8747924; Methods for preventing and treating neurodegenerative diseases).
54.20	**K.L. Hanson:** A. Employment/Salary (full or part-time); ProteoTech. **J. Cam:** A. Employment/Salary (full or part-time); ProteoTech. **J. Cummings:** A. Employment/ Salary (full or part-time); ProteoTech. **L.A. Esposito:** A. Employment/Salary (full or part-time); ProteoTech. **T. Lake:** A. Employment/Salary (full or part-time); ProteoTech. **T.M. Chong:** A. Employment/Salary (full or part-time); ProteoTech. **A.D. Snow:** A. Employment/Salary (full or part-time); ProteoTech. **Q. Hu:** A. Employment/Salary (full or part-time); ProteoTech.
54.21	**L. Ho:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); LH is among the inventors of a patent using grape seed extract (GSE) in neurodegenerative diseases (Patent number 8747924; Methods for preventing and treating neurodegenerative diseases). **G.M. Pasinetti:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/ patent holder, excluding diversified mutual funds); GMP is among the inventors of a patent using grape seed extract (GSE) in neurodegenerative diseases (Patent number 8747924; Methods for preventing and treating neurodegenerative diseases).
55.07	**L.M. Stanek:** A. Employment/Salary (full or part-time); Genzyme, A Sanofi Company. **B. Mastis:** A. Employment/ Salary (full or part-time); Genzyme, A Sanofi Company. **M. Kelly:** A. Employment/Salary (full or part-time); Genzyme, A Sanofi Company. **C. O'Riordan:** A. Employment/Salary (full or part-time); Genzyme, A Sanofi Company. **S. Cheng:** A. Employment/Salary (full or part-time); Genzyme, A Sanofi Company. **L. Shihabuddin:** A. Employment/Salary (full or part-time); Genzyme, A Sanofi Company.
55.16	**D. Sunnemark:** A. Employment/Salary (full or part-time); AstraZeneca R&D, Södertälje, Sweden. **H. Eriksson:** A. Employment/Salary (full or part-time); AstraZeneca R&D, Södertälje, Sweden. **D. Galter:** B. Contracted Research/ Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; AstraZeneca R&D, Södertälje, Sweden.
55.17	**S.M. Strittmatter:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cofounder of Axerion Therapeutics, seeking to develop PrP- and NgR-based therapeutics.
56.01	**R. Sanoja:** A. Employment/Salary (full or part-time); Merck & Co., Inc. **F. Zhao:** A. Employment/Salary (full or part-time); Merck & Co., Inc. **M. Holahan:** A. Employment/ Salary (full or part-time); Merck & Co., Inc. **C. Winkelmann:** A. Employment/Salary (full or part-time); Merck & Co., Inc. **C. Burgey:** A. Employment/Salary (full or part-time); Merck & Co., Inc. **A. Houghton:** A. Employment/Salary (full or part-time); Merck & Co., Inc.
56.08	**M. Cosden:** A. Employment/Salary (full or part-time); Merck. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Merck. **S. Stachel:** A. Employment/Salary (full or part-time); Merck. **Y. Zhou:** A. Employment/Salary (full or part-time); Merck. **J.J. Renger:** A. Employment/Salary (full or part-time); Merck. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Merck. **R.E. Drolet:** A. Employment/Salary (full or part-time); Merck. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Merck.
56.09	**R.Y. Depoortere:** A. Employment/Salary (full or part-time); Pierre Fabre Laboratory. **B. Vacher:** A. Employment/Salary (full or part-time); Pierre Fabre Laboratory. **A. Auclair:** A. Employment/Salary (full or part-time); Pierre Fabre Laboratory. **J.C. Martel:** A. Employment/Salary (full or part-time); Pierre Fabre Laboratory. **P. Heusler:** A. Employment/ Salary (full or part-time); Pierre Fabre Laboratory. **P. Moser:** A. Employment/Salary (full or part-time); Pierre Fabre Laboratory. **M. Georgy:** A. Employment/Salary (full or part-time); Pierre Fabre Laboratory. **T. Clerc:** A. Employment/ Salary (full or part-time); Pierre Fabre Laboratory.
56.10	**A. Lampert:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Merck Sharp and Dohme. **A.O. O'Reilly:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Merck Sharp and Dohme. **M. Pohler:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Merck Sharp and Dohme. **J. Majercak:** A. Employment/Salary (full or part-time); Merck Sharp and Dohme. **R. Klein:** A. Employment/Salary (full or part-time); Merck Sharp and Dohme. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Merck Sharp and Dohme.
56.12	**M.F. Finley:** A. Employment/Salary (full or part-time); Merck. **A. Converso:** A. Employment/Salary (full or part-time); Merck. **M. Clements:** A. Employment/Salary (full or part-time); Merck. **C. Daley:** A. Employment/Salary (full or part-time); Merck. **R. Kraus:** A. Employment/Salary (full or part-time); Merck. **W. Lemaire:** A. Employment/Salary (full or part-time); Merck. **M. Layton:** A. Employment/Salary (full or part-time); Merck. **K. Solly:** A. Employment/Salary (full or part-time); Merck. **D. Staas:** A. Employment/Salary (full or part-time); Merck. **J. Wang:** A. Employment/Salary (full or part-time); Merck. **M. Lai:** A. Employment/Salary (full or part-time); Merck. **J. Cassaday:** A. Employment/Salary (full or part-time); Merck. **T. Kreamer:** A. Employment/Salary (full or part-time); Merck. **X. Li:** A. Employment/Salary (full or part-time); Merck.
56.15	**R. Klein:** A. Employment/Salary (full or part-time); Merck Sharp and Dohme. **A. Roecker:** A. Employment/Salary (full or part-time); Merck Sharp and Dohme. **M. Clements:** A. Employment/Salary (full or part-time); Merck. **C. Daley:** A. Employment/Salary (full or part-time); Merck. **D. Wang:** A. Employment/Salary (full or part-time); Merck. **M. Layton:** A. Employment/Salary (full or part-time); Merck. **V. Santarelli:** A. Employment/Salary (full or part-time); Merck. **J. Majercak:** A. Employment/Salary (full or part-time); Merck. **R. Kraus:** A. Employment/Salary (full or part-time); Merck. **A. Houghton:** A. Employment/Salary (full or part-time); Merck.
56.17	**C. Daley II:** A. Employment/Salary (full or part-time); Merck. **J. Wang:** A. Employment/Salary (full or part-time); Merck. **I. Gregan:** A. Employment/Salary (full or part-time); Merck. **A. Houghton:** A. Employment/Salary (full or part-time); Merck. **M. Karlsson:** A. Employment/Salary (full or part-time); Cellectricon. **S. Lardell:** A. Employment/Salary (full or

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	part-time); Cellectricon. **C. Lindwall-Blom:** A. Employment/ Salary (full or part-time); Cellectricon. **P. Karila:** A. Employment/Salary (full or part-time); Cellectricon.
56.19	**V. Goura:** A. Employment/Salary (full or part-time); Suven Life Sciences LTD. **A.K. Shinde:** A. Employment/Salary (full or part-time); Suven Life Sciences LTD. **A. Vuyyuru:** A. Employment/Salary (full or part-time); Suven Life Sciences LTD. **R. Kallepalli:** A. Employment/Salary (full or part-time); Suven Life Sciences LTD. **P. Jayarajan:** A. Employment/ Salary (full or part-time); Suven Life Sciences LTD. **R. Abraham:** A. Employment/Salary (full or part-time); Suven Life Sciences LTD. **S. Daripelli:** A. Employment/Salary (full or part-time); Suven Life Sciences LTD. **V. Kamuju:** A. Employment/Salary (full or part-time); Suven Life Sciences LTD. **G. Bhyrapuneni:** A. Employment/Salary (full or part-time); Suven Life Sciences LTD. **V. Bhatta:** A. Employment/ Salary (full or part-time); Suven Life Sciences LTD. **K. Kandukuri:** A. Employment/Salary (full or part-time); Suven Life Sciences LTD.
56.20	**P.J. Albrecht:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Integrated Tissue Dynamics, LLC.
57.16	**A. Sharma:** A. Employment/Salary (full or part-time); University of Colorado.
58.06	**A. Roorda:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Patent holder.
58.08	**R. Loredoranjel:** A. Employment/Salary (full or part-time); Depto. Ecología y Recursos Naturales, Facultad de Ciencias. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; PAPIIT IN210913 , CONACYT 178526. **E. Escamilla-Chimal:** A. Employment/ Salary (full or part-time); Depto. Ecología y Recursos Naturales, Facultad de Ciencias. B. Contracted Research/ Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; PAPIIT IN210913 , CONACYT 178526.
58.15	**J.A. Fuller:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Johns Hopkins University. **D. Helm:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Johns Hopkins University. **B. Kuster:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Johns Hopkins University. **D.J. Zack:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Johns Hopkins University.
61.08	**T. Comery:** A. Employment/Salary (full or part-time); Phizer Inc. **K.C. Thomas:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Pfizer Inc.
62.01	**J.G. Pilitsis:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; NIH 1R01CA166379. F. Consulting Fees (e.g., advisory boards); Medtronic, St. Jude, Boston Scientific. **G. Ghoshal:** A. Employment/ Salary (full or part-time); Acoustic MedSystems Inc. **C.E. Burdette:** A. Employment/Salary (full or part-time); Acoustic MedSystems Inc.
62.03	**H. Neyama:** A. Employment/Salary (full or part-time); Graduate Student, Pharmacology and Therapeutic Innovation,Nagasaki University,Nagasaki,Japan. **T. Mukae:** A. Employment/Salary (full or part-time); PhD Student. **H. Ueda:** A. Employment/Salary (full or part-time); Professor, Pharmacology and Therapeutic Innovation,Nagasaki University,Nagasaki,Japan.
62.13	**Q.H. Hogan:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Spinal Modulation Inc. F. Consulting Fees (e.g., advisory boards); Spinal Modulation Inc.
62.14	**J. Cote:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Angiochem Inc. **M. Demeule:** A. Employment/Salary (full or part-time); Angiochem Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Angiochem Inc. **N. Beaudet:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Angiochem Inc. **A. Regina:** A. Employment/Salary (full or part-time); Angiochem Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Angiochem Inc. **K. Belleville:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Angiochem Inc. **A. Larocque:** A. Employment/Salary (full or part-time); Angiochem Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Angiochem Inc. **J. Longpré:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Angiochem Inc. **J. Lachowicz:** A. Employment/Salary (full or part-time); Angiochem Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Angiochem Inc. **J. Castaigne:** A. Employment/Salary (full or part-time); Angiochem Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Angiochem Inc. **P. Sarret:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Angiochem Inc. F. Consulting Fees (e.g., advisory boards); Angiochem Inc.
62.17	**N.D. Crosby:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Stryker Corporation. **J.J. Janik:** A. Employment/Salary (full or part-time); Stryker Corporation. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Stryker Corporation. **W.M. Grill:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Stryker Corporation.
62.19	**Y. Lai:** A. Employment/Salary (full or part-time); Anagin, LLC.
62.21	**M. Dansereau:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Integrated DNA Technologies. **A.M. Jacobi:** A. Employment/Salary (full or part-time); Integrated DNA Technologies Inc. **S.S. Rose:** A. Employment/Salary (full or part-time); Integrated DNA Technologies Inc. **M.A. Behlke:** A. Employment/Salary (full or part-time); Integrated DNA Technologies Inc. **J. Longpre:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Integrated DNA Technologies. **P. Sarret:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Integrated DNA Technologies.
63.01	**S.D. Shields:** A. Employment/Salary (full or part-time); Genentech. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Genentech. **R.M. Reese:** A. Employment/Salary (full or part-time);

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	Genentech. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Genentech. **L. Deng:** A. Employment/Salary (full or part-time); Genentech. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Genentech. **K. Scearce-Levie:** A. Employment/Salary (full or part-time); Genentech. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Genentech. **D.H. Hackos:** A. Employment/Salary (full or part-time); Genentech. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Genentech.
63.02	**J.A. Rogers:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Co-founders of a company (Neurolux) working to develop the wireless micro-LED technology. **R.W. Gereau:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Co-founders of a company (Neurolux) working to develop the wireless micro-LED technology.
63.12	**S. Nemoto:** A. Employment/Salary (full or part-time); Hamamatsu Pharma Research, Inc. **S. Ogawa:** A. Employment/Salary (full or part-time); Hamamatsu Pharma Research, Inc. **Y. Awaga:** A. Employment/Salary (full or part-time); Hamamatsu Pharma Research, Inc. **M. Takashima:** A. Employment/Salary (full or part-time); Hamamatsu Pharma Research, Inc. **K. Suehiro:** A. Employment/Salary (full or part-time); Hamamatsu Pharma Research, Inc. **T. Kamada:** A. Employment/Salary (full or part-time); Hamamatsu Pharma Research, Inc. **A. Hama:** A. Employment/Salary (full or part-time); Hamamatsu Pharma Research, Inc. **A. Matsuda:** A. Employment/Salary (full or part-time); Hamamatsu Pharma Research, Inc. **H. Takamatsu:** A. Employment/Salary (full or part-time); Hamamatsu Pharma Research, Inc.
63.23	**D.A. Fitts:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; NeuroDigm Co. **M.R. Hannaman:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NeuroDigm Corp.
63.24	**K. Rutten:** A. Employment/Salary (full or part-time); Grünenthal, GmbH.
64.02	**J. Rodgers:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Co-founder of a company working to develop the technology. **R.W. Gereau:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Co-founder of a company working to develop the technology.
64.14	**I.L. Torres:** A. Employment/Salary (full or part-time); Universidade Federal do Rio Grande do Sul. Other; Conselho Nacional de Desenvolvimento Cientifico e Tecnológico (CNPq).
65.14	**T.E. Salt:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Director of Neurexpert Ltd.
66.09	**B.T. Lang:** A. Employment/Salary (full or part-time); Athersys, Inc.
66.15	**M.Y. Sanchez:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Universidad Nacional de Colombia . Facultad de Medicina, Universidad de la Sabana. **R.M. Gomez B:** B. Contracted Research/ Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Fundación para el desarrollo de la neutro-regeneración en Colombia. **J.J. Niño:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Fundación para el desarrollo de la neutro-regeneración en Colombia. **R.H. Bustos:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Universidad de la Sabana. Facultad de Medicina. **M.A. Dominguez:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Universidad de la Sabana, facultad de Enfermería y rehabilitación. **D. Vargas:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Universidad de la Sabana. facultad de Medicina. **M.F. Quiroz-P:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Universidad de la Sabana. facultad de Psicología.
67.12	**G.E. Pearcey:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Industry Research Partner. **B. Munro:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Industry Research Partner. **E. Zehr:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Industry Research Partner. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Industry Research Partner.
67.14	**T.S. Barss:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Industry Research Partner. **B. Munro:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Industry Research Partner. **E.P. Zehr:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Industry Research Partner.
67.18	**M.M. Sabbahi:** Other; National plan for Science , Technology and Innovation (MAARIFAH) – King Abdulaziz City for Science and Technology - The Kingdom of Saudi Arabia , Award number (13- MED1319-10)". **M. Badghaish:** Other; National plan for Science , Technology and Innovation (MAARIFAH) – King Abdulaziz City for Science and Technology - The Kingdom of Saudi Arabia , Award number (13- MED1319-10)". **E. Abd El Kafy:** Other; National plan for Science , Technology and Innovation (MAARIFAH) – King Abdulaziz City for Science and Technology - The Kingdom of Saudi Arabia , Award number (13- MED1319-10)". **M. Alayat:** Other; Umm Al Qura University, Faculty of Applied Medical Sciences, Makkah, KSA.
68.02	**B. Traynor:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Patent applied for C9orf72 gene.
69.09	**S. Rutkove:** F. Consulting Fees (e.g., advisory boards); Skulpt Inc.

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69.11	**R. Sattler:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Johns Hopkins University.
69.18	**B.J. Farley:** A. Employment/Salary (full or part-time); Biogen. **N.T. Comfort:** A. Employment/Salary (full or part-time); Biogen. **J.L. Goodman:** A. Employment/Salary (full or part-time); Biogen. **A.M. Kuszpit:** A. Employment/Salary (full or part-time); Biogen. **T. Cole:** A. Employment/Salary (full or part-time); Isis Pharmaceuticals. **H. Kordasiewicz:** A. Employment/Salary (full or part-time); Isis Pharmaceuticals. **E. Swayze:** A. Employment/Salary (full or part-time); Isis Pharmaceuticals. **A. McCampbell:** A. Employment/Salary (full or part-time); Biogen. **M. Wittmann:** A. Employment/Salary (full or part-time); Biogen.
71.09	**B. Wang:** A. Employment/Salary (full or part-time); Forschungszentrum Juelich.
73.21	**A.F. Schatzberg:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Corcept Theraputics. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Corcept Theraputics.
75.14	**K.M. Wittkowski:** A. Employment/Salary (full or part-time); The Rockefeller University. F. Consulting Fees (e.g., advisory boards); Johnson & Johnson.
75.30	**P. Kulkarni:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Ekam Imaging. **C.F. Ferris:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Ekam Imaging.
77.02	**M.J. Weiser:** A. Employment/Salary (full or part-time); DSM. **V. Grimshaw:** A. Employment/Salary (full or part-time); DSM. **K. Wynalda:** A. Employment/Salary (full or part-time); DSM. **M.H. Mohajeri:** A. Employment/Salary (full or part-time); DSM. **C.M. Butt:** A. Employment/Salary (full or part-time); DSM.
79.13	**E. Leuthardt:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neurolutions.
80.09	**G.D. Pearlson:** F. Consulting Fees (e.g., advisory boards); Bristol Myers Squibb. **M.N. Potenza:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Veteran's Administration, Mohegan Sun Casino, the National Center for Responsible Gaming and its affiliated Institute for Research on Gambling Disorders, and Forest Laboratories pharmaceuticals. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Somaxon. F. Consulting Fees (e.g., advisory boards); Boehringer Ingelheim, Lundbeck and Ironwood, Shire and INSYS.
80.17	**M. Hodaie:** Other; Medtronics Speaker honorarium. **A.M. Lozano:** Other; Medtronic.
88.12	**M.M. Niedziela:** A. Employment/Salary (full or part-time); HCD Research. **A. Jordan:** A. Employment/Salary (full or part-time); HCD Research. **H. Stone:** A. Employment/Salary (full or part-time); HCD Research. **M. Rosazza:** A. Employment/Salary (full or part-time); HCD Research.
90.19	**Y. Nakahira:** A. Employment/Salary (full or part-time); California Institute of Technology.
91.04	**F. Liu:** A. Employment/Salary (full or part-time); Eli Lilly & Co. **S. Tschang:** A. Employment/Salary (full or part-time); Eli Lilly & Co. **J. Pereira:** A. Employment/Salary (full or part-time); Eli Lilly & Co. **J. Croy:** A. Employment/Salary (full or part-time); Eli Lilly & Co. **J. Lu:** A. Employment/Salary (full or part-time); Eli Lilly & Co. **R. Demattos:** A. Employment/Salary (full or part-time); Eli Lilly & Co. **M. Racke:** A. Employment/Salary (full or part-time); Eli Lilly & Co.
91.06	**T. Eessalu:** A. Employment/Salary (full or part-time); Eli Lilly & Co. **M. Johnson:** A. Employment/Salary (full or part-time); Eli Lilly & Co. **L. Martin:** A. Employment/Salary (full or part-time); Eli Lilly & Co. **K. Burris:** A. Employment/Salary (full or part-time); Eli Lilly & Co. **V. Barth:** A. Employment/Salary (full or part-time); Eli Lilly & Co. **T. Wiernicki:** A. Employment/Salary (full or part-time); Eli Lilly & Co.
91.07	**W.L. Klein:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Acumen Pharmaceuticals, Inc.
91.09	**A.J. Saporita:** A. Employment/Salary (full or part-time); EMD Millipore. **J. Mistry:** A. Employment/Salary (full or part-time); EMD Millipore. **J. Hwang:** A. Employment/Salary (full or part-time); EMD Millipore.
91.16	**N. Suto:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Eicom. **S. Azuma:** A. Employment/Salary (full or part-time); Eicom. **T.C. Jhou:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Eicom.
91.28	**K. Bennet:** A. Employment/Salary (full or part-time); Mayo Clinic. **M. Settell:** A. Employment/Salary (full or part-time); Mayo Clinic.
92.04	**S.V. Alworth:** A. Employment/Salary (full or part-time); DRVision Technologies LLC. **M.J. Jones:** A. Employment/Salary (full or part-time); DRVision Technologies LLC. **V. Chou:** Other; DRVision Technologies LLC via NIMH. **D. Van Vactor:** Other; DRVision Technologies LLC via NIMH. **J.S.J. Lee:** A. Employment/Salary (full or part-time); DRVision Technologies LLC.
94.13	**C.M. Vineyard:** A. Employment/Salary (full or part-time); Sandia National Laboratories. **S.J. Verzi:** A. Employment/Salary (full or part-time); Sandia National Laboratories. **C.D. James:** A. Employment/Salary (full or part-time); Sandia National Laboratories. **J.B. Aimone:** A. Employment/Salary (full or part-time); Sandia National Laboratories.
94.23	**Z. Tosi:** A. Employment/Salary (full or part-time); Indiana University. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); National Science Foundation.

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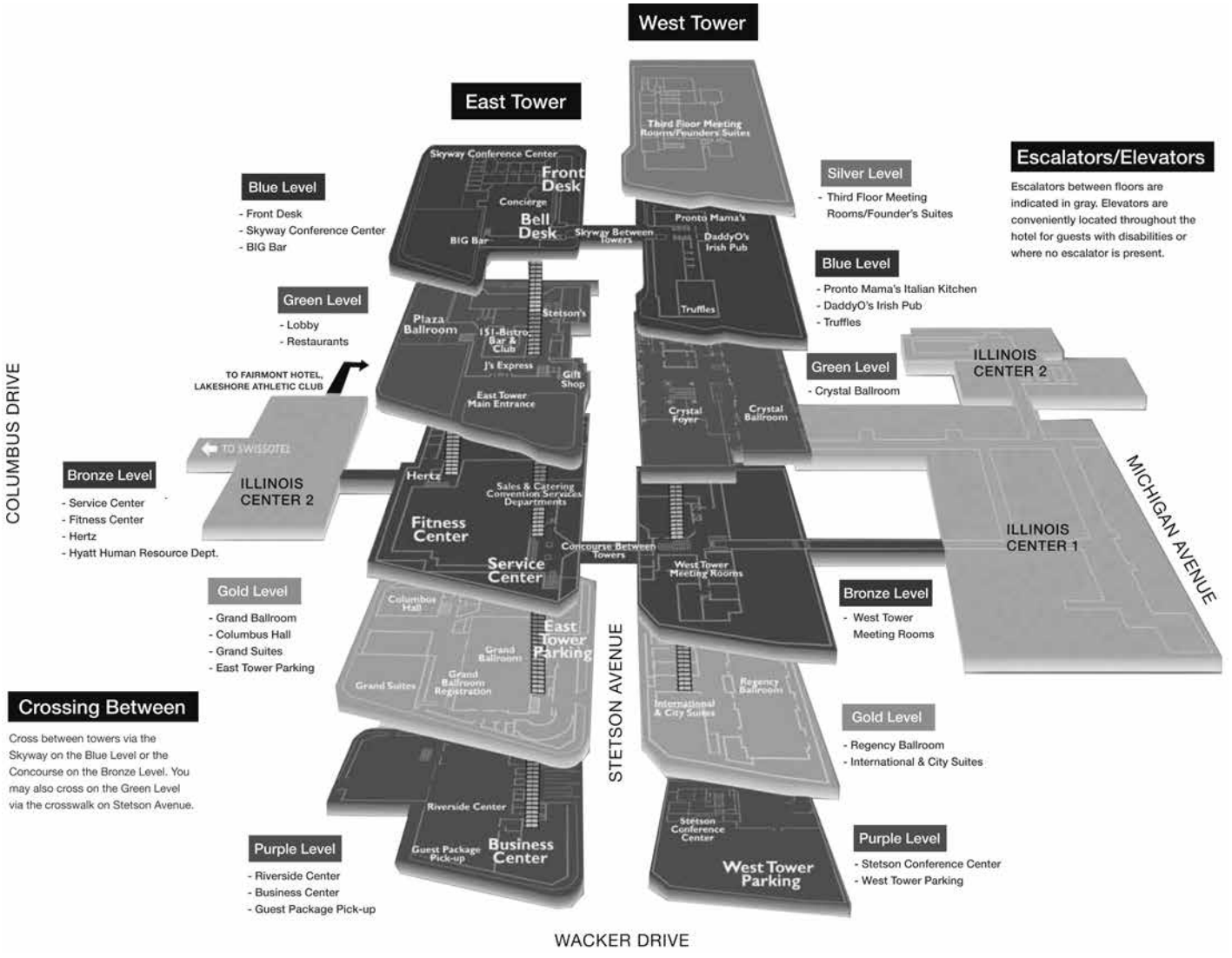
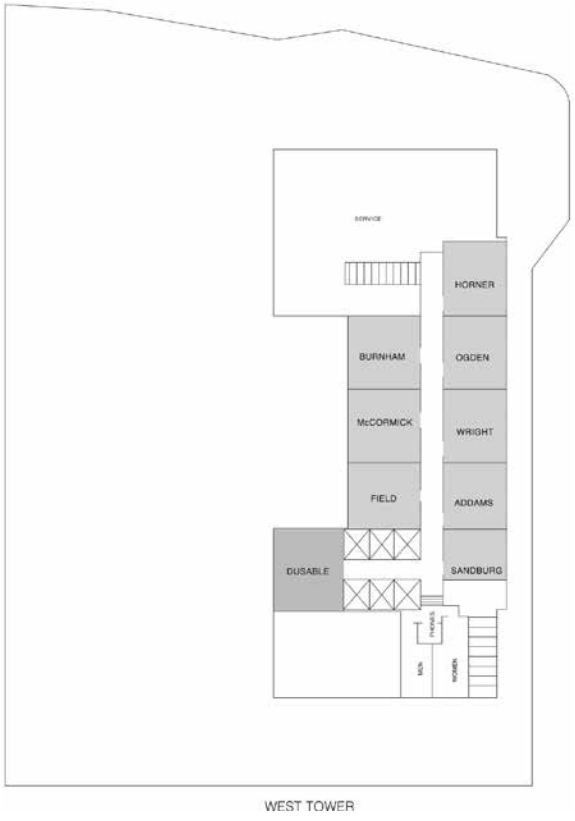
151 E. Wacker Drive
Chicago, IL 60601



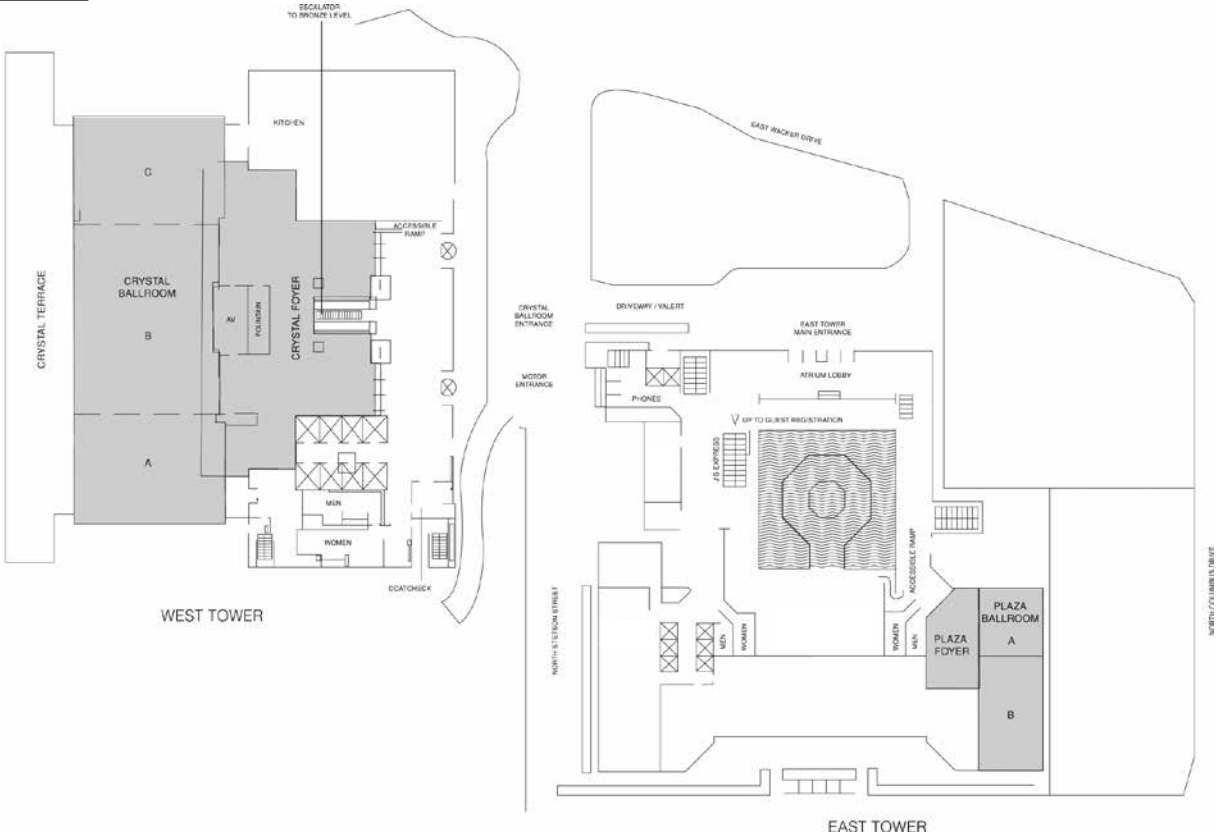
HYATT REGENCY CHICAGO DOWNTOWN

(continued)

SILVER LEVEL



GREEN LEVEL

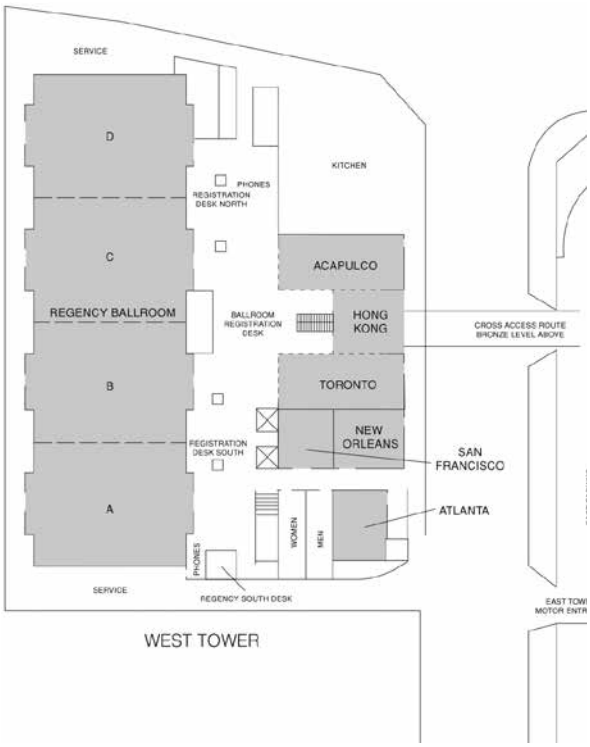


HYATT REGENCY CHICAGO DOWNTOWN

(continued)

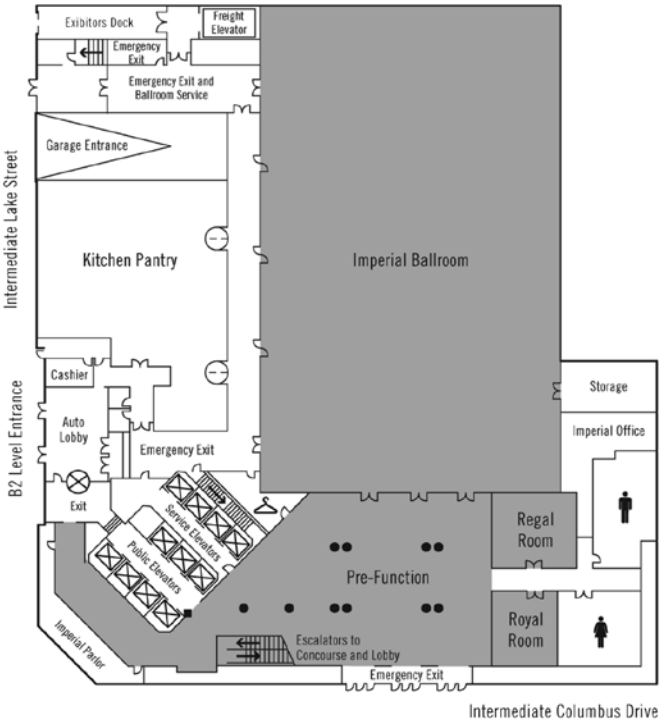
BRONZE LEVEL

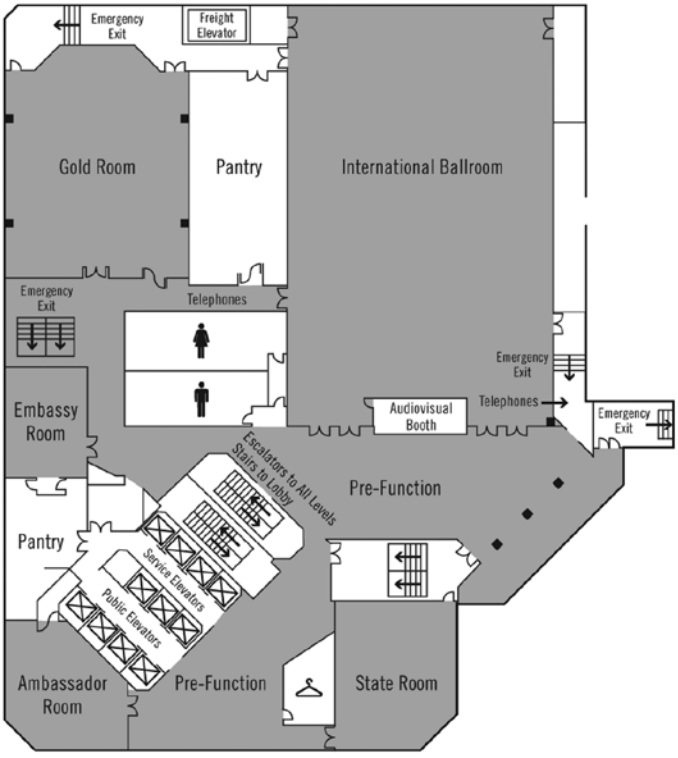
GOLD LEVEL

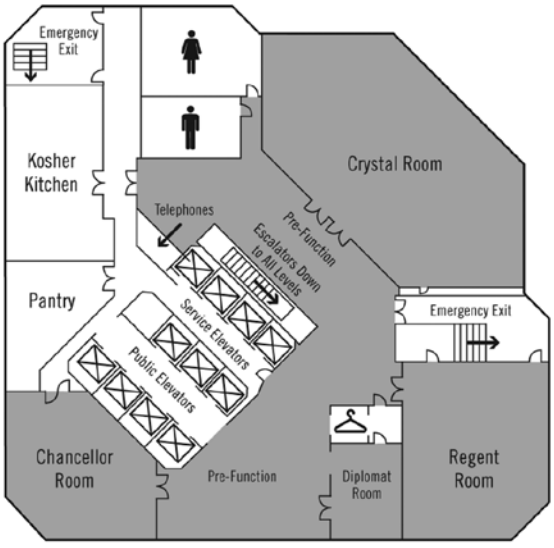


FAIRMONT CHICAGO, MILLENNIUM PARK

200 N. Columbus Drive
Chicago, IL 60601



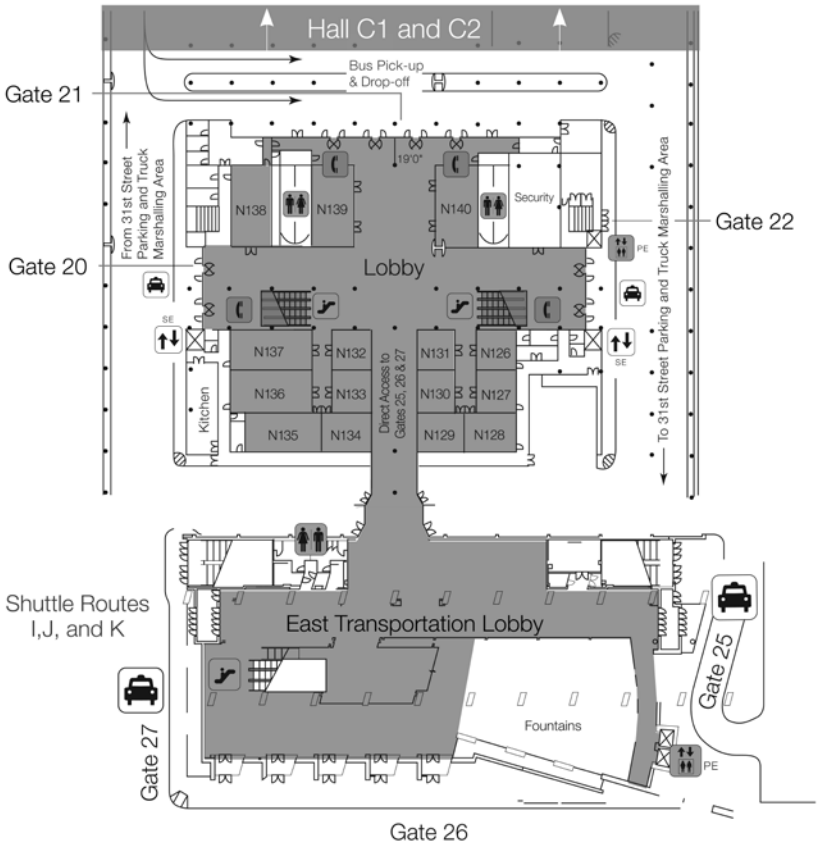




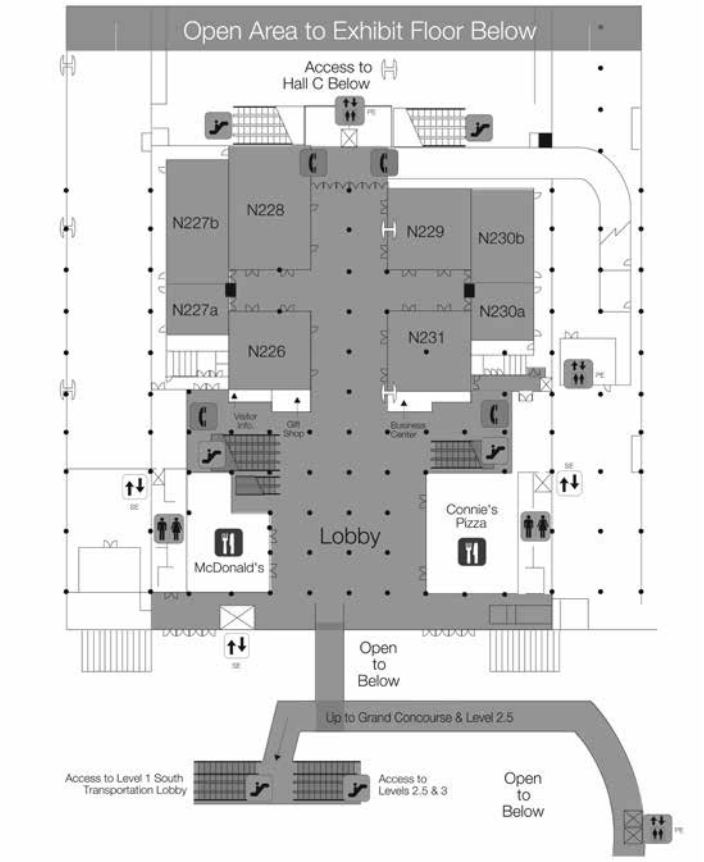
McCORMICK PLACE

2301 S. Martin Luther King Drive
Chicago, IL 60616

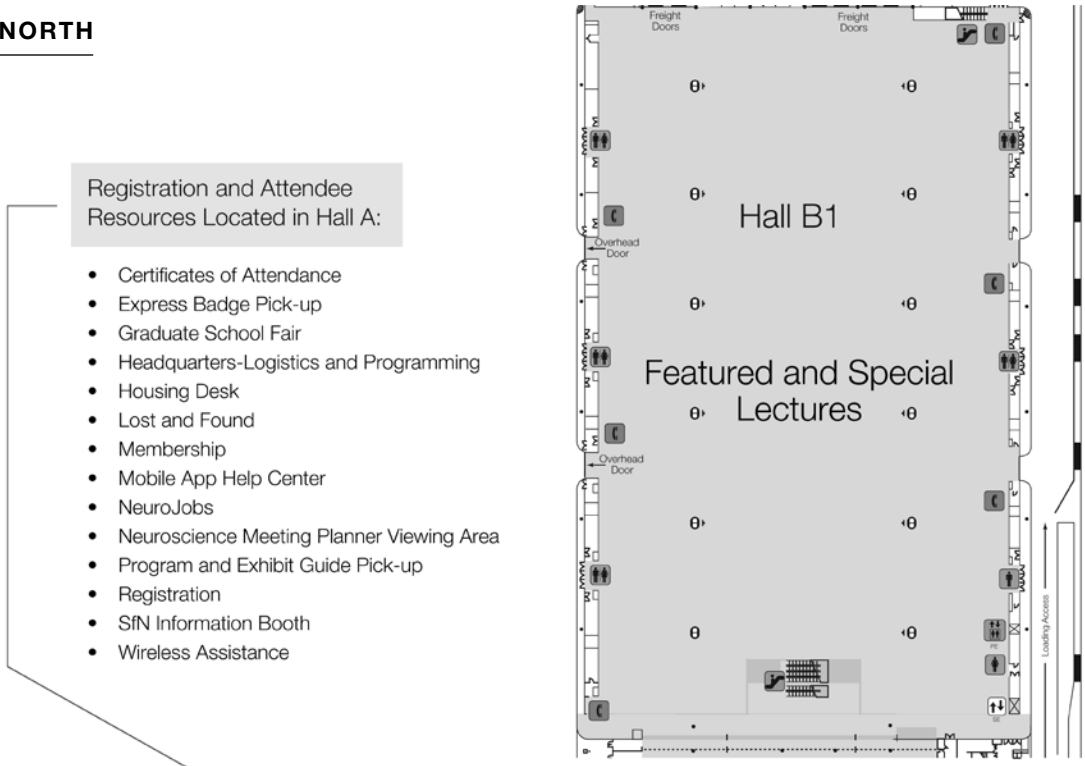
LEVEL 1 NORTH



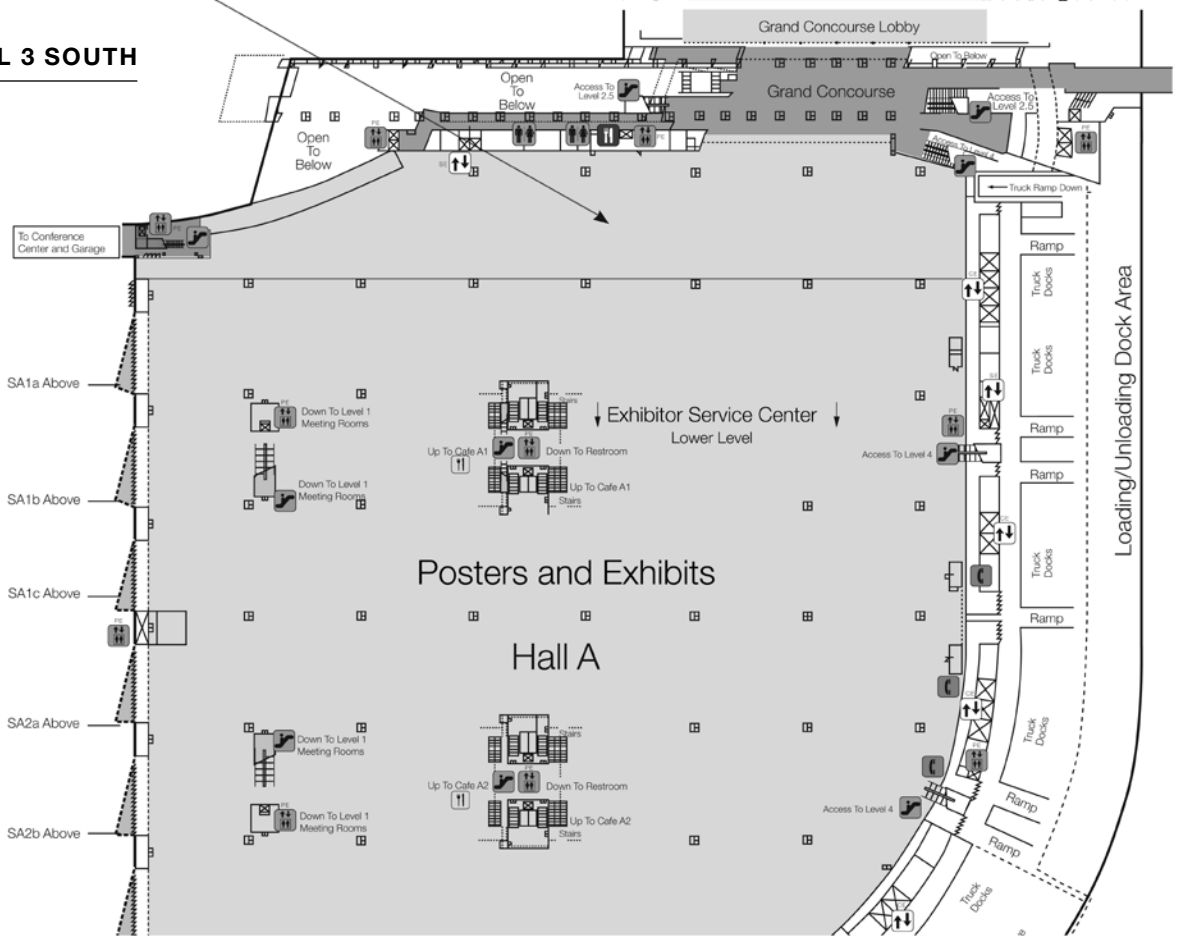
LEVEL 2 NORTH



LEVEL 3 NORTH



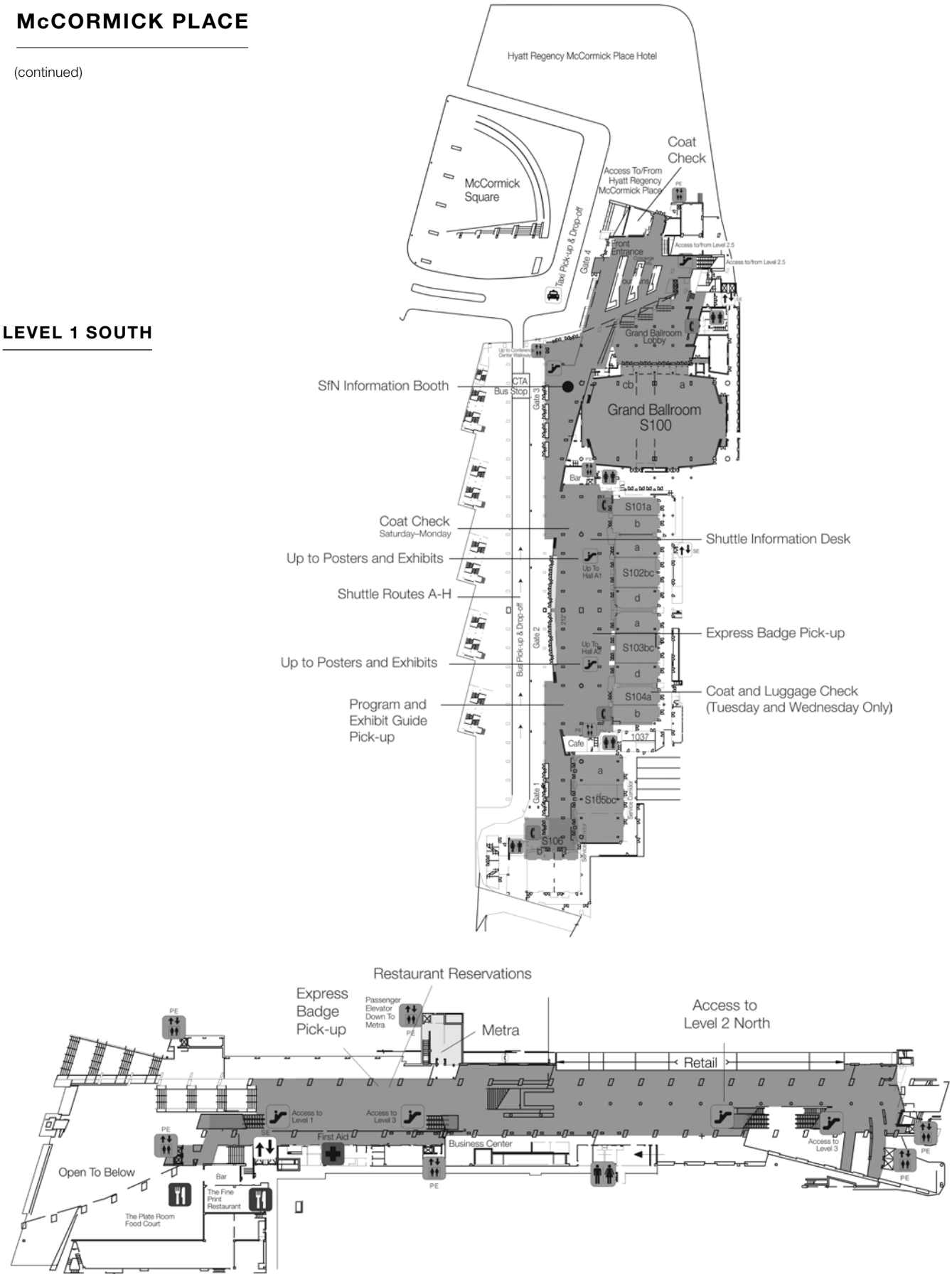
LEVEL 3 SOUTH



McCORMICK PLACE

(continued)

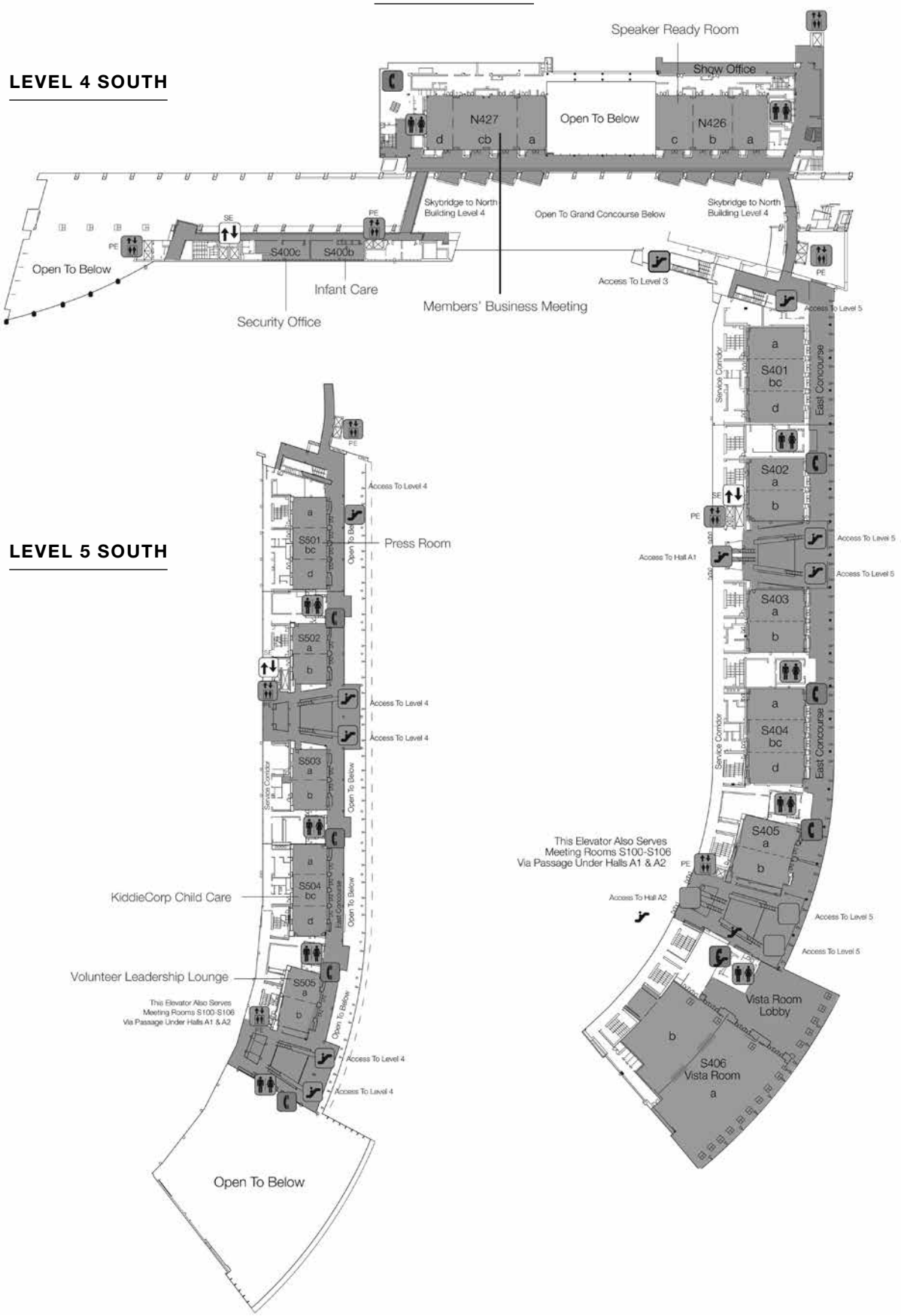
LEVEL 1 SOUTH



LEVEL 4 NORTH

LEVEL 4 SOUTH

LEVEL 5 SOUTH



Neuroscience 2015

Exhibits and Poster Sessions

McCormick Place, South Building

Meeting Dates: Oct. 17–21

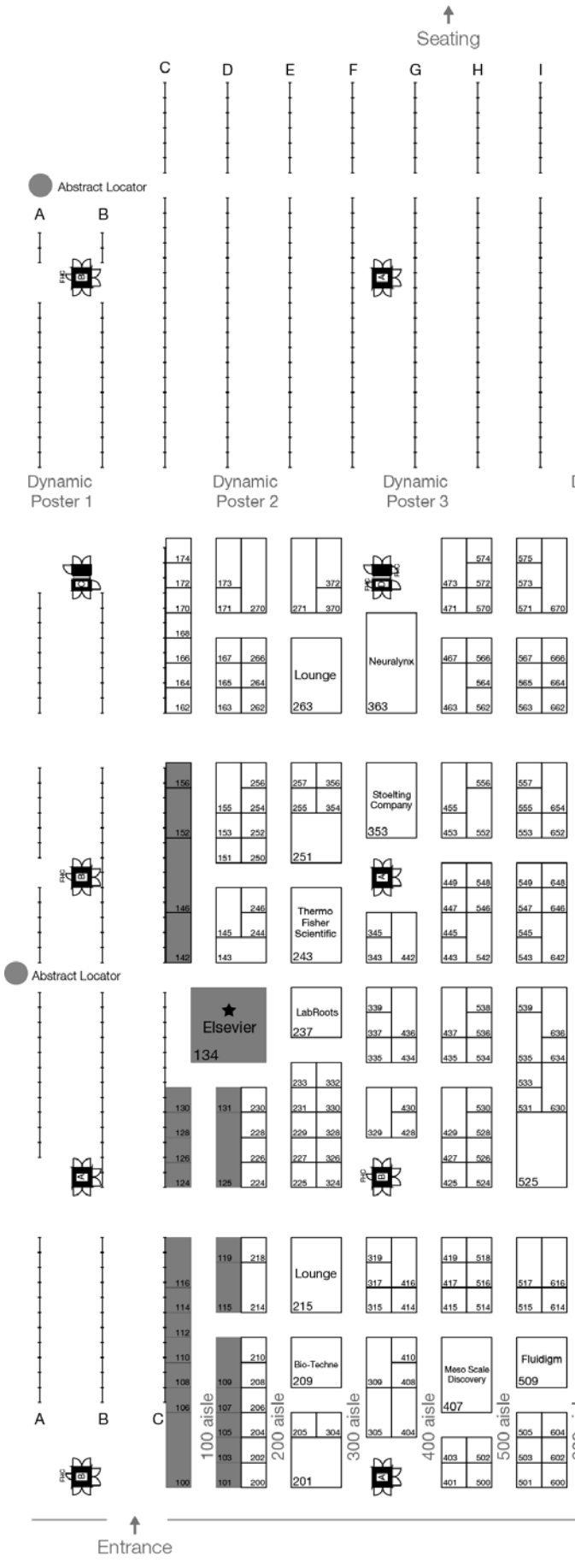
Exhibit Dates: Oct. 18–21

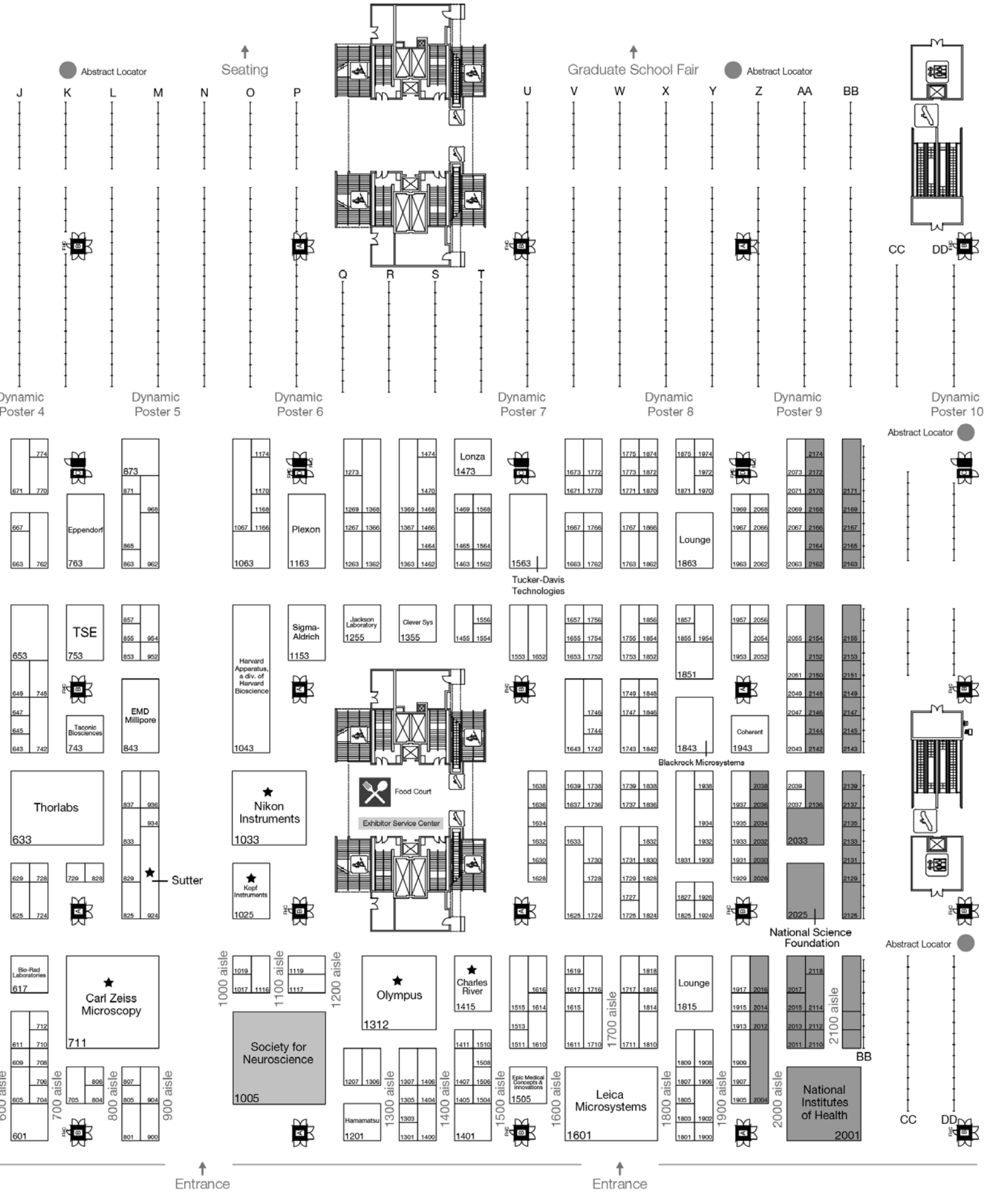
Note: Entrances will open at noon on Saturday and at 7 a.m. Sunday through Wednesday for poster presenter setup only. Poster sessions are open for all attendees at 1 p.m. on Saturday and 8 a.m. Sunday through Wednesday.

Floor plans subject to change.

For current floor plan, visit SfN.org/exhibits.

- Publisher's Row
- Nonprofit / Institutes
- SfN
- Exhibitor Service Center
- ★ Sustaining Associate Members
- Food Court
- Abstract Locator
- Column / Fire Hydrant (FHC)




Abstract Locator
Seating
Graduate School Fair
Abstract Locator
J K L M N O P
U V W X Y Z AA BB
Q R S T
CC DD
Dynamic Poster 4
Dynamic Poster 5
Dynamic Poster 6
Dynamic Poster 7
Dynamic Poster 8
Dynamic Poster 9
Dynamic Poster 10
Abstract Locator
Eppendorf 763
Plexon 1163
Lonza 1473
Lounge 1863
1563
Tucker-Davis Technologies
TSE 753
Sigma-Aldrich 1153
Jackson Laboratory 1255
Clever Sys 1355
Harvard Apparatus, a div. of Harvard Bioscience 1043
Taconic Biosciences 743
EMD Millipore 843
1851
Coherent 1943
Blackrock Microsystems
Thorlabs 633
Nikon Instruments 1033
Food Court
Exhibitor Service Center
Sutter
Kopf Instruments 1025
2033
2025
National Science Foundation
Abstract Locator
Bio-Rad Laboratories 617
Carl Zeiss Microscopy 711
1000 aisle
1100 aisle
1200 aisle
Olympus 1312
Charles River 1415
1700 aisle
Lounge 1815
2100 aisle
BB
Society for Neuroscience 1005
Epic Medical Concepts & Innovations 1505
Leica Microsystems 1601
National Institutes of Health 2001
600 aisle
700 aisle
800 aisle
900 aisle
1300 aisle
1400 aisle
1500 aisle
1600 aisle
1800 aisle
1900 aisle
2000 aisle
Hamamatsu 1201
601
1401
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Entrance
Entrance

Neuroscience 2016

See You in San Diego

NOVEMBER 12–16

Society for Neuroscience