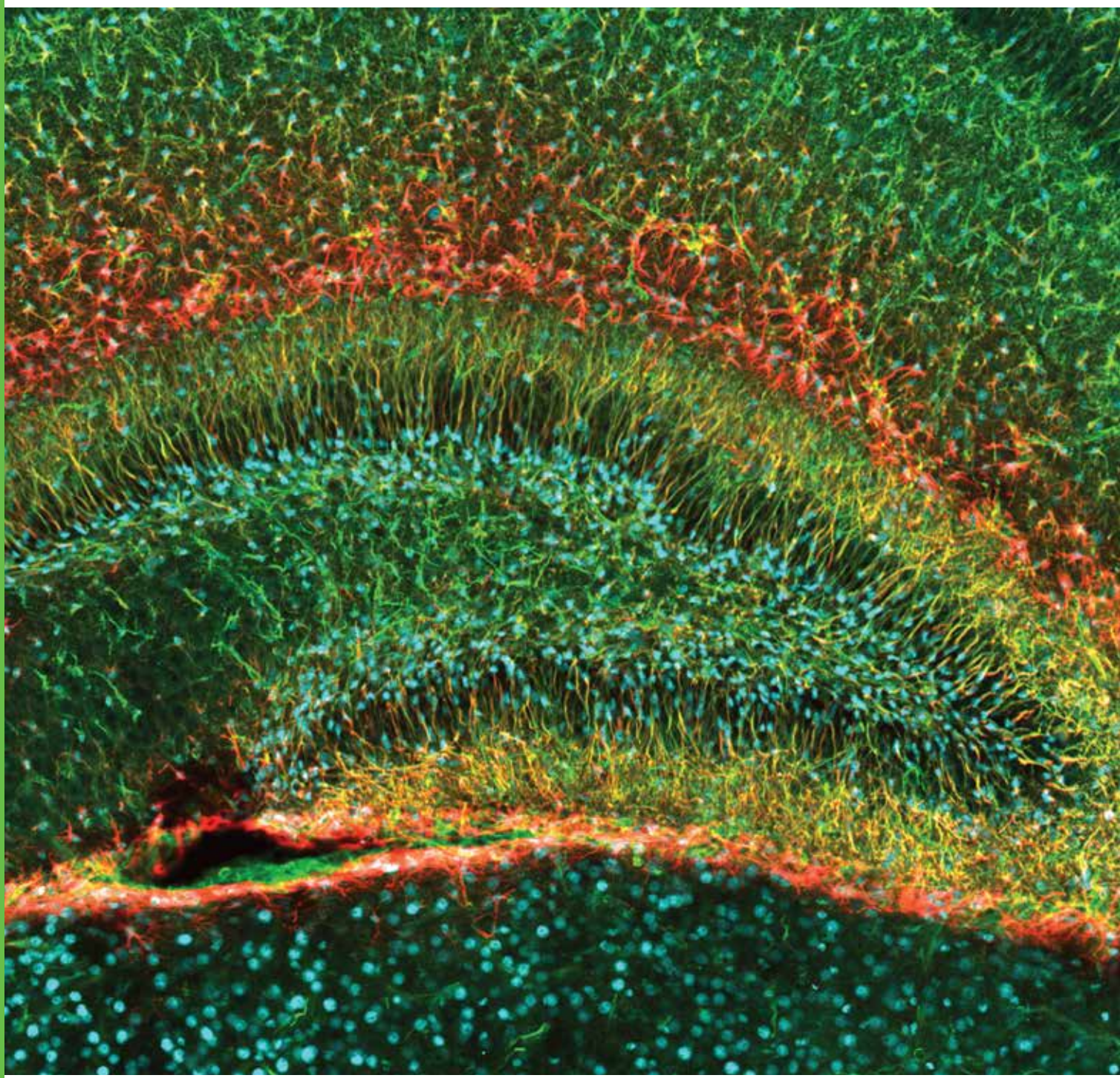
Neuroscience 2016

San Diego | November 12–16

Wednesday



Scientific Session Listings 654–851

Society for Neuroscience

Information at a Glance

Important Phone Numbers

Annual Meeting Headquarters Office

Logistics and Programming

Logistics

San Diego Convention Center: Sails Pavilion
(619) 525-6200

Programming

San Diego Convention Center: Sails Pavilion
(619) 525-6205

Volunteer Leadership Lounge

San Diego Convention Center: Room 14A
(619) 525-6235

General Information Booths

San Diego Convention Center

Front of Box Office A, (619) 525-6224
Lobby D, (619) 525-6225
Sails Pavilion, (619) 525-6226

Press Office

Press Room

San Diego Convention Center: Room 15B
(619) 525-6230

Exhibit Management

San Diego Convention Center: Lobby D
(619) 525-6240

First Aid, Hospital and Urgent Care Numbers

First Aid Station

San Diego Convention Center:
Box Office G
(619) 525-6211

Scripps Mercy Hospital

4077 Fifth Avenue
San Diego, CA 92103
(619) 294-8111

Sharp Rees – Stealy Downtown San Diego Urgent Care

300 Fir Street
San Diego, CA 92101
(858) 499-2600

Note: The themes have been updated for Neuroscience 2016

Key to Poster Floor by Themes

Theme

A. Development
B. Neural Excitability, Synapses, and Glia
C. Neurodegenerative Disorders and Injury
D. Sensory Systems
E. Motor Systems
F. Integrative Physiology and Behavior
G. Motivation and Emotion
H. Cognition
I. Techniques
J. History and Education

NOTE: Theme J Posters will be located in Hall B beginning at 1 p.m. on Saturday, November 12, and will remain posted until 5 p.m., Sunday, November 13.

Code of Conduct at SfN Events

SfN is committed to supporting discovery and scientific dialogue, and to fostering a welcoming community in which all scientists are able to contribute fully. The Society asserts that sexual harassment and other harassing behaviors have no place in a healthy scientific enterprise. We expect all attendees, media, speakers, volunteers, organizers, venue staff, guests, and exhibitors at SfN-organized events to help us ensure a safe and positive environment. At the convention center, onsite medical and security personnel are available directly or through the SfN headquarters office.

If attendees experience unwelcome or unsafe situations anywhere in the city, attendees should swiftly contact local authorities (dial 9-1-1), and additional local social services resources are listed in one convenient location at the federal website www.notalone.gov. Any official report of sexual harassment should be brought to the designated Human Resources Officer in the SfN headquarters office at each meeting convention center, or sent via email to **hrofficer@sfn.org.** The HR Officer will facilitate the completion of a report by a complainant. View the entire Code of Conduct at SfN Events statement for more information.

For more information, on SfN's policy, please go to: **sfn.org/Member-Center/Professional-Conduct/Code-of-Conduct-at-SfN-Events**

Cover Image: This confocal image shows neural stem cells in the dentate gyrus of a 7-day-old mouse. Neural stem cells migrate toward the hilus of the dentate gyrus and form a proliferative zone, called the subgranular zone, at the border between the hilus and the granule cell layer. While neural stem cells are migrating into the subgranular zone, they establish a radial process that extends across the granule cell layer, called the secondary radial scaffold (labeled with Nestin (green) and GFAP (red)). Neural stem cell nuclei are labeled with Sox2 (cyan).

Hirofumi Noguchi, Naoya Murao, Ayaka Kimura, Taito Matsuda, Masakazu Namihira, and Kinichi Nakashima, 2016, *The Journal of Neuroscience*, 36(22): 6050-6068.

Complete Session Listing

Wednesday AM

LECTURE *San Diego Convention Center*

654. Regulation of Neural Stem Cell Fate During Development and in the Adult — CME

Wed. 8:30 AM - 9:40 AM — Ballroom 20

Speaker: Y. GOTOH, *The Univ. of Tokyo.*

This lecture will discuss how neocortical neural stem/progenitor cell (NPC) fate is regulated in a developmental stage-dependent manner. This lecture will also focus on the mechanisms underlying long-term maintenance of adult neural stem cells (NSCs), the differences between embryonic NPCs and adult NSCs, and the embryonic origin of adult NSCs.

SYMPOSIUM *San Diego Convention Center*

655. Getting Down to Business: Identifying Epigenetic Mechanisms of Behaviors Within Discrete Cell Populations — CME

Wed. 8:30 AM - 11:00 AM — 6B

Chair: T. L. BALE
Co-Chair: P. J. KENNY

Identifying the epigenetic modifications and their impact within discrete neuronal populations is critical in understanding brain health and disease risk, including behaviors important to stress coping, addiction, and learning and memory. Expert speakers will describe their latest studies on novel epigenetic mechanisms, including miRNAs, nucleosome remodeling, and unique histone modifications, and demonstrate their role in specific behavioral outcomes.

8:30 **655.01** Introduction.

8:35 **655.02** Novel histone PTMs in the hypothalamus in programming of the HPA stress axis. T. L. BALE. *Univ. Pennsylvania.*

9:10 **655.03** MicroRNA signaling in cortical parvalbumin-expressing neurons regulates schizophrenia-relevant behaviors in mice. P. J. KENNY. *ICAHN Sch. of Med. At Mount Sinai.*

9:45 **655.04** Epigenetic targeting in memory formation. F. D. LUBIN. *Univ. of Alabama Birmingham.*

10:20 **655.05** Neuron-specific nucleosome remodeling complex subunit BAF53b is required for cocaine memory formation and plasticity in nucleus accumbens. M. A. WOOD. *Univ. of California, Irvine.*

10:55 **655.06** Closing Remarks.

SYMPOSIUM *San Diego Convention Center*

656. Neural Basis of Social Rewards and Group Decisions: From Scanners to the Real World — CME

Wed. 8:30 AM - 11:00 AM — 6A

Chair: B. KNUTSON
Co-Chair: J. MOLL

Neuroimaging has dramatically improved our understanding of the neurobehavioral systems that support social cognition and choice. This symposium will highlight new advances, focusing on the role of reward and motivation in social perception, interpersonal communication, intergroup relations, and mass prosocial behavior. Speakers will also describe novel techniques and trends poised to extend the frontiers of neuroscience and account for social preferences and behaviors in naturalistic settings.

8:30 **656.01** Introduction.

8:35 **656.02** Decoding friends and foes. M. CIKARA. *Harvard Univ.*

9:10 **656.03** Contribution of reward circuits to social investment on the internet. B. D. KNUTSON. *Stanford Univ.*

9:45 **656.04** Moral emotions and their voluntary modulation using real-time functional MRI. J. MOLL. *D'Or Inst. For Res. and Educ.*

10:20 **656.05** Motivation in social perception and expression. J. ZAKI. *Stanford Univ.*

10:55 **656.06** Closing Remarks.

MINISYMPOSIUM *San Diego Convention Center*

657. Neural Stem Cells to Cerebral Cortex: Emerging Mechanisms Regulating Progenitor Behavior and Productivity — CME

Wed. 8:30 AM - 11:00 AM — 29D

Chair: T. GHASHGHAEI
Co-Chair: N. DWYER

Understanding the temporal and spatial regulation of neural stem cell behaviors that build the cerebral cortex is critical to treating neurodevelopmental disorders such as microcephaly and autism. This minisymposium will address how neural stem cells divide to produce different daughter types in the proper numbers and order. Distinct genetic insults impact cortical size, structure, or function differentially. The presenters will highlight emerging findings and tools that are facilitating identification of the cellular and molecular rules and logics underlying cortical development.

8:30 **657.01** Introduction.

8:35 **657.02** Cytokinesis of neural stem cells in the growing cortex. N. DWYER. *Univ. of Virginia.*

8:55 **657.03** Transcriptional control of delamination in the developing cortex. T. GHASHGHAEI. *North Carolina State Univ.*

9:15 **657.04** Control of neurogenesis timing during cortical development. S. CHOU. *Academia Sinica.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

9:35 **657.05** The unfold protein response controls cortical neurogenesis. L. NGUYEN. *Univ. of Liège / GIGA-Neurosciences.*

9:55 **657.06** Lineage progression of cortical neural stem cells. B. CHEN. *Univ. of California, Santa Cruz.*

10:15 **657.07** Programmed deterministic genesis of neurons and glia in the neocortex. S. HIPPENMEYER. *Inst. of Sci. and Technol. Austria.*

10:35 **657.08** Closing Remarks.

MINISYMPOSIUM *San Diego Convention Center*

658. Association of Alzheimer's Disease and Other Cognitive Impairments With Metabolic Syndrome: Whenceforth Causality? — CME

Wed. 8:30 AM - 11:00 AM — 6F

Chair: S. W. BARGER
Co-Chair: N. L. RASGON

Epidemiology links Alzheimer's disease, obesity, and type 2 diabetes. Early experiments sought evidence that deposition of amyloid beta peptide (Aß) worsened in diabetes, but recent data indicate top-down effects of Aß on peripheral metabolism, especially through actions of the peptide in the hypothalamus. Data from several fronts nonetheless evinces cognitive impairment resulting from metabolic syndrome, even in development. Cognitive impacts of a potential CNS-to-periphery-to-CNS loop will be discussed.

8:30 **658.01** Introduction.

8:35 **658.02** ● The roles of Alzheimer-related proteins in regulation and dysregulation of peripheral metabolism: Mechanisms to explain epidemiology. S. W. BARGER. *Univ. of Arkansas for Med. Sci.*

8:55 **658.03** Inflammation and defective insulin signaling as molecular links between Alzheimer's disease and diabetes. F. G. DE FELICE. *Federal Univ. Rio De Janeiro.*

9:15 **658.04** Impact of obesity, insulin resistance, inflammation, and fitness on brain dysfunction in adolescents. A. CONVIT. *New York Univ. Sch. of Medicine; Nathan Kline Inst.*

9:35 **658.05** ● Metabolic moderators of pathological brain aging in humans. N. L. RASGON. *Stanford Univ. Sch. of Med.*

9:55 **658.06** Neuronal β-secretase 1 (BACE1) as a key metabolic regulator: The missing link between dementia and diabetes? K. PLUCINSKA. *Univ. of Aberdeen.*

10:15 **658.07** The influence of metabolic dysfunction on τ, amyloid, and cerebrovascular pathology in mouse models of Alzheimer's disease. M. P. MURPHY. *Univ. of Kentucky.*

10:35 **658.08** Closing Remarks.

MINISYMPOSIUM *San Diego Convention Center*

659. Pre-Bötzinger Complex 25 Years Later: Diverse Functions of the Breathing Rhythm Generator and Their Cellular and Molecular Origins — CME

Wed. 8:30 AM - 11:00 AM — 28A

Chair: C. A. DEL NEGRO

Twenty-five years after its discovery as the breathing rhythm generator, the roles of the pre-Bötzinger Complex continue to expand, now including premotor functionality, generation of sighs and gasps, as well as coordination of orofacial behaviors (e.g., whisking and sniffing). These diverse functions can be mapped to distinct specialized cells, transforming the pre-BötC to a premier center to understand the molecular and cellular bases of physiologically-significant behaviors.

8:30 **659.01** Introduction.

8:35 **659.02** Dbx1-derived interneurons and TRP ion channels in inspiratory bursts and rhythm. M. C. D. PICARDO. *The Col. of William and Mary.*

8:55 **659.03** Modulation of the preBötC rhythm by astrocytes. A. V. GOURINE. *Univ. Col. London.*

9:15 **659.04** Premotor function of Dbx1-derived neurons in the preBötC and intermediate reticular formation. A. L. REVILL. *Univ. of Alberta.*

9:35 **659.05** Mechanisms of rhythm and pattern generation in the pre-Bötzinger Complex microcircuit. K. KAM. *Rosalind Franklin Univ.*

9:55 **659.06** Molecularly defined peptidergic neurons control sighing. K. R. YACKLE. *Stanford Univ.*

10:15 **659.07** PreBötC as a 'master' oscillator to coordinate orofacial behaviors. D. KLEINFELD. *UCSD.*

10:35 **659.08** Closing Remarks.

MINISYMPOSIUM *San Diego Convention Center*

660. Oxytocin From Rodents to Humans: How to Translate Research Into Therapeutic Applications in Psychiatry — CME

Wed. 8:30 AM - 11:00 AM — 6E

Chair: V. GRINEVICH
Co-Chair: A. CHARLET

The hypothalamic neuropeptide oxytocin attracts the interest of the neuroscience community and the broader public as a prosocial substance in mammals. Recent technological advances enable researchers to decipher the precise circuits underlying these actions. This minisymposium will focus on the pathways of oxytocin signaling, which underlie its behavioral and possible therapeutic effects. Addressing the mechanisms of oxytocin action in the brain, with special attention to the benefits and pitfalls in the treatment of human patients, will be essential for further progress in research and in the clinic.

8:30 **660.01** Introduction.

8:35 **660.02** Pathways of oxytocin delivery and signaling. V. GRINEVICH. *German Cancer Res. Ctr. and Central Inst. of Mental Hlth.*

8:55 **660.03** Astrocytes, a new cellular target for oxytocin signaling. A. CHARLET. *Ctr. Natl. de la Recherche Scientifique (CNRS).*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

9:15 **660.04** Oxytocin and multimodal regulation of anxiety and fear. J. DABROWSKA. *Rosalind Franklin Univ. of Med. and Sci.*

9:35 **660.05** Oxytocin in rodent models of autism. H. HARONY-NICOLAS. *Mount Sinai Hosp.*

9:55 **660.06** Developing innovative ligands to modulate oxytocin signaling. J. LE MERRER. *Le Ctr. Natl. de la Recherche Scientifique.*

10:15 **660.07** Intranasal oxytocin applications in humans, potential treatments and limitations. E. ANDARI. *Emory Univ. Sch. of Med.*

10:35 **660.08** Closing Remarks.

LECTURE *San Diego Convention Center*

661. Postdiction and Perceptual Awareness — CME

Wed. 10:00 AM - 11:10 AM — Ballroom 20

Speaker: S. SHIMOJO, *Caltech.*

There are a few postdictive perceptual phenomena known, where a stimulus presented later causally affects the percept of target presented earlier. While backward masking and apparent motion provide classical examples, the flash lag effect and its variations have stimulated theorists. The TMS-triggered scotoma and its "backward filling-in" offer a unique neurophysiological case. Findings suggest that various visual attributes are postdictively reorganized; its neural correlates (such as reentry) and implications to understand visual awareness and sense of agency will be discussed.

LECTURE *San Diego Convention Center*

662. The Social Brain in Human Adolescence — CME

Wed. 11:30 AM - 12:40 PM — Ballroom 20

Speaker: S.-J. BLAKEMORE, *Univ. Col. London.*

Social cognitive processes involved in navigating an increasingly complex social world continue to develop throughout human adolescence. In the past 20 years, neuroscience research has shown that the human brain develops both structurally and functionally during adolescence. Areas of the social brain undergo significant reorganization during the second decade of life, which might reflect a sensitive period for adapting to the social environment.

NANOSYMPOSIUM

663. Mechanisms of Fragile X Syndrome

Theme A: Development

Wed. 8:00 AM – *San Diego Convention Center*, 25A

8:00 **663.01** Astrocytic contributions to synaptic and learning abnormalities in a mouse model of Fragile X Syndrome. J. HODGES*; X. YU; A. GILMORE; H. BENNETT; M. TJIA; J. PERNA; C. CHEN; X. LI; J. LU; Y. ZUO. *Univ. of California Santa Cruz, Univ. of California Los Angeles, Univ. of California Santa Cruz, Columbia Univ.*

8:15 **663.02** FMRP-miRNA controls activity-dependent translation of BDNF. Y. FENG*; W. FENG; W. LI; A. LAU. *Emory Univ.*

8:30 **663.03** The APP theory of Fragile X. C. J. WESTMARK*. *Univ. Wisconsin.*

8:45 **663.04** Role of mmp-9 in the development of PV interneurons and auditory processing deficits in fragile x syndrome mouse model. I. M. ETHELL*; S. AFROZ; T. WEN; S. REINHARD; J. LOVELACE; D. BINDER; K. RAZAK. *Univ. California Riverside Sch. of Med., Univ. of California Riverside, Univ. of California Riverside.*

9:00 **663.05** Dissecting the role of a lipid kinase in peripheral nerve myelination. A. ALVAREZ-PRATS*; I. BJELOBABA; Y. KIM; Z. ALDWORTH; D. ABEBE; S. STOJILKOVIC; M. STOPFER; T. BALLA. *Eunice Kennedy Shriver NICHD, NIH., Inst. for Biol. Res., Eunice Kennedy Shriver NICHD, NIH., Eunice Kennedy Shriver NICHD, NIH.*

9:15 **663.06** FMRP regulates activity-dependent priming of hippocampal synaptic plasticity: Mechanisms and implications for cognition. K. KIM; J. JOO; T. KIM; K. M. HUBER*. *Univ. of Texas Southwestern Med. Ctr. at Dallas.*

9:30 **663.07** Molecular requirements for FMRP and the RNA helicase MOV10 in translation regulation of cobound RNAs. S. CEMAN*; P. J. KENNY; M. C. LANNOM; G. SKARIAH. *Univ. Illinois.*

9:45 **663.08** Elevated VEGF-A expression mediates Fragile X Syndrome neuronal and behavioral abnormalities. R. GALVEZ*; A. BELAGODU. *Univ. of Illinois, Urbana-Champaign, Univ. of Illinois Urbana-Champaign.*

10:00 **663.09** The study of homeostatic network excitability in Fragile X mouse model. N. TSAI*; K. A. JEWETT. *Univ. of Illinois At Urbana-Champaign, Univ. of Illinois at Urbana-Champaign.*

10:15 **663.10** Rectification of synaptic and network alterations associated with delayed GABA polarity switch in Fragile X mice. Q. HE*; E. D. ARROYO; C. PIOCHON; C. PORTERA-CAILLIAU; A. CONTRACTOR. *Northwestern Univ. Dept. of Physiol., David Geffen Sch. of Med. at UCLA.*

10:30 **663.11** Inhibitory control of cortical hyper-excitability in Fragile X syndrome. M. M. HUNTSMAN*; C. A. CEA-DEL RIO; S. FREEDMAN; A. NUNEZ-PARRA; D. RESTREPO. *Univ. of Colorado at Denver - Anschutz Med. Campus, Univ. of Colorado at Denver - Anschutz Med. Campus.*

10:45 **663.12** Critical period synaptic pruning mediated by shrub in a Fragile X syndrome model. D. J. VITA*; K. S. BROADIE. *Vanderbilt Univ.*

11:00 **663.13** ● Effects of GABA-B agonist baclofen on neural oscillations and behaviour in the FMRP1 knockout mouse model of Fragile X syndrome. D. SINCLAIR*; R. FEATHERSTONE; S. AKUZAWA; M. MATSUMOTO; S. J. SIEGEL. *Schizophrenia Res. Laboratory, Neurosci. Re, Univ. of Pennsylvania, Astellas Pharma Inc.*

11:15 **663.14** Use of a p110β subunit selective inhibitor to rescue behavioral impairments in a mouse model of Fragile X syndrome. A. BANERJEE*; C. GROSS; R. A. RIVERO; S. L. GOURLEY; G. BASSELL. *Emory Univ., Cincinnati Children's Hosp. Med. Ctr., GlaxoSmithKline, Emory Univ. Sch. of Medicine, Yerkes Natl. Primate Res. Ctr., Emory Univ. Sch. of Med.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
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* Indicates abstract's submitting author

NANOSYMPOSIUM

664. Microglia in Nervous System Diseases

Theme B: Neural Excitability, Synapses, and Glia

Wed. 8:00 AM – *San Diego Convention Center*, 30B

8:00 **664.01** Targeted knockout of neuronal or microglial Na^+/H^+ exchanger isoform 1 in mice has differential effects on reducing brain injury and functional recovery after stroke. S. SONG*; S. WANG; V. PIGOTT; W. ZHU; Y. SHI; K. CARNEY; Y. CHEN; W. GAN; G. E. SHULL; D. SUN. *Univ. of Pittsburgh, Tianjin Univ. of Traditional Chinese Med., Univ. of Cincinnati, New York Univ. Sch. of Med., Geriatric Research, Educ. and Clin. Ctr.*

8:15 **664.02** TREM2 protects against cerebral ischemia/reperfusion injury. Y. TANG*. *Sun Yat-Sen Mem. Hospital, Sun Yat-Sen Univ.*

8:30 **664.03** IFNβ-mediated neuroprotection against ischemia is dependent on microglia. A. MCDONOUGH*; J. R. WEINSTEIN. *Univ. of Washington.*

8:45 **664.04** Ischemia modulates type 1 interferon signaling in microglia. J. R. WEINSTEIN*; A. MCDONOUGH; S. NOOR; R. LEE; T. MOELLER. *Univ. Washington, Univ. of Washington.*

9:00 **664.05** Spinal cord microglia activated by purinergic receptors and neuropathic pain. M. TSUDA*. *Kyushu Univ.*

9:15 **664.06** Spinal inhibition of microglial caspase-6/p38 signaling reduces neuropathic pain in male but not female mice: Sex-dependent microglial signaling in the spinal cord. T. BERTA*; G. CHEN; S. TAVES; R. TONELLO; R. JI. *Univ. of Cincinnati, Duke Univ. Med. Ctr.*

9:30 **664.07** Microglial regulation of region-specific synaptic alterations contributes to chronic pain and memory deficits. Y. LIU*; L. ZHOU; J. WANG; M. MATTSON; L. WU; X. LIU. *Natl. Inst. On Aging, Zhongshan Sch. of Med. of Sun Yat-sen Univ., Rutgers, the State Univ. of New Jersey, Natl. institute on aging.*

9:45 **664.08** Microglia activation contributes to HIV-1-gp120 induced synapse degeneration. W. RU*; S. TANG. *The Univ. of Texas Med. Br., The Univ. of Texas Med. Br. At Galveston.*

10:00 **664.09** Experimental cortical spreading depression induces NMDA receptor dependent potassium currents in microglia. S. WENDT*; E. WOGRAM; L. KORVERS; H. KETTENMANN. *Max-delbrück-Center Berlin Buch, Univ. of Heidelberg.*

10:15 **664.10** P2Y12 purinergic receptor mediates microglia-neuron communication in epilepsy. L. WU*. *Rutgers The State Univ. of New Jersey.*

10:30 **664.11** The polarity protein Par1 in regulating microglia activation following TBI. V. L. DIBONA*; K. KRAUSE; M. SHAH; A. RAFALIA; W. ZHU; D. SMITH; D. CROCKETT; H. ZHANG. *Rutgers The State Univ. of New Jersey, Rutgers The State Univ. of New Jersey.*

10:45 **664.12** TDP-43 depletion in microglia promotes phagocytosis of amyloid and induces synaptic loss in mice. R. PAOLICELLI*; A. VALERI; L. RAJENDRAN. *Univ. of Zurich.*

665. Therapeutic and Protective Strategies for Alzheimer's Disease

Theme C: Neurodegenerative Disorders and Injury

Wed. 8:00 AM – *San Diego Convention Center*, 33C

8:00 **665.01** Therapeutic potential of immune checkpoint blockade in mouse models of Alzheimer's disease. K. BARUCH*; N. ROSENZWEIG; M. SCHWARTZ. *Weizmann Inst. of Sci.*

8:15 **665.02** TREM-2 induced microglial activation promotes the clearance of amyloid-β in an AD mouse model. J. GOOCH*; T. L. SUDDUTH; E. M. WEEKMAN; I. TASSI; T. SCHWABE; S. LEE; F. AVOGADRI-CONNORS; A. ROSENTHAL; D. M. WILCOCK. *Univ. of Kentucky Hosp., Alector.*

8:30 **665.03** ▲ Enabling Alzheimer's Aβ phagocytosis by targeting IRAK-M innate immunity. A. W. VESLING*; D. GATE; K. R. DOTY; B. P. LEUNG; J. RODRIGUEZ, Jr.; C. VAN'T VEER; E. MASLIAH; T. TOWN. *USC, Stanford Neurosci., Univ. of Amsterdam, UCSD.*

8:45 **665.04** ● The anti inflammatory morphinan derivative sinomenine reduces τ pathology in P301S mutant τ transgenic mice. L. ZHAO*; M. WONG; H. ZHOU; R. WU; G. A. PETSKO; S. M. PAUL. *Weill Cornell Med. Col., Macau Univ. of Sci. and Technol.*

9:00 **665.05** Nanoparticle blockade of TGF-β signaling in peripheral macrophages mitigates Alzheimer-like pathology in TgF344-AD rats. T. M. WEITZ*; D. KIM; J. RODRIGUEZ, Jr.; T. FAHMY; T. TOWN. *Zilkha Neurogenetic Institute, Keck Sch. of Med. of USC, Texas A&M Univ., Yale Univ.*

9:15 **665.06** Dopaminergic signaling counteracts cognitive deficits and depressive-like behavior in Alzheimer's disease models. D. BECKMAN*; L. E. SANTOS; M. V. LOURENCO; J. T. S. FORTUNA; A. F. BATISTA; S. BOSCHEN; J. F. CODOCEDO; P. CISTERNAS; C. DA CUNHA; N. INESTROSA; P. F. GARDINO; F. G. DE FELICE; S. T. FERREIRA. *Federal Univ. of Rio De Janeiro - UFRJ, Federal Univ. of Rio de Janeiro, Federal Univ. of Parana, Pontificia Univ. Catolica de Chile, Federal Univ. of Rio de Janeiro.*

9:30 **665.07** ● Development of ORY-2001, a dual LSD1/MAOB inhibitor, for the treatment of neurodegenerative disease. T. MAES*; F. CAVALCANTI; C. MASCARÓ; D. ROTLLANT; C. BUESA. *ORYZON GENOMICS S.A.*

9:45 **665.08** ● The human placenta-derived drug, Laennec, improves cognitive dysfunction in a mouse model of Alzheimer's disease. C. TOHDA*; C. KOGURE. *Inst. of Natural Medicine, Univ. of Toyama.*

666. Therapeutic Potential in Motor Neuron Disease

Theme C: Neurodegenerative Disorders and Injury

Wed. 8:00 AM – *San Diego Convention Center*, 32B

8:00 **666.01** Exploring the use of antisense oligonucleotides in iPSC-derived neurons as a therapy for C9orf72-linked Amyotrophic Lateral Sclerosis/Frontotemporal Dementia. J. GOMEZ*; Y. LEE; A. NISHIMURA; J. GREIG; J. GALLO; C. SHAW. *King's Col. London, Maurice Wohl, Basic and Clin. neuroscience Inst.*

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* Indicates abstract's submitting author

8:15 **666.02** The TGFb System as an important mediator in the disease Progression of ALS. S. PETERS*; S. KUESPERT; E. ZITZELSPERGER; R. HEYDN; T. BRUUN; U. BOGDAHN. *Univ. Hosp.*

8:30 **666.03** ● Evaluating Epha4 as a therapeutic target for amyotrophic lateral sclerosis by antisense-mediated inhibition in the adult mouse CNS. K. LING*; M. NORRBOM; A. MCCAMPELL; F. RIGO. *Ionis Pharmaceuticals, Inc., Biogen.*

8:45 **666.04** Human bone marrow stem cell transplantation for repair of the blood-spinal cord barrier in symptomatic ALS mice: Optimization of cell dose. S. N. GARBUZOVA-DAVIS*; C. KURIEN; N. TAJIRI; A. THOMSON; D. FALCO; S. AHMAD; J. STAFFETTI; G. STEINER; S. ABRAHAM; G. JAMES; A. MAHENDRASAH; S. H. APPEL; C. V. BORLONGAN. *Univ. South Florida, Univ. of South Florida, Houston Methodist Neurolog. Inst., Univ. of South Florida.*

9:00 **666.05** Effect of CDNF administration in mouse model of Amyotrophic Lateral Sclerosis. F. DE LORENZO*; M. H. VOUTILAINEN; E. MONTONEN; A. SAUKKONEN; M. AIRAVAARA; R. K. TUOMINEN; D. LINDHOLM; M. SAARMA. *Univ. of Helsinki.*

9:15 **666.06** Brain machine interface performance in the completely locked-in-state (CLIS). N. BIRBAUMER*; M. PRATS SEDANO; A. RAKHIMKULOVA; U. CHAUDHARY. *Eberhard-Karls-Univ, Wyss Ctr. for Bio and Neuro Engin.*

NANOSYMPOSIUM

667. Representation of Features and Objects along the Ventral Stream

Theme D: Sensory Systems

Wed. 8:00 AM – *San Diego Convention Center*, 1B

8:00 **667.01** Representation of glossy material surfaces in common marmoset temporal visual cortex. N. MIYAKAWA*; T. BANNO; H. ABE; T. TANI; W. SUZUKI; N. ICHINOHE. *Natl. Ctr. of Neurol. and Psychiatry, Univ. of Pennsylvania Sch. of Med., RIKEN Brain Sci. Inst.*

8:15 **667.02** End-stopping as a principle for functional organization in areas V1, V4 and posterior IT. C. R. PONCE*; T. HARTMANN; M. S. LIVINGSTONE. *Harvard Med. Sch., Harvard Med. Sch.*

8:30 **667.03** Representation of medial axis configurations in lateral occipital complex. C. E. CONNOR*; H. N. TOKOZOGLU; A. W. SALI; B. A. ANDERSON; S. YANTIS. *Johns Hopkins Univ., Johns Hopkins Univ., Johns Hopkins Univ.*

8:45 **667.04** Mid-level features are sufficient to drive the animacy and object size organization of the ventral stream. B. LONG*; T. KONKLE. *Harvard Univ.*

9:00 **667.05** Predicting behavior from decoded searchlight representations shows where decodable information relates to behavior. T. GROOTSWAGERS*; R. M. CICHY; T. A. CARLSON. *Macquarie Univ., Free Univ. Berlin.*

9:15 **667.06** Neural representations in a rapid serial visual presentation task at 17ms per picture. D. PANTAZIS*; S. QIN, 02139; Y. MOHSENZADEH; Q. LI; R. M. CICHY. *MIT, MIT, Massachusetts Gen. Hosp., Free Univ.*

9:30 **667.07** Perceptual untangling of natural image sequences. O. J. HENAFF*; R. L. T. GORIS; E. P. SIMONCELLI. *New York Univ.*

9:45 **667.08** Decoding object shape and object category with MEG. D. PROKLOVA*; D. KAISER; M. PEELEN. *Cimec - Ctr. For Mind/Brain Sci.*

10:00 **667.09** A comparison of v4 and object recognition convolutional neural net response properties. D. A. POSPISIL*; A. PASUPATHY; W. BAIR. *Univ. of Washington.*

10:15 **667.10** Representation of visual features and categories across space and time in human, monkey, and convolutional neural networks. K. M. JOZWIK*; N. KRIEGESKORTE; R. M. CICHY; M. MUR. *Cognition and Brain Sci. Unit, Free Univ., MRC Cognition and Brain Sci. Unit, Free Univ. Berlin.*

10:30 **667.11** Decoding the temporal evolution of task and stimulus-related brain signals. M. N. HEBART*; B. B. BANKSON; A. HAREL; R. M. CICHY; C. BAKER. *Natl. Inst. of Mental Hlth., Wright State Univ., Free Univ. of Berlin, Natl. Inst. of Mental Hlth.*

10:45 **667.12** Task context transforms object representations in inferior temporal cortex but not V1. M. C. MUR*; J. DUNCAN. *MRC Cognition and Brain Sci. Unit.*

11:00 **667.13** Framing scene perception in the brain. E. M. AMINOFF*; M. J. TARR. *Carnegie Mellon Univ.*

NANOSYMPOSIUM

668. Representation of Faces and Bodies

Theme D: Sensory Systems

Wed. 8:00 AM – *San Diego Convention Center*, 23A

8:00 **668.01** Learning enables view-invariant prediction errors in macaque face patch ML. C. M. SCHWIEDRZIK*; W. A. FREIWALD. *Rockefeller Univ.*

8:15 **668.02** Increased viewpoint-tolerant coding of body posture and identity in the anterior compared to the midSTS body patch. R. VOGELS*; S. KUMAR. *KU Leuven.*

8:30 **668.03** Neurons in the pSTS integrate information on the rule to follow gaze with information on the subsequent shift of attention prompted by the gaze cue. H. RAMEZANPOUR*; P. DICKE; P. THIER. *Hertie Institue For Clin. Brain Res.*

8:45 **668.04** Neurodynamics of expression coding in the core face network. Y. LI*; M. J. WARD; W. J. LIPSKI; R. M. RICHARDSON; A. S. GHUMAN. *Carnegie Mellon Univ., Carnegie Mellon Univ., Univ. of Pittsburgh, Univ. of Pittsburgh.*

9:00 **668.05** Real-time mapping of the fusiform face area: An extension of functional brain mapping protocols. C. KAPELLER*; K. KAMADA; H. OGAWA; W. G. COON; C. GUGER. *Guger Technologies OG, Asahikawa Med. Univ., g.tec neurotechnology USA, Inc.*

9:15 **668.06** Visual adaptation reveals objective electrophysiological evidence of high-level facial identity discrimination. T. L. RETTER*; B. ROSSION. *Univ. of Nevada, Reno, Univ. of Louvain.*

9:30 **668.07** Development of neural sensitivity to face identity correlates with perceptual discriminability. V. S. NATU*; M. BARNETT; J. HARTLEY; J. GOMEZ; A. STIGLIANI; K. GRILL-SPECTOR. *Dept. of Psychology, Stanford University, Stanford Univ.*

9:45 **668.08** Stimulus based dynamic organization of the face network. G. ROSENTHAL*; O. SPORNS; G. AVIDAN. *Dept. of Brain and Cognitive Sci., Ben-Gurion Univ., Indiana Univ., Ben-Gurion Univ. of the Negev.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

10:00 **668.09** Task warps category representations in prefrontal but not high-level visual cortex. L. BUGATUS*; K. S. WEINER; K. GRILL-SPECTOR. *Stanford Univ., Stanford Neurosci. Inst.*

10:15 **668.10** Face processing selectively interferes with word processing during rapid serial visual presentation. A. ROBINSON*; D. PLAUT; M. BEHRMANN. *Carnegie Mellon Univ.*

10:30 **668.11** Developmental visual perception deficits in the presence of normal face perception but abnormal eye movements. S. GILAIE-DOTAN*; R. DORON. *UCL, Hadassah Academic Col.*

NANOSYMPOSIUM

669. Cortical Circuits for Grasping

Theme E: Motor Systems

Wed. 8:00 AM – *San Diego Convention Center*, 24A

8:00 **669.01** Continuous decoding of power and precision grips with a high dimensional brain computer interface. A. AGUDELO-TORO*; W. SHENG; J. MICHAELS; H. SCHERBERGER. *German Primate Ctr.*

8:15 **669.02** Functional organization of human posterior parietal association cortex at the population level and implications for brain-machine interfaces. C. Y. ZHANG*; T. AFLALO; K. PEJSA; D. OUELLETTE; E. ROSARIO; N. POURATIAN; R. A. ANDERSEN. *Caltech, Casa Colina Hosp. and Centers for Healthcare, Univ. of California Los Angeles.*

8:30 **669.03** Sequential encoding of location then object during reaching and grasping: Implications for brain-machine interfaces. A. G. ROUSE*; M. H. SCHIEBER. *Univ. of Rochester.*

8:45 **669.04** The dorsomedial grasping area V6A of macaque monkey: Influence of the visual feed-back. R. BREVEGLIERI*; M. DE VITIS; A. BOSCO; C. GALLETTI; P. FATTORI. *Univ. Di Bologna.*

9:00 **669.05** Functional coupling between the frontoparietal and occipitotemporal pathways during action, perception and rest. J. P. GALLIVAN*; R. M. HUTCHISON. *Queen's Univ., Harvard Univ.*

9:15 **669.06** Getting a grasp on real objects and pictures: Grasping movements directed to real objects and pictures rely on dissociable neural representations. S. N. MACDONALD*; E. FREUD; J. CHEN; D. J. QUINLAN; M. A. GOODALE; J. C. CULHAM. *Western Univ., Carnegie Mellon Univ.*

9:30 **669.07** Posterior parietal cortical representation of hand actions during prehension. E. P. GARDNER*; J. L. BAKER; D. GARDNER; K. P. PURPURA; J. RYOU; J. C. VAN DAELE. *New York Univ. Sch. Med., Weill Cornell Med., Weill Cornell Med., New York Univ. Sch. of Med.*

9:45 **669.08** Selectivity of single phAIP neurons for observed hand actions. G. A. ORBAN*; T. AFLALO; D. CORBO; N. POURATIAN; C. LIU; R. ANDERSEN. *Univ. of Parma, Caltech, UCLA, USC.*

10:00 **669.09** Selectivity of single putative human AIP voxels for manipulative hand actions. D. CORBO*; T. AFLALO; R. ANDERSEN; G. ORBAN. *Univ. of Parma, Caltech.*

10:15 **669.10** A recurrent neural network model of the visuomotor grasp generation circuit. J. A. MICHAELS*; B. DANN; R. W. INTVELD; A. AGUDELO-TORO; H. SCHERBERGER. *German Primate Ctr., Univ. of Göttingen.*

10:30 **669.11** A subgroup of premotor cortex mirror neurons that may orchestrate the coordination of hand and eye movements. S. SPADACENTA*; J. K. POMPER; P. THIER. *Hertie Inst. For Clin. Brain Res.*

10:45 **669.12** Beyond the dorsolateral grasping network: Comparative properties between area F6 and F5 neurons during vision and grasping of objects. M. LANZILOTTO*; M. MARANESI; A. LIVI; M. GERBELLA; L. FOGASSI; G. RIZZOLATTI; L. BONINI. *Univ. of Parma, Inst. Italiano di Tecnologia (IIT).*

11:00 **669.13** Temporary deafferentation evoked motor synergy attenuation in nature vs. non-nature manual tasks. W. ZHANG*; B. HAHN; C. BENSON. *City Univ. of New York / CSI, Staten Island Univ. Hosp.*

NANOSYMPOSIUM

670. Neural Circuits for Learning and Decision Making

Theme G: Motivation and Emotion

Wed. 8:00 AM – *San Diego Convention Center*, 5B

8:00 **670.01** A neural correlate of Pavlovian conditioning in *Drosophila* brain. M. YOSHIHARA*; A. SAKURAI; J. T. LITTLETON; H. KOJIMA. *NICT Kobe, MIT, NICT Kobe.*

8:15 **670.02** Palatability and caloric value reinforce distinguishable memories via mushroom body dopamine neurons. W. HUETTEROTH*; E. PERISSE; S. LIN; M. KLAPPENBACH; C. BURKE; S. WADDELL. *Univ. of Konstanz, Univ. of Oxford.*

8:30 **670.03** ● Optogenetic inhibition of ventral tegmental dopamine neurons directly disrupts reward seeking behavior. R. A. ADAN*; R. VAN ZESSEN; J. FLORES; G. VAN DER PLASSE; G. STUBER; G. RAMAKERS. *UMCU, Univ. of North Carolina.*

8:45 **670.04** Neurotransmission in dopamine D2 receptor expressing nucleus accumbens neurons is necessary for behavioral flexibility in an IntelliCage place discrimination task. T. MACPHERSON*; M. MORITA; Y. WANG; T. SASAOKA; A. SAWA; T. HIKIDA. *Kyoto Univ., Univ. of Illinois, Niigata Univ., Johns Hopkins Univ.*

9:00 **670.05** Parafascicular-controlled neurons in the posterior dorsomedial striatum regulate internal state information to guide action selection. L. A. BRADFIELD*; B. BALLEINE. *Univ. of New South Wales, Univ. of New South Wales.*

9:15 **670.06** Projections from the prelimbic cortex to the dorsomedial striatum mediate the acquisition of goal-directed actions. G. HART*; B. BALLEINE. *Univ. of New South Wales.*

9:30 **670.07** Human sign- and goaltracking: Individual differences in striatal responses during Pavlovian conditioning. D. J. SCHAD*; M. A. RAPP; M. SEBOLD; N. KRÖMER; M. GARBUSOW; M. SMOLKA; F. SCHLAGENHAUF; A. HEINZ; P. DAYAN; Q. HUYS. *Univ. Potsdam, Charite, Universitätsmedizin Berlin, Technische Univ. Dresden, Charité, Universitätsmedizin Berlin, Max Planck Inst. for Human Cognitive and Brain Sci., Univ. Col. London, Universitätsklinikum Zürich, ETH and Univ. of Zurich.*

9:45 **670.08** Internally-generated action-selection bias in the posterior parietal cortex. E. HWANG*; J. DAHLEN; M. MUKUNDAN; T. KOMIYAMA. *UCSD, UCSD.*

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* Indicates abstract's submitting author

10:00 **670.09** Different network dynamics encode information in auditory cortex and posterior parietal cortex. C. A. RUNYAN*; E. PIASINI; S. PANZERI; C. D. HARVEY. *Harvard Med. Sch., Neural Computation Laboratory, Inst. Italiano di Tecnologia.*

10:15 **670.10** Focused ultrasound applied to the dorsal striatum enhances sensorimotor decision-making in monkeys. V. P. FERRERA*; M. DOWNS; T. TEICHERT; M. E. KARAKATSANI; S. WU; A. BUCH; E. KONOFAGOU. *Columbia Univ. Press, Columbia Univ., Univ. of Pittsburgh, Columbia Univ.*

10:30 **670.11** Fear extinction without fear: Direct reinforcement of neural activity bypasses the need for conscious exposure. A. KOIZUMI*; K. AMANO; A. CORTESE; W. YOSHIDA; B. SEYMOUR; M. KAWATO; H. LAU. *NICT, ATR, Columbia Univ., Nara Inst. of Sci. and Technol., UCLA, Univ. of Cambridge, UCLA.*

10:45 **670.12** PGO wave-triggered functional MRI: Mapping the networks underlying synaptic consolidation. N. LOGOTHETIS*; Y. MURAYAMA; J. RAMIREZ-VILLEGAS; M. BESSERVE; H. EVRARD. *Max Planck Inst., Ctr. for Imaging Sciences, Biomed. Imaging Institute, Univ. of Manchester, Max Planck Inst. for Biol. Cybernetics, Grad. Sch. of Neural & Behavioral Sciences, Eberhard-Karls Univ. of Tuebingen, Max Planck Inst. for Intelligent Systems, Ctr. for Integrative Neurosci.*

NANOSYMPOSIUM

671. Mechanisms of Cocaine Addiction

Theme G: Motivation and Emotion

Wed. 8:00 AM – *San Diego Convention Center*, 2

8:00 **671.01** Dopamine-induced inhibition of $GABA_A$-mediated currents in VTA dopamine neurons is input specific. R. YAKA*; M. WEITZ. *The Hebrew Univ. of Jerusalem.*

8:15 **671.02** Functional identification of a CRF DA microcircuit in mice with relevance to drug abuse. K. L. GOBROGGE*; X. HAN; A. HOOPER; M. DAWES; J. DEBOLD; J. MAGUIRE; K. MICZEK. *Tufts Univ., Tufts Univ., Tufts Univ. Sch. of Med.*

8:30 **671.03** Differential regulation of mood and motivation by separate nucleus accumbens shell outputs in cocaine self-administering rats. A. L. LORIAUX*; D. W. SELF. *UT Southwestern Med. Ctr.*

8:45 **671.04** A shift in balance from frontal (and global) to sensory (and local) brain networks is modulated by withdrawal state in cocaine addicted individuals. A. ZILVERSTAND*; M. A. PARVAZ; S. J. MOELLER; R. Z. GOLDSTEIN. *Icahn Sch. of Med. at Mount Sinai.*

9:00 **671.05** Adolescent cocaine experience differentially augments psychomotor sensitization in adulthood and alters dopamine receptor and epigenetic profiles in the nucleus accumbens of selectively bred high- and low-responder rats. A. PARSEGIAN*; J. GARCIA-FUSTER; S. J. WATSON, Jr.; S. B. FLAGEL; H. AKIL. *Univ. of Michigan, IUNICS, Univ. of the Balearic Islands, Univ. of Michigan.*

9:15 **671.06** Translational control by eIF2α phosphorylation regulates vulnerability to the synaptic and behavioral effects of cocaine. S. KHATIWADA*; W. HUANG; A. N. PLACZEK; G. V. DI PRISCO; C. SIDRAUSKI; K. KRNJEVIĆ; P. WALTER; J. A. DANI; M. COSTA-MATTIOLI. *Baylor Col. of Med., Univ. of California, San Francisco, McGill Univ., Mahoney Inst. for Neurosciences, Perelman Sch. of Med.*

9:30 **671.07** Incubation of cocaine craving and the regulation of eIF2 in the nucleus accumbens. M. T. STEFANIK*; C. T. WERNER; M. MILOVANOVIC; M. E. WOLF. *Rosalind Franklin Univ. of Med. and Sci., The State Univ. of New York at Buffalo.*

9:45 **671.08** Reversal of cocaine-induced dendritic spines through altered BDNF-TrkB signaling is dissociated from addiction-like changes in self-administration behavior. E. M. ANDERSON*; A. WISSMAN; D. GUZMAN; C. COWAN; D. SELF. *UT Southwestern, McLean Hosp.*

10:00 **671.09** β-arrestin2 in D2 receptor-containing neurons modulates the behavioral effects of drugs of abuse. K. A. PORTER-STRANSKY*; C. JEROME; N. M. URS; M. G. CARON; D. WEINSHENKER. *Emory Univ., Duke Univ.*

10:15 **671.10** Acute stress induces constitutive activation of κ opioid receptors. A. M. POLTER*; R. CHEN; P. DINGESS; K. BARCOMB; T. BROWN; J. A. KAUER. *Brown Univ., Univ. of Wyoming.*

10:30 **671.11** Cocaine induced down-regulation of mir-125b modulates the expression of poly (adp-ribose) polymerase-1 (parp-1). S. DASH*; M. BALASUBRAMANIAM; B. JONES; T. RANA; S. GOODWIN; F. VILLALTA; C. DASH; J. PANDHARE. *Meharry Med. Col., KIIT Univ., Meharry Med. Col., Meharry Med. Col., Meharry Med. Col.*

NANOSYMPOSIUM

672. Perception and Imagery: Scene Perception and Spatial Navigation

Theme H: Cognition

Wed. 8:00 AM – *San Diego Convention Center*, 7B

8:00 **672.01** Perceptual inputs to the cortical network for boundary-based navigation. J. B. JULIAN*; J. RYAN; R. H. HAMILTON; R. A. EPSTEIN. *Univ. of Pennsylvania.*

8:15 **672.02** Trigonometry predicts entorhinal processing of reference points. T. NAVARRO SCHROEDER*; C. F. DOELLER. *Donders Institute, Radboud Univ. Nijmegen.*

8:30 **672.03** Mechanisms of prospective navigation in the human brain. T. I. BROWN*; K. F. LAROCQUE; V. A. CARR; S. E. FAVILA; A. M. GORDON; B. BOWLES; J. N. BAILENSON; A. D. WAGNER. *Stanford Univ., San Jose State Univ., New York Univ., Univ. of California, Berkeley, Stanford Univ.*

8:45 **672.04** Grid-cell representations in mental simulation. J. BELLMUND*; L. DEUKER; T. NAVARRO SCHROEDER; C. F. DOELLER. *Donders Institute, Radboud Univ., Ruhr Univ.*

9:00 **672.05** Withdrawn.

9:15 **672.06** Unravelling retrosplenial cortex: Converging evidence for functional parcellation from meta-analyses and the Human Connectome Project. E. R. CHRASTIL*; S. M. TOBYNE; R. K. NAUER; A. E. CHANG; C. E. STERN. *Boston Univ.*

9:30 **672.07** Spatial navigation ability assessed in over 1 million people globally. H. J. SPIERS*; E. MANLEY; R. SILVA; R. CONROY DALTON; J. M. WIENER; C. HÖLSCHER; V. BOHBOT; M. HORNBERGER. *Univ. Col. London, Northumbria Univ., Univ. of Bournemouth, ETH Zurich, McGill Univ., Univ. of East Anglia.*

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* Indicates abstract's submitting author

9:45 **672.08** Comparing computational, object and functional models of scene representation in the human brain. I. I. GROEN*; M. R. GREENE; C. A. BALDASSANO; D. M. BECK; L. FEI-FEI; C. I. BAKER. *Natl. Inst. for Hlth., Minerva Schools at KGI, Stanford Univ., Princeton Univ., Univ. of Illinois.*

10:00 **672.09** Neural coding of navigational affordances in visual scenes. M. F. BONNER*; R. A. EPSTEIN. *Univ. of Pennsylvania.*

10:15 **672.10** Visual and non-visual interactive virtual navigation, and the effect of brief vs. lifelong visual deprivation on the plasticity of this network in the human brain using fMRI and Sensory Substitution. S. MAIDENBAUM*; D. R. CHEBAT; A. AMEDI. *Amedi Lab, ELSC & IMRIC, Hebrew Univ. of Jeru, Amedi Lab, ELSC & IMRIC, Hebrew Univ. of Jerusalem, Jerusalem, Israel, Ariel Univ., Amedi Lab, ELSC & IMRIC, Hebrew Univ. of Jerusalem.*

NANOSYMPOSIUM

673. Molecular Techniques

Theme I: Techniques

Wed. 8:00 AM – *San Diego Convention Center*, 4

8:00 **673.01** Rational systematic peptide display on the AAV capsid allows for the development of cell type specific targeting and mapping of protein function *in vivo*. T. BJORKLUND*; M. DAVIDSSON; G. WANG; P. ALDRIN-KIRK; M. HARTNOR. *Mol. Neuromodulation, Wallenberg Neurosci.*

8:15 **673.02** Novel barcode-based *in vivo* screening method for generating *de novo* AAV serotypes for CNS-directed gene therapy. M. DAVIDSSON*; G. WANG; P. ALDRIN-KIRK; M. HARTNOR; T. BJÖRKLUND. *Lund Univ.*

8:30 **673.03** ● A generalizable method for targeting cells based on intracellular product expression. C. TANG*; E. DROKHLYANSKY; B. ETEMAD; S. RUDOLPH; B. GUO; S. WANG; E. G. ELLIS; J. Z. LI; C. L. CEPKO. *Harvard Med. Sch., Harvard Med. School, HHMI, Brigham and Women's Hospital, Harvard Med. Sch.*

8:45 **673.04** [^{125}I]Iodo-ASEM as a novel high-affinity radiotracer for detection of α7 nicotinic acetylcholine receptor binding sites. C. K. DONAT*; Y. GAO; R. C. MEASE; A. G. HORTI; H. H. HANSEN; M. G. POMPER; J. D. MIKKELSEN. *Imperial Col. London, Copenhagen Univ. Hospital, Rigshospitalet, Johns Hopkins Sch. of Med., Bionomics Ltd.*

9:00 **673.05** Directed evolution for GPCRs. J. G. ENGLISH*; B. L. ROTH. *UNC Chapel Hill.*

9:15 **673.06** Phosphomimetic lipopeptides as new tools to investigate β-arrestin-mediated functions. É. BESSERER-OFFROY*; C. E. MONA; P. BOUDREAULT; J. LONGPRÉ; R. LEDUC; É. MARSAULT; P. SARRET. *Univ. de Sherbrooke, Inst. de Pharmacologie de Sherbrooke.*

9:30 **673.07** Using CREATE to identify AAV variants for efficient and widespread gene transfer to the adult central nervous system. B. E. DEVERMAN*; Y. LUO; D. BROWN; T. DOBREVA; S. RAVINDRA KUMAR; K. CHAN; V. GRADINARU. *Caltech.*

9:45 **673.08** Single cell molecular profiling in biopsied human olfactory neurons: A rapid and non-invasive method to study "state" and "trait" neuronal changes in mental disorders. Y. WU*; Y. CHUNG; K. ISHIZUKA; A. SAWA. *Johns Hopkins Univ. Sch. of Med.*

10:00 **673.09** An integrative platform for the three-dimensional quantitative analysis of spatially heterogeneous metastasis landscapes. I. H. GULDNER*; L. YANG; K. COWDRICK; Q. WANG; W. ALVAREZ BARRIOS; V. ZELLNER; Y. ZHANG; M. HOST; F. LIU; D. CHEN; S. ZHANG. *Univ. of Notre Dame.*

10:30 **673.10** Efficiency, safety and stability of non-invasive MRgFUS mediated gene therapy in the brain. M. A. STAVARACHE*; N. PETERSEN; M. G. KAPLITT. *Weill Cornell Med. Coll.*

10:15 **673.11** Brain-wide connectivity screen uncovers input- and dopamine subtype-specific control of drug-induced behaviors. K. BEIER*; C. KIM; B. HEIFETS; L. HUNG; S. NEUNER; K. DELOACH; K. DEISSEROTH; L. LUO; R. MALENKA. *Stanford Univ.*

POSTER

674. Adult Neurogenesis

Theme A: Development

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 A1 **674.01** Combined Zinc plus N-acetyl-L-cysteine supplement increases adult hippocampal neurogenesis. D. HONG*; B. CHOI; B. LEE; S. LEE; A. KHO; S. LEE; J. JEONG; M. SOHN; S. SUH. *Hallym Univ., Inha Univ.*

9:00 A2 **674.02** Overexpressed APPL2 result a depressive- and anxiety- like behaviors, which associated with impaired hippocampal neurogenesis. G. CHONG*; X. CHEN; A. XU; J. SHEN. *The Univ. of Hong Kong, The Univ. of Hong Kong.*

10:00 A3 **674.03** Directed differentiation of neural progenitors in dentate gyrus in naïve and epileptic rats. E. MELIN*; X. XIAN; N. WOODS; T. RAMOS-MORENO; M. KOKAIA. *Lunds Universitet, Div. of Mol. Med. and Gene Therapy, Stem Cell Ctr., Epilepsy Ctr.*

11:00 A4 **674.04** ● Efficient isolation of viable primary neural cells from adult murine brain tissue based on a novel automated tissue dissociation protocol. H. ZHANG; S. REIß; S. TOMIUK; S. RÜBERG; R. FEKETE; M. JUNGBLUT; A. BOSIO*. *Miltenyi Biotec, Fluidigm Corp.*

8:00 A5 **674.05** Region-specific transcript profiles of the lncRNA Sox2ot in adult rat brain: Correlation with Sox2 enhancers and Sox2 expression. D. A. CARTER*; S. YULE. *Cardiff Univ., Cardiff Univ.*

9:00 A6 **674.06** Unique regional and sex-dependent properties of adult endogenous neural stem cells to chronic alcohol and cocaine co-adminstration. E. L. MCGRATH*; J. GAO; T. DUNN; A. GRANT; J. ALLENDE-LABASTIDA; K. DINELEY; B. KAPHALIA; K. CUNNINGHAM; P. WU. *UTMB, Univ. of Texas Med. Br., Univ. of Texas Med. Br., Univ. of Texas Med. Br., Univ. of Texas Med. Br.*

10:00 A7 **674.07** The effects of high-fat diet on adult neurogenesis in the hippocampus.. F. NASRI*; M. WOJTOWICZ. *Univ. of Toronto.*

11:00 A8 **674.08** Matrix metalloproteinase-12 regulates the establishment of the subventricular zone neural stem cell niche. X. SHAN*; Q. YANG; H. A. COLOGNATO. *Stony Brook Univ.*

8:00 A9 **674.09** Primary cilia modulate TLR4-mediated NF-kB signaling in hippocampal neurons. H. BAEK; J. KIM; J. PARK; C. KIM; D. KIM*. *Chungnam Natl. Univ. Sch. of Med., Chungnam Natl. Univ. Sch. of Med., Chungnam Natl. Univ.*

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* Indicates abstract's submitting author

9:00 A10 **674.10** The atypical RhoGTPase Rnd2 is critical for newly generated neurons in the adult hippocampus. T. KERLOCH*; A. GORON; F. GUILLEMOT; N. D. ABROUS; E. PACARY. *Neurocentre Magendie, Natl. Inst. for Med. Res.*

10:00 A11 **674.11** The expression of Gas1 is regulated by proneural factors Neurogenin (Ngn2) and NeuroD via distal E-boxes. M. A. QUEZADA*; J. SEGOVIA. *CINVESTAV.*

11:00 A12 **674.12** mTORC1 regulates retinal development via the immune proteasome. J. CHOI*. *KAIST.*

8:00 A13 **674.13** *In vitro* model for characterizing migration and differentiation of primary cranial and trunk neural crest cells isolated from Sox9-cre/EYFP mouse embryos. M. R. REPLOGLE*; K. R. SVOBODA; A. J. UDVADIA. *Univ. of Wisconsin - Milwaukee, Univ. of Wisconsin - Milwaukee.*

9:00 B1 **674.14** Expression of glycoprotein non-metastatic melanoma B in the developing rat brain. S. YOKOYAMA*. *Kanazawa Univ.*

10:00 B2 **674.15** Nek2A phosphorylates and stabilizes SuFu: A new strategy of Gli2-Hedgehog signaling regulatory. S. LUO*; Y. WANG; Y. LI; G. HU; H. RAO; Q. LU. *The First Affiliated Hospital, Nanchang Univ., The First Affiliated Hospital, Nanchang Univ., Univ. of Texas Hlth. Sci. Ctr., Sch. of Publ. Health, Nanchang Univ.*

POSTER

675. Peripheral Nervous System Regeneration

Theme A: Development

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 B3 **675.01** Bone morphogenetic protein-7 and the development of the peripheral pain pathway. C. A. WEBBER*; T. FRIEDMAN; P. SABIRI; T. JOY; V. ZOUVELOU; D. GRAF. *Univ. of Alberta, Univ. of Alberta, Univ. Hosp. Agia Sofia, Univ. of Alberta.*

9:00 B4 **675.02** The effect of electrical stimulation on muscle reinnervation and axon elongation in a mouse model of Val66Met. C. MCGREGOR*; A. ENGLISH. *Emory Univ., Emory Univ.*

10:00 B5 **675.03** Realizing the potential of adult human skin-derived Schwann cells for transplantation therapy. J. A. STRATTON*; R. KUMAR; P. SHAH; M. STYKEL; R. MIDHA; J. BIERNASKIE. *Hotchkiss Brain Inst., Univ. of Calgary, Univ. of Calgary.*

11:00 B6 **675.04** Androgen receptor signaling is required for activity-dependent somatic motoneuron axon regeneration. P. J. WARD*; J. D. ZAJAC; A. W. ENGLISH, 30306. *Emory Univ. Dept. of Cell Biol., Univ. of Melbourne.*

8:00 B7 **675.05** A novel local FK506 delivery system for the treatment of peripheral nerve injury. K. TAJDARAN*; T. GORDON; G. H. BORSCHEL. *Univ. of Toronto/Sickkids Hosp., Inst. of Biomaterial and Biomed. Engin., SickKids Res. Inst.*

9:00 B8 **675.06** Luminopsin mediated attenuation of exercise induced functional improvements after sciatic nerve injury. P. B. JAISWAL*; J. K. TUNG; R. E. GROSS; A. W. ENGLISH. *Emory Univ., Emory Univ.*

10:00 B9 **675.07** ● Rat slow and fast nerves regenerate into appropriate endoneurial tubes to reinnervate tibialis anterior (TA) muscles after common peroneal (CP) nerve transection and surgical repair but, size-dependent branching occurs more distally within intramuscular sheaths. T. GORDON*; J. E. TOTOSY DE ZEPETNEK. *Hosp. for Sick Children, Univ. of Alberta.*

11:00 B10 **675.08** A randomized controlled trial on electrical stimulation to accelerate axon regeneration and functional recovery following cubital tunnel surgery. K. CHAN*; H. A. POWER; M. J. MORHART; J. L. OLSON. *Univ. Alberta, Univ. Alberta.*

8:00 B11 **675.09** Satellite glial cell renewal in dorsal root ganglia after peripheral nerve injury involves self renewal and intrinsic reprogramming of non-glial cells. A. KRISHNAN*; C. CHENG; D. W. ZOCHODNE. *Univ. of Alberta, Univ. of Calgary.*

9:00 B12 **675.10** ▲ Repeated application of 20 Hz electrical stimulation after peripheral nerve injury promotes motor axon regeneration and retention of exaggerated H reflexes. S. PARK; A. W. ENGLISH*. *Emory Univ. Sch. of Med.*

10:00 B13 **675.11** A growth suppressive role for major urinary protein (MUP) expression in diabetic and nondiabetic adult sensory neurons. D. W. ZOCHODNE*; V. SINGH; A. CHANDRASEKHAR; T. POITRAS; J. A. MARTINEZ. *Univ. of Alberta, Univ. of Alberta, Univ. of Calgary.*

11:00 B14 **675.12** αB-crystallin modulates immune responses and lipid metabolism in an age dependent matter in the uninjured and damaged peripheral nervous system. E. LIM; S. S. OUSMAN*. *Hotchkiss Brain Institute, Univ. of Calgary, Hotchkiss Brain Institute, Univ. of Calgary.*

8:00 B15 **675.13** Chronic electrical muscle stimulation (EMS) following nerve injury and repair in Sprague Dawley rats does not lead to preferential reinnervation of target muscles. M. WILLAND*; J. CATAPANO; J. BURGUET; P. ANDREY; G. H. BORSCHEL; T. GORDON. *The Hosp. For Sick Children, Inst. Jean-Pierre Bourgin.*

9:00 B16 **675.14** Expression of the monocyte chemokine CCL2 in regenerating peripheral nerve is rapidly elevated in response to brief electrical nerve stimulation. J. M. JOHNSTON; R. ZHAI; N. A. MCLEAN; J. R. NADEAU; V. M. VERGE*. *Univ. Saskatchewan-CMSNRC.*

10:00 B17 **675.15** Global knockout of Toll-like Receptors 2 and 4 does not hinder Wallerian degeneration but does somewhat impair regeneration after sciatic nerve injury. J. LINDBORG*; O. SHELTON; R. ZIGMOND. *Case Western Reserve Univ.*

11:00 B18 **675.16** ▲ Classification of macrophage activation state in dorsal root ganglia after peripheral nerve injury. M. HOWARTH; A. DEFRANCESCO-LISOWITZ*; J. P. NIEMI; C. MOORE; R. E. ZIGMOND. *Hathaway Brown Sch., Case Western Reserve Univ., Case Western Reserve Univ., Case Western Reserve Univ.*

8:00 B19 **675.17** Macrophage stimulation of peripheral axon regeneration requires CCL2 and pSTAT3. J. P. NIEMI*; A. DEFRANCESCO; C. MOORE; R. E. ZIGMOND. *Case Western Reserve Univ., Case Western Reserve Univ.*

9:00 B20 **675.18** Oncomodulin is not essential for a conditioning lesion effect in mouse dorsal root ganglia. A. DEFRANCESCO; A. J. HORNAK; D. D. SIMMONS; R. E. ZIGMOND*. *Case Western Reserve Univ., UCLA, Case Western Res. Univ. Sch. Med.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

10:00 B21 **675.19** Axonal regeneration requires activation of Sonic hedgehog signaling pathway in peripheral nerve injury. Y. YAMADA*; T. MAEDA; A. OHAZAMA; K. SEO. *Grad. Sch. of Niigata Univ., Niigata Univ. Grad. Sch. of Med. and, Niigata Univ. Grad. Sch. of Med. and.*

11:00 B22 **675.20** ● Over-expression of muscarinic acetylcholine type 1 receptor causes cytoskeletal abnormalities and impairs mitochondrial trafficking in adult sensory neurons. M. G. SABBIR*; P. FERNYHOUGH. *St. Boniface Res. Ctr., St. Boniface Hosp. Res. Ctr., Univ. of Manitoba.*

8:00 B23 **675.21** Electrospun polymer-polyvalent hydrogel composite fiber scaffolds with encapsulated neurons and glia for neural repair. J. M. COREY*; C. CHAN; C. M. WHITE; A. RASTOGI; A. M. GRANT; R. J. MILLER; R. K. DUNCAN. *Univ. of Michigan Dept. of Neurol., VA Ann Arbor Healthcare Syst., The Univ. of Michigan.*

9:00 B24 **675.22** Outcomes of muscle reinnervation with direct nerve implantation into the native motor zone of the target muscle. S. SOBOTKA*; J. CHEN; T. NYIRENDA; L. MU. *Hackensack Univ. Med. Ctr., Icahn Sch. of Med. at Mount Sinai.*

10:00 B25 **675.23** Phosphoproteomics identifies a phosphorylation site of GAP-43 in the peripheral nerve regeneration. M. OKADA*; A. KAWASAKI; Y. YOSHIDA; Y. FUJI; M. IGARASHI. *Niigata Univ., Niigata Univ., Brain Res. Inst., Inst. of Nephrology, Niigata university.*

11:00 B26 **675.24** Muscle reinnervation: Modified nerve-muscle-endplate band grafting technique. L. MU*; S. SOBOTKA; J. CHEN; T. NYIRENDA. *Hackensack Univ. Med. Ctr., Icahn Sch. of Med. at Mount Sinai.*

8:00 C1 **675.25** An evolutionarily conserved mechanism for cAMP elicited axonal regeneration involves direct activation of the dual leucine zipper kinase DLK. Y. HAO*; E. FREY; H. WONG; C. YOON; R. GIGER; L. HOLZMAN; A. DIANTONIO; C. COLLINS. *Univ. of Michigan, Washington Univ. in St. Louis, Univ. of Pennsylvania, Univ. of Michigan.*

9:00 C2 **675.26** The interaction of regenerating sensory and motor axons. T. M. BRUSHART*; F. KEBAISCH; R. WOLINSKY; R. SKOLASKY. *Johns Hopkins, Johns Hopkins.*

10:00 C3 **675.27** ▲ Neural dependence of fin regeneration in zebrafish. N. W. KLECKNER*; R. DOBBIN; H. LOEB; A. ESTRELLA; S. HOLMES. *Bates Col., Bates Col.*

8:00 DP01 **675.28** (Dynamic Poster) Nerve regeneration in *Octopus vulgaris*: Possible involvement of stem progenitor cells and epigenetic regulation. P. IMPERADORE*; G. FIORITO. *Assn. For Cephalopod Res. - Cephres, Stazione Zoologica Anton Dohrn.*

8:00 C4 **675.29** Involvement of Na^+/K^+-ATPase in peripheral nerve regeneration via lactate signaling in sciatic nerve transection-regeneration model. N. H. TU; S. ITO*; M. SHINJI; K. TAYO; P. MINH VUONG. *Kansai Med. Univ., Kansai Med. Univ.*

POSTER

676. Cytoskeletal Mechanisms Underlying Axon Outgrowth and Guidance

Theme A: Development

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 C5 **676.01** Nerve growth factor induces mitochondrial fission which is required for axon branching. L. ARMIJO WEINGART*; A. KETSCHEK; R. SAINATH; A. PACHECO; G. GALLO. *Temple Univ.*

9:00 C6 **676.02** Chondroitin sulfate proteoglycans inhibit axon branching by impairing the mitochondria-dependent local regulation of actin cytoskeletal dynamics and axonal protein synthesis. R. SAINATH*; A. KETSCHEK; L. GRANDI; G. GALLO. *Temple Univ.*

10:00 C7 **676.03** αII-spectrin-dependent cytoskeletons are essential for axon function, domain assembly and integrity. Y. HUANG*; C. ZHANG; D. ZOLLINGER; J. LALONDE; C. LETERRIER; J. NOEBELS; M. RASBAND. *Baylor Col. of Med., UCSF, Aix Marseille Univ.*

11:00 C8 **676.04** Identifying signaling cascades involved in growth and cell clustering of functional, non-prenylatable RhoA and Rac1. N. G. RAUT*; J. M. REDDY; D. L. HYNDS. *Texas Women's Univ.*

8:00 C9 **676.05** RacGAP α-chimaerin is required to establish spinal midline barrier for proper corticospinal projection. S. KATORI*; S. ITOHARA; T. IWASATO. *Natl. Inst. of Genet., RIKEN Brain Sci. Inst., Dept. of Genet., SOKENDAI (The Grad. Univ. for Advanced Studies).*

9:00 C10 **676.06** RACK1 regulates point contacts and local translation in growth cones. L. J. KERSHNER*; K. WELSHHANS. *Kent State Univ., Kent State Univ.*

10:00 C11 **676.07** Kinesin-1 is required for cannabinoid-induced axonal development through the axonal transport of CB1 receptor. T. M. SAEZ*; M. OTERO; G. OUBIÑA; L. E. CROMBERG; M. ALLOATTI; V. M. POZO DEVOTO; D. GELMAN; T. L. FALZONE. *Inst. De Biología Celular Y Neurociencia, Inst. de Biología y Medicina Exptl.*

11:00 C12 **676.08** DCLK1 phosphorylates the microtubule-associated protein MAP7D1 to promote axon elongation in cortical neurons. H. KOIZUMI*; K. TOGASHI; J. GLEESON; K. EMOTO. *The Univ. of Tokyo, The Univ. of Tokyo, The Rockefeller Univ., Howard Hughes Med. Inst.*

8:00 C13 **676.09** A dynein-based mechanism, repurposed from neuronal migration, establishes and preserves microtubule organization in the axon. A. RAO*; M. BLACK; E. CRAIG; K. MYERS; P. BAAS. *Drexel Univ., Temple Univ. Sch. of Med., Central Washington Univ., Univ. of the Sci.*

9:00 C14 **676.10** Regulation of mutant Arp3 in branch actin polymerization. P. DHANJANI, 76204; S. HALDAR; A. MAHADIK; B. BECK, 78758-4497; D. L. HYNDS*. *Texas Woman's Univ., Texas Woman's Univ., Univ. of Texas at Austin.*

10:00 C15 **676.11** Axonal mRNA dynamics in live hippocampal neurons. B. LEE*; S. BANG; S. LEE; N. JEON; H. PARK. *Seoul Natl. Univ., Div. of WCU (World Class University) Multiscale Mechanical Design Sch. of Mechanical and Aerospace Engin.*

11:00 C16 **676.12** Dynamics of cortical neuronal growth, transport and motility associated with cell trauma assessed by quantitative phase imaging (QPI). Y. J. LEE; P. CINTORA; M. E. KANDEL; C. A. POPESCU*. *UIUC, UIUC, UIUC.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

8:00 C17 **676.13** Mechanistic study of neurite outgrowth stimulated by the amyloid precursor protein interactor FE65. W. LI*; H. CHEUNG; K. LAU. *The Chinese Univ. of Hong Kong.*

9:00 C18 **676.14** ▲ Precise somatotopic thalamocortical axon guidance depends on LPA-mediated PRG-2/Radixin signaling. J. CHENG; S. SAHANI; T. HAUSRAT; J. YANG; H. ENDLE; X. LIU; Y. LI; R. BÖTTCHE; K. RADYUSCHKIN; A. HOERDER-SUABEDISSEN; Z. MOLNAR; P. PROUVOT; T. TRIMBUCH; O. NINNEMANN; J. HUAI; W. FAN; B. VISENTIN; R. SABBADINI; A. STROH; H. J. LUHMANN; M. KNEUSSEL; R. NITSCH; J. VOGT*. *Univ. Medicine, Johannes-Gutenberg-University, Univ. Med. Ctr. Hamburg-Eppendorf, Univ. Medicine, Johannes-Gutenberg-University, Univ. Medicine, Johannes-Gutenberg-University, Univ. of Oxford, Charite, Lpath, Univ. Medicine, Johannes-gutenberg-University.*

10:00 C19 **676.15** Cyclic gmp dependent protein kinase 1 guides axonal regeneration after sciatic nerve injury. L. VALEK*; A. HÄUSSLER; S. DRÖSE; K. SCHRÖDER; I. TEGEDER. *Univ. Hosp. Frankfurt, Univ. Hosp. Frankfurt, Univ. Hosp. Frankfurt.*

11:00 C20 **676.16** BIG1 is required for the survival of deep layer neurons and the thalamocortical connectivity in developing brain. J. TEOH*; T. IWANO; M. KUNII; A. HARADA. *Osaka Univ., Univ. of Yamanashi.*

8:00 C21 **676.17** ● Actin/spectrin periodicity at synapses and nodes of Ranvier reveald by STED microscopy. E. DESTE*; D. KAMIN; S. SIDENSTEIN; C. VELTE; M. SIMONS; S. HELL. *Max Planck Inst. For Biophysical Chem., Max Planck Inst. of Exptl. Med.*

9:00 C22 **676.18** Molecular mechanisms underlying polarized mitochondria structure and function in cortical neurons. T. LEWIS*, JR; S. KWON; R. SHAW; F. POLLEUX. *Columbia Univ. Med. Ctr., Salk Inst. for Biol. Studies.*

10:00 C23 **676.19** Bilaterian giant ankyrins have a common evolutionary origin and a conserved role in axon initial segment organization. T. J. JEGLA*; M. M. NGUYEN; D. J. GOETSCHIUS; E. LUNA; D. B. VAN ROSSUM; B. KAMEL; A. PISUPATI; E. S. MILNER; M. M. ROLLS. *Pennsylvania State Univ. Dept. of Biol., Penn State.*

11:00 C24 **676.20** Characterizing cytoskeleton changes during axonal degeneration. N. UNSAIN*; M. BORDENAVE; S. JALIL; J. I. MARÍN; C. VON BILDERLING; A. D. JOHNSTONE; M. BISBAL; P. A. BARKER; F. D. STEFANI; A. O. CÁCERES. *Inst. Ferreyra - INIMEC-CONICET-UNC, Ctr. de Investigaciones en Bionanociencias (CIBION), Vice Principal Research, Univ. of British Columbia Okanagan campus.*

POSTER

677. Neural Circuit Activity and Maturation II

Theme A: Development

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 C25 **677.01** Weakening of GABAergic connections from somatostatin interneurons to pyramidal neurons after eye-opening in layer 2/3 of visual cortex. W. GUAN*; J. CAO; Y. FU; Y. YU. *Fudan Univ.*

9:00 C26 **677.02** Function of early generated interneurons in the developing neocortex of neonatal mouse. C. WANG*; S. JIANG; J. MA; L. ZHANG; Z. YUAN; X. MAO; Y. YU. *Fudan Univ.*

10:00 C27 **677.03** Distinct roles for presynaptic and postsynaptic nmdars in visual circuit development. P. M. KESNER*; E. C. WARREN; F. MA; E. S. RUTHAZER. *Montreal Neurolog. Inst.*

11:00 C28 **677.04** Optical imaging of widely-spreading wave activity in the embryonic chick forebrain induced by olfactory nerve stimulation. K. SATO*; Y. MOMOSE-SATO. *Komazawa Women's Univ, Fac. of Human Hlth., Kanto Gakuin Univ., Col. of Nutr.*

8:00 C29 **677.05** *In vivo* 2-photon imaging of neuronal activity in layer 4 of the neonatal barrel cortex. H. MIZUNO*; T. SATO; T. IWASATO. *Natl. Inst. of Genet., SOKENDAI.*

9:00 C30 **677.06** Antagonistic roles of serotonin and glutamate release in the refinement of retinogeniculate circuits. D. Q. DAO*; B. GIROS; E. M. ULLIAN. *Univ. of California San Francisco, Douglas Mental Hlth. Res. Center, McGill Univ.*

10:00 C31 **677.07** Supernova: Extensible vector systems that enable high intensity single-cell labeling and labeled cell-specific gene knockout and editing *in vivo*. S. NAKAZAWA*; W. LUO; R. IWATA; H. MIZUNO; T. IWASATO. *Natl. Inst. of Genet., SOKENDAI (The Grad. Univ. for Advanced Studies).*

11:00 C32 **677.08** Layer specific developmental changes of excitatory and inhibitory balance in pyramidal neurons of rat primary visual cortex. R. TATTI*; A. MAFFEI. *Stony Brook Univ.*

8:00 C33 **677.09** Convergent tectal inputs drive circuit plasticity and visuomotor behavior via changes in excitatory to inhibitory balance. A. C. GAMBRILL*; R. L. FAULKNER; H. CLINE. *The Scripps Res. Inst., The Scripps Res. Inst.*

9:00 C34 **677.10** Store-operated calcium entry in pupal *Drosophila* neurons regulates flight through Ral expression and vesicular release. S. RICHHARIYA*; S. JAYAKUMAR; K. ABRUZZI; M. ROSBASH; G. HASAN. *NCBS, TIFR, Manipal Univ., Brandeis Univ., HHMI, Brandeis Univ.*

10:00 D1 **677.11** Role of early activity in the development of the *Caenorhabditis elegans* egg laying behavior circuit. B. RAVI*; K. M. COLLINS. *Univ. of Miami.*

11:00 D2 **677.12** Development of spontaneous activity in the larval zebrafish tectum. L. AVITAN*; Z. PUJIC; B. SUN; E. K. SCOTT; G. J. GOODHILL. *The Univ. of Queensland, Sch. of Biomed. Sci., Sch. of Mathematics and Physics.*

8:00 D3 **677.13** Role of histone deacetylase 2 (HDAC2) in PV cell circuit development. M. LAVERTU JOLIN*; T. BADRA; G. DI CRISTO. *CHU Sainte-Justine / Univ. De Montréal.*

9:00 D4 **677.14** Intrinsic spontaneous network activity in the neonatal mouse olfactory bulb is required for dendrite pruning of mitral cells. M. N. LEIWE*; S. FUJIMOTO; Y. MUROYAMA; R. KOBAYAKAWA; K. KOBAYAKAWA; T. SAITO; T. IMAI. *RIKEN, Chiba Univ., Kansai Med. Univ.*

10:00 D5 **677.15** Major vault protein, a candidate gene in 16p11.2 microdeletion syndrome, is required for homeostatic regulation of cortical plasticity. P. IP*; I. NAGAKURA; J. PETRAVICZ; J. BENOIT; E. A. C. WIEMER; M. SUR. *MIT, Erasmus Univ. Rotterdam.*

11:00 D6 **677.16** High reciprocal connectivity between clonal cortical neurons is established under the guidance of epigenetic regulation. E. TARUSAWA; M. SANBO; A. OKAYAMA; T. MIYASHITA; T. KITSUKAWA; T. HIRAYAMA; T. HIRABAYASHI; S. HASEGAWA; M. HIRABAYASHI; T. YAGI; Y. YOSHIMURA*. *Natl. Inst. For Physiological Sci., CREST / AMED, Osaka Univ., CREST/AMED.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
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* Indicates abstract's submitting author

8:00 D7 **677.17** The regulatory roles of perineuronal semaphorin 3A and chondroitin sulfates on the developing vestibular circuitry. D. K. SHUM*; P. Y. KWAN; C. W. MA; Y. S. CHAN. *Sch. of Biomedic. Sci., Fac. Med., Univ. Hong Kong, Res. Ctr. of Heart, Brain, Hormone and Healthy Aging, Fac. Med., Univ. Hong Kong.*

9:00 D8 **677.18** Differential effects of decreasing excitatory inputs on excitatory and inhibitory neurons. H. HE*; W. SHEN; H. CLINE. *The Scripps Res. Inst., Inst. of Developmental and Regenerative Biology, Col. of Life and Envrn. Sci., Hangzhou Normal Univ.*

10:00 D9 **677.19** The NuRD chromatin remodeling complex drives neural circuit development *in vivo*. K. K. HILL*; Y. YANG; T. YAMADA; T. E. HOLY; A. BONNI. *Washington Univ. Sch. of Med., Univ. of Tsukuba.*

11:00 D10 **677.20** Developmental switch in striatal adaptation to cortical hyperactivity. R. PEIXOTO*; W. WANG; J. LEVASSEUR; B. SABATINI. *Harvard Med. Sch.*

8:00 D11 **677.21** Exploring the role of p75NTR signaling pathway on GABAergic circuit maturation following neonatal hypoxia induced seizure. B. CHATTOPADHYAYA; M. BERRYER; D. DUFOUR-BERGERON; N. SANON; C. BOSOI; L. CARMANT; G. DI CRISTO*. *CHU Ste.justine-University of Montreal.*

9:00 D12 **677.22** T-cadherin/Cdh13 expressed by hippocampal interneuron populations affects synaptic activity and memory. J. LIU*; H. BADIE-MAHDAVI; A. ROBERTS; J. SANES; B. RANSCHT. *Sanford Burnham Prebys Med. Discovery Inst., Sanford Burnham Prebys Med. Discovery Inst., The Scripps Res. Inst., Harvard Univ.*

POSTER

678. Sensory Systems Development: Activity and Circuits

Theme A: Development

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 D13 **678.01** Gap junctions in early postnatal excitatory neurons regulate spine density and maturation of response reliability. K. HAYASHI*; K. OHKI. *The Univ. of Tokyo.*

9:00 D14 **678.02** A role of presenilin in the developing visual circuit of Xenopus tadpole. Z. LIU*; A. M. THAKAR; K. G. PRATT. *Univ. of Wyoming, Univ. of Wyoming.*

10:00 D15 **678.03** Cortical layer 6b neurons selectively innervate higher order nuclei in the thalamus. A. HOERDER-SUABEDISSEN; A. L. UPTON*; E. L. GRANT; K. V. KORRELL; S. VISWANATHAN; P. O. KANOLD; Y. KIM; Z. MOLNAR. *Univ. of Oxford, Univ. of Maryland, Janelia Res. Campus, Penn State Univ.*

11:00 D16 **678.04** Roles of Celsr3 in central projections of dorsal root ganglion neurons. W. FEIFEI*; L. ZHOU. *Guangdong-hongkong-Macau Inst. of CNS Regene, Guangdong-Hongkong-Macau Inst. of CNS Regeneration,Jinan Univ.*

8:00 D17 **678.05** Early GABAergic microcircuits and cortical dynamics. L. MODOL VIDAL*; V. SOUSA; A. MALVACHE; T. TRESSARD; A. BAUDE; R. COSSART. *INMED, INSERM U901, INMED, Inserm.*

9:00 D18 **678.06** ▲ Genetic and epigenetic regulation of the cortical phenotype: The effects of early bilateral enucleation on epigenetic and genetic modifications in developing neocortex. K. FOREMAN; D. RAMAMURTHY; C. WELLER; L. A. KRUBITZER; D. S. STOLZENBERG*. *Univ. of California Davis, Univ. of California Davis.*

10:00 D19 **678.07** Comparison of postnatal cortical development between primary auditory and somatosensory cortexes in the mouse. M. CHANG*; S. ISHIZAWA; H. D. KAWAI. *Soka Univ.*

11:00 D20 **678.08** Anatomical, molecular and functional characterization of rhombomere 4-derived sensorimotor sub-circuits in the mouse brainstem. M. DI BONITO*; E. SETTI; M. STUDER. *UNS Univ. Nice Sophia Antipolis.*

8:00 D21 **678.09** Dynamic changes in brain network activation during emotional face processing in the developing brain. C. STAMOULIS*; P. DINARDO; A. WESTERLUND; C. A. NELSON, III. *Harvard Med. Sch., Boston Children's Hosp., Harvard Med. Sch.*

9:00 D22 **678.10** Theoretical models of visual map alignment in the superior colliculus. R. A. TIKIDJI-HAMBURYAN*; T. EL-GHAZAWI; J. W. TRIPLETT. *George Washington Univ., George Washington Univ., Children's Natl. Hlth. Syst.*

10:00 D23 **678.11** Distinct developmental patterns in attentional selection and suppression. E. WANG*; M. SUN; Y. TAO; J. HUANG; L. SUN; Y. SONG. *Beijing Normal Univ., Peking Univ. Sixth Hosp. / Inst. of Mental Hlth.*

11:00 D24 **678.12** Calibration of visual map through bimodal NMDAR signal. M. HIRAMOTO*; H. CLINE. *The Scripps Res. Inst., The Scripps Res. Inst.*

8:00 D25 **678.13** ● Mechanistic insights into agonist binding domain mutations in NMDA receptors underlying neurodevelopmental disorders. S. BHATTACHARYA*; S. A. SWANGER; W. CHEN; K. L. STRONG; P. BURGER; G. WELLS; A. TANKOVIC; C. HU; H. KUSUMOTO; J. J. MILLICHAP; S. F. TRAYNELIS; H. YUAN. *Emory Univ., Emory Univ., Med. Univ. of South Carolina, Northwestern Univ. Feinberg Sch. of Medicine, and Ann & Robert H. Lurie Children's Hosp. of Chicago.*

9:00 D26 **678.14** A redefined critical period for visual acuity. M. F. DAVIS*; D. X. FIGUEROA VELEZ, 92697; S. P. GANDHI. *UC Irvine, UC Irvine.*

10:00 D27 **678.15** CPEB3-regulated megf10 expression controls retinal mosaic spacing of starburst amacrine cells. Y. HUANG*; Y. CHEN; K. BAI. *Academia Sinica/Institute of Biomed. Sci.*

11:00 D28 **678.16** Postnatal refinement of feedforward projections in ferret visual cortex. R. KHALIL*; V. C. RAMIREZ; J. B. LEVITT. *American Univ. of Sharjah, The City Col. of New York.*

8:00 D29 **678.17** Developmental changes of spontaneous and sensory evoked activity of the habenular circuits in zebrafish. S. L. FORE*; S. K. JETTI; C. V. DIAZ; M. HOFFMANN; E. BARTOSZEK; E. YAKSI. *Kavli Inst. for Systems Neurosci. - CNC, MIT, Charite.*

9:00 D30 **678.18** ● Roles of neuronal activity in the establishment of neocortical neuron identity. T. WANG*; C. HANASHIMA. *Ctr. For Developmental Biology, RIKEN.*

10:00 D31 **678.19** Quasi-regular structure of ON and OFF retinal mosaics provides a common organizing principle of functional maps in V1. J. JANG*; C. LEE; S. PAIK. *KAIST, KAIST.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

11:00 D32 **678.20** NMDA-dependent competition drives subcellular topography of multisensory inputs in the tadpole tectum. A. S. HAMODI, 82072; K. G. PRATT*. *Univ. of Wyoming.*

8:00 D33 **678.21** The effect of omega-3 fatty acids on murine visual function and plasticity. E. CENTOFANTE*; L. ANEZ-BUSTILLOS; M. A. BAKER; N. HODGSON; T. K. HENSCH; M. PUDER; M. FAGIOLINI. *Boston Children's Hosp., Boston Children's Hosp., Harvard Univ.*

POSTER

679. Genetic Mechanisms in Autism Models

Theme A: Development

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 D34 **679.01** Loss of autism-associated gene Cntnap2 has broad effects on neuropsychiatric features in juvenile rats. D. CONNOLLY*; S. VEERARAGAVAN; S. SORIANO; A. J. LIANG; L. YUVA; R. PAYLOR; R. C. SAMACO. *Baylor Col. of Med.*

9:00 E1 **679.02** TBCK-encephalopathy, a novel syndrome associated with mTOR over inhibition and mitochondrial dysfunction. X. R. ORTIZ-GONZALEZ*; J. A. TINTOS-HERNANDEZ; D. C. WALLACE*. *Children's Hosp. of Philadelphia.*

10:00 E2 **679.03** Haploinsufficiency of CHD8 results in macrocephaly and aberrant neurodevelopmental gene expression in mice. A. L. GOMPERS*; L. SU-FEHER; T. STRADLEIGH; I. ZDILAR; R. ASRAFUZZAMAN; G. KAUSHIK; D. VOGT; J. L. R. RUBENSTEIN; A. VISEL; L. A. PENNACHIO; D. DIXEL; K. ZARBALIS; A. S. NORD; A. S. NORD. *UC DAVIS, Shriners Hosp. for Children, Inst. for Pediatric Regenerative Med., Univ. of California, San Francisco, Lawrence Berkeley Natl. Lab.*

11:00 E3 **679.04** Migration of cortical interneurons is modulated by MTOR signaling in the LgDel model of 22q11.2 DS. T. M. MAYNARD*; E. M. PARONETT; D. W. MEECHAN. *George Washington Univ., George Washington Univ.*

8:00 E4 **679.05** Treatment with novel ERK inhibitor rescues ASD pathophysiology in 16p11.2 deletion mouse model. J. PUCILOWSKA*; C. KELLY; J. KARLO; A. GOZZI; R. BRAMBILLA; G. E. LANDRETH. *Case Western Reserve Univ., Case Western Reserve Univ., Inst. Italiano di Tecnologia, Cardiff Univ.*

9:00 E5 **679.06** Medial prefrontal cortex microcircuit dysfunction in NL3 R451C knock-in mice. W. CAO*; Y. DU; Q. XIA; S. LIN; Q. YANG; J. XIA; J. XU; J. LUO. *Zhejiang Univ., The Hong Kong Univ. of Sci. and Technol.*

10:00 E6 **679.07** Generation and analysis of Rett syndrome model marmoset. N. KISHI*; K. SATO; M. OKUNO; T. ITOU; H. J. OKANO; E. SASAKI; H. OKANO. *RIKEN BSI, Keio Univ. Sch. of Meidicine, CIEA, Jikei Univ. Sch. of Med.*

11:00 E7 **679.08** Initial characterization of a new loss-of-function mouse model of the autism susceptibility gene Chd8. M. PRIDE*; I. ZDILAR; A. GOMPERS; A. VISEL; L. PENNACCHIO; D. DICKEL; J. L. SILVERMAN; J. N. CRAWLEY; A. S. NORD. *UC Davis, Lawrence Berkeley Natl. Lab.*

8:00 E8 **679.09** Synaptic and network abnormalities in the Cntnap2 mouse model of autism. M. T. LAZARO*; O. PEÑAGARIKANO; I. BACHMUTSKY; T. IKRAR; R. SANTOS; A. MYLAVARAPU; S. CHANDRA; H. DONG; X. XU; D. H. GESCHWIND; P. GOLSHANI. *Univ. of California, UCLA, UCLA, UCLA, Univ. of California, UCLA, UCLA, West Los Angeles VA Med. Ctr.*

9:00 E9 **679.10** Characterization of TAO2 KO mice as an autism spectrum disorder model and the pathophysiological effects of TAO2 human genetic variants. N. MURTAZA*; M. RICHTER; S. WHITE; R. SCHARRENBERG; F. MORELLINI; A. NAUMANN; B. SCHWANKE; V. KWAN; S. WALKER; R. YUEN; S. W. SCHERER; F. CALDERON DE ANDA; K. SINGH. *McMaster Univ., Ctr. for Mol. Neurobio., The hospital for sick children.*

10:00 E10 **679.11** Impaired hippocampus-dependent learning and synaptic plasticity in a novel animal model of autism spectrum disorders with telomerase reverse transcriptase overexpression. K. PARK*. *Konkuk Univ.*

11:00 E11 **679.12** Neuroanatomical phenotypes in a novel inducible mouse model of Ube3a overexpression and chromosome 15q11.2-13 duplications. J. L. SILVERMAN*; N. BUSCHER; N. A. COPPING; S. CHRISTIAN; J. LERCH; S. V. DINDOT; J. ELLEGOOD. *UC Davis Sch. of Med., Texas A&M, Mouse Imaging Ctr.*

8:00 E12 **679.13** Identifying potentially haploinsufficient genes in 22q13 deletion syndrome. A. R. MITZ*; A. SHCHEGLOVITOV; L. BOCCUTO; A. THURM. *NIH, Univ. of Utah, JC Self Res. Inst. of the Greenwood Genet. Ctr., Clemson Univ. Sch. of Hlth. Res., Natl. Inst. of Mental Hlth.*

9:00 E13 **679.14** Generation and preliminary characterization of artificial transcription factors (ATFs) for the regulation of Shank3 in a preclinical model of Phelan McDermid Syndrome and Autism. C. REN; B. R. PYLES; M. C. PRIDE; N. BUSHCER; N. A. COPPING; H. O'GEEN; M. YANG*; D. J. SEGAL; J. L. SILVERMAN. *UC Davis Sch. of Med., UC Davis Sch. of Med.*

10:00 E14 **679.15** ▲ Selective neuronal forebrain overexpression of Ube3a isoform 2 causes behavioral phenotypes relevant to chromosome 15q11.2-13 duplications. N. COPPING*; S. CHRISTIAN; N. BUSCHER; M. S. ISLAM; M. C. PRIDE; J. M. LASALLE; S. V. DINDOT; J. L. SILVERMAN. *UC Davis, Sch. of Med., Texas A&M Univ.*

11:00 E15 **679.16** Investigating the neuronal function of dock4, a autism/dyslexia related gene. D. GUO*; Y. PENG; C. LIANG; L. SHI. *Jinan Univ.*

8:00 E16 **679.17** The role of hormones in male-specific social and behavioral deficits in the protocadherin 10 (Pcdh10) mouse model of autism. S. L. FERRI*; M. R. BRUCE; H. C. DOW; C. C. ANGELAKOS; W. T. O'BRIEN; H. SCHOCH; S. HIRANO; R. T. SCHULTZ; E. S. BRODKIN; T. ABEL. *Univ. of Pennsylvania, Temple Univ., Univ. of Pennsylvania, Univ. of Pennsylvania, Univ. of California, Irvine, Kansai Med. Univ., Children's Hosp. of Philadelphia.*

9:00 E17 **679.18** Cognitive phenotypes in a novel model of chromosome 15q11.2-13 duplication. N. BUSCHER*; S. CHRISTIAN; N. A. COPPING; D. RITTER; S. V. DINDOT; J. L. SILVERMAN. *UC Davis, Texas A&M Univ.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

10:00 E18 **679.19** Hyper-excitability and hyper-plasticity in the cerebellar network of IB2 KO mouse model of autism. L. MAPELLI*; T. SODA; F. LOCATELLI; L. BOTTA; M. GOLDFARB; F. PRESTORI; E. D'ANGELO. *Univ. of Pavia, Museo Storico della Fisica e Ctr. Studi e Ricerche Enrico Fermi, Dept of Biol. and Biotech. "L. Spallanzani", Univ. of Pavia, Dept of Biol. Sciences, Hunter Col., Brain Connectivity Center, C. Mondino Natl. Neurolog. Inst.*

POSTER

680. Physiological Mechanisms in Autism and Autism Models

Theme A: Development

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 E19 **680.01** Autism-associated missense mutations in SCN2A impair $Na_V1.2$ sodium channel function. R. BEN-SHALOM*; C. M. KEESHEN; J. AN; K. BERRIOS; S. SANDERS; K. J. BENDER. *UCSF, UCSF, Univ. of Puerto Rico.*

9:00 E20 **680.02** The role of PAK signaling in the regulation of synaptic plasticity and social memory. C. LEUNG*; F. CAO; Z. P. JIA. *Hosp. For Sick Children, Univ. of Toronto.*

10:00 E21 **680.03** Functional Assessment of ASD-associated variants in the PTEN gene. K. POST*; B. P. YOUNG; B. CALLAGHAN; M. BELMADANI; S. ROGIC; C. RANKIN; S. BAMJI; T. O'CONNOR; D. ALLAN; P. PAVLIDIS; C. LOEWEN; K. HAAS. *Univ. of British Columbia.*

11:00 E22 **680.04** Deficits in cerebellar synapse and circuit function in an autism mouse model for the human 15q11-13 duplication. D. H. SIMMONS*; C. PIOCHON; T. TAKUMI; C. HANSEL. *Univ. of Chicago Dept. of Neurobio., Northwestern Univ., RIKEN Brain Sci. Inst., Univ. of Chicago.*

8:00 E23 **680.05** Altered connectivity of neonatal subplate and layer 4 neurons in primary auditory cortex in a mouse model of autism. D. NAGODE*; P. O. KANOLD. *Univ. of Maryland Col. Park.*

9:00 E24 **680.06** Cntnap2 -/- autism model mice display deficits in tonic and phasic inhibition in primary visual cortex. M. BRIDI*; S. PARK; S. HUANG. *Hussman Inst. For Autism.*

10:00 E25 **680.07** Comparative expression analysis of autism-associated cadherin superfamily members. J. A. FREI*; G. J. BLATT; Y. LIN. *Hussman Inst. For Autism.*

11:00 E26 **680.08** Rescues behavioral deficits in SHANK3 knock-out mice by pharmacological enhancement of mGlu5 receptors. C. K. JONES*; C. VICIDOMINI; L. PONZONI; D. LIM; A. TOZZI; D. REIM; A. A. GENAZZANI; P. CALABRESI; M. SALA; M. SCHMEISSER; C. W. LINDSLEY; T. M. BOECKERS; C. SALA; C. VERPELLI. *Vanderbilt Univ. Med. Ctr., CNR Neurosience Inst., BIOMETRA Univ. of Milan, Dept. of Pharmaceut. Sciences, Univ. degli Studi del Piemonte Orientale "Amedeo Avogadro", Univ. of Perugia, Dept. of Exptl. Med., Inst. for Anat. and Cell Biology, Ulm Univ., Dept. of Pharmaceut. Sciences, Univ. degli Studi del Piemonte Orientale.*

8:00 E27 **680.09** The number of parvalbumin-expressing chandelier and basket cells are differentially decreased in medial prefrontal cortex in autism. V. MARTINEZ-CERDENO*. *UC Davis.*

9:00 E28 **680.10** ● Human tuberous sclerosis (TSC) 2 (-/-) genome-edited neural stem cells and neurones exhibit inhibited autophagy which is restored following mTORC1 inhibition. L. STEWARD*; N. ANASTASI; A. MARCUZ; N. BE; M. GURIDI ORMAZABAL. *Roche Innovation Ctr. Basel, Neurosci. Discov.*

10:00 E29 **680.11** Contributions of Cadherin-8 to establishing corticostriatal networks. R. E. MESIAS*; L. G. FRIEDMAN; D. L. BENSON; G. W. HUNTLEY. *Icahn Sch. of Med. At Mount Sinai.*

11:00 E30 **680.12** The basal ganglia has altered inhibitory receptor expression in autism: Implications for cortico-striatal dysfunction. K. SUBRAMANIAN*; C. BRANDENBURG; G. J. BLATT. *Hussman Inst. for Autism.*

8:00 E31 **680.13** Loss of KIDLIA/KIAA2022 causes alterations in synaptic function, gene transcription and autistic behaviors in a novel autism mouse model. J. P. GILBERT*; H. MAN. *Boston Univ.*

9:00 E32 **680.14** Verification of abnormality of postnatal synapse formation/pruning in a primate model of ASD. T. SASAKI*; T. SANAGI; K. NAKAGAKI; T. MANABE; N. ICHINOHE. *Natl. Ctr. of Neurol. and Psychiatry, Brain Sci. Institute, RIKEN.*

10:00 E33 **680.15** The autism associated gene cntnap3 is a critical cell-adhesion molecule in neurite and synapse development. D. TONG*. *Inst. of Neurosci.*

11:00 E34 **680.16** Autism-associated mutations in cep290 disrupt cell proliferation process. M. B. KILANDER*; Y. LIN. *Hussman Inst. For Autism.*

8:00 E35 **680.17** Oxytocin fails to enhance serotoninergic neurotransmission in autistic patients. A. Q. LEFEVRE*; R. MOTTOLESE; J. REDOUTÉ; N. COSTES; D. LE BARS; M. GEOFFRAY; M. LEBOYER; A. SIRIGU. *CNRS, Inst. des Sci. Cognitives Marc Jeannerod, CERMEP, INSERM, U841 Hôpital Chenevier-Mondor.*

9:00 E36 **680.18** Neuronal overexpression of β-catenin results in severe intellectual disabilities and autism. J. ALEXANDER*; S. JIN; L. FEIG; M. H. JACOB. *Tufts Univ.*

10:00 E37 **680.19** Decreased parvalbumin mRNA levels in Purkinje cells in cerebellar Crus II in autism: Implications for altered excitatory/inhibitory balance in fronto-cerebellar circuitry. G. J. BLATT*; S. REPRAKASH; K. ZHANG; J. SOGHOMONIAN. *Hussman Inst. For Autism, Boston Univ. Sch. of Med.*

11:00 E38 **680.20** Changes to microglial but not oligodendrocyte density in the posterior parietal cortex of autistic individuals. M. S. MANIERKA*; J. J. HUTSLER. *Univ. of Nevada Reno.*

8:00 F1 **680.21** Dysfunctional cerebellar Purkinje cells contribute to autism like behaviours in Shank2-deficient mice. S. PETER*; M. M. TEN BRINKE; J. STEDEHOUDER; C. M. REINELT; B. WU; H. ZHOU; K. ZHOU; H. J. BOELE; S. A. KUSHNER; M. LEE; M. SCHMEISSER; T. M. BOECKERS; M. SCHONEWILLE; F. E. HOEBEEK; C. I. DE ZEEUW. *Erasmus MC, Netherlands Inst. for Neurosci., Inst. für Anatomie und Zellbiologie, Yonsei Univ. Col. of Med.*

9:00 F2 **680.22** DNA methylation, hydroxymethylation and formylation in human frontal cortex of autistic and schizophrenic subjects. R. C. DETH*; M. S. TRIVEDI; Y. ZHANG; H. ABDOLMALEKY. *Nova Southeastern Univ., Nova Southeastern Univ., Northeastern Univ., Boston Univ.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

10:00 F3 **680.23** Autism-associated Mint2 N723S mutation leads to disruption in neuronal development and synaptic function. Y. LIN*; C. KENNY; S. HENRY; U. BEFFERT; A. HO. *Boston Univ., Boston Univ.*

11:00 F4 **680.24** Understanding mechanisms of susceptibility genes implicated in autism spectrum disorders. K. R. BARBER*; A. M. BUCKLEY; J. TANQUARY; M. WOODSON; M. B. SHERMAN; Y. P. WAIRKAR. *Univ. of Texas Med. Br. Dept. of Neurol., Univ. of Texas Med. Br.*

8:00 F5 **680.25** Altered responses of synaptic strength and intrinsic excitability to homeostatic challenges in Timothy Syndrome. S. D. SUN*; B. S. SUUTARI; B. LI; R. W. TSIEN. *New York Univ., New York Univ. Med. Ctr.*

9:00 F6 **680.26** Increased spontaneous activity and seizure susceptibility in a mouse model of Timothy Syndrome. A. SALAH*; O. DEVINSKY; D. M. TALOS; R. W. TSIEN. *New York Univ. Sch. Med., New York Univ. Sch. Med., Univ. of Pennsylvania.*

POSTER

681. Animal Models of Environmental Effects on Neurodevelopment

Theme A: Development

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 F7 **681.01** Maternal immune activation leads to impairments in behavioral flexibility, repetitive grooming, and social approach deficits. D. A. AMODEO*; S. B. POWELL. *Univ. of California San Diego.*

9:00 F8 **681.02** ● Early neurodevelopmental consequences of maternal immune activation in male and female Wistar rats. J. NEILL*; M. EDYE, MP13 9PT; K. MURRAY; M. HARTE; J. DENNISON; I. KNUESEL; E. PRINSSEN. *Univ. of Manchester, Univ. of Manchester, Yale Univ., Roche Innovation Ctr. Basel.*

10:00 F9 **681.03** Prenatal allergen exposure effects on microglia, dendritic spines in the prefrontal cortex, and cognitive flexibility. K. M. LENZ*; A. KRUG; A. JOSHI; A. GALAN. *Ohio State Univ. Dept. of Psychology, The Ohio State Univ.*

11:00 F10 **681.04** Placental group B Streptococcus infection: Sex specific inflammatory response and autistic-like traits in male offspring. M. ALLARD*; J. BERGERON; M. DESCOTEAUX; L. TREMBLAY; M. LEPAGE; L. FORTIER; G. SÉBIRE. *McGill Univ., Univ. de Sherbrooke.*

8:00 F11 **681.05** Neonatal infection with Borna Disease Virus causes widespread dendritic branching and spine neuropathology in brains of 3 week-old rats. R. F. MERVIS*; S. P. ZAJD; A. D. BACHSTETTER; K. DEMAYO; A. BARTON; E. ORELLANA; J. ESSA; A. SIDHOM; J. S. PADILLA; S. BAZZI; N. K. PATEL; N. NOBREGAS; W. I. LIPKIN; M. HORNIG. *Neurostructural Res. Labs, Neurostructural Res. Labs, Univ. of Kentucky, Univ. of South Florida, Univ. of South Florida, Columbia University, Mailman Sch. of Publ. Hlth.*

9:00 F12 **681.06** The role of the peripheral immunophenotype in behaviour. S. L. THOMPSON*; C. MORI; S. PAVALAGANTHARAJAH; D. M. E. BOWDISH; J. A. FOSTER. *McMaster Univ., McMaster Univ., McMaster Univ.*

10:00 F13 **681.07** Maternal high fat diet affects microglial function in prepubertal immune challenged offspring: Implications for neurodevelopmental disorders. M. BORDELEAU*; M. TREMBLAY; G. N. LUHESHI. *Douglas Mental Hlth. Univ. Institute, McGill, CRCHUQ Univ. Laval.*

11:00 F14 **681.08** NF-κB p50 knock-out mice as animal model of maternal immune activation linked to neurodevelopmental disorders. S. A. BONINI*; A. MASTINU; M. PREMOLI; G. MACCARINELLI; G. FERRARI-TONINELLI; M. MEMO. *Univ. of Brescia.*

8:00 F15 **681.09** Poly(I:C) immune response is dependent on length: Implications for preclinical maternal immune activation models. M. D. BAUMAN*; M. CAREAGA; C. CHANG; A. CHIANG; K. KU; R. F. BERMAN. *Univ. California, Davis, Univ. California, Davis.*

9:00 F16 **681.10** Toll-like receptor-selective placental vulnerability, fetal brain impairment and post-natal behavioral deficits in models of neurodevelopmental disorder. B. A. BABINEAU*; H. M. MOON; A. R. NARAYAN; K. M. CORREA; V. SARAVANAPANDIAN; G. SUBRAMANYAM; T. CISNEROS; M. RIVERA; T. D. PALMER. *Stanford Univ., San Jose State Univ., Stanford Univ.*

10:00 F17 **681.11** ▲ Gene by environment interactions in a maternal allergic asthma model of Autism Spectrum Disorders. F. J. EMERSON*; M. L. BERKOWITZ-CERASANO; J. J. SCHWARTZER. *Mount Holyoke Col.*

11:00 F18 **681.12** ▲ ASD-like behavioral deficits in a mouse model of gestational exposure to concentrated ambient particulate matter. M. A. COBURN*; M. E. JOHNSON; P. B. TIJERINA; J. ZELIKOFF; J. SCHWARTZER. *Mount Holyoke Col., New York Univ.*

8:00 F19 **681.13** Deleterious impact of hyperoxia on the development of hippocampus in a mouse model of premature birth injury. C. VACHER*; J. ABBAH; L. CHEW; V. GALLO. *Children's Natl. Med. Ctr., Paris Saclay Inst. of Neurosci.*

9:00 F20 **681.14** Long-term cognitive dysfunction associated with isoflurane/nitrous oxide-induced general anesthesia in neonatal nonhuman primates is greatly diminished by prophylactic administration of acetyl-l-carnitine. M. G. PAULE*; M. LI; S. LIU; X. ZHANG; J. P. HANIG; W. SLIKKER, Jr.; C. WANG. *FDA's Natl. Ctr. For Toxicological Res., Ctr. for Drug Evaluation and Res.*

10:00 F21 **681.15** Ketamine anesthesia during the first week of life can cause permanent cognitive deficits in rhesus monkeys. J. C. TALPOS*, III; J. CHELONIS; M. LI; M. P. GILLAM; C. WANG; W. SLIKKER; M. G. PAULE. *FDA.*

11:00 F22 **681.16** Prenatal valproic acid exposure induces sex specific autism-related behavioral phenotypes in prairie voles. L. L. ELVIR*; H. WANG; F. DUCLOT; Y. LIU; Z. WANG; M. KABBAJ. *Florida State Univ., Florida State Univ.*

8:00 F23 **681.17** Chronically elevated prenatal cytokine exposure as a translational model for ADHD and ASD. Rodent behavior and resting state connectivity MRI. B. D. MILLS*; A. SHUMNMUGAVEL; A. GONCHAROVA; C. PIZZIMENTI; M. LATTAL; S. MITCHELL; D. FAIR. *Oregon Hlth. & Sci. Univ., Oregon Hlth. and Sci. Univ.*

9:00 F24 **681.18** Developing a ferret model of newborn brain injury and cortical dismaturation. A. MIKHAILOVA; J. K. ELLIS; P. S. MCQUILLEN*. *Univ. of California San Francisco, Univ. of California San Francisco, Univ. of California San Francisco.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
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* Indicates abstract's submitting author

10:00 F25 **681.19** Postnatal fluoxetine treatment evokes persistent alterations in perineuronal nets within the hippocampus. S. MUKHOPADHYAY; A. SOOD; V. A. VAIDYA*. *Tata Inst. Fundamental Res., Tata Inst. Fundamental Rese.*

11:00 F26 **681.20** Early changes in behavior and brain metabolism in socially isolated rats. J. HERNANDEZ-FALCON*; M. PORRAS-VILLALOBOS; E. AGUIRRE-BENÍTEZ; L. PARRA-GÁMEZ; J. GONZÁLEZ-RÍOS; M. AVILA-RODRÍGUEZ; D. ALBORES-GARCÍA; K. MENDOZA-ANGELES; A. MELO. *Univ. Nacional Autónoma De México, Univ. Nacional Autónoma de México, Univ. Autónoma de Tlaxcala.*

8:00 F27 **681.21** Effect of developmental sleep fragmentation on social behavior and parvalbumin expression in prairie voles. M. M. LIM*; E. A. D. HAMMOCK; J. QUINTANA; R. D. CHAMPAIGNE; R. A. OPEL; D. L. COCKING; R. C. DRIESSEN. *Veterans Affairs Portland Hlth. Care Syst., Oregon Hlth. & Sci. Univ., Oregon Hlth. & Sci. Univ., Florida State Univ.*

9:00 F28 **681.22** Effects of exposure during adolescence to different PCB aroclors and doses on hyperactivity and impulsiveness in male and female rats. J. P. LOMBARDO*; J. A. PECK; D. F. BERGER; P. M. JEFFERS. *SUNY Col, Cortland, SUNY Col, Cortland, SUNY Col, Cortland.*

10:00 F29 **681.23** The impact of preconception paternal experience on offspring neurodevelopment and behavior. A. F. HARKER*; R. DOMBOWSKY; B. KOLB; R. GIBB. *Univ. of Lethbridge, Univ. of Lethbridge.*

11:00 F30 **681.24** Transgenerational effects of prenatal ethanol exposure in a mouse model. D. J. ROHAC*; R. NAIR; K. J. HUFFMAN. *Univ. of California Riverside, Univ. of California Riverside.*

8:00 F31 **681.25** Negative synergism between prenatal alcohol exposure and chorioamnionitis: A preclinical investigation. J. MAXWELL*; S. DAVIES; D. SAVAGE; L. JANTZIE, PhD. *Univ. of New Mexico Hosp.*

9:00 F32 **681.26** Differential spatial extinction behavior in male and female rats prenatally exposed to moderate levels of ethanol. C. M. MAGCALAS*; J. L. WAGNER; S. DAVIES; D. D. SAVAGE; D. A. HAMILTON. *Univ. of New Mexico, Univ. of New Mexico, Univ. of New Mexico.*

10:00 F33 **681.27** Microstructural connectivity of the corpus callosum after moderate prenatal alcohol exposure in the adult rat. C. I. RODRIGUEZ*; G. LIEBERMAN; S. DAVIES; D. SAVAGE; D. HAMILTON. *The Univ. of New Mexico, The Univ. of New Mexico.*

11:00 F34 **681.28** Differential impact of exercise and environmental complexity on hippocampal Bdnf DNA methylation, gene expression, and dendritic complexity in a rat model of FASD. A. Y. KLINTSOVA*; K. E. BOSCHEN; T. L. ROTH. *Univ. of Delaware.*

8:00 F35 **681.29** A canonical Wnt-Frizzled pathway regulates epithelial mesenchymal transition in prolactin-secreting tumors in the pituitary of fetal alcohol exposed rats. S. JABBAR; W. BELDEN; J. PARK; D. K. SARKAR*. *Rutgers Univ., Rutgers, SUNJ.*

POSTER

682. Nicotinic Acetylcholine Receptors: Structure and Regulation

Theme B: Neural Excitability, Synapses, and Glia

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 F36 **682.01** Desformylflustrabromine, a positive allosteric modulator of the α4β2 nicotinic receptor, acts as an inhibitor of other heteromeric nicotinic receptor subtypes. L. DECRISTOFANO*; S. KHATRI; D. TORRES; M. SCHULTE. *Univ. of the Sci. in Philadelphia.*

9:00 F37 **682.02** Engineered acetylcholine binding proteins for structure-guided drug design. J. BOBANGO*; S. WENSEL; I. TALLEY; T. T. TALLEY. *Idaho State Univ.*

10:00 F38 **682.03** Chipping away at regulation of nicotinic acetylcholine receptor expression with NACHO. R. J. LUKAS*; J. B. EATON; L. LUCERO; P. WHITEAKER; A. A. GEORGE. *Barrow Neurol Inst.*

11:00 F39 **682.04** Optogenetic activation of striatal cholinergic interneurons and D2 receptor-expressing GABAergic medium spiny neurons regulates tardive dyskinesia. T. BORDIA*; D. ZHANG; X. A. PEREZ; M. QUIK. *SRI Intl.*

8:00 F40 **682.05** Role of the homo and heteromeric nicotinic acetylcholine receptor in mediating cytotoxicity after delayed methylmercury exposure in PC12 cells. M. RIOS CABANILLAS*; W. D. ATCHISON. *Michigan State Univ., Michigan State Univ.*

9:00 F41 **682.06** Cell type-dependent TMEM35 expression and its effects on surface α7 nicotinic acetylcholine receptors. R. H. LORING*; B. GARG; H. LIN; A. REZVAYA; B. TILAK. *Northeastern Univ.*

10:00 F42 **682.07** G protein-coupled receptor (GPCR) signaling underlies the nicotine-induced up regulation of α 7 (α7) nicotine acetylcholine receptors (nAChRs) expressed in *Xenopus oocytes*. J. PANCHAL*; K. DEBOEUF; M. ISLAM; J. FARLEY. *Indiana Univ., Indiana Univ.*

11:00 F43 **682.08** AChRs are essential for the targeting of rapsyn to the postsynaptic membrane of NMJs in living mice. P. CHEN*; I. MARTINEZ; M. AITTALEB; M. AKAABOUNE. *Univ. of Michigan.*

8:00 F44 **682.09** New nicotinic acetylcholine receptor ligands using privileged scaffolds and the hybrid approach. D. GUNDISCH*; M. J. CALIBUSO-SALAZAR; I. TOMASSOLI. *Col. of Pharm. UHH.*

9:00 F45 **682.10** ● Extracellular domain α4β2 nicotinic acetylcholine receptors form with specific homomeric or swapped M1 transmembrane domains. G. B. WELLS*; A. M. PERSON. *Texas A&M Univ. Hlth. Sci. Ctr., Texas A&M Univ. Hlth. Sci. Ctr.*

10:00 F46 **682.11** Studying the structure, function and interactions of the intracellular domain of Cys-loop receptors. A. PANDHARE; E. PIRAYESH; P. N. GROZDANOV; M. JANSEN*. *TTUHSC, TTUHSC.*

11:00 F47 **682.12** Brain α7 nicotinic acetylcholine receptor assembly requires nacho. S. GU*. *Janssen Res. & Development.*

8:00 F48 **682.13** Toward the structure and molecular mechanisms of the human $\alpha_4\beta_2$ nicotinic acetylcholine receptor. L. C. MORALES*; C. NOVIELLO; R. HIBBS. *UT Southwestern Med. Ctr.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

9:00 F49 **682.14** Evaluation of methyllycaconitine (MLA) analogues on α_7 and $\alpha_4\beta_2$ nAChR subtypes. T. Z. QUDAH*; R. GALLAGHER; N. ABSALOM; T. BALLE; M. MCLEOD; M. CHEBIB. *Univ. of Sydney, The Australian Natl. Univ.*

10:00 F50 **682.15** Differential pharmacology of nicotinic receptor mutations that cause Autosomal Dominant Frontal Lobe Epilepsy at two different stoichiometries. D. INDURTHI*; T. QUDAH; T. BALLE; N. L. ABSALOM; M. CHEBIB. *The Univ. of Sydney, Univ. of Sydney.*

11:00 F51 **682.16** α7 and α7β2 nicotinic receptor (nAChR) subtypes are differentially modulated by the endogenous membrane-associated prototoxins, lynx1 and lynx2. A. A. GEORGE*; J. B. EATON; R. J. LUKAS; J. M. MIWA; P. WHITEAKER. *Barrow Neurolog. Inst., Lehigh Univ.*

8:00 F52 **682.17** Serine residues in the MIII-MIV intracellular loop of the α4 nAChR subunit control α4β2* nAChR expression in the neuronal surface. C. A. ZAMBRANO*; D. ESCOBAR; J. A. STITZEL. *Univ. of Colorado, Univ. of Colorado.*

9:00 F53 **682.18** Molecular determinants of α-conotoxin Vc1.1 inhibition of human α9α10 nAChR. D. J. ADAMS*; H. TAE; R. YU. *Univ. of Wollongong, Ocean Univ. of China.*

POSTER

683. HCN, Cation, and Other Channels

Theme B: Neural Excitability, Synapses, and Glia

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 G1 **683.01** ▲ Ion channels antibodys role in neuronal survival. N. AYSIT*. *Istanbul Medipol Univ. -Istanbul Medipol Univ.*

9:00 G2 **683.02** Exploring the thermosensitivity of Gustatory Receptors in *Drosophila melanogaster*. A. MISHRA*; A. ROBINSON; T. ZARS. *UM-Columbia.*

10:00 G3 **683.03** Cell swelling and SLC26A11 during simulated ischemia in neocortical brain slices. H. EL-KERDAWY, K7L 3N6; J. CARR; R. D. ANDREW*. *Queen's Univ.*

11:00 G4 **683.04** The calcium-activated chloride channel mediates afterhyperpolarization in thalamocortical neurons. G. HA*; J. LEE; H. KWAK; K. SONG; J. KWON; S. JUNG; J. HONG; G. CHANG; E. HWANG; H. SHIN; C. J. LEE; E. CHEONG. *Yonsei Univ., Korea Inst. of Sci. & Technol., Inst. for Basic Sci.*

8:00 G5 **683.05** Brain hyperpolarization-activated cyclic nucleotide-gated channels modulate methamphetamine self-administration in rats. R. SONG*; D. CAO; S. ZHANG; N. WU; J. LI. *Beijing Insistitute of Pharmacol. and Toxicology.*

9:00 G6 **683.06** Postnatal development of hyperpolarization activated current h current in pyramidal neurons & parvalbumin interneurons in mouse prefrontal cortex. S. YANG*, JR; Y. LI; P. YU; W. GAO. *Drexel Univ. Sch. of Med., Capital Normal Univ. Sch. of Educ.*

10:00 G7 **683.07** Two-photon photoswitching of optovin induces neuronal activity in rat cortex. E. KHERADPEZHOUH*; J. M. C. CHOY; V. DARIA; E. ARABZADEH. *Australian Natl. Univ., Australian Natl. Univ.*

11:00 G8 **683.08** Regulation of mouse HCN2 channel surface expression through SUMO post-translational modification. M. WELCH*; L. A. FORSTER; A. R. PARKER; D. J. BARO. *Georgia State Univ. Dept. of Biol.*

8:00 G9 **683.09** Dorso-ventral gradient in hyperpolarisation-activated current (I_h) in hippocampal ca1 OLM-interneurons. M. M. HILSCHER*; F. RATTAY; K. KULLANDER; K. E. LEÃO; R. N. LEÃO. *Brain Inst., Uppsala Univ., Vienna Univ. of Technol.*

9:00 G10 **683.10** Learned fear induces a reduction in cerebellar stellate cell hyperpolarization-activated currents. K. L. CARZOLI*; J. LIU. *LSUHSC.*

10:00 G11 **683.11** An increase in somatic I_h correlates with depression-like states. C. KIM*; D. H. BRAGER; D. JOHNSTON. *The Univ. of Texas At Austin.*

11:00 G12 **683.12** Ih in CA1 pyramidal cell distal dendrites contribute to θ oscillation *in vitro*. M. D. LIMA*; S. MIKULOVIC; R. LEÃO. *UFRN, Uppsala Univ.*

8:00 G13 **683.13** ▲ Function and localization of HCN channels on oriens-lacunosum moleculare cells. Y. Y. LOPEZ; M. SOLIS-WHEELER; V. SEKULIC; M. KOZHEMYAKIN; J. MANRING; S. MIKULOVIC; K. KULLANDER; R. LEAO; F. SKINNER; J. J. LAWRENCE*. *Texas Tech. Univ., Texas Tech. Univ. Hlth. Sci. Ctr., Texas Tech. Univ., Krembil Res. Inst., Texas Tech. Univ. Hlth. Sci. Ctr., Uppsala Univ., Univ. Federal do Rio Grande do Norte, Univ. of Toronto, Univ. of Toronto, Texas Tech. Univ. Hlth. Sci. Ctr.*

POSTER

684. Electrical Synapses and Gap Junctions

Theme B: Neural Excitability, Synapses, and Glia

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 G14 **684.01** Role of Piccolo in high frequency transmission at a central auditory synapse. T. BUTOLA*; T. MOSER. *Max Planck Inst. For Biophysical Chem., Inst. for Auditory Neurosci.*

9:00 G15 **684.02** Common mechanisms of electrical synapse plasticity in invertebrates and vertebrates. G. WELZEL*; S. SCHUSTER. *Univ. of Bayreuth.*

10:00 G16 **684.03** The role of electrotonic junctions between excitatory neurons in the cortex. J. KILE*; G. KOVACIC; D. CAI. *Rensselaer Polytechnic Inst., Courant Institute, NYU.*

11:00 G17 **684.04** Mechanisms of PKA-Dependent Regulation of Tomosyn. S. J. ZINN*; J. E. RICHMOND; D. FEATHERSTONE. *Univ. of Illinois, Chicago, Univ. of Illinois, Chicago.*

8:00 G18 **684.05** Glutamatergic & Dopaminergic neurons in the Substantia nigra of adult mouse preferentially express connexin 26 and 30. A. HERNANDEZ SANCHEZ*. *Univ. Autonoma De San Luis Potosi.*

9:00 G19 **684.06** Tsc1 deletion in the developing thalamus synchronizes activity in relay neurons via ectopic electrical synapses. R. MARTINEZ-GARCIA*; S. R. CRANDALL; S. L. PATRICK; B. VOELCKER; M. ZERVAS; B. W. CONNORS. *Brown Univ.*

10:00 G20 **684.07** Ankyrin and CRMP regulate gap junction dynamics through kinesin in *C. elegans*. L. MENG*; C. CHEN; D. YAN. *Duke Univ. Sch. of Med., Duke Univ. Sch. of Med.*

11:00 G21 **684.08** Regulation of dense core vesicle trafficking and fusion at *Drosophila* synapses. K. G. ORMEROD*; J. T. LITTLETON. *MIT.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

8:00 G22 **684.09** Expression and modulation of gap junction proteins in the adrenal gland during pre and perinatal development. E. M. PEREZ-ARMENDARIZ*; A. ZARZA VELA; L. CRUZ-MIGUEL. *Natl. Autonomous Univ. of Mexico, Natl. Autonomous Univ. of Mexico.*

9:00 G23 **684.10** Electrical coupling and active membrane currents support lateral inhibition and lateral excitation between Mesencephalic Trigeminal (MesV) neurons. F. DAVOINE*; P. MONZÓN; S. CURTI. *Facultad Ingeniería, Univ. De La República, Facultad Medicina, Univ. De La República.*

POSTER

685. Long-Term Potentiation: Kinases and Intracellular Signaling

Theme B: Neural Excitability, Synapses, and Glia

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 G24 **685.01** A novel LTP mechanism that involves persistent self-activation of nitric oxide synthase (NOS). A. TURCHETTI-MAIA; N. STERN-MENTCH; N. NESHER; T. SHOMRAT; B. HOCHNER*. *Dept of Neurobiology, Hebrew Univ., The Ruppin Academic Center, Sch. of Marine Sci.*

9:00 G25 **685.02** RGS14 - shutting down synaptic plasticity. P. R. EVANS*; P. PARRA-BUENO; M. ZHAO; D. J. LUSTBERG; J. J. YANG; N. T. SEYFRIED; P. GRIFFIN; S. M. DUDEK; R. YASUDA; J. R. HEPLER. *Max Planck Florida Inst. For Neurosci., Emory Univ., Natl. Inst. of Envrn. Hlth. Sci., Georgia State Univ., Emory Univ., The Scripps Res. Inst.*

10:00 G26 **685.03** Pre- and postsynaptically expressed spike-timing-dependent plasticity contribute differentially to neural learning. B. E. P. MIZUSAKI*; S. S. Y. LI; R. P. COSTA; P. J. SJÖSTRÖM. *Res. Inst. of MUHC, Univ. Federal do Rio Grande do Sul, Univ. of Oxford.*

11:00 G27 **685.04** Binding of calcium/calmodulin to PSD-95 N-terminus mediates homeostatic scaling down. D. CHOWDHURY*; M. L. TURNER; T. PATRIARCHI; M. MENDEZ; J. AMES; J. W. HELL. *Univ. of California Davis.*

8:00 G28 **685.05** Plasticity of excitatory transmission onto hippocampal interneurons of the stratum lacunosum moleculare. M. MERCIER*; D. KULLMANN. *Univ. Col. London.*

9:00 G29 **685.06** A deficiency of Ca^{2+}-dependent activator protein for secretion 1 affects hippocampal long-term potentiation. Y. ISHII; C. ISHII; Y. SHINODA; Y. SANO; T. FURUICHI*. *Tokyo Univ. of Science, Fac. of Sci. and Technol., Tokyo Univ. of Pharm. and Life Sciences, Envrn. Hlth.*

10:00 G30 **685.07** A novel structural role for calcium/calmodulin kinase II in hippocampal pyramidal neurons. S. INCONTRO*; C. ASENSIO; R. A. NICOLL. *UCSF, Univ. of Denver.*

11:00 G31 **685.08** Microglia promote post-synaptic depression of sensory relay neurons in the nucleus tractus solitarius (nTS) following acute lung injury in rats. D. G. LITVIN*; C. B. SMITH; F. J. JACONO. *Case Western Reserve Univ. Sch. of Med., Case Western Reserve Univ. Sch. of Med.*

8:00 G32 **685.09** Hippocampal stratum oriens interneurons express endocannabinoid biosynthetic enzymes and undergo anandamide dependent potentiation. L. N. FRIEND*; R. WILLIAMSON; C. MERRILL; S. NEWTON; M. CHRISTENSEN; J. EDWARDS. *Brigham Young Univ., Carnegie Mellon University, Univ. of Pittsburgh, UC Irvine.*

9:00 G33 **685.10** ▲ ERK2 dependent phosphorylation of the immediate early protein Arc/Arg 3.1. M. S. ERIKSEN; O. NIKOLAIENKO; T. KANHEMA*; C. R. BRAMHAM. *Univ. of Bergen.*

10:00 G34 **685.11** HINT1 protein: A role in spinal neuroplasticity underlying opioid tolerance and neuropathic pain. C. PETERSON*; R. SHAH; K. F. KITTO; C. FAIRBANKS; C. R. WAGNER; G. L. WILCOX. *Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota.*

11:00 G35 **685.12** High-frequency stimulation induces cholecystokinin release from their terminals that switches long-term potentiation in the auditory cortex. W. XIAOYU*; X. LI; Y. WONG; J. HE. *City Univ. of Hong Kong.*

8:00 G36 **685.13** Actin tyrosine-53 phosphorylation in rat hippocampus LTP. J. E. ENGLUND*; E. BERTLING; R. MINKEVICIENE; M. KOSKINEN; M. SEGERSTRÅLE; E. CASTREN; T. TAIRA; P. HOTULAINEN. *Univ. of Helsinki, Minerva Inst. for Med. Res., Karolinska Institutet, Univ. of Helsinki, Univ. of Helsinki, Univ. of Helsinki.*

9:00 G37 **685.14** The temporal crosstalk of NMDARs and matrix metalloproteases activity determines the magnitude of EPSP-to-spike potentiation and c-Fos expression in the CA1 hippocampal region. P. BRZDAK; J. W. MOZRZYMAS; T. WOJTOWICZ*. *Lab.Neuroscience, Wroclaw Med. Univ., Wroclaw Univ.*

10:00 G38 **685.15** Post-synaptic calcium signaling and plasticity: Role of intracellular stores. G. MAHAJAN*; S. NADKARNI. *IISER, Pune.*

11:00 G39 **685.16** GRASP1 regulates synaptic plasticity and learning through endosomal recycling of AMPA receptors. S. CHIU*; G. H. DIERING; B. YE; K. TAKAMIYA; C. CHEN; Y. JIANG; N. TEJAS; C. E. SCHWARTZ; T. WANG; R. L. HUGANIR. *Johns Hopkins Univ. Sch. of Med., Kavli Neurosci. Discovery Inst., Univ. of Michigan, Univ. of Miyazaki, Johns Hopkins Univ., Johns Hopkins Univ., Greenwood Genet. Ctr.*

8:00 G40 **685.17** Differential roles of L-type calcium channel and NMDA receptor in early odor preference learning in mice. B. MUKHERJEE*; C. HARLEY; Q. YUAN. *MEMORIAL UNIVERSITY OF NEWFOUNDLAND, Mem. Univ. of Newfoundland, Mem. Univ. of Newfoundland.*

9:00 G41 **685.18** High fat diet impairs synaptic plasticity by palmitoylation and reduces trafficking of AMPA receptor GluR1 subunit. M. SPINELLI*; S. FUSCO; M. MAINARDI; F. SCALA; A. MATTERA; M. D'ASCENZO; C. RIPOLI; D. D. LI PUMA; C. GRASSI. *Catholic Univ. of the Sacred Heart.*

10:00 G42 **685.19** Conditional deletion of LRRTM proteins impairs long term potentiation (LTP) in hippocampal CA1 pyramidal neurons in adult mice. M. BHOURI*; T. J. SIDDIQUI; P. TEMKIN; W. MORISHITA; D. GOSWAMI; S. BOTELHO; T. C. SUDHOF; A. CRAIG; R. C. MALENKA. *Stanford Univ., Univ. of Manitoba, Kleysen Inst. for Advanced Medicine, Hlth. Sci. Ctr., Howard Hughes Institute, Stanford Univ., Brain Res. Ctr. and Dept. of Psychiatry of British Columbia.*

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* Indicates abstract's submitting author

11:00 G43 **685.20** Dehydration lowers the threshold for CREB phosphorylation in mouse hippocampus. A. VASHISHT; M. MORYKWAS; A. N. HEGDE*; L. ARGENTA; M. MCGEE. *Wake Forest Univ. Sch. of Med., Georgia Col. and State Uni.*

8:00 G44 **685.21** Cadherins mediate cocaine-induced synaptic plasticity and behavioral conditioning. A. K. GLOBA*; F. MILLS; S. LIU; C. M. COWAN; A. G. PHILLIPS; S. L. BORGLAND; S. X. BAMJI. *Univ. of British Columbia, Univ. of Calgary, Univ. of British Columbia.*

9:00 G45 **685.22** Molecular mechanisms underlying the effects of unilateral anodal transcranial direct current stimulation (tDCS) on synaptic function in the mouse hippocampus. M. V. PODDA*; S. COCCO; G. LIVRIZZI; S. A. BARBATI; C. COLUSSI; S. FUSCO; L. LEONE; C. RIPOLI; C. GRASSI. *Inst. of Human Physiology, Univ. Cattolica, CNR.*

10:00 G46 **685.23** Chronic caffeine exposure disrupts hippocampal LTP induction but not its duration in freely behaving rats. J. H. BLAISE*; J. E. PARK; N. J. BELLAS; T. M. GITCHELL; V. PHAN. *Trinity Col., Trinity Col., Trinity Col., Trinity Col.*

11:00 G47 **685.24** A computational model of astrocyte induced modulation of synaptic plasticity and normalization. O. V. SREERAG; R. PHILLIPS; S. CHAKRAVARTHY; M. SUR*. *IIT Madras, Picower Inst. for Learning and Memory, MIT.*

POSTER

686. Mechanisms of Synaptic and Neuronal Plasticity

Theme B: Neural Excitability, Synapses, and Glia

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 G48 **686.01** Unveiling neuronal differences in chloride extrusion capacity. F. FERRINI; L. LORENZO; M. COTTET; A. GODIN; N. DOYON; Y. DE KONINCK*. *Univ. or Turin, Laval Univ., Univ. of Bordeaux, Laval Univ. / IUSMQ.*

9:00 G49 **686.02** Vanilline protects the hippocampal neuronal function from age-related deterioration. K. ITO*; S. TANIGUCHI; M. HANAFUSA; H. TSUBONE; D. YAMANAKA; M. KUWAHARA. *Univ. Tokyo.*

10:00 G50 **686.03** Acetyl-L-carnitine improves age-dependent impairment of LTP of the senescence-accelerated mouse prone 8. S. TANIGUCHI*; H. TAKIMOTO; M. HANAFUSA; H. TSUBONE; D. YAMANAKA; M. KUWAHARA; K. ITO. *Univ. of Tokyo.*

11:00 H1 **686.04** Positive modulation of $GABA_A$ receptors by allopregnanolone moderates injury-induced, but not experience-induced, potentiation in the adult visual cortex in mice. E. G. SERGEEVA*; C. ESPINOSA-GARCIA; M. T. PARDUE; D. G. STEIN. *Emory Univ., Georgia Inst. of Technol., Atlanta VA Ctr. for Visual and Neurocognitive Rehabil.*

8:00 H2 **686.05** Neuronal activity regulates astrocyte proliferation. Y. CHEN*; C. FU; M. WEBER; H. LIN; H. NGU; J. KAMINKER; M. SHENG. *IRCBC, SIOC, Chinese Acad. of Sci., Genentech Inc.*

9:00 H3 **686.06** A critical role of the E3 ubiquitin ligase IDOL in regulating synaptic strength, cortical circuit plasticity, and learning and memory. M. MAROSI*; J. GAO; C. JINKUK; C. PORTERA-CAILLIAU; P. TONTONOZ. *UCLA, UCLA.*

10:00 H4 **686.07** Activity-dependent modulation of hippocampal synaptic plasticity via PirB and endocannabinoids. M. DJURISIC*; B. K. BROTT; C. J. SHATZ. *Stanford Univ.*

11:00 H5 **686.08** Human Neural Plasticity in a Dish. Y. DONG*; S. ZHANG. *Univ. of Wisconsin, Univ. of Wisconsin-Madison.*

8:00 H6 **686.09** Long-term effects of galactic cosmic radiation on neurogenesis, synaptic plasticity, learning and memory. O. MIRY*; K. R. GOPAUL; L. R. VOSE; G. SUBAH; X. ZHANG; P. K. STANTON. *New York Med. Col.*

9:00 H7 **686.10** LARGE play a key role in hippocampus-dependent long-term memory formation by tuning synaptic targeting of AMPA receptors. M. KANG*; B. SEO; T. CHO; D. Z. LEE; B. Y. LEE; S. KIM; K. A. CUNNINGHAM; K. T. DINELEY; T. A. GREEN; J. BÉÏQUE; H. SHIN. *Inst. For Basic Sci. (IBS), KAIST, Inst. for Basic Sci., Univ. of Texas Med. Br., Univ. of Texas Med. Br., Univ. of Ottawa.*

10:00 H8 **686.11** Hippocampal-prefrontal oscillations and synaptic plasticity in adult rats with early-life status epileptics. R. N. RUGGIERO*; D. B. MARQUES; L. S. BUENO-JUNIOR; C. LOPES-AGUIAR; J. B. DE ROSS; M. T. ROSSIGNOLI; L. KANDRATAVICIUS; J. P. LEITE. *Univ. of São Paulo.*

11:00 H9 **686.12** NF-κ B activation during appetitive and aversive long-term memory consolidation in the inhibitory avoidance paradigm in mice. A. SALLES*; M. KRAWCZYK; M. BOCCIA; M. BLAKE; A. ROMANO; R. FREUDENTHAL. *IFIBYNE, CONICET, Dto. Farmacología, FFyB, UBA.*

8:00 H10 **686.13** Vagus nerve stimulation directs both cortical and subcortical placticity. M. S. BORLAND*; N. A. MORENO; E. P. BUELL; J. M. BUELL; I. I. KHAN; A. S. KHAN; N. N. HOUSHMAND; C. A. KELLY; E. K. JENSEN; A. M. CARROLL; X. SHEN; M. P. KILGARD. *Univ. of Texas At Dallas, Univ. of Texas at Dallas.*

9:00 H11 **686.14** Dystonia-causing mutation in the Tor1a gene does not change the number or ratio of presynaptically silent synapses of central neurons. N. C. HARATA*; H. KAWANO; S. IWABUCHI; Y. KAKAZU. *Univ. of Iowa.*

10:00 H12 **686.15** Abnormal Retina -Specific Segregation at the dLGN of the Flailer - a myosin 5a mutant mice. S. PANDIAN*. *MIT.*

POSTER

687. Modulation of Neuronal Firing Properties II

Theme B: Neural Excitability, Synapses, and Glia

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 H13 **687.01** Using CaMPARI to understand activity-dependent changes at the axon initial segment. R. J. O'TOOLE*; M. B. HOPPA. *Dartmouth Col.*

9:00 H14 **687.02** D3 dopamine receptors are expressed in a novel pyramidal prefrontal cell subclass. R. L. CLARKSON*; A. T. LIPTAK; K. J. BENDER. *UCSF.*

10:00 H15 **687.03** Reliable neuromodulation in variable model neurons. G. DRION*; T. O'LEARY; E. MARDER. *Univ. of Liege, Univ. of Cambridge, Brandeis Univ.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

11:00 H16 **687.04** Synaptic and intrinsic mechanism of CB_{2R} mediated reduction of VTA DA neuronal excitability. M. GAO*; B. LARSEN; F. GAO; D. CHEN; Z. HUANG; H. ZHANG; Y. HE; Z. XI; J. WU. *Barrow Neurolog. Institute, St. Joseph's Hosp. and Med. Ctr., Univ. of Arizona Col. of Med., Natl. Inst. on Drug Abuse.*

8:00 H17 **687.05** Effects of internal recording anion on neuronal properties and firing of a genetically identified layer 5 pyramidal cell type. G. S. NEWKIRK*; D. PATHAK; N. C. DEMBROW; R. C. FOEHRING; W. J. SPAIN. *Univ. of Washington, Univ. of Tennessee, VA Epilepsy Ctr. of Excellence.*

9:00 H18 **687.06** Serotonin modulates the intrinsic electrophysiological properties of locus coeruleus neurons. S. BREMSER*; L. PAEGER; P. KLOPPENBURG. *Biocenter, Inst. For Zoology, Cologne Excellence Cluster on Cell. Stress Responses in Aging-Associated Dis. (CECAD), Univ. of Cologne.*

10:00 H19 **687.07** Loss of Navβ4-mediated regulation of the resurgent and transient sodium current disrupts repetitive firing in cerebellar Purkinje neurons and impairs balance and motor coordination. J. L. RANSDELL*; W. LO; P. M. ALLEN; J. M. NERBONNE. *Washington Univ., Washington Univ.*

11:00 H20 **687.08** Identifying the passive membrane properties of myelinated axons. C. C. COHEN; M. A. POPOVIC; J. KLOOSTER; M. H. KOLE*. *Netherlands Inst. for Neurosci., Univ. of Utrecht.*

8:00 H21 **687.09** Intrinsic excitability of cerebellar Purkinje cells is modulated by cholinergic inputs. G. WATKINS; C. HANSEL*. *Univ. of Chicago Dept. of Neurobio.*

9:00 H22 **687.10** Characterization of serotonergic neurons in the medulla of epet-eyfp mice. Y. DAI*; S. YANG; K. CHEN; R. GE; Y. CHENG; N. SONG; X. GE. *East China Normal Univ., East China Jiao Tong Univ.*

10:00 H23 **687.11** Roles of TRPC3 channels in nigral dopamine neurons; pacemaking and activity-dependent regulation of basal firing rate. K. UM*; L. BIRNBAUMER; H. KIM; M. PARK. *Sch. of Medicine. Sungkyunkwan Univ., Sch. of Med. Sciences, Catholic Univ. of Argentina.*

11:00 H24 **687.12** Cav3.2 T-type calcium channels modulate burst firing in mature granule cells of the dentate gyrus. J. LOPEZ-ROJAS*; M. DUMÉNIEU; M. HEINE; M. R. KREUTZ; A. BIKBAEV. *Leibniz Inst. for Neurobio.*

8:00 H25 **687.13** Microglial activation induces the excitability plasticity in CNS neurons. G. OHTSUKI*; M. KIM. *Kyoto Univ., Kyoto Univ.*

9:00 H26 **687.14** Sodium fluxes and cortical axonal excitability in penumbra following acute ischemic stroke. O. STOLER*; M. BOYKO; V. ZVENIGORODSKY; I. SHELEF; I. A. FLEIDERVISH. *Ben Gurion Univ., Ben Gurion Univ.*

10:00 I1 **687.15** Spontaneous emergence of highly active neurons in hippocampal primary cultures. M. OKADA*; C. KOBAYASHI; Y. IKEGAYA. *The Univ. of Tokyo.*

11:00 I2 **687.16** Calcium lowers neuronal excitability with a G-protein independent mechanism. M. FORSBERG*; A. BJÖREFELDT; H. SETH; E. HANSE. *Univ. of Gothenburg, Neurosci. and Physiol.*

8:00 I3 **687.17** Activity-dependent plasticity of intrinsic excitability in CA1 pyramidal neurons *in vivo*. P. J. MORGAN*; J. EPSZTEIN. *Inst. de Neurobiologie de la Méditerranée.*

9:00 I4 **687.18** Differential effects of abuse solvents on the intrinsic excitability of pyramidal neurons in the medial prefrontal cortex of adolescents rats. M. ARMENTA-RESÉNDIZ*; S. L. CRUZ; E. J. GALVÁN. *CINVESTAV Sede Sur, CINVESTAV.*

10:00 I5 **687.19** Modulation of neuronal excitability in neuromorphic devices. A. FRANCI*; F. CASTAÑOS. *Univ. Nacional Autónoma De México, CINVESTAV.*

11:00 I6 **687.20** Hydrogen peroxide modulates neuronal excitability and membrane properties in ventral horn neurons of the rat spinal cord. M. OHASHI; T. KOHNO*; N. OHASHI; T. HIRANO; K. WATANABE; H. SHOJI; T. MIZOUCHI; N. ENDO. *Niigata Univ. Sch. of Med. and Dent. Sci., Niigata Univ. Grad Sch. Med. & Dent. Sci.*

8:00 I7 **687.21** Temporal origin specifies an electrophysiological subpopulation of glutamatergic cells in the adulte dentate gyrus. L. SAVE*; A. BAUDE; R. COSSART. *INSERM U901.*

9:00 I8 **687.22** Human cerebrospinal fluid promotes neuronal viability and activity of hippocampal neuronal circuits *in vitro*. G. CULLEY*; M. PEREZ-ALCAZAR; T. LYCKENVIK; K. MOBARREZ; A. BJÖREFELDT; P. WASLING; H. SETH; F. ASZTELY; A. HARRER; B. IGLSEDER; L. AIGNER; E. HANSE; S. ILLES. *Univ. of Gothenburg, Paracelsus Med. Univ.*

10:00 I9 **687.23** Control of action potentials by Ca^{2+}-induced Ca^{2+} release. T. IRIE*; L. O. TRUSSELL. *Oregon Hearing Res. Ctr., Oregon Hlth. Sci. Univ., Natl. Inst. of Hlth. Sci., Oregon Hlth. Sci. Univ.*

11:00 I10 **687.24** Propofol-mediated spike firing suppression is more sensitive in pyramidal neurons than in fast-spiking interneurons in the rat insular cortex. K. KANEKO; Y. KOYANAGI; K. YAMAMOTO*; Y. OI; M. KOBAYASHI. *Nihon Univ. Sch. of Dent., Dept. of Pharmacology, Nihon Univ. Sch. of Dent., Nihon Univ. Sch. of Dent.*

8:00 I11 **687.25** Dissecting the functional impact of sphingosine-1-phosphate signaling on pain modulation in the central amygdala. B. E. MORK; R. R. DONAHUE; B. K. TAYLOR; P. L. SHEETS*. *Univ. of Notre Dame, Univ. of Kentucky Med. Ctr., Indiana Univ. Sch. of Medicine-South Bend, Univ. of Notre Dame.*

POSTER

688. Epilepsy: Glia and Post-Seizure Mechanisms

Theme B: Neural Excitability, Synapses, and Glia

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 I12 **688.01** Epileptic mice exhibit increased Kir6.2 in reactive astrocytes. P. R. PATRYLO*; A. A. SHARP; X. YAN; C. M. GRIFFITH. *SIUC Sch. of Med., SIUC Sch. of Med., Central South Univ. Xiangya Sch. of Med.*

9:00 J1 **688.02** Blood brain barrier disruption: A potential mechanism for astrocyte dysfunction in epilepsy. J. BONI*; A. C. RANDOLPH; L. L. MCMAHON; M. L. OLSEN. *Univ. of Alabama At Birmingham.*

10:00 J2 **688.03** Role of COX-2 mediated endocannabinoid degradation in postictal hypoxia. R. COLANGELI*; J. S. FARRELL; K. ADDO-OSAFO; M. N. HILL; G. C. TESKEY. *Univ. of Calgary, Univ. of Calgary.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

11:00 J3 **688.04** Status epilepticus triggers changes in microglia morphology that are associated with specific biochemical properties. S. K. WYATT; S. A. HERR; A. L. BREWSTER*. *Purdue Univ.*

8:00 J4 **688.05** Cytokine-induced uncoupling of hippocampal astrocytes as a cause of human temporal lobe epilepsy. P. BEDNER*; T. DESHPANDE; J. MÜLLER; D. KHAN; M. SYLVESTER; V. GIESELMANN; P. DE GRAAN; C. STEINHÄUSER. *Inst. of Cell. Neurosciences, Inst. of Biochem. and Mol. Biol., Brain Ctr. Rudolf Magnus.*

9:00 J5 **688.06** Prolonged seizures trigger activation of the classical complement pathway in the hippocampus. N. D. SCHARTZ*; A. L. BREWSTER. *Purdue Univ.*

10:00 J6 **688.07** Growth Associated Protein 43 (GAP-43) as a candidate biomarker of epileptogenesis. A. NEMES*; K. AYASOUFI; Z. YING; I. M. NAJM. *Cleveland Clin., Cleveland Clin.*

11:00 J7 **688.08** Histological pathophysiology in models of postmalarial epilepsy. P. SSENTONGO*; A. ROBUCCIO; F. BAHARI; D. G. SIMS; J. W. BACCON; A. F. READ; S. J. SCHIFF; B. J. GLUCKMAN. *Pennsylvania State Univ., Pennsylvania State Univ.*

8:00 J8 **688.09** Energy metabolism activity in slices of dorsal and ventral hippocampus. A. I. IVANOV*; G. BRANCATI; C. RAWAS; C. BERNARD. *INS, UMR1106.*

9:00 J9 **688.10** Alzheimer's related disease pathologies following nerve agent-induced seizures. D. L. SPRIGGS*; J. L. WINKLER; C. E. KAROLENKO; K. M. BOWENS; J. W. SKOVIRA. *USAMRICD.*

10:00 J10 **688.11** Aberrant AMPA receptor and ADAR enzyme expression during the acute phase of pilocarpine-induced seizures increases neuronal death in the neonatal mouse brain. S. JUNG*; Y. BALLHEIMER; F. BRACKMANN; R. TROLLMANN. *Univ. Hosp. Erlangen.*

POSTER

689. Epilepsy: Genetics and Genetic Models

Theme B: Neural Excitability, Synapses, and Glia

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 J11 **689.01** A novel inducible mouse model of Dravet syndrome. M. SASNER*; J. MORGAN; L. GOODWIN; K. CHENG; S. J. SUKOFF RIZZO; A. MINGORANCE. *The Jackson Lab., Charles River Labs, Dravet Syndrome Fndn. Spain.*

9:00 J12 **689.02** Investigation of doublecortin, GABA and V-GLUT immunoreactivties in the hippocampus of genetic absance epileptic rats: An ultrastructural study. O. T. CILINGIR KAYA*; D. GURSOY; C. MOORE; C. K. MESHUL; F. ONAT; S. SIRVANCI. *Marmara Univ. Sch. of Med., Veterans Hosp., Oregon Hlth. and Sci. Univ., Marmara Univ. Sch. of Med.*

10:00 J13 **689.03** Postictal respiratory dysfunction is the primary cause of Sudden Death in a Dravet mouse model. E. BRAVO*; Y. KIM; G. B. RICHERSON. *Univ. of Iowa, Univ. of Iowa, Univ. of Iowa, Univ. of Iowa, VAMC.*

11:00 J14 **689.04** West Syndrome-associated mutation GABRB3(N110D) produces spontaneous seizures and electroencephalogram abnormalities in mice. L. G. JACKSON*; S. QU; V. JANVE; C. C. HERNANDEZ; R. L. MACDONALD. *Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ.*

8:00 DP02 **689.05** (Dynamic Poster) Mice harboring the Lennox-Gastaut syndrome associated GABRB3(D120N) mutation exhibit spontaneous seizures and electroencephalogram abnormalities. V. S. JANVE*; S. QU; R. L. MACDONALD. *Vanderbilt Univ., Vanderbilt Univ.*

9:00 J15 **689.06** GABRB3(D120N), a Lennox-Gastaut Syndrome-associated mutation, induces behavioral abnormalities in mice. M. CATRON*; S. QU; V. JANVE; C. C. HERNANDEZ; R. L. MACDONALD. *Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ.*

10:00 J16 **689.07** Early life febrile seizures worsens epilepsy and behavioral phenotypes in adult GEFS+ mutants. S. B. DUTTON*; L. A. PAPALE; A. P. ESCAYG. *Agnes Scott Col., Emory Univ.*

11:00 J17 **689.08** Cas9-targeted KCNQ5 KO creates a mouse model for late-onset epilepsy. A. D. WEI*; F. KALUME; A. M. BARD; N. SAHAI; P. WAKENIGHT; T. ZWINGMAN; W. DOBYNS; K. MILLEN; J. RAMIREZ. *Seattle Children's Res. Inst., Univ. of Washington, Univ. of Washington.*

8:00 J18 **689.09** Rescue of epileptic phenotype in Synapsin I knockout mice by inhibiting eEF2K/eEF2 pathway. C. SALA*; L. PONZONI; C. HEISE; E. TAHA; L. GRITTI; F. C. GUARNIER; A. MOSSA; C. MONTANI; P. SCALMANI; M. MANTEGAZZA; F. VALTORTA; M. SALA; C. VERPELLI; K. ROSENBLUM. *CNR Neurosci. Inst., BIOMETRA, Univ. degli Studi di Milano, agol Dept. of Neurobiology, Univ. of Haifa, Div. of Neuroscience, San Raffaele Scientific Inst. and Vita-Salute Univ., U.O. of Neurophysiopathology and Diagnos. Epileptology, IRCCS Neurolog. Inst. Carlo Besta, Inst. of Mol. and Cell. Pharmacol. (IPMC), CNRS UMR7275 and Univ. of Nice-Sophia Antipolis.*

9:00 K1 **689.10** Neuropathology of Munc18-1 mutants underlying infantile epilepsies. N. G. L. GUIBERSON*; A. PINEDA; K. E. CARNAZZA; J. S. DITTMAN; J. BURRÉ. *Weill Cornell Med., Weill Cornell Med.*

10:00 K2 **689.11** Repeated seizures drive hippocampal amyloid plaque deposition and memory impairment in a transgenic mouse model of Alzheimer's disease. J. S. SPARLING*; J. S. FARRELL; K. ADDO-OSAFO; G. C. TESKEY; P. K. STYS. *Hotchkiss Brain Institute, Univ. of Calgary.*

11:00 K3 **689.12** mTOR-dependent changes in cellular morphology following GATOR complex subunit knockdown: Novel insights into DEPDC5 and NPRL3 associated cortical malformation. P. H. IFFLAND*; M. BAYBIS; P. B. CRINO. *Lewis Katz Sch. of Med. Temple Univ.*

8:00 K4 **689.13** Network dysfunction in Arx expanded mice; developing an insight into a pediatric epileptic network. F. SIDDIQI*; A. MCCOY; L. OLEAR; D. JOSEPH; E. MARSH. *Children's Hosp. of Philadelphia.*

9:00 K5 **689.14** A *de novo* mutation in KCNT2 (SLICK) gene produces a change of channel function and underlies an epileptic encephalopathy phenotype. S. GURURAJ*; E. PALMER; G. SHEEHAN; T. KANDULA; R. MACINTOSH; W. LO; G. ELAKIS; Y. ZHU; M. BUCKLEY; M. DINGER; M. COWLEY; R. SACHDEV; E. KIRK; T. ROSCIOLI; A. BYE; M. E. DUFFEY; A. BHATTACHARJEE. *Univ. at Buffalo - The State Univ. of New York, Sydney Children's Hosp., SEALS Pathology, Genet. of Learning Disability Service, Garvan Inst., Univ. at Buffalo - The State Univ. of New York.*

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* Indicates abstract's submitting author

10:00 K6 **689.15** Loss-of-function effects of PRRT2 mutations lead to neuronal dysfunction and neurodevelopmental defects. F. NIAN*; Y. LIU; W. CHOU; C. TAI; S. KWAN; C. CHEN; P. KUO; P. LIN; C. CHEN; C. HUANG; Y. LEE; B. SOONG; J. TSAI. *Sch. of Med., Natl. Yang-Ming Univ. and Academia Sinica, Taipei Veterans Gen. Hosp., Natl. Yang-Ming Univ. Sch. of Med., Natl. Yang-Ming Univ., Develop. Ctr. for Biotech., Natl. Def. Med. Ctr., Natl. Yang-Ming Univ., Natl. Yang-Ming Univ.*

11:00 K7 **689.16** Age-dependent plasticity of cortical GABAergic innervation lessens seizure severity in Cacna1a conditional mutant mice. X. JIANG*. *CHU Res. Centre, Univ. of Montreal.*

8:00 K8 **689.17** A pipeline for rapid *in vitro* evaluation of variants of uncertain significance from patients with developmental delay and/or intellectual disability exhibiting seizures. J. COCHRAN*; K. L. ENGEL; A. A. HARDIGAN; M. D. AMARAL; K. M. BOWLING; C. R. FINNILA; S. M. HIATT; M. L. THOMPSON; D. E. GRAY; J. S. WHITTLE; W. V. KELLEY; M. E. COCHRAN; K. M. EAST; N. E. LAMB; C. A. RICH; K. B. BROTHERS; E. J. LOSE; S. B. SIMMONS; E. M. BEBIN; G. S. BARSH; G. M. COOPER; R. M. MYERS. *Hudsonalpha Inst. For Biotech., Hudsonalpha Inst. For Biotech., Hudsonalpha Inst. For Biotech., Univ. of Louisville, Univ. of Alabama at Birmingham, Univ. of Alabama at Birmingham, Hudsonalpha Inst. For Biotech.*

9:00 K9 **689.18** ● Tmem151b, a novel seizure susceptiblity gene encoding a putative ER protein. W. N. FRANKEL*; T. C. MCGARR; S. SUKOFF-RIZZO; R. M. BOUMIL; S. PETRI. *Columbia Univ. Med. Ctr., The Jackson Lab.*

10:00 K10 **689.19** Neuronal hyperexcitability and seizure-like motor pattern generation arising from the Shaker Wings-Down mutation in the *Drosophila* sodium channel gene paralytic. A. IYENGAR*; A. UEDA; J. KASUYA; S. GRATZ; K. O'CONNOR-GILES; T. KITAMOTO; C. WU. *Univ. of Iowa, Univ. of Wisconsin.*

11:00 K11 **689.20** Vascular hyperplasia & probable conversion of type I Lafora bodies into type II occurring in the neuropile of Lafora mice. J. MACHADO-SALAS*; M. AVILA-COSTA; C. WORBY; P. GUEVARA; R. M. DURÓN; J. ESPINOSA-VILLANUEVA; M. TANAKA; A. DELGADO-ESCUETA. *Ctr. Regional De Daño Cerebral, HAT. Suite 511, 5o. Piso, Torre De Consultorio, UNAM Neuromorphology Lab., UCSD, Natl. Inst. of Neurol. and Neurosurg. "Manuel Velasco Suárez", Univ. Tecnológica Centroamericana, West Los Angeles Med. Ctr. and David Geffen Sch. of Med. at UCLA.*

8:00 K12 **689.21** Phenotypic and transcriptional differences resulting from two different non erythrocytic spectrin mutations. P. R. LEE*, JR; E. BOSLET; V. GARTNER; T. MARKELLO; A. THURM; M. MAEDA; G. GOLAS; C. TIFFT; W. GAHL. *NIH, NIH.*

9:00 K13 **689.22** Pathogenic aspects of SCN1A haploinsufficiency in human ipsc derived cortical neurons. D. SIMKIN*; G. L. ROBERTSON; E. KISKINIS; A. L. GEORGE, Jr. *Northwestern Univ., Northwestern Univ.*

10:00 K14 **689.23** Electrophysiological characterization of two Nav1.2 mutations implicated in epilepsy. E. MASON*; R. PATEL; Y. XIAO; T. R. CUMMINS. *Indiana Univ., Indiana Univ.*

POSTER

690. Epilepsy: Anticonvulsant Therapies

Theme B: Neural Excitability, Synapses, and Glia

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 K15 **690.01** Dual and Opposing roles of microRNA-124 in epilepsy are mediated via inflammatory and NRSF mediated pathways. G. P. BRENNAN*; D. DEY; Y. CHEN; K. PATTERSON; H. ALICIA; C. DUBE; T. Z. BARAM. *Royal Col. of Surgeons Ireland, Univ. of California Irvine, Univ. of California Irvine.*

9:00 K16 **690.02** ● Effect of newly designed mTOR inhibitors on seizure threshold and target activation in normal versus epileptic mice. C. BRANDT; D. FABBRO; P. HILLMANN; K. ROEMERMANN; A. NOACK; W. LOSCHER*. *Univ. of Vet. Med., PIQUR Therapeut. AG, Univ. of Vet. Med. Hannover.*

10:00 K17 **690.03** The S940A residue of the potassium-chloride transporter type 2 (KCC2) regulates the onset of soman-induced seizures in mice. L. M. MATSON*; S. M. MILLER-SMITH; H. S. MCCARREN; D. H. MORROW; T. G. DEEB; S. J. MOSS; J. H. MCDONOUGH; C. D. SMITH. *USAMRICD, Tufts Med. Sch., USARIEM.*

11:00 L1 **690.04** Conditional upregulation of the KCC2 membrane transporter in a transgenic mouse and the effects on neuronal excitability *in vitro*. C. S. GOULTON*; K. WANG; A. KHOSHABA; M. WATANABE; J. NABEKURA; A. J. MOORHOUSE. *UNSW Australia, Hamamatsu Univ. Sch. of Med., Natl. Inst. for Physiological Sci.*

8:00 L2 **690.05** The effect of upregulated KCC2 expression on chemically induced seizures and diazepam therapy *in vivo*. D. L. CHEUNG*; C. S. GOULTON; M. WATANABE; J. NABEKURA; A. J. MOORHOUSE. *UNSW Australia, Hamamatsu Univ. Sch. of Med., Natl. Inst. for Physiological Sci.*

9:00 L3 **690.06** Bumetanide enhances the pharmacological effect of phenobarbital on electroencephalographic and behavioral parameters, in an animal model of temporal lobe epilepsy. C. A. MANTELLERO*; C. SALAZAR; M. BORQUEZ; J. AMARO; A. OCAMPO; M. INOSTROZA; J. VALDES; P. ROJAS. *Univ. De Santiago De Chile, Univ. de Chile, Univ. of tubingen.*

10:00 L4 **690.07** Characterization of the relationship between diet mitochondrial function and oxidative stress in a fly model of epilepsy. E. R. REYNOLDS*; A. AUSTIN; K. DELLOVADE; S. NGANGA. *Lafayette Col.*

11:00 L5 **690.08** Culture medium composition has limited influence on epileptogenesis in organotypic hippocampal cultures. J. LIU*; Y. SAPONJIAN; M. M. MAHONEY; K. J. STALEY; Y. BERDICHEVSKY. *Lehigh Univ., Massachusetts Gen. Hosp., Harvard Med. Sch., Lehigh Univ.*

8:00 L6 **690.09** Time-restricted feeding exerts anti-inflammatory and neuroprotective effects on acute seizure model. J. SANTILLAN-CIGALES*; J. LANDGRAVE-GOMEZ; O. F. MERCADO-GOMEZ; R. GUEVARA-GUZMAN. *Univ. Nacional Autónoma De México, Facultad.*

9:00 L7 **690.10** Fluorobenzenamides as anticonvulsants. S. E. MEZA TOLEDO*; J. G. CERVANTES ESPINOZA; M. SUÁREZ QUEZADA; J. PERALTA CRUZ; G. CHAMORRO CEVALLOS. *Escuela Nacional De Ciencias Biológicas, IPN.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

10:00 L8 **690.11** ● Phenytoin halts convulsions, but not electrographic seizure activity, in a rat model of status epilepticus, whereas both are eliminated by next generation neuroactive steroids. G. M. BELFORT*; A. ALTHAUS; R. S. HAMMOND; M. C. QUIRK; G. MARTINEZ BOTELLA; F. G. SALITURO; A. J. ROBICHAUD; J. J. DOHERTY. *Sage Therapeut.*

11:00 L9 **690.12** Naringenin ameliorates kainic acid-induced morphological alterations in the dentate gyrus in a mouse model of temporal lobe epilepsy. J. PARK*; H. JANG; K. JEONG; U. JUNG; S. KIM. *Kyungpook Natl. Univ., Kyungpook Natl. Univ., Pukyong Natl. Univ., Kyungpook Natl. Univ.*

8:00 L10 **690.13** Pharmaceutical effects of naringin in the kainic acid-treated animal model of epilepsy. H. JANG*; K. JEONG; M. JEON; E. LEEM; U. JUNG; S. KIM. *Kyungpook Natl. Univ., Kyungpook Natl. Univ., Pukyong Natl. Univ., Kyungpook Natl. Univ.*

9:00 L11 **690.14** Regulation of excitatory/inhibitory coordination by LPI-GPR55 signaling: Implications for seizure generation and management with cannabinoids. E. C. ROSENBERG*; M. BAZELOT; A. SALAH; B. WHALLEY; O. DEVINSKY; R. W. TSIEN. *NYU Sch. of Med., Univ. of Reading, NYU Sch. of Med.*

10:00 L12 **690.15** Anticonvulsant effect of cannabinoid receptor agonists in a model of neonatal seizures. M. HUIZENGA*; E. WICKER; V. BECK; P. FORCELLI. *Georgetown Univ.*

11:00 L13 **690.16** Effect of Krill Oil on seizures induced by pentylenetetrazole in adult rats with postnatal seizure induction. F. V. VILLALPANDO VARGAS*; A. M. LARA-VÁZQUEZ; L. MEDINA-CEJA; L. FLORES-MANCILLA. *Univ. of Guadalajara, Univ. Autonoma de Zacatecas.*

8:00 L14 **690.17** Pregabalin intervention during development is antiepileptogenic in the transgenic epilepsy model of α2δ-1 overexpressing mice. W. ZHANG*; D. PRINCE. *Stanford Univ. Sch. of Med.*

9:00 M1 **690.18** Lamotrigine and levetiracetam exert similar modulation of TMS-evoked EEG potentials. I. PREMOLI*; A. BIONDI; D. RIVOLTA; M. P. RICHARDSON. *King's Col. London, Univ. of East London (UEL).*

10:00 M2 **690.19** Staged anticonvulsant screening for chronic epilepsy. Y. SAPONJIAN*; Y. BERDICHEVSKY; K. PARK; B. ROACH; W. POULIOT; K. LU; W. SWIERCZ; E. DUDEK; K. STALEY. *Massachusetts Gen. Hosp., Harvard Med. Sch., Lehigh Univ., Seoul Natl. Univ. Hosp. Healthcare Syst. Gangham Ctr., Univ. of Utah Sch. of Med., Boston Univ. Sch. of Med.*

11:00 M3 **690.20** Ionic alterations during apoptosis in the developing hippocampus. T. BALENA*; Y. SAPONJIAN; K. J. STALEY. *Massachusetts Gen. Hosp.*

8:00 M4 **690.21** Inhibition of O-GlcNAcase is anticonvulsive and alters hippocampal O-GlcNAcylation levels in the kainic acid model of temporal lobe epilepsy. R. G. SANCHEZ*; M. C. RICH; F. D. LUBIN. *Univ. Of Alabama At Birmingham.*

9:00 M5 **690.22** ● Contrasting effects of perampanel and midazolam on EEG seizure measures in tetramethylenedisulfotetramine-induced status epilepticus. D. ZOLKOWSKA*; D. J. TANCREDI; L. OLSEN; P. J. LEIN; M. A. ROGAWSKI. *Univ. of California, Davis, Univ. of California, Davis, Univ. of California, Davis.*

10:00 M6 **690.23** ▲ Long-term effects of neonatal monosodium glutamate treatment over the expression level of NCX1-3 and their participation in electrographic seizure activity. M. HERNANDEZ-OJEDA*; M. E. UREÑA-GUERRERO; P. E. GUTIÉRREZ-BARAJAS; A. I. FERIA-VELASCO; C. BEAS-ZARATE. *Univ. De Guadalajara-CUCBA.*

11:00 M7 **690.24** Optogenetic silencing attenuates the activity of acute focal 4-aminopyridine seizures in mouse neocortex. M. ZHAO*; E. R. BAIRD-DANIEL; R. ALLEVA; J. LIOU; H. MA; T. H. SCHWARTZ. *Weill Cornell Med. of Cornell Univ., Weill Cornell Med. of Cornell Univ., Columbia Univ.*

POSTER

691. Epilepsy: Human Studies II

Theme B: Neural Excitability, Synapses, and Glia

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 M8 **691.01** Identification of novel HCN channel phosphosites in human and animal model epilepsy. F. A. CONCEPCION; A. L. KO; J. G. OJEMANN; N. P. POOLOS*. *Univ. of Washington, Univ. of Washington, Univ. of Washington.*

9:00 M9 **691.02** Increased brain expression of τ and hyperphosphorylated τ in human therapy-resistant epilepsy. L. JACOBS*; C. A. COTO; H. JUUL; M. A. DICHTER; F. E. JENSEN; D. M. TALOS. *Univ. of Pennsylvania, Sch. of Med.*

10:00 M10 **691.03** ● Reduced efficacy of the KCC2 cotransporter promotes epileptic oscillations in a subiculum network model. A. BUCHIN*; A. CHIZHOV; G. HUBERFELD; R. MILES; B. GUTKIN. *Ecole Normale Superieure, Peter the Great St. Petersburg Polytechnic Univ., NRU Higher Sch. of Econ., Ioffe Inst., Sechenov Inst. of Evolutionary Physiol. and Biochem. of the Russian Acad. of Sci., Univ. Pierre et Marie Curie, Paris Descartes Univ., Inst. du Cerveau et de la Moelle Epinière, Ecole Normale Superieure.*

11:00 M11 **691.04** Seizure prediction based on intracortical microelectrode-array LFPs in human focal epilepsy. M. AGHAGOLZADEH*; L. HOCHBERG; S. CASH; W. TRUCCOLO. *Brown Univ., U.S. Dept. of Veterans Affairs, Brown Univ., Brown Univ., Massachusetts Gen. Hosp. and Harvard Med. Sch.*

8:00 M12 **691.05** A modular platform for closed-loop, low-latency intracranial stimulation in people with neurological disorders. A. A. SARMA*; B. CROCKER; S. S. CASH; W. TRUCCOLO. *Brown Univ., Brown Univ., Providence VA Med. Ctr., MIT, Massachusetts Gen. Hosp., Harvard Med. Sch., Brown Univ.*

9:00 M13 **691.06** Non-invasive low frequency sensory stimulation suppresses seizures in two rodent models of epilepsy. N. H. COUTURIER*; L. GONZALEZ-REYES; C. CHIANG; D. M. DURAND. *Case Western Reserve Univ.*

10:00 M14 **691.07** Temporal Lobe Epilepsy & treatments with antiepileptic drugs modify the expression of the Transcription Factor REST/NRSF in patients. V. NAVARRETE*, SR; S. OROZCO-SUAREZ; I. A. FERIA-ROMERO; M. A. ALONSO-VANEGAS; L. ROCHA. *Inst. Mexicano Del Seguro Social, Inst. Mexicano del Seguro Social, Inst. Nacional de Neurología y Neurocirugía "Manuel Velasco Suárez", Ctr. de Investigación y de Estudios Avanzados del Inst. Politécnico Nacional (CINVESTAV).*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

11:00 M15 **691.08** Characterization of mesial temporal lobe epilepsy network. S. KARUNAKARAN*; G. P. KALAMANGALAM; B. AAZHANG; N. TANDON. *Univ. of Texas Hlth. Sci. Ctr., Univ. of Texas Hlth. Sci. Ctr., Rice Univ., Univ. of Texas Hlth. Sci. Ctr.*

8:00 M16 **691.09** Increased damage to autonomic brain regions in patients with left temporal lobe seizure onset. R. K. HARPER*; J. A. OGREN; K. W. CHOW; R. KUMAR; D. S. ELIASHIV; J. M. STERN; S. D. LHATOO; R. M. HARPER. *Univ. of California Los Angeles Dept. of Neurobio., Univ. of California Los Angeles, Univ. of California Los Angeles, Univ. of California Los Angeles, Univ. of California Los Angeles, Case Western Reserve Univ.*

9:00 M17 **691.10** A sparse autoregressive model as feature extraction for seizure prediction in temporal lobe epilepsy. P. YU*; C. N. HECK; C. Y. LIU; D. SONG; T. W. BERGER. *USC.*

10:00 M18 **691.11** Interictal phase-amplitude coupling localizes epileptogenic tissue in temporal lobe epilepsy. B. M. BERRY*; M. T. KUCEWICZ; J. J. DUQUE; Y. VARATHARAJAH; B. BRINKMANN; V. KREMEN; G. C. SIECK; S. M. STEAD; J. VAN GOMPEL; M. R. SPERLING; B. C. JOBST; R. E. GROSS; S. A. SHETH; J. M. STEIN; D. LEVY; S. R. DAS; R. GORNIAK; D. RIZZUTO; M. J. KAHANA; G. A. WORRELL. *Mayo Clin., Mayo Clin., Univ. of Sao Paulo, Mayo Clin., Mayo Clin., Mayo Clin., Jefferson Hosp., Dartmouth Col., Emory Univ., Columbia Univ., Univ. of Pennsylvania, Univ. of Pennsylvania, Jefferson Univ., Univ. of Pennsylvania, Mayo Clin.*

11:00 N1 **691.12** ● Quantification of seizurogenic activity with multiwell microelectrode array technology for proconvulsant risk assessment and disease-in-a-dish epilepsy models. D. C. MILLARD*; H. B. HAYES; A. M. NICOLINI; C. A. ARROWOOD; J. D. ROSS. *Axion Biosystems.*

8:00 N2 **691.13** Reduced entropy in patients with generalized tonic-clonic seizures. J. A. OGREN*; R. KUMAR; J. M. STERN; D. S. ELIASHIV; I. KESELMAN; J. ENGEL, Jr.; B. DIEHL; B. DIEHL; S. D. LHATOO; R. M. HARPER. *UCLA, UCLA, UCLA, Univ. Col. London, Case Western Reserve Univ.*

9:00 N3 **691.14** A personalized, molecular diagnosis of Lafora epilepsy patient mutations. M. S. GENTRY*. *Univ. of Kentucky.*

POSTER

692. Demyelinating Disorders: Therapeutics

Theme B: Neural Excitability, Synapses, and Glia

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 N4 **692.01** Genetic and pharmacological treatment of hypomyelination in the zebrafish model for psychomotor retardation. L. APPELBAUM*; D. ZADA; A. TOVIN. *Bar Ilan Univ.*

9:00 N5 **692.02** ● Nanoparticle therapies for the treatment of X-linked adrenoleukodystrophy. C. L. NEMETH*; B. R. TURK; O. GOK; S. P. KAMBHAMPATI; J. S. MARX; B. E. THEISEN; R. R. RAMIREDDY; F. ZHANG; M. V. JOHNSTON; R. M. KANNAN; S. KANNAN; A. FATEMI. *Kennedy Krieger Inst., Johns Hopkins Univ., Johns Hopkins Univ.*

10:00 N6 **692.03** Activation of oligodendroglial PGC-1a by physical exercise accelerates remyelination. S. K. JENSEN*; N. J. MICHAELS; M. B. KEOUGH; J. N. HAHN; V. YONG. *Univ. of Calgary.*

11:00 N7 **692.04** Neuregulin-1 promotes oligodendrocytes replacement and fosters a pro-regenerative inflammatory response in focal demyelinating lesions of the spinal cord. H. KATARIA*; A. ALIZADEH; G. M. SHAHRIARY; K. T. SANTHOSH; S. KARIMI-ABDOLREZAEE. *Univ. of Manitoba.*

8:00 N8 **692.05** ● Antisense oligonucleotides (ASOs) targeting mouse GFAP reverse pathology in a model of Alexander disease. B. POWERS*; T. HAGEMANN; S. WHEELER; C. MAZUR; E. SWAYZE; A. MESSING. *Ionis Pharmaceuticals, Univ. of Wisconsin-Madison.*

9:00 N9 **692.06** ● FTY720 restores brain-derived neurotrophic factor expression in a multiple system atrophy model. I. SEGURA-ULATE; B. YANG; J. VARGAS-MEDRANO; R. G. PEREZ*. *Texas Tech. Univ. Hlth. Sci. Ctr. - El Paso Campus.*

10:00 N10 **692.07** Mir-146a promotes oligodendrogenesis in the demyelinating central nervous system. J. ZHANG*; Z. ZHANG; M. LU; S. ELIAS; M. CHOPP. *Henry Ford Hlth. Syst., Henry Ford Hlth. Syst., Henry Ford Hlth. Syst., Oakland Univ.*

11:00 N11 **692.08** ● MAPC® provides benefit in multiple models of multiple sclerosis and promotes differentiation oligodendrocyte *in vitro*. S. A. BUSCH*; R. CUTRONE; B. T. LANG; J. A. HAMILTON; R. H. MILLER; R. W. MAYS. *Athersys, Inc., George Washington Univ.*

8:00 N12 **692.09** ● Remyelinating human oligodendrocyte progenitors for regenerative treatment of demyelinating diseases and spinal cord injury. M. P. HEFFERAN*; K. SCHWARTZ; T. HAZEL; K. JOHE; M. LEVY. *Neuralstem Inc., Johns Hopkins Univ., Neuralstem Inc.*

9:00 N13 **692.10** Therapeutic effect of sephin1 on the mouse model of multiple sclerosis, experimental autoimmune encephalomyelitis. Y. CHEN*; B. POPKO. *Univ. of Chicago.*

POSTER

693. Demyelinating Disorders: Human and Animal Studies

Theme B: Neural Excitability, Synapses, and Glia

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 N14 **693.01** Thromboxane A_2 levels are increased in the cerebrospinal fluid of active multiple sclerosis patients. F. MIR*; D. BLEMUR; S. A. SADIQ. *Tisch MS Res. Ctr. of NY.*

9:00 N15 **693.02** Cerebrospinal fluid biomarkers of disease phenotype and activity in multiple sclerosis. J. TUDDENHAM; V. K. HARRIS*; S. A. SADIQ. *Tisch MS Res. Ctr. of New York.*

10:00 N16 **693.03** Alterations of tryptophan metabolites in patients with multiple sclerosis. B. KEPPLINGER*; B. SEDLNITZKY-SEMLER; J. REUSS; H. BARAN. *Karl Landsteiner Res. Institute, Mauer, Karl Landsteiner Res. Institute, Mauer, Gen. Hosp.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

11:00 N17 **693.04** Cellular and molecular mechanisms of spine loss in an animal model of cortical multiple sclerosis. A. SCHUMACHER*; M. JAFARI; T. NEZIRAJ; S. SCHMIDT; T. JÜRGENS; M. KREUTZFELD; D. MERKLER; M. KERSCHENSTEINER. *LMU Muenchen, BioMedical Ctr. (BMC), Univ. of Geneva, Geneva Univ. Hosp., Munich Cluster of Systems Neurol. (SyNergy).*

8:00 N18 **693.05** Widespread spine loss in cortical multiple sclerosis and its model. M. JAFARI*; A. SCHUMACHER; T. JÜRGENS; M. KREUTZFELD; S. SCHMIDT; T. NEZIRAJ; D. MERKLER; M. KERSCHENSTEINER. *Inst. of Clin. Neuroimmunology, LMU Munich, Biomed. Ctr. (BMC), LMU Munich, Univ. of Geneva, Geneva Univ. Hosp., Munich Cluster of Systems Neurol. (SyNergy).*

9:00 O1 **693.06** ● Tracking axonal conduction changes in multiple sensory modalities in a mouse model of oligodendrocyte loss. B. J. FARLEY*; E. MOROZOVA; J. AMACKER; B. WANG; B. D. HARVEY; D. GIANNI; B. T. WIPKE; M. HAJOS. *Biogen.*

10:00 O2 **693.07** Human macrophages in Adrenoleukodystrophy show phenotypic specific cytokine and glutamate response to very long chain fatty acid stimulation. B. R. TURK*; C. TIFFANY; B. E. THEISEN; M. ROSEN; C. NEMETH; J. MARX; R. O. JONES; P. WATKINS; A. B. MOSER; S. KANNAN; A. FATEMI. *Johns Hopkins Univ., Kennedy Krieger Inst., Johns Hopkins Univ., Johns Hopkins Sch. of Med.*

11:00 O3 **693.08** ● Enlarged perivascular spaces are not associated with disease worsening in patients with relapsing-remitting multiple sclerosis. M. CAVALLARI*; S. EGOROVA; B. C. HEALY; M. PALOTAI; J. PRIETO; M. POLGAR-TURCSANYI; M. ANDERSON; B. GLANZ; T. CHITNIS; C. R. G. GUTTMANN. *Brigham and Women's Hosp., Brigham and Women's Hosp.*

8:00 O4 **693.09** Pathogenesis of experimental autoimmune encephalomyelitis is modulated by glutamatergic signaling and inflammatory cytokines in the hippocampus and prefrontal cortex. R. ROTOLO; J. DEMURO; G. DRUMMOND; J. WOOD; C. LITTLE; L. TELISKA; T. STRANGE; J. VIDAL; L. FRUEHAUF; A. BARBER; A. WOLF; J. BLAKE; L. JOHNS; A. J. BETZ*. *Quinnipiac Univ., Quinnipiac Univ., Quinnipiac Univ.*

9:00 O5 **693.10** Adaptive immunity drives remyelination failure or success in multiple sclerosis. V. ZUJOVIC*; C. SANSON; M. EL BEHI; C. BACHELIN; L. GUILLOT-NOËL; N. SARRAZIN; J. FRANSSON; E. MAILLART; B. STANKOFF; V. GUILLEMOT; H. ABDI; I. REBEIX; B. FONTAINE. *Sorbonne-universités-Upmc 06, INSERM, CNRS, UMR IC, Assistance Publique-Hôpitaux de Paris, Hôpital St. Antoine-HUEP, The Univ. of Texas, Assistance Publique-Hôpitaux de Paris/Pitié Salpétrière Univ. Hosp.*

10:00 O6 **693.11** The effects of ambient temperatures and exercise modality on corticospinal excitability of the soleus in persons with multiple sclerosis. G. GROVER*; D. T. G. PHILPOTT; E. M. WALLACK; L. P. KELLY; A. J. DEVASAHAYAM; M. C. KIRKALND; A. R. CHAVES; M. PLOUGHMAN; K. E. POWER; D. C. BUTTON. *Mem. Univ. of Newfoundland, Mem. Univ. of Newfoundland.*

11:00 O7 **693.12** Astrocytic activity modulated by S1P signaling in experimental autoimmune encephalomyelitis (EAE) revealed in a c-Fos reporter mouse. D. JONNALAGADDA*; A. GROVES; Y. KIHARA; J. CHUN. *The Scripps Res. Institute, La Jolla, CA, UCSD, The Scripps Res. Inst.*

8:00 O8 **693.13** Cuprizone model - correlation between fine motor performance and white matter changes. K. LEHTIMÄKI; S. KIM*; A. ZAINANA; A. NURMI. *Charles River Discovery.*

9:00 O9 **693.14** ● Multiple measures of corticospinal excitability account for clinical disability in transverse myelitis. N. F. WYMBS*; M. LEVY; K. SCHWARTZ; G. CANTARERO; M. A. MEALY; D. BECKER; C. A. PARDO; P. A. CELNIK; K. M. ZACKOWSKI. *Johns Hopkins Univ., Kennedy Krieger Inst., Johns Hopkins Univ., Walter Reed Army Inst. of Res.*

10:00 O10 **693.15** Effects of electromagnetic waves emitted by cell phones on rat optic and trigeminal nerve. O. E. TOK*; D. AKAKIN; N. DAGBASI; D. ANIL; A. AKAKIN; S. SIRVANCI; F. ERCAN. *Bezmialem Vakif Univ., Marmara Univ., Bahcesehir Univ.*

POSTER

694. *In Vitro* and *In Vivo* Analysis of τ Pathology

Theme C: Neurodegenerative Disorders and Injury

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 O11 **694.01** Plexin-A4 regulates secretion and expression of τ in Alzheimer's disease mouse model. J. YANG*; W. LEE; A. KIM; J. PARK; H. CHOI; H. CHOI; E. HWANG; I. MOOK-JUNG. *Seoul Natl. Univ. Col. of Med., Ctr. for Functional Connectomics, Korea Inst. of Sci. and Technol. (KIST).*

9:00 O12 **694.02** ● Characterization of pathological τ species from mouse Tauopathy models and AD brain. A. MARREIRO*; K. VAN KOLEN; W. BRUINZEEL; D. VAN DAM; P. P. DE DEYN; L. TEMMERMAN; G. DEPUYDT; L. SCHOOFS; M. H. MERCKEN. *Janssen Pharmaceutica, Katholieke Univ. Leuven, Univ. of Antwerp.*

10:00 O13 **694.03** τ association with protein tyrosine phosphatase SHP2: Mechanism and cellular location. Y. KIM; M. B. FRANCIS; C. J. LEUGERS; G. LEE*. *Univ. of Iowa, Univ. Iowa.*

11:00 O14 **694.04** ▲ Characterizing the depolarization-dependent synaptic release of τ. E. E. MIYOSHI*; T. BILOUSOVA; K. H. GYLYS. *UCLA.*

8:00 O15 **694.05** Identification of τ internal segment for efficient internalization. K. CHO*; Y. JANG; D. KIM; S. YOON. *Asan Med. Ctr.*

9:00 O16 **694.06** Depletion of laforin portends "molecular crowding" in Alzheimer's disease: Implications for protein aggregation and the role of glycemic derangement in neurodegeneration. K. WOLFE; S. Y. AGHDAM; S. Z. IMAM; S. W. BARGER*. *Univ. of Arkansas for Med. Sci., Univ. of Arkansas for Med. Sci., Natl. Ctr. for Toxicological Res., Central Arkansas Veterans Healthcare Syst.*

10:00 O17 **694.07** Tools development for studying a new N-terminally truncated τ species and its relevance to Alzheimer disease. C. LEGHAY; M. DERISBOURG; D. DEMEYER; S. EDDARKAOUI; R. CAILLIEREZ; V. BUÉE-SCHERRER; D. BLUM; V. DERAMECOURT; L. BUÉE; M. HAMDANE*. *UMR 1172 Inserm, Univ. De Lille, CHU Lille, Hôpital Salengro, Univ. Lille.*

11:00 O18 **694.08** Toxic synergy between amyloid aggregates in disease and their role in τ oligomeric strain formation. R. KAYED*; J. E. GERSON; D. L. CASTILLO-CARRANZA; U. SENGUPTA; M. J. GUERRERO-MUNOZ. *Univ. of Texas Med. Br. Dept. of Neurol.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

8:00 P1 **694.09** Identifying novel interactions of the Hsp90 kinase co-chaperone Cdc37 *in vivo* and *in vitro*. M. NARAYAN*; U. K. JINWAL. *Univ. of South Florida, Byrd Alzheimer's Institute-University of South Florida.*

9:00 P2 **694.10** Sod2 rescues p301l τ-transfected primary neurons. K. A. BASKERVILLE*; N. M. CHIKWEM; N. WEIGEL. *Lincoln Univ.*

10:00 P3 **694.11** Disassembly of the MID1-PP2A complex causes dephosphorylation of τ. F. MATTHES*; S. SCHWEIGER; M. M. HETTICH; D. EHNINGER; S. KRAUSS. *DZNE, Univ. of Mainz, DZNE.*

11:00 P4 **694.12** Charge interplay in τ fibrillization: A mechanistic insight. G. VISWANATHAN*; S. GUPTA. *Indian Inst. of Technol. Gandhinagar, Indian Inst. of Technology, Gandhinagar.*

8:00 P5 **694.13** τ oligomers and the dysregulated proteasome in Alzheimer's disease. A. N. NILSON*; J. DEGER; J. GERSON; R. KAYED. *Univ. of Texas Med. Br.*

9:00 P6 **694.14** Liquid-liquid phase separation of human τ protein. S. WEGMANN*; B. EFTEKHARZADEH; A. M. PALUD; J. P. TAYLOR; B. T. HYMAN. *Mass Gen. Hosp. / Harvard Med. Sch., St. Jude Children's Res. Hosp., Howard Hughes Med. Inst.*

POSTER

695. Biochemical Manipulations in Animals: Prevention of Alzheimer's Disease

Theme C: Neurodegenerative Disorders and Injury

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 P7 **695.01** Transient cerebral ischemia promoters brain mitochondrial dysfunction and exacerbates cognitive impairments in young 5xFAD mice. J. TIAN*; L. LU; E. GAUBA; L. GUO; H. DU. *The Univ. of Texas At Dallas, Dept. of Neurology, Shandong Provincial Hosp. Affiliated to Shandong Univ., The Univ. of Texas at Dallas.*

9:00 P8 **695.02** Enzymatic digestion of extracellular matrix modulates cortical microglia response to damage in the 5xFAD mice. S. STOYANOV*; W. SUN; I. CHOI; K. REYMANN; A. ISAEVA; M. RIEK-BURCHARDT; J. NEUMANN; A. DITYATEV. *DZNE E.V., Med. Univ., Institue for Molecular and Clinical Immunology, Otto-von-Guericke Univ.*

10:00 P9 **695.03** ● Raising *in vivo* microdialysis to the next level: Evaluation of long-term extracellular amyloid-β and τ in mouse models of Alzheimer's disease. M. MEINHARDT*; M. KATSUR; G. PLOTZKY; E. CHATZIKONSTANTINOU; S. BENOE; I. MAIRHOFER; J. HOPPE; S. TALMON; K. BUCK. *Abbvie Deutschland Gmbh & Co. KG.*

11:00 P10 **695.04** ▲ *In situ* harvest of neural stem cells from subventricular zone and cell replacement in live rat brains. Z. S. QING*; L. KAI LI; L. N. P.; Y. K. L. *Hong Kong Baptist Univ., Hong Kong Baptist Univ.*

8:00 P11 **695.05** Proteasomal Inhibition restores long term potentiation in hippocampal CA1 pyramidal neurons of APP/PS1 mice. K. MUTHUKUMARAPPAN*; S. SAJIKUMAR. *Natl. Univ. of Singapore.*

9:00 P12 **695.06** Role of transient receptor potential ankyrin 1 channels in Alzheimer's disease. H. LEE*. *No 155, Section 2, Li-Nong Street, Natl. Yang-Ming Univ.*

10:00 Q1 **695.07** Proteome changes in the cerebrospinal fluid of mouse models for α-amyloidosis and synucleinopathy. T. ENINGER*; S. A. MÜLLER; M. BACIOGLU; M. SCHWEIGHAUSER; P. J. KAHLE; S. F. LICHTENTHALER; M. JUCKER; S. A. KAESER. *German Ctr. for Neurodegenerative Dis., Hertie Inst. for Clin. Brain Res., Grad. Training Ctr. of Neurosci., German Ctr. for Neurodegenerative Dis., Klinikum rechts der Isar, Technische Univ. München, Inst. for Advanced Study, Technische Univ. München, Munich Ctr. for Systems Neurol. (SyNergy).*

11:00 Q2 **695.08** The p3-Alcβ peptide shows an effect to protect neurons from Aβ toxicity. A. UCHIYAMA*; A. KIMURA; C. OMORI; S. HATA; T. SUZUKI. *Hokkaido Univ.*

8:00 Q3 **695.09** Functional and morphological alterations in primates following Alzheimer brain inoculation. J. E. KOCH*; C. GARY; F. PETIT; Z. HANSS; S. J. SAWIAK; A. HERARD; J. DESLYS; E. E. COMOY; J. PICQ; F. PIFFERI; M. DHENAIN. *Univ. WI Oshkosh, Ctr. Natl. de la Recherche Scientifique (CNRS), Ctr. Natl. de la Recherche Scientifique (CNRS), Wolfson Brain Imaging Centre, Univ. of Cambridge, Lab. de Physiopathogénie et de Prévention des Prions et des Pathogènes Atypiques (L4PA), UMR7179 CNRS-MNHN, BioAdapt.*

9:00 Q4 **695.10** Novel Osmotin inhibits SREBP2 via AdipoR1/AMPK/SIRT1 pathway to improve Alzheimer's disease Neuropathological Deficits. M. KIM*; S. ALI SHAH; G. YOON; M. KIM; M. JO; M. CHO. *Dept. of Biol., Dept. of Biology, Gyeongsang Natl. Univ.*

10:00 Q5 **695.11** Calmodulin-like skin protein prevents spatial learning impairment of Alzheimer's disease model mice. S. KUSAKARI*; M. NAWA; K. SUDO; M. MATSUOKA. *Tokyo Med. Univ., Tokyo Med. Univ., Tokyo Med. Univ.*

11:00 Q6 **695.12** ● DA-9803 prevents deposition of amyloid plaques and maintains calcium homeostasis in Tg2576 mice. G. PAGNIER*; K. KASTANENKA; M. SOHN; S. CHOI; H. GO; B. BACSKAI. *Massachusetts Gen. Hosp., Dong-A ST.*

8:00 Q7 **695.13** δFosB gene targets in an Alzheimer's disease mouse model: Implications for hippocampal neuronal function. G. S. STEPHENS*; J. C. YOU; C. FU; X. ZHANG; J. CHIN. *Baylor Col. of Med., Thomas Jefferson Univ.*

9:00 Q8 **695.14** Hyperpolarized ^{13}C-magnatic resonance spectroscopic imaging in the brain of high fat diet-fed mouse. S. LEE; S. KO; Y. CHOI; E. KIM; C. KIM; H. SONG; W. LEE; J. LEE*. *Anat., Yonsei Univ. Col. of Med., Brain Korea 21 PLUS Project for Med. Science, Yonsei Univ., Yonsei Univ. Col. of Med., Yonsei Univ. Col. of Med., Yonsei Univ. Col. of Med.*

10:00 Q9 **695.15** τ-mediated circadian rhythm disruption and cognitive dysfunction in Alzheimer's disease mouse model. A. KIM*; H. SONG; I. MOOK-JUNG*. *Col. of Medicine, Seoul Natl. Univ., Seoul Natl. Univ.*

11:00 Q10 **695.16** Mechanisms of redox perturbation in the 2nd generation App knock-in mouse model of Alzheimer's disease. S. HASHIMOTO*; T. SAITO; T. C. SAIDO. *Riken Brain Sci. Inst.*

8:00 Q11 **695.17** ▲ Alzheimers related gene expression and neurosteroid production in the brains of hypogonadal kisspeptin receptor knockout mice. M. GOSS; A. R. HARVEY; J. T. SMITH*. *The Univ. of Western Australia.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
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* Indicates abstract's submitting author

9:00 Q12 **695.18** Prevention of insulin resistance in brain through mesenchymal stem cell therapy approach as potential therapeutic strategy against Alzheimer's disease. S. SAIEVA*; H. S. SALLAM; B. TUMURBAATAR; R. ANZALONE; G. LA ROCCA; G. TAGLIALATELA; N. ABATE. *Univ. of Texas Med. Br., Univ. of Palermo, Inst. Euro-Mediterraneo di Scienza e Tecnologia (IEMEST), Univ. of Texas Med. Br., Univ. of Texas Med. Br.*

10:00 Q13 **695.19** ● Experimental neprilysin activation strategy for prevention of AD. N. KAKIYA*; T. SAITO; P. NILSSON; T. C. SAIDO. *RIKEN Brain Sci. Inst.*

11:00 Q14 **695.20** Insulin dysregulation leads to hippocampal neprilysin downregulation. J. MORALES-CORRALIZA*; H. WONG; M. J. MAZZELLA; S. CHE; S. LEE; E. PETKOVA; J. D. WAGNER; S. E. HEMBY; S. D. GINSBERG; P. M. MATHEWS. *Nathan Kline Institute-New York Univ., Nathan Kline Inst., Wake Forest Sch. of Med., High Point Univ.*

8:00 R1 **695.21** Near infrared light reduces amyloid β oligomer-driven synaptic dysfunction. M. M. COMEROTA*; G. TAGLIALATELA. *Univ. of Texas Med. Br., Univ. of Texas Med. Br.*

9:00 R2 **695.22** New selective LXR modulators as potent drugs for treatment of Alzheimer's disease. Y. YANG; L. WANG; C. FIDELIS; J. HUANG; Z. LIANG; M. KANG; Y. KUANG; F. JIA; M. XIE; S. ULLAH; J. S. SHUMSKY*; W. GAO; B. JIANG; F. LI. *Zhongshan Sch. of Medicine, Sun Yat-Sen Univ., Zhongshan Sch. of Medicine, Sun Yat-Sen University, China, Drexel Univ. Col. of Med., Zhongshan Sch. of Medicine, Sun Yat-Sen University, China.*

10:00 R3 **695.23** Scanning ultrasound as a treatment tool of proteinopathies including Alzheimer's disease. J. GOETZ*; G. LEINENGA; R. NISBET; A. VAN DER JEUGD; R. HATCH. *The Univ. of Queensland.*

11:00 R4 **695.24** Neurochemical changes in the anemic neonatal mouse hippocampus and prefrontal cortex following erythropoietin therapy. D. WALLIN*; I. TKAC; M. K. GEORGIEFF. *Univ. of Minnesota.*

8:00 R5 **695.25** ● Identification of selective ς 1R ligand EPGN644 for evaluation in Alzheimer's disease. S. RAVULA*; F. C. TUCCI; G. BEATON; C. BORSAN; R. DAGAR; S. KIM; D. DALWADIDI; J. A. SCHETZ. *Epigen Biosci. Inc, Univ. of North Texas Hlth. Sci. Ctr.*

9:00 R6 **695.26** Chronic administration of imidazoline ligands improves memory deficits and reduces neuroinflammation in a mouse model of Alzheimer's disease. N. MIRZAEI*; A. BIRCH; L. KATSOURI; D. NUTT; M. SASTRE. *Imperial Col. London.*

10:00 R7 **695.27** Gastrointestinal dysbiosis in the development of Alzheimer's disease. T. HARACH*; N. MARUNGRUANG; F. FÅK; N. DUTILLEUL; V. CHEATHAM; K. MCCOY; J. NEHER; M. JUCKER; T. LASSER; T. BOLMONT. *EPFL, Food for Hlth. Sci. Centre, Lund Univ., Univ. of Bern, German Ctr. for Neurodegenerative Dis. (DZNE).*

11:00 R8 **695.28** ▲ Astrocyte volume regulation during the progression of Alzheimer's disease. D. KOLENICOVA; P. HONSA; J. KRISKA; D. KIRDAJOVA; L. VALIHRACH; M. KUBISTA; M. ANDEROVA*. *Inst. Exper Med. ASCR, Fac. of Science, Charles University, Inst. of Biotech. - Biocev, 2nd Fac. of Medicine, Charles Univ.*

POSTER

696. Genetics and Epigenetics of Alzheimer's Disease and Related Models

Theme C: Neurodegenerative Disorders and Injury

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 R9 **696.01** Hippocampal gene expression patterns in a mouse model of Down syndrome (Ts65Dn) following maternal choline supplementation (MCS). M. J. ALLDRED*; H. M. CHAO; S. LEE; J. BEILIN; E. PETKOVA; S. D. GINSBERG. *Nathan Kline Inst., New York Univ. Langone Med. Ctr., Nathan Kline Inst., Nathan Kline Inst., New York Univ. Langone Med. Ctr., New York Univ. Langone Med. Ctr.*

9:00 R10 **696.02** Functional characterization of ank2 mutations in ASD. J. C. GARZA*; T. PETRYSHEN. *Massachusetts Gen. Hosp., The Broad Inst. of Harvard and MIT, Harvard Med. Sch.*

10:00 R11 **696.03** A specific transcript of SNX19 (sorting nexin 19) contributes to schizophrenia risk. L. MA*; Q. CHEN; A. JAFFE; M. LI; R. TAO; C. LI; J. SHIN; Y. JIA; N. BRANDON; A. CROSS; T. HYDE; J. KLEINMAN; D. WEINBERGER; R. STRAUB. *Lieber Inst. for Brain Develop., AstraZeneca Neurosci. Innovative Medicines and Early Developmental Unit, Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med.*

11:00 R12 **696.04** Association between amyloid-β precursor protein (APP) genetic variant and cognitive abilities. O. NIKOLAIENKO; C. MYRUM; C. R. BRAMHAM*; J. HAAVIK; T. ZAYATS. *Univ. of Bergen Dept. of Biomedicine, Haukeland Univ. Hospital, and K.G. Jebsen Ctr. for research on Neuropsychiatric Disorders, Univ. of Bergen.*

8:00 R13 **696.05** Differential miR-137 expression and methylation in Alzheimer's disease. A. IATROU*; R. G. SMITH; R. LARDENOIJE; J. A. Y. ROUBROEKS; D. MASTROENI; P. D. COLEMAN; B. P. F. RUTTEN; K. LUNNON; G. KENIS; D. L. A. VAN DEN HOVE. *Maastricht Univ., Univ. of Exeter Med. Sch., Arizona State Univ., Univ. of Wurzburg.*

9:00 R14 **696.06** Neuron-specific methylome analysis reveals epigenetic regulation of BRCA1 against Aβ-induced DNA damage in Alzheimer's disease brain. T. MANO*; K. NAGATA; S. MURAYAMA; S. C. TAKAOMI; S. TSUJI; A. IWATA. *Grad. Sch. of Medicine, The Univ. of Tokyo, Lab. for Proteolytic Neuroscience, RIKEN BSI, Dept. of Neuropathology, Tokyo Metropolitan Geriatric Hosp.*

10:00 R15 **696.07** Correlation network analysis of frontal cortex gene expression changes during the progression of Alzheimer's disease. S. E. COUNTS*; E. MCKAY; Z. MADAJ; J. S. BECK; M. WINN. *Michigan State Univ., St. Mary's Hosp., Michigan State Univ., Van Andel Inst.*

11:00 R16 **696.08** Gene expression profiling of cathepsin D immunopositive pyramidal neurons within the precuneus in mild cognitive impairment and Alzheimer's disease. B. HE*; S. E. PEREZ; S. LEE; E. PETRKOVA; S. D. GINSBERG; E. J. MUFSON. *Barrow Neurolog. Inst., Nathan Kline Inst., New York Univ. Langone Med. Ctr.*

8:00 R17 **696.09** Single population high throughput transcriptomic analysis of hippocampal and neocortical pyramidal neurons in mouse and postmortem human brain. S. D. GINSBERG*; A. SALTZMAN; I. DOLGALEV; A. HEGUY; M. J. ALLDRED. *Nathan S Kline Inst., New York Univ. Langone Med. Ctr., New York Univ. Langone Med. Ctr., New York Univ. Langone Med. Ctr., New York Univ. Langone Med. Ctr.*

Wed. AM

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* Indicates abstract's submitting author

9:00 S1 **696.10** Sex differences in the molecular pathology of the 5XFAD mouse model of Alzheimer's disease. J. L. BUNDY*; C. VIED; C. BADGER; R. S. NOWAKOWSKI. *Florida State Univ. Col. of Med., Florida State Univ. Col. of Med.*

10:00 S2 **696.11** Apoeε4 status impacts exercise-induced serum bdnf levels in elderly African Americans with MCI. J. S. ALLARD*; O. NTEKIM; S. P. JOHNSON; J. S. NGWA; R. F. GILLUM; T. V. FUNGWE; T. O. OBISESAN. *Howard Univ. Col. of Med., Howard Univ. Sch. of Nursing and Allied Hlth. Sci., Howard Univ. Hosp., Howard Univ. Hosp., Howard Univ. Hosp.*

11:00 S3 **696.12** Alzheimer's disease-associated genome-wide DNA methylation and hydroxymethylation patterns in the middle temporal gyrus. R. LARDENOIJE*; J. ROUBROEKS; E. PISHVA; A. IATROU; B. RUTTEN; G. KENIS; H. W. M. STEINBUSCH; D. MASTROENI; P. COLEMAN; E. DELVAUX; A. SMITH; R. SMITH; K. LUNNON; D. L. A. VAN DEN HOVE. *Maastricht Univ., Univ. of Exeter, Arizona State Univ., Univ. of Würzburg.*

8:00 S4 **696.13** Genetic determinants of clinical progression in Alzheimer's disease: A pilot study. B. A. KENT*; L. TOOMAN; I. GUELLA; D. EVANS; E. DWOSH; D. SADOVNICK; G. HSIUNG; M. J. FARRER; H. B. NYGAARD. *Univ. of British Columbia.*

9:00 S5 **696.14** Down Syndrome and Alzheimer's disease brains contain neurons with increased genomic mosaicism. G. E. KAESER*; B. SIDDOWAY; M. LEE; S. ROHRBACK; C. SAUVEY; J. CHUN. *The Scripps Res. Inst.*

10:00 S6 **696.15** Role of Unc5c, Alzheimer's risk gene in late-onset Alzheimer's disease. D. KARUNAKARAN*; J. ATWAL; R. VASSAR. *Northwestern Univ., Genentech.*

11:00 S7 **696.16** FYN expression is associated with regulatory region genetic variation in Alzheimer's disease. J. A. ZAHRATKA*; Y. SHAO; M. SHAW; K. TODD; M. KHRESTIAN; T. MONTINE; J. B. LEVERENZ; L. M. BEKRIS. *Cleveland Clin. Lerner Res. Inst., Stanford Univ., Cleveland Clin.*

8:00 S8 **696.17** Mosaic genomic variation in the sporadic Alzheimer's disease brain. C. SAUVEY*; M. LEE; G. KAESER; B. SIDDOWAY; J. CHUN. *The Scripps Res. Inst., The Scripps Res. Inst.*

9:00 S9 **696.18** Fine mapping of the APOE locus by low-pass whole-genome sequencing in Chinese Alzheimer's disease patients. X. ZHOU*; Y. CHEN; Q. ZHAO; M. M. CHU; C. T. KWOK; K. Y. MOK; Y. CHEN; B. ZHANG; A. K. FU; Y. LI; Q. GUO; N. Y. IP. *The Hong Kong Univ. of Sci. and Technol., The Hong Kong Univ. of Sci. and Technol., The Hong Kong Univ. of Sci. and Technol., HKUST Shenzhen Res. Inst., Chinese Acad. of Sci., Fudan Univ., UCL Inst. of Neurol., Zhejiang Univ., Univ. of North Carolina at Chapel Hill.*

10:00 S10 **696.19** New elements of genomic mosaicism in sporadic Alzheimer's disease. M. LEE*; G. E. KAESER; R. R. RIVERA; B. SIDDOWAY; C. R. SAUVEY; S. E. ROHRBACK; W. S. MCDONALD; Y. WEI; J. CHUN. *The Scripps Res. Inst.*

11:00 S11 **696.20** Interaction of NMDA-receptor antagonist medication use and ADORA2A genotype on hippocampal volume in patients with Mild Cognitive Impairment and Alzheimer's disease. E. HORGUSLUOGLU-MOLOCH*; K. NHO; S. L. RISACHER; A. J. SAYKIN. *Indiana University, Sch. of Med., Indiana University, Sch. of Med., Indiana University, Sch. of Med., Indiana University, Sch. of Med.*

8:00 S12 **696.21** Cholinergic surveillance over hippocampal RNA metabolism and Alzheimer's-like pathology. M. A. PRADO*; B. KOLISNYK; M. AL-ONAIZI1; L. SOREQ; J. ULE; H. SOREQ; V. PRADO. *Robarts Res. Institute/University of Western O, Robarts Res. Institute/ University of Western Ontario, UCL Inst. of Neurol., The Hebrew Univ. of Jerusalem.*

9:00 S13 **696.22** Rpph1 regulates Cdc42 by competing endogenous miR-330-5p and modulates dendritic spine formation in hippocampal pyramidal neurons. Y. CAI*; Z. SUN; H. LUO; Q. WU; J. WAN. *Peking Univ., Shenzhen PKU-HKUST Med. Ctr., Hong Kong Univ. of Sci. and Technol.*

POSTER

697. Alzheimer's Disease: Imaging Techniques

Theme C: Neurodegenerative Disorders and Injury

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 S14 **697.01** Influence of amyloid burden on subcortical volume and morphometry. G. AYRANCI*; R. PATEL; G. DEVENYI; V. KONG; M. CHAKRAVARTY; A. Alzheimer's disease NEUROIMAGING INITIATIVE. *Cerebral Imaging Ctr. - Douglas Mental Hlth. Un, McGill Univ., McGill Univ., McGill Univ., USC.*

9:00 T1 **697.02** ▲ Polymalic acid-based targeted magnetic resonance imaging contrast agent for the detection of amyloid β plaques in Alzheimer's disease. L. A. MASHOUF*; I. FOX; P. R. GANGALUM; S. WAGNER; H. DING; K. L. BLACK; J. Y. LJUBIMOVA; E. HOLLER; R. PATIL. *Cedars-Sinai Med. Ctr., Johns Hopkins Univ.*

10:00 T2 **697.03** ● Relationship between ^{18}F-Flutemetamol uptake and RBANS performance in non-demented community-dwelling older adults. T. ATKINSON*; D. B. HAMMERS; B. C. ALLRED DALLEY; K. R. SUHRIE; B. BEARDMORE; L. BURRELL; K. RASMUSSEN; K. DUFF; J. M. HOFFMAN. *Univ. of Utah, Univ. of Utah.*

11:00 T3 **697.04** Using ultra-short echo time (UTE) MRI to visualize Alzheimer's and cerebrovascular disease pathophysiology. J. J. WISCO*; A. NAZARAN; D. JEFFS; B. HELDT; J. KUDLACEK; H. W. LAMBERT; D. A. MORTON; R. K. WATT; H. V. VINTERS; N. K. BANGERTER. *Brigham Young Univ., Univ. of Utah Sch. of Med., Brigham Young Univ., West Virginia Univ. Sch. of Med., Brigham Young Univ., David Geffen Sch. of Med. at UCLA.*

8:00 T4 **697.05** Structural changes to the nucleus basalis of meynert and its projections in the cingulum in mild cognitive impairment. H. RISKIN-JONES; D. SULTZER; T. NARVAEZ; J. VELIZ; R. MELROSE*. *VA Greater Los Angeles Healthcare Syst.*

9:00 T5 **697.06** Executive attention and white matter changes in mild cognitive impairment. A. M. JIMENEZ*; H. RISKIN-JONES; T. NARVAEZ; J. VELIZ; D. L. SULTZER; R. J. MELROSE. *VA Greater Los Angeles Healthcare Syst.*

10:00 T6 **697.07** ● Permeability in healthy people. B. PASCUAL; E. ROCKERS; S. BAJAJ; M. YU; C. KARMONIK; Z. XUE; J. C. MASDEU*. *Houston Methodist Res. Institute, Weill Cornell Med. Col., NIH.*

11:00 T7 **697.08** Leading-edge indicators of network disease spread in frontotemporal dementia. J. BROWN*; J. DENG; M. GORNO-TEMPINI; H. J. ROSEN; W. W. SEELEY. *Univ. of California San Francisco.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

8:00 T8 **697.09** Resting state network profiles of Alzheimer's disease and frontotemporal dementia: Preliminary examination. J. A. CONTRERAS*; S. L. RISACHER; M. DZEMIDZIC; J. D. WEST; B. C. MCDONALD; M. R. FARLOW; B. MATHEWS; L. G. APOSTOLOVA; J. BROSCH; B. GHETTI; J. GOÑI; O. SPORNS; A. J. SAYKIN. *Indiana Univ. Sch. Of Medicine, STARK, Indiana Univ. Sch. Of Medicine, STARK, Indiana Univ. Sch. Of Medicine, STARK, Indiana Univ. Sch. Of Med., Indiana Univ. Sch. Of Med., Purdue Univ., Indiana Univ.*

9:00 T9 **697.10** Early endosome aggregation in Down Syndrome revealed by high-resolution microscopy. A. BOTTÉ*; A. FRANCK; J. LAINÉ; G. FONTAINE; F. CORLIER; C. ALBAC; P. GOH; O. FAKLARIS; A. REBILLAT; D. NIZETIC; M. POTIER. *ICM - Inst. Du Cerveau Et De La Moelle Épinière, Inst. de Myologie, USC, Queen Mary, Univ. of London, Inst. Jacques Monod, Inst. Jérôme Lejeune.*

10:00 T10 **697.11** Live cell visualization of G2 phase transition in neurons driven by amyloid-β using a fluorescent ubiquitination-based cell cycle indicator (Fucci) system. S. IPPATI*. *UNSW.*

POSTER

698. Modeling Parkinson's Disease

Theme C: Neurodegenerative Disorders and Injury

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 T11 **698.01** ● Acceleration of synuclein pathology induced by seeding with recombinant preformed α-synuclein fibrils. D. L. CZILLI*; L. LI; M. HAYASHI; Y. TIAN. *Eli Lilly and Co.*

9:00 T12 **698.02** Chronic gut inflammation hastens the onset of motor dysfunction and pathology in α-synuclein mutant transgenic mice. Y. KISHIMOTO*; W. ZHU; J. M. SEN; M. P. MATTSON. *NIH, NIH, NIH.*

10:00 T13 **698.03** Mutated α -Synuclein transgenic marmosets as a novel non-human primate model of Parkinson's disease. R. KOBAYASHI*; S. SHIOZAWA; J. OKAHARA; C. YOKOYAMA; T. KONDO; J. TAKAHASHI-FUJIGASAKI; T. INOUE; C. HARA-MIYAUCHI; T. MAEDA; H. J. OKANO; E. SASAKI; H. OKANO. *Keio Univ. Sch. of Med., Central Inst. for Exptl. Animals, RIKEN Ctr. for Life Sci. Technologies, Tokyo Metropolitan Inst. of Gerontology, Jikei Univ. Sch. of Med., Jikei Univ. Sch. of Med.*

11:00 T14 **698.04** A novel transgenic mouse model to investigate Parkinson's disease-like α-synuclein pathology in noradrenergic neurons. L. M. BUTKOVICH*; M. C. HOUSER; K. KHOSRAVIAN; T. CHALERMPALANUPAP; J. CHANG; D. WEINSHENKER; M. G. TANSEY. *Emory Univ.*

8:00 T15 **698.05** ▲ Cytological andbehavioral evaluation in male mice before, during and after Manganese chlorideand Manganese acetate inhalation as a Parkinson's disease experimental model. F. HUERTA-OLIVAREZ; E. MONTIEL-FLORES; L. REYNOSO-ERAZO*; V. ANAYA-MARTÍNEZ; J. SANCHEZ-BETANCOURT; J. ESPINOSA-VILLANUEVA; C. LOZANO-VILLALOBOS; M. AVILA-COSTA. *UNAM, Neuromorphology Lab., Univ. of Mexico.*

9:00 T16 **698.06** Generation of Parkinson's disease mice model by temporarily restricted expression of α-synuclein using Tet-off system. H. YAMAGUCHI*; A. FUJITA; K. IINUMA; H. UNE; Y. ZHAO; K. TANAKA; J. KIRA. *Neurolog. Inst, Kyushu Univ. Sch. of Med., Keio Univ. Sch. of Med.*

10:00 T17 **698.07** AAV-mediated expression of α-synuclein in oligodendrocytes recapitulates key features of multiple system atrophy. F. BASSIL; P. A. GUERIN; N. DUTHEIL; S. DOVERO; W. G. MEISSNER; E. BEZARD; P. FERNAGUT*. *Inst. Des Maladies Neurodegeneratives, CHU de Bordeaux, CHU de Bordeaux.*

11:00 T18 **698.08** ▲ Progression & lateralization of the dopaminergic degeneration in mice exposed to manganese. C. LOZANO-VILLALOBOS; V. ANAYA-MARTINEZ; E. MONTIEL-FLORES; E. MONTIEL-FLORES; J. SANCHEZ-BETANCOURT; F. HUERTA-OLIVAREZ; J. ESPINOSA VILLANUEVA; L. REYNOSO-ERAZO; M. AVILA-COSTA*. *UNAM, Neuromorphology Lab., UNAM, Neuromorphology Lab.*

8:00 U1 **698.09** Discovery of nigral dopaminergic neurogenesis in adult mice. B. MORRISON*; A. RAHMAN; J. ALBRIGHT; I. STOJKOVSKA; C. BROWN. *Boise State Univ.*

9:00 U2 **698.10** Analysis of the extracellular matrix in a mouse model of Lewy-body induced neurodegeneration. F. N. SORIA*; B. DEHAY; E. BEZARD. *Inst. Des Maladies Neurodégénératives, Univ. de Bordeaux, CNRS UMR 5293.*

10:00 U3 **698.11** ● Effects of photobiomodulation by Near Infra-Red light in a mouse genetic model of Parkinson's disease. J. MOLET*; K. ARVANITAKIS; F. REINHART; C. CHABROL; J. LE BER; G. BARBOUX; C. PERRIN; M. DORCHYMONT; D. AGAY; A. BENABID; J. MITROFANIS; C. MORO. *CEA MINATEC CAMPUS, Univ. of Sydney.*

11:00 U4 **698.12** Assessment of neurodegeneration and spreading of α-synuclein pathology induced by distinct α-synuclein assemblies in mice. B. DEHAY*; M. BOURDENX; L. ARCURI; L. BOUSSET; R. MELKI; E. BEZARD. *Inst. of Neurodegenerative Dis., Paris-Saclay Inst. of Neurosci.*

8:00 U5 **698.13** The mechanism of rotenone induces α-synuclein phosphorylation by reducing PP2A activity. H. YANG*. *Parkinson's Dis. Center, Capital Med. Univer, Beijing Inst. for Brain Disorders.*

9:00 U6 **698.14** Evidence for an inflammatory trigger leading to exacerbated neuroinflammation in the G2019S LRRK2 rat model - a longitudinal *in vivo* study. A. SCHILDT; M. D. WALKER; K. DINELLE; R. KORNELSEN; M. MEJIAS; Q. MIAO; C. TAKHAR; Y. OBAYASHI; N. HOSSAIN; J. O'KUSKY; M. FARRER; D. J. DOUDET*; V. SOSSI. *Univ. of British Columbia, Univ. Med. Ctr. Groningen, Univ. of Groningen, Univ. of British Columbia, TRIUMF, Univ. of British Columbia, Univ. of British Columbia, Univ. British Columbia.*

10:00 U7 **698.15** Lymphocytes contribute to motor deficits in the AAV1/2 A53T α-synuclein mouse model of Parkinson's disease. A. A. KARIKARI*; M. GEHMEYR; E. RIBECHINI; V. MALTESE; S. KNORR; J. VOLKMANN; J. M. BROTCHIE; J. B. KOPRICH; M. B. LUTZ; C. W. IP. *Dept. of Neurology, Universitätsklinikum Würzburg, Inst. für Virologie und Immunbiologie, Univ. Würzburg, Toronto Western Res. Inst.*

11:00 U8 **698.16** Hippocampal adeno-associated viral vector-mediated α-synuclein overexpression: A promising model for recapitulating cognitive involvement in Parkinson's disease. E. CINAR*; G. YALCIN-CAKMAKLI; S. U. MUTLUAY; E. SAKA; A. ULUSOY; B. C. TEL; B. ELIBOL. *INSTITUTION OF HEALTH SCIENCES, Hacettepe Univ., Hacettepe Univ., Hacettepe Univ., German Ctr. for Neurodegenerative Dis. (DZNE).*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

8:00 U9 **698.17** Histological evaluation of synaptophysin and spinophilin in Parkinson's disease animal models. B. HUTTER-PAIER*; J. WIESER; J. NEDDENS; E. AUER. *QPS Austria GmbH, Univ. of Applied Sci.*

9:00 U10 **698.18** Microglial activation in mice with glucocerebrosidase deficiency in dopaminergic neurons. S. DOVERO*; F. SORIA; M. ENGELN; B. DEHAY; E. NORMAD; F. GEORGES; C. LO BIANCO; E. BEZARD; P. FERNAGUT. *Inst. of Neurodegenerative Dis., Interdisciplinary Inst. of Neurosciences, UMR 5297, : Diagnos. Develop. Services, Covance Central Lab. Services.*

10:00 U11 **698.19** Aberrant adenosine A_{2A} receptor signaling contributes to neurodegeneration and cognitive impairments in a mouse model of synucleinopathy. R. XIANGPENG*; H. QIDI; L. YA; C. JIANG-FAN. *The Eye Hosp. of Wenzhou Med. Univ., Boston University, Sch. of Med.*

11:00 U12 **698.20** Viral vector mediated- human α-synuclein overexpression induces early axonopathy in the mouse nigro-striatal dopaminergic system. A. P. TAGLIAFERRO*; T. KAREVA; N. KHOLODILOV; R. BURKE. *Columbia Univ.*

8:00 U13 **698.21** Novel mouse model for the initiation and propagation of α-synuclein oligomerization in Parkinson's disease. K. MARTIN; B. VON EINEM; V. GROZDANOV; C. BLIEDERHAEUSER; D. MARKX; J. WEISHAUPT; K. DANZER. *Universitätsklinikum Ulm, Univ. Ulm.*

9:00 U14 **698.22** Analysis of α-synuclein pathology in PINK1 knockout rats. R. B. CREED*; M. S. GOLDBERG. *Univ. of Alabama At Birmingham.*

10:00 U15 **698.23** Dopamine neuron specific translational profiling in a transgenic mouse model of PD. K. WAGNER*; S. JANEZIC; F. WESSELY; J. MONZON SANDOVAL; C. WEBBER; R. WADE-MARTINS. *Univ. of Oxford, Oxford Parkinson's Dis. Ctr. (OPDC).*

11:00 U16 **698.24** CRISPR-Cas9 mediated knock-out of Parkinson's disease related genes in that rat substantial nigra *in vivo*. I. M. SANDOVAL*; R. C. SELLNOW; B. DALEY; N. KUHN; N. MARCKINI; A. C. STRAUSS; J. W. LIPTON; F. P. MANFREDSSON; T. J. COLLIER. *Michigan State Univ. Clin. and Translational Sci. Inst., Mercy Hlth. Hauenstein Neurosci. Ctr.*

8:00 U17 **698.25** Characterization of a novel conditional α-synuclein knockout mouse model. K. MILLER*; I. M. SANDOVAL; M. J. BENSKEY; C. E. SORTWELL; T. J. COLLIER; J. W. LIPTON; F. P. MANFREDSSON. *Michigan State Univ., Michigan State Univ., Mercy Hlth. St. Mary's Hauenstein Neurosci. Ctr.*

9:00 U18 **698.26** ● Profound shifts of metabolic profile accompany neurodegeneration in murine models of Parkinson's disease. M. J. BUTTINI*; F. GIESERT; P. GARCIA; P. DIRSCHERL; C. JAEGER; D. TRUEMBACH; E. GLAAB; A. ULUSOY; D. VOGT-WEISENHORN; A. ZIMPRICH; R. BALLING; D. DIMONTE; W. WURST. *Luxembourg Ctr. For Systems Biomedicine, Helmholtz Ctr., German Ctr. for Neurodegenerative Dis.*

10:00 V1 **698.27** Comparison of transgenic mouse models of Parkinson's disease. M. SASNER; R. Y. WILPAN; R. P. LYNCH; A. K. MARTIG; T. MARTINEZ; S. PADMANABHAN*; K. DAVE. *The Jackson Lab., The Michael J. Fox Fndn.*

11:00 V2 **698.28** *In vivo* structural abnormalities and decreased free water in mice showing increased Aβ42 accumulation. L. M. COLON-PEREZ*; K. TORROELLA; E. OFORI; Y. LEVITES; P. CHAKRABARTY; D. VAILLANCOURT; T. GOLDE; M. FEBO. *Univ. of Florida.*

8:00 V3 **698.29** Gut-Brain Axis: Long-distance propagation and seeding of the Lewy pathology in an *in vivo* model of Parkinson's disease. M. DIEPENBROEK*; J. M. PORTELA DOMINGUES; L. BOUSSET; R. MELKI; J. LI. *Wallenberg Neurosci. Ctr., Ctr. Natl. de la Recherche Scientifique.*

9:00 V4 **698.30** Behavioral deficits in mice overexpressing human wild-type α synuclein: Exacerbation by elevated biogenic aldehydes. P. A. MARTINEZ*; V. E. MARTINEZ; E. FERNANDEZ; R. STRONG. *Univ. of Texas Hlth. Sci. Ctr. at San Antonio, South Texas Veterans Hlth. Care Syst., Univ. of Texas Hlth. Sci. Ctr. at San Antonio, South Texas Veterans Hlth. Care Syst.*

POSTER

699. Rodent Models of Parkinson's Disease and Related Disorders

Theme C: Neurodegenerative Disorders and Injury

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 V5 **699.01** Arginase overexpression thwarts synuclein pathology in animal models of lewy body dementia. J. HUNT; L. SANDUSKY; W. FRASER; M. SELENICA; J. BAKER; C. DICKEY; K. NASH; D. C. LEE*. *USF Byrd Alzheimer's Inst., USF Byrd Alzheimer's Inst., USF Byrd Alzheimer's Inst.*

9:00 V6 **699.02** Cognitive Impairment in Glucocerebrosidase (GBA) deficient mouse models. A. HAM*. *Columbia Univ.*

10:00 V7 **699.03** A novel, progressive, endogenous synucleinopathy model of Parkinson disease in rats. A. D. VAN LAAR*; K. R. WEBB; E. A. BURTON; J. T. GREENAMYRE. *Univ. of Pittsburgh Sch. of Med., Univ. of Pittsburgh, Univ. of Pittsburgh.*

11:00 V8 **699.04** Modulation of central immune responses in aged LRRK2 G2019S overexpressing mice following sub-chronic administration of paraquat. Z. DWYER*; C. RUDYK; S. HAYLEY. *Carleton Univ.*

8:00 V9 **699.05** ● Propagation and aggregation of α synuclein in murine models. K. R. WALKER; W. ARIAS; J. BERGER; N. CHIRICHELLA; B. S. NUNEZ; R. SPRINGER; K. CIRILLO; J. SANCHEZ-PADILA; G. TOMBAUGH; A. GHAVAMI; S. RAMBOZ*. *Psychogenics Inc.*

9:00 V10 **699.06** N acylphosphatydilethanolamines (NAPEs): Early players in Parkinson's disease. F. PALESE*; S. PONTIS; A. BASIT; N. REALINI; A. ARMIROTTI; D. PIOMELLI. *Fondazione Inst. Italiano Di Tecnologia, Univ. of California Irvine.*

10:00 V11 **699.07** Stronger cortical spindles and less power variability in hippocampal ripples in a LRRK2 mouse model of Parkinson's disease. J. WIEGAND*; K. GIES; M. BARTLETT; T. FALK; S. COWEN. *Univ. of Arizona, Univ. of Arizona, Univ. of Arizona, Univ. of Arizona, Univ. of Arizona.*

11:00 V12 **699.08** Micronized palmitoylethanolammide: A new pharmacological strategy to prevent neurodegenerative diseases associated to the old age. R. CRUPI*; M. CAMPOLO; R. SIRACUSA; D. IMPELLIZZERI; M. CORDARO; G. CASILI; E. ESPOSITO; S. CUZZOCREA. *Univ. of Messina, Univ. of Messina, Uniersity of Messina, Unirersity of Messina.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

8:00 V13 **699.09** Induction of α-synuclein pathology by neonatal delivery of adeno-associated virus. M. DELENCLOS*; A. KURTI; M. YUE; J. D. FRYER; P. J. MCLEAN. *Mayo Clin., Mayo Grad. School, Mayo Col. of Med.*

9:00 V14 **699.10** Progressive loss of dopamine function in a primate model of Parkinson's disease. J. S. PERLMUTTER*; L. TIAN; S. K. LOFTIN; H. P. FLORES; S. A. NORRIS. *Washington Univ. Sch. Med., Washington Univ. Sch. of Med.*

10:00 V15 **699.11** ● N-acylethanolamine acid amidase (NAAA) inhibitors are protective in a model of Parkinson's disease. N. REALINI*; S. PONTIS; F. PALESE; M. MIGLIORE; A. ARMIROTTI; E. ROMEO; M. SUMMA; R. SCARPELLI; D. PIOMELLI. *Italian Inst. of Technol., Univ. of California.*

11:00 V16 **699.12** ▲ Manipulating mitochondrial decay and regeneration in a *Drosophila* model of neurodegeneration. D. YOON*; A. N. SPIERER; D. M. RAND. *Brown Univ., Brown Univ.*

8:00 V17 **699.13** Towards rodent and nonhuman primate models of multiple system atrophy. D. J. MARMION*; R. J. MANDEL; D. KIRIK; Y. CHU; T. MCCOWN; S. J. GRAY; J. H. KORDOWER. *Rush Univ. Med. Ctr., Univ. of Florida, Lund Univ., Univ. of North Carolina, Univ. of North Carolina, The Van Andel Inst.*

POSTER

700. Parkinson's Disease: Biomarkers and Therapeutics

Theme C: Neurodegenerative Disorders and Injury

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 V18 **700.01** The NINDS Parkinson's disease biomarkers program. C. R. SWANSON*; D. BABCOCK; K. DAVID; K. GWINN; B. LANDIN; J. LINDE; J. LIU; M. MCAULIFFE; B. SIEBER; P. TIMOTHEE; C. ST. HILLAIRE-CLARKE; M. SUTHERLAND. *NIH-NINDS, NIH-CIT.*

9:00 W1 **700.02** DNA methylation and gene expression pattern analysis for Parkinson's disease blood biomarker discovery. A. R. HENDERSON-SMITH*; B. MEECHOOVET; A. L. SINIARD; E. DRIVER-DUNCKLEY; M. J. HUENTELMAN; T. L. DUNCKLEY. *Translational Genomics Res. Inst., Mayo Clin., Biodesign Institute, Arizona State Univ.*

10:00 W2 **700.03** Broad range of biospecimens available from well characterized Parkinson's disease subjects and controls. R. CASE*; C. BALES; C. WEGEL; S. LASCH; K. MAREK; P. TIMOTHEE; D. BABCOCK; B. SIEBER; M. SUTHERLAND; K. GWINN; A. REIMER; C. KOPIL; M. FRASIER; T. FOROUD. *Indiana Univ., Inst. for Neurodegenerative Disorders, Natl. Inst. of Neurolog. Dis. and Stroke, Michael J. Fox Fndn.*

11:00 W3 **700.04** Using eye movements to identify early biomarkers of disease progression in Parkinson's patients with and without LRRK2 gene mutations. J. MORRIS*; J. HUANG; D. BRIEN; B. COE; J. HUANG; N. VISANJI; T. GHATE; A. E. LANG; C. MARRAS; D. P. MUNOZ. *Queen's Univ., Univ. Hlth. Network.*

8:00 W4 **700.05** NLRP3 expression in distressed neurons and a NLRP3 polymorphism associated with decreased risk of Parkinson's disease. K. VON HERRMANN*; L. A. SALAS; E. M. MARTINEZ; W. W. FENG; W. F. HICKEY; B. C. CHRISTENSEN; S. L. LEE; M. S. FELDMAN; M. C. HAVRDA. *Geisel Sch. of Med. At Dartmouth, Dartmouth-Hitchcock Med. Ctr.*

9:00 W5 **700.06** H-ferritin in serum and cerebrospinal fluid in Parkinson's disease. A. M. SNYDER*; J. R. CONNOR; G. DU; C. STETTER; M. M. LEWIS; X. HUANG. *Penn State Univ. Coll Med., Penn State Univ. Coll Med., Penn State Univ. Coll Med.*

10:00 W6 **700.07** Cerebrospinal fluid as a source of α-synuclein related biomarkers for detection of early stage Parkinson's disease. W. P. PASLAWSKI*; X. ZHANG; P. SVENNINGSSON. *Karolinska Institutet.*

11:00 W7 **700.08** Increased Rab35 expression is a potential biomarker of Parkinson's disease and implicated in the pathogenesis. C. CHIU*; T. YEH; Y. HUANG; Y. CHEN; C. CHEN; H. WANG; C. LU. *Chang Gung Mem. Hosp., Neurosci. Res. Center, Chang Gung Mem. Hosp. at Linkou, Section of Movement Disorders, Dept. of Neurology, Chang Gung Mem. Hosp. at Linkou Med. Ctr., Neurosci. Res. Center, Chang Gung Mem. Hosp. at Linkou Med. Ctr., Dept. of Physiol. and Pharmacology, Chang Gung Univ. Sch. of Med., Section of Movement Disorders, Dept. of Neurology, Chang Gung Mem. Hosp. at Linkou Med. Ctr.*

8:00 W8 **700.09** Frontal dysfunction of Parkinson's disease. M. KANAI*. *NHO Takasaki Gen. Med. Ctr.*

9:00 W9 **700.10** ● Exercise targeting cognitive impairment in Parkinson's disease. L. HAWTHORNE*; M. E. GOMEZ; V. FILOTEO; A. PETKUS; B. JARRAHI; I. KUO; E. SY; S. MCEWEN; B. FISHER; G. M. PETZINGER. *USC, Univ. of California San Diego, USC, Univ. of California Los Angeles, USC.*

10:00 W10 **700.11** ● Measuring α synuclein protein turnover kinetics in cerebrospinal fluid via immunoprecipitation tandem mass spectrometry. K. L. PAUMIER*; J. G. BOLLINGER; R. MILLER; J. JOCKEL-BALSAROTTI; B. W. PATTERSON; T. M. MILLER; R. J. MILLER; P. T. KOTZBAUER. *Washington Univ.*

11:00 W11 **700.12** Do pathogenic LRRK2 mutations result in altered immune cell homeostasis? A. F. CINTRON*; C. HESS; S. ISAACSON; C. SINGER; T. ZESIEWICZ; J. BOSS; M. TANSEY. *Emory Univ., Univ. of Florida, Parkinson's Ctr., Univ. of Miami, Univ. of South Florida, Emory Univ.*

8:00 W12 **700.13** ^{123}I-Ioflupane SPECT predicts the efficacy of selegiline monotherapy for motor symptoms in drug-naïve Parkinson's disease. H. MURAKAMI*; S. ISHIGAKI; H. KATOH; K. ONO. *Sch. of Medicine, Showa Univ., Showa University, Northern Yokohama Hosp., Showa Univ. Fujigaoka Hosp.*

9:00 X1 **700.14** ● Microscopic, biochemical, and immunohistochemical characterization of peripheral nerve tissue used in brain autografts for the treatment of Parkinson's disease. A. S. WELLEFORD*; C. G. VAN HORNE; J. E. QUINTERO; Y. AI; G. A. GERHARDT. *Univ. of Kentucky, Brain Restoration Ctr.*

10:00 X2 **700.15** ● Optimized programming algorithm for cylindrical and directionally segmented deep brain stimulation electrodes. D. N. ANDERSON*; B. OSTING; A. DORVAL; C. R. BUTSON. *Univ. of Utah.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

11:00 X3 **700.16** Spatial and geometric performance of particle swarm optimization (PSO) for programming deep brain stimulation arrays. E. PEÑA*; S. ZHANG; Y. XIAO; M. JOHNSON. *Univ. of Minnesota Twin Cities, Univ. of Minnesota, Twin Cities.*

8:00 X4 **700.17** ▲ Deep brain stimulation Activa SC neurostimulator battery longevity; initial clinical data. R. P. PATEL*; R. J. DIPAOLA; S. F. DANISH; S. WONG; E. L. HARGREAVES. *Rutgers Robert Wood Johnson Med. Sch., Rutgers Robert Wood Johnson Med. Sch.*

9:00 X5 **700.18** DBS Plus: Combining deep brain stimulation and autologous peripheral nerve grafts as an approach to treat motor and cognitive symptoms of Parkinson's disease. C. G. VAN HORNE*; G. QUINTERO; J. GURWELL; A. ANDERSON; A. WELLEFORD; J. R. LAMM; J. SLEVIN; G. GERHARDT; G. GERHARDT. *Univ. of Kentucky.*

10:00 X6 **700.19** ● Dopaminergic medication and subthalamic deep brain stimulation do not improve inter-limb coupling in Parkinson's disease. J. DANEAULT*; B. CARIGNAN; A. SADIKOT; C. DUVAL. *Harvard Med. Sch., McGill Univ., Univ. du Québec à Montréal.*

11:00 X7 **700.20** ▲ A low-cost, intraoperative movement quantification system for DBS surgery and neurophysiology. E. SCHAEFFER*; D. LIU; M. AHN; J. A. GUERIN; S. LEE; W. F. ASAAD. *Brown Univ., Brown Inst. for Brain Sci., Brown Univ. Alpert Med. Sch., Rhode Island Hosp., Rhode Island Hosp. Norman Prince Neurosciences Inst.*

8:00 X8 **700.21** Impact of DBS-STN on speech for people with Parkinson's disease. L. A. MAHLER*; D. RYDER. *Univ. of Rhode Island, Univ. of Rhode Island.*

9:00 X9 **700.22** Modeling speech disorders in Parkinson's disease using parsimonious factors. I. EL MOUDDEN*; M. OUZIR; B. BENYACOUB; S. ELBERNOUSSI. *Fac. of Sci. Mohammed V Univ. In Rabat, Lab. of biochemistry and Immunology, Fac. of Sciences, Mohammed V Univ. in Rabat.*

10:00 X10 **700.23** Stimulation of the subthalamic nucleus exacerbates dysarthria in a rat model of Parkinsonism. A. D. DORVAL*; N. O. KING; C. J. ANDERSON. *Univ. of Utah, Washington Univ., Univ. of Utah.*

POSTER

701. Peripheral Neuropathy

Theme C: Neurodegenerative Disorders and Injury

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 X11 **701.01** Cellular pathomechanisms of Hereditary Sensory Neuropathy type 1 (HSN1) in mammalian motor neurons. E. WILSON*; B. KALMAR; M. KUGATHASAN; A. ABRAMOV; M. M. REILLY; L. GREENSMITH. *UCL Inst. of Neurol., UCL Inst. of Neurol., UCL Inst. of Neurol.*

9:00 X12 **701.02** Temporal course and relationship to nerve injury severity of the glucose hypermetabolism in denervated skeletal muscle. S. LEE*; H. SEO; B. OH; H. CHOI; G. CHEON; S. LEE; K. KIM. *Seoul Natl. Univ. Hosp., Dept. of Rehabil. Medicine, Seoul Natl. Univ. Hosp., Dept. of Nuclear Medicine, Seoul Natl. Univ. Hosp., Inst. of Radiation Medicine, Med. Res. Center, Seoul Natl. Univ., Dept. of Rehabil. Medicine, Seoul Natl. Univ. Boramae Med. Ctr.*

10:00 X13 **701.03** ● Target expression of human heat shock protein 27 transgene in neurons promotes synapse reinnervations & functional recovery after prolonged muscle denervation. P. ASTHANA*; G. KUMAR; C. H. E. MA. *Dept. of Biomed. Sci., Ctr. for Biosystems, Neuroscience, and Nanotechnology.*

11:00 X14 **701.04** Sensory neuron fate is developmentally perturbed by Gars mutations in peripheral neuropathy. J. N. SLEIGH*; J. M. DAWES; S. J. WEST; E. L. SPAULDING; A. GÓMEZ-MARTÍN; R. W. BURGESS; M. Z. CADER; K. TALBOT; D. L. BENNETT; G. SCHIAVO. *Univ. Col. London, Univ. of Oxford, The Jackson Lab.*

8:00 DP03 **701.05** (Dynamic Poster) Genetic basis of a naturally occurring canine model of peripheral neuropathy. S. SAMPLE*; P. MUIR; Z. HAO; H. RYLANDER; S. EMINAGA; H. BARNES HELLER; L. BAKER; E. BINVERSIE; A. PIAZZA; N. VOLSTAD; E. HANS; R. HARDIE; S. MURPHY; J. SVAREN. *Univ. of Wisconsin Sch. of Vet. Medic, Univ. of Wisconsin-Madison, Univ. of Wisconsin-Madison, WestVet Animal Hosp.*

9:00 X15 **701.06** Regulation of human peripheral myelin protein 22 by miR-29a. L. NOTTERPEK*; J. SERFECZ; A. FAN; S. LEE; R. RENNE. *McKnight Brain Inst, Univ. Florida, Univ. of Florida.*

POSTER

702. Neuroprotective Mechanisms: Stress, Protein Trafficking, and Protein Degradation

Theme C: Neurodegenerative Disorders and Injury

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 X16 **702.01** Blockade of adenosine A_{2A} receptors protects against corticosterone effects in hippocampal neuronal cell line. M. P. KASTER*; N. PLATT; A. B. H. HRYB; F. N. KAUFMANN; M. P. CUNHA; A. COSTA; A. S. RODRIGUES. *Univ. Federal De Santa Catarina, Univ. Federal De Santa Catarina.*

9:00 X17 **702.02** Characterization of M2 pathway following steroid exposure in neonatal microglia. I. LONDONO*; W. C. PIERRE; S. CHEMTOB; G. A. LODYGENSKY. *Ste-Justine Hosp. Res. Ctr., CHU Sainte Justine, Univ. de Montréal, CHU Sainte Justine, Univ. de Montréal.*

10:00 X18 **702.03** Components of an Hsp70 disaggregation/refolding machine co-localize at nuclear speckles following thermal stress in differentiated human neuronal cells. C. A. DEANE*; I. R. BROWN. *Univ. of Toronto Scarborough.*

11:00 Y1 **702.04** Hipoglucemia coma induces overexpression of endoplasmic reticulum stress markers and caspase activation in parietal cortex and hippocampus: B-hydroxybutyrate as an alternative energy source. M. FLORES*; T. MONTIEL; C. TORRES-ESQUIVEL; L. MASSIEU. *Univ. Nacional Autónoma de México.*

8:00 Y2 **702.05** Histone deacetylase inhibitor MS-275 protects Neuro2a cells from endoplasmic reticulum stress via mitochondrial enhancement. K. NAGAI*; H. SHIRAZAWA. *Koshien Univ.*

9:00 Y3 **702.06** Inhibition of autophagy by activation of M_3 muscarinic acetylcholine receptors in human SH-SY5Y neuroblastoma cells. P. ONALI*; S. DEDONI; M. C. OLIANAS. *Univ. of Cagliari, Dept.Biomedical Sci.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

10:00 Y4 **702.07** Ceftriaxone attenuates chronic mild stress induced spatial learning and memory deficits. Correlation with hippocampal NeuN and c-Fos expression. J. A. SCHROEDER*; L. PEREZ; L. MININBERG; S. PIERCE; E. L. GOMYAW; S. F. KORNACKI; G. UMAN; R. CAREDENAS; A. F. WARREN; S. M. RAWLS. *Connecticut Coll, Temple Univ. Sch. of Med.*

11:00 Y5 **702.08** Control of neuronal inositol 1,4,5-trisphosphate receptor mediated calcium signaling by steroid hormone receptors. P. KOULEN*; A. A. LOPEZ; J. C. MEANS. *Univ. of MO - Kansas City, Univ. of MO - Kansas City.*

8:00 Y6 **702.09** ● XN-001, a novel drug for neurodegeneration via CRMP2 activating pathways. K. HENSLEY*; K. VENKOVA-HRISTOVA; A. HRISTOV; M. HARRIS-WHITE; C. HORST-LILLIG; M. GELLERT; P. KURSULA; L. BRAIMAN-WIKSMAN; I. NEVO. *Univ. of Toledo Med. Ctr., Univ. of Toledo Med. Ctr., Greater Los Angeles Veteran's Affairs Healthcare Syst., Griefswald Univ., Univ. of Bergen, XoNovo Ltd.*

9:00 Y7 **702.10** ● Phosphonate analogues of lanthionine ketimine as stimulators of cellular autophagy: Development of small molecule treatments for neurological disorders. T. T. DENTON*; D. SHEN; A. HRISTOV; K. VENKOVA-HRISTOVA; K. HENSLEY. *Washington State Univ. Col. of Pharm., Washington State Univ. Col. of Pharm., Univ. of Toledo.*

POSTER

703. Non-Pharmacological and Molecular Strategies to Prevent Injury and Stroke.

Theme C: Neurodegenerative Disorders and Injury

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 Y8 **703.01** Acute and chronic tissue effects of focused ultrasound neuromodulation assessed at the cellular and bulk tissue scale. I. GUMENCHUK*; J. A. N. FISHER. *New York Med. Col.*

9:00 Y9 **703.02** The treatment of chronic craniofacial pain with novel gene therapy approaches. O. P. KEIFER*, JR; J. MADER; N. M. BOULIS. *Emory Univ. Sch. of Med., Emory Univ. Sch. of Med.*

10:00 Y10 **703.03** Biochanin A protects against stroke by induction of glutamate oxaloacetate transaminase. S. KHANNA*; R. STEWART; S. GNYAWALI; S. ROY; C. K. SEN; C. L. RINK. *Ohio State Univ.*

11:00 Y11 **703.04** CD163 has distinct temporal influences on intracerebral hemorrhage outcomes. J. L. LECLERC*; A. LAMPERT; C. LOYOLA AMADOR; B. SCHLACKMAN; S. DORE. *Univ. of Florida.*

8:00 Y12 **703.05** Sexually differentiated TrkB phosphorylation is dependent on estrogen receptor α in hippocampal neurons. D. ZAFER; V. CHANANA; A. CANTURK; D. KINTNER; J. H. CHANDRASHEKTAR; E. UDHO; P. FERRAZZANO; R. A. SHAPIRO; J. E. LEVINE; P. CENGIZ*. *UW-Madison, Dept. Pediatrics and Waisman Center, Univ. of Wisconsin-Madison.*

9:00 Y13 **703.06** *In vitro* inhibition of tissue plasminogen activator induced neutrophil degranulation is time dependent following acute brain injury. I. IWUCHUKWU*; D. NGUYEN; N. MAHALE; L. ALLULLI; O. SULAIMAN. *Ochsner Hlth. Syst., Ochsner Med. Ctr., Ochsner Med. Ctr.*

10:00 Y14 **703.07** TNFα alters occludin and cerebral endothelial permeability: Role of p38MAPK. G. Y. SUN*; Y. NI; T. TENG; J. LEE. *Univ. Missouri, Univ. of Illinois at Chicago.*

11:00 Y15 **703.08** The mammalian specific protein ARMCX1 promotes mitochondrial transport, neuronal survival and axonal regeneration. R. CARTONI*; M. W. NORSWORTHY; F. BEI; C. WANG; S. LI; C. V. GABEL; T. L. SCHWARZ; Z. HE. *Boston Children's Hospital/Harvard Med. Sch., Boston Univ.*

8:00 Y16 **703.09** Distinct signaling pathways underlie neurophysiological effects of toll-like receptor 4 signaling in the normal and injured brain. A. A. KORGAONKAR*; J. GUEVARRA; K. C. H. PANG; V. SANTHAKUMAR. *Rutgers New Jersey Med. Sch., Veteran Affairs Med. Center–New Jersey Hlth. Care Syst.*

9:00 Y17 **703.10** High sodium diet increases Th17 differentiation and promotes neurovascular and cognitive dysfunction through IL-17 and Rho kinase-dependent eNOS inhibitory phosphorylation. G. FARACO*; D. BREA; G. WANG; G. RACCHUMI; H. CHANG; L. GARCIA-BONILLA; I. BUENDIA; K. KOIZUMI; J. ANRATHER; C. IADECOLA. *Weill Med. Col. of Cornell Univ.*

10:00 Y18 **703.11** Vibrotactile stimulation discrimination in the upper extremity of healthy humans. V. SHAH*; D. PETERS; M. GAGAS; A. KRUEGER; R. IANDOLO; M. CASADIO; R. A. SCHEIDT. *Marquette Univ., Univ. of Genova, Italian Inst. of Technol., Northwestern Univ. Feinberg Sch. of Med., Rehabil. Inst. of Chicago, Med. Col. of Wisconsin.*

11:00 Z1 **703.12** ● Resting state EEG power predicts peripheral neuromodulatory outcomes. N. NATRAJ; A. TSU; K. GANGULY*. *UCSF.*

8:00 Z2 **703.13** Morphology of neurons in penumbra area of ischemic insult after lentiviral delivery of neurotrophins to the rat brain cortex. G. SMIRNOVA*; M. SVINOV. *Inst. of Higher Nervous Activity and Neurophys, Inst. of Higher Nervous Activity and Neurophys.*

9:00 Z3 **703.14** Extracellular matrix structures and modulators in the rat somatosensory cortex: Molecular substrates for experience-dependent plasticity during stroke recovery. M. QUATTROMANI*; M. PRUVOST; C. GUERREIRO; F. BACKLUND; K. RUSCHER; D. VIVIEN; T. WIELOCH. *Lund Univ., GIP Cyceron / Univ. of Caen.*

10:00 Z4 **703.15** The effects of an augmentative and alternative communication intervention on functional communication and neural activity patterns in individuals with aphasia. S. ROSENBERG*; M. LAM; J. DIVINE; H. MILLAN; N. FULLMER. *Casa Colina Hosp. and Centers for Healthcare.*

11:00 Z5 **703.16** Human cerebral endothelial cell transplantation in a rat model of cerebral ischemia for neuroprotection. S. YU**; H. RYU**; J. PARK; H. KIM*. *Chonnam Natl. Univ. Med. Sch., Ctr. for Creative Biomed. Scientists at Chonnam Natl. Univ. Med. Sch., Chonnam Natl. Univ. Med. Sch.*

8:00 Z6 **703.17** Altered autophagy activity after ischemic stroke in GPR37 knockout mice. M. R. MCCRARY*; M. Q. JIANG; J. Y. ZHANG; X. GU; M. GIDDENS; R. HALL; S. P. YU; L. WEI. *Emory Univ., Emory Univ., Emory Univ., Emory Univ.*

9:00 Z7 **703.18** ● Adult deletion of PTEN in cortical motoneurons leads to robust cell body enlargement that is maintained as the steady-state cell size. E. A. GUTILLA*; O. STEWARD. *UC Irvine.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

10:00 Z8 **703.19** Development of gene therapy for Niemann-Pick Type C disease. M. HUGHES*; D. SMITH; L. MORRIS; J. TORDO; N. PALOMAR-MARTIN; E. HENCKAERTS; S. WADDINGTON; F. PLATT; A. RAHIM. *UCL, Univ. of Oxford, King's Col. London, Univ. Col. London.*

11:00 Z9 **703.20** Intravenously administered gene therapy for the treatment of Gaucher Disease. G. MASSARO*; D. PEROCHEAU; R. BAKER; S. KARLSSON; S. H. CHENG; S. N. WADDINGTON; A. A. RAHIM. *UCL, UCL Inst. for Women's Hlth., Royal Free Site, HSL LLP, Lund Univ., Genzyme, A Sanofi Co.*

POSTER

704. Ischemia: Inflammation

Theme C: Neurodegenerative Disorders and Injury

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 Z10 **704.01** Stroke affects intestinal immune cell trafficking to the CNS. D. BREA*; C. BENAKIS; M. MURPHY; C. IADECOLA; J. ANRATHER. *Joan and Sanford I Weill Med. Col. of Cornell Univ., Weill Cornell Med.*

9:00 Z11 **704.02** Systemic immune responses and neutrophil activation in the propagation of neuroinflammation after cerebral ischemia-reperfusion. N. MAI*; L. PRIFTI; M. W. HALTERMAN. *Univ. of Rochester.*

10:00 Z12 **704.03** Anti-inflammatory role of g-protein coupled receptor 30 (gpr30) in the brain following global cerebral ischemia. R. WANG*; D. BRANN. *Augusta Univ.*

11:00 Z13 **704.04** Immunization with Cop-1 induces changes in gene expression at the choroid plexus of rats subjected to focal cerebral ischemia reperfusion. Y. CRUZ*; E. GARCÍA; T. RODRÍGUEZ; E. STA.MARÍA; H. BONILLA; J. ROJAS; V. GÁLVEZ; K. CANTÚ; G. OJEDA; A. IBARRA. *Univ. Anáhuac, Univ. Autónoma Metropolitana Unidad Iztapalapa, Inst. Nacional de Pediatría.*

8:00 Z14 **704.05** Amelioration of cerebral ischemic stroke by induction of Nrf2/HO-1 pathway. P. KUO*; B. A. SCOFIELD; D. A. BROWN; J. YEN. *Indiana Univ. Sch. of Med., Manchester Univ. Col. of Pharm.*

9:00 AA1 **704.06** ▲ Prophylactic chronic administration of zinc at tolerable doses increases the expression of chemokines and receptors in a rat model of cerebral hypoxia ischemia. C. T. SANCHEZ*; V. M. BLANCO-ALVAREZ; J. A. GONZALEZ-BARRIOS; D. MARTINEZ-FONG; G. GARCIA-ROBLES; G. SOTO-RODRIGUEZ; E. BRAMBILA-COLOMBRES; B. A. LEON-CHAVEZ. *Benemerita Univ. Autonoma De Puebla, Benemerita Univ. Autonoma de Puebla, ISSSTE, Ctr. de investigaciones y Estudios Avanzados, Benemerita Univ. Autonoma de Puebla.*

10:00 AA2 **704.07** Calcium release-activated calcium (CRAC) channel inhibition protects against experimental brain injury by inhibiting microglial activation. R. KACIMI*; J. KIM; K. STAUDERMAN; M. DUNN; S. HEBBAR; M. YENARI. *Univ. of California San Francisco, San Francisco VA Med. Ctr., CalciMedica Inc.*

11:00 AA3 **704.08** Impaired microglial responses to cerebral microbleeds in hyperglycemic mice can be prevented with insulin therapy. S. L. TAYLOR*; E. R. WHITE; C. E. BROWN. *Univ. of Victoria, Univ. of Victoria.*

8:00 AA4 **704.09** Characterization of inflammation in acute and non-acute ischemic infarcts in human and mouse brain tissue. T. V. NGUYEN*; J. B. FRYE; J. C. ZBESKO; A. URZUA; K. STEPANOVIC; M. HAYES; K. P. DOYLE. *Univ. of Arizona, Univ. of Arizona, Univ. of Arizona.*

9:00 AA5 **704.10** Development of a novel anti-inflammatory and anti-osteoclastic peptide based on RANKL for treatment of ischemic stroke. H. KURINAMI*; M. SHIMAMURA; H. NAKAGAMI; H. MOCHIZUKI; R. MORISHITA. *Osaka Univ., Osaka Univ. Grad. Sch. of Med., Osaka Univ. Grad. Sch. of Med., Osaka Univ. Grad. Sch. of Med.*

10:00 AA6 **704.11** Estrogen regulation of inflammasome activation and microglial phenotype in the hippocampus after global cerebral ischemia. R. D. THAKKAR*; R. WANG; Q. ZHANG; R. VADLAMUDI; D. BRANN. *Med. Col. of Georgia, Augusta Univ., Univ. of Texas Hlth. Sci. Ctr.*

11:00 AA7 **704.12** ● Oosteopontin attenuates secondary neurodegeneration in the thalamus after experimental stroke. M. SCHROETER*; A. LADWIG; J. HUCKLENBROICH; A. WILLUWEIT; M. SCHOENECK; K. LANGEN; G. R. FINK; M. RUEGER. *Dept. of Neurology, Univ. Hosp. Cologne, Quiagen GmbH, Res. Ctr. Juelich, Res. Ctr. Juelich.*

8:00 AA8 **704.13** Post-ischemic whole body vibration reduces inflammation in the brain of middle-aged female rats. M. SCHATZ*; N. D'ADESKY; P. BHATTACHARYA; A. P. RAVAL; D. W. DIETRICH; H. M. BRAMLETT. *Univ. of Miami, Cerebral Vascular Dis. Res. Labs., Univ. of Miami, Univ. of Miami, Bruce W. Carter.*

9:00 AA9 **704.14** The therapeutic effects of pomalidomide to attenuate inflammation <and> mitochondrial dysfunction of cerebral ischemia. Y. TSAI*; C. CHANG; J. LAI; K. CHEN; J. WU; Y. CHIANG. *Taipei Med. Univ., Taipei Med. Univ., Taipei Med. Univ. Hosp.*

POSTER

705. Pain: Trigeminal Processing

Theme D: Sensory Systems

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 AA10 **705.01** Changes of forebrain activity after partial infraorbital nerve ligation: A manganese-enhanced magnetic resonance imaging <MEMRI > study. W. ZHAO*; R. CHEN; J. CHEN; C. YEN. *Natl. Taiwan Univ., Natl. Taiwan Univ., Natl. Taiwan Univ., Natl. Taiwan Univ., Natl. Taiwan Univ.*

9:00 AA11 **705.02** Neural correlates of trigeminal pain. Q. ZHAO*; C. SPECTOR; J. NEUBERT; M. DING. *Univ. of Florida, Univ. of Florida.*

10:00 AA12 **705.03** Behavioral and local field potential changes in the thalamus and anterior cingulate cortex of behaving rats experiencing post herpetic neuralgia. J. N. STRAND*; M. RAO; Y. PENG; L. BELLINGER; P. KRAMER. *Univ. of Texas At Arlington, Baylor Col. of Dentistry, Texas A&M Univ.*

11:00 AA13 **705.04** Blockade of central of angiogenesis promotes antinociceptive effects in rats with trigeminal neuropathic pain. D. K. AHN*; J. SON; M. KIM; H. KIM; J. JU; K. YANG; M. PARK; M. LEE; H. KIM. *Dentistry, Kyungpook Univ., Kyung-Woon Univ., Dong-Eui Univ.*

8:00 AA14 **705.05** Toll like receptor 4 signaling contributes to compound 4880 evoked light aversion in a murine migraine model. R. RAMACHANDRAN*; C. SAVEEDRA; Z. WANG; N. MASCARENHAS; A. DINARDO; M. CORR; T. L. YAKSH. *UCSD, UCSD, UCSD.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

9:00 AA15 **705.06** ASIC3 inhibitor APETx2 elicits a differential effect on neuropeptide expression in trigeminal afferent neurons after masseter muscle repetitive acid exposure. J. MORRIS-WIMAN*; C. G. WIDMER. *West Virginia Sch. of Osteo. Med., Univ. of Florida.*

10:00 AA16 **705.07** Fusobacterium nucleatum enhances oral cancer-induced activation of primary afferent neurons innervating the tongue. N. SCHEFF*; R. VEERAMACHANENI; J. MACRAE; W. M. KWON; D. G. ALBERTSON; B. L. SCHMIDT. *New York Univ.*

11:00 AA17 **705.08** Sequential changes in rat cortical excitation during orthodontic treatment. E. HORINUKI; S. N. FUJITA*; N. SHIMIZU; M. KOBAYASHI. *Nihon Univ. Sch. of Dent., Nihon Univ. Sch. of Dent., Nihon Univ. Sch. of Dent.*

8:00 AA18 **705.09** The role of serotonin in peripheral trigeminal nociception. C. GUERRERO-TORO*; E. KILINC; A. ZAKHAROV; C. VITALE; M. GUBERT-OLIVE; R. GINIATULLIN. *Univ. of Eastern Finland, A. I. Virtanen Inst. for molecular sciences, Kazan State Med. Univ.*

9:00 BB1 **705.10** The effect of anandamide on the expression of CaMKIIα and TRPV1 in an animal model of migraine. C. F. LABORC*; G. NAGY-GRÓCZ; Z. BOHÁR; A. FEJES-SZABÓ; L. VÉCSEI; Á. PÁRDUTZ. *Univ. of Szeged, Univ. of Szeged, Univ. of Szeged.*

10:00 BB2 **705.11** Heterogeneous expression of purinergic receptor subtypes in rat odontoblasts. G. CHUNG*; B. LEE; Y. KIM; C. PARK; S. JUNG; S. OH. *Seoul Natl. Univ., Gachon Univ., Hanyang Univ.*

11:00 BB3 **705.12** Nociceptive inputs to trigeminal nucleus caudalis neurons - implications for migraine. B. PRADIER*; D. KIM; D. LIPSCOMBE; J. A. KAUER. *Brown Univ., SoonChunHyang Univ., Dept. of Neurosci.*

8:00 BB4 **705.13** Involvement of GABAergic transmission in the sensory processing in the agranular insular cortex. K. ADACHI*; M. KOBAYASHI; H. SAKAGAMI. *Meikai Univ. Sch. of Dent., Nihon Univ. Schoo of Dent.*

9:00 BB5 **705.14** Ultrastructural analysis of the synaptic connectivity of transient receptor potential ankyrin 1 (TRPA 1)-expressing primary afferent terminals in the rat trigeminal sensory nuclei. Y. BAE*; Y. CHO; H. HAN; Y. KIM; J. BAE; K. NOGUCHI; W. MAH. *Sch. of Dentistry, Kyungpook Natl. Univ., Hyogo Col. of Med.*

10:00 BB6 **705.15** Cortical spreading depression evokes mechanical sensitization of meningeal nociceptors mediated by astrocyte signaling. J. ZHAO*; D. LEVY. *Beth Israel Deaconess Med. Ctr.*

POSTER

706. Pain Models: Human Studies

Theme D: Sensory Systems

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 BB7 **706.01** Chronic back pain patients learn to control spinal nociception under feedback about their nociceptive withdrawal reflex (RIII reflex). S. KRAFFT*; H. GÖHMANN; J. SOMMER; A. STRAUBE; R. RUSCHEWEYH. *Ludwig-Maximilians-University Munich, Ludwig-Maximilians-University Munich, Hosp. of Traunstein, Philipps-University Marburg.*

9:00 BB8 **706.02** Availability of cerebral μ-opioid and type-2 dopamine receptors predicts haemodynamic responses to vicarious pain: A combined fMRI and PET study. T. KARJALAINEN; J. LAHNAKOSKI; E. GLEREAN; H. KARLSSON; P. NUUTILA; I. P. JÄÄSKELÄINEN; M. SAMS; R. HARI; L. NUMMENMAA*. *Aalto Univ., Turku PET Ctr.*

10:00 BB9 **706.03** Integrity of endogenous pain inhibition mechanisms in patients with chronic non-specific low back pain. A. LADOUCEUR*; J. DUBOIS; N. RUSTAMOV; A. LEHMANN; M. DESCARREAUX; P. RAINVILLE; M. PICHÉ. *Univ. Du Québec À Trois-Rivières, Univ. Du Québec À Trois-Rivières, Univ. Du Québec À Trois-Rivières, McGill university, Univ. du Québec à Trois-Riviéres, Univ. de Montréal.*

11:00 BB10 **706.04** Testing assumptions in human pain models: Psychophysical differences between first and second pain. N. R. ECKERT*; C. J. VIERCK; C. B. SIMON; Y. CRUZ-ALMEDIA; R. FILLINGIM; J. L. RILEY, III. *Univ. of Florida.*

8:00 BB11 **706.05** Females in physical pain trust more on others for self-interest. C. WANG*; J. GAO; X. DONG. *East China Normal Univ.*

9:00 BB12 **706.06** Body ownership, illusory limb movement and pain perception: A virtual reality study. M. MARTINI*; B. CAOLA; A. G. LEADBETTER. *Univ. of East London.*

10:00 BB13 **706.07** Withdrawn.

11:00 BB14 **706.08** ● Minimal neuropathy with intraperitoneal nab-paclitaxel in patients with advanced malignancies. N. PRAKASH*; C. MIHAELA; P. FRANKEL; H. OPENSHAW; R. MORGAN. *City of Hope, City of Hope.*

8:00 BB15 **706.09** ● Adaptive neurotechnologies for improved management of chronic pain. S. N. JOSHI*; A. DE PESTERS; P. BRUNNER; J. P. CLEARY; J. FUDIN; G. SCHALK. *Natl. Ctr. For Adaptive Neurotechnologies, State Univ. of New York at Albany, Dept. of Neurol., Albany Med. Col., Stratton VA Med. Ctr., Remitigate, LLC, Western New Eng. Univ. Col. of Pharm.*

9:00 BB16 **706.10** Topical Lidoderm® (lidocaine 5% patch) alters the density of sodium channel subunits in epidermal keratinocytes among patients with diabetic neuropathy. P. J. ALBRECHT*; C. E. ARGOFF; J. P. WYMER; F. L. RICE. *Integrated Tissue Dynamics, LLC, Albany Med. Ctr., Univ. of Florida Col. of Med.*

8:00 DP04 **706.11** ● (Dynamic Poster) Selective stimulation of silent, mechano - insensitive C nociceptive fiber in humans? M. I. NEMENOV*; M. KLUKINOV; D. C. YEOMANS; M. SCHMELZ; M. BACKONJA. *Lasmed LLC, Stanford Univ., Heidelberg Univ., Univ. of Wisconsin.*

POSTER

707. Inflammatory Pain

Theme D: Sensory Systems

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 BB17 **707.01** Oxidant-mediated release of high mobility group box 1 (HMGB1) and inflammatory cytokines in synovial fibroblasts through TLR-4 activation: Effect on cell death. A. A. ALSOUSI*; O. J. IGWE. *Univ. of Missouri -KC.*

9:00 BB18 **707.02** VAMPs involved in voltage-gated cation channel trafficking in DRG neurons. M. ALVES SIMOES*; B. DAVLETOV; M. NASSAR; E. P. SEWARD. *Univ. of Sheffield.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

10:00 CC1 **707.03** Temporal contribution of the CCL2/CCR2 chemokine axis to chronic inflammatory pain elucidated by dicer substrate small interfering RNA. M. DANSEREAU*; A. M. JACOBI; S. S. ROSE; M. A. BEHLKE; J. LONGPRE; P. SARRET. *Univ. De Sherbrooke, Integrated DNA Technologies.*

11:00 CC2 **707.04** Effects of the cytokine Interferon-γ in combination with other cytokines on slowly or fast conducting nerve fibers in rat *in vivo*. F. RICHTER*; S. WANDT; F. SLOWIK; H. SCHAIBLE. *Univ. Hosp. Jena.*

8:00 CC3 **707.05** Rac 1 dependent structural plasticity of the anterior cingulate cortex regulates the emotional aspect of chronic pain. S. PEZET*; M. THIBAUT; M. PALUD; Z. LENKEI. *Lab. of Brain Plasticity.*

9:00 CC4 **707.06** ● Cystatin c attenuates cathepsin s-evoked and par2-mediated pain and inflammation. T. LIEU*; P. ZHAO; N. BUNNETT. *Monash Inst. of Pharmaceut. Sci.*

10:00 CC5 **707.07** Antibiotic-mediated changes in formalin-induced pain responses differ between genders in DID model. H. BLANTON; C. BEZBORUAH; D. CURTIS; J. MARTINEZ; S. BERGESON; J. GUINDON*. *Texas Tech. Univ. Hlth. Sci. Ctr., Texas Tech. Univ. Hlth. Sci. Ctr.*

11:00 CC6 **707.08** Analgesic effects of sialidase in inflammatory pain: The role of gangliosides in nociceptive signaling. S. WATANABE*; K. TAKANO; M. SAGAWA; T. IWAI; Y. IKEDA-MATSUO; Y. NAITO; M. TANABE. *Kitasato Univ.*

8:00 CC7 **707.09** The effects of hypoglutamatergic tone on physiological nociception and inflammatory pain:evaluation of glutaminase type 1 mutant Sprague-Dawley rats. Z. ZHANG*; S. DAS; M. B. ANDERSON; K. E. MILLER. *Oklahoma State Univ-CHS.*

9:00 CC8 **707.10** Expression of anoctamin-1 and bestrophin-1 in inflammatory and neuropathic pain models in rats. I. VELAZQUEZ LAGUNAS*; J. B. PINEDA-FARIAS; V. GRANADOS-SOTO. *Cinvestav, Sede Sur.*

10:00 CC9 **707.11** Increase of t-type Ca^{2+} current underlies protease-activated receptor 2-dependent sensitization of rat isolectin-b4 positive nociceptor. S. CHUNG*; Y. KIM; J. JOENG. *Dept. of Physiology, Yonsei Univ. Col. of Med., Brain Korea 21 Project for Med. Science, Yonsei Univ. Col. of Med., Dept. of Physiology, Yonsei Univ. Col. of medicine.*

11:00 CC10 **707.12** The role of mir23b and let-7a in glutamatergic myenteric innervation in trinitro-benzene-sulphonic acid-induced colitis in rats. S. DAS; Z. ZHANG; M. B. ANDERSON; B. GREENWOO-VAN MEERVELD; K. E. MILLER*. *Oklahoma State Univ. Ctr. for Hlth. Sci., Univ. of Oklahoma Hlth. Sci. Ctr.*

8:00 CC11 **707.13** Understanding the role of mannose receptor activation in improved non-viral IL-10 gene therapy for peripheral neuropathic pain. A. G. VANDERWALL*; M. S. SUN; S. NOOR; J. J. SANCHEZ; X. O. YANG; L. L. JANTZIE; E. D. MILLIGAN. *Dept. of Neuroscience, Univ. of New Mexico Sc, Univ. of New Mexico, Univ. of New Mexico, Univ. of New Mexico, Univ. of New Mexico.*

9:00 DD1 **707.14** The inhibitory effect of peripheral δ opioid receptors (DORS) in knee joint on arthritis pain. S. MOON*; E. PARK; H. SUH; H. HAN. *Col. of Med. / Korea Univ.*

10:00 DD2 **707.15** Red light (670 nm) reduces hypersensitivity and improves tactile pathway functional integrity that is preceded by decreased neuronal cell death and reactive astrocytes following a mild T10 spinal cord injury. D. HU*; J. R. POTAS. *The Australian Natl. Univ.*

11:00 DD3 **707.16** Stimulus-evoked and spontaneous pain in Complete Freund's adjuvant -induced arthritis in the rat. S. WAGNER*; J. BINDLER; L. BOURGOIN; E. ANDRIAMBELOSON. *NEUROFIT.*

8:00 DD4 **707.17** Increased caspase1 activity in the DRG during inflammatory hyperalgesia. Y. MATSUOKA; K. OH-HASHI; F. AMAYA*. *Kyoto Prefectural Univ. of Med., Gifu Univ.*

9:00 DD5 **707.18** ● Receptor specific activation of sensory neurons by cytokines. M. GUNASEKARAN*; B. STEINBERG; T. TSAAVA; S. CHAVAN; K. TRACEY. *Feinstein Inst. for Med. Res.*

10:00 DD6 **707.19** Fab fragment of Nav1.7 monoclonal antibody inhibits sodium currents in mouse and human DRG neurons and suppresses inflammatory and neuropathic pain. R. JI*; W. CHANG; J. YOO; Y. KIM; G. CHEN; T. BERTA; Y. HUH; S. LEE. *Duke Univ. Med. Ctr., Duke Univ. Med. Ctr.*

11:00 DD7 **707.20** Antagonising LPA_1 receptor attenuates orofacial inflammatory pain in mice. M. SRIKANTH*; W. CHEW; S. LIM; D. R. HERR. *Natl. Univ. of Singapore.*

8:00 DD8 **707.21** A novel role of Xist in mediating sex-specific difference in pain and inflammation. B. B. SHENODA*; G. M. ALEXANDER; E. ARADILLAS LOPEZ; S. K. AJIT. *Drexel Univ. Col. of Med., Drexel Univ. Col. of Med.*

9:00 DD9 **707.22** Effects of α-7 nicotinic acetylcholine receptor positive allosteric modulator on proinflammatory cytokine expression and norepinephrine release following lipopolysaccharide-induced neuroinflammatory pain in mice. M. ABBAS*; S. RAHMAN. *South Dakota State Univ.*

10:00 DD10 **707.23** Acute toluene exposure enhances hyperalgesia and allodynia in long lasting pain. L. F. ORTEGA-VARELA*; C. CERVANTES-DURÁN; M. A. TORRES-SANTANA; M. Y. GAUTHEREAU-TORRES. *UMSNH, Lic. En Salud Publica, Facultad de Ciencias Médicas y Biológicas "Dr. Ignacio Chávez", UMSNH, Facultad de Químico Farmacobiología, Univ. Michoacana de San Nicolás de Hidalgo.*

11:00 DD11 **707.24** Epac-PKCα signaling in purinergic P2X3R-mediated hyperalgesia after inflammation. Y. GU*; G. LI; Y. CHEN; L. M. HUANG. *Univ. Texas Med. Br.*

8:00 DD12 **707.25** The chronic pain transcriptome: RNA-Seq profiling of dorsal spinal cord during persistent inflammatory hyperalgesia. M. R. SAPIO*; M. J. IADAROLA; D. M. LAPAGLIA; A. J. MANNES. *NIH.*

9:00 DD13 **707.26** Gender influences efficacy of tetracycline derivative at relieving formalin and alcohol-induced mechanical and cold allodynia. H. BLANTON*; D. HUNTER; C. SHERFEY; C. BEZBORUAH; J. MARINEZ; S. BERGESON; J. GUINDON. *Texas Tech. Univ. Hlth. Sci. Ctr., Texas Tech. Univ.*

10:00 DD14 **707.27** The effect of cutaneous inflammation on subsets of satellite glial cells in mouse dorsal root ganglion. B. KNIGHT*; R. M. RITZEL; E. R. JELLISON; E. E. YOUNG; K. M. BAUMBAUER. *UCONN, UCONN, UCONN.*

11:00 DD15 **707.28** Regulation of peripheral opioid receptor-mediated signaling and antinociception by 12- and 15-hydroxyeicosatetraenoic acid. K. A. BERG*; L. C. SULLIVAN; T. A. CHAVERA; M. PANDO; X. GAO; W. P. CLARKE. *Univ. of Texas Hlth. Sci. Ctr. at San Antonio, Univ. of Texas Hlth. Sci. Ctr.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
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* Indicates abstract's submitting author

8:00 DD16 **707.29** 12- and 15-hydroxyeicosatetraenoic acid promote a non-responsive signaling state of δ opioid and κ opioid receptors, but not for δ-κ heteromers, in peripheral nociceptors. M. M. PANDO*; T. A. CHAVERA; W. P. CLARKE; K. A. BERG. *Univ. of Texas Hlth. Sci. Ctr. San Anto.*

POSTER

708. Pain: Opioid Receptor Pharmacology and Signaling Mechanisms

Theme D: Sensory Systems

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 DD17 **708.01** Role of inhibitory g proteins in opioid-induced hyperalgesia and tolerance. L. LI*; S. CHEN; H. PAN. *MD Anderson Cancer Ctr.*

9:00 EE1 **708.02** Development of selective peptide antagonists to the mu-δ opioid receptor heterodimer. K. OLSON; V. J. HRUBY; J. M. STREICHER*. *Univ. of Arizona, Univ. of Arizona, Univ. of Arizona.*

10:00 EE2 **708.03** Knockin of δ opioid receptors in primary afferents alleviates heat-induced pain. K. ABDALLAH*; V. BLAIS; K. BRADBURY; K. FONTES; J. PARENT; C. CAHILL; J. BOULTER; L. GENDRON. *Univ. of Sherbrooke, Univ. de Sherbrooke, Bishop's Univ., Univ. de Sherbrooke, Univ. of California-Irvine, Univ. of California.*

11:00 EE3 **708.04** ● Bold imaging in awake wild-type and mu-opioid receptor knock-out mice reveals on-target activation maps in response to oxycodone. K. MOORE*; D. MADULARU; S. IRIAH; J. YEE; P. KULKARNI; E. DARCQ; B. KIEFFER; C. FERRIS. *Northeastern Univ., McGill Univ.*

8:00 EE4 **708.05** ▲ Inhibition of regulator of G-protein signaling proteins enhances morphine but not fentanyl antinociception in the rat. A. T. TRAN*; S. M. SCHOO; M. M. MORGAN. *Washington State Univ., Washington State Univ.*

9:00 EE5 **708.06** Oxycodone, hydrocodone, and morphine differentially affect gene expression. C. T. HORRAX*; M. A. EMERY; M. L. S. BATES; P. J. WELLMAN; S. EITAN. *Texas A&M, Texas A&M.*

10:00 EE6 **708.07** ● A minimally brain-penetrant, biased μ-opioid receptor (MOR) agonist that is an effective analgesic with a reduced side effect profile. S. M. GOEBEL-GOODY*; A. PIKE; S. HUMPHREYS; R. TORELLA; E. DUNN-SIMS; C. HSU; C. TYSZKIEWICZ; N. NAWREEN; D. HORTON; R. SUZUKI. *Pfizer Inc., Pfizer Inc., Pfizer Inc., Pfizer Inc.*

11:00 EE7 **708.08** Morphine-induced analgesia on sensory and affective components of complete Freund's adjuvant (CFA)-induced inflammatory pain. A. ARMENDARIZ*; A. NAZARIAN. *Western Univ. of Hlth. Sci., Western Univ. of Hlth. Sci.*

8:00 EE8 **708.09** Cb_1 cannabinoid and δ opiod receptor heteromers in neuropathic pain. S. SIERRA SAN NICOLAS*; A. GUPTA; I. GOMES; L. DEVI. *Icahn Sch. of Med. At Mount Sinai, Icahn Sch. of Med. at Mount Sinai.*

9:00 EE9 **708.10** Peripherally restricted opioid combination therapy synergizes in multiple pain states. D. J. BRUCE*; C. D. PETERSON; K. F. KITTO; C. A. FAIRBANKS; G. L. WILCOX. *Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota.*

10:00 EE10 **708.11** ▲ Home cage wheel running as a method to assess morphine side effects, tolerance, and withdrawal. J. J. CALSBEEK*; A. T. LEE; R. KANDASAMY; M. M. MORGAN. *Washington State Univ. Vancouver, Washington State Univ.*

11:00 EE11 **708.12** Mu-opioid receptor signaling mechanisms: Role of kinetics in biased agonism. S. SIANATI*; A. YOUSUF; M. CHRISTIE; M. CANALS. *Sydney Univ., Monash.*

8:00 EE12 **708.13** Constitutive internalization of δ opioid receptors. S. GRASTILLEUR*; J. SIMARD; J. PARENT; C. LAVOIE; L. GENDRON. *Univ. De Sherbrooke, Univ. De Sherbrooke.*

9:00 EE13 **708.14** Kappa opioid receptor activation in neuropathic pain regulates reward. S. LIU; L. XUE; M. C. OLMSTEAD; F. M. LESLIE; F. I. CARROLL; C. M. CAHILL*. *Univ. of California Irvine, Queen's Univ., Res. Triangle Inst. Intl., Univ. of California Irvine.*

10:00 EE14 **708.15** Knockout of r7bp suppresses somatosensory itch perception by enhancing κ opioid mediated inhibition. M. PANDEY*; J. ZHANG; P. ADIKARAM; W. SIMONDS; M. HOON; S. MISHRA; R. NEUBIG. *NIH, NIDDK, Natl. Inst. of Dent. and Craniofacial Res., (National Inst. of Dent. and Craniofacial Res., Univ. Michigan.*

POSTER

709. Somatosensation: Plasticity

Theme D: Sensory Systems

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 EE15 **709.01** Brain plasticity changes by playing wind instruments and piano. Y. SUNG*; D. KANG; Y. KAWACHI; S. OGAWA. *Kansei Fukushi Inst, Tohoku Fukushi Univ.*

9:00 EE16 **709.02** Aesthetic appreciation and perception of 3D shapes through the sense of touch in the blind and the sighted: On the properties of contour curvature and symmetry of 3D tactile shapes. A. KARIM*; L. LIKOVA. *Envision Res. Inst., The Smith-Kettlewell Eye Res. Inst.*

10:00 EE17 **709.03** Second-order spinal cord pathway contributes to cortical reactivation in New World monkeys after long recovery times from incomplete dorsal column lesions. C. LIAO*; H. QI; J. L. REED; J. H. KAAS. *Vanderbilt Univ.*

11:00 EE18 **709.04** Correlates of recovery after sensory loss with and without treatment in monkeys with dorsal column lesions. J. L. REED*; H. QI; C. LIAO; M. M. PAKULSKA; M. S. SHOICHET; J. H. KAAS. *Vanderbilt Univ., Univ. of Toronto.*

8:00 FF1 **709.05** Reorganization of cuneate nucleus in macaque monkeys following chronic partial spinal cord injuries. P. HALDER*; N. JAIN. *Natl. Brain Res. Ctr.*

9:00 FF2 **709.06** Receptive fields and response properties of neurons in the S1 whisker representation of early blind short-tailed opossums. D. L. RAMAMURTHY*; L. A. KRUBITZER. *UC Davis.*

10:00 FF3 **709.07** The role of CaMKII in spine dynamics and experience-dependent structural plasticity of L2/3 cortical neurons. G. SEATON*; A. M. DE HAAN; K. D. FOX. *Cardiff Univ.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

11:00 FF4 **709.08** Environmental enrichment increases whisker responsiveness and alters somatotopy in L/3 of somatosensory cortex. A. M. LEMESSURIER*; S. CHEN; K. M. MCCLAIN; D. E. FELDMAN. *UC Berkeley.*

8:00 FF5 **709.09** Toward a murine model to image the remapping of synaptic inputs after stroke. M. LEVY*; R. I. GRANT; C. BURTON; A. Y. SHIH. *MUSC.*

9:00 FF6 **709.10** LTP in the mouse barrel cortex driven by cooperative lemniscal and paralemniscal pathway activity. L. E. WILLIAMS*; A. HOLTMAAT. *Univ. of Geneva.*

10:00 FF7 **709.11** Brain-derived neurotrophic factor and caspase activity in mouse barrel cortex following whisker plucking. S. A. MARIK*; C. D. GILBERT. *Rockefeller Univ.*

11:00 FF8 **709.12** Neuroplasticity in the primary sensory cortical neurons following facial nerve reconstruction in adult rats. J. HUANG*; J. CHEN; C. LIN; Y. PEI. *Chang Gung Mem. Hosp., Chang Gung Univ., Chang Gung Mem. Hosp., Chang Gung Mem. Hosp.*

8:00 FF9 **709.13** Physiological and morphological roles of endocannabinoid 2-arachidonoylglycerol in the developing neuronal circuit in the mouse barrel cortex. C. ITAMI*; K. SAKIMURA; M. KANO; F. KIMURA. *Saitama Med. Univ., Brain Res. Inst, Niigata Univ., Grad Sch. of Med, Univ. of Tokyo, Grad Sch. of Med, Osaka Univ.*

9:00 FF10 **709.14** Effectiveness of a robot-aided proprioceptive training program with vibro-tactile feedback on proprioception in chronic stroke participants. I. YEH*; N. ELANGOVAN; J. HOLST-WOLF; A. CUPPONE; J. KONCZAK. *Univ. of Minnesota, Inst. Italiano di Tecnologia, Univ. of Minnesota.*

10:00 FF11 **709.15** ▲ A comparative study of genital representation in the primary somatosensory cortex of mammals. S. LAUER*; C. LENSCHOW; M. BRECHT. *Bernstein Ctr. For Computat. Neurosci., Bernstein Ctr. for Computat. Neurosci.*

POSTER

710. Auditory System: Periphery

Theme D: Sensory Systems

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 FF12 **710.01** Intrinsic harmonics in the human cochlea revealed by 7 Tesla MRI. K. SUZUKI; M. WATANABE; H. MATSUZAWA; K. NAKADA; I. L. KWEE; T. NAKADA*. *Brain Res. Inst, Univ. of Niigata, Univ. of California, Davis.*

9:00 FF13 **710.02** Spiral ganglion in an aged adult human cochlea. C. KAUR; T. G. JACOB; T. C. NAG; A. THAKAR; D. BHARDWAJ; T. ROY*. *All India Inst. of Med. Sci. New Delhi, All India Inst. Med. Sci.*

10:00 FF14 **710.03** Significantly improved recovery of severe noise-induced hearing loss by the orally available, clinical drug candidate SENS-401. J. DYHRFJELD-JOHNSEN*; M. PETREMANN; L. BEYNAC; A. BROUSSY. *Sensorion SA.*

11:00 FF15 **710.04** LMO4 downregulation is a critical factor in cisplatin-mediated ototoxicity. S. JAMESDANIEL*; R. RATHINAM; W. NEUMANN. *Wayne State Univ., Southern Illinois Univ. Edwardsville.*

8:00 DP05 **710.05** (Dynamic Poster) FGF-dependent otic induction in inner ear organoid derivation from $Pax2^{EGFP/+}$ mouse embryonic stem cells. S. A. SCHAEFER*; R. K. DUNCAN. *Univ. of Michigan.*

9:00 FF16 **710.06** Generation of a deaf model mouse by application of the optogenetic approach to the stria vascularis of the inner ear. M. P. SATO*; H. TAIGA; H. NIN; G. OGATA; T. YOSHIDA; K. HORI; S. KOMUNE; S. UETSUKA; C. SAMUEL; M. MASUDA; T. WATABE; S. KANZAKI; K. OGAWA; H. INOHARA; S. SAKAMOTO; H. TAKEBAYASHI; K. F. TANAKA; H. HIBINO. *Niigata Univ. Sch. of Med., Kinki Univ. Sch. of Med., Niigata Univ., Grad. Sch. of Med. Sciences, Kyushu University, Yuaikai Oda Hosp., Grad. Sch. of Medicine, Osaka Univ., Niigata Univ., AMED-CREST, Kyorin Univ. Sch. of Med., Keio Univ. Sch. of Med., Niigata Univ., Grad. Sch. of Med. and Dent. Sci., Sch. of Medicine, Keio Univ.*

10:00 FF17 **710.07** Effect of temperature on exocytosis at the bullfrog hair cell ribbon synapse. M. CHEN*; H. VON GERSDORFF. *Oregon Hlth. and Sci. Univ., Oregon Hlth. and Sci. Univ.*

11:00 FF18 **710.08** Berbamine derivatives protect against aminoglycoside induced hair cell damage in the zebrafish lateral line. A. M. CAMINO*; R. D. L. BONEY; B. E. BLOUGH; A. B. COFFIN. *Washington State University-Vancouver, Res. Triangle Inst.*

8:00 GG1 **710.09** Connexin 26 expression in superficial neuromasts of adult western mosquitofish *gambusia affinis*. N. MARTINEZ-RIVERA*; J. L. SERRANO-VELEZ; I. I. TORRES-VAZQUEZ; H. GRIBBEN; E. ROSA-MOLINAR. *Univ. of Kansas, Univ. of Puerto Rico-Rio Piedras, Puerto Rico Ctr. for Envrn. Neuroscience, Inst. of Neurobiology, Univ. of Puerto Rico-Medical Sci., Nikon Instruments Inc, Andor Tecnology, Inc, The Univ. of Kansas, Microscopy and Analytical Imaging Resources Core Laboratory, The Univ. of Kansas, The Eugene Bell Ctr. for Regenerative Biol. and Tissue Engineering, Marine Biol. Lab.*

9:00 GG2 **710.10** The effect of glucose-6-phosphate dehydrogenase on cochlear and auditory function. K. WHITE*; M. KIM; C. HAN; H. PARK; Z. MENESES; L. GRANTGES; P. LINSER; S. SOMEYA. *Univ. of Florida.*

POSTER

711. Auditory Processing: Spatial

Theme D: Sensory Systems

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 GG3 **711.01** Effect of direction-dependent envelope coding on the representation of sound location in the owl's midbrain. M. V. BECKERT*; B. J. FISCHER; J. L. PENA. *Albert Einstein Col. of Med., Seattle Univ.*

9:00 GG4 **711.02** Dysfunctional myelin affects neural processing, neurochemistry and behavior. K. MAHERAS*; S. PERRINE; F. GHODDOUSSI; M. GALLOWAY; A. GOW. *Wayne State Univ. Sch. of Med., Wayne State Univ. Sch. of Med., Wayne State Univ. Sch. of Med., Wayne State Univ. Sch. of Med., Wayne State Univ. Sch. of Med.*

10:00 GG5 **711.03** sound localization performance to variations in spectral contrast. B. YOOSEFIZONOOZ*; P. DE VETH; J. VAN OPSTAL. *Biophysics, Donders Cntr Neurosci, Radboud Univ.*

11:00 GG6 **711.04** Altered balance of excitation and inhibition in the auditory brain stem of Fragile X mice. E. MCCULLAGH; S. MINKOWICZ; M. HUNTSMAN; A. KLUG*. *Univ. of Colorado Sch. of Med., Florida Gulf Coast Universty, Univ. of Colorado, Univ. of Colorado.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

8:00 GG7 **711.05** Processing of binaural cues conveyed by temporal fine structure and envelope in human auditory cortex. Q. WANG*; T. LI; G. LUAN; L. LI. *Beijing Key Lab. of Epilepsy, Beijing Sanbo, Dept. of Psychology and Beijing Key Lab. of Behavior and Mental Hlth.*

9:00 GG8 **711.06** Differential tuning of the low- and high-frequency components of the neurophonic spectrum reveals the spike contribution of barn owl's nucleus laminaris neurons. P. T. KUOKKANEN*; A. KRAEMER; H. WAGNER; C. KOEPPL; C. E. CARR; R. KEMPTER. *Inst. For Theoretical Biology, Humboldt-Universitaet Zu Berlin, Bernstein Ctr. for Computat. Neurosci., Univ. of Maryland, RWTH Aachen, Carl von Ossietzky Univ. Oldenburg.*

10:00 GG9 **711.07** Decoding the cortical representation of acoustic space using EEG. A. BEDNAR*; E. C. LALOR. *Trinity Col. Dublin.*

11:00 GG10 **711.08** Spatial encoding of speech in human auditory cortex. P. PATEL; L. K. LONG; J. HERRERO; A. D. MEHTA; N. MESGARANI*. *Columbia Univ., Feinstein Inst. for Med. Res.*

8:00 GG11 **711.09** *In vivo* intracellular recordings from neurons of the lateral superior olive show narrow time windows of effective inhibition and high sensitivity to interaural time differences of transient sounds. T. P. FRANKEN*; P. H. SMITH; P. X. JORIS. *KU Leuven, Univ. of Wisconsin.*

9:00 GG12 **711.10** The effect of spectral mismatch on binaural fusion in vocoder simulations of cochlear-implants for single-sided deafness. J. WESS*; J. G. W. BERNSTEIN. *Univ. Of Maryland, Walter Reed Natl. Military Med. Ctr.*

8:00 DP06 **711.11** (Dynamic Poster) Representing space in 3D: Response profiles of midbrain neurons in the free-flying bat. N. B. KOTHARI*; M. WOHLGEMUTH; C. F. MOSS. *Johns Hopkins Univ.*

POSTER

712. Striate Cortex Circuits

Theme D: Sensory Systems

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 GG13 **712.01** Laminar specific, orientation selective current source density response in cat area 18. M. Y. VILLENEUVE; P. KROPF; Z. YAO; V. M. MOCANU; A. SHMUEL*. *McGill Univ.*

9:00 GG14 **712.02** Spatial asymmetry and amplitude-dependent suppression: A novel mechanism for generating direction selectivity. Y. LI*; Q. FANG; L. I. ZHANG; H. W. TAO. *Caltech, USC.*

10:00 HH1 **712.03** Orientation discrimination depends on co-activation of on- and off-dominated visual channels. A. W. FREEMAN*; G. LUO-LI; D. ALAIS. *Univ. of Sydney, Univ. of Sydney.*

11:00 HH2 **712.04** Quantitative analysis of excitatory-inhibitory dynamics in the thalamocortical network of awake mice. I. LIN*; M. OKUN; M. CARANDINI; K. D. HARRIS. *Univ. Col. London.*

8:00 HH3 **712.05** The affiliation of individual cortical neurons with global cortical networks. K. CLANCY*; I. ORSOLIC; T. MRSIC-FLOGEL. *Biozentrum, Univ. of Basel.*

9:00 HH4 **712.06** VIP interneurons mediate cortical phenotypes in a genetic model of schizophrenia. M. VINCK*; R. BATISTA-BRITO; K. FERGUSON; J. A. CARDIN. *Yale Univ.*

10:00 HH5 **712.07** Inhibition and synaptic integration in simple cell receptive fields in cat V1. M. M. TAYLOR*; L. A. PALMER; D. CONTRERAS. *Univ. of Pennsylvania Perelman Sch. of Med.*

11:00 HH6 **712.08** Dopamine elicits lamina- and frequency-specific increase of information in the local-field-potentials of the macaque V1. D. ZALDIVAR*; J. GOENSE; S. LOWE; N. LOGOTHETIS; S. PANZERI. *Max Planck Inst. For Biol. Cybernetics, Inst. of Neurosci. and Psychology, Univ. of Glasgow, Inst. of Adaptive and Neural Computation, Max Planck Inst. for Biol. Cybernetics, Inst. Italiano di Tecnologia.*

8:00 HH7 **712.09** Faster responses under low contrast stimulation in rat primary visual cortex. M. GHODRATI*; D. S. ALWIS; N. S. C. PRICE. *Monash Univ., Neurosci. Program, Biomedicine Discovery Inst., ARC Ctr. of Excellence for Integrative Brain Function, Monash Univ. Node, Monash Univ.*

9:00 HH8 **712.10** The neuronal and perceptual effects of visual masking. K. L. RICHARDS*; D. S. ALWIS; E. ARABZADEH; N. S. C. PRICE. *Florey Inst., Australian Natl. Univ., Monash Univ.*

10:00 HH9 **712.11** Correlations of interneuron populations with Pyramidal cells in mouse primary visual cortex. M. DIPOPPA*; M. CARANDINI; K. D. HARRIS. *Univ. Col. London.*

11:00 HH10 **712.12** Estimating simple and complex cell properties using a convolutional model with parameterized rectifiers. P. M. T. NGUYEN; C. L. BAKER*. *McGill Vision Res. Unit.*

8:00 HH11 **712.13** An extended retinotopic map of mouse cortex. J. ZHUANG*; L. NG; D. WILLIAMS; M. VALLEY; Y. LI; M. GARRETT; J. WATERS. *Allen Inst. for Brain Sci., Allen Inst. for Brain Sci., Allen Inst. for Brain Sci.*

9:00 HH12 **712.14** Inactivation mapping of mouse cortex during a visual detection task. M. VALLEY*; D. R. OLLERENSHAW; J. MILES; S. OLSEN; J. WATERS. *Allen Inst. for Brain Sci.*

10:00 HH13 **712.15** Mesoscale cortical dynamics measured with wide-field calcium imaging during a visual detection task in mice. D. R. OLLERENSHAW*; M. T. VALLEY; J. ZHUANG; N. H. CAIN; P. A. GROBLEWSKI; M. E. GARRETT; B. DANSKIN; J. WATERS; S. R. OLSEN. *Allen Inst. For Brain Sci., Allen Inst. for Brain Sci.*

11:00 HH14 **712.16** Functional magnetic resonance imaging (fMRI) - guided single unit recordings reveal first order disparity selectivity in area PIP of the macaque brain. A. ALIZADEH*; P. JANSSEN. *Katholieke Univ. Leuven, KU Leuven.*

POSTER

713. Visual Cortex Dynamic Properties

Theme D: Sensory Systems

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 HH15 **713.01** Dynamics of "population coupling" between synaptic inputs and local cortical activity during visual processing. N. WRIGHT*; M. S. HOSEINI; R. WESSEL. *Washington Univ. In St. Louis.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

9:00 HH16 **713.02** Evaluating network criticality with membrane potentials. J. K. JOHNSON*; N. C. WRIGHT; R. WESSEL. *Washington Univ. Physics, Washington Univ.*

10:00 HH17 **713.03** Spatial spread of local field potential is band-pass in the primary visual cortex. A. DUBEY*; S. RAY. *Indian Inst. of Sci.*

11:00 II1 **713.04** Critical network dynamics determines the variability of neural activity. Y. KARIMIPANAH*; Z. MA; R. WESSEL. *Washington Univ. In St.Louis.*

8:00 II2 **713.05** Computational model on spatial-temporal response of primary visual cortex to contour stimuli. J. LI*; Y. YAN; W. WANG; W. LI; S. WU; D. WANG. *Beijing Normal Univ., Beijing Normal Univ., Beijing Normal Univ.*

9:00 II3 **713.06** A role of lateral connections in the formation of orientation representation efficiently preserving visual information. M. MIYASHITA*; S. ISHIKAWA; J. HORIKAWA; S. TANAKA. *Natl. Inst. of Technol., Toyohashi Univ. of Technol., The Univ. of Electro-Communications.*

10:00 II4 **713.07** Development of orientation selectivity in ferret V1: High cellular and columnar variability visualized through chronic 2-photon imaging. G. B. SMITH*; D. E. WHITNEY; B. HEIN; M. KASCHUBE; D. FITZPATRICK. *Max Planck Florida Inst. For Neurosci., Frankfurt Inst. for Advanced Studies.*

11:00 II5 **713.08** A model network with clustered connections reproduces the observed dynamics of correlated variability in visual cortex. M. HOSEINI*; N. WRIGHT; W. CLAWSON; W. SHEW; R. WESSEL. *Washington Univ. In St. Louis, Univ. of Arkansas.*

8:00 II6 **713.09** Spontaneous emergence of structured responses in a random neural network *in-vitro*. M. SCHOTTDORF*; J. VOGEL; H. SCHROBSDORFF; W. STÜHMER; F. WOLF. *MPI DS, MPI EM.*

9:00 II7 **713.10** ▲ The computational tradeoff between dynamic range and stimulus discrimination in neural circuits near criticality. K. L. MCCLANAHAN*; D. BOHLMAN; W. L. SHEW. *Univ. of Arkansas.*

10:00 II8 **713.11** Pulvinar modulates the contrast response function of cortical neurons throughout the visual hierarchy. N. CORTES*; B. O. SOUZA; J. LAI; U. KEYSAN; S. THOMAS; C. CASANOVA. *Univ. De Montreal.*

11:00 II9 **713.12** Effect of mean luminance on cortical responses to darks and lights. R. MAZADE*; J. JIN; C. PONS; H. SWADLOW; J. ALONSO. *State Univ. of New York Col. of Optometry, Univ. of Connecticut.*

8:00 II10 **713.13** Gamma oscillations as a marker of collinear horizontal and feedback connectivity in primate primary visual cortex. M. BIJANZADEH*; A. ANGELUCCI. *Neurosci. program, Univ. of Utah, Moran Eye Inst.*

9:00 II11 **713.14** Layer 6 corticogeniculate neurons in the awake visual cortex: Receptive field properties and effect of alert/non-alert brain states. C. R. STOELZEL*; Y. I. BERESHPOLOVA; J. ALONSO; H. A. SWADLOW. *Univ. of Connecticut, SUNY-Optometry.*

10:00 II12 **713.15** Fast spike interneurons in layer 6 of rabbit visual cortex: Comparison with layer 4 and effects of alert/non-alert brain states. Y. I. BERESHPOLOVA*; C. R. STOELZEL; J. ALONSO; H. A. SWADLOW. *Univ. of Connecticut, SUNY-Optometry.*

11:00 II13 **713.16** Optogenetic inactivation of V2 feedback to primate V1 affects contrast gain, receptive field size and near surround suppression. L. NURMINEN*; S. MERLIN; M. BIJANZADEH; F. FEDERER; A. ANGELUCCI. *Univ. of Utah.*

8:00 II14 **713.17** Visual dominance for darks increases with low light and optical blur. C. PONS*; R. MAZADE; J. JIN; M. DUL; Q. ZAIDI; J. ALONSO. *State Univ. of New York.*

9:00 II15 **713.18** Structure + dynamics lead to function in a new computational model of macaque primary visual cortex. L. CHARIKER; R. M. SHAPLEY*; L. YOUNG. *New York Univ., Ctr. for Neural Sci.*

10:00 II16 **713.19** Feature-specific organization of cortico-cortical feedback connections in mouse visual cortex. C. HUH*; C. BENNETT; R. M. VEGA; J. P. PEACH; S. HESTRIN. *Stanford Univ.*

11:00 II17 **713.20** Somatostatin neurons drive long-range γ band synchronization in the visual cortex. J. VEIT*; R. HAKIM; M. P. JADI; T. J. SEJNOWSKI; H. ADESNIK. *UC Berkeley, Salk Inst.*

8:00 JJ1 **713.21** Contextual modulation and the cortical hierarchy: Inactivating feedback from V2/V3 reveals multiple mechanisms of surround modulation in V1. A. TROTT*; S. G. LOMBER; R. T. BORN. *Harvard Med. Sch., Brain and Mind Institute, Univ. of Western Ontario.*

9:00 JJ2 **713.22** Modelling transient dynamics and attentional modulation in MT cells in a structurally simple model. L. BOHNENKAMP; D. WEGENER; U. A. ERNST*. *Univ. Bremen.*

POSTER

714. Balance, Posture, and Orientation

Theme D: Sensory Systems

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 JJ3 **714.01** Learning dynamic balancing with and without gravitation dependent cues. V. P. VIMAL*; P. DIZIO; J. R. LACKNER. *Brandeis Univ.*

9:00 JJ4 **714.02** Successful balance training improves memory and spatial cognition. A. ROGGE*; B. ROEDER; A. ZECH; V. NAGEL; K. HOLLANDER; K. BRAUMANN; K. HOETTING. *Univ. of Hamburg, Univ. of Jena, Univ. of Hamburg.*

10:00 JJ5 **714.03** Visual reinforcement of illusory rotation during centrifugation: A novel habituation strategy to motion sickness. G. I. BERTOLINI*; J. E. BOS; D. BRON; T. FRETT; E. GROEN; R. HEMMERSBACH; F. L. WHETS. *Dept. of Neurology, Univ. Hosp. Zurich, TNO, Aeromedical Inst., German Aerospace Ctr., Univ. of Antwerp.*

11:00 JJ6 **714.04** The influence of roll tilt on perceptual verticality in children. L. F. CUTURI*; M. GORI. *Inst. Italiano Di Tecnologia.*

8:00 JJ7 **714.05** Effects of chronic Purkinje cell silencing on central processing of vestibular self-motion signals. T. STAY*; J. LAURENS; D. E. ANGELAKI; R. V. SILLITOE. *Baylor Col. of Med.*

9:00 JJ8 **714.06** Second-order statistics of self-motion signals experienced by human subjects during everyday activities: Implications for vestibular processing. M. J. CHACRON*; J. CARRIOT; M. JAMALI; K. E. CULLEN. *McGill Univ., McGill Univ.*

10:00 JJ9 **714.07** Transcranial magnetic stimulation (TMS) of supramarginal gyrus tilts perception of upright without changing ocular torsion. A. KHERADMAND*; J. OTERO-MILLAN; A. WINNICK. *Eye Movement/Vestibular Lab., Johns Hopkins Univ.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

11:00 JJ10 **714.08** Head movements during locomotion in vestibular schwannoma patients: Decreased variability after unilateral vestibular lesion. O. ZOBEIRI*; C. ZHANG; S. KING; R. F. LEWIS; K. E. CULLEN. *McGill Univ., McGill Univ., Harvard Med. Sch.*

8:00 JJ11 **714.09** Vestibular coding strategies for representing natural selfmotion. Differential integration of canal and otolith Inputs in the vertical and horizontal plane. J. CARRIOT*; I. MACKROUS; M. JAMALI; K. CULLEN. *McGill Univ., Univ. of Western Ontario.*

9:00 JJ12 **714.10** Ocular correlates of auditory vection. D. GRENET*; A. A. MIGLIACCIO; R. C. FITZPATRICK. *Neurosci. Res. Australia, UNSW Australia.*

10:00 JJ13 **714.11** The effect of 30-hr acute sleep deprivation on psychomotor vigilance and a Mars rover simulation. E. J. BELTRAN; S. T. MOORE; S. J. WOOD*. *Wyle Science, Technol. and Engin. Group, Icahn Sch. of Med. at Mount Sinai, Azusa Pacific Univ.*

11:00 JJ14 **714.12** Sensory precision limits behavioral precision in a manual control task. M. J. F. ROSENBERG; R. GALVAN-GARZA; T. K. CLARK; D. P. SHERWOOD; L. R. YOUNG; F. KARMALI*. *Jenks Vestibular Physiol Lab, Harvard Med. Sch., NASA Johnson Space Ctr., MIT, Univ. of Colorado at Boulder.*

8:00 JJ15 **714.13** Does decision-making reflect high-pass filter contributions? D. M. MERFELD*; F. KARMALI; T. LEEDER; K. LIM. *Harvard Med. Sch., Harvard Med. Sch.*

9:00 JJ16 **714.14** Perception of the visual vertical during linear self-motion. A. POMANTE*; L. P. J. SELEN; W. P. MEDENDORP. *Radboud Univ. Nijmegen.*

10:00 JJ17 **714.15** Modulation of egocentric spatial frames of references by vestibular. N. ABEKAWA*; E. FERRE; M. GALLAGHER; H. GOMI; P. HAGGARD. *NTT Communication Sci. Labs., UCL, Inst. of Cognitive Neurosci., Royal Holloway, Dept. of Psychology.*

POSTER

715. Vision and Eye Movements

Theme D: Sensory Systems

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 KK1 **715.01** MT neurons preserve visually selective signals across eye movements. A. AKBARIAN AGHDAM*; M. PARSA; N. NATEGH; B. NOUDOOST. *Montana State Univ., Computer Science, Montana State Univ., Cell Biol. and Neurosci.*

9:00 KK2 **715.02** Memory for retinotopic locations is more accurate than memory for spatiotopic locations, even when intending to reach. A. SHAFER-SKELTON*; J. D. GOLOMB. *The Ohio State Univ.*

10:00 KK3 **715.03** Modeling perisaccadic visual representation in MT neurons by incorporating population-level information. K. NIKNAM*; A. AKBARIAN AGHDAM; B. NOUDOOST; N. NATEGH. *Montana State Univ., Montana State Univ.*

11:00 KK4 **715.04** ▲ Modulation of binocular rivalry by stimulus complexity, arousal and caffeine. A. C. O. BOATENG*; D. E. FLEMING; S. C. STEFFENSEN. *Brigham Young Univ. Hawaii, Brigham Young Univ.*

8:00 KK5 **715.05** Parahippocampal gyrus neurons in the monkey respond to stimuli in the entire visual field except for the foveal region. M. SEMEWORK*; M. E. GOLDBERG, 10032. *Columbia Univesity, Columbia Univ.*

9:00 KK6 **715.06** Perceptually-driven rightward saccades for detection of lateralized visuospatial attention system. M. SANEFUJI*; H. YAMASHITA; Y. SAKAI; D. KATSUKI; S. AKAMINE; Y. SHIOTSUKA; Y. ISHIZAKI; K. IRAMINA; T. HARA; K. YOSHIDA. *Kyushu Univ., Kyushu Univ., Kyushu Univ., Kyushu Univ., Fukuoka Children's Hosp.*

10:00 KK7 **715.07** Electrocorticographic correlates of saccades. A. GELLER*; J. BURKE. *NYU, UCSF.*

11:00 KK8 **715.08** The medial ventro-thalamic microconnectomics: Cells implicated in a bimodal motor circuit. T. VEGA-ZUNIGA*; D. TROST; K. SCHICKER; H. LUKSCH. *Technische Univ. Muenchen.*

8:00 KK9 **715.09** ▲ Gaze coordination with strides during walking in the cat. K. M. I. CHU; H. N. ZUBAIR; J. L. JOHNSON; T. J. RIVERS; I. N. BELOOZEROVA*. *Barrow Neurolog. Inst., Univ. of Kansas.*

9:00 KK10 **715.10** Visual saliency response in the superficial and intermediate superior colliculus. J. Y. KAN*; B. J. WHITE; L. ITTI; D. P. MUNOZ. *Queen's Univ., USC.*

10:00 KK11 **715.11** Functional connectivity within and between the oculomotor and the face-perception networks in the human brain when looking towards or away from faces. M. GROSBRAS*; B. NAZARIAN; E. SALVIA. *Aix Marseille Univ., Aix Marseille Univ.*

11:00 KK12 **715.12** ▲ New perspectives brought by the study of saccades toward an accelerating target. A. TASSOU*; L. GOFFART. *Inst. De Neurosciences De La Timone.*

8:00 KK13 **715.13** Visual search and fixational eye movements in amblyopia. F. F. GHASIA*; J. OTERO-MILLAN; A. SHAIKH. *Cleveland Clin., Johns Hopkins Sch. of Med., Case Western Reserve Univ.*

9:00 KK14 **715.14** Eye movements induced by patterned microstimulation of the frontal eye fields. M. A. SMITH*; R. O. KONECKY. *Univ. of Pittsburgh.*

10:00 KK15 **715.15** Eye movement recordings of spontaneous fusion loss in intermittent exotropia. J. C. HORTON*; D. L. ADAMS; J. R. ECONOMIDES. *Univ. California.*

11:00 KK16 **715.16** Sensory prediction errors during saccade adaptation drive cerebellar complex spikes and learning. D. J. HERZFELD*; Y. KOJIMA; R. SOETEDJO; R. SHADMEHR. *Johns Hopkins Univ., Univ. of Washington.*

8:00 KK17 **715.17** Interceptive saccades revisited: A comparison of saccades to stationary and moving targets. K. J. MOHSENIAN; B. STEINBERG; A. L. CECALA; N. J. GANDHI*. *Univ. of Pittsburgh, Elizabethtown Col.*

9:00 KK18 **715.18** Frontoparietal functional connectivity in the common marmoset. M. GHAHREMANI*; M. HUTCHISON; J. S. GATI; K. GILBERT; R. S. MENON; S. EVERLING. *Univ. of Western Ontario, Univ. of Western Ontario, Harvard Univ., Univ. of Western Ontario.*

10:00 LL1 **715.19** Oculomotor gap effect and reduced saccadic reaction times to faces in the common marmoset. K. D. JOHNSTON*; S. EVERLING. *Univ. of Western Ontario.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

11:00 LL2 **715.20** Differential effects of saccadic suppression on single-unit activity and local field potentials in the primate superior colliculus. C. CHEN*; Z. M. HAFED. *Werner Reichardt Ctr. For Integrative Neurosci., Grad. Sch. of Neural and Behavioural Sciences, Intl. Max Planck Res. Sch.*

8:00 LL3 **715.21** Temporal compression of visual perception around microsaccades. M. C. DORRIS*; G. YU; M. YANG; P. YU. *Inst. of Neuroscience, Shanghai Inst. For Biol. Sciences, CAS.*

9:00 LL4 **715.22** Neural activity and saccadic eye movements involved during letter and object stimuli manipulations. N. Z. AL DAHHAN*; D. C. BRIEN; J. R. KIRBY; D. P. MUNOZ. *Queen's Univ. Ctr. for Neurosci. Studies, Queen's Univ. Fac. of Educ.*

10:00 LL5 **715.23** Integration of past and current visual information during eye movements in Amblyopia. N. DERAVET*; D. YÜKSEL; J. ORBAN DE XIVRY; P. LEFÈVRE. *Univ. catholique de Louvain, Univ. catholique de Louvain, Katholieke Univ. Leuven, Univ. catholique de Louvain.*

11:00 LL6 **715.24** Normal correspondence of tectal maps for saccadic eye movements in strabismus. J. R. ECONOMIDES*; D. L. ADAMS; J. C. HORTON. *UCSF.*

8:00 LL7 **715.25** Perceived location of a target flash presented before, during and after smooth pursuit eye movement. J. POLA*; H. J. WYATT. *SUNY Col. Optometry.*

9:00 LL8 **715.26** Macaque use of categorical target templates to guide visual search for complex naturalistic stimuli. B. M. COOPER*; H. ADELI; G. J. ZELINSKY; R. MCPEEK. *State Univ. of New York Col. of Optometry, Stoney Brook Univ.*

10:00 MM1 **715.27** Population coding in the superior colliculus may contribute to variability in saccadic reaction time. S. DASH*; T. R. PEEL; B. D. CORNEIL. *Robarts Res. Institute, Western Univ., Western Univ.*

11:00 MM2 **715.28** Perceptually driven gain modulation of neuronal activity in the superior colliculus during urgent choices. C. K. HAUSER*; E. ROGERS; T. R. STANFORD; E. SALINAS. *Wake Forest Sch. of Med.*

8:00 MM3 **715.29** Passive eye movements induced by electromagnetic force (EMF) in anesthetized rats. Y. YU; L. CHEN; D. S. SANDLIN; J. HUANG; S. WANG; J. ALLISON; H. ZHU; W. ZHOU*. *Univ. of Mississippi Med. Ctr., Univ. of Mississippi Med. Ctr.*

9:00 MM4 **715.30** Abstraction of 2D head-centered positions from tracking a moving visual target: A study in the non-human primate. C. BOURRELLY*; R. M. ETOUMBE; P. CAVANAGH; L. GOFFART. *CNRS Inst. Des Neurosciences De La Timone, CNRS Lab. Psychologie de la Perception, Dept. of Psychological and Brain Sci.*

POSTER

716. Visual Sensory-Motor I

Theme D: Sensory Systems

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 MM5 **716.01** Temporal stability of reference frames in a 3d reaching task in monkey posterior parietal area V6A. K. HADJIDIMITRAKIS; R. BREVEGLIERI; F. BERTOZZI; P. FATTORI; C. GALLETTI*. *Monash Univ., Univ. Bologna.*

9:00 MM6 **716.02** Using sponstaneous behaviour to interrogate the mouse visual system: A proof of concept. R. STORCHI*; R. A. BEDFORD; F. P. MARTIAL; J. WYNNE; R. J. LUCAS. *Univ. of Manchester.*

10:00 MM7 **716.03** Modulating inter-hemispheric coherence to influence behavior - a TMS-EEG study. N. THIRUGNANASAMBANDAM; M. HALLETT*. *Natl. Inst. of Neurolog. Disorders and Stroke.*

11:00 MM8 **716.04** ● Direction-selective units in the frog's basal optic root nucleus and its role in gaze stabilization in prey-catching behavior. V. A. BASTAKOV*; O. Y. ORLOV; E. I. KISELEVA. *Inst. For Info Transmission Problems RAS, A.N. Severtsov Inst. of Ecology and Evolution RAS.*

8:00 MM9 **716.05** Behavioral and cognitive changes following lateral posterior thalamic nucleus lesion. R. M. CYSNEIROS*; L. C. AURORA; F. A. SCORZA. *Univ. Presbiteriana Mackenzie, Federal Univ. of São Paulo.*

9:00 MM10 **716.06** Neural representation of a threat stimulus in the early visual system. K. LEE*; Z. TURAN; M. MEISTER. *Caltech.*

10:00 MM11 **716.07** Spatial and temporal extent of single pulse Transcranial Magnetic Stimulation on single-cell activity in alert macaque monkeys. M. C. ROMERO*; M. DAVARE; P. JANSSEN. *KULeuven.*

11:00 MM12 **716.08** The role of the serotonergic system in short-term motor learning in larval zebrafish. T. KAWASHIMA*; C. YANG; B. D. MENSH; M. B. AHRENS. *HHMI Janelia Res. Campus.*

8:00 NN1 **716.09** Probing a sensorimotor transformation in dorsomedial frontal cortex using electrophysiology and optogenetics. E. D. REMINGTON*; E. A. HOSSEINI; M. JAZAYERI. *MIT, MIT.*

9:00 NN2 **716.10** Anatomy and function of an inter-hemispheric neural circuit in the zebrafish optic tectum. C. GEBHARDT*; T. O. AUER; K. DUROURE; I. H. BIANCO; F. DEL BENE. *Inst. Curie, Physiol. & Pharmacol.*

10:00 NN3 **716.11** Probing and modeling the causal role of mouse cortical areas in visual discrimination. P. ZATKA-HAAS*; N. A. STEINMETZ; M. CARANDINI; K. D. HARRIS. *Univ. Col. London.*

11:00 NN4 **716.12** Adaptation of perception of upright during prolonged head tilts is not mediated by changes in torsion. J. OTERO-MILLAN*; A. KHERADMAND. *JOHNS HOPKINS UNVIVERSITY, Johns Hopkins Univ.*

8:00 NN5 **716.13** Anodal tDCS stimualtion over mIPS improves online control in reaching. A. GOETTKER*; S. XU; K. FIEHLER; G. BLOHM. *Justus-Liebig-University, Ctr. of Neurosci. Studies, Queen's Univ.*

9:00 NN6 **716.14** Facilitation of visual-motor response by increasing α phase synchronization between visual and motor areas by tACS / tDCS. M. KAWASAKI*; Y. HENMI. *Univ. of Tsukuba, RIKEN Brain Sci. Inst.*

10:00 NN7 **716.15** Transient representation of pre- and post-saccadic information in motion areas MT and MST: A possible neural basis of chronostasis. H. KUMANO*; S. KITAZAWA. *Grad. Sch. of Frontier Biosci., Osaka Univ., Ctr. for Information and Neural Networks (CiNet), Grad. Sch. of Medicine, Osaka Univ.*

11:00 NN8 **716.16** Distributed neural prediction of prey motion in amphibians. W. R. MOWREY*; A. LEONARDO. *Janelia Farm Res. Campus.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

8:00 NN9 **716.17** Contribution of dorsal pulvinar to visuomotor behavior and spatial decision-making. I. KAGAN*; A. U. DOMINGUEZ-VARGAS; L. SCHNEIDER; L. GIBSON; M. WILKE. *German Primate Ctr., Univ. Med. Goettingen.*

9:00 NN10 **716.18** A qualitative analysis of the thalamo-cortical and cortico-cortical areal connectivity of the posterior parietal cortex in the Ferret (*Mustela putorius*). L. DELL*; G. M. INNOCENTI; C. C. HILGETAG; P. R. MANGER. *Univ. Med. Ctr. Eppendorf, Univ. of the Witwatersrand, Karolinska Inst., École Polytechnique Fédérale de Lausanne.*

10:00 NN11 **716.19** Transient inhibition of the cerebellum modulates processing of somatosensory input. D. ANDREW*; R. J. IBEY; W. R. STAINES. *Univ. of Waterloo.*

11:00 NN12 **716.20** Sensorimotor circuit function in orientation and aversion - a common vertebrate plan. A. A. KARDAMAKIS*; T. WIBBLE; D. SUZUKI; J. PEREZ-FERNANDEZ; S. GRILLNER. *Karolinska Inst.*

POSTER

717. Eye Movements II

Theme E: Motor Systems

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 NN13 **717.01** Near and far response cell activity associated with combined saccade-vergence eye movements. A. PALLUS*; M. M. G. WALTON; M. J. MUSTARI. *Univ. of Washington, Washington Natl. Primate Res. Ctr.*

9:00 NN14 **717.02** Mapping the polar angle representation of saccades in human superior colliculus. R. R. SAVJANI*; E. HALFEN; D. RESS. *Baylor Col. of Med.*

10:00 OO1 **717.03** Unique compartmental role of inferior rectus (IR) muscle in compensation of vertical strabismus. J. L. DEMER*; R. A. CLARK. *UCLA, UCLA.*

11:00 OO2 **717.04** New insights on receptive field remapping with evidence from primate area V4. S. NEUPANE*; D. GUITTON; C. C. PACK. *Montreal Neurolog. Inst.*

8:00 OO3 **717.05** Saccade metrics reflect decision-making dynamics during urgent choices. J. SEIDEMAN*; V. E. SCERRA; E. SALINAS; T. R. STANFORD. *Wake Forest Sch. of Med.*

9:00 OO4 **717.06** β frequency TMS disrupts top-down cognitive control. J. RIDDLE*; M. D'ESPOSITO. *Univ. of California Berkeley.*

10:00 OO5 **717.07** A visually-entrained saccade command circuit driving phototaxis in zebrafish. G. DEBREGEAS*; S. WOLF; A. DUBREUIL; V. BORMUTH; R. CANDELIER; R. MONASSON. *LJP - UPMC/CNRS, Lab. Jean Perrin - UPMC/CNRS, Lab. de Physique Théorique - ENS, UPMC, CNRS.*

11:00 OO6 **717.08** Visuomotor activity in the frontal eye field is differentially modulated by attentional demands across neuronal types. V. SCERRA*; M. COSTELLO; E. SALINAS; T. STANFORD. *Wake Forest Univ., Johns Hopkins Univ., Wake Forest Univ.*

8:00 OO7 **717.09** Effect of allocentric cues on primate gaze behaviour in a cue conflict task. J. CRAWFORD*; J. LI; V. BHARMAURIA; A. SAJAD; R. MARINO; X. YAN; S. SUN; H. WANG. *York Univ., Queen's Univ.*

9:00 OO8 **717.10** A model to predict human intention by means of eye movements. G. A. ZITO*; A. FAISAL. *Imperial Col. London.*

10:00 OO9 **717.11** Spiking correlations in the frontal eye fields during eye movement planning. S. B. KHANNA*; A. C. SNYDER; M. A. SMITH. *Univ. of Pittsburgh, Univ. of Pittsburgh, Carnegie Mellon Univ.*

11:00 OO10 **717.12** Palisade endings in extraocular muscles have an exocytosis machinery. R. BLUMER*; J. STREICHER; P. J. MAY; M. A. DAVIS-LÓPEZ DE CARRIZOSA; R. R. DE LA CRUZ; A. M. PASTOR. *Med. Univ. Vienna, Med. Univ. Vienna, Univ. of Mississippi Med. Ctr., Univ. de Sevilla.*

8:00 OO11 **717.13** Common motion error correction guides pursuit and fixation. S. N. WATAMANIUK*; S. J. HEINEN. *Wright State Univ., The Smith-Kettlewell Eye Res. Inst.*

9:00 OO12 **717.14** Interaction between effort and reward in the oculomotor system. T. YOON*; R. SHADMEHR. *Johns Hopkins Med. Inst.*

10:00 OO13 **717.15** Horizontal and vertical premotor gaze populations within the macaque mesencephalic reticular formation. M. O. BOHLEN; S. WARREN; P. J. MAY*. *Duke Univ., Univ. Mississippi Med. Ctr.*

11:00 OO14 **717.16** The postnatal development of palisade endings in extraocular muscles. R. BLUMER; J. STREICHER; M. A. DAVIS-LOPEZ DE CARRIZOSA; R. R. DE LA CRUZ; A. M. PASTOR*. *Med. Univ. Vienna, Karl Landsteiner Univ. of Hlth. and Sci., Univ. de Sevilla, Univ. De Sevilla.*

8:00 PP1 **717.17** Time course for the accumulation of errors in the superior colliculus during memory-guided gaze shift. A. SAJAD*; M. SADEH; X. YAN; H. WANG; J. CRAWFORD. *York Univ., York Univ.*

9:00 PP2 **717.18** Translating choice to smooth pursuit eye movements in the frontal eye field. M. JOSHUA*. *The Hebrew Univ. of Jerusalem.*

10:00 PP3 **717.19** Representation of Bayesian priors for target speed in the preparatory activity of neurons in the smooth eye movement region of the frontal eye fields. T. DARLINGTON*; S. LISBERGER. *Duke Univ.*

11:00 PP4 **717.20** Saccade curvature in sequences of voluntary saccades suggests they are not planned independently. R. AZADI*; R. M. MCPEEK. *SUNY Col. of Optometry.*

8:00 PP5 **717.21** Insights into sensorimotor transformation in the superior colliculus through current-source density analysis. C. MASSOT*; U. K. JAGADISAN; N. J. GANDHI. *Univ. of Pittsburgh.*

9:00 PP6 **717.22** Are catch-up saccades and microsaccades siblings? S. J. HEINEN*; S. N. J. WATAMANIUK. *Smith-Kettlewell Eye Res. Inst., Wright State Univ.*

10:00 PP7 **717.23** Analysis of spiking activity and local field potentials reveals patterned information flow within the superior colliculus. L. J. DRNACH; U. K. JAGADISAN*; C. MASSOT; N. J. GANDHI. *Univ. of Pittsburgh.*

11:00 PP8 **717.24** Role of cerebellar nuclei in visual preference for face image and its relevance to autism. D. DZIOBEK*; S. ZHANG; J. ASHE; X. LU. *Univ. of Minnesota Twin Cities, Univ. of Minnesota, Univ. of Minnesota, Veterans Affairs Med. Ctr., Univ. of Minnesota.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

8:00 PP9 **717.25** Pre-existing visual and oculomotor factors that determine the retinal location of a preferred retinal locus (PRL). H. MAZYAR*; B. S. TJAN. *USC, USC.*

9:00 PP10 **717.26** Increased crowding in parafoveal vision in glaucoma. M. KWON*; R. LIU; C. GIRKIN. *Univ. of Alabama at Birmingham, Univ. of Alabama at Birmingham.*

10:00 PP11 **717.27** From eyes to hands – Inhibition training transfers across motor systems. A. VERGHESE*. *The Univ. of Queensland.*

11:00 PP12 **717.28** A diffusion process underlies action selection in an abstract decision-making task. S. SHUSHRUTH*; M. SHADLEN. *Columbia Univ., HHMI, Zuckerman Mind Brain Behavior Inst.*

8:00 PP13 **717.29** Temporal change of position representation of a moving object filled with Gabor motion for saccadic eye movements. H. UEDA*. *NTT.*

9:00 PP14 **717.30** Pre-saccadic mislocalization against saccade direction. M. LAPPE*; T. WATSON. *Inst. for Psychology, Western Sydney Univ.*

POSTER

718. Cerebellar Networks and Functions

Theme E: Motor Systems

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 PP15 **718.01** Distinct neuronal dynamics of head tilt and translation Purkinje cell signals in the vestibular cerebellar cortex. J. LAURENS*; H. MENG; D. E. ANGELAKI. *Baylor Col. of Med.*

9:00 PP16 **718.02** Bi-directional modulation of Purkinje cell spike activity upon arousal *in vivo*. S. HUR*; S. J. KIM. *Seoul Natl. University, Col. of Med.*

10:00 QQ1 **718.03** ▲ Variable single unit responses in the pontine nuclei during auditory evoked eyelid conditioning. E. A. KISH*; M. DODLA; E. D. DELORD; H. E. HALVERSON; M. D. MAUK. *Univ. of Texas at Austin.*

11:00 QQ2 **718.04** Selective encoding of unexpected head tilt by the central neurons takes into account the cerebellar computation output. I. MACKROUS*; J. CARRIOT; M. JAMALI; J. BROOKS; K. CULLEN. *McGill, Univ. of Western Ontario, Harvard, McGill Univ.*

8:00 QQ3 **718.05** Cerebellar complex spiking differentially encodes trial outcome in a voluntary forelimb task. J. HEFFLEY; A. MCKINNEY; C. HULL*. *Duke Univ.*

9:00 QQ4 **718.06** The relationship between local field potentials in the primary motor cortex and the cerebellum during sleep. W. XU*; F. DE CARVALHO; A. JACKSON. *Newcastle Univ., Newcastle Univ.*

10:00 QQ5 **718.07** Amygdala inactivation impairs delay eyeblink conditioning with a visual conditioned stimulus. S. J. FARLEY*; J. H. FREEMAN. *Univ. of Iowa.*

11:00 QQ6 **718.08** Amygdala modulates cerebellar learning through the conditioned stimulus pathway. L. J. CEMO*; S. J. FARLEY; J. H. FREEMAN. *Univ. of Iowa, Univ. of Iowa.*

8:00 QQ7 **718.09** Encoding of voluntary movement by cerebellar interneurons during active whisking. S. CHEN; G. J. AUGUSTINE; P. T. CHADDERTON*. *Imperial Col. London, Nanyang Technological Univ.*

9:00 QQ8 **718.10** Temporal prediction signals in the cerebellar dentate nucleus are shaped by GABAergic inputs in behaving monkeys. A. UEMATSU*; M. TANAKA. *Hokkaido Univ. Sch. Med.*

10:00 QQ9 **718.11** Cerebellar modulation of the prefrontal cortex. A. SCHOTT*; K. KHODAKHAH. *Albert Einstein Col. of Med.*

11:00 QQ10 **718.12** Cerebellar projections to VTA: Reward and social roles. I. CARTA*; C. H. CHEN; S. DORIZAN; A. SCHOTT; K. KHODAKHAH. *Albert Einstein Col. of Med., Albert Einstein Col. of Med., Northwestern Univ.*

8:00 QQ11 **718.13** A center surround system for movement control in the deep cerebellar nuclei. S. A. HEINEY*; J. F. MEDINA. *Baylor Col. of Med., Baylor Col. of Med.*

9:00 QQ12 **718.14** A hypothesized circuit mechanism underlying motor memory expression in cerebellum. A. M. REEVES*; T. S. OTIS. *UCLA, UCLA.*

10:00 QQ13 **718.15** Spatial updating of saccades: What do the superior colliculus and cerebellum do? R. SOETEDJO*. *Univ. of Washington.*

11:00 QQ14 **718.16** Comparing visuovestibular modulation of floccular interneurons and Purkinje cells; or, Where does the diversity go? R. A. HENSBROEK; J. MARUTA; B. J. VAN BEUGEN; J. I. SIMPSON*. *New York Univ. Sch. of Med.*

8:00 QQ15 **718.17** Intrinsic movement representation in the cerebrocerebellum. T. ISHIKAWA*; D. S. HOFFMAN; S. KAKEI. *Tokyo Metropolitan Inst. of Med. Sci., Univ. of Pittsburgh Sch. of Med., Univ. of Pittsburgh Sch. of Med.*

9:00 QQ16 **718.18** Firing of Purkinje cells and neurons of the cerebellar nuclei during free and optogenetically perturbed locomotion in awake mice. R. SARNAIK*; I. M. RAMAN. *Northwestern Univ.*

10:00 QQ17 **718.19** The ghost in the machine: Long range cerebellar signals. L. S. POPA*, Mr; M. L. STRENG; T. J. EBNER. *Univ. of Minnesota.*

11:00 QQ18 **718.20** The fine temporal structure of neural spike trains impacts motor behavior. H. L. PAYNE*; R. LI; C. C. GUO; J. L. RAYMOND. *Stanford Univ., QIMR Berghofer.*

8:00 QQ19 **718.21** ● Cross correlation and coherence study of cerebellar and cerebral cortical responses to tDCS using an *in vivo* approach. S. GEEVARUGHESE; J. H. YOO; H. LU*. *PCOM - Georgia Campus.*

9:00 QQ20 **718.22** A cerebellar commissure carries projections of the vestibular ganglia and the vestibular nuclear complex. D. T. DALY; M. ARIEL*. *St. Louis Univ. Sch. of Med., St. Louis Univ. Sch. of Med.*

10:00 RR1 **718.23** Cerebellar learning deficits in a mouse model of premature birth injury. A. SATHYANESAN*; V. GALLO. *Children's Natl. Med. Ctr.*

11:00 RR2 **718.24** A novel mouse model of cerebellar stroke. M. MORENO; R. EMS; J. YONCHEK; N. QUILLINAN*. *Univ. of Colorado.*

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POSTER

719. Cerebellum: Anatomy, Cytoarchitecture, and Connectivity

Theme E: Motor Systems

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 DP07 **719.01** (Dynamic Poster) Purkinje cell heterogeneity in the anterior and posterior cerebellar lobule. H. NEDELESCU*; M. ABDELHACK; A. T. PRITCHARD. *Tokyo Med. and Dent. Univ., Kyoto Univ., Independent Scholar.*

9:00 RR3 **719.02** Changes induced by hypoxic preconditioning in GFAP$^+$ cells from the roof of the fourth ventricle. M. BECERRA-GONZÁLEZ; R. DURAIRAJ VARMAN; A. MARTINEZ-TORRES*. *INB-UNAM.*

10:00 RR4 **719.03** Synaptic excitation by climbing fiber collaterals in the deep cerebellar nuclei of juvenile and adult mice. M. NAJAC; I. M. RAMAN*. *Northwestern Univ.*

11:00 RR5 **719.04** Genetic targeting of cerebellar molecular layer interneurons using the c-kit promoter. S. B. AMAT*; M. A. GAFFIELD; M. J. M. ROWAN; A. BONNAN; C. KIKUCHI; H. TANIGUCHI; J. M. CHRISTIE. *Max Planck Florida Inst. For Neurosci.*

8:00 RR6 **719.05** The basal interstitial nucleus provides inhibitory afferent input to the cerebellar flocculus. D. JAARSMA*; F. BLOT; M. SCHONEWILLE; Z. GAO; T. J. H. RUIGROK; C. I. DE ZEEUW. *Dept. Neurosci. Erasmus MC, Erasmus MC, Erasmus MC, Netherlands Inst. for Neuroscience.*

9:00 RR7 **719.06** Characterization of Purkinje cell axonal torpedoes during postnatal development in mice. D. LANG-OUELLETTE*; L. LJUNGBERG; A. YANG; A. J. WATT. *McGill Univ.*

10:00 RR8 **719.07** Nucleo-cortical neurons of the parvocellular interpositus target the Purkinje cell layer of the paraflocculus. G. J. WOJACZYNSKI*; J. P. CARD. *Univ. of Pittsburgh, Univ. of Pittsburgh.*

11:00 RR9 **719.08** Purkinje cell collaterals enable output signals from the cerebellar cortex to feed back to Purkinje cells and interneurons. S. RUDOLPH*; L. WITTER; R. T. PRESSLER; S. LAHLAF; W. G. REGEHR. *Harvard Med. Sch., Case Western Reserve Univ. Sch. of Med.*

8:00 RR10 **719.09** High dimensional neuroanatomical and behavioral analysis for probing cerebellar involvement in nonmotor function. T. D. PEREIRA; J. W. METZGER; B. DEVERETT; T. J. PISANO; A. BADURA; S. S. WANG*. *Princeton Univ., Princeton Univ., Rutgers Univ., Netherlands Inst. for Neurosci.*

9:00 RR11 **719.10** Postnatal disruption of cerebellar activity causes autism-like phenotypes in adulthood. A. M. BADURA*; J. W. METZGER; T. J. PISANO; B. DEVERETT; T. D. PEREIRA; S. KOAY; C. D. BRODY; D. W. TANK; S. S. WANG. *Netherlands Inst. For Neurosci., Princeton Univ., Princeton Univ., Rutgers Univ., Princeton Univ., Princeton Univ.*

10:00 RR12 **719.11** Whole-brain mapping of cerebellar output pathways using transsynaptic viruses and light-sheet microscopy. T. J. PISANO*; S. DEIVASIGAMANI; J. C. LEE; B. DEVERETT; E. ENGEL; L. ENQUIST; S. S. WANG. *Princeton Univ., Princeton Univ., Rutgers Univ.*

11:00 RR13 **719.12** Effects of disrupted cerebellar activity on dendritic development at distal neocortical sites. J. VERPEUT*; A. TAO; C. HILDRETH; E. C. COPE; B. A. BRIONES; E. GOULD; S. S. WANG. *Princeton Univ., Princeton Univ., Princeton Univ.*

8:00 RR14 **719.13** Purkinje cell to granule cell synapse provide feedback to the input layer of the cerebellar cortex. C. GUO*; L. WITTER; S. RUDOLPH; H. ELLIOTT; K. ENNIS; W. REGEHR. *Harvard Univ.*

9:00 RR15 **719.14** A novel cerebellar molecular layer interneuron inhibited by Purkinje cell feedback. J. KIM*; G. J. AUGUSTINE. *LKC Med. School-NTU.*

10:00 RR16 **719.15** Calcium imaging reveals coordinated simple spike pauses in populations of Cerebellar Purkinje cells. J. E. RAMIREZ; B. M. STELL*. *Univ. Paris Descartes, CNRS.*

11:00 RR17 **719.16** Exploring molecular layer interneuron network activity in the cerebellar cortex *in vivo* using the calcium indicator protein GCaMP6f. M. GRAUPNER*; A. JALIL; I. LLANO. *Brain Physiol. Lab, CNRS.*

8:00 RR18 **719.17** Alternation of transcription factor gene expression in cerebellar Purkinje cells disrupts the synchrony of simple and complex spike in deep cerebellar nuclei. G. KUMAR*; W. Y. TAM; K. M. KWAN; C. H. E. MA. *City Univ. of Hong Kong, Sch. of Life Sciences,The Chinese Univ. of Hong Kong, State Key Lab. of Agrobiotechnology (CUHK), Ctr. for Biosystems, Neuroscience, and Nanotechnology, City Univ. of Hong Kong.*

9:00 RR19 **719.18** Principles of excitatory and inhibitory connectivity in the cerebellar molecular layer *in vivo*. C. ARLT*; C. D. WILMS; M. HAUSSER. *Univ. Col. London, Scientifica.*

10:00 RR20 **719.19** Large-scale realistic modeling reveals spatiotemporal dynamics of cerebellar granular layer responses to mossy fiber bursts. S. CASALI*; M. TOGNOLINA; E. D'ANGELO. *Univ. of Pavia, Brain Connectivity Center, C. Mondino Natl. Neurolog. Inst.*

POSTER

720. Physiology of Basal Ganglia Systems

Theme E: Motor Systems

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 RR21 **720.01** Processing of individual body parts by direct (drd1) and indirect (drd2) pathway neurons on the dorsal striatum. K. COFFEY*; M. WEST. *Rutgers Univ., Rutgers Univ.*

9:00 RR22 **720.02** Functionally dissecting the cortical control of direct versus indirect pathways in the striatum. J. R. KLUG*; H. A. HOFFMAN; F. OSAKADA; E. M. CALLAWAY; X. JIN. *Salk Inst. for Biol. Studies, Salk Inst. for Biol. Studies, Nagoya Univ., Salk Inst. for Biol. Studies.*

10:00 SS1 **720.03** Feed-forward inhibition of nigrostriatal dopamine release by goal-directed action. N. G. HOLLON*; J. R. KLUG; H. LI; C. D. HOWARD; X. JIN. *Salk Inst. for Biol. Studies.*

11:00 SS2 **720.04** Basal ganglia circuits for reinforcement and learning. A. LALIVE*; A. KREITZER. *Gladstone Inst.*

8:00 SS3 **720.05** ▲ Optogenetic stimulation of the dorsolateral striatum increases performance automaticity in cue-driven and response-driven tasks. F. ŠTOCEK*; A. C. G. CREGO; A. G. MARCHUK; K. S. SMITH. *Dartmouth Col.*

Wed. AM

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* Indicates abstract's submitting author

9:00 SS4 **720.06** Exploring a causal role for the dorsolateral striatum in action-reward contingency shifts. A. C. CREGO*; K. S. SMITH. *Dartmouth Col.*

10:00 SS5 **720.07** Precisely timed optogenetic inhibition of dopaminergic neurons during fine motor skill acquisition in rats. D. J. ELLENS; M. GAIDICA; A. R. HURST; D. K. LEVENTHAL*. *Univ. of Michigan, Ann Arbor, Univ. of Michigan, VA Ann Arbor Hlth. Syst., Univ. of Michigan.*

11:00 SS6 **720.08** Distributed by asymmetric encoding of time in cortical and striatal networks. K. BAKHURIN*; V. GOUDAR; J. L. SHOBE; L. D. CLAAR; K. LEE; D. V. BUONOMANO; S. C. MASMANIDIS. *Univ. of California Los Angeles.*

8:00 SS7 **720.09** Behavioral changes and voltage imaging of cortical activity in a forced choice licking task using optogenetic inhibition of basal ganglia output in mice. A. MORRISSETTE*; P. CHEN; P. Y. BORDEN; G. B. STANLEY; D. JAEGER. *Emory Univ., Georgia Tech.*

9:00 SS8 **720.10** The role of corticostriatal circuits in transition of behavior. J. SJÖBOM*; M. TAMTÈ; P. HALJE; I. BRYS; P. PETERSSON. *Lund Univ.*

10:00 SS9 **720.11** Population coding of kinematic features in the striatum during motor learning. W. TAOUALI*; P. E. RUEDA-OROZCO; D. ROBBE. *INSERM-INMED UMR901, Univ. Nacional Autónoma de México.*

11:00 SS10 **720.12** Thalamic intralaminar nuclei control of striatal microcircuits. U. GYAWALI*; K. K. COVER; M. H. PATTON; B. M. ROBERTS; M. G. WHITE; B. N. MATHUR. *Univ. of Maryland, Baltimore.*

8:00 SS11 **720.13** Cell-type- and projection-specific study of the external globus pallidus circuit organization. V. LILASCHAROEN*; S. SHIN; D. A. KNOWLAND; B. LIM. *UCSD.*

9:00 SS12 **720.14** θ and γ rhythm generation in a model network of fast-spiking striatal interneurons. J. A. CHARTOVE*; M. MCCARTHY; B. PITTMAN-POLLETTA; N. KOPELL. *Boston Univ.*

10:00 SS13 **720.15** Distinct firing patterns of GPe Arkypallidal and Prototypical neurons in a reinforcement learning task. M. A. FARRIES*; J. D. BERKE. *Univ. of Michigan, Univ. of California San Francisco.*

11:00 SS14 **720.16** Synaptic responses and plasticity properties in corticostriatal circuits *in vivo*. K. JUCZEWSKI*; D. A. KUPFERSCHMIDT; D. M. LOVINGER. *Natl. Inst. on Alcohol Abuse and Alcoholism, Karolinska Inst.*

8:00 SS15 **720.17** Motor cortex: A tutor for the basal ganglia? S. B. WOLFF*; A. K. DHAWALE; R. KO; B. P. OLVECZKY. *Harvard Univ.*

9:00 SS16 **720.18** Efficient cortical control of basal ganglia recipient motor thalamus. H. BOKOR*; N. HADINGER; L. ACSADY. *Inst. of Exptl. Medicine, Hungarian Acad. of Sci.*

10:00 SS17 **720.19** Communication between subthalamic structures and pontine nuclei. K. B. RAMAKRISHNAN*; K. KHODAKHAH. *Albert Einstein Col. of Med.*

11:00 SS18 **720.20** The basal ganglia and cerebellum contribute to the control of the adrenal medulla. R. P. DUM*; M. E. MARCELLE; D. J. LEVINTHAL; P. L. STRICK, 15261. *Univ. Pittsburgh, Univ. Pittsburgh, Univ. of Pittsburgh.*

8:00 SS19 **720.21** ▲ Glycinergic neurons are implicated in basal ganglia dependent functions. Y. P. HUIZAR*; R. ORTEGA; R. A. PEREZ; E. CASTANEDA; M. MIRANDA. *Univ. of Texas At El Paso, Univ. of Texas at El Paso, Univ. of Texas at El Paso.*

9:00 SS20 **720.22** Optogenetic interrogration of distinct and complementary nigral sub-circuts that shape movement. G. I. RIZZI*; K. R. TAN. *Univ. of Basel, Univ. of Basel.*

10:00 SS21 **720.23** ● The motor cortex to substantia nigra: A novel pathway. M. LODGE*; G. RIZZI; K. R. TAN. *Biozentrum.*

11:00 SS22 **720.24** Reward based motor adaptation mediated by basal ganglia. T. KIM*; K. C. HAMADE; W. TEKA; W. H. BARNETT; S. N. MARKIN; I. A. RYBAK; Y. I. MOLKOV. *Drexel Univ. Col. of Med., Georgia State Univ.*

8:00 SS23 **720.25** The control of action selection by cell-type specific circuits of the striatum in auditory-guided decision task. L. CUI*; N. XU. *Inst. of Neuroscience,CAS, Univ. of Chinese Acad. of Sci.*

9:00 SS24 **720.26** An Influence of motor costs in human reinforcement learning. K. SATO*; J. IZAWA. *Univ. of Tsukuba.*

10:00 SS25 **720.27** Distinct roles of subthalamic nucleus α and β oscillations in stopping and delaying manual and verbal actions. A. GHAHREMANI*; K. UDUPA; J. WESSEL; U. SAHA; T. HOQUE; A. LOZANO; M. HODAIE; S. KALIA; A. ARON; R. CHEN. *Toronto Western Hosp., Univ. of Toronto, Krembil Neurosci. Ctr., Univ. of Iowa, Univ. of San Diego.*

11:00 SS26 **720.28** The basal ganglia control the urgency of a reach choice, but not the choice itself. D. THURA*; P. CISEK. *Univ. Montreal.*

8:00 TT1 **720.29** Real-time *in vivo* plasticity of corticostriatal afferent activity during skill learning. D. A. KUPFERSCHMIDT*; G. CUI; K. JUCZEWSKI; D. LOVINGER. *Natl. Inst. on Alcohol Abuse and Alcoholism, Natl. Inst. on Envrn. Hlth. Sci., Lab. for Integrative Neurosci., Natl. Inst. on Alcohol Abuse and Alcoholism, Dept. of Neuroscience, Karolinska Inst.*

9:00 TT2 **720.30** A role for dynorphin in the basal ganglia. R. LALCHANDANI*; J. B. DING. *Stanford Univ.*

POSTER

721. Motor Systems: Oral Motor and Speech

Theme E: Motor Systems

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 TT3 **721.01** Exogenous and endogenous auditory prediction in speech. D. SHILLER*; M. SATO. *Univ. of Montreal, Lab. Parole et Langage, Aix-Marseille Univ. & CNRS.*

9:00 TT4 **721.02** Cortical control of postural responses on swallowing movement: A fNIRS study. M. YAMAWAKI*; S. SHIBANO; G. MATSUDA. *Kyoto Prefectural Univ. of Med.*

10:00 TT5 **721.03** Volitional vocal responses to unexpected perturbations in voice pitch auditory feedback. C. R. LARSON*; J. H. KIM; D. ROBIN. *Northwestern Univ., Univ. of New Hampshire.*

11:00 TT6 **721.04** The role of the insula in speech motor control: Structural connectivity profiles in healthy volunteers and spasmodic dysphonia patients. G. BATTISTELLA*; V. KUMAR; K. SIMONYAN. *Icahn Sch. of Med. at Mount Sinai, Icahn Sch. of Med. At Mount Sinai.*

8:00 TT7 **721.05** Prosodic influence in face emotion perception: Evidence from functional near-infrared spectroscopy. K. M. BECKER*; D. C. ROJAS. *Colorado State Univ.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

9:00 TT8 **721.06** Characterization of a song locus in the right posterior superior temporal gyrus via electrical stimulation and focal cooling during awake neurosurgery. K. KATLOWITZ*; H. OYA; M. A. HOWARD; J. D. W. GREENLEE; M. A. LONG. *New York Univ., Univ. of Iowa.*

10:00 TT9 **721.07** ▲ Pre-speech auditory modulation in a picture naming task. A. HANS; A. DALIRI; L. MAX*. *Univ. Washington, Boston Univ., Haskins Labs.*

11:00 TT10 **721.08** ● Multisensory perturbation effects on speech timing and sequencing. F. BRAJOT*; J. LEE. *Ohio Univ., Ohio Univ.*

8:00 TT11 **721.09** Orofacial somatosensory inputs enhance the change of speech perception induced by speech motor learning. H. OHASHI*; T. ITO. *Haskins Labs. Inc, CNRS, Univ. Grenoble-Alpes.*

9:00 TT12 **721.10** Paralyzed recurrent laryngeal nerves demonstrate significant differences in morphometric parameters compared with non-paralyzed nerve. M. B. CHRISTENSEN*; A. HELLER; M. R. CHAO; K. A. HOWE; J. L. PIERCE; M. E. SMITH. *Univ. of Utah, Univ. of Utah, Univ. of Utah, Univ. of Utah.*

10:00 TT13 **721.11** Unilateral molar tooth extraction induces changes in the number and morphological features of astroglial cells within mouse orofacial motor cortex. T. WATASE; D. TANG; P. CHERKAS; D. K. LAM; S. BEGGS; M. SALTER; Z. SELTZER; B. J. SESSLE; L. AVIVI-ARBER*. *Nihon Univ., Univ. of Toronto, Sick Kids Hosp., Univ. of Toronto Dent.*

11:00 TT14 **721.12** Neural mechanisms underlying temporal organization in mouse courtship vocalizations. G. A. CASTELLUCCI*; E. W. ZAGHA; D. A. MCCORMICK. *Yale Univ., Yale Univ.*

8:00 UU1 **721.13** A model comparison guide of DNA double-strand breaks in the brain and tongue. G. TORRES*; J. R. LEHESTE. *NYIT COM, NYIT-COM.*

POSTER

722. Posture and Gait: Higher Order Control

Theme E: Motor Systems

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 UU2 **722.01** ▲ Ankle impedance modulation evoked by imposed inversion/eversion stiffness during locomotion. C. ARNET; J. OCHOA; D. STERNAD; N. HOGAN*. *MIT, Northeastern Univ.*

9:00 UU3 **722.02** ▲ The effect of optic flow direction on orthogonality of balance control during walking. J. NIELSEN*. *Univ. of Nebraska at Omaha.*

10:00 UU4 **722.03** ▲ Effects of hand posture on corticospinal excitability to trunk muscles. J. K. WONG*; S. CHIDAMBARAM; S. CHIOU; P. H. STRUTTON. *Imperial Col. London.*

11:00 UU5 **722.04** Effect of co-contraction on cortical excitability of lower limb musculature. T. M. KESAR*; M. R. BORICH; S. EICHOLTZ; S. L. WOLF. *1441 Clifton Rd NE, Room 205, Emory Univ.*

8:00 UU6 **722.05** Effect of concurrent cognitive task on postural stability and postural task-related cortical activation. H. OTOMUNE*; M. MIHARA; Y. KAJIYAMA; Y. GON; H. FUJIMOTO; K. KONAKA; T. KAWANO; M. NAGASAKO; T. YOSHIOKA; M. HATAKENAKA; H. YAGURA; I. MIYAI; H. MOCHIZUKI. *Neurorehabilitaion Res. Inst., Morinomiya Hosp., Osaka Univ. Grad. Sch. of Med., Div. of Clin. Neuroengineering, Osaka Univ.*

9:00 UU7 **722.06** ▲ Effects of dynamic arm cycling on crossed-corticospinal facilitation to trunk muscles. D. CHRISTMAS*; S. DAVE; S. CHIOU; P. H. STRUTTON. *Imperial Col. London.*

10:00 UU8 **722.07** Definition of cerebral networks involved in straight walking and steering of gait in normal young human subjects using ^{18}F-FDG PET imaging. J. SOUCY*; F. STARRS; C. PAQUETTE. *Montreal Neurolog. Inst., Concordia Univ., McGill Univ., McGill Univ.*

11:00 UU9 **722.08** Activity of the subthalamic and pedonculopontine nuclei during initiation of gait: An electrophysiological approach in humans. A. COLLOMB-CLERC*; C. KARACHI; A. DEMAIN; X. DREVELLE; A. VAN HAMME; J. LE DOUGET; P. LAVIRON; S. FERNANDEZ VIDAL; L. MALLET; B. LAU; M. WELTER. *Inst. Du Cerveau Et De La Moelle Epinière, Assitance publique Hopitaux Paris, Groupe Hostipatier Pitié Salpetrière, Sorbonne Universités, UPMC Univ. Paris 6, INSERM UMR 1127, CNRS UMR 7225, Plateforme PANAM, ICM, CENIR, Plateforme STIM, ICM.*

8:00 UU10 **722.09** Neural correlates of dual-task walking: Influence of priority on attentional demands. S. SANGANI; T. KURAYAMA; J. FUNG*. *Jewish Rehabil. Hosp., Uekusa Gakuen Univ., McGill Univ.*

9:00 UU11 **722.10** EEG brain functional connectivity during static and dynamic reactive balance control. J. PAROKARAN VARGHESE*; W. E. MCILROY. *Univ. of Waterloo, Univ. of Waterloo.*

10:00 UU12 **722.11** Proprioception under dual task conditions in older adults. Does physical activity matter? I. BRAGINA; C. VOELCKER-REHAGE*. *Technische Univ. Chemnitz.*

11:00 UU13 **722.12** The role of stride frequency for transition from walk to run in humans. E. A. HANSEN*; A. M. NIELSEN; L. A. R. KRISTENSEN; M. VOIGT; P. MADELEINE. *Ctr. For Sensory-Motor Interaction (SMI), Aalborg Univ.*

8:00 UU14 **722.13** Adjacent motor cortical areas have distinct brain functional connectivity. A. M. ALBISHI*; J. SMITH; B. FISHER; J. KUTCH. *USC, USC.*

9:00 VV1 **722.14** Unilateral learning in a bilateral walking task. G. BORIN*; J. T. CHOI. *Univ. of Massachusetts.*

10:00 VV2 **722.15** Executive control of walking in adults with mobility deficits quantified by fNIRS neuroimaging. K. A. HAWKINS*; E. J. FOX; J. J. DALY; D. K. ROSE; E. A. CHRISTOU; D. M. OTZEL; K. A. BUTERA; S. A. CHATTERJEE; D. J. CLARK. *Univ. of Florida, Brooks Rehabil., North Florida/South Georgia Veterans Hlth. Syst., Univ. of Florida, Univ. of Florida, North Florida/South Georgia Veterans Hlth. Syst., Univ. of Florida.*

11:00 VV3 **722.16** ▲ Motor cortical modulation of trunk muscles during anticipatory postural adjustments. J. QUEK; S. CHIOU; T. A. CONSTANTIN; P. H. STRUTTON*. *Imperial Col. London.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

8:00 VV4 **722.17** Localization of cortical and subcortical activity related to reactive balance control with or without performing a visual-working-memory task. M. D. BOGOST; P. I. BURGOS; C. E. LITTLE; M. WOOLLACOTT; B. H. DALTON*. *Univ. of Oregon, Univ. de Chile, Univ. of Calgary.*

9:00 VV5 **722.18** The coupling of gaze and gait when walking over real-world rough terrain. J. S. MATTHIS*. *Res. Univ.*

10:00 VV6 **722.19** Effects of initial standing position on postural control associated with arm movement and contingent negative variation. K. MAEDA*; K. FUJIWARA. *Morinomiya Univ. of Med. Sci., Kanazawa Gakuin Univ.*

11:00 VV7 **722.20** ▲ Effects of hand posture on corticospinal excitability of the trunk muscles in dynamic tasks. S. CHIDAMBARAM*; J. K. L. WONG; S. CHIOU; P. H. STRUTTON. *Imperial Col. London.*

8:00 VV8 **722.21** Effects of light touch and visual search on the rambling and trembling components of postural sway. D. G. SANTOS*; R. GARBUS; S. FREITAS. *Univ. Cidade De Sao Paulo (UNICID), Hosp. Israelita Albert Einstein, Univ. Cidade de São Paulo (UNICID).*

9:00 VV9 **722.22** Dynamic entrainment of human walking to ankle dorsi-flexion perturbations. J. OCHOA*; D. STERNAD; N. HOGAN. *Massachusetts Inst. of Technol. Dept. of Mechanical Engin., Northeastern Univ., MIT.*

10:00 VV10 **722.23** ● Estimation of optimal stimulus amplitude for balance training using electrical stimulation of the vestibular system. R. GOEL*; M. J. ROSENBERG; Y. E. DEDIOS; H. S. COHEN; J. J. BLOOMBERG; A. P. MULAVARA. *Univ. of Houston, Baylor Col. of Med., Wyle Science, Technol. and Engin. Group, NASA Johnson Space Ctr., Universities Space Res. Assn.*

POSTER

723. Spinal Reflexes

Theme E: Motor Systems

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 VV11 **723.01** A comparison of spinal and motor cortical neurophysiology in highly trained martial artists versus untrained controls. Y. LIU*; W. OGLE; A. M. PHIPPS; M. R. ENYART; A. RECTOR; D. M. KOCEJA; H. J. BLOCK. *Indiana Univ. Bloomington, Indiana Univ. Bloomington.*

9:00 VV12 **723.02** Effects of contralateral common peroneal nerve conditioning on ipsilateral soleus H-reflex during walking. M. R. ENYART*; K. KITANO; A. M. PHIPPS; D. M. KOCEJA. *Indiana Univ., Indiana Univ., Indiana Univ.*

10:00 VV13 **723.03** Response of spinal cord interneurones to finger perturbations. D. S. SOTEROPOULOS*; S. BAKER. *Newcastle Univ.*

11:00 VV14 **723.04** Changes in fusimotor parameters suffice to explain position thresholds, velocity thresholds, and gains of the stretch reflex; but produce strong interactions among them. K. JALALEDDINI*; A. MARJANINEJAD; S. CHAKRAVARTHI RAJA; F. J. VALERO-CUEVAS. *USC, USC, USC.*

8:00 VV15 **723.05** Stretch reflexes in shoulder muscles are described best by heteronymous pathways. M. H. SOHN*; E. M. BAILLARGEON; D. B. LIPPS; E. J. PERREAULT. *Northwestern Univ., Rehabil. Inst. of Chicago, Univ. of Michigan.*

9:00 VV16 **723.06** Implementation of a multilayer perceptron neural network for classifying a hemiplegic and healthy reflex pair using an iPod wireless gyroscope platform. R. C. LEMOYNE*; T. MASTROIANNI. *Independent, Independent.*

10:00 VV17 **723.07** Static and dynamic soleus stretch reflex responses in standing humans are independently modulated by postural threat. B. C. HORSLEN*; M. ZABACK; T. INGLIS; J. BLOUIN; M. G. CARPENTER. *Univ. of British Columbia, Intl. Collaboration On Repair Discoveries, Djavad Mawafaghian Ctr. for Brain Hlth., Univ. of British Columbia.*

11:00 VV18 **723.08** A neuromorphic implementation of spinal α-γ circuity suffices to produce simple voluntary movements in cadaveric hands. S. CHAKRAVARTHI RAJA*; K. JALALEDDINI; N. LIGHTDALE-MIRIC; F. VALERO-CUEVAS. *USC, USC, Children's Hosp. Los Angeles, USC.*

8:00 VV19 **723.09** Soleus H-reflex modulation by the contralateral common peroneal nerve stimulation during the late stance phase of human gait. K. KITANO*; A. PHIPPS; M. ENYART; D. KOCEJA. *Indiana Univ., Indiana Univ., Indiana Univ.*

9:00 VV20 **723.10** Interlimb reflexes between the forelimbs and hindlimbs are asymmetrically organized during locomotion in intact adult cats. M. HURTEAU*; E. DESROCHERS; Y. THIBAUDIER; C. DAMBREVILLE; A. TELONIO; A. FRIGON. *Univ. De Sherbrooke.*

10:00 VV21 **723.11** The roles of contralateral conditioning and ipsilateral control stimulus timing on the soleus H-reflex during human gait. A. M. PHIPPS*; K. KATANO; M. ENYART; D. M. KOCEJA. *Indiana Univ. Bloomington, Indiana Univ. Bloomington.*

POSTER

724. Defensive Behavior and Aggression

Theme F: Integrative Physiology and Behavior

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 VV22 **724.01** Built for fighting: Neuroendocrine and transcriptomic regulation of aggression in a fighter strain of the Siamese fighting fish *Betta splendens*. D. GONÇALVES*; A. RAMOS; C. HUANG; S. M. Y. LEE. *Univ. of St. Joseph, Univ. of Macau.*

9:00 VV23 **724.02** Investigating the role of serotonin receptor subtypes mediating aggressive behavior in a novel species. A. BUBAK*; M. J. WATT; K. J. RENNER; J. G. SWALLOW. *Univ. of Colorado-Denver Anschutz Med. Campus, Univ. of South Dakota, Univ. of South Dakota, Univ. of Colorado-Denver.*

10:00 VV24 **724.03** 5HT3 receptor blockade during AAS withdrawal reduces AAS-enhanced anxiety without altering aggression. T. R. MORRISON*; L. RICCI; R. H. MELLONI, Jr. *Northeastern Univ.*

11:00 VV25 **724.04** Acute manipulation of Avpr1b CA2 neurons regulates expression of maternal aggression in mice. S. WILLIAMS*; H. LEE; J. SONG; W. YOUNG. *NIMH, Kyungpook Natl. Univ. Sch. of Dent., Natl. Inst. of Mental Hlth.*

8:00 DP08 **724.05** (Dynamic Poster) The role of the ventromedial hypothalamus during confrontation against conspecific aggressors. L. WANG*; D. LIN. *New York Univ. Sch. of Med.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

9:00 VV26 **724.06** ▲ TRPA1 is indispensable to escaping from predator. R. AKAHOSHI; Y. KATAYAMA; R. YAMAGUCHI; T. YONEMITSU; J. L. PAULI; H. KASHIWADANI; T. KUWAKI*. *Kagoshima Univ. Sch. of Med., Kagoshima Univ-Grad Sch. Med., Fujimoto Gen. Hosp.*

10:00 WW1 **724.07** Oxytocin decreases aggression during courtship and increases investigation of intruders in the California mouse. C. D. GUOYNES*; C. MARLER. *UW Madison.*

11:00 WW2 **724.08** ▲ Aggressive interactions between mantis shrimp (*Neogonodactylus oerstedii*) are mediated by brain monoamine levels and recognition of previous opponents. A. D. KOCH; J. D. W. YAEGER; M. W. BUCHANAN; M. L. PORTER; M. J. WATT; K. J. RENNER*. *Univ. of South Dakota, Univ. of Hawaii at Manoa, Sanford Sch. of Med.*

8:00 WW3 **724.09** Stereological analysis of intact ventromedial hypothalamus morphology and synaptic organization: New tools for understanding juvenile social behaviour plasticity. A. CICCARELLI*; R. PAOLICELLI; D. WEIJERS; F. ZONFRILLO; E. PERLAS; G. BOLASCO; C. GROSS. *EMBL.*

9:00 WW4 **724.10** Subacute neuroendocrine and behavioral effects of underwater trauma and predator exposure in rats. K. D. CRAVEDI; C. V. VUONG; J. C. SOUSA; S. R. MARCSISIN; N. L. MOORE*. *Walter Reed Army Inst. of Res., Walter Reed Army Inst. of Res., Walter Reed Army Inst. of Res.*

10:00 WW5 **724.11** ▲ Seasonal variations in the dorsolateral and medial cortex, the reptilian homologue of the hippocampus. A. D. ABDILAHI; A. B. DAY; R. E. COHEN*. *Minnesota State University, Mankato, Minnesota State Univ. Mankato Dept. of Biol. Sci.*

11:00 WW6 **724.12** Gene x environment interactions in pathological aggression modify the expression and function of CB1 receptors: Relevance to the comorbidity between antisocial behavior and cannabis use. K. M. MCFARLIN*; M. BORTOLATO. *Univ. of Kansas, Univ. of Utah.*

8:00 WW7 **724.13** The 5α-reductase inhibitor Finasteride increases suicide-related aggressive behaviors in a schizophrenia-like phenotype. C. MAURICE-GÉLINAS*; C. MONPAYS; J. DESLAURIERS; P. SARRET; S. GRIGNON. *Univ. De Sherbrooke, Univ. of California, Ctr. Hospitalier Universitaire de Sherbrooke.*

9:00 WW8 **724.14** ▲ Evaluation of aggressive behavior in an animal model of perimenopause. L. C. DALPOGETO*; N. PESTANA-OLIVEIRA; J. A. ANSELMO-FRANCI; C. M. LEITE. *Univ. De Sao Paulo, Univ. de São Paulo, Univ. de São Paulo.*

10:00 WW9 **724.15** Developmental gating of aggressive behaviors in *Drosophila*. E. H. MOSCATO*; B. MAINWARING; M. S. KAYSER. *Univ. of Pennsylvania.*

11:00 WW10 **724.16** mGluR2 mediates the interaction between low MAO A activity and early stress model of aggression. S. C. GODAR*; L. J. MOSHER; C. M. JONES; H. STRATHMAN; S. SCHEGGI; C. GAMBARANA; M. DE MONTIS; M. BORTOLATO. *Univ. of Kansas, Univ. of Utah, Univ. of Siena.*

POSTER

725. Glucocorticoid Actions

Theme F: Integrative Physiology and Behavior

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 WW11 **725.01** ● CORT 118335 and imipramine affect endocrine stress responses through different central mechanisms in male and female rats. E. T. NGUYEN*; J. L. CALDWELL; J. STREICHER; S. BERMAN; V. GHISAYS; C. M. ESTRADA; M. B. SOLOMON. *Univ. of Cincinnati, Univ. of Cincinnati Col. of Med., Univ. of Cincinnati.*

9:00 WW12 **725.02** Corticosterone interferes with the response of TRHergic hypophysiotropic neurons to neural stimulation by attenuation of CREB phosphorylation. Mechanism involves GR interaction with catalytic subunit of PKA. I. SOTELO RIVERA*; R. M. URIBE; A. COTE-VÉLEZ; J. CHARLI; P. JOSEPH-BRAVO. *Inst. de Biotecnologia, UNAM.*

10:00 WW13 **725.03** Membrane-initiated nuclear translocation of the glucocorticoid receptor in hypothalamic neurons. J. R. RAINVILLE*; N. VASUDEVAN; J. G. TASKER. *Tulane Univ.*

11:00 WW14 **725.04** Intracellular signaling pathway of the membrane glucocorticoid receptor responsible for endocannabinoid modulation of excitatory synaptic inputs to hypothalamic neuroendocrine cells. G. L. WEISS*; C. HARRIS; S. DI; J. G. TASKER. *Tulane Univ.*

8:00 WW15 **725.05** Corticotropin-releasing hormone (CRH) regulation by acute glucocorticoid receptor activation and restraint stress. A. TURNIDGE*; R. J. HANDA. *Colorado State Univ., Univ. of Arizona Col. of Med.*

9:00 WW16 **725.06** Forebrain glutamatergic, but not GABAergic neurons mediate anxiogenic effects of the glucocorticoid receptor. J. HARTMANN*; N. DEDIC; M. L. PÖHLMANN; A. HÄUSL; H. KARST; C. ENGELHARDT; S. WESTERHOLZ; K. V. WAGNER; C. LABERMAIER; L. HOEIJMAKERS; M. KERTOKARIJO; A. CHEN; M. JOËLS; J. M. DEUSSING; M. V. SCHMIDT. *McLean Hospital, Harvard Med. Sch., Max Planck Inst. of Psychiatry, UMC Utrecht.*

10:00 WW17 **725.07** Hippocampal neurons of dystrophic mdx mice respond differently to acute corticosterone treatment, both *in vitro* and *in vivo*, compared to wild type. M. DE STEFANO*; F. COSMI; I. BOZZONI; P. FRAGAPANE. *Sapienza Univ. of Roma, Inst. Pasteur-Fondazione Cenci Bolognetti, Consiglio Nazionale delle Ricerche, Inst. di Biologia e Patologia Molecolari.*

11:00 WW18 **725.08** Increased serotonin transporter expression by chronic stress in adrenal glands: A glucocorticoid-dependent effect. ; N. SAROJ; M. NOYOLA-DIAZ; J. A. TERRÓN. *CINVESTAV-IPN, CINVESTAV-IPN.*

8:00 WW19 **725.09** Opioid alterations of the reward circuit transcriptome involve glucocorticoid pathways within astrocytes. R. A. PRZEWLOCKI*; S. GOLDA; M. PIECHOTA; U. SKUPIO; M. KOROSTYNSKI; J. BARUT; M. TERTIL. *Inst. Pharmacol PAS.*

9:00 WW20 **725.10** Characterizing HPI axis response to acute stress using mutant zebrafish strains in the HPI axis receptors. H. LEE*; T. L. SCHWAB; R. G. KRUG, II; M. R. SERRES; A. N. SIGAFOOS; B. N. SUNDBERG; C. E. BULLARD; B. C. BERRY; K. J. CLARK. *Mayo Grad. Sch. - Neurobio. of Dis., Mayo Clin., Mayo Grad. Sch.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

10:00 WW21 **725.11** Effect of chronic corticosterone treatment on the amount and distribution of serotonin 5-HT7 receptors in rat adrenal glands. N. SAROJ*; S. A. MENDOZA-CONTRERAS; . SHIVSHANKER; M. NOYOLA-DIAZ; J. A. TERRÓN. *CINVESTAV-IPN.*

POSTER

726. Early-Life Stress: Perinatal

Theme F: Integrative Physiology and Behavior

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 WW22 **726.01** Early life trauma has life-long consequences for sleep. M. P. LEWIN*; R. M. SULLIVAN; D. A. WILSON. *NYU, Nathan Kline Inst., NYU Sch. of Med., NYU.*

9:00 XX1 **726.02** Effects of maternal maltreatment on parvalbumin cells in the basolateral amygdala. A. N. SANTIAGO*; K. LIM; M. OPENDAK; C. AOKI; R. SULLIVAN. *New York Univ., Nathan Kline Inst.*

10:00 XX2 **726.03** Chronic early life stress reduces cognitive flexibility and orbitofrontal cortex axonal integrity in mid-aged mice. C. A. OOMEN*; H. AMIRI; H. J. KRUGERS; J. C. GLENNON. *Univ. of Amsterdam, Donders Institute, Radboud Univ. Med. Ctr.*

11:00 XX3 **726.04** Effects of early postnatal undernutrition on affective behavior and conditioned fear in male and female Sprague Dawley rats. R. M. DE GUZMAN*; L. M. COLON; A. M. POULOS; J. L. WORKMAN. *Univ. at Albany, State Univ. of New York.*

8:00 XX4 **726.05** Relation between maternal separation during breastfeeding in rats and giardia infection. M. F. GERENA-CRUZ; D. G. GARCÍA LAGUNA; Z. DUENAS*. *Univ. Nacional De Colombia, Univ. Nacional de Colombia, Univ. Nacional De Colombia.*

9:00 XX5 **726.06** Early-life obesity increases susceptibility to post traumatic stress and disrupts hippocampal structure. J. D. VEGA-TORRES*; P. KALYAN-MASIH; C. MILES; E. HADDAD; S. RAINSBURY; M. BAGHCHECHI; A. OBENAUS; J. D. FIGUEROA. *Loma Linda Univ. Sch. of Med., Loma Linda Univ. Sch. of Med.*

10:00 XX6 **726.07** Consequences of neonatal maternal separation on the efficacy of the oxytocinergic control of pain. M. MELCHIOR*; P. JUIF; N. PETIT-DEMOULIÈRE; V. CHAVANT; Y. GOUMON; V. LELIÈVRE; A. CHARLET; P. POISBEAU. *INCI.*

11:00 XX7 **726.08** Early-life predictors of the effects of repeated maternal deprivation on the development of 129Sv mice. O. V. BURENKOVA*; E. A. ALEKSANDROVA; I. Y. ZARAYSKAYA. *P.K. Anokhin Res. Inst. of Normal Physiol.*

8:00 XX8 **726.09** Increased corticostreone response on postnatal day 11 does not alter emotional or hormonal stress responses of adult male rats: Role of maternal care. D. SUCHECKI*; A. CONSOLI; R. CABBIA. *Univ. Federal de Sao Paulo.*

9:00 XX9 **726.10** Alternation of fundamental frequency of ultrasonic vocalizations by neonatal rats in response to distance from their mother. M. NAKAMURA*; M. TANICHI; H. TODA; S. MITSUYOSHI; S. SHINOHARA; Y. OMIYA; K. SHIMIZU; A. YOSHINO; S. TOKUNO. *The Univ. of Tokyo, Natl. Defence Med. Col., PST inc., Natl. Defence Med. Col. Res. Inst.*

10:00 XX10 **726.11** Perinatal SSRI exposure affects social behavior and related neurobiology in juvenile rat offspring. M. GEMMEL*; M. HAZLETT; E. CSÁSZÁR; C. VESEL; S. DE LACALLE; J. PAWLUSKI. *Ohio Univ., Inst. of Exptl. Pharmacol. and Toxicology, Slovak Acad. of Sci., Ohio Univ., Univ. of Rennes 1.*

11:00 XX11 **726.12** Sex specific cognitive deficits following early life stress: A role for parvalbumin in the orbitofrontal cortex. H. GOODWILL*; S. LIN; G. MANZANO-NIEVES; A. COHEN; K. BATH. *Brown Univ.*

8:00 XX12 **726.13** Early life stress alters the development of the fear recall and expression in pre-adolescent mice. G. MANZANO-NIEVES*; K. G. BATH. *Dept. of Neuroscience, Brown Univ., Brown Univ.*

9:00 XX13 **726.14** ▲ Brain-derived neurotrophic factor: A potential driver of the accelerated neurobehavioral development induced by early-life stress. K. B. HUNTZICKER*; G. MANZANO-NIEVES; T. M. MOSS; K. G. BATH. *Brown Univ., Brown Univ.*

10:00 XX14 **726.15** ▲ Effects of maternal deprivation on anxiety-like behaviors in Wistar and Wistar Kyoto rats. C. VEGA BAUTISTA*; C. LÓPEZ RUBALCAVA. *CINVESTAV.*

11:00 XX15 **726.16** ▲ Behavioral, endocrine and physiological effects of maternal separation on Sprague-Dawley dams and pups. S. L. WEINER; R. A. HEALY; C. R. MCKITTRICK*. *Drew Univ.*

8:00 XX16 **726.17** Early-life stress and reduced MET expression interact to disrupt neuronal morphology and behavior in mice. H. HEUN-JOHNSON*; P. LEVITT. *USC, Children's Hosp. Los Angeles.*

9:00 XX17 **726.18** Early and recent life stress influence cortisol awakening response as a function of serotonin transporter genotype. G. DEDEOGLU*; E. A. DUMAN. *Bogazici Univ.*

10:00 XX18 **726.19** Social isolation rearing influences epigenetic regulation of dorsal raphe $GABA_B$ receptor and responses to social stimulation in mice. R. ARAKI*; Y. HIRAKI; S. NISHIDA; N. KURAMOTO; K. MATSUMOTO; T. YABE. *Setsunan Univ., Univ. of Toyama.*

11:00 XX19 **726.20** Early adversity uncouples preference formation from anxiolysis in mice. H. S. KNOBLOCH*; E. J. KIM; Z. YE; T. K. HENSCH. *Harvard Univ.*

8:00 XX20 **726.21** Maternal potentiation of ultrasonic vocalizations is not a marker of stress. L. M. ROSKO*; M. ANWAR; J. KAIDBEY; A. ELLISTON; M. G. WELCH. *Columbia Univ. Med. Ctr., Columbia Univ. Inst. of Nutr.*

9:00 XX21 **726.22** Effects of maternal separation on vulnerability to methamphetamine and synaptic plasticity. J. N. HAMDAN; S. SAUCEDO, Jr.; G. A. LODOZA; J. A. SIERRA-FONSECA; L. E. O'DELL; K. L. GOSSELINK*. *Univ. of Texas at El Paso Dept. of Biol. Sci., Univ. of Texas at El Paso Dept. of Biol. Sci., Univ. of Texas at El Paso Dept. of Biol. Sci.*

10:00 XX22 **726.23** ▲ Microglial alterations after maternal separation in rodents. L. TELISKA*; R. ROTOLO; C. LITTLE; T. STRANGE; T. MEDWID; L. FRUEHAUF; A. ROSELUND; K. JONES; A. J. BETZ. *Quinnipiac Univ., Quinnipiac Univ.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
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* Indicates abstract's submitting author

POSTER

727. Stress: Prenatal

Theme F: Integrative Physiology and Behavior

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 YY1 **727.01** ▲ Alterations related by gestational stress in glial morphology and working memory of the adulthood rats. Y. RUVALCABA DELGADILLO*; T. MORALES-SALACEDO; G. CHIPRES-TINAJERO; G. YAÑEZ-DELGADILLO; R. RAMOS-ZUÑIGA; A. FERIA-VELASCO; J. GARCÍA-ESTRADA; S. LUQUIN; F. JAUREGUI-HUERTA. *Univ. De Guadalajara, Univ. De Guadalajara, Ctr. de Investigación Biomédica de Occidente.*

9:00 YY2 **727.02** The role of oxidative stress in the effect of prenatal stress on the fetal brain. J. BITTLE*; S. J. LUSSIER; J. MICHAELSON; H. E. STEVENS. *Univ. of Iowa.*

10:00 YY3 **727.03** Single dose ketamine injection does not alter behavioral parameters in rats exposed to both prenatal and chronic unpredictable mild stress. E. ULUPINAR*; E. POLAT CORUMLU; O. AYDIN; E. GULHAN AYDIN. *Eskisehir Osmangazi Univ., Eskisehir Osmangazi Univ., Eskisehir Osmangazi Univ.*

11:00 YY4 **727.04** ▲ Reductions in hippocampal AMPA receptor and NMDA receptor subunit expression are associated with impaired learning in adult male rats following prenatal exposure to Dexamethasone. C. R. DODSON; K. C. PAGE*. *Bucknell Univ.*

8:00 YY5 **727.05** ▲ Learning and memory in prenatally stressed rats and its relation with hippocampal serotonin and norepinephrine release. Learning and memory in prenatally stressed rats and its relation with hippocampal serotonin and norepinephrine release. D. MÉNDEZ-GUERRERO*; F. J. JIMÉNEZ-VÁSQUEZ; C. RUBIO OSORNIO; L. L. ROCHA ARRIETA; S. RETANA-MARQUEZ. *Grad. Exptl. Biol. Univ. Autónoma, Inst. Natl. of Neurol. and Neurosurg., Ctr. for Res. and Advanced Studies of the Inst. Natl. Polytechnic, Univ. Autonoma Metropolitana.*

9:00 YY6 **727.06** ▲ Prenatal stress induced depressive-like behaviour associated with serotonin release in the ventral hippocampus. F. J. JIMENEZ-VASQUEZ*; D. MÉNDEZ-GUERRERO; C. RUBIO OSORNIO; L. L. ROCHA ARRIETA; S. RETANA-MÁRQUEZ. *Grad. Exptl. Biol. Univ. Autónoma, Grad. Exptl. Biol. Univ. Autónoma Metropolitana-Iztapalapa, Inst. Natl. of Neurol. and Neurosurg., Ctr. for Res. and Advanced Studies of the Inst. Natl. Polytechnic, Univ. Autónoma Metropolitana-Iztapalapa.*

10:00 YY7 **727.07** Changes in cortical GABAergic maturation after prenatal stress and the role of oxidative stress. P. W. ABBOTT; S. J. LUSSIER; H. E. STEVENS*. *Univ. of Iowa.*

11:00 YY8 **727.08** Late prenatal dexamethasone exposure and induced fetal programming of behavioural deficiencies. C. LALONDE*; J. GRANDBOIS; K. ZIMANY; S. KHURANA; S. THARMALINGAM; T. C. TAI. *Laurentian Univ., Laurentian Univ., Northern Ontario Sch. of Med., Laurentian Univ., Laurentian Univ.*

8:00 YY9 **727.09** Prenatal dexamethasone exposure alters the postnatal leptin surge in rats. B. HAMMOND*; M. K. THOMPSON; L. MADHAVPEDDI; T. M. HALE; R. J. HANDA. *Univ. of Arizona.*

9:00 YY10 **727.10** Effect of prenatal restraint stress in a DN-DISC1 mouse paradigm for schizophrenia. S. N. REID*; K. S. JONES; M. C. GONDRE-LEWIS. *Howard Univ. Col. of Med., Howard Univ.*

10:00 YY11 **727.11** Effects of birth mode on developmental cell death in the mouse brain. A. CASTILLO-RUIZ*; M. MOSLEY; N. G. FORGER. *Georgia State Univ.*

11:00 YY12 **727.12** ▲ Influence of *in utero* stress on fear memory consolidation in adulthood. A. E. EASTON; B. G. DIAS*. *Emory Univ.*

8:00 YY13 **727.13** ▲ Gestational stress consequences on prepubertal male offspring behavior are possibly mediated by epigenetic changes in the hippocampus. M. E. PALLARÉS*; M. C. MONTELEONE; V. PASTOR; A. ALZAMENDI; S. OLSZEVICKI; M. A. BROCCO; M. C. ANTONELLI. *Inst. De Biologia Celular Y Neurociencia, Inst. de Investigaciones Biotecnológicas de la Univ. de San Martín (IIB- UNSAM), Inst. Multidisciplinario de Biología Celular (IMBICE-CONICET-CICPBA).*

POSTER

728. Early-Life Stress: Adolescence

Theme F: Integrative Physiology and Behavior

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 YY14 **728.01** Chronic adolescent stress alters the adult rat transcriptome in a sex specific manner. G. N. NEIGH*; S. A. ROWSON; M. BEKHBAT; S. D. KELLY; Q. ZHAOHUI. *Virginia Commonwealth Univ., Emory Univ.*

9:00 ZZ1 **728.02** Increased function of D_2 autoreceptors contributes to reduced prefrontal cortex dopamine activity following adolescent social defeat. M. A. WEBER*; G. L. FORSTER; M. J. WATT. *Univ. of South Dakota.*

10:00 ZZ2 **728.03** Disruptions to adolescent cortical dopamine activity promote seeking of amphetamine-associated cues in adulthood. S. ENGEL*; R. T. PAULSEN; M. A. WEBER; M. J. GERLACH; A. D. KOCH; G. L. FORSTER; M. J. WATT. *Univ. of South Dakota.*

11:00 ZZ3 **728.04** Multiple stressors during adolescence induce long-lasting changes in dopamine system responsivity resembling schizophrenia. F. V. GOMES*; A. A. GRACE. *Univ. of Pittsburgh.*

8:00 ZZ4 **728.05** Adolescent anhedonia provoked by adverse neonatal experience is abrogated by knockdown of amygdala corticotropin-releasing hormone. J. L. BOLTON*; J. MOLET; L. REGEV; Y. CHEN; D. Z. YANG; T. Z. BARAM. *Univ. of California-Irvine.*

9:00 ZZ5 **728.06** ▲ The impact of environmental enrichment in a rat model of adolescent ptsd. E. WALSH*; A. GARRISON; C. UKPABY; T. KOELTZOW. *Bradley Univ., Bradley Univ.*

10:00 ZZ6 **728.07** Repeated stress impairs prefrontal cortical regulation of the amygdala in rats. J. ROSENKRANZ*; W. ZHANG. *The Chicago Med. School/ RFUMS.*

11:00 ZZ7 **728.08** Binge alcohol consumption during puberty causes altered DNA methylation in the brain of alcohol-naïve offspring. A. ASIMES*; A. R. TORCASO; Y. S. RAO; E. PINCETI; C. K. KIM; T. R. PAK. *Loyola Univ. Chicago Dept. of Cell and Mol. Physiol.*

8:00 ZZ8 **728.09** Binge alcohol exposure during puberty alters miRNAs and mRNAs involved in synaptic plasticity in the ventral hippocampus. Y. S. RAO*; C. K. KIM; A. ASIMES; A. TORCASO; C. B. DINGWALL; T. R. PAK. *Loyola Univ. Chicago Stritch Sch. of Med., Loyola Univ. Chicago.*

Wed. AM

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

9:00 ZZ9 **728.10** Food restriction alone, exercise alone or the two combined during adolescence rescue the behavioral deficits resulting from variant BDNF Val66Met polymorphism. Y. CHEN*; F. LEE; C. J. AOKI. *New York Univ., Weill Cornell Med. Col.*

10:00 ZZ10 **728.11** Juvenile stressor exposure and diet alters ghrelin sensitivity in adulthood. E. ALI*; P. KENT; A. FREITAS; A. AWADIA; M. ABU NADA; J. JAMES; A. ABIZAID; Z. MERALI. *Carleton Univ., Inst. of Mental Hlth. Res., Univ. of Ottawa.*

11:00 ZZ11 **728.12** Effects of juvenile stress exposure on adult behaviour and physiology in convict cichlid fish. B. HOPE*; K. FJELLNER; N. BATTY; P. HURD. *Univ. of Alberta, Univ. of Alberta.*

8:00 ZZ12 **728.13** ▲ Food restriction-evoked voluntary exercise increases the number of varicosities and average lengths of noradrenergic axons in the hippocampal hilus of adolescent female rats. A. EVANS*; A. AKAD; Y. CHEN; C. AOKI. *New York Univ.*

9:00 ZZ13 **728.14** Acute corticosterone treatment increases anxiety and dendritic elongation and arborization in the orbitofrontal cortex in mid-adolescent but not early-adolescent male rats. N. L. REMPEL-CLOWER*; T. EARNEST; M. YETTER. *Grinnell Col.*

10:00 ZZ14 **728.15** ▲ Divergent morphological effects of repeated social stress on rat prefrontal cortical pyramidal neurons in adolescent compared to adult male rats. E. GENG*. *Children's Hosp. of Philadelphia.*

11:00 AAA1 **728.16** TrkB stimulation blocks long-term behavioral consequences of adolescent corticosteroid exposure. E. T. BARFIELD*; K. J. GERBER; S. L. GOURLEY. *Emory Univ., Emory Univ., Emory Univ.*

8:00 AAA2 **728.17** Stress in early puberty produces impulsive quitters. L. F. GONZALEZ MARTINEZ*; J. D'AIGLE; S. LEE; H. J. LEE; Y. DELVILLE. *The Univ. of Texas At Austin.*

POSTER

729. Neurovascular and Metabolic Coupling: Normal Brain and Stroke

Theme F: Integrative Physiology and Behavior

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 AAA3 **729.01** Impact of arterial stiffness on cognitive and cerebrovascular functions. M. F. IULITA*; G. MUHIRE; D. VALLERAND; M. GRATUZE; F. R. PETRY; G. FERLAND; E. PLANEL; H. GIROUARD. *Univ. De Montreal, Univ. Laval.*

9:00 AAA4 **729.02** Is cerebral hemodynamic variability needed to maintain cognition? S. KESLACY*; G. ACOSTA; J. RAMIREZ; J. BENAVIDEZ; C. DY. *CSULA.*

10:00 AAA5 **729.03** ▲ Sex and intensity modulate cerebral hemodynamic symmetry during exercise. J. RAMIREZ*; J. BENAVIDEZ; G. ACOSTA; C. DY; S. KESLACY. *California State Univ. Los Angeles.*

11:00 AAA6 **729.04** Regional CNS differences in rapid oxygen and pH changes during neurovascular coupling determined using fast-cyclic voltammetry. P. S. HOSFORD*; J. MILLAR; J. WELLS; I. N. CHRISTIE; A. V. GOURINE. *Univ. College, London, Barts and The London Sch. of Med. and Dent.*

8:00 AAA7 **729.05** Coupling of spontaneous and sensory evoked hemodynamic signals to neural activity in the barrel cortex of awake mice. A. WINDER*; P. J. DREW. *Pennsylvania State Univ., Pennsylvania State Univ., Pennsylvania State Univ., Pennsylvania State Univ.*

9:00 AAA8 **729.06** Pericyte degeneration leads to neurovascular uncoupling. K. KISLER*; A. R. NELSON; S. V. REGE; A. RAMANATHAN; Y. WANG; A. AHUJA; D. LAZIC; P. S. TSAI; Z. ZHAO; Y. ZHOU; D. A. BOAS; S. SAKADŽIĆ; B. V. ZLOKOVIC. *Keck Sch. of Med. of the Univ. of Southern California, Univ. of Belgrade, UCSD, Third Military Med. Univ., Massachusetts Gen. Hosp. and Harvard Med. Sch.*

10:00 AAA9 **729.07** Serotonergic modulation of neurovascular coupling: Receptor and pathway specific effects. A. SPAIN; G. BREZZO; J. BERWICK; C. HOWARTH; C. J. MARTIN*. *The Univ. of Sheffield.*

11:00 AAA10 **729.08** Acute effects of systemic inflammation upon neurovascular coupling and neuroimaging signals. G. BREZZO*; J. SIMPSON; K. AMEEN-ALI; J. BERWICK; C. MARTIN. *Univ. of Sheffield, Univ. of Sheffield.*

8:00 AAA11 **729.09** Serotonergic and noradrenergic modulation of neurovascular coupling in awake behaving mice. Q. ZHANG*; D. A. ANDERSON; K. W. GHERES; A. T. WINDER; P. J. DREW. *The Pennsylvania State Univ., The Pennsylvania State Univ., The Pennsylvania State Univ., The Pennsylvania State Univ.*

9:00 AAA12 **729.10** Behavioral-state dependent inversion of neurovascular coupling in the somatosensory cortex of juvenile mice. K. W. GHERES*; C. J. ECHAGARRUGA; D. A. ANDERSON; P. J. DREW. *Pennsylvania State Univ. Univ. Park, Pennsylvania State Univ. Univ. Park, Pennsylvania State Univ. Univ. Park, Pennnsylvania State Univ. Univ. Park, Pennnsylvania State Univ. Hershey Med. Ctr.*

10:00 AAA13 **729.11** What is an arteriole? M. R. HAMMOND-HALEY*; D. AMIN; F. M. O'FARRELL; D. ATTWELL; C. HALL. *BSMS, UCL, Univ. of Sussex.*

11:00 AAA14 **729.12** Acid-sensing ion channel-1A regulates CO_2-induced vasodilation. R. J. TAUGHER*; C. M. LYNCH; S. C. GUPTA; R. FAN; F. M. FARACI; J. A. WEMMIE. *Univ. of Iowa, Univ. of Iowa.*

8:00 AAA15 **729.13** Time-resolved measurements of human cerebral oxygen metabolism using magnetic resonance imaging. D. RESS*; J. KIM. *Baylor Col. of Med.*

9:00 AAA16 **729.14** Obligatory role of EP-1 receptors in the increases in cerebral blood flow produced by hypercapnia in the mouse brain microcirculation. K. UEKAWA*; P. ZHOU; N. BRUNIER; Y. HATTORI; C. IADECOLA; L. PARK. *Weill Cornell Med. Col.*

10:00 AAA17 **729.15** Imaging of cerebral blood flow in rodent models with SPECT, MRI and autoradiography. J. RYTKÖNEN; K. LEHTIMÄKI; A. SHATILLO; L. TOLPPANEN; T. T. AHTONIEMI*; A. NURMI; T. HUHTALA. *Charles River Discovery.*

11:00 AAA18 **729.16** Ethanolic extracts from *Morus alba L.* fruit induce vasorelaxation of the rat aortic smooth muscle. H. LEE; S. PARK; Y. BAE; J. KIM*; S. YOON; S. HAHN; H. CHAE; S. CHAE; B. CHOI. *Inst. for Med. Sci., Konkuk Univ. Sch. of Med., Augusta Univ., Col. of Medicine, The Catholic Univ. of Korea.*

8:00 AAA19 **729.17** Probing the link between indolent aneurysmal dome infections and brain aneurysm growth and rupture. J. KELLY*; T. ST.AMAND; J. KROL; G. D. EHRLICH; D. J. COOK. *Queen's Univ., Drexel Univ.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

9:00 AAA20 **729.18** Effect of stilbenoid polyphenols on aberrant cerebral artery morphology and mechanics in the spontaneously hypertensive heart-failure (SHHF) rat. C. ACOSTA*; H. ANDERSON; D. LEE; C. ANDERSON. *St. Boniface Hosp. Albrechtsen Res. Ctr., Univ. of Manitoba, Univ. of Manitoba, Kleysen Inst. for Advanced Med.*

10:00 AAA21 **729.19** ● Individual patterns of cognitive impairment after transient ischemic attack. L. E. SIMMATIS*; S. H. SCOTT; A. Y. JIN. *Queen's Univ., Queen's Univ.*

11:00 AAA22 **729.20** White matter hyperintensities in neurologically intact aging individuals impact arm function. A. M. AURIAT; J. K. FERRIS; S. E. BLACK; L. A. BOYD*. *Univ. of British Columbia, Sunnybrook, Univ. British Columbia.*

8:00 AAA23 **729.21** 20-HETE inhibition protects against intracerebral hemorrhage injury. X. HAN*; X. ZHAO; X. LAN; Y. GAO; Z. YANG; J. FALCK; R. KOEHLER; F. GUAN; J. WANG. *Johns Hopkins Hosp., Univ. of Texas Southwestern Med. Ctr., Zhengzhou Univ.*

9:00 AAA24 **729.22** ● Controlling oxidative stress promotes functional recovery after TBI. R. VEMUGANTI*; S. MEHTA; T. KIM; R. CHANDRAN; E. UDHO; P. CENGIZ; R. DEMPSEY. *Univ. of Wisconsin, Univ. of Wisconsin.*

10:00 AAA25 **729.23** HO-1 inhibition delay hematoma cleanup after intracerebral hemorrhage. L. ZHANG; X. ZHAO; G. SUN; J. ARONOWSKI*. *Beijing Friendship Hospital, Capital Med. Univ., Univ. Texas HSC - Houston.*

11:00 AAA26 **729.24** Clinacanthus nutans ameliorated neuronal apoptosis and ischemic brain injury by downregulating HDAC1/6. J. WU*; H. TSAI; M. KAO; W. CHEUNG; T. LIN. *Neurosci. Division, IBMS Academia Sinica.*

8:00 BBB1 **729.25** Multiple presentations with plausible CADASIL diagnosis. F. P. MELENDEZ*; D. CASADESUS; E. MALA; K. SHILLINGFORD; C. A. VILLANIA; W. ZELEZNAK. *Ross Univ. Sch. of Med., Jackson Hlth. Syst.*

9:00 BBB2 **729.26** ● Heparan sulfate targets at $VEGF_{165}$ bioactivity enhances vascular angiogenesis: Potential vascular therapy for stroke. S. CHAN*; K. HAYAKAWA; A. SMITH; V. NURCOMBE; E. LO. *Massachusetts Gen. Hosp., Inst. of Med. Biology, Agency for Science, Technol. and Res. (A*STAR).*

10:00 BBB3 **729.27** Voltage-gated potassium channels are implicated in zinc-mediated retinal ganglion cell death following optic nerve injury. R. M. SAND*; Y. LI; L. I. BENOWITZ; P. A. ROSENBERG. *Boston Children's Hosp., Boston Children's Hosp., Boston Children's Hosp.*

11:00 BBB4 **729.28** A large fraction of glutamate release in the ischemic penumbra is mediated by redox-dependent changes in membrane permeability. A. A. MONGIN*; P. DOHARE; N. H. BOWENS; A. VIPANI; V. R. YADAV; Y. WANG; P. J. FEUSTEL; R. W. KELLER, Jr. *Albany Med. Col., New York Med. Col., Albany Med. Col.*

POSTER

730. Effects of Diet on Brain And Behavior

Theme F: Integrative Physiology and Behavior

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 BBB5 **730.01** Cytoplasmic FMR1-interacting protein 2 (Cyfip2) is a major genetic factor underlying binge eating. C. D. BRYANT*; S. L. KIRKPATRICK; L. R. GOLDBERG; N. YAZDANI; K. I. LANDAVERDE; R. K. BABBS; J. WU; D. F. JENKINS; E. R. REED; A. BOLGIONI; K. P. LUTTIK; V. KUMAR; W. E. JOHNSON; M. K. MULLIGAN; P. COTTONE. *Boston Univ. Sch. of Med., Boston Univ. Sch. of Med., Boston Univ. Sch. of Med., The Jackson Lab., Univ. of Tennessee Hlth. Sci. Ctr.*

9:00 BBB6 **730.02** Effects of diet and obesity on anxiety-like behaviors in obesity-prone and obesity-resistant rats. P. J. VOLLBRECHT*; Y. ALONSO-CARABALLO; A. M. CHADDERDON; A. L. MATTHEWS; E. M. JUTKIEWICZ; C. R. FERRARIO. *Hope Col., Univ. of Michigan.*

10:00 BBB7 **730.03** Effects of perinatal bisphenol A and high fat diet on adult anxiety and social behavior. L. M. WISE*; S. M. BOAS; J. M. JURASKA. *Univ. of Illinois.*

11:00 BBB8 **730.04** Long-term behavioral effects of perinatal exposure to phthalates and maternal high-fat diet in male and female rats. J. WILLING*; D. G. KOUGIAS; L. R. CORTES; C. M. DRZEWIECKI; K. E. WEHRHEIM; J. M. JURASKA, 61820. *Univ. of Illinois, Univ. of Illinois.*

8:00 BBB9 **730.05** Perinatal exposure to phthalates and a high-fat diet affects maternal behavior, indices of pup development, and periadolescent behavior. D. G. KOUGIAS*; L. R. CORTES; S. G. RHOADS; J. M. JURASKA. *Univ. of Illinois at Urbana-Champaign, Univ. of Illinois at Urbana-Champaign, Univ. of Illinois at Urbana-Champaign.*

9:00 BBB10 **730.06** ● Effects of high fat diet on body co mposition, food and caloric intake, behavioral and thermoregulatory responses of ovariectomized female Wistar rats following estrogen replacement. A. R. ABREU*; I. F. CALIMAN; C. S. BERNABE; R. C. A. DE MENEZES; A. SHEKHAR; P. L. JOHNSON. *UFOP, Indiana Univ. Sch. of Med., Federal Univ. of Espirito Santo, Indiana Univ. Sch. of Med., Indiana Univ. Sch. of Med., Indiana Univ. Sch. of Med., Indiana Univ. Sch. of Med.*

10:00 BBB11 **730.07** ● Modulation of acute stress-induced anorexia by fatty acid amide hydrolase inhibition in rats. M. A. STICHT*; K. A. SHARKEY; M. N. HILL. *Univ. of Calgary, Univ. of Calgary.*

11:00 BBB12 **730.08** Should we turn off the lights? The modulation of light-cue value in the augmentation of heroin seeking in chronically food restricted rats. F. SEDKI*; L. MAYERS; D. RIZZO; S. TRIEU CHAO; J. COHEN; T. D'CUNHA; U. SHALEV. *Concordia Univ., Concordia Univ.*

8:00 BBB13 **730.09** The role of the paraventricular nucleus of the thalamus in the augmentation of heroin seeking by chronic food restriction. A. CHISHOLM*; J. IANNUZZI; U. SHALEV. *Concordia Univ.*

9:00 BBB14 **730.10** The role of glutamate neurotransmission in the augmentation of heroin seeking induced by chronic food restriction. T. M. D'CUNHA*; M. RUSSO; S. LE NOBLE; A. USYPCHUK; J. IANNUZZI; F. SEDKI; U. SHALEV. *Concordia Univ.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

10:00 BBB15 **730.11** Changes in the AMPA/NMDA ratio in neurons of the nucleus accumbens shell associated with chronic food restriction and with withdrawal from heroin self-administration. U. SHALEV*; I. GLOVACI; T. D'CUNHA; A. CHAPMAN. *Concordia Univ.*

11:00 BBB16 **730.12** Individual differences in the microbiome of rats resilient or vulnerable to the effects of chronic social defeat stress. J. PEARSON-LEARY*; K. BITTINGER, 19128; C. TANES, 19128; S. BHATNAGAR. *Children's Hosp. of Philadelphia, Perelman Sch. of Medicine, Univ. of Pennsylvania, Children's Hosp. of Philadelphia.*

8:00 BBB17 **730.13** ●▲ Caesarean delivery induces enduring behavioural and physiological effects in mice: Reversal by selective targeting of the microbiota-gut-brain axis. L. H. MORAIS*; A. MOYA-PEREZ; A. VENTURA-SILVA; G. CLARKE; K. REA; I. RENES; J. KNOL; S. WANG; C. STANTON; T. DINAN; J. F. CRYAN. *Univ. Col. Cork, Univ. Col. Cork, Danone Nutricia Res., Danone Nutricia Res., Univ. Col. Cork, Univ. Col. Cork.*

9:00 BBB18 **730.14** Gender differences in adolescent probiotic influence on anxiety. L. L. DRISCOLL*; T. TUMMINO; W. HARRIS; S. COOKE; R. LACH. *Colorado Col., Colorado Col.*

10:00 BBB19 **730.15** Anorexia increases sensitivity to cocaine-induced locomotion: Evidence for dysregulation of dopamine transporters. C. M. GEORGE*; W. A. OWENS; C. P. FRANCE; G. M. TONEY; L. C. DAWS. *Univ. Hlth. Sci. Ctr. At San Antonio, Univ. Hlth. Sci. Ctr. At San Antonio, Univ. Hlth. Sci. Ctr. At San Antonio.*

11:00 BBB20 **730.16** Antidepressant-like effects of ketamine in serotonin transporter mutant mice and organic cation transporter 3 knockout mice. M. A. BOWMAN*; W. KOEK; L. C. DAWS. *Univ. of Texas Hlth. Sci. Ctr. San Anto, Univ. of Texas Hlth. Sci. Ctr. San Anto, Univ. of Texas Hlth. Sci. Ctr. San Anto.*

POSTER

731. Monoamines, Amino Acids, and Other Regulators of Energy Balance

Theme F: Integrative Physiology and Behavior

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 BBB21 **731.01** ▲ Dopamine modulation of sleep and feeding in *Drosophila*. A. PAVIN*; M. DRISCOLL; D. SITARAMAN. *Univ. of San Diego.*

9:00 BBB22 **731.02** Feeding regulates sphingolipid-mediated signaling in mouse hypothalamus. V. VOZELLA*; N. REALINI; A. MISTO; D. PIOMELLI. *Fondazione Inst. Italiano Di Tecnologia, Univ. of California.*

10:00 BBB23 **731.03** Effect of resveratrol on food intake, lipid oxidation, GABA levels in rats hypercaloric diets fed. C. SANDOVAL SALAZAR*; L. MOSQUEDA-VERA; V. BELTRÁN-CAMPOS; M. SOLÍS-ORTIZ; J. RAMIREZ-EMILIANO. *Univ. De Guanajuato, Univ. de Guanajuato, Univ. de Guanajuato.*

11:00 BBB24 **731.04** Chrono-nutrition effect of theanine intake on the learning memory and anxiety in mice. A. MUTO*; T. SAKAI; Y. TAHARA; Y. KIKUCHI; T. SHIRAISHI; M. YAMASAKI; H. MOTOHASHI; S. SHIBATA. *Waseda Univ.*

8:00 BBB25 **731.05** The dopamine D4 receptor antagonist L-745,870 suppresses food intake and food-reinforced behavior. R. CRUZ-TRUJILLO; L. UBERLA-JIMENEZ; J. MANCILLA-DIAZ; V. LOPEZ ALONSO; A. GUTIÉRREZ-HERNÁNDEZ; R. ESCARTIN-PEREZ*. *UNAM, FES Iztacala, Inst. Politécnico Nacional.*

9:00 BBB26 **731.06** Electrical stimulation of the ventral noradrenergic bundle results in frequency dependent norepinephrine release in the paraventricular nucleus of the hypothalamus. A. I. GERTH*; M. F. ROITMAN. *Univ. of Illinois At Chicago Dept of Psych.*

10:00 CCC1 **731.07** ▲ A dopaminergic circuitry critical for homeostatic protein intake in *Drosophila*. L. CHIU*; Q. LIU; S. LIU; L. KODAMA; W. HORIUCHI; J. DANIELS; D. BALDONI; M. N. WU. *Johns Hopkins Univ.*

11:00 CCC2 **731.08** ▲ Characterizing motivational and dopaminergic changes resulting from distinct behavioral histories of sucrose access. N. ELTOM*; K. J. PULTORAK; D. GOMEZ; E. OLESON. *CU Denver.*

8:00 CCC3 **731.09** ● Aromatic amino acid metabolites generated by the intestinal microbiome are present in human cerebrospinal fluid. G. E. JASKIW*; M. E. OBRENOVICH; Z. RENLIANG; C. J. DONSKEY. *Louis Stokes Cleveland DVAMC, Louis Stokes Cleveland DVAMC, Lerner Res. Inst. at Cleveland Clin., Louis Stokes Cleveland DVAMC.*

9:00 CCC4 **731.10** Peptide hormone A has a role in the hypothalamic control of appetite. Y. JANG*; J. HAN; S. KIM; J. KIM; M. LEE; I. RYU; M. RYU; J. HEO; G. KWEON. *Chungnam Natl. Univ. Sch. of Med., Chungnam Natl. Univ. Sch. of Med., Chungnam Natl. Univ. Sch. of Med., Chungnam Natl. Univ. Sch. of Med.*

10:00 CCC5 **731.11** The diverse roles and organisation of lateral hypothalamic inhibitory neurons. C. KOSSE*; D. BURDAKOV. *The Francis Crick Inst., Univ. Col. London, King's Col.*

11:00 CCC6 **731.12** Palatable diet cycling alters sensitivity to D-amphetamine. C. F. MOORE*; V. SABINO; P. COTTONE. *Boston Univ.*

8:00 CCC7 **731.13** Fluoxetine administration during adolescence decreases chow intake via meal size but does not alter meal patterns later in life. Y. TREESUKOSOL*; S. D. IÑIGUEZ; T. H. MORAN. *California State Univ. Long Beach, Johns Hopkins Univ. Sch. of Med., Univ. of Texas El Paso, Johns Hopkins Univ.*

9:00 CCC8 **731.14** Clusterin, a proposed biomarker of food addiction, is upregulated in the Nucleus Accumbens of undernourished rats. C. RODRÍGUEZ-RIVERA; C. GONZÁLEZ-MARTÍN; E. LIZÁRRAGA-MOLLINEDO; E. FERNÁNDEZ-MILLÁN; C. ÁLVAREZ; F. ESCRIVÁ; L. F. ALGUACIL*. *Univ. CEU San Pablo, Ciber de Diabetes y Enfermedades Metabólicas Asociadas (CIBERDEM, ISCIII), Univ. Complutense.*

10:00 CCC9 **731.15** Emesis induced by L-type Ca^{2+} channel agonist FPL64176 in the least shrew (*Cryptotis parva*) is sensitive to Ca^{2+} channel inhibitors and is mediated by 5-HT_3Rs and NK_1Rs. W. ZHONG; S. CHEBOLU; N. A. DARMANI*. *Coll Osteo. Med. Pacific, Western Univ. Hlth. Sci., Coll Osteo. Med. Pacific, Western Univ. Hlth. Sci.*

11:00 CCC10 **731.16** Muscarinic, nicotinic and GABAergic receptor signaling differentially mediate fat-conditioned flavor preferences in rats. F. M. ROTELLA*; K. OLSSON; N. MARTINEZ; A. MORDO; I. KOHEN; A. AMINOV; J. PAGIRSKY; A. YU; V. VIG; R. J. BODNAR. *Queens Col. Dept. of Psychology.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

8:00 CCC11 **731.17** ● Evidence for Trace Amine-Associated Receptor 1 (TAAR1) as a novel target for compulsive binge-eating. A. D. HOWELL; A. FERRAGUD; M. C. HOENER; V. SABINO; P. COTTONE*. *Boston Univ. Sch. of Med.. Hoffmann-La Roche Ltd.*

9:00 CCC13 **731.19** Chronic high fructose corn syrup induces metabolic disorder and impaired dopamine function in the absence of obesity. A. MEYERS*; D. MOURRA; J. BEELER. *Queens Col.*

10:00 CCC12 **731.18** High dietary sugar and fat consumption are associated with microbiota dysbiosis and altered vagal gut brain communication. T. SEN*; B. T. IHDE; C. R. CAWTHON; A. HAJNALD; P. M. DILORENZOB; C. B. D. L. SERRE; K. CZAJA. *Col. of Vet. Med. @ UGA, Univ. of Georgia, Univ. of Georgia, The Pennsylvania State University, Col. of Med., Binghamton Univ.*

11:00 CCC14 **731.20** Diet-related differences in meal-induced synapsin-1 phosphorylation in the dorsal vagal complex. J. S. NASSE*; R. C. RITTER. *Washington State Univ.*

8:00 CCC15 **731.21** Feeding and GLP-1 receptor activation stabilize β-catenin in specific hypothalamic nuclei in male rats. D. R. GRATTAN*; H. MCEWEN; S. LADYMAN; P. SHEPHERD. *Univ. of Otago, Univ. of Auckland.*

9:00 CCC16 **731.22** Hedonic food overrides the efficacy of leptin effects on orexin neurons. E. LEIDMAA*; M. GAZEA; A. PISSIOTI; I. KALLO; B. LASZLO; Z. LIPOSITS; N. GASSEN; M. A. PHILIPS; A. PATCHEV; O. F. X. ALMEIDA. *Max Planck Inst. of Psychiatry, Grad. Sch. of Systemic Neurosciences- Ludwig-Maximilians-Universität, Lab. of Endocrine Neurobiology, Inst. of Exptl. Medicine, Hungarian Acad. of Sci., Dept. of Physiology, Inst. of Biomedicine and Translational Medicine, Univ. of Tartu.*

10:00 CCC17 **731.23** Ghrelin changes food preference from high fat diet to chow in schedule-fed rats. S. L. DICKSON*; E. SCHÉLE; T. BAKE. *The Sahlgrenska Academy, Univ. of Gothenburg.*

11:00 CCC18 **731.24** Sleep restriction (4 h of sleep) impairs behaviorally-measured motivation to sham consume (sip and spit) a sweet-tasting beverage in healthy women. H. R. KISSILEFF*; M. ST. ONGE; A. SHECHTER; P. S. HOGENKAMP; A. SCLAFANI. *Columbia Univ. Med. Ctr., Uppsala Univ., Brooklyn Col. of CUNY.*

8:00 CCC19 **731.25** Ire1α in Pomc neurons is required for thermogenesis and glycemia. J. SUN*; T. YAO; Y. GAO; Z. DENG; R. J. KAUFMAN; T. LIU; K. K. WILLIAMS. *Univ. of Texas Southwestern Med. Ctr., Zhujiang hospital, Southern Med. Univ., Xi'an Jiaotong Univ. Sch. of Med., Inst. of Basic Med. Sciences,Chinese Acad. of Med. Sci. and Peking Union Med. Col., the First Affiliated Hospital, Med. Sch. of Xi'an Jiaotong Univ., Sanford Burnham Prebys Med. Discovery Inst.*

9:00 CCC20 **731.26** Preoptic leptin function in energy homeostasis. S. YU*; H. CHENG; Y. HE; Y. XU; Y. JIANG; H. GAO; A. ZSOMBOK; A. V. DERBENEV; H. MÜNZBERG, 70808. *Pennington Biomed. Res. Ctr. (PBRC), Baylor Col. of Med., Tulane Univ. Sch. of Med., Pennington Biomed. Res. Ctr. (PBRC).*

POSTER

732. Neurocircuitry of Emotion: Amygdala and Ventral Hippocampus

Theme G: Motivation and Emotion

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 CCC21 **732.01** Exploring mechanisms for empathy-like behavior in rats. M. CONTRERAS*; K. G. CRUZ; J. CUMMINGS; A. HATFIELD; J. FELLOUS. *Univ. of Arizona.*

9:00 CCC22 **732.02** Unpredictable chronic mild stress (UCMS) causes brain volumetric changes and network reorganization in a mouse model of depression. Y. S. NIKOLOVA*; K. A. MISQUITTA; J. ELLEGOOD; J. LERCH; M. BANASR; E. SIBILLE. *Ctr. for Addiction and Mental Hlth., Ctr. for Addiction and Mental Hlth., SickKids Hosp., Univ. of Toronto.*

10:00 CCC23 **732.03** Ventral hippocampus exerts a dynamic inhibitory influence on the behavioral and physiological responses to stress via the anterior hypothalamic nucleus. J. BANG*; J. KIM. *Univ. of Toronto, Univ. of Toronto.*

11:00 CCC24 **732.04** ▲ Chronic stress alters fear behavior in a neuromodulator-dependent manner. M. HUI*; M. ZELIKOWSKY; B. YANG; D. J. ANDERSON. *Caltech.*

8:00 CCC25 **732.05** Chronic administration of glucocorticoid receptor ligands increases anxiety-like behavior and selectively increases serotonin transporters in the ventral hippocampus. G. L. FORSTER*; R. SOLANKI; J. SCHOLL; M. WATT. *Univ. South Dakota.*

9:00 CCC26 **732.06** ▲ Differential effects of increased serotonin in the central vs. basal amygdala on anxiety-like behavior. J. O. STERNBURG*; A. AFZAL; J. SCHOLL; G. FORSTER. *Univ. of South Dakota, Loyola Univ.*

10:00 DDD1 **732.07** Pharmacological inhibition of basolateral amygdala produces affective behavioral disruption of threat processing in rhesus macaques. C. ELORETTE*; P. A. FORCELLI; L. MALKOVA. *Georgetown Univ.*

11:00 DDD2 **732.08** Novel subdivisions of the mouse anterior basolateral amygdalar nucleus (BLAa). H. HINTIRYAN*; N. N. FOSTER; L. GOU; M. S. BIENKOWSKI; M. Y. SONG; M. ZHU; I. BOWMAN; S. YAMASHITA; A. W. TOGA; H. DONG. *Univ. of Southern California (USC).*

8:00 DDD3 **732.09** Entorhinal afferents drive feedforward inhibition in basolateral amygdala via distinct interneuronal populations. E. M. GUTHMAN*; D. RESTREPO; M. M. HUNTSMAN. *Univ. of Colorado | Anschutz Med. Campus, Univ. of Colorado | Anschutz Med. Campus.*

9:00 DDD4 **732.10** Anatomy and physiology of the central extended amygdala. Y. SUN*; S. HUNT; L. XU; P. SAH. *The Univ. of Queensland.*

10:00 DDD5 **732.11** Role of the ventral hippocampal projections to the lateral septum in fear and anxiety. G. M. PARFITT*; J. BANG; R. NGUYEN; A. AQRABAWI; J. KIM. *Univ. of Toronto.*

11:00 DDD6 **732.12** Maternal circuits that respond to mouse pup vocalizations: D2 dopamine and oxytocin receptors. J. S. YEOMANS*; B. J. PEREIRA. *Univ. Toronto, Univ. Toronto.*

8:00 DDD7 **732.13** Use awake rat fMRI to visualise fear memory and weakened fear memory representations in the brain. A. KOLESNYK; A. P. HARRIS; M. C. HOLMES; S. WANG*. *Univ. of Edinburgh, Univ. of Edinburgh, Univ. of Edinburgh, Univ. of Edinburgh, Univ. of Edinburgh.*

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9:00 DDD8 **732.14** Dissecting the role of extended amygdala input to the locus coeruleus in motivated behaviors. D. L. BHATTI*; M. R. BRUCHAS. *Washington Univ. in St. Louis, Washington Univ., Washington Univ. in St. Louis.*

8:00 DP09 **732.15** (Dynamic Poster) Functional mapping of central amygdala feeding and reward circuits. H. KUCUKDERELI*; A. M. DOUGLASS; M. PONSERRE; J. GRÜNDEMANN; M. MARKOVIC; P. L. ALCALA MORALES; C. STROBEL; A. LÜTHI; R. KLEIN. *Max Planck Inst. For Neurobio., Ludwig-Maximilians-University(LMU), Intl. Max Planck Res. Sch. for Mol. and Cell. Life Sci. (IMPRS-LS), Friedrich Miescher Inst.*

11:00 DDD9 **732.16** The role of amygdala-striatal circuitry in exploration. P. BOTTA*; M. ANGELHUBER; M. VICENTE, 1400-038; R. COSTA. *Champalimaud Fndn., Bernstein Ctr. Freiburg, Champalimaud Fndn.*

8:00 DDD10 **732.17** To pee or not to pee: Defining a limbic circuit from nose to bladder. J. A. KELLER*; L. STOWERS. *UC San Diego, The Scripps Res. Inst. / UC San Diego.*

POSTER

733. Emotion: Information Processing

Theme G: Motivation and Emotion

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 DDD11 **733.01** Do women exhibit greater emotional context effect on eye movements inhibition control? A. ABUNDIS; R. V. HUERTA; J. RAMOS-LOYO*; E. MATUTE. *Univ. de Guadalajara, Univ. de Guadalajara, Univ. de Guadalajara.*

9:00 DDD12 **733.02** Monkey face-selective regions differ in their ability to classify facial expressions. M. FLESSERT*; H. ZHANG; L. G. UNGERLEIDER. *Lab. of Brain and Cognition, NIMH/NIH/DHHS.*

10:00 DDD13 **733.03** Task congruence of disgust expression modulates brain activation and connectivity in cognitive control regions during face judgment. E. NG*; Y. WANG; J. POH; J. DE SOUZA; J. LIM; Y. HAN; C. CHEN; J. ZHOU. *Duke-NUS Med. Sch., Clin. Imaging Res. Center, A*STAR-National Univ. of Singapore.*

11:00 DDD14 **733.04** Studying the function and connectivity of habenular networks in zebrafish brain. E. YAKSI*; E. BARTOSZEK; S. KUMAR JETTI; S. FORE. *Norwegian Univ. of Sci. and Technol., Norwegian Univ. of Sci. and Technol., MIT.*

8:00 EEE1 **733.05** Time course of emotional processing: A support vector machine classification study. K. BO*; A. TROGNETRPUNVA; Y. LIU; A. KEIL; M. DING. *Univ. of Florida, Univ. of California, Davis, Univ. of Florida.*

9:00 EEE2 **733.06** ● Neural ensemble dynamics underlying a long-term associative memory. B. F. GREWE*; J. GRÜNDEMANN; J. D. MARSHALL; J. LECOQ; L. J. KITCH; J. LI; F. GRENIER; A. LÜTHI; M. J. SCHNITZER. *ETH Zurich, Friedrich Miescher Inst., Stanford Univ., Allen Brain Inst.*

10:00 EEE3 **733.07** Amygdala preferentially projects to face selective areas in the monkey. A. MESSINGER*; J. M. SEIDLITZ; C. SPONHEIM; R. B. H. TOOTELL; L. G. UNGERLEIDER. *NIMH, Univ. of Cambridge, Massachusetts Gen. Hosp.*

11:00 EEE4 **733.08** Effect of contextual word picture pairing on psychophysiological response. M. ASTHANA*; B. BHUSHAN. *Indian Inst. of Technol. Kanpur.*

8:00 EEE5 **733.09** Prepulse inhibition of a fear conditioned startle probe. E. BJØRKEDAL*; O. ÅSLI. *Univ. of Tromsø, UiT Arctic Univ. of Norway.*

9:00 EEE6 **733.10** Impacts of motivational, associated, and inherent emotional valence on face processing: Evidence from event-related brain potentials (ERPs). A. SCHACHT*; A. GRIMM; W. HAMMERSCHMIDT; R. JACOB; I. KAGAN. *Univ. of Goettingen, Leibniz-ScienceCampus Primate Cognition, German Primate Ctr.*

10:00 EEE7 **733.11** Frontal θ asymmetry and heart rate differentiate between emotional states in infants. E. BOLINGER*; D. HETTICH; K. ZINKE; V. KOCK; H. NGO; T. MATUZ; J. BORN; N. BIRBAUMER. *Univ. of Tübingen, Univ. of Tübingen, Wyss Ctr. of Bio and Neuroengineering.*

11:00 EEE8 **733.12** Using brain imaging techniques for validation of a biologically-inspired-cognitive-architecture model of human cognition. A. V. SAMSONOVICH*; V. L. USHAKOV. *George Mason Univ., Natl. Res. Nuclear Univ. MEPhI, Natl. Res. Ctr. Kurchatov Inst.*

8:00 EEE9 **733.13** ▲ Difference in emotion information processing between individuals with high or low degrees of alexithymia. K. GARCIA*; K. JOHNS; E. DUBON; S. KANG. *California State University, Northridge, California State University, Northridge.*

9:00 EEE10 **733.14** Seeing an angry face impairs learning the value of information in an uncertain world. P. PIRAY*; V. LY; K. ROELOFS; R. COOLS; I. TONI. *Donders Inst.*

10:00 EEE11 **733.15** ●▲P300 differences in emotion recognition between deaf signers and hearing non-signers. K. W. JOHNS*, JR; K. GARCIA; E. DUBON; S. KANG. *CSUN.*

11:00 EEE12 **733.16** Non-edited isoform of 5-HT_{2C} receptor affects NPY expression in the nucleus accumbens and behavioral despair in mice. M. TANAKA*; M. AOKI; A. TSUJIMURA; K. TAGUCHI; Y. WATANABE. *Kyoto Prefectural Univ. Med., Kyoto Prefectural Univ. Med., Kyoto Prefectural Univ. Med.*

8:00 EEE13 **733.17** Respiratory synchronized activations of olfactory processing in the limbic system. Y. MASAOKA*; M. YOSHIDA; N. KOIWA; K. WATANABE; A. YOSHIKAWA; M. IDA; I. HOMMA; M. IZUMIZAKI. *Showa Univ. Sch. of Med., Jikei Med. Univ., Univ. of Human Arts and Sci., Ebara Tokyo Hosp., Tokyo Ariake Univ. of Med. and Hlth. Sci.*

POSTER

734. Biomarkers for Animal Models of Depression

Theme G: Motivation and Emotion

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 EEE14 **734.01** Stress resilient rats show reciprocal changes in the expression of miRNAs associated with regulation of serotonin transporter level in mesocortical circuit. D. ZURAWEK*; M. KUSMIDER; A. FARON-GORECKA; M. KOLASA; J. SOLICH; P. PABIAN; P. GRUCA; M. DUBIEL; K. SZAFRAN-PILCH; M. PAPP; M. DZIEDZICKA-WASYLEWSKA. *Inst. of Pharmacol. PAS.*

9:00 FFF1 **734.02** Contrasting expression patterns of inflammation-related genes in mouse models of depression and psychosis. H. KOSHIMIZU*; H. HAGIHARA; T. MIYAKAWA. *ICMS, Fujita Hlth. Univ.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
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* Indicates abstract's submitting author

10:00 FFF2 **734.03** ● Role of dendritic-targeting bdnf transcripts on depression- and stress-associated phenotype. H. OH*; D. LEWIS; S. WATKINS; S. PIANTADOSI; E. SIBILLE. *CAMH, Univ. of Pittsburgh, Univ. of Pittsburgh.*

11:00 FFF3 **734.04** Dynamic molecular changes over the course of chronic stress exposure in mice and correlation with behavioral phenotype. T. D. PREVOT*; K. MISQUITTA; H. OH; E. SIBILLE; M. BANASR. *CAMH.*

8:00 FFF4 **734.05** Behavioral and metabolic characterization in subchronic social defeat model of mice. A. TOYODA*; T. GOTO; H. OTABI; S. TOMONAGA; D. KOHARI; T. OKAYAMA. *Ibaraki Univ., Tokyo Univ. of Agr. and Technol., Kyoto Univ.*

9:00 FFF5 **734.06** ▲ Electroencephalographic biomarkers for vulnerability to depression in the rat. D. CLAVERIE*; C. BECKER; A. GHESTEM; M. COUTAN; F. CAMUS; C. BERNARD; J. BENOLIEL; F. CANINI. *IRBA, Sorbonne Universités, UPMC Univ. Paris 06, UMCR18, Neurosciences Paris-Seine, site Pitié-Salpêtrière, INSERM, U 1130, CNRS, UMR 8246, Univ. Paris Descartes, Sorbonne Paris Cité, Faculté de Médecine, Univ. Aix Marseille, INS, Inserm, UMR_S 1106, Dept. Neurosciences & Contraintes Opérationnelles, Inst. de Recherche Biomédicale des Armées (IRBA), Service de Biochimie Endocrinienne et Oncologique, Hôpital de la Pitié-Salpêtrière, Ecole du Val de Grâce.*

10:00 FFF6 **734.07** Unpredictable chronic mild stress induces correlated depressive-like behavioral and MRI brain volume changes in mice. K. A. MISQUITTA*; Y. S. NIKOLOVA; B. ROCCO; J. ELLEGOOD; J. LERCH; M. BANASR; E. SIBILLE. *Ctr. for Addiction and Mental Hlth., Univ. of Toronoto, The Hosp. for Sick Children, Univ. of Toronoto.*

11:00 FFF7 **734.08** ● Differential gene expression in blood cells and brain regions of resilient and vulnerable animals after acute, uncontrollable and severe stress. X. YAO; J. SHOBLOCK; G. CHEN*. *Janssen R & D, Janssen R&D, LLC, Janssen Pharm. Comp. of JNJ.*

8:00 FFF8 **734.09** Search for plasma biomarkers of depression by metabolome analysis in an animal model and clinical samples. Y. KAGEYAMA*. *Osaka City Univ.*

9:00 FFF9 **734.10** ● Riluzole prevents the onset of anxiety-, anhedonia-, and helplessness-like deficits in two rodent models of stress-related illness. C. J. FEE*; E. SIBILLE; R. M. BERMAN; V. CORIC; G. SANACORA; M. BANASR. *Ctr. For Addiction and Mental Hlth., Univ. of Toronto, Univ. of Toronto, BioHaven Pharmaceuticals, Yale Univ. Sch. of Med.*

10:00 FFF10 **734.11** Pre-existing differences in white matter diffusivity correlate with behavioral response to acute social defeat in mice. Y. GROSSMAN*; D. DUMITRIU. *Icahn Sch. of Med. At Mount Sinai, Icahn Sch. of Med. at Mount Sinai.*

11:00 FFF11 **734.12** Ancestral stress induces sexually dimorphic effects in depressive-like behaviours of aging rats. M. AMBESKOVIC*; O. BABENKO; E. A. FALKENBERG; Y. ILNYTSKYY; I. KOVALCHUK; G. A. S. METZ. *Univ. of Lethbridge, Univ. of Lethbridge.*

POSTER

735. Treatment and Drug Discovery: Depression

Theme G: Motivation and Emotion

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 FFF12 **735.01** P11, an essential cell-specific molecular determinant for stress-induced depression. J. SEO*; J. WEI; L. QIN; Z. YAN; P. GREENGARD. *The Rockefeller Univ., State Univ. of New York.*

9:00 FFF13 **735.02** Gene deficiency and pharmacological inhibition of soluble epoxide hydrolase confers resilience to repeated social defeat stress: Role of BDNF-TrkB signaling. Q. REN*; M. MA; T. ISHIMA; C. MORISSEAU; J. YANG; K. M. WAGNER; J. ZHANG; C. YANG; W. YAO; C. DONG; M. HAN; B. D. HAMMOCK; K. HASHIMOTO. *Chiba Univ. Ctr. Forensic Mental Hlth., Univ. of California Davis Comprehensive Cancer Ctr.*

10:00 FFF14 **735.03** Investigation of the oral microbiome for candidate markers of depression. C. R. LAPSLEY*; M. MCLAFFERTY; A. MCDOWELL; A. J. BJOURSON; S. M. O'NEILL; E. K. MURRAY. *Ulster Univ., Ulster Univ.*

11:00 FFF15 **735.04** ▲ Effects of repeated paroxetine and fluoxetine exposure on hippocampal BDNF functioning in adolescent rats. J. M. DHARGALKAR*; K. N. RUDBERG; A. SOLIS; Z. R. HARMONY; E. J. MACEDO; L. C. ROMERO; C. A. CRAWFORD. *California State Univ.*

8:00 FFF16 **735.05** The role of medial prefrontal corticosterone and dopamine in the antidepressant-like effect of exercise. S. NAKAGAWA*; C. CHEN; Y. KITAICHI; Y. AN; M. KOGA; I. KUSUMI. *Hokkaido Univ. Grad Sch. Med., Hokkaido Univ. Grad Sch. Med.*

9:00 FFF17 **735.06** 3,5,6,7,8,3′,4′-heptamethoxyflavone, a citrus flavonoid, ameliorates depression-like behavior and brain-derived neurotrophic factor expression. A. SAWAMOTO*; S. OKUYAMA; K. YAMAMOTO; Y. AMAKURA; M. YOSHIMURA; M. NAKAJIMA; Y. FURUKAWA. *Matsuyama Univ.*

10:00 FFF18 **735.07** Rapid antidepressant spine formation is influenced by $GABA_B$ receptor activation of mTORC1. C. F. HEANEY*; E. R. WORKMAN; E. K. ERICSSON; K. F. RAAB-GRAHAM. *Wake Forest Baptist Med. Hlth., Univ. of Texas at Austin.*

11:00 FFF19 **735.08** ● The antidepressant actions of tianeptine require the mu-opioid receptor. K. M. NAUTIYAL; B. A. SAMUELS; A. C. KRUEGEL; M. R. LEVINSTEIN; V. M. MAGLONG; M. M. GASSAWAY; M. A. ANSONOFF; J. E. PINTAR; B. L. KIEFFER; J. A. JAVITCH; D. SAMES; R. HEN*. *Columbia Univ. and NYSPI, Columbia Univ., Rutgers, The State Univ. of New Jersey-New Brunswick, Douglas Institute, McGill, Columbia Univ., NYSPI.*

8:00 FFF20 **735.09** Discovering common molecular signatures underlying antidepressant response. E. CARAZO*; C. ANACKER; B. A. SAMUELS; M. J. MEANEY; R. HEN. *Columbia Univ., Rutgers Univ., Douglas Mental Hlth. Univ. Institute, McGill Univ., Columbia Univ.*

9:00 FFF21 **735.10** Altered membrane protein clustering in peripheral lymphocytes in an animal model of depression parallels protein clustering observed in patients with depression: A translational approach. R. ROMAY-TALLON; E. Y. FENTON; M. A. MITCHELL; L. E. KALYNCHUK; H. J. CARUNCHO*. *Univ. of Saskatchewan, Ctr. for Drug Res. and Develop., Univ. of Saskatchewan, Univ. of Saskatchewan, Univ. of Saskatchewan.*

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* Indicates abstract's submitting author

10:00 FFF22 **735.11** ● *In vivo* pharmacological testing of novel, short-acting κ opioid receptor antagonists. S. PAGE; E. ROBERTS; H. ROSEN; D. PUTTICK; M. MAVRIKAKI; W. A. CARLEZON, Jr.; E. H. CHARTOFF*. *Harvard Med. Sch., The Scripps Res. Inst., Harvard Med. Sch. Dept. of Psychiatry.*

11:00 FFF23 **735.12** The function of P-glycoprotein after chronic treatment with antidepressant drugs in the mice. A. SHOHEI*; K. OSADA; T. HAGA; T. WATANABE; H. KOCHA. *St.Marianna Univ. of Med.*

8:00 FFF24 **735.13** Insights into the antidepressant mechanisms of (some) anesthetics and sedatives. T. P. RANTAMAKI*; N. MATSUI; S. KOHTALA; H. WIGREN; T. PORKKA-HEISKANEN; A. KLEIN; W. THEILMANN. *Univ. Helsinki, Tokushima Bunri Univ., Univ. of Helsinki, Univ. of Copenhagen.*

9:00 FFF25 **735.14** ● Human amygdala engagement moderated by early life stress exposure is a biobehavioral target for predicting recovery on antidepressants. A. N. GOLDSTEIN-PIEKARSKI*; M. S. KORGAONKAR; E. GREEN; T. SUPPES; A. F. SCHATZBERG; T. HASTIE; C. B. NEMEROFF; L. M. WILLIAMS. *Stanford Univ. Sch. of Med., Veterans Affairs Palo Alto Hlth. Care Syst., Univ. of Sydney Med. School-Westmead and The Westmead Inst. for Med. Res., Veterans Affairs Palo Alto Hlth. Care Syst., Stanford Univ., Univ. of Miami Miller Sch. of Med.*

10:00 FFF26 **735.15** Trip8 interaction with hcn regulates trafficking and antidepressant like behavior. Y. HAN*; R. HEUERMANN; K. LYMAN; D. FISHER; Q. ISMAIL; D. CHETKOVICH. *Northwestern Univ.*

11:00 GGG1 **735.16** ● Evaluation of scopolamine and muscarinic sub-type selective compounds in models of depression with greater translational value. J. SHOBLOCK*; W. A. ECKERT, III; W. CHEN; N. WELTY; G. CHEN. *Janssen Res. & Development, L.L.C.*

8:00 GGG2 **735.17** ▲ Effects of probiotic treatment (*Bifidobacterium Infantis*) in male and female rats exposed to chronic high levels of corticosterone. G. S. HAAS; S. M. MOONEY-LEBER; W. WANG; K. V. ZARIC; S. BRUMMELTE*. *Wayne State Univ.*

9:00 GGG3 **735.18** Hyperforin potentiates antidepressant-like activity of AZD 6765 in the tail suspension test in mice. B. POCHWAT; B. SZEWCZYK*; K. KOTARSKA; G. NOWAK. *Inst. of Pharmacol. PAS.*

10:00 GGG4 **735.19** Disinhibition of somatostatin-positive interneurons produces antidepressant-like consequences in mice. S. J. JEFFERSON*; T. FUCHS; A. HOOPER; P. YEE; J. MAGUIRE; B. LUSCHER. *The Pennsylvania State Univ., Tufts Univ. Sch. of Med.*

11:00 GGG5 **735.20** Specificity of the discriminative stimulus properties of the noncompetitive N-Methyl-D-aspartate (NMDA) receptor antagonist in C57BL/6 mice. J. H. PORTER*; S. E. CARLAN; S. E. YOUNG; T. J. BRAXTON; M. H. KHAN; H. NANGUNURI; H. NANGUNURI; R. PANDEY; C. W. KALINOWSKI; K. W. LOVELESS; D. SMITH; K. A. WEBSTER. *Virginia Commonwealth Univ.*

8:00 GGG6 **735.21** ● Estimation of response probabilities to 10 common antidepressants based on the geographic distribution of Single Nucleotide Polymorphisms (SNPs) associated with treatment responses. S. POSPOS; A. BASKYS*. *Riverside Psychiatric Med. Group.*

9:00 GGG7 **735.22** Bioenergetics of Fluoxetine: A functional proteomic study. F. FERRARI*; A. GORINI; R. F. VILLA. *Univ. of Pavia.*

10:00 GGG8 **735.23** Examining the influence of aerobic exercise and bilateral movement on frontal α asymmetry. R. A. HICKS*; W. E. MCILROY. *Univ. of Waterloo.*

11:00 GGG9 **735.24** Acute administration of a selective serotonergic reuptake inhibitor suppresses functional connectivity in the frontal-striatal circuit. H. T. HAMADA*; K. HIKISHIMA; N. TAKATA; Y. SAKAI; K. TANAKA; K. DOTA. *Okinawa Inst. of Sci. and Technol., Okinawa Inst. of Sci. and Technol., keio Univ., Kyoto Prefectural Univ. of Med.*

8:00 GGG10 **735.25** Reversal effects of the antidepressant desipramine on resistance of U251/TR cells to temozolomide. J. MA; Y. YANG; J. LIU; F. LI; M. CHEN; H. WANG; L. WANG; L. SUN; F. WANG; D. WANG; H. ZHANG*. *Inst. of Pharmacology, Taishan Med. Univ., Sch. of Life Science, Taishan Med. Univ., West Virginia Univ. Hlth. Sci. Ctr.*

9:00 GGG11 **735.26** The role of brain fatty acid binding protein on sucrose consumption and the forced swim test. J. HAMILTON*; B. CLAVIN; C. KOUMAS; S. HAJ-DAHMANE; D. DEUTSCH; M. KACZOCHA; P. K. THANOS. *SUNY Buffalo, Stony Brook Univ., Stony Brook Univ.*

POSTER

736. Treatment of Depression: Ketamine

Theme G: Motivation and Emotion

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 GGG12 **736.01** Hippocampal NR2B-containing NMDA receptors are critical for the antidepressant actions of ketamine. C. T. LAGAMMA*; J. C. MCGOWAN; S. C. LIM; D. SEO; M. R. DREW; R. A. BRACHMAN5; C. A. DENNY. *Barnard Col. of Columbia Univ., Columbia Univ., New York State Psychiatric Inst. (NYSPI) / Res. Fndn. for Mental Hygiene, Inc. (RFMH), Univ. of Texas at Austin, Columbia Univ. Med. Ctr., Dept. of Psychiatry, Columbia Univ.*

9:00 GGG13 **736.02** Longitudinal effects of ketamine on dendritic architecture *in vivo* in the mouse medial frontal cortex. A. C. KWAN*; V. PHOUMTHIPPHAVONG; F. BARTHAS; S. HASSETT. *Yale Sch. of Med.*

10:00 GGG14 **736.03** *In-vivo* characterization of effects of psychoactive compounds, with novel therapeutic profile for MDD (ketamine and VU0409106) in a rodent model of anhedonia. S. SAKTHIVEL*; J. GARNELL; J. GRANDJEAN; A. THOMPSON; S. SERAMANI; C. LINDSLEY; C. JONES; K. BHAKOO. *Singapore Bioimaging Consortium, A*Star, Vanderbilt Ctr. for Neurosci. Drug Discovery, Vanderbilt Univ.*

11:00 GGG15 **736.04** ● A role for JAK2 signaling in ketamine-induced mTOR activation in the orbitofrontal cortex. S. M. ADLER*; M. PATTON; D. MORILAK; M. GIROTTI. *Univ. of Texas Hlth. Hlth. Sci. Ctr. A.*

8:00 GGG16 **736.05** ● Phenotypic profiling of ketamine at different concentrations for its antidepressant signature. O. H. SCHROEDER*; K. JÜGELT; B. BADER. *NeuroProof GmbH.*

9:00 GGG17 **736.06** Prophylactic ketamine reduces fear expression but does not facilitate extinction. J. C. MCGOWAN*; S. C. LIM; M. TSITSIKLIS; Y. NERIA; R. A. BRACHMAN; C. A. DENNY. *Barnard Col. of Columbia Univ., Doctoral Program in Neurobio. and Behavior, Columbia Univ., Div. of Integrative Neuroscience, New York State Psychiatric Inst. (NYSPI) / Res. Fndn. for Mental Hygiene, Inc. (RFMH), Dept. of Psychiatry, Columbia Univ., Dept. of Epidemiology, Columbia Univ.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

10:00 GGG18 **736.07** ● BDNF and VEGF but not GDNF are associated with an anti-suicidal response to ketamine. L. E. NEWMAN; E. M. RICHARDS; E. D. BALLARD; D. A. LUCKENBAUGH; M. PARK; P. YUAN; R. MACHADO-VIEIRA; C. A. ZARATE*, JR. *NIMH, NIMH.*

11:00 GGG19 **736.08** ▲ Desipramine interacts potently with MK-801, but not with ketamine in behavior. J. A. TEMPLE*; T. T. TOWNER; A. ROCHA; K. A. TRUJILLO. *California State Univ. San Marcos.*

8:00 GGG20 **736.09** Frontal EEG predictors for treatment outcome of subanesthetic - dose ketamine infusion in medication resistant depression: Using wireless EEG. T. T. SU*; Z. CAO; M. CHEN; C. LI; C. LIN. *Veterans Gen. Hosp, Inst. of Electrical Control Engineering, Natl. Chia-Tong Univ., Taipei Veterans Gen. Hosp.*

9:00 GGG21 **736.10** ● Ketamine and S(+)-ketamine modulate the extracellular levels of monoamine- and amino acid neurotransmitters monitored by microdialysis in the prefrontal cortex and ventral hippocampus of awake rats. J. KEHR*; F. ICHINOSE; F. WANG; S. SCHMIDT; S. YOSHITAKE; T. YOSHITAKE. *Pronexus Analytical AB, Karolinska Institutet.*

10:00 GGG22 **736.11** ● Repeated ketamine treatment induces sex-specific behavioral and neurochemical effects in stress-naive C57BL/6J mice. C. THELEN*; J. SENS; J. MAUCH; R. PANDIT; P. PITYCHOUTIS. *Univ. of Dayton Dept. of Biol., The Ohio State Univ.*

11:00 GGG23 **736.12** Dissociating the antidepressant-like and abuse-related effects of ketamine by selective activation of the ventral hippocampus in rats. G. T. COLLINS*; F. R. CARRENO; D. J. LODGE; A. FRAZER. *UT Hlth. Sci. Ctr. at San Antonio, South Texas Veterans Hlth. Care Syst., UT Hlth. Sci. Ctr. at San Antonio.*

8:00 GGG24 **736.13** Ketamine inhibits pyramidal neurons in the prefrontal cortex in chloral-hydrate anesthetized rats. G. SHEN*; W. SHI. *Loma Linda Univ.*

9:00 GGG25 **736.14** Effects of ketamine on dendritic spine plasticity in animal depression model. C. S. LAI*; L. H. L. NG; Y. HUANG; R. C. C. CHANG. *The Univ. of Hong Kong.*

10:00 GGG26 **736.15** Deciphering racemic ketamine, its two enantiomers mechanisms of analgesic, anesthetic and antidepressant actions. E. F. DOMINO*; M. HIRASAWA-FUJITA. *Univ. of Michigan.*

11:00 HHH1 **736.16** Sex differences in the antidepressant-like effect of low dose ketamine in C57BL/6 mice. A. M. DOSSAT*; K. N. WRIGHT; C. E. STRONG; M. KABBAJ. *Florida State Univ.*

POSTER

737. Neural Mechanisms of Value-Based Decision-Making

Theme H: Cognition

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 HHH2 **737.01** Both D1 and D2 receptor-expressing striatal neurons encode positive as well as negative reward prediction error. J. SHIN*; M. JUNG. *KAIST.*

9:00 HHH3 **737.02** ● Effect of dopamine depletion on reward prediction error signals in the striatum. S. HUH*; J. LEE; N. HUH; M. JUNG. *Inst. for Basic Sci., Korea Advanced Inst. of Sci. and Technol., Howard Hughes Med. Institute,Harvard Med. Sch.*

10:00 HHH4 **737.03** Comparison of striatal and prefrontal neuronal activity during temporal discrimination. J. KIM*; E. HER; M. JUNG. *Korea Advanced Inst. of Sci. and Technol., Ajou Univ. Sch. of Med.*

11:00 HHH5 **737.04** Value-related activity and stimulation effects of parvalbumin-expressing neurons in the orbitofrontal cortex. Y. JANG*; S. JO; D. KIM; M. JUNG. *Korea Advanced Inst. of Sci. and Technol., Inst. for Basic science, Grad. Sch. of Med. Sci. and Engineering, Korea Advanced Inst. of Sci. and Technol.*

8:00 HHH6 **737.05** Responses of different neuron subtypes to expected value and trial outcome in medial prefrontal cortex. D. KIM*; H. JEONG; J. LEE; M. JUNG. *Korea Advanced Inst. of Sci. and Technol., Inst. for Basic Sci., Korea Advanced Inst. of Sci. and Technol.*

9:00 HHH7 **737.06** Effect of optogenetically stimulating mossy fiber terminals on spatial firing of CA3 neurons. J. LEE*; E. CHO; Y. KANG; J. LEE; M. JUNG. *Ctr. For Synaptic Brain Dysfunctions, IBS, Korea Advanced Inst. of Sci. and Technol.*

10:00 HHH8 **737.07** Spatial sequence-dependent discharges of hippocampal neurons. B. BHATTARAI*; J. W. LEE; M. W. JUNG. *Korea Advanced Inst. of Sci. and Technol., Ctr. for Synaptic Dysfunctions, Inst. for Basic Sci. (IBS).*

11:00 HHH9 **737.08** Inactivation of dorsal CA1, but not dorsal CA3, impairs value learning in a dynamic foraging task. Y. JEONG*; J. LEE; J. LEE; M. JUNG. *Dept. of Biol. Sci., KAIST, Ctr. for Synaptic Brain Dysfunctions, Inst. for Basic Sci.*

8:00 HHH10 **737.09** Assessment of working memory and monoamine neurotransmitters in methamphetamine-treated adult male rats. A. GUTIERREZ*; C. V. VORHEES; M. T. WILLIAMS. *Cincinnati Children's Hosp. Med. Ctr., Univ. of Cincinnati, Cincinnati Children's Hosp. Med. Ctr., Univ. of Cincinnati.*

9:00 HHH11 **737.10** ▲ Functional Interaction between Orexin 2 and CB1 receptors within the ventral tegmental area in the lateral hypothalamic-induced place preference in the rats. A. KASHEFI*; M. MORADI; A. HAGHPARAST; M. ZABIHI. *Univ. De Brasilia, Shahid Beheshti Univ. of Med. Sciences, Tehran, Iran, Islamic Azad Univ. of Semnan.*

10:00 HHH12 **737.11** Disrupted brain networks in obesity and alcohol use disorder: A data-driven graph theory approach. K. BAEK*; P. KUNDU; V. VOON. *UNIST, Univ. of Cambridge, Icahn Sch. of Med. at Mount Sinai.*

POSTER

738. Memory Consolidation and Reconsolidation: Fear Conditioning Circuits

Theme H: Cognition

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 HHH13 **738.01** Trace fear conditioning can affect previously acquired context memories. D. S. REIS*; E. K. ROTONDO; F. J. HELMSTETTER. *Univ. of Wisconsin - Milwaukee.*

9:00 HHH14 **738.02** Exploring contributions of stimulus modality and stimulus-stimulus contingencies to the cortical organization of remote fear memory. E. K. ROTONDO*; D. S. REIS; N. C. FERRARA; J. C. CICHON; F. J. HELMSTETTER. *Univ. of Wisconsin- Milwaukee.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

10:00 HHH15 **738.03** Medial geniculate nucleus input modulates amygdala encoding during fear memory discrimination. N. FERRARA*; P. K. CULLEN; E. K. ROTONDO; F. J. HELMSTETTER. *Univ. of Wisconsin--Milwaukee.*

11:00 HHH16 **738.04** Behavioral expression of a fear memory is maintained by neural activity in a distributed brain network throughout CS presentation. P. K. CULLEN*; N. C. FERRARA; S. E. PULLINS; J. M. HINTZ; F. J. HELMSTETTER. *Univ. of Wisconsin, Milwaukee, Univ. o f Wisconsin, Milwaukee.*

8:00 HHH17 **738.05** Activity-dependent protein degradation and age-related memory impairment. S. E. PULLINS*; P. K. CULLEN; N. C. FERRARA; J. R. MOYER, Jr.; F. J. HELMSTETTER. *Univ. of Wisconsin - Milwaukee.*

9:00 HHH18 **738.06** Activity-dependent protein degradation and GluR2 endocytosis in the amygdala regulate reconsolidation-dependent reevaluation of a contextual fear memory. N. C. FERRARA; T. J. JAROME, 53201; P. K. CULLEN; J. L. KWAPIS; F. J. HELMSTETTER*. *Univ. of Wisconsin-Milwaukee, Univ. of Wisconsin Milwaukee Dept. of Psychology.*

10:00 HHH19 **738.07** Autophagy induction enhances memory destabilization beyond reconsolidation boundary. M. H. SHEHATA*; Q. ZHAO; K. ABDOU; M. MATSUO; H. NISHIZONO; K. INOKUCHI. *Univ. of Toyama, CREST, Univ. of Toyama.*

11:00 HHH20 **738.08** Adult neurogenesis in maintenance of the hippocampal learning capacity. M. ALAM*; T. KITAMURA; Y. SAITOH; N. OHKAWA; T. KONDO; K. INOKUCHI. *Univ. of Toyama, CREST, JST, RIKEN-MIT Ctr. for Neural Circuit Genetics, MIT, Univ. of Toyama.*

8:00 HHH21 **738.09** Neuronal ensemble orchestrated intersection of two distinct emotional memory traces. J. YOKOSE*; R. OKUBO-SUZUKI; M. NOMOTO; N. OHKAWA; H. NISHIZONO; M. MATUSO; A. SUZUKI; Y. TAKAHASHI; M. NAGASE; A. M. WATABE; M. SASAHARA; F. KATO; K. INOKUCHI. *Univ. of Toyama, CREST,Japan Sci. and Technol. Agency, Univ. of Toyama, Univ. of Toyama, Jikei Univ. Sch. of Med., Univ. of Toyama.*

9:00 HHH22 **738.10** Optical manipulation of parietal association cortex regulates contextual fear memory. A. SUZUKI*; S. KOSUGI-USHIJIMA; N. OHKAWA; M. MATSUO; H. NISHIZONO; K. INOKUCHI. *Univ. of Toyama, CREST, Japan Sci. and Technol. Agency, Div. of Animal Exptl. Laboratory, Life Sci. Res. Center, Univ. of Toyama.*

10:00 HHH23 **738.11** DREADD-mediated inhibition of hippocampal neurons during memory retrieval and consolidation. J. N. KRUEGER*; A. P. CRESTANI; L. M. STRAEHLE; B. J. WILTGEN. *Univ. of California Davis, Federal Univ. of Rio Grande do Sul, Univ. of California Davis.*

11:00 HHH24 **738.12** ● Interactions between the hippocampus and cortex during remote memory retrieval. A. HAMIDI*; Y. OTA; D. MARDINI; S. L. SUAREZ; B. J. WILTGEN. *Univ. of California Davis, Univ. of California, Davis, Univ. of California, Davis.*

8:00 HHH25 **738.13** Microcircuit level effects of MEK inhibitors on threat memory disruption. A. BATTLE; S. GILES; J. COYNER; R. J. URSANO; L. R. JOHNSON*. *TRI IHBI QUT, USU Sch. of Med., Ctr. for the Study of Traumatic Stress, USU Sch. of Med., Translational Res. Institute, IHBI, QUT.*

9:00 HHH26 **738.14** Brain dynamics in fear memory: A small-animal Positron Emission Tomography study of its expression, labilization and reconsolidation. V. DE LA FUENTE*; C. MEDINA; G. FALASCO; L. URRUTIA; S. VÁZQUEZ; M. E. PEDREIRA; A. ROMANO. *Univ. of Buenos Aires & IFIBYNE-UBA-CONICET, Ctr. de Imágenes Moleculares, FLENI.*

10:00 HHH27 **738.15** ● Increased spine density in Arc-expressing neurons after contextual fear memory retrieval in the mouse hippocampus. K. MINATOHARA; M. AKIYOSHI; Y. TAKAHASHI; H. BITO; H. OKUNO*. *Kyoto Univ. Grad Schl of Med., The Univ. of Tokyo Grad. Sch. of Med.*

POSTER

739. Learning and Memory: Executive Functions

Theme H: Cognition

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 HHH28 **739.01** Rats accumulate and discount evidence in a changing environment. A. PIET*; C. BRODY; A. EL HADY. *Princeton Univ., HHMI/Princeton Univ.*

9:00 HHH29 **739.02** Flexible feature selection for decision-making in rats. M. PAGAN*; C. D. BRODY. *Princeton Univ., Howard Hughes Med. Inst.*

10:00 HHH30 **739.03** Trial history vs. sensory memory - a causal study of the contribution of rat Posterior Parietal Cortex (PPC) to history-dependent effects in working memory. A. AKRAMI*; C. D. KOPEC; C. D. BRODY. *Princeton Neurosci. Inst. (PNI), Howard Hughes Med. Inst.*

11:00 HHH31 **739.04** Systematic optogenetic mapping of cortical regions required for sensory-evidence accumulation in the mouse. L. PINTO*; S. KOAY; S. Y. THIBERGE; D. W. TANK; C. D. BRODY. *Princeton Univ., Princeton Univ., Princeton Univ.*

8:00 HHH32 **739.05** Recurrent network models of evidence accumulation. K. RAJAN*; B. B. SCOTT; C. M. CONSTANTINOPLE; D. W. TANK. *Princeton Univ.*

9:00 HHH33 **739.06** A head-fixed somatosensory task in mice for the study of neural mechanisms of evidence accumulation. B. DEVERETT*; S. KOAY; S. S. WANG. *Princeton Univ., Princeton Univ., Princeton Univ., Rutgers Univ.*

10:00 HHH34 **739.07** Neural dynamics in a mouse navigation and accumulation of visual evidence task. S. KOAY*; B. ENGELHARD; L. PINTO; B. DEVERETT; S. Y. THIBERGE; C. D. BRODY; D. W. TANK. *Princeton Neurosci. Inst., Dept. of Mol. Biol., Rutgers-Robert Wood Johnson Med. School-Princeton Univ. MD/PhD Program, Bezos Ctr. for Neural Circuit Dynamics, Howard Hughes Med. Inst.*

11:00 HHH35 **739.08** Heterogeneous dynamics in frontoparietal cortex encode sensory memories during accumulation of evidence tasks. B. B. SCOTT*; C. M. CONSTANTINOPLE; C. D. BRODY; D. W. TANK. *Princeton Univ., Princeton Univ., Princeton Univ., Princeton Univ.*

8:00 HHH36 **739.09** Stable contingencies drive orbitofrontal predictions. J. S. RICEBERG*; M. SHAPIRO. *Mount Sinai Sch. of Med., Icahn Sch. of Med. of Mount Sinai.*

9:00 HHH37 **739.10** Distinct contributions of hippocampal and prefrontal afferents to nucleus reuniens during spatial working memory. B. A. EMANUEL; H. L. HALLOCK; E. C. MYHRE; A. L. GRIFFIN*. *Univ. Delaware.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
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* Indicates abstract's submitting author

10:00 HHH38 **739.11** Investigating the role of the nucleus reuniens in spatial working memory. A. C. GARCIA*; A. L. GRIFFIN. *Univ. of Delaware.*

11:00 HHH39 **739.12** ● Neural ensemble dynamics of the medial prefrontal cortex underlying shifts in cognitive strategy. F. WANG*; T. H. KIM; H. INAN; A. WILLIAMS; S. GANGULI; M. J. SCHNITZER. *Stanford Univ.*

8:00 HHH40 **739.13** Outcome selective recall of neural ensembles in prefrontal cortex of rule-learning rats. S. MAGGI*; A. PEYRACHE; M. D. HUMPHRIES. *Univ. of Manchester, NYU Med. Ctr., McGill Univ.*

9:00 III1 **739.14** Evaluating the role of GABA interneurons in the medial prefrontal cortex during working memory in mice. R. NGUYEN*; J. C. KIM. *Univ. of Toronto, Univ. of Toronto.*

10:00 III2 **739.15** Performance of the odour span task is not disrupted by inactivations of the posterior parietal cortex in rats. G. A. SCOTT*; N. K. ZABDER; Q. GREBA; J. G. HOWLAND. *Univ. of Saskatchewan.*

11:00 III3 **739.16** ● The role of the medial prefrontal cortex in working memory capacity. L. AN*; N. SUN; J. CATTON; A. TSENGER; Q. GREBA; C. LAPISH; J. HOWLAND. *Univ. of Saskatchewan, Indiana Univ.*

POSTER

740. Transcriptional and Epigenetic Mechanisms of Learning and Memory

Theme H: Cognition

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 III4 **740.01** Holeboard discrimination learning in S100 calcium-binding protein B knockout mice. K. HAGEBOUTROS; H. WU; V. VENKATARAMAN; B. D. FISCHER*. *Cooper Med. Sch. of Rowan Univ., Rowan Univ. Sch. of Osteo. Med.*

9:00 III5 **740.02** Role of toll-like receptor 4 in diesel exhaust origin secondary organic aerosol-induced impaired spatial learning ability in neonatal mice. T. WIN SHWE*; Y. FUJITANI; H. WATANABE; S. HIRANO. *Natl. Inst. Envir.*

10:00 III6 **740.03** Astaxanthin-enriched diet potentiates the effects of mild exercise on hippocampal-dependent memory and neurogenesis in adult mice. J. YOOK*; H. SOYA. *Advanced Res. Initiative For Human High Performace.*

11:00 III7 **740.04** Experience dependent epigenomic reorganization. C. G. DUKE*; A. KENNEDY; D. SWEATT; J. DAY. *UAB, UAB.*

8:00 III8 **740.05** Interleukin-1 has a brain region- and memory task-specific role in heroin-conditioned contextual memory. C. LEBONVILLE*; L. HUTSON; M. JONES; J. PANICCIA; L. COOPER; R. FUCHS; D. LYSLE. *Univ. of North Carolina At Chapel Hill, Washington State Univ.*

9:00 III9 **740.06** Analysis of topographical memory and hippocampal neurogenesis in mice using the hamlet test. L. CROUZIER*; D. GILABERT; M. ROSSEL; F. TROUSSE; T. MAURICE. *Inserm U1198.*

10:00 III10 **740.07** Systemic inflammation induces persistent dysregulation of memory and gene expression. D. TCHESSALOVA*; K. M. COLLETTE; A. A. KEISER; L. M. TURNBULL; A. E. WEHBE; N. C. TRONSON. *Univ. of Michigan, Univ. of Michigan.*

11:00 III11 **740.08** The impact of neurogenesis on flexible maze training: Effects on hippocampal volume, depression, and cognition. T. J. SCHOENFELD*; D. RHEE; H. A. CAMERON. *NIMH/NIH.*

8:00 III12 **740.09** Chemogenetic modulation of the medial habenula during cocaine action. A. J. LOPEZ*; M. E. ESPINOZA; K. M. SAKATA; A. O. WHITE; J. L. KWAPIS; A. AL-KACHAK; Y. ALAGHBAND; D. P. MATHEOS; M. A. WOOD, 92697. *Univ. of California Irvine Dept. of Neurobio. and Behavior.*

9:00 III13 **740.10** Fatty acid amide hydrolase overexpression in the basolateral nucleus of the amygdala paradoxically decreases anxiety and reduces fear expression in rats. M. MORENA*; K. D. LEITL; A. RASHID; S. A. JOSSELYN; M. N. HILL. *Univ. of Calgary, Univ. of Calgary, Univ. of Toronto.*

10:00 III14 **740.11** Nuclear receptor Nr4a mutant mice have impaired hippocampus dependent memory formation. S. CHATTERJEE*; W. O'BRIEN; M. BRIDI; J. HAWK; T. ABEL. *Univ. of Pennsylvania, Univ. of Pennsylvania, Univ. of Pennsylvania.*

11:00 III15 **740.12** Comparative metallo- and element-omics profiling reveals aberrant copper contents in the brain of Ts1Cje, a mouse model for Down syndrome. K. ISHIHARA*; E. KAWASHITA; K. YAMAKAWA; H. SAGO; S. AKIBA. *Kyoto Pharmaceut. Univ., RIKEN Brain Sci. Inst., Natl. Ctr. for Child Hlth. and Develop.*

8:00 III16 **740.13** Maternal behaviour effects on atrx expression, genome stability and longterm neurobehavioral development in the adult offspring. I. C. WEAVER*; K. LEE; A. KORGAN; E. WAUGH; A. HUNDERT; E. MACRAE; D. GOGUEN. *Dalhousie Univ.*

9:00 III17 **740.14** Modelling episodic memory deficit in depression. J. FANG*; S. CHENG. *Ruhr-University Bochum.*

10:00 III18 **740.15** Dimorphic modulation of the membrane-associated progesterone receptor neudesin in adult hippocampal neurogenesis. A. NOVAIS*; C. FERREIRA; F. MARQUES; N. SOUSA; J. PALHA; J. C. SOUSA. *Life and Hlth. Sci. Res. Inst. (ICVS), Life and Hlth. Sci. Res. Inst. (ICVS), Sch. of Hlth. Sciences, Univ. of Minho and ICVS/3B's - PT Government Associate Laboratory.*

11:00 III19 **740.16** Proteomic analysis of intracellular signaling pathways underlying visual recognition memory in monkey. B. A. CORGIAT*; C. MUELLER; J. N. TURCHI; J. L. OLDS; R. C. SAUNDERS; L. A. LIOTTA; M. MISHKIN. *NIMH/NIH, George Mason Univ., NIMH, George Mason Univ., NIMH.*

8:00 III20 **740.17** Olfactory memory is enhanced via Wnt/β-catenin signaling in the subventricular zone of mice exposed to extremely low-frequency electromagnetic fields. A. MASTRODONATO*; S. BARBATI; L. LEONE; C. COLUSSI; K. GIRONI; C. GRASSI. *Univ. Cattolica Med. Sch., Inst. of Cell Biol. and Neurobiology, CNR.*

9:00 III21 **740.18** The impact of phospholipase D1 and D2 genetic ablation in hippocampal functioning. T. G. OLIVEIRA*; I. CASTANHO; L. S. MARINHA; R. R. SILVA; A. M. MIRANDA; F. V. BRAVO; G. DI PAOLO; V. PINTO. *ICVS/3Bs, Univ. of Minho, Braga, Columbia Univ.*

10:00 III22 **740.19** Variations in intersession habituation behavior and genetic background within two cohorts of the same Il7r knockout mouse. G. W. BOTHE*; A. F. EISENER-DORMAN; D. J. SYMULA; V. J. BOLIVAR. *Wadsworth Center, NYS Dept. of Hlth., State Univ. of New York at Albany, Pharmaceut. Product Develop. LLC.*

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

11:00 III23 **740.20** Optogenetic interrogration of the role of dorsal and ventral hippocampal adult-born neurons in contextual fear conditioning. K. A. HUCKLEBERRY*; T. COPELAND; F. SHUE; W. YIN; R. A. CHITWOOD; M. R. DREW. *The Univ. of Texas At Austin, The Univ. of Texas At Austin.*

8:00 III24 **740.21** Inflammatory signaling and epigenetic modifications in persistent memory deficits after myocardial infarction. K. COLLETTE*; R. E. GARCÍA-HERNÁNDEZ; A. A. KEISER; D. TCHESSALOVA; L. M. TURNBULL; G. LU; N. C. TRONSON. *Univ. of Michigan, Univ. of Michigan.*

9:00 III25 **740.22** Extra-coding RNAs regulate dynamic DNA methylation and gene expression. N. GALLUS*; K. E. SAVELL; F. A. SULTAN; R. C. SIMON; J. S. REVANNA; J. J. DAY. *Univ. of Alabama at Birmingham.*

10:00 III26 **740.23** CREB is not necessary for increases in hippocampal volume induced by environmental enrichment. D. A. VOUSDEN*; R. ALLEMANG GRAND; J. SCHOLZ; S. JOSSELYN; P. FRANKLAND; J. P. LERCH. *Hosp. For Sick Children.*

11:00 III27 **740.24** Mapping emerging neocortical active ensembles during retrieval of remote memory via functional bioluminescence imaging of Arc promoter activity. N. YAGISHITA-KYO*; H. OKUNO; S. KAMIJO; T. KAWASHIMA; Y. UEMURA; S. TAKEMOTO-KIMURA; H. BITO. *Grad. Sch. of Medicine, The Univ. of Tokyo, Grad. Sch. of Medicine, Kyoto Univ., Clin. Res. Support Center, The Univ. of Tokyo Hosp., Res. Inst. of Envrn. Medicine, Nagoya Univ.*

8:00 III28 **740.25** BDNF rescues BAF53b-dependent synaptic plasticity and cocaine-associated memory in the nucleus accumbens. A. O. WHITE*; E. KRAMÁR; A. LÓPEZ; J. KWAPIS; J. DOAN; D. SALDANA; F. DAVATOLHAGH; Y. ALAGHBAND; M. BLURTON-JONES; D. MATHEOS; M. WOOD. *Univ. of California Irvine.*

9:00 III29 **740.26** The role of HDAC3 in object location memory formation and the acquisition and extinction of cocaine-associated memory. Y. ALAGHBAND*; J. L. KWAPIS; R. DANG; O. V. AIMIUWU; A. AL-KACHAK; A. O. WHITE; A. J. LOPEZ; K. M. LATTAL; D. P. MATHEOS; M. A. WOOD. *Univ. of California Irvine Dept. of Neurobio. and Behavior.*

10:00 III30 **740.27** Do adult-born granule cells “retire”? W. C. ABRAHAM*; S. M. OHLINE; R. U. HEGEMANN; K. L. WAKE; M. F. DINNUNHAN; L. SCHWEITZER; S. M. HUGHES. *Univ. of Otago, Brain Res. New Zealand, Brain Hlth. Res. Ctr., Univ. of Otago, Univ. of Otago.*

POSTER

741. Cholinergic Modulation: Physiology and Behavior

Theme H: Cognition

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 III31 **741.01** Cholinergic Modulation of pyramidal neurons in the ventral Subiculum. S. WANG*; D. TALMAGE; L. ROLE. *Program In Neuroscience, SUNY At Stony Brook, SUNY at Stony Brook, SUNY at Stony Brook.*

9:00 III32 **741.02** Alterations in the novel object recognition circuit following MeCP2 deletion from cholinergic neurons. E. C. BALLINGER*; C. P. SCHAAF; D. A. TALMAGE; H. ZOGHBI; L. W. ROLE. *Stony Brook Univ., Baylor Col. of Med.*

10:00 III33 **741.03** Cholinergic dysfunction of the entorhinal cortex in a mouse model of aging. M. ANANTH*; D. TALMAGE; L. ROLE. *Stony Brook Univ., Stony Brook Univ., Stony Brook Univ.*

11:00 III34 **741.04** Amino acid metabolizing enzyme, l-amino acid oxidase, controls the contextual memory through modulating acetylcholine level. K. USUDA*; G. WATANABE; K. NAGAOKA. *United Grad. Sch. of Vet. Science, Gifu.*

8:00 III35 **741.05** Role of the cholinergic midbrain in long-term habituation. A. LOUTTIT, N6G 1R3; E. AZZOPARDI; T. ZAMAN; S. SCHMID*. *Univ. of Western Ontario.*

9:00 III36 **741.06** ● Reversal of scopolamine impairment by a type II nAChR α7 positive allosteric modulator in the NHP CANTAB paired associates learning task. M. R. WEED*; J. POLINO; D. POST-MUNSON; M. BOOKBINDER; L. KISS; J. HERRINGTON; L. J. BRISTOW. *Bristol-Myers Squibb Res., Bristol-Myers Squibb Res.*

10:00 III37 **741.07** Anti-amnesic effects of Terminalia chebula extract on scopolamine-induced learning deficits in mice. M. KIM*; J. LEE; J. HAN; S. SUNG; H. KIM; D. LEE; W. JEON. *Korea Inst. of Oriental Med., Korea Inst. of Sci. and Technol., Konkuk Univ., Seoul Natl. Univ.*

11:00 III38 **741.08** Neuromodulatory effects on acetylcholine on α rhythm generation and how it relates to cognitive functioning. R. SHARMA*; P. RAMAKRISHNA; S. NADKARNI. *IISER-PUNE, IISER-Pune.*

8:00 III39 **741.09** Regulation of the temporoammonic pathway in the hippocampus by acetylcholine. J. PALACIOS*; J. R. MELLOR. *Univ. of Bristol, Univ. of Bristol.*

9:00 III40 **741.10** Microanalytical system for neural response to neurotransmitter using voltage imaging and electrochemical micropump. K. HARADA*; Y. YOSHIMI. *Shibaura Inst. of Thechnology.*

10:00 III41 **741.11** Presynaptic control of glutamatergic transmission by serotonin and acetylcholine in the prefrontal cortex. A. L. BAKER*; A. T. GULLEDGE. *Geisel Sch. of Med. at Dartmouth.*

11:00 III42 **741.12** Characterization of [^{3}H]PT-0921, a novel muscarinic acetylcholine receptor positive allosteric modulator radioligand selective for the M_4 subtype. D. L. SMITH*; C. R. BUTLER; R. E. O’CONNOR; M. POPIOLEK; L. ZHANG. *Pfizer Inc, Pfizer Inc., Pfizer Inc.*

8:00 III43 **741.13** Muscarinic modulation of GABAergic neurotransmission in the basolateral amygdala. A. FAJARDO SERRANO*; L. LIU; D. D. MOTT; A. J. MCDONALD. *Univ. of South Carolina Sch. of Med.*

9:00 III44 **741.14** Cholinergic signaling in fear extinction. G. C. JONES*; J. R. MCELROY; S. C. TRYON; A. C. SHARKO; M. A. WILSON; D. D. MOTT. *Univ. of South Carolina Sch. of Med.*

10:00 III45 **741.15** Muscarinic receptors differentially regulate glutamatergic pathways in the basolateral amygdala. S. C. TRYON*; L. LIU; A. J. MCDONALD; D. D. MOTT. *Univ. of South Carolina Sch. of Med.*

11:00 III46 **741.16** The atypical antipsychotic olanzapine disturbs depotentiation and reversal learning by modulating mAChRs. W. SONG; J. CHA; S. YOON; M. KIM*. *Seoul Natl. Univ. Col. of Med.*

8:00 III47 **741.17** Bursting cholinergic neurons of the basal forebrain show synchronous activity in an auditory detection task. T. LASZLOVSZKY*; A. KEPECS; B. HANGYA. *Lendulet Lab. of Systems Neuroscience, IEM H, Cold Spring Harbor Lab.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract’s submitting author

9:00 III48 **741.18** ▲ Smoking-like nicotine levels increase excitatory synaptic response in the prefrontal cortex of the mouse. R. D. CUEVAS OLGUIN*; F. VAZQUEZ-PONCE; E. ESQUIVEL-RENDON; J. VARGAS-MIRELES; I. GONZALEZ-NATERAS; M. MIRANDA-MORALES; H. ARIAS; M. ATZORI. *UASLP, California Northstate Univ. Col. of Med.*

10:00 III49 **741.19** Cholinergic modulation of striatal projection neurons activity *in vivo*. S. ZUCCA*; A. ZUCCA; J. WICKENS. *Okinawa Inst. of Sci. and Technol.*

11:00 III50 **741.20** Identifying novel genes required for synaptic function among human 21st chromosome orthologs. S. K. NORDQUIST*; J. PIERCE-SHIMOMURA. *The Univ. of Texas at Austin, Univ. of Texas at Austin.*

8:00 III51 **741.21** Oleanolic acid ameliorates scopolamine-induced cognitive impairment in mice. S. JEON; J. ZHANG; Y. GWON; J. RYU*. *Kyung Hee Univ.*

9:00 III52 **741.22** Paradoxical effects of α 7 nicotinic acetylcholine receptor antagonists on memory formation and receptor functioning. N. P. VAN GOETHEM*; E. FEDELE; D. PUZZO; C. REBOSIO; W. GULISANO; A. PALMERI; D. PAES; L. WENNOGLE; Y. PENG; D. BERTRAND; J. PRICKAERTS. *Maastricht Univ., Univ. of Genoa, Univ. of Catania, Intra-Cellular Therapies Inc, Rutgers Univ., HiQScreen Sàrl.*

10:00 JJJ1 **741.23** ● Cognitive deficits in a rat model of Parkinson's disease are reversed by low dose acetylcholinesterase inhibition and serotonin 5-HT_{2A} inverse agonism. D. T. HUBBARD*; E. S. BURSTEIN; C. BELLIZZI; K. MCFARLAND. *ACADIA Pharmaceuticals.*

11:00 JJJ2 **741.24** ● Effect of a new benzoazocine on learning, spatial memory, and oxidative stress on acetylcholinesterase activity in rats. I. LIMON PEREZ DE LEON*; A. PATRICIO-MARTINEZ; N. MUÑOZ-MORENO; R. LOPEZ-GONZALEZ; J. TERAN-VAZQUEZ; B. LEON-CHAVEZ. *Benemerita Univ. Autonoma De Puebla FCQ Lab. Neurofarma, BUAP, BUAP.*

8:00 JJJ3 **741.25** Does nicotine exposure potentiate the neurotoxic effects of prenatal alcohol-induced cognitive impairment? M. A. MAJRASHI*; D. BHATTACHARYA; S. BHATTACHARYA; J. BLOEMER; M. BUABEID; M. ESCOBAR; P. DAS PINKY; V. SUPPIRAMANIAM; M. DHANASEKARAN. *Harrison Sch. of Pharm. /auburn Univ.*

9:00 JJJ4 **741.26** The role of hippocampal to medial prefrontal cortex projections, and effects of acetylcholine manipulation in these regions, during an associative recognition memory task. K. E. GILROY*; P. J. BANKS; G. R. I. BARKER; E. C. WARBURTON; Z. I. BASHIR. *Univ. of Bristol*.

POSTER

742. Modulation of Cognition and Behavior I

Theme H: Cognition

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 JJJ5 **742.01** ▲ Electromagnetic forced stimulation alters differentially spatial learning processes depending on the time of the day. M. E. ARIAS-GARCÍA*; D. BUSTAMANTE-VALDEZ; M. VÁZQUEZ-SUMANO; N. ORTEGA-VILLEGAS; P. DURAN. *Univ. Nacional Autonoma De México.*

9:00 JJJ6 **742.02** Chronic cadmium administration alter learning and memoryprocess in male Wistar rat. M. ARTEAGA-SILVA*; R. VILLANUEVA-REYES; S. MONTES; C. ESPINOSA GARCÍA; A. ROMERO; N. A. ESTRADA-CRUZ; J. HERNÁNDEZ-RODRÍGUEZ; H. BONILLA-JAIME; P. G. DAMIAN-MATZUMURA; R. M. VIGUERAS VILLASEÑOR; P. DURAN. *Univ. Autónoma Metropolitana-Iztapalapa, Univ. Autónoma Metropolitana-Iztapalapa, Inst. de Neurología y Neurocirugía, Univ. of Emory, Univ. Autónoma Metropolitana-Iztapalapa, Univ. Autónoma Metropolitana-Iztapalapa, Inst. Nacional de Pediatría, Facultad Ciencias, UNAM.*

10:00 JJJ7 **742.03** ▲ Acute E14 Cadmium administration alters water intake circadian rhythm, visual perception, anxiety and stress responses in the rat. J. S. GONZALEZ-RUANO; E. MORENO-SÁENZ; M. E. ARIAS-GARCÍA; D. J. BUSTAMANTE-VALDEZ; P. DURAN*. *Facultad De Ciencias, UNAM.*

11:00 JJJ8 **742.04** ▲ Prenatal nicotine exposure alters stress-anxiety circadian rhythm in female mice. M. FUENTES-CANO*; L. G. MENDOZA-MORENO; P. DURAN. *Facultad De Ciencias, UNAM.*

8:00 JJJ9 **742.05** Extradimensional attentional set-shifting related changes in prefrontal and striatal neuronal activity. V. OBERTO; H. GAO; M. ZUGARO; S. I. WIENER*. *Col. De France CIRB.*

9:00 JJJ10 **742.06** Locus coeruleus task-related activity in an attentional-set shift task. L. XIANG; A. HAREL; S. I. WIENER; S. J. SARA*. *Collège de France, Collège de France.*

10:00 JJJ11 **742.07** Effects of insulin on excitatory transmission in the nucleus accumbens of non-obese and obese rats. M. F. OGINSKY*; C. R. FERRARIO. *Univ. of Michigan.*

11:00 JJJ12 **742.08** Dissecting the neuromodulatory landscape of the PVN. L. XIAO*; J. NASENBENY; M. PRIEST; T. LU; Y. KOZOROVITSKIY. *Northwestern Univ., Northwestern Univ.*

8:00 JJJ13 **742.09** Chronic SSRI treatment promotes inhibitory serotonergic signaling in rat prefrontal cortex. E. K. STEPHENS*; D. AVESAR; T. P. TODD; D. J. BUCCI; S. GERBER; A. T. GULLEDGE. *Geisel Sch. of Med. At Dartmouth, Dartmouth Col., Geisel Sch. of Med. At Dartmouth.*

9:00 JJJ14 **742.10** Corticotrophin releasing factor dose-dependently modulates excitatory synaptic transmission in the noradrenergic nucleus locus coeruleus. B. D. WATERHOUSE*; D. J. CHANDLER. *Drexel Univ. Col. of Med., Drexel Univ. Col. of Med.*

10:00 JJJ15 **742.11** Pharmacological inhibition of diacylglycerol lipase α, but not diacylglycerol lipase β, blocks endocannabinoid-mediated retrograde synaptic depression. X. LIU*; J. TONG; C. VICKSTROM; D. OGASAWARA; H. DENG; M. STELT; B. F. CRAVATT; Q. LIU. *Med. Col. of Wisconsin, the Scripps Res. Inst., Leiden Univ.*

11:00 JJJ16 **742.12** Shifting the mineralocorticoid and glucocorticoid receptor balance affects early life stress related effects on hippocampal glutamatergic transmission. H. KARST*; M. LOI; S. KANATSOU; H. J. KRUGERS; M. JOELS. *Univ. Med. Ctr. Utrecht, Univ. of Amsterdam.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

8:00 JJJ17 **742.13** Uncovering the effects of agonism at postsynaptic α_{2A}-adrenergic receptors on neuronal activity within the bed nucleus of the stria terminalis. N. A. HARRIS*; A. T. ISAAC; S. A. FLAVIN; D. G. WINDER. *Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ.*

9:00 JJJ18 **742.14** Differential modulation of synapses by neuropeptides with convergent actions on intrinsic excitability. X. LI*; D. BUCHER; F. NADIM. *Dept Biol. Sci., Rutgers/Njit.*

10:00 JJJ19 **742.15** High-fat diet causes hippocampal resistance to leptin-driven modulation of synaptic transmission. M. MAINARDI*; M. SPINELLI; F. SCALA; S. FUSCO; A. MATTERA; M. D'ASCENZO; C. GRASSI. *Catholic Univ. Sch. of Med.*

11:00 JJJ20 **742.16** ● Actions of the tryptophan metabolites 3-hydroxy-kynurenine (3HK) and Xanthurenic Acid (XA), on γ oscillations in the rat hippocampus. T. E. SALT*; F. WEISZ; R. SCHWARCZ; S. A. NEALE. *UCL Inst. Ophthalmology, Maryland Psychiatric Res. Ctr., Neurexpert Ltd.*

8:00 JJJ21 **742.17** ▲ Synaptic effects of social defeat stress: Interleukin-6-dependent contribution. E. ESQUIVEL RENDON*; J. VARGAS-MIRELES; F. MEDINA-GARCIA; A. MALDONADO-HERNANDEZ; P. ACOSTA-MARES; R. CUEVAS-OLGUIN; I. GONZALEZ-NATERAS; M. MIRANDA-MORALES; S. ROSE-JOHN; M. ATZORI. *UASLP, Christian Albrechts Univ.*

9:00 JJJ22 **742.18** ▲ Pro-bumetanide treatment reduces long-lasting learning and memory deficits induced by repeated administration of ketamine in neonatal rats. B. D. BUTLER*; M. KHAN; R. A. STEVENS; S. MUQUEET; S. KOKANE; P. THAPA; F. W. FOSS; Q. LIN. *Univ. of Texas At Arlington, Univ. of Texas At Arlington, Univ. of Texas At Arlington.*

10:00 JJJ23 **742.19** Endocannabinoids interact with glucocorticoids in the dorsal striatum: Enhancing effects on memory of an aversive motivated task. C. SILLER PÉREZ*; E. SOTELO BARRERA; A. FUENTES-IBAÑEZ; N. SERAFÍN; R. PRADO-ALCALÁ; P. CAMPOLONGO; P. JOSEPH-BRAVO; B. ROOZENDAAL; G. QUIRARTE. *Inst. De Neurobiología, UNAM Campus Juriquilla, Sapienza Univ. of Rome, Inst. de Biotecnología, UNAM, Radboud Univ. Med. Ctr., Donders Inst. for Brain, Cognition and Behaviour, Radboud Univ. Nijmegen.*

11:00 JJJ24 **742.20** Trichostatin A prevents stress-induced spatial memory impairment. V. VARGAS-LÓPEZ; A. MÚNERA*. *Univ. Nacional de Colombia, Univ. Nacional De Colombia.*

8:00 JJJ25 **742.21** The endocannabinoid 2-AG mediates a novel form of presynaptic plasticity at a critical relay in hippocampal circuitry. W. WANG*; B. H. TRIEU; Y. JIA; K. JUNG; C. A. KARSTEN; C. B. MERRILL; K. MACKIE; C. M. GALL; D. PIOMELLI; G. LYNCH. *Univ. of California Irvine Dept. of Anat. and Neurobio., Dept. of Psychological and Brain Sci. and Gill Center, Indiana Univ. Bloomington, Dept. of Neurobio. and Behavior, Univ. of California, Irvine, Dept. of Pharmacology, Univ. of California, Irvine, Dept. of Biol. Chemistry, Univ. of California, Irvine, Drug Discovery and Development, Inst. Italiano di Tecnologia, Dept. of Psychiatry, Univ. of California, Irvine.*

9:00 JJJ26 **742.22** ▲ Interactions between progesterone & tropisetron in the modulation of cognitive behavior in female rats. J. HASSELL; M. MAZENKO; S. S. MASWOOD*. *Millersville Univ.*

10:00 JJJ27 **742.23** Neurotoxic and cognitive effects of neonatal (+)-methamphetamine: Role of reactive oxygen species (ROS). S. A. JABLONSKI*; K. LASANCE; L. LEMEN; S. J. THOMAS; S. C. SANCHEZ; M. ASCHNER; M. T. WILLIAMS; C. V. VORHEES. *Cincinnati Children's Hosp. Med. Ctr., Univ. of Cincinnati Col. of Med., Vanderbilt University, Sch. of Med., Albert Einstein Col. of Med.*

11:00 JJJ28 **742.24** Gonadal hormones modulate ethanol induced memory deficit in adolescent female rats. J. A. TRAVIS; K. ISHIWARI; R. SIRCAR*. *The City Col. of New York, Univ. at Buffalo, Albert Einstein Col. of Med.*

8:00 JJJ29 **742.25** Cannabinoid receptor antagonist AM251 reduces radiation-induced cognitive decrements. V. K. PARIHAR*; A. LILAGAN; A. SYAGE; S. F. KWOK; N. N. CHMIELEWSKI; M. M. ACHARYA; J. E. BAULCH; C. L. LIMOLI. *Univ. of California.*

POSTER

743. Learning and Memory: Aging - Other Areas

Theme H: Cognition

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 JJJ30 **743.01** Sex differences in the metabolic and cognitive effects of ghrelin signalin. I. KADISH*; M. SHARPE; T. VAN GROEN; A. PATKI; T. R. NAGY; D. B. ALLISON. *Univ. of Alabama Birmingham, Univ. of Alabama Birmingham, Univ. of Alabama Birmingham, Univ. of Alabama Birmingham.*

9:00 JJJ31 **743.02** Nogo receptor 1 overexpression in forbrain neurons alters dopamine release kinetics. E. S. ARVIDSSON*; T. E. KARLSSON; A. T. BRODIN; K. WELLFELDT; A. JOSEPHSSON; L. OLSON. *Karolinska Institute, Dept. of Neurosci.*

10:00 JJJ32 **743.03** Aging decreases intrinsic excitability within layer II/III principal cells of the lateral entorhinal cortex. C. LIN*; M. OH; J. DISTERHOFT. *Northwestern Univ.*

11:00 JJJ33 **743.04** Age as a risk factor for the disruption of cognitive performance by exposure to the types of radiation encountered on exploratory class missions to other planets. B. M. RABIN*; B. SHUKITT-HALE; K. L. CARRIHILL-KNOLL; M. G. MILLER; K. A. BARTON. *Univ. Maryland Baltimore County, USDA-ARS.*

8:00 JJJ34 **743.05** The effects of cognitive enrichment and exercise on age-related cognitive decline in rats. M. E. BASHAM*. *Regis Univ.*

9:00 JJJ35 **743.06** The effects of a combination dietary intervention of caloric restriction and curcumin on normally aged C57BL/6 mice. M. SARKER*; S. FRANKS; N. SUMIEN; M. J. FORSTER. *UNT Hlth. Sci. Ctr., Univ. of North Texas Hlth. Sci. Ctr.*

10:00 JJJ36 **743.07** Sex differences in cognition, emotional reactivity, and motor ability in gonadally-intact middle-aged marmosets (*Callithrix jacchus*). N. GERVAIS*; K. P. WORKMAN; M. LACLAIR; A. LACREUSE. *Univ. of Massachusetts Amherst, Univ. of Massachusetts Amherst.*

11:00 JJJ37 **743.08** Novel object recognition in aging mice - a critical evaluation of analytical methods in the comparison of C57BL/6 WT and NLRP3 knockout mice. A. TRASCHUETZ*; S. SCHWARTZ; M. T. HENEKA. *Universitätsklinikum Bonn.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

8:00 JJJ38 **743.09** ● Delivery of osteocalcin in the dentate gyrus enhances cognitive functions and ameliorates age relate memory loss. S. KOSMIDIS*; A. POLYZOS; L. KHRIMIAN; G. KARSENTY; E. KANDEL. *Columbia Med. Ctr., Biomed. Res. Fndn. of the Acad. of Athens (BRFAA), Columbia Med. Ctr.*

9:00 JJJ39 **743.10** A multiple microinfarction based model for vascular dementia in aged rats. P. VENKAT*; M. CHOPP; J. CHEN. *Henry Ford Hosp.*

10:00 JJJ40 **743.11** ● Characterization of cognition in aging immunocompromised mice. S. REGE; T. HEIKKINEN; H. HACKBART; E. CZIRR*; I. GALLAGER; R. HODGSON; S. BRAITHWAITE; S. MINAMI. *Alkahest, Charles River Labs.*

11:00 JJJ41 **743.12** Drug targeting of rev-erb improves cognition in Alzheimer's disease mouse model. D. ROBY*; F. RUIZ; B. KERMATH; J. E. MORLEY; T. BURRIS; S. A. FARR. *St. Louis Univ., St. Louis Univ.*

8:00 JJJ42 **743.13** Molecular correlates of altered neural communication in ofc layer 2-3 during human aging. M. PABBA*; E. SCIFO; F. KAPADIA; Y. NIKOLOVA; C. MA; N. MECHAWAR; G. C. TSENG; E. SIBILLE. *Campbell Family Mental Hlth. Res. Inst., Univ. of Pittsburgh, McGill Univ.*

9:00 JJJ43 **743.14** Oral administration of a brain penetrating ghrelin receptor agonist (hm01) inhibits age-dependent memory loss in mice. R. G. SMITH*; S. P. MAHAL. *Scripps Florida, Scripps Res. Inst.*

10:00 JJJ44 **743.15** Aged animals appear cognitively and behaviorally hyporesponsive to chronic restraint (psychosocial stress) compared to young animals. K. STAGGS*; J. POPOVIC; S. QUTUBUDDIN; E. M. BLALOCK. *Univ. of Kentucky.*

11:00 JJJ45 **743.16** Effect of ovariectomy on cognitive function in the hypertensive Dahl salt-sensitive rat. S. P. WRIGHT; A. A. DE SOUZA; A. PAI; H. JI; X. WU; X. TATIN; A. S. NARAINE; W. HE; R. C. SPETH*; P. A. FORCELLI; K. SANDBERG. *Georgetown Univ., Federal Univ. of Ouro Preto, AgroParisTech, Halmos Col. of Natural Sci. and Oceanography, Nova Southeastern Univ., Nova Southeastern Univ., Georgetown Univ.*

8:00 JJJ46 **743.17** The effect of a lifespan-extending drug, acarbose, on cognitive healthspan in a mouse model of Alzheimer's disease. S. J. MOORE*; R. C. PARENT; R. A. MILLER; G. G. MURPHY. *Univ. of Michigan, Univ. of Michigan, Univ. of Michigan, Univ. of Michigan.*

9:00 JJJ47 **743.18** The role of HDAC3 in age-related plasticity and memory dysfunction. J. L. KWAPIS*; Y. ALAGHBAND; E. A. KRAMÁR; A. J. LÓPEZ; A. O. WHITE; D. RHEE; C. M. MICHAEL; G. SHU; D. P. MATHEOS; M. A. WOOD. *Univ. of California, Irvine.*

10:00 JJJ48 **743.19** Prefrontal cortex interneuron vulnerability in behaviorally characterized aged monkeys. K. H. SCHULZE; A. M. SPIEGEL; J. M. LONG*; E. J. PEREZ; M. T. ROBERTS; P. R. RAPP. *Natl. Inst. On Aging-NIH, California Natl. Primate Res. Ctr.*

11:00 JJJ49 **743.20** Quantifying changes in medial prefrontal cortex immediate early gene expression as a function of aging related cognitive decline. V. L. EHLERS*; M. SEHGAL; B. K. FULLEYLOVE-KRAUSE; J. R. MOYER, Jr. *Univ. of Wisconsin Milwaukee Dept. of Psychology.*

POSTER

744. Human Cognition and Memory V

Theme H: Cognition

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 JJJ50 **744.01** The extreme memory challenge: A search for the heritable foundation of exceptional memory. M. A. PYC*; E. GIRON; P. CHEUNG; S. DE BELLE; T. TULLY. *Dart NeuroScience LLC, Dart NeuroScience.*

9:00 JJJ51 **744.02** Stressed management women increase memory task efficiency after a 8-week mindfulness-based positive emotions cultivating program. D. F. SANTAELLA*; J. B. BALARDIN; B. PORTES; P. TOBO; C. BARRICHELLO; S. S. LACERDA; J. R. SATO; E. AMARO JR.; E. H. KOZASA. *Hosp. Israelita Albert Einstein, Natura Inovação, Univ. Federal do ABC.*

10:00 JJJ52 **744.03** Is transcranial alternating current stimulation an effective tool for cognitive research? V. BRAUN*; S. HANSLMAYR. *Univ. of Birmingham.*

11:00 JJJ53 **744.04** Environmental encoding and brain structure. H. R. EVENSMOEN*; L. RIMOL; T. HANSEN; A. HÅBERG. *NTNU.*

8:00 JJJ54 **744.05** Comparison of the ERP correlates of encoding item-item and item-context associations. J. X. WONG*; J. D. KOEN; L. J. LEWIS; M. D. RUGG. *Univ. of Texas At Dallas.*

9:00 JJJ55 **744.06** Consolidation modulates learning following prediction errors. O. BEIN*; L. DAVACHI. *New York Univ.*

10:00 JJJ56 **744.07** An Investigation of tDCS-induced modulations of episodic memory encoding. G. GALLI*; V. NEACSU; F. J. NEWTON. *Kingston Univ.*

11:00 JJJ57 **744.08** Dynamic default network engagement as a function of stimulus familiarity and task performance. J. LAM*; G. TURNER; N. SPRENG. *York Univ., Cornell Univ.*

8:00 JJJ58 **744.09** Human hippocampal recording and stimulation: Validation of depth electrode placement through combined high-resolution imaging and electrophysiologic recordings. R. WICKS; M. WITCHER; D. COUTURE; A. LAXTON; G. POPLI; M. SOLLMAN; D. SONG; V. MARMARELIS; T. BERGER; S. DEADWYLER; R. E. HAMPSON*. *Wake Forest Sch. of Med., USC.*

9:00 JJJ59 **744.10** Differential responsivity of left and right rostrolateral prefrontal cortex to temporal order violations during the retrieval of real world memories. T. E. CHOW*; A. J. WESTPHAL; J. RISSMAN. *UCLA.*

10:00 JJJ60 **744.11** ● Neural correlates of working memory following the practice of meditation - a high-density EEG study. S. DEEPESHWAR*; S. VINCHURKAR; K. NAVEEN. *Swami Vivekananda Yoga Res. Fndn., Swami Vivekananda Yoga Anusandhana Samsthana (SVYASA).*

11:00 JJJ61 **744.12** Predicting involuntary memories. S. A. HALL*; K. H. ZHU; K. E. BRODAR; M. HONG; P. A. KRAGEL; D. LI; D. BERNTSEN; D. C. RUBIN. *Duke Univ., Univ. of North Carolina, Chapel Hill, Vanderbilt Univ., Univ. of Colorado, Boulder, Aarhus Univ.*

8:00 KKK1 **744.13** Saccadic eye movements are phase-locked to posterior α oscillations during successful memory formation - evidence from MEG, fMRI and intracranial data. T. STAUDIGL*; E. HARTL; S. NOACHTAR; I. C. WAGNER; C. F. DOELLER; O. JENSEN. *Radboud Univ., Univ. of Munich, Radboud Univ. Nijmegen Med. Ctr.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

9:00 KKK2 **744.14** Effects of aging on activations in the dorsomedial prefrontal cortex and hippocampus during encoding with autobiographical reasoning. T. TSUKIURA*; K. NORIMOTO; R. YAMAWAKI; Y. SHIGEMUNE. *Kyoto Univ., Kyoto Univ., Kyoto Univ. Hosp., Otto-von-Guericke Univ. Magdeburg.*

10:00 KKK3 **744.15** Serial dependence in spatial working memory: Attraction not swaps. D. BLISS*; M. D'ESPOSITO. *UC Berkeley.*

11:00 KKK4 **744.16** Blast from the past: Episodic memory supports working memory maintenance. A. NOVICK*; A. M. BORNSTEIN; K. A. NORMAN; J. D. COHEN. *Princeton Univ.*

8:00 KKK5 **744.17** Gluing memories via oscillations: θ phase synchrony drives associative memory formation in humans. A. CLOUTER*; K. SHAPIRO; S. HANSLMAYR. *Univ. of Birmingham.*

9:00 KKK6 **744.18** Intersubject correlation analysis of students' brain activity during listening to teacher's explanation. Y. HIRAKO*; T. KOIDE; T. ITO; S. SHIMADA. *Meiji Univ., Meiji Grad. Sch., Meiji Univ., Meiji Univ.*

10:00 KKK7 **744.19** Reward and salience determine the precision of working memory encoding with different time-courses. P. C. KLINK*; D. JEURISSEN; J. THEEUWES; D. DENYS; P. ROELFSEMA. *Netherlands Inst. For Neurosci., Academic Med. Center, Univ. of Amsterdam, Columbia Univ., VU Univ.*

11:00 KKK8 **744.20** Reward prediction errors enhance episodic memory. N. ROUHANI*; K. A. NORMAN; Y. NIV. *Princeton Univ., Princeton.*

8:00 KKK9 **744.21** A common, fine-grained code for object meaning in perirhinal cortex. A. R. PRICE*; M. BONNER; J. PEELLE; M. GROSSMAN. *Univ. of Pennsylvania, Washington Univ. in St. Louis.*

9:00 KKK10 **744.22** Goal-directed episodic memory decisions are reflected in the functional connectivity patterns. Y. NAH*; S. A. HUETTEL; I. G. DOBBINS; S. HAN. *Yonsei Univ., Duke Univ., Washington Univ. in St. Louis.*

10:00 KKK11 **744.23** Beyond slots and resources: an integrative approach to visual working memory. R. SENGUPTA*; J. K. TSOTSOS; S. YOO; C. WLOKA; T. KUNIC. *York Univ.*

11:00 KKK12 **744.24** Comparing fear conditioning using immersive virtual reality versus computer display. J. ROSÉN*; G. KASTRATI; F. AHS. *Dept. of Psychology.*

8:00 KKK13 **744.25** Disentangling remembered and perceived information in the full correlation matrix of human brain activity. J. HUTCHINSON*; Y. WANG; N. TURK-BROWNE. *Princeton Univ.*

9:00 KKK14 **744.26** Online measures of perceptual integration predict statistical learning. L. BATTERINK*; K. A. PALLER. *Northwestern Univ.*

10:00 KKK15 **744.27** Parietal memory reactivation and retrieval-induced modification of long-term memories. H. LEE*; R. SAMIDE; F. R. RICHTER; B. A. KUHL. *New York Univ., Univ. of Oregon, Univ. of Cambridge.*

POSTER

745. Human Cognition: Individual Differences I

Theme H: Cognition

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 KKK16 **745.01** Computational model and erp enabled prediction of single trial behavior on a numerical comparison task. R. W. PRATHER*; S. HEVERLY-FITT. *Univ. of Maryland.*

9:00 KKK17 **745.02** Characterizing parietal memory network responses under incidental memory task conditions in highly-sampled individual subjects using fMRI. A. W. GILMORE*; S. M. NELSON; T. O. LAUMANN; J. J. BERG; D. J. GREENE; E. M. GORDON; A. L. NGUYEN; M. ORTEGA; R. S. COALSON; B. L. SCHLAGGAR; S. E. PETERSEN; N. U. F. DOSENBACH; K. B. MCDERMOTT. *Washington Univ., VISN 17 Ctr. of Excellence for Res. on Returning War Veterans, Univ. of Texas at Dallas, Baylor Univ., Washington Univ., Washington Univ., Washington Univ., Washington Univ., Washington Univ.*

10:00 KKK18 **745.03** Individual representation of large scale brain network related to creative insight: Voxel-Based Morphometry <and> resting-state functional connectivity analyses. T. OGAWA*; T. AIHARA; T. SHIMOKAWA; O. YAMASHITA. *ATR, ATR.*

11:00 KKK19 **745.04** Effects of global signal regression (GSR) and motion scrubbing are essentially similar between and within subjects. B. ADEYEMO*; B. SEITZMAN; S. E. PETERSEN. *Washington Univ. Sch. of Med., Washington Univ. in St. Louis, Washington Univ. Sch. of Med., Washington Univ. Sch. of Med.*

8:00 KKK20 **745.05** Binaural beats for enhancing cognitive functions in healthy individuals. G. B. PATRUDU*. *Andhra Med. Col. & King George Hosp.*

9:00 KKK21 **745.06** High-fidelity descriptions of the brain networks of individuals with and without Traumatic Brain Injury using fMRI. E. M. GORDON*; B. S. GARY; R. M. SWEIDAN; T. O. LAUMANN; D. J. GREENE; J. J. BERG; A. W. GILMORE; K. B. MCDERMOTT; S. E. PETERSEN; B. L. SCHLAGGAR; N. U. F. DOSENBACH; S. M. NELSON. *Ctr. of Excellence for Res. on War Veterans, Univ. of Texas at Dallas, Washington Univ. Sch. of Med., Washington Univ. Sch. of Med., Washington Univ. Sch. of Med., Washington Univ. Sch. of Med., Washington Univ. Sch. of Med., Baylor Univ.*

10:00 KKK22 **745.07** Deep dynamic phenotyping of the individual: Tracking within-subject variability in social and emotional behavioral profiles using smartphones. M. SHERMOHAMMED*; I. J. BARNETT; M. V. KIANG; R. L. BUCKNER; J. T. BAKER; J. ONNELA; L. H. SOMERVILLE. *Harvard Univ., Harvard T.H. Chan Sch. of Publ. Hlth., Massachusetts Gen. Hosp., Harvard Med. Sch., McLean Hosp.*

11:00 KKK23 **745.08** Deep dynamic phenotyping of the individual: Circuit dynamics underlying longitudinal fluctuations in mood and cognition in patients with bipolar disorder. J. T. BAKER*; R. M. HUTCHISON; R. M. BRAGA; J. A. NIELSEN; L. FARFEL; M. E. MAROTTA; N. MUELLER; R. J. JUELICH; J. ONNELA; D. ONGUR; R. L. BUCKNER. *Harvard Med. Sch., McLean Hosp., Massachusetts Gen. Hosp., Harvard Univ., Imperial Col., Harvard T. H. Chan Sch. of Publ. Hlth.*

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* Indicates abstract's submitting author

8:00 KKK24 **745.09** Allelic variations in PLP1 and CNTN1 modulate interhemispheric integration. S. OCKLENBURG*; W. M. GERDING; L. ARNING; E. GENÇ; J. T. EPPLEN; O. GÜNTÜRKÜN; C. BESTE. *Ruhr-University of Bochum, TU Dresden.*

9:00 KKK25 **745.10** Deep dynamic phenotyping of the individual: Dynamics associated with stress and transitions of college life. G. COOMBS III*; M. P. HIND; J. A. NIELSEN; J. ONNELA; R. L. BUCKNER. *Harvard Univ., Massachusetts Gen. Hosp., Harvard T.H. Chan Sch. of Publ. Hlth., Harvard Med. Sch.*

10:00 KKK26 **745.11** Deep dynamic phenotyping of the individual: A platform for precision neuroscience. R. L. BUCKNER*; R. M. BRAGA; R. M. HUTCHISON; M. SHERMOHAMMED; G. COOMBS; I. J. BARNETT; M. V. KIANG; L. FARFEL; M. E. MAROTTA; R. W. MAIR; T. M. O'KEEFE; J. MEICKLE; H. LIU; L. H. SOMERVILLE; J. ONNELA; J. T. BAKER. *Harvard Univ., Massachusetts Gen. Hosp., Harvard Med. Sch., Imperial Col. London, Harvard T.H. Chan Sch. of Publ. Hlth., McLean Hosp.*

11:00 KKK27 **745.12** Left-ward structural asymmetry in visual word form area favors verbal Stroop performance. A. VALLESI*; I. MAZZONETTO; A. BERTOLDO. *Univ. of Padova, Univ. of Padova.*

8:00 KKK28 **745.13** Common and unique topological variants: Individual differences in the functional organization of the resting human brain. B. A. SEITZMAN*; T. O. LAUMANN; B. ADEYEMO; E. M. GORDON; A. W. GILMORE; J. J. BERG; M. ORTEGA; A. NGUYEN; D. J. GREENE; K. B. MCDERMOTT; S. M. NELSON; B. L. SCHLAGGAR; N. U. F. DOSENBACH; S. E. PETERSEN. *Washington Univ. Sch. of Med., Ctr. for Excellence for Res. on War Veterans, Univ. of Texas Dallas, Washington Univ. in St. Louis, Washington Univ. Sch. of Med., Washington Univ. Sch. of Med., Baylor Univ., Washington Univ. Sch. of Med., Washington Univ. Sch. of Med.*

9:00 KKK29 **745.14** Network markers of individual variability in the human functional connectome. C. PENA; A. AVENA-KOENIGSBERGER; J. SEPULCRE; O. SPORNS*. *Indiana Univ., Harvard Univ., Indiana Univ.*

10:00 KKK30 **745.15** When the going gets tough, the low cholinergic stop going: Cholinergic genetic variation and right prefrontal activation, signal detection, and real-world distraction. A. CAPLE*; Z. LIN; A. BERRY; R. D. BLAKELY; M. SARTER; C. LUSTIG. *Univ. of Michigan, Lawrence Berkeley Natl. Lab., Florida Atlantic Univ.*

11:00 KKK31 **745.16** Individual variability and connectivity dynamics in modular organization of human cortical functional networks. M. FUKUSHIMA*; R. F. BETZEL; Y. HE; M. A. DE REUS; M. P. VAN DEN HEUVEL; X. ZUO; O. SPORNS. *Indiana Univ., Univ. of Pennsylvania, Chinese Acad. of Sci., Univ. Med. Ctr. Utrecht, Indiana Univ. Network Sci. Inst.*

8:00 KKK32 **745.17** ● Deep dynamic phenotyping of the individual: Estimating within-subject cortical thickness to 10μm precision using cluster scanning. J. A. NIELSEN*; B. R. FISCHL; R. L. BUCKNER. *Harvard Univ., Massachusetts Gen. Hosp., Harvard Med. Sch.*

9:00 KKK33 **745.18** Unique contributions of cortical brain characteristics to fluid intelligence. C. FRAENZ*; C. SCHLUTER; P. FRIEDRICH; O. GUNTURKUN; E. GENC. *Ruhr-University.*

10:00 KKK34 **745.19** High-fidelity mapping of individual human brain organization and function. S. M. NELSON*; T. O. LAUMANN; A. W. GILMORE; J. J. BERG; D. J. GREENE; E. M. GORDON; M. ORTEGA; A. NGUYEN; C. HOYT-DRAZEN; R. S. COALSON; K. B. MCDERMOTT; J. S. SHIMONY; A. Z. SNYDER; B. L. SCHLAGGAR; S. E. PETERSEN; N. U. F. DOSENBACH. *Ctr. of Excellence for Res. on War Veterans, Univ. of Texas - Dallas, Baylor Univ., Washington Univ. in St. Louis, Washington Univ. in St. Louis, Washington Univ. in St. Louis, Washington Univ. in St. Louis, Washington Univ. in St. Louis.*

11:00 KKK35 **745.20** The relationship between axon density, myelination and microstructure in the human corpus callosum. E. GENC*; C. FRAENZ; P. FRIEDRICH; C. SCHLÜTER; S. OCKLENBURG; O. GUNTURKUN. *Ruhr Univ. Bochum.*

8:00 KKK36 **745.21** Cognitive control network global connectivity is related to the mental health of healthy individuals. D. H. SCHULTZ*; T. ITO; L. I. SOLOMYAK; R. H. CHEN; R. D. MILL; K. R. KULKARNI; M. W. COLE. *Rutgers-Newark.*

9:00 KKK37 **745.22** Deep dynamic phenotyping of the individual: Exploring brain state dynamics over multiple timescales. R. HUTCHISON*, III; R. M. BRAGA; J. T. BAKER; R. L. BUCKNER. *Harvard Univ., Harvard Univ., Massachusetts Gen. Hosp., Imperial Col. London, McLean Hosp., Harvard Med. Sch.*

10:00 KKK38 **745.23** Deep dynamic phenotyping of the individual: Mapping idiosyncratic features of network and regional architecture. R. M. BRAGA*; R. HUTCHISON; H. LIU; R. L. BUCKNER. *Harvard Univ., Imperial Col. London, Massachusetts Gen. Hosp., Harvard Med. Sch.*

POSTER

746. Human Cognition: Temporal Processing II

Theme H: Cognition

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 KKK39 **746.01** Distinct neural network dynamics are involved in three aspects of cognitive flexibility, determined at the trial level. K. B. STEELE*; S. MOLHOLM; J. J. FOXE. *Albert Einstein Col. of Med., Albert Einstein Col. of Med., Univ. of Rochester.*

9:00 KKK40 **746.02** ● Neural entrainment to the beat: The "missing pulse" phenomenon. E. W. LARGE*; E. M. ZION GOLUMBIC; C. E. SCHROEDER; D. POEPPEL. *Univ. of Connecticut Dept. of Psychology, Bar Ilan Univ., Columbia Univ. Med. Ctr., New York Univ.*

10:00 KKK41 **746.03** The α-θ-γ (ATG) switch - a neurophysiological and conceptual perspective. U. RIBARY*; S. M. DOESBURG; L. M. WARD. *Simon Fraser Univ. (SFU), Univ. of British Columbia (UBC).*

11:00 KKK42 **746.04** Hazard rate modulates reaction time to auditory and visual stimuli with complex probabilistic structure. M. GRABENHORST*; G. MICHALAREAS; C. ABEL; V. DEHMELT; D. POEPPEL. *Max Planck Inst. (MPIEA).*

8:00 KKK43 **746.05** Auditory rhythm entrainment relates to prediction of pitch: The role of β oscillation. L. J. TRAINOR*; A. CHANG; K. CLAYWORTH; D. BOSNYAK. *McMaster Univ.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
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* Indicates abstract's submitting author

9:00 KKK44 **746.06** Intentional binding with sustained visual feedback: A paradigm compatible with chronometric TMS. A. D. SHAPIRO*; L. J. VOLZ; T. G. LEE; S. T. GRAFTON. *Univ. of California, Santa Barbara, Univ. of California, Santa Barbara, Univ. of California, Santa Barbara, Univ. of Michigan.*

10:00 KKK45 **746.07** Eeg and reaction time profiling in novice meditators. S. S. JOSHI*; A. PATEL; A. AGARWAL; B. F. O'HARA. *Univ. of Kentucky, Signal Solutions LLC.*

11:00 KKK46 **746.08** Duration adaptation improves time sensitivity. M. J. HAYASHI*; N. L. HOHERCHAK; R. B. IVRY. *Univ. of California, Berkeley, Osaka Univ.*

8:00 KKK47 **746.09** A cerebellar role in optimal sub-second trajectory prediction. C. B. OWENS*; C. DE BOER; G. GENNARI; R. BROERSEN; J. PEL; J. VAN DER STEEN; W. CLAPP; B. MILLER; Y. VAN DER WERF; C. DE ZEEUW. *Erasmus MC, Agency for Science, Technol. and Res., Univ. of Padua, Netherlands Inst. for Neurosci., Neuroscouting LLC, VU Univ. medical center.*

9:00 KKK48 **746.10** The effects of age & interaural delay on human cortical processing of changes in interaural correlation. M. WANG*; Y. YANG. *Sch. of Psychology, Beijing Normal Univ.*

POSTER

747. Plasticity and Disorders of Executive Function

Theme H: Cognition

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 KKK49 **747.01** ● FAST: A novel, executive function-based approach to cognitive enhancement. J. N. ALMQUIST*; S. MATHAN; A. BREM; F. PLESSOW; J. MCKANNA; A. PASCUAL-LEONE; R. COHEN KADOSH; M. PAVEL; D. CORNHILL; M. DILLARD; D. ERDOGMUS; G. KIMBALL; K. MANSFIELD; E. MYERS; U. ORHAN; E. SANTARNECCHI; T. THOMPSON; N. YEUNG. *Honeywell Aerospace, Univ. of Oxford, Beth Israel Deaconess Med. Center, Harvard Med. Sch., Northeastern Univ., SimCoach Games.*

9:00 KKK50 **747.02** Alterations in resting state connectivity within the central executive network in HIV predict neurocognitive impairment. R. C. MCINTOSH*; M. HIDALGO; C. SHIKUMA; K. KILLIANPUR. *Univ. of Miami, Univ. of Miami, John A. Burns Sch. of Med., John A. Burns Sch. of Med.*

10:00 KKK51 **747.03** Second validation of a system to monitor, extract, and decode indicators of cognitive workload (MEDIC). B. K. BRACKEN*; A. NEGRI; P. AMAZEEN; M. FEDELE; A. LIKENS; M. DEMIR; N. PALMON; S. ELKIN-FRANKSTON; N. COOKE. *Charles River Analytics, Charles River Analytics, Arizona State Univ., Arizona State Univ.*

11:00 KKK52 **747.04** ● ERP as a biomarker for tDCS neuromodulation of executive function. L. DUBREUIL VALL*; P. CHAU; G. RUFFINI; J. CAMPRODON. *Neuroelectrics, Massachusetts Gen. Hosp., Univ. de Barcelona.*

8:00 KKK53 **747.05** Selective attention in women victims of domestic violence. B. BEDOLLA; J. NUÑEZ; M. M. LOPEZ-TITLA*; D. ANGELES. *Univ. del Valle de México, INPRFM, Facultad de psicología. UNAM.*

9:00 KKK54 **747.06** Cognitive control network flexible hub connectivity is altered across distinct mental illnesses. M. SPRONK*; A. ANTICEVIC; M. W. COLE. *Rutgers Univ., Yale Univ.*

10:00 KKK55 **747.07** Brain network predictors of training-related gains in older adults after exercise intervention. P. L. BANIQUED*; C. L. GALLEN; M. W. VOSS; C. N. WONG; G. E. COOKE; A. Z. BURZYNSKA; K. DUFFY; J. FANNING; D. EHLERS; E. AWICK; E. MCAULEY; A. F. KRAMER; M. D'ESPOSITO. *Univ. of California Berkeley, Univ. of Iowa, Univ. of Illinois at Urbana-Champaign, Colorado State Univ.*

11:00 KKK56 **747.08** ▲ Binge drinking and neural oscillatory dynamics underlying response inhibition. L. A. HOLCOMB*; S. HUANG; S. M. CRUZ; L. C. WAGNER; A. ANDREWS; K. MARINKOVIC. *San Diego State Univ., UCSD.*

8:00 KKK57 **747.09** ▲ Neurodynamics of decision making under conditions of high and low response conflict as a function of binge drinking. S. CRUZ*; S. HUANG; L. A. HOLCOMB; L. E. BEATON; N. M. FONG; K. MARINKOVIC. *San Diego State Univ., UCSD.*

9:00 KKK58 **747.10** Cortisol levels and inhibitory control correlated with relapse on a group of addicts in rehab treatment. Y. BENITEZ*; Y. RUVALCABA-DELGADILLO; T. MORALES-SALCEDO; A. AGUILAR-DELGADILLO; A. LARIOS-RUIZ; T. VILLASEÑOR-CABRERA; F. JAÚREGUI-HUERTA. *Univ. De Guadalajara, Univ. de Guadalajara, Ctr. de Tratamiento Volver a Nacer A.C.*

10:00 KKK59 **747.11** ● Validity of an online neuropsychological assessment, the NCPT. E. CORDELL*; N. NG; K. KERLAN; C. SIMONE; G. MORRISON. *Lumos Labs.*

11:00 KKK60 **747.12** The cortical-subcortical circuit dynamics of OCD and Tourette syndrome as revealed by functional connectivity analysis of simultaneous scalp and depth EEG recordings. R. HASHEMIYOON*; N. PRINS; A. COITO; M. TOMESCU; T. SCHÜLLER; T. SCHÜLLER; E. SILDATKE; J. KUHN; V. VISSER-VANDEWALLE; C. MICHEL. *Univ. Hosp. of Cologne, Univ. of Geneva.*

8:00 KKK61 **747.13** Exercise-induced cognitive fatigue and its brain mechanism in normobaric hypoxia: A neuroimaging study. G. OCHI*; K. HYODO; K. SUWABE; H. SOYA. *Lab. of Exerc Biochem & Neurosci, Univ. of Tsukuba, Res. Fellow of Japan Society for the Promotion of Sci., Physical Fitness Res. Institute, Meiji Yasuda Life Fndn. of Hlth. and Welfare.*

9:00 KKK62 **747.14** Executive functioning in girls with posttraumatic stress disorder secondary to sexual abuse. S. PRECIADO MERCADO*; A. SANZ MARTIN. *Inst. De Neurociencias.*

10:00 KKK63 **747.15** Enhancement of multitasking performance by transcranial alternating current stimulation (tACS). W. HSU*; T. ZANTO; A. GAZZALEY. *UCSF.*

11:00 KKK64 **747.16** Proactive inhibitory activity in the subthalamic nucleus is related to akinesia in patients with Parkinson's disease. M. ALBARES*; B. LAU; P. LAVIRON; J. LE DOUGET; K. LEHONGRE; S. FERNANDEZ-VIDAL; P. BOULINGUEZ; C. KARACHI; M. WELTER. *INSERM UMR 1127, Assistance Publique-Hôpitaux de Paris AP-HP, Groupe Hospitalier Pitié Salpêtrière, départements de Neurologie et de Neurochirurgie, Sorbonne Universités, UPMC Univ. Paris 06, UMR S 1127, CNRS UMR 7225, ICM, F-75013, plateforme PANAM, ICM, CENIR, plateforme STIM, ICM, Univ. Lyon 1, Villeurbanne, CNRS, UMR5229, Ctr. de Neurosci. Cognitive.*

8:00 KKK65 **747.17** A randomized controlled study examining 13 minutes of daily meditation training on attention, mood and the emotional response to acute stress. A. C. MCHALE*; J. C. BASSO; V. J. ENDE; W. A. SUZUKI. *New York Univ.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

9:00 KKK66 **747.18** A randomized controlled study examining the effects of enhancing fitness on mood and recognition memory in healthy adults. J. C. BASSO*; T. R. LEE; C. CROSTA; N. PAYNE; D. KADAKIA; R. TRIVEDI; T. WANG; W. A. SUZUKI. *New York Univ., Mount Sinai.*

10:00 KKK67 **747.19** A randomized controlled study comparing the effects of continuous aerobic exercise, high-intensity interval training, and walking on mood and cognition. C. CROSTA*; J. C. BASSO; M. RASKIN; P. SEHMBEY; W. A. SUZUKI. *New York Univ.*

11:00 KKK68 **747.20** Binge drinking is associated with reduced EEG-based indices of emotional processing and memory retrieval. S. HUANG*; L. A. HOLCOMB; S. M. CRUZ; K. MARINKOVIC. *San Diego State Univ., UCSD.*

POSTER

748. Computational Models of Reward and Decision Making

Theme H: Cognition

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 KKK69 **748.01** Dynamic quantification of the subjective cost of self-control. C. M. RAIO*; P. GLIMCHER. *New York Univ., Inst. for the Interdisciplinary Study of Decision Making.*

9:00 KKK70 **748.02** Adaptive task representations in context-based decision making. O. LOSITSKY*; R. C. WILSON; M. SHVARTSMAN; J. D. COHEN. *Princeton Univ., Univ. of Arizona.*

10:00 LLL1 **748.03** Cognitive training, the brain, and decision making. M. K. CAULFIELD*; J. KABLE; M. FALCONE; M. MCCONNELL; L. BERNARDO; T. PARTHASARATHIA; N. COOPER; R. ASHARE; J. AUDRAIN-MCGOVERN; R. HORNIK; P. DIEFENBACH; F. LEE; C. LERMAN. *Univ. of Pennsylvania, Univ. of Pennsylvania, Drexel Univ. Westphal Col. of Media Arts & Design.*

11:00 LLL2 **748.04** ● Using cognitive biomarkers to assist human performance on attention-related tasks. M. D. RIEDY*. *SPAWAR Systems Ctr. Atlantic.*

8:00 LLL3 **748.05** Electrophysiological dissociation of learning-related uncertainty- and surprise signals. R. BRUCKNER*; M. R. NASSAR; H. R. HEEKEREN; B. EPPINGER. *Freie Univ. Berlin, Brown Univ., TU Dresden.*

9:00 LLL4 **748.06** Examining the role of memory retrieval in value-based decision making. A. BAKKOUR*; Y. H. R. KANG; M. N. SHADLEN; D. SHOHAMY. *Columbia Univ., Columbia Univ., Columbia Univ., Columbia Univ., Howard Hughes Med. Inst.*

10:00 LLL5 **748.07** Caloric primary rewards decrease temporal persistence. B. J. FUNG*; S. BODE; C. MURAWSKI. *The Univ. of Melbourne, The Univ. of Melbourne.*

11:00 LLL6 **748.08** The cost of aggression: Predicting behavior using a value-based discounting model. H. M. DORFMAN*; E. H. PATZELT; M. PRATER-FAHEY; J. BUCKHOLTZ. *Harvard Univ.*

8:00 LLL7 **748.09** Temporal discounting as an individualized computational marker of treatment trajectory for opioid use disorder. S. LOPEZ-GUZMAN*; A. B. KONOVA; A. A. URMANCHE; J. B. DENNISON; S. ROSS; K. LOUIE; J. ROTROSEN; P. W. GLIMCHER. *NYU, New York Univ. Sch. of Med., Bellevue Hosp. Ctr., New York Univ.*

9:00 LLL8 **748.10** The effect of acute pain on risky and intertemporal choice. L. KOPPEL*; D. ANDERSSON; I. MORRISON; D. VÄSTFJÄLL; G. TINGHÖG. *Linkoping Univ.*

10:00 LLL9 **748.11** Stress exposure decreases cooperative behavior. B. LU*; C. M. RAIO; M. GRUBB; G. S. SHIELDS; G. M. SLAVICH; P. GLIMCHER. *New York Univ., Trinity Col., Univ. of California-Davis, Univ. of California-Los Angeles, Inst. for the Interdisciplinary Study of Decision Making.*

11:00 LLL10 **748.12** Emotional and symbolic trust priors differently modulate the reward prediction error signal during trust game. M. HARUNO*; C. FRITH. *Natl. Inst. of Information and Communication Technol., Wellcome Trust Ctr. for Neuroimaging.*

8:00 LLL11 **748.13** Neural mechanisms and computation that mediates value by others' reward for decision making. H. FUKUDA*; N. MA; S. SUZUKI; N. HARASAWA; K. UENO; J. L. GARDNER; N. ICHINOHE; M. HARUNO; K. CHENG; H. NAKAHARA. *RIKEN, BSI, Tohoku Univ., Stanford Univ., Natl. Ctr. of Neurol. and Phychiatry, Natl. Inst. of Information and Communications Technol.*

9:00 LLL12 **748.14** Neural mechanisms for deciding with predicting others. 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.*

10:00 LLL13 **748.15** The social influence on explore-exploit decisions. H. SADEGHIYEH*; S. WANG; R. C. WILSON. *Univ. of Arizona, Univ. of Arizona.*

11:00 LLL14 **748.16** Event-related potentials associated to differential processing of healthy and unhealthy food in children. M. DOMÍNGUEZ-MARÍN; T. V. ROMÁN-LÓPEZ; J. A. FRANCO-RODRÍGUEZ; P. I. CLAVEL-PÉREZ; M. MÉNDEZ-DÍAZ; A. E. RUIZ-CONTRERAS; O. PROSPERO-GARCIA*. *UNAM, Lab. Neurogenómica Cognitiva, Fac. Psicología, UNAM.*

8:00 LLL15 **748.17** Information integration in complex decision problems. E. ELDAR*; G. BAE; Z. KURTH-NELSON; P. DAYAN; R. J. DOLAN. *UCL, UCL, UCL, UCL, UCL.*

9:00 LLL16 **748.18** Sprint to the finish: How effort and time interact in movement decisions. C. M. HEALY*; A. A. AHMED. *Univ. of Colorado.*

10:00 LLL17 **748.19** High-resolution imaging of the basal ganglia in rapid choice behavior. M. MULDER*; J. SCHOUTEN; M. KEUKEN; B. HOMMEL; B. U. FORSTMANN. *Univ. of Amsterdam, Leiden Univ.*

11:00 LLL18 **748.20** A bias-variance trade-off that governs individual variability in learning and decision-making. C. M. GLAZE*; J. W. KABLE; J. I. GOLD. *Univ. of Pennsylvania, Univ. of Pennsylvania.*

8:00 LLL19 **748.21** Hebbian mechanisms for task-set learning. F. BOUCHACOURT*; S. PALMINTERI; E. KOECHLIN; S. OSTOJIC. *Ecole Normale Superieure.*

9:00 LLL20 **748.22** Brain network connectivity underlying decisions between the "lesser of two evils". C. FINNERTY*; C. HANSON; S. HANSON. *Stanford University/Palo Alto Veterans Administrat, Rutgers Univ.*

10:00 LLL21 **748.23** Simple economic choice in large choice sets: An investigation of hick's law. A. THOMAS*; I. KRAJBICH. *Technische Univ. Berlin, Ohio State Univ.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

11:00 LLL22 **748.24** A model based in brain-computer interface to identify risk situations and support to decision-making. R. HÜBNER*; A. N. S. HÜBNER; P. V. O. MIGUEL; L. B. R. AYLON; G. BARRETO. *Federal Univ. of Technol. - Paraná, State Univ. of Maringá, Tech. High Sch. of Campinas, State Univ. of Maringá, State university of Campinas.*

8:00 LLL23 **748.25** Making inter-temporal choices in a 3D environment: Proximity to rewarding cues weakens self control. D. O'CONNOR*; R. JANET; J. DREHER. *CNRS.*

9:00 LLL24 **748.26** Hierarchical environment representations for efficient planning. D. MCNAMEE*; D. WOLPERT; M. LENGYEL. *Univ. of Cambridge.*

10:00 LLL25 **748.27** Withdrawn.

POSTER

749. Decision Making and Reasoning

Theme H: Cognition

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 LLL26 **749.01** Distributed representation of task context by fine-scaled subnetworks in prefrontal cortex. M. L. WASKOM*; A. D. WAGNER. *Stanford Univ.*

9:00 LLL27 **749.02** Even-related potentials correlated with the evaluation of service-to-service brand extension. T. YANG*; E. SEOMOON; S. KIM. *Ulsan Natl. Inst. of Sci. and Technol.*

10:00 LLL28 **749.03** Oxytocinergic modulation of human adaptive communication and broadband neuronal dynamics. A. STOLK*; I. KOKAL; M. DE BOER; R. OOSTENVELD; I. TONI. *Helen Wills Neurosci. Institute, UC Berkeley, Donders Inst.*

11:00 LLL29 **749.04** Voxel-wise mapping of the cingulate cortex in impression formation. J. AHN*; Y. NAH; S. HAN. *Yonsei Univ., Yonsei Univ.*

8:00 LLL30 **749.05** ▲ Neural dynamics surrounding the individual arising of spontaneous thoughts. M. GIRN*; M. ELLAMIL; L. WARD; K. CHRISTOFF. *Univ. of British Columbia, Max Planck Res. Group Neuroanatomy and Connectivity.*

9:00 LLL31 **749.06** The influence of eco-labeling on neural predictors of energy-efficient purchases. N. SAWE*; A. SAHOO; G. TANG; B. KNUTSON. *Stanford Univ.*

10:00 LLL32 **749.07** Forming a desired belief: A computational account. D. CAHILL*; T. SHAROT. *Univ. Col. London.*

11:00 LLL33 **749.08** Is there "value" in preference? D. HANSEL*; L. LEBOVICH; Y. LAVI; R. DARSHAN; Y. LOEWENSTEIN. *CNRS, The Edmond and Lily Safra Ctr. for Brain Sciences, The Hebrew Univ. of Jerusalem, The Inst. of Life Sciences, The Hebrew Univ. of Jerusalem.*

8:00 LLL34 **749.09** Frontoparietal and salience network activity precedes voluntary decisions in a virtual environment. N. RENS*; H. BURIANOVÁ; S. BODE; R. CUNNINGTON. *The Univ. of Queensland, The Univ. of Queensland, The Univ. of Melbourne.*

9:00 LLL35 **749.10** The temporal parietal junction tracks evidence of guilt in mock criminal scenarios. R. M. CARTER; S. HAKIMI; J. M. PARELMAN; J. R. LAW; N. VIDMAR; J. A. G. SKENE; D. H. BESKIND; J. M. PEARSON; J. SKENE*. *Univ. of Colorado, Boulder, Duke Univ., Duke Univ.*

10:00 LLL36 **749.11** Spontaneous blink rate correlates with financial risk taking. R. C. WILSON*; E. SHERMAN. *Univ. of Arizona, BASIS Scottsdale.*

11:00 LLL37 **749.12** Metacognition across senses and combination of senses. N. FAIVRE*; E. FILEVICH; G. SOLOVEY; S. KUHN; O. BLANKE. *CNRS, EPFL, MPI, FCEyN, EPFL.*

8:00 LLL38 **749.13** Natural respiratory types on cognitive flexibility and recognition during human discrimination task. N. H. NAKAMURA*; M. FUKUNAGA; Y. OKU. *Dept. Physiology, Hyogo Col. of Med., Natl. Inst. of Physiological Sci.*

9:00 LLL39 **749.14** Why does the mind move? Explaining the dynamics of mind-wandering through experience-sampling. A. HERRERA-BENNETT*; Q. RAFFAELLI; K. CHRISTOFF. *Univ. of British Columbia, Univ. of British Columbia.*

10:00 LLL40 **749.15** Fast sequences of non-spatial state representations in humans. Z. KURTH-NELSON*; M. ECONOMIDES; R. DOLAN; P. DAYAN. *Univ. Col. London, Univ. Col. London, Univ. Col. London.*

11:00 LLL41 **749.16** P3 like late positivity dissociates young and older adult value-based decision processing. P. CHEN*; H. HUNG; J. GOH. *Col. of Medicine, Natl. Taiwan Univ., Natl. Taiwan Univ., Natl. Taiwan Univ., Natl. Taiwan Univ.*

8:00 LLL42 **749.17** ● Assessing selectivity in the basal ganglia: The "gearbox" hypothesis. Z. FOUNTAS*; M. SHANAHAN. *Imperial Col. London.*

9:00 LLL43 **749.18** Connnectome analysis of category naming fluency in frontotemporal degeneration. M. GROSSMAN*; P. COOK; C. MCMILLAN; C. JESTER; K. RASCOVSKY; A. HALPIN; R. LANGEY; O. KOFMAN; J. GEE. *Howard Hughes Med. Inst. - Univ. of Pennsylvania, Univ. of Pennsylvania, Univ. of Pennsylvania, university of Pennsylvania, university of Pennsylvania.*

10:00 LLL44 **749.19** Neural change-detection without the need to detect changes: Leaky integration approaches Bayesian optimality. C. K. RYALI; A. J. YU*. *Univ. of California San Diego, Univ. of California San Diego.*

11:00 LLL45 **749.20** Θband occurrence pattern at the onset of a voluntary movement in humans. S. KAWASHIMA*; A. MORI; N. MINAKAWA; Y. KITA. *Nihon Univ., Keisen Univ.*

8:00 LLL46 **749.21** The use of mobile EEG in a pilot study focused on the impact of low current brain stimulation on math understanding and calculations. R. A. HOUSER*; D. FONSECA; E. O'CONNOR; W. WEBBER; I. HEIM; A. IRWIN. *The Univ. of Alabama, Univ. of Alabama, Univ. of Alabama.*

POSTER

750. Human Cognition

Theme H: Cognition

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 LLL47 **750.01** ▲ Negative valence and dysmodulation of orbitofrontal cortical activity in borderline personality disorder: Sensitivity of top-down attention to facial valence. R. MANIMALETHU*; K. RAMASESHAN; A. BURGESS; P. SOLOFF; V. DIWADKAR. *Wayne State Univ., Wayne State Univ., Univ. of Pittsburgh.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

9:00 LLL48 **750.02** Individual differences in frontal α asymmetry and achievement goals mastery versus asymmetry. M. E. MINEAR*; W. SCOTT, 82071; M. COWEN; M. BROWN; T. HOLMES; D. MECHAM; W. MILLER; M. RADICH; A. STILL. *Univ. of Wyoming.*

10:00 LLL49 **750.03** D-lysergicdiethylamide (LSD) modulates dopaminergic neurons of Ventral Tegmental Area *in vivo* through a pleiotropic mechanism involving D_2 and $TAAR_1$receptors. D. DE GREGORIO; L. POSA; R. OCHOA-SANCHEZ; R. MCLAUGHLIN; S. COMAI; G. GOBBI*. *McGill Univ., Washington State Univ., Vita-Salute-San Raffaele Univ.*

11:00 LLL50 **750.04** The wandering brain: Individual differences in grey and white matter structure predict frequency of goal-related and emotionally positive self-generated thoughts. S. SHETH*; K. C. R. FOX; M. S. JARRETT; M. GIRN; M. DIXON; A. RAUSCHER; K. CHRISTOFF. *Univ. of British Columbia, Univ. of British Columbia.*

8:00 LLL51 **750.05** ▲ Neural abnormalities underlying feedback processing in psychopathy: Processing deficits remain with attention controlled. M. S. SHANE*; B. DARLING. *Univ. of Ontario Inst. of Technol., The Mind Res. Network.*

9:00 LLL52 **750.06** Neural substrate of fatigue in older adults. S. E. BURKE*; I. B. H. SAMUEL; Q. ZHOU; S. N. SIEGEL; J. CAGLE; B. M. KLUGER; M. DING. *Univ. of Florida, Univ. of Colorado Sch. of Med.*

10:00 LLL53 **750.07** Investigating a novel implicit measurement of self-perception. A. TEER*; C. V. LEONARD; M. AIREY; N. IRFAN; M. T. TREADWAY. *Emory Univ.*

11:00 LLL54 **750.08** Altered prefrontal cortical gray matter volume is associated with the relationship between depression and Internet gaming. J. CHOI*; J. CHUN; H. CHO; J. KIM; K. AHN; D. KIM. *Seoul St. Mary's Hosp., Seoul St. Mary's Hosp., Seoul St. Mary's Hosp.*

8:00 LLL55 **750.09** Behavioral phenotyping of impulsivity with a dynamic decision-making task. M. CARLAND*; G. DEROSIERE; D. THURA; P. CISEK. *Univ. De Montréal, Catholic Univ. of Louvain, Univ. De Montréal.*

9:00 LLL56 **750.10** Altered orbitofrontal reactivity during reward processing among pathological gamblers and problematic pornography users. M. K. GOLA*; M. WORDECHA; G. SESCOUSSE; M. LEW-STAROWICZ; M. WYPYCH; B. KOSSOWSKI; S. MAKEIG; A. MARCHEWKA; M. POTENZA. *UC San Diego, INC, SCCN, Inst. of Psychology, Polish Acad. of Sci., Radboud University, Donders Inst. for Brain, Cognition and Behavior, III Dept. of Psychiatry, Inst. of Psychiatry and Neurol., Lab. of Brain Imaging, Neurobio. Center, Nencki Inst. of Exptl. Biol. of Polish Acad. of Sci., Departments of Psychiatry and Neurobiology, Child Study Ctr. and CASAColumbia, Yale Sch. of Med.*

10:00 LLL57 **750.11** A metacognitive model of personality. K. MOGI*. *Sony Comp Sci. Lab.*

11:00 LLL58 **750.12** Age-related differences in the organization of large-scale functional brain networks during successful memory formation. G. S. WIG*; F. ALHAZMI; M. Y. CHAN; N. K. SAVALIA. *Univ. of Texas at Dallas Ctr. for Vital Longevity, Univ. of Texas Southwestern Med. Ctr.*

8:00 LLL59 **750.13** Long-term vegetable, fruit, fruit juice intake and subjective cognitive decline in men. C. YUAN*; E. FONDELL; A. BHUSHAN; A. ASCHERIO; F. GRODSTEIN; W. WILLETT. *Harvard T.H. Chan Sch. of Publ. Hlth., Harvard Med. Sch., Harvard Med. Sch.*

9:00 LLL60 **750.14** Functional parcellation of the cerebral cortex across the healthy adult lifespan using resting-state functional connectivity. L. HAN*; N. K. SAVALIA; M. Y. CHAN; P. F. AGRES; G. S. WIG. *The Univ. of Texas At Dallas, The Univ. of Texas at Dallas, Univ. of Texas Southwestern Med. Ctr.*

10:00 LLL61 **750.15** A cognitive stressor for event-related potential studies: The Portland arithmetic stress task. R. M. ATCHLEY*; R. ELLINGSON; D. KLEE; T. MEMMOTT; B. OKEN. *Oregon Hlth. and Sci. Univ. Dept. of Neurol., Oregon Hlth. & Sci. Univ.*

11:00 LLL62 **750.16** Smoking effects on attentional control: More than just withdrawal? J. NICOSIA*; C. LUSTIG. *Univ. of Michigan.*

8:00 LLL63 **750.17** Resting fMRI signal predicts evoked connectivity with TMS-fMRI. D. OATHES*; M. GOODKIND; G. FONZO; G. GLOVER; B. PATENAUDE; A. ETKIN. *Univ. of Pennsylvania, New Mexico VA Hlth. Care Syst., Stanford Univ., Stanford Univ.*

9:00 LLL64 **750.18** ●▲ Self-estimates of cognitive abilities predict performance on the NeuroCognitive Performance Test. K. D. BIDDLE*; N. F. NG; C. SIMONE; G. MORRISON. *Dartmouth Col., Lumos Labs, Inc.*

POSTER

751. Molecular Techniques

Theme I: Techniques

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 LLL65 **751.01** Monomeric far-red and near-infrared fluorescent proteins for neuroimaging. K. D. PIATKEVICH*; E. JUNG; C. LINGHU; H. SUK; D. PARK; B. SZABO; M. DROBIZHEV; F. CHEN; O. SHAMESH; E. S. BOYDEN. *MIT, Eotvos Univ., Montana State Univ.*

9:00 LLL66 **751.02** Stability of lentivirus over hours at room temperature facilitates convection-enhanced delivery of DREADD expressing vectors into Rhesus monkey amygdala. W. LERCHNER*; M. A. G. ELDRIDGE; D. DEBORAH ROSE; V. DER MINASSIAN; V. COSTA; B. AVERBECK; B. J. RICHMOND. *NIH.*

10:00 LLL67 **751.03** ● A Novel cell based assay for screening Muscarinic M1 allosteric modulators. R. SUBRAMANIAN; S. EDULA; S. PETLU; M. NISSANKARARAO; M. SRIRANGAVARAM; V. MEKALA; K. MUDIGONDA*; R. NIROGI. *Suven Life Sci. Ltd, Suven Life Sci.*

11:00 LLL68 **751.04** An experimental and bioinformatics pipeline for determining the contribution of alternative splicing to cell surface receptor diversity. T. RAY*; K. J. COCHRAN; O. FEDRIGO; M. WANG; M. HE; E. PARK; J. N. KAY. *Duke Univ., Duke Univ., Duke Univ., Advanced Cell Diagnostics, Inc, Du.*

8:00 LLL69 **751.05** Phagocyte recruitment signals in apoptotic vesicles present in exosomal preparations. V. V. DIDENKO*. *Baylor Col. of Med.*

9:00 LLL70 **751.06** Doxycycline (DOX)-controlled gating of gene expression in Rhesus monkey brain. H. LAM*; W. LERCHNER; M. A. G. ELDRIDGE; V. DER MINASSIAN; B. J. RICHMOND. *NIH.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
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* Indicates abstract's submitting author

10:00 MMM1 **751.07** Autoradiography as a universal tool to measure quantitative receptor density and G protein-coupled receptor activation. J. RYTKÖNEN; T. PARKKARI; J. PUOLIVÄLI; S. ALASTALO; O. M. KONTKANEN*; P. J. SWEENEY; A. NURMI; T. HUHTALA. *Charles River Discovery.*

11:00 MMM2 **751.08** Fret for measuring distances of connexin containing gap junctions. H. DECKER*; N. MARTINEZ-RIVERA; S. LIN; M. BROWNE; E. ROSA-MOLINAR. *Univ. of Kansas, Univ. of Kansas, Univ. of Kansas, Andor Technology, Inc., Andor Technologies.*

8:00 MMM3 **751.09** Using the halotag technology to investigate the turnover of psd-95 at single synapses. M. KRATSCHKE*; D. FRICKER; N. H. KOMIYAMA; S. G. N. GRANT. *Univ. of Edinburgh, Univ. of Edinburgh.*

9:00 MMM4 **751.10** Analysis of mitochondrial transport dynamics in axons. K. MIN*. *UNIST.*

10:00 MMM5 **751.11** Immunolocalization of melatonin and its analogue M3C in testis of rat. E. N. RODRIGUEZ*. *Univ. Nacional Autónoma De México.*

11:00 MMM6 **751.12** Deciphering the cellular and physiological actions of cell-penetrating pepducins affecting NTS1 signaling. R. L. BROUILLETTE*; C. MONA; É. BESSERER-OFFROY; S. LAVENUS; J. CÔTÉ; M. SOUSBIE; J. LONGPRÉ; R. LEDUC; M. GRANDBOIS; É. MARSAULT; P. SARRET. *Univ. De Sherbrooke.*

8:00 MMM7 **751.13** Light-inducible cre recombinase: Using LOV domains to create a single-molecule light activated DNA recombinase enzyme. D. M. OPLAND*; D. S. ABRAMOV; C. W. BOND; E. P. FOSCUE; R. J. DILEONE. *Yale Univ., Yale Univ.*

9:00 MMM8 **751.14** Using CLIP to measure alternative polyadenylation in specific neurons. S. JEREB*; H. HWANG; R. B. DARNELL. *The Rockefeller Univ.*

10:00 MMM9 **751.15** Probing synaptic plasticity: A single cell RNA sequencing approach. H. J. MCQUILLAN*; P. J. GUILFORD; R. C. DAY; B. J. SNOW; J. N. J. REYNOLDS. *Univ. of Otago, Auckland District Hlth. Board.*

11:00 MMM10 **751.16** Novel approaches to visualise the expression, localization, and signaling of TLR4. J. THOMAS*; S. MUSTAFA; C. ASHWOOD; L. M. PARKER; N. H. PACKER; M. R. HUTCHINSON. *Ctr. For Nanoscale Biophotonics, Univ. of Adelaide, Ctr. For Nanoscale Biophotonics, Macquarie Univ.*

8:00 MMM11 **751.17** Novel therapeutic strategies in nbia: A gene therapy approach for pla2g6-associated neurodegeneration. S. CUKA*; J. NG; K. SEINO; M. HUGHES; S. WADDINGTON; M. KURIAN; A. RAHIM. *UCL, Univ. Col. London, St Marianna Univ. Sch. of Med., Univ. Col. London, Univ. Col. London.*

9:00 MMM12 **751.18** Non-biased miRNA purification from clinical samples stored in TRIzol. S. FORMAN; D. CABAYA; J. A. VALADEZ*; X. JIA. *Zymo Res. Corp.*

10:00 MMM13 **751.19** miR-126 mediates Tβ4-induced neurovascular remodeling in diabetic peripheral neuropathy. X. LU*. *Henry Ford Hosp.*

11:00 MMM14 **751.20** Second-generation brainbow adeno-associated virus with improved labeling brightness, color diversity and neuronal subtype identity. F. LU; A. STOLZ; D. CAI*; J. S. STECHER; D. ROOSSIEN; Z. HALL. *Univ. of Michigan.*

8:00 MMM15 **751.21** Novel sample preservation for non-biased recovery and detection of miRNA markers in clinical samples. S. FORMAN; L. BASILIO; A. D. CLAUSEN*; X. JIA. *Zymo Res. Corp.*

9:00 MMM16 **751.22** Novel method to ascertain chromatin accessibility at specific genomic loci from frozen brain homogenates and laser capture microdissected defined cells. E. DELVAUX; D. MASTROENI; J. NOLZ; P. D. COLEMAN*. *ASU-Banner Neurodegenerative Res. Ctr., Banner Sun Hlth. Res. Inst.*

10:00 MMM17 **751.23** ▲ Translation Dysregulation in ALS. S. YAO*; A. COYNE; D. ZARNESCU. *Univ. of Arizona, Univ. of Arizona.*

11:00 MMM18 **751.24** Validation of the use of voltage-sensitive fluorescent proteins in *C. elegans*. K. M. WEBSTER*; M. CHATZIGEORGIOU; W. R. SCHAFER. *MRC Lab. of Mol. Biol., Sars Intl. Ctr. for Marine Mol. Biol.*

8:00 MMM19 **751.25** ● Enrichment of unamplified DNA and long-read SMRT sequencing to unlock repeat expansion disorders. J. EKHOLM*; Y. TSAI; T. A. CLARK. *Pacific Biosci. Inc, Pacific Biosci.*

9:00 MMM20 **751.26** Two-color bioluminescence for sensitive and quantitative discrimination of cell grafts in the mouse brain. M. ASWENDT*; S. VOGEL; C. SCHÄFER; A. JATHOUL; M. HOEHN. *Max Planck Inst. For Metabolism Res., Cardiff Univ., Leiden Univ. Med. Ctr.*

POSTER

752. Cellular and Network Electrophysiological Approaches

Theme I: Techniques

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 MMM21 **752.01** Analysis on neurotoxicity of gold nanoparticles on neurons and glia. S. KIM*; S. HWANG; S. JUN. *Ewha Womans Univ., Ewha Womans Univ.*

9:00 MMM22 **752.02** Low access resistance subcortical whole cell recordings *in vivo*. W. STOY*; Y. J. LIEW; B. YANG; C. J. WHITMIRE; A. PALA; C. CAPOCASALE; T. LEE; A. ORTIZ; P. Y. BORDEN; G. B. STANLEY; C. R. FOREST. *Georgia Inst. of Technol., Georgia Inst. of Technol.*

10:00 MMM23 **752.03** Rapid cortical barrel mapping using automated multi-whisker stimulation and intrinsic optical signal imaging. T. LEE*; C. M. CAPOCASALE; P. Y. BORDEN; W. STOY; C. J. WHITMIRE; Y. LIEW; A. PALA; A. D. ORTIZ; B. YANG; G. B. STANLEY; C. R. FOREST. *Georgia Inst. of Technol., Georgia Inst. of Technol.*

11:00 MMM24 **752.04** Experimental and analytical approaches for multi-site electrophysiology in the topographically aligned thalamocortical circuit. Y. LIEW*; C. J. WHITMIRE; W. A. STOY; A. PALA; A. SEDERBERG; A. D. ORTIZ; P. Y. BORDEN; B. YANG; C. M. CAPOCASALE; T. LEE; C. R. FOREST; G. B. STANLEY. *Georgia Inst. of Technol., Georgia Inst. of Technol.*

8:00 MMM25 **752.05** Cleaning patch-clamp pipettes enables their re-use. I. KOLB*; W. A. STOY; E. ROUSSEAU; O. A. MOODY; A. JENKINS; C. R. FOREST. *Georgia Inst. of Technol., SUNY Polytechnic Inst., Emory Univ., Emory Univ. Sch. of Med.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

9:00 MMM26 **752.06** Scaled electrophysiological, morphological, and transcriptomic characterization of mouse cortical neurons using an *in vitro* slice electrophysiology platform. K. HADLEY; B. LEE; T. KIM; D. HILL; T. JARSKY; L. KIM; R. MANN; A. OLDRE; S. SORENSEN; K. SMITH; J. BERG*; B. TASIC; G. MURPHY; H. ZENG. *Allen Inst. For Brain Sci.*

10:00 MMM27 **752.07** ● *In vitro* electrophysiological recordings of multiple brain regions from aged pig tailed Macaques. A. D. WHYMENT; F. ZHAO; M. VAN DEN TOP; J. PRYOR; D. SPANSWICK*. *NeuroSolutions Ltd., Pacific Discovery Services, Monash Univ.*

11:00 MMM28 **752.08** Flexible microelectrode arrays for high-density subsecond dopamine recording. H. N. SCHWERDT*; M. KIM; D. HOMMA; S. AMEMORI; T. YOSHIDA; H. SHIMAZU; R. S. LANGER; A. M. GRAYBIEL; M. J. CIMA. *MIT, MIT.*

8:00 MMM29 **752.09** Nano-electrode arrays for simultaneous optical and electrical interrogation of *C. elegans* and Hydra. K. N. BADHIWALA*; D. L. GONZALES; D. G. VERCOSA; C. DUPRE; R. YUSTE; J. T. ROBINSON. *Rice Univ., Rice Univ., Rice Univ., Columbia Univ., Baylor Col. of Med.*

9:00 MMM30 **752.10** Nano electrode array for electrical impedance tomography of neural network activity. H. YOON*; M. H. KIM. *Norfolk State Univ.*

10:00 MMM31 **752.11** MIES: A electrophysiology experiment automation software. T. JARSKY*; L. CAMPAGNOLA; D. REID; J. BERG; T. BRAUN. *Allen Inst. for Brain Sci., () byte physics.*

11:00 MMM32 **752.12** Microfluidic actuation of flexible microelectrodes for neural recording and stimulation. F. VITALE*; D. G. VERCOSA; S. PAMULAPATI; J. YAN; K. BADHIWALA; M. PASQUALI; J. T. ROBINSON. *Univ. of Pennsylvania, Rice Univ., Rice Univ., Rice Univ., Rice Univ.*

8:00 MMM33 **752.13** Fully automated closed-loop two-photon guided patch-clamp electrophysiology *in vivo*. H. SUK*; I. VAN WELIE; S. B. KODANDARAMAIAH; B. D. ALLEN; C. R. FOREST; E. S. BOYDEN. *MIT, MIT, Univ. of Minnesota, Twin Cities, MIT, MIT, Georgia Inst. of Technol., MIT.*

9:00 MMM34 **752.14** Reconstruction of optogenetically induced oscillations using magnetoencephalography. G. ALBERTO*; D. KLORIG; J. STAPLETON-KOTLOSKI; G. POPLI; C. CONSTANTINIDIS; J. DAUNAIS; D. GODWIN. *Wake Forest Sch. of Med., Wake Forest Sch. of Med., Wake Forest Sch. of Med., Wake Forest Sch. of Med.*

10:00 MMM35 **752.15** Functional network parcellation of human cortex using ECoG. Y. YAN; T. QIAN; W. ZHOU; Z. LING; H. LIU; B. HONG*. *Tsinghua Univ., Harvard Med. Sch., Yuquan Hospital, Tsinghua Univ., PLA Gen. Hosp.*

11:00 MMM36 **752.16** High information content on-chip read-outs based on large-scale monitoring of neural network activity in healthy and diseased conditions. H. AMIN*; F. MARINARO; T. NIEUS; A. MACCIONE; D. DE PIETRI TONELLI; L. BERDONDINI. *Fondazione Inst. Italiano Di Tecnologia (IIT).*

8:00 MMM37 **752.17** Modular and patterned 3D cortical networks on microelectrode arrays as a brain on a chip model. R. HABIBEY*; A. BLAU. *Italian Inst. of Technol. (IIT).*

9:00 MMM38 **752.18** Objective detection criteria and analyses of θ (θ) and γ (γ) oscillations and their phase-amplitude coupling (PAC) during long-term continuous intrahippocampal LFP recordings in mice. L. MOLNAR; J. DOMOKOS; I. FERANDO; I. MODY*. *Sapientia Univ., UCLA Sch. Med.*

10:00 MMM39 **752.19** Automatic, reliable and practical approach to extracellular neural action potential sorting using model-based clustering, discriminant model selection, and component agglomeration. W. MA*; J. SI. *Arizona State Univ.*

11:00 MMM40 **752.20** Automatic procedures for segmenting and tracking hundreds to thousands of individual neurons recorded by wide-field calcium imaging. S. SHEN; R. WU; H. TSENG; X. HAN; J. SI*. *Arizona State Univ., Boston Univ.*

8:00 MMM41 **752.21** Hippocampal EEG state-dependent cortical calcium dynamics. Y. SHINOHARA*; H. HIRASE. *RIKEN.*

9:00 MMM42 **752.22** Investigation of inter-areal communication through targeted electrophysiological recordings. P. JENDRITZA*; C. M. LEWIS; P. FRIES. *Ernst Struengmann Inst. (ESI) For Neurosci.*

10:00 MMM43 **752.23** Magnetic resonance as wireless power supply for EEG systems. J. BERGELER*; N. V. DE CAMP. *Universitätsmedizin Mainz, Med. Univ. Mainz.*

POSTER

753. Optical Methods: Imaging and Photostimulation

Theme I: Techniques

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 MMM44 **753.01** Open-source software development kit for adaptive optics and optogenetics with a spatial light modulator. R. LIU*; J. BROCKILL; P. LEDOCHOWITSCH; P. SAGGAU. *Allen Inst. For Brain Sci., Allen Inst. for Brain Sci.*

8:00 DP10 **753.02** (Dynamic Poster) Online analysis and perturbation of brain-wide activity in zebrafish. N. VLADIMIROV; C. WANG; S. NARAYAN; J. FREEMAN; P. J. KELLER; M. B. AHRENS*. *Janelia Res. Campus / HHMI.*

10:00 MMM45 **753.03** ● Simultaneous calcium imaging and optogenetic manipulation in freely behaving mice. A. M. STAMATAKIS*; S. GULATI; M. TRULSON; S. L. OTTE. *Inscopix.*

11:00 MMM46 **753.04** Linear two-color uncaging with zero optical crosstalk. S. PASSLICK*; M. T. RICHERS; G. C. R. ELLIS-DAVIES. *Mount Sinai Sch. of Med.*

8:00 MMM47 **753.05** ProjectorScope 2: An updated optical system for patterned optogenetic stimulation and intrinsic signal imaging. S. WANG*; J. J. OSIK; S. D. VAN HOOSER. *Brandeis Univ.*

9:00 MMM48 **753.06** Multimodal nonlinear and thermal imaging platform for assessing infrared neural stimulation. W. R. ADAMS*; A. MAHADEVAN-JANSEN. *Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ. Med. Ctr.*

10:00 MMM49 **753.07** Light gated neurons: The co-varying roles of laser wavelength, power level, and voltage-gated conductances in infrared neural stimulation. B. S. COVENTRY*; J. T. SICK; A. L. SOMMER; C. A. HADDIX; T. M. TALAVAGE; K. M. STANTZ; E. L. BARTLETT. *Purdue Univ., Purdue Univ., Purdue Univ., Purdue Univ., Purdue Univ., Indiana Univ. Sch. of Med., Purdue Univ.*

11:00 MMM50 **753.08** Spatially and temporally controlled photomanipulation of neurons. S. JUNEK*; J. AULBACH; M. FICHTE; A. HECKEL; A. WINGERT; O. WENDT. *Max Planck Inst. For Brain Res., Univ. of Frankfurt, Rapp OptoElectronic GmbH.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

8:00 MMM51 **753.09** Simultaneous fast imaging and manipulation of neuronal networks *in vivo*. S. BOVETTI*; C. MORETTI; S. ZUCCA; M. DAL MASCHIO; P. BONIFAZI; T. FELLIN. *Italian Inst. of Technol., Sch. of Physics and Astronomy.*

9:00 MMM52 **753.10** ● Tracking compound action potential features to identify areas of inhibition. J. FORD*; M. W. JENKINS; H. J. CHIEL; E. D. JANSEN. *Vanderbilt Univ., Case Western Reserve Univ., Case Western Reserve Univ., Vanderbilt Univ.*

10:00 MMM53 **753.11** ● A depolarization-activated increase in voltage-dependent potassium currents in response to elevated temperature may account for action potential block in models of the squid giant axon. M. GANGULY*; M. W. JENKINS; H. J. CHIEL; E. JANSEN. *Vanderbilt Univ., Case Western Reserve Univ., Case Western Reserve Univ.*

11:00 MMM54 **753.12** ●▲Safety and selectivity of infrared block for small diameter axons. E. LOTHET*; H. LU; S. LEWIS; M. JENKINS; H. CHIEL. *Case Western Reserve Univ., Case Western Reserve Univ., Case Western Reserve Univ., Case Western Reserve Univ.*

8:00 MMM55 **753.13** ● Infrared light selectively blocks small-diameter fibers. M. W. JENKINS*; E. H. LOTHET; K. M. SHAW; H. LU; Y. T. WANG; E. D. JANSEN; C. C. HORN; H. J. CHIEL. *Case Western Reserve Univ., Case Western Reserve Univ., Case Western Reserve Univ., Vanderbilt Univ., Univ. of Pittsburgh, Case Western Reserve Univ.*

9:00 MMM56 **753.14** Gradient index lens implant does not affect behavioral tests and has minimal localized tissue reaction. T. A. MURRAY*; S. A. LEE; K. S. HOLLY; V. VOZIYANOV; I. VLACHOS; R. TONG; F. G. SZELE; S. VILLALBA; E. GLASSCOCK. *Louisiana Tech. Univ., Louisiana Tech. Univ., Univ. of Oxford, Louisiana State Univ. Hlth. Sci. Ctr.*

POSTER

754. Biomarkers and Drug Delivery Systems

Theme I: Techniques

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 MMM57 **754.01** Efficacy profiling of T-817MA, anti-Alzheimer drug candidate, and ς-1 receptor agonists. T. YANO; H. TANABE; A. NABETANI; T. OKUDA; M. NAKAGAWA*; T. NAKAMURA. *Toyama Chem. Co Ltd.*

9:00 MMM58 **754.02** Mechanism of PAMAM dendrimers internalization in hippocampal neurons. F. VIDAL*; P. VÁSQUEZ; C. DÍAZ; D. NOVA; J. ALDERETE; L. GUZMÁN. *Univ. of Concepcion, Univ. of Concepcion.*

10:00 MMM59 **754.03** P-glycoprotein (Abcb1a/Mdr1a) limits brain exposure to anti-cancer drug candidate R-roscovitine/seliciclib. F. ERDO*; I. NAGY; M. SIKE; P. KRAJCSI. *Pázmány Péter Catholic Univ., Solvo Biotech., CEVA-Phylaxia.*

11:00 MMM60 **754.04** ● Nose-to-brain transport of oxytocin following intranasal delivery with Precision Olfactory Delivery (POD) technology. A. E. BUSTION*. *Impel Neuropharma.*

8:00 MMM61 **754.05** ▲ Zirconium phosphate nanoparticle studies on sleep behavior and mortality in *Drosophila melanogaster*. J. J. GORBEA-COLON*; N. RODRÍGUEZ; B. CASAÑAS; J. L. COLÓN; J. L. AGOSTO, 00912. *Univ. of Puerto Rico - Río Piedras, Univ. of Puerto Rico Río Piedras, Univ. of Puerto Rico Río Piedras, Univ. of Puerto Rico - Río Piedras.*

9:00 MMM62 **754.06** T-817MA ameliorates cognitive impairment in the Tg2576 transgenic mouse. T. OKUDA*; T. MIYASHITA; H. SUZUKI; H. KOBAYASHI; T. YANO; A. NAKAMURA; M. NAKAGAWA; T. NAKAMURA. *Toyama Chem. Co., Ltd.*

10:00 NNN1 **754.07** Validation of 6-[^{18}F]fluorodopa PET measures. L. TIAN*; S. K. LOFTIN; S. A. NORRIS; H. P. FLORES; J. S. PERLMUTTER. *Washington Univ. Sch. of Med., Washington Univ. Sch. of Med.*

11:00 NNN2 **754.08** ▲ A new method for detection of region- and enzyme-specific bioconversion of neuropeptides by combining *in situ* histochemistry and MALDI imaging mass spectrometry. R. STRÖMVALL; E. BIVEHED; G. TOMASDOTTIR; M. E. ANDERSSON*. *Neurotoxicology, Drug Safety and Tox., Dept. Pharm. Biosci, Uppsala Univ.*

8:00 NNN3 **754.09** Putamen and lateral ventricle adminstration in the cynomolgus monkey. J. DOUVILLE*; G. IACONO; F. EMOND; C. FOUCAULT; J. LAFOND; R. ST-JACQUES; C. COPEMAN. *Charles River Labs. Montreal.*

9:00 NNN4 **754.10** ● Microfluidic manufacture of RNA-lipid nanoparticles leads to highly efficient delivery of potent nucleic acid therapeutics for controlling gene expression. G. T. THARMARAJAH*; E. OUELLET, V6T 1Z3; O. SEIRA; J. LIU; A. THOMAS, V6T 1Z3; T. LEAVER, V6T 1Z3; A. WILD, V6T 1Z3; Y. LI; Y. WANG; W. TETZLAFF; C. L. HANSEN, V6T 1Z3; P. CULLIS, V6T 1Z3; J. R. TAYLOR, V6T 1Z3; E. RAMSAY, V6T 1Z3. *Precision Nanosystems Inc., Univ. of British Columbia, Univ. of British Columbia, Univ. of British Columbia, Univ. of British Columbia.*

10:00 NNN5 **754.11** ● Neuronal autophagy stimulation by nanostructured oxygen solutions. M. V. IVANNIKOV*; M. SUGIMORI; R. R. LLINAS. *NYUSOM.*

11:00 NNN6 **754.12** Discovery of a prototype furoxan as a novel attenuated nitric oxide mimetic for the treatment of neurodegenerative disorders: Proof-of-concept studies. I. T. SCHIEFER*; K. NASH; A. KOSTREVSKI; A. NOVAK; A. RAGHAVAN; J. TULSULKAR; Q. ALHADIDI; S. BHATTI; N. WAMER; E. TISHENKEL; B. LANGENDERFER; K. HAGOOD; A. HORTON; E. N. O. TACKIE-YARBOI; Z. SHAH. *Univ. of Toledo.*

8:00 NNN7 **754.13** No association between levels of uric acid and the rs1014290 polymorphism in Mexican subjects with Parkinson's disease. E. ROMERO GUTIERREZ*; G. HARO HERRERA; E. HERNANDEZ-MENDEZ; J. SALAS-PACHECO; O. ARIAS-CARRION. *Univ. Nacional Autónoma De México, Univ. Juarez del Estado de Durango, Mexico, Univ. Nacional Autónoma de Mexico, Inst. de Fisiología Celular / Hosp. Gen. Dr. Manuel Gea González.*

9:00 NNN8 **754.14** ● Rapid phenotypic and functional maturation of iPSC-derived human neurons for drug discovery. Z. DU*; M. HENDRICKSON; B. DUNGAR; S. ZHANG. *BrainXell Inc., Univ. of Wisconsin.*

10:00 NNN9 **754.15** Mems based gene and drug delivery system: Voltage controlled accumulation and release of molecules. S. SAMPATH KUMAR; A. MOORE; A. SRIDHARAN; J. MUTHUSWAMY*. *Arizona State Univ.*

11:00 NNN10 **754.16** 2-photon evaluation *in-vivo* of acute microglial response to induced tissue damage in vicinity of implanted neural probe embedded in gelatin loaded with minocycline. J. AGORELIUS*; A. D. HOLMKVIST; M. FORNI; C. E. LINSMEIER; J. SCHOUENBORG. *Lund Univ., Lund Univ.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

8:00 NNN11 **754.17** ● Wireless control for simultaneous drug administration in micropump-implanted mice in an array of vivarium cages. T. Q. HOANG*; M. VAISHYA; C. JONES; S. STRONKS; L. RODRIGUEZ; M. MAHDI; G. SHACKLEFORD; R. CASTRO; C. GUTIERREZ; J. FIELD; A. EPSTEIN; R. MOATS; E. F. MENG. *Fluid Synchrony, LLC, USC, CHLA.*

9:00 NNN12 **754.18** ● Investigations into whether dose volume and exogenous mechanical force can enhance antisense oligonucleotide distribution in the central nervous system following lumbar intrathecal administration in cynomolgus monkeys. C. MAZUR*; D. WOLF; B. POWERS; J. SULLIVAN; J. HOPPIN; E. SWAYZE; A. VERMA. *Ionis Pharmaceuticals, Inc., Biogen, Inc., inviCRO, LLC.*

10:00 NNN13 **754.19** ● Identification of ER-000444793, a Cyclophilin D-independent inhibitor of mitochondrial permeability transition using a high-throughput screen in cryopreserved mitochondria. T. BRISTON*; S. LEWIS; M. KOGLIN; K. MISTRY; Y. SHEN; N. HARTOPP; H. FUKUMOTO; M. R. DUCHEN; G. SZABADKAI; J. STADDON; M. ROBERTS; B. POWNEY. *Eisai Ltd., Eisai Inc., Eisai Co. Ltd., UCL.*

11:00 NNN14 **754.20** Neuron-specific intracellular delivery of therapeutic cargo with atoxic derivatives of botulinum neurotoxins. P. H. BESKE*; E. J. CINTRON-VAZQUEZ; M. R. EISEN; C. ANGELES; P. A. BAND; P. M. MCNUTT; K. ICHTCHENKO. *US Army Med. Res. Inst. of Chem. Def., CytoDel LLC, New York Univ. Sch. of Med.*

8:00 NNN15 **754.21** Efficacy and safety related factors after transient blood brain barrier opening by low intensity focused ultrasound. J. SHIN*; Y. NA; C. KONG; J. LEE; J. CHO; J. SEO; W. CHANG; J. CHANG. *Yonsei Univ. Col. of Med., Yonsei Univ. Col. of Med., Catholic Kwandong Univ. Col. of Medicine, Intl. St Mary's Hosp., Yonsei Univ.*

9:00 NNN16 **754.22** ▲ Behavioral comparison of two methods of drug administration in the earthworm. B. A. JOHNSON; E. K. SEARS; W. J. WILSON*. *Albion Col.*

10:00 NNN17 **754.23** ● A correlation of serotonin 2A receptor occupancy and free fraction in rats. J. THENTU; G. BHYRAPUNENI*; V. PALACHARLA; R. NIROGI. *Suven Life Sci.*

11:00 NNN18 **754.24** ● A small molecule therapy for MS patients appears to override inhibitors of oligodendrogenesis to induce remyelination. S. H. NYE*; J. G. YARGER. *ENDECE, LLC.*

8:00 NNN19 **754.25** RNA-based agonists and antagonists (aptamers) for FGFR3 to modulate activation of astrocytes in a glial scar model. N. KAMATKAR*; M. LEVY; J. HÉBERT. *Albert Einstein Col. of Med., Albert Einstein Col. of Med., Albert Einstein Col. of Med.*

9:00 NNN20 **754.26** Does cognitive fatigue correlate with brain iron deposition in basal ganglia in Multiple Sclerosis? S. WOOD; E. DOBRYAKOVA; Z. JIANG; E. HAVRILLA; B. YAO*. *Kessler Fndn., Kessler Fndn., Kessler Fndn., Montclair State Univ., Rutgers, The State Univ. of New Jersey.*

10:00 NNN21 **754.27** Minocycline-loaded nanoparticles for reducing tissue reactions after neural electrode implantation. A. D. HOLMKVIST*; J. AGORELIUS; M. FORNI; C. ERIKSSON LINSMEIER; U. J. NILSSON; J. SCHOUENBORG. *Neuronano Res. Ctr., Ctr. for Analysis and Synthesis.*

11:00 NNN22 **754.28** A novel approach to ischemic stroke biomarker discovery. A. A. DAUBENSPECK*; D. R. COOL; B. R. LUDWIG; J. E. OLSON. *Wright State Univ., Wright State Univ., Premier Hlth. Clin. Neurosci. Institute, Wright State Univ. Boonshoft Sch. of Med.*

8:00 NNN23 **754.29** Evaluation of brain pharmacokinetic properties in awake animals: From rodents to non-human primates. M. VAN GAALEN*; G. FLIK; J. H. A. FOLGERING; A. RASSOULPOUR; M. CHOI; R. STRATFORD; T. I. F. H. CREMERS. *Encepharm, Brains On-Line, Brains On-Line, Duquesne Univ., Univ. of Groningen.*

9:00 NNN24 **754.30** ▲ Ultrasound-mediated delivery across the blood brain barrier. E. G. FERNANDEZ*; M. VALDEZ; M. ROMANOWSKI; T. MATSUNAGA; R. WITTE; T. P. TROUARD. *The Univ. of Arizona, The Univ. of Arizona, The Univ. of Arizona.*

10:00 NNN25 **754.31** Novel multi-step urmc-099 neuroprotective, antiretroviral and autophagy-associated cell responses to combat HIV-1 infection. D. GNANADHAS; P. DASH; Z. LIN; J. M. PUCCINI; H. A. GELBARD; H. E. GENDELMAN*; S. GORANTLA. *Univ. of Nebraska Med. Ctr., Univ. of Rochester Med. Ctr., Univ. of Nebraska Med. Ctr.*

POSTER

755. Computational Tools: Outcomes and Evaluations

Theme I: Techniques

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 NNN26 **755.01** Bioinspired Neuroprosthetic Design Environment (BNDE): A platform for creating hybrid biological/in silico neural networks for motor neuroprosthetic control. M. KOCATURK*; S. TOPKARAOGLU; K. N. ISIK; S. KOCATURK; F. Y. YAMANER; T. BAYKAS; A. GUVENIS; H. O. GULCUR; R. CANBEYLI. *Istanbul Medipol Univ., Istanbul Medipol Univ., Bogazici Univ., Bogazici Univ.*

9:00 NNN27 **755.02** Application of the k-nearest neighbor algorithm and multiple look integration to fuse information for intelligent decision making processes. H. C. YUAN*; M. V. CHAO. *Independent Lab., Independent Lab.*

10:00 NNN28 **755.03** ● The contribution of graph-derived features to a cloud-based distributed neuroscience publication classification pipeline. K. H. AMBERT*; K. S. MUPPALLA. *Intel, Intel.*

11:00 NNN29 **755.04** Algorithmic design of a therapeutically- and energy-efficient closed-loop deep brain stimulation system: A computational study. S. KARAMINTZIOU*; A. L. CUSTÓDIO; B. PIALLAT; M. POLOSAN; S. CHABARDÈS; P. G. STATHIS; G. A. TAGARIS; D. E. SAKAS; G. E. POLYCHRONAKI; G. L. TSIROGIANNIS; O. DAVID; K. S. NIKITA. *Natl. Tech. Univ. of Athens, FCT-UNL-CMA, Grenoble Inst. of Neurosciences (INSERM-U836), Joseph Fourier Univ., Univ. Hosp. of Grenoble, Mediterraneo Hosp., 'G. Gennimatas' Gen. Hosp. of Athens, 'Evangelismos' Gen. Hosp.*

8:00 NNN30 **755.05** Modeling the impact of time-delay effects on the memory capacity, cognition capability and energy efficiency of neuronal structures. Y. G. TIRAT-GEFEN*. *Castel Res. Inc.*

9:00 NNN31 **755.06** Measuring direction of synaptic transmission via cross frequency coupling. B. NANDI*; B. KOCSIS; M. DING. *Univ. of Florida, Gainesville, Harvard Med. Sch., Univ. of Florida.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

10:00 NNN32 **755.07** Performance driven neural network model representation: A relational approach. S. L. GRATIY*; A. ARKHIPOV; D. FENG; N. GOUWENS; N. CAIN; R. IYER; M. BUICE; S. MIHALAS; C. ANASTASSIOU. *Allen Inst. for Brain Sci.*

11:00 NNN33 **755.08** ● Link between the infrared light power emitted by an implantable medical device and thermal elevation induced locally. C. MORO*; J. MOLET; V. AUBOIROUX; F. REINHART; S. RENAULT; C. CHABROL; N. TORRES-MARTINEZ; J. MITROFANIS; A. BENABID. *Cea-Grenoble, Leti-Clinatec, Univ. of Sydney.*

8:00 NNN34 **755.09** Application of spatiotemporal variations of correlation dimension & nonlinear interdependence of scalp EEG for seizure prediction in pediatric myoclonic epilepsy. M. SHARIFI KOLARIJANI; S. AMIRSALARI; M. RAZA*. *Baqiyatallah Univ. of Med. Sci., Baqiyatallah Univ. of Med. Sci., Baqiyatallah Univ. of Med. Sci.*

9:00 NNN35 **755.10** Lyapunov Exponent as a tool to evaluate the degree of neuronal insult in rat model of ischemic stroke. S. PAUL*; T. K. SINHA; R. PATNAIK. *North-Eastern Hill Univ. (NEHU), Indian Inst. of Technol. (BHU).*

10:00 NNN36 **755.11** ● Model definition and benchmarks for the Myriad parallel simulator. P. RITTNER*; T. A. CLELAND. *Cornell Univ. Dept. of Psychology, Cornell Univ.*

11:00 NNN37 **755.12** Recent advances in ModelDB. T. M. MORSE*; R. A. MCDOUGAL; N. T. CARNEVALE; L. MARENCO; R. WANG; M. MIGLIORE; P. L. MILLER; G. M. SHEPHERD; M. L. HINES. *Yale Univ. Sch. Med., VA Connecticut Healthcare Syst., Yale Univ. Sch. Med., Yale Univ. Sch. Med., Natl. Res. Council.*

8:00 NNN38 **755.13** Automated metadata identification for better model discovery. G. M. SHEPHERD*; T. M. MORSE; R. A. MCDOUGAL. *Yale Univ. Sch. of Med.*

9:00 NNN39 **755.14** Computer-aided skeleton analysis of microglia de-ramification after experimental diffuse brain injury. H. MORRISON; K. YOUNG; M. QURESHI; J. LIFSHITZ*. *Univ. of Arizona, Phoenix Children's Hosp., Phoenix Children's Hosp.*

POSTER

756. Data Analysis and Statistics: Neuronal networks

Theme I: Techniques

Wed. 8:00 AM – *San Diego Convention Center*, Halls B-H

8:00 NNN40 **756.01** Brain-wide and fast reconstruction of sparsely distributed neuronal trees. H. ZHOU*; S. LI; T. QUAN; J. LI; A. LI; Y. LI; H. GONG; S. ZENG. *Huazhong Univ. of Sci. & Technol.*

9:00 NNN41 **756.02** Leaders and followers: Quantifying consistency of synfire chain patterns in neuronal spike trains. T. KREUZ*; M. POFAHL; E. RÄISÄNEN; M. MULANSKY. *Inst. For Complex Systems, Dept. of Epileptology.*

10:00 NNN42 **756.03** Combined electrophysiological and morphological classification of neuronal cell types. E. COTTERILL*; S. J. EGLEN. *Univ. of Cambridge.*

11:00 NNN43 **756.04** Neural network hidden layer units may model cortical neuron responses. D. GARDNER*; E. P. GARDNER. *Weill Cornell Med. Col., NYU Sch. of Med.*

8:00 NNN44 **756.05** Measures of spike train synchrony: Defining a minimum time scale for the ISI- and the SPIKE-distance. E. A. RÄISÄNEN*; M. MULANSKY; T. KREUZ. *Univ. of Florence, Inst. for complex systems, CNR.*

9:00 NNN45 **756.06** Constraints and spandrels of inter-areal connectomes. M. RUBINOV*. *Howard Hughes Med. Inst., Univ. of Cambridge.*

10:00 NNN46 **756.07** Building an active digital atlas for the mouse brainstem. Y. CHEN*; A. TOLPYGO; D. FERRANTE; P. MITRA; M. GOULDING; H. KARTEN; D. KLEINFELD; Y. FREUND. *UCSD, Cold Spring Harbor Lab., Salk Inst. for Biol. Studies, UCSD.*

11:00 NNN47 **756.08** Spatio-temporal classification of neural activity patterns in dynamic brain imaging data. M. SONG*; M. KANG1; H. LEE; H. LEE; Y. JEONG; S. PAIK. *KAIST, KAIST.*

8:00 NNN48 **756.09** Estimating dynamic functional networks of larger neural populations. C. DONNER*; H. SHIMAZAKI. *BCCN Berlin, Tech. Univ. Berlin, RIKEN Brain Sci. Inst.*

9:00 NNN49 **756.10** Changes in spatiotemporal network dynamics during learning. Q. SKILLING*; N. OGJANOVSKI; S. ATON; M. ZOCHOWSKI. *Univ. of Michigan, Univ. of Michigan, Univ. of Michigan.*

10:00 NNN50 **756.11** Structural and functional connectivity relationships in the brain: How do they vary between large-scale networks and across individuals? K. G. SOLAR*; J. KORNELSEN; S. M. COURTNEY; C. R. FIGLEY. *Univ. of Manitoba, Univ. of Manitoba, Johns Hopkins Univ.*

11:00 NNN51 **756.12** Diffusion MRI in the non-human primate at 3T: A direct comparison of multi- vs. single-shell acquisitions. M. A. PINSK*; S. KASTNER. *Princeton Univ., Princeton Univ.*

8:00 NNN52 **756.13** Detecting multivariate cross-correlation structure between brain regions. J. RODU*; N. KLEIN; Y. YANG; E. AMINOFF; M. J. TARR; R. E. KASS. *Carnegie Mellon Univ.*

9:00 OOO1 **756.14** Detection of predictive spike patterns with products of generalised linear models. T. HAYAKAWA*; T. FUKAI. *RIKEN BSI.*

10:00 OOO2 **756.15** Quantifying network structure during state changes in functional brain networks. M. VAIANA*; S. E. F. MULDOON. *Univ. At Buffalo, Univ. at Buffalo.*

11:00 OOO3 **756.16** Momentum: A new approach to signal detection. N. Z. BIELCZYK*; J. GLENNON; C. BECKMANN. *Donders Institute, Radboud Univ. Nijmegen Med.*

8:00 OOO4 **756.17** Light-sheet microscopy of brain vascular image enhancement based on gradient adjust with split bregman. H. HUI; X. LIANG; D. DONG; X. YANG; J. TIAN*. *Key Lab. of Mol. Imaging, CAS.*

9:00 OOO5 **756.18** Hippocampal neural events predict ongoing brain-wide BOLD activity. M. BESSERVE*; N. K. LOGOTHETIS. *MPI for Biol. Cybernetics, MPI for Intelligent Systems, MPI for Biol. Cybernetics, The Univ. of Manchester.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

LECTURE *San Diego Convention Center*

757. Capturing Immune Responses to Understand and Treat Neurodegenerative Disease — CME

Wed. 1:00 PM - 2:10 PM — Ballroom 20

Speaker: E. MASLIAH, *UCSD.*

Neurodegenerative disorders are characterized by progressive accumulation of proteins leading to cognitive impairment and movement disorders. A dysequilibrium in the rate of aggregation, clearance, and synthesis appears to play a key role. Moreover, recent studies have shown that prion-like propagation of proteins may contribute to neurodegeneration. Therefore, developing strategies to increase clearance and diminish prion-like propagation might be key to treating these disorders. Harnessing the power of the immune system by utilizing cellular and humoral immunization has been under development for the past several years. This lecture will provide a perspective on the recent progress and challenges of utilizing immunotherapy for neurodegenerative disorders.

SYMPOSIUM *San Diego Convention Center*

758. Making Serotonergic Neurons: From Mouse to Human — CME

Wed. 1:30 PM - 4:00 PM — 6F

Chair: J. FENG

Serotonergic neurons exert diverse actions in the brain. This symposium will highlight how knowledge on the development of mouse serotonergic neurons informs the strategies to generate human serotonergic neurons by directed differentiation of pluripotent stem cells or by transdifferentiation of fibroblasts. The ability to generate patient-specific serotonergic neurons opens up unprecedented opportunities for mechanistic studies and drug discovery in many serotonin-related brain disorders.

1:30 **758.01** Introduction.

1:35 **758.02** Transcriptomic and functional diversity of serotonin neuron subtypes. S. M. DYMECKI. *Harvard Med. Sch.*

2:10 **758.03** Directed differentiation of functional central serotonin neurons from human stem cells. S. ZHANG. *Univ. of Wisconsin Madison.*

2:45 **758.04** Generation of functional serotonergic neurons from human fibroblasts. F. H. GAGE. *The Salk Inst. for Biol. Studies.*

3:20 **758.05** Overcoming barriers in the transdifferentiation of human fibroblasts to serotonergic neurons. J. FENG. *State Univ. of New York at Buffalo.*

3:55 **758.06** Closing Remarks.

SYMPOSIUM *San Diego Convention Center*

759. The Ultrastructural Basis of Synaptic Transmission and Plasticity — CME

Wed. 1:30 PM - 4:00 PM — 6A

Chair: K. M. HARRIS
Co-Chair: N. BROSE

Since the invention of the electron microscope, the function of synapses has been illuminated by ultrastructure. Technological advances in stimulation and fixation methods, protein identification, and 3-D reconstruction provide key insights into how subcellular and molecular components mediate synaptic transmission and plasticity. This symposium will explore the ultrastructural and proteinaceous basis of synapse function and the defined plasticity states involved in learning and memory.

1:30 **759.01** Introduction.

1:35 **759.02** The ultrastructural nature of the presynaptic transmitter release machinery. N. BROSE. *Max Planck Inst. of Exptl. Med.*

2:10 **759.03** Ultrafast endocytosis at synapses. E. M. JORGENSEN. *Univ. of Utah.*

2:45 **759.04** Molecular organization of the post synaptic density and beyond. T. S. REESE. *NIH.*

3:20 **759.05** Silent synapse growth and augmentation of long-term potentiation. K. M. HARRIS. *Univ. of Texas.*

3:55 **759.06** Closing Remarks.

SYMPOSIUM *San Diego Convention Center*

760. The Neural Basis of Adaptive Motor Control in the Cerebellum — CME

Wed. 1:30 PM - 4:00 PM — 6B

Chair: R. SHADMEHR

The cerebellum is critical for learning to make accurate movements, yet the neural mechanisms of how it learns this adaptive control remain poorly understood. This symposium will consider this puzzle by attempting to answer three questions, regarding what Purkinje cells and cells at deep cerebellar nuclei encode, what inferior olive neurons that project onto these cells encode, and how Purkinje cells learn to alter their encoding in response to error information from the inferior olive.

1:30 **760.01** Introduction.

1:35 **760.02** Encoding of action by Purkinje cells of the cerebellum. R. SHADMEHR. *Johns Hopkins Univ.*

2:10 **760.03** Learning to expect the unexpected: Rapid updating in primate cerebellum during voluntary self-motion. K. E. CULLEN. *McGill Univ.*

2:45 **760.04** The inferior olive encodes a temporal-difference prediction error during cerebellar learning. J. F. MEDINA. *Baylor Col. of Med.*

3:20 **760.05** Cerebellar learning rules: Reciprocity all in all out. C. DEZEEUW. *Erasmus Univ. Med. Ctr.*

3:55 **760.06** Closing Remarks.

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

MINISYMPOSIUM *San Diego Convention Center*

761. New Insight Into Cold Pain: Role of Ion Channels, Modulation, and Clinical Perspectives — CME

Wed. 1:30 PM - 4:00 PM — 28A

Chair: J. NOEL
Co-Chair: J. BUSSEROLLES

Fifteen years after the cloning of the first cold transducer channel, the molecular mechanisms of cold transduction and cold-triggered pain perception remain elusive. Recent progress has been made in this matter, which will be exposed in this session. New results about the contribution to cold pain from a wide variety of channels such as TRPs, leaky K+ and voltage-gated Na+ channels, and leak K+ channels will be presented. Their modulation and the resulting clinical perspectives will also be discussed.

1:30 **761.01** Introduction.

1:35 **761.02** Testosterone, the steroid link in TRPM8-mediated sensation. D. GKIKA. *INSERM U.1003.*

1:55 **761.03** TRPA1 control of cold nociception. D. ANDERSSON. *King's Col. London.*

2:15 **761.04** Nav1.9 : Key to noxious cold sensitivity. S. LOLIGNIER. *INSERM/Universite d'Auvergne.*

2:35 **761.05** Sodium channel dysfunctions affecting temperature sensation. E. LEIPOLD. *Inst. für Biochemie und Biophysik.*

2:55 **761.06** Role of voltage gated and leak potassium channels in cold nociception. F. VIANA DE LA IGLESIA. *Univ. Miguel Hernandez / CSIC.*

3:15 **761.07** Peripheral mechanisms of cold pain – insight from ion channel toxins. I. VETTER. *The Univ. of Queensland.*

3:35 **761.08** Closing Remarks.

MINISYMPOSIUM *San Diego Convention Center*

762. Hypocretins and Orexins: What Have We Learned in Nearly 20 Years? — CME

Wed. 1:30 PM - 4:00 PM — 29D

Chair: J. A. BURK
Co-Chair: J. R. FADEL

The discovery of hypocretins/orexins in the late 1990s spawned research that primarily focused on the role of these neuropeptides in regulating feeding and sleep. More recently, orexins have been implicated in cognitive processing and a number of neuropsychological disorders. This minisymposium will provide state-of-the-field updates about some of the original and more newly-discovered functions regulated by orexins.

1:30 **762.01** Introduction.

1:35 **762.02** ● Hypocretins (orexins): 20 years of dissecting arousal circuits. L. DE LECEA. *Stanford Univ.*

1:55 **762.03** Orexin's role in motivated behavior for food. A. M. CASON. *Med. Univ. of South Carolina.*

2:15 **762.04** Orexins and the stabilization of wake/sleep states. T. E. SCAMMELL. *Beth Israel Deaconess Med. Ctr.*

2:35 **762.05** Orexin drives energy expenditure. C. M. KOTZ. *Mpls VAMC and Univ. of Minnesota.*

2:55 **762.06** Hypocretin 1 receptor regulation of dopaminergic signaling and motivated behavior. R. A. ESPAÑA. *Drexel Univ. Col. of Med.*

3:15 **762.07** Orexins and cognition: Neurochemical and anatomical substrates. J. R. FADEL. *Univ. of South Carolina Sch. of Med.*

3:35 **762.08** Closing Remarks.

MINISYMPOSIUM *San Diego Convention Center*

763. Nanoscale Neurocartography: Approaches and Theory for Inference and Analysis of Synaptomes and Connectomes — CME

Wed. 1:30 PM - 4:00 AM — 6E

Chair: N. KASTHURI

Neurocartography at the resolution of individual neurons and their synapses is now possible in state-of-the-art datasets. Although much is known about individual brain cells and low-resolution cortical circuits, research to create and explore biofidelic maps of mesoscale cortical circuitry is still in its infancy. This session will provide theory and tools to help address these challenges, and motivate researchers interested in this topic through both methodological and scientific progress.

1:30 **763.01** Introduction.

1:35 **763.02** Enabling data-driven neuroscience: Images to Graphs for Inference. W. G. RONCAL. *Johns Hopkins Univ.*

1:55 **763.03** Statistical connectomics: How graph statistics can inform connectomic inferences. J. T. VOGELSTEIN. *Johns Hopkins Univ.*

2:15 **763.04** Array tomography reveals spatially structured dendritic inhibition that supports branch-selective integration in CA1 pyramidal cells. E. B. BLOSS. *Howard Hughes Med. Inst.*

2:35 **763.05** Whole-brain electron microscopy of *Drosophila melanogaster*. D. BOCK. *Howard Hughes Med. Inst.*

2:55 **763.06** Mapping activity-dependent synaptic plasticity with a combination of electrophysiology and array tomography. K. MICHEVA. *Stanford Univ.*

3:15 **763.07** Mapping synapses with conjugate light-electron array tomography. F. COLLMAN. *Allen Brain Sci.*

3:35 **763.08** Closing Remarks.

NANOSYMPOSIUM

764. Rett Syndrome

Theme A: Development

Wed. 1:00 PM – *San Diego Convention Center*, 30B

1:00 **764.01** KCC2 rescues functional deficits in human neurons derived from patients with Rett syndrome. X. TANG*; J. KIM; L. ZHOU; E. WENGERT; L. ZHANG; Z. WU; C. CARROMEU; A. R. MUOTRI; M. C. N. MARCHETTO; F. H. GAGE; G. CHEN. *Whitehead Inst. For Biomed. Res., Dept. of Biology, Huck Inst. of Life Sciences, Pennsylvania State Univ., Bucknell Univ., Dept. of Pediatrics/Rady Children's Hosp. San Diego and Dept. of Cell. & Mol. Medicine, Stem Cell Program, Sch. of Medicine, Univ. of California San Diego, Lab. of Genetics, Salk Inst. for Biol. Studies.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

1:15 **764.02** ● RNA sequencing and novel proteomics approaches reveal multi-cellular deficits in the cortex of Rett syndrome mice. N. L. PACHECO*; D. K. CROSSMAN; M. R. HEAVEN; M. L. OLSEN. *Univ. of Alabama At Birmingham, Univ. of Alabama at Birmingham, Vulcan Analytical, Univ. of Alabama at Birmingham.*

1:30 **764.03** Benficial effect of gene therapy in a preclinical model of rett syndrome. V. MATAGNE*; L. VILLARD; J. ROUX. *Aix Marseille Universite, INSERM, GMGF UMRS 910.*

1:45 **764.04** Lack of Mecp2 interferes with mechanisms of cortical progenitors proliferation and differentiation. F. BEDOGNI*; C. COBOLLI GIGLI; L. SCARAMUZZA; D. POZZI; C. KILSTRUP-NIELSEN; M. MATTEOLI; N. LANDSBERGER. *San Raffaele Res. Inst., Humanitas Clin. and Res. Ctr., Univ. dell'Insubria, Univ. degli Studi di Milano.*

2:00 **764.05** Activity-dependent transcription in a mouse model of Rett syndrome. A. E. POHODICH*; A. RAMAN; H. K. YALAMANCHILI; Z. LIU; H. Y. ZOGHBI. *Baylor Col. of Med., Baylor Col. of Med., Baylor Col. of Med., Baylor Col. of Med.*

2:15 **764.06** Depolarizing GABA receptor causes cortical network deficits in Rett Syndrome. K. LI*; R. V. RIKHYE; A. BANERJEE; M. SUR. *MIT, MIT, MIT.*

2:30 **764.07** Impaired intrinsic and synaptic properties of striatal medium spiny neurons in Mecp2 knockout mice. W. LI*; L. POZZO-MILLER. *Univ. of Alabama at Birmingham Dept. of Neurobio.*

2:45 **764.08** Vitamin D supplementation ameliorates Rett syndrome cortical phenotypes in Mecp2-null mice. J. L. MACDONALD*; M. C. RIBEIRO; S. M. MOORE; N. KISHI; J. D. MACKLIS. *Syracuse Univ., Harvard Univ., RIKEN Brain Sci. Inst.*

3:00 **764.09** Astrocytes are a primary target of neuronal-derived BDNF: A novel mechanism for dysfunction in Rett Syndrome. L. HOLT*; M. L. OLSEN. *Univ. of Alabama At Birmingham, Univ. of Alabama At Birmingham.*

3:15 **764.10** MeCP2 activates Cypin and regulates dendritic branching in Rett syndrome. W. GOLD*; E. BUSS; T. LACINA; L. CANTRILL; M. GRAHAM; J. CHRISTODOULOU. *NSW Ctr. For Rett Syndrome Res., Univ. of Sydney, Hochschule Mannheim - Univ. of Applied Sciences, Kids Res. Institute, Children's Hosp. at Westmead, Children's Med. Res. Institute, The Univ. of Sydney, Univ. of Melbourne, Murdoch Childrens Res. Inst.*

3:30 **764.11** MeCP2 deficiency results in robust rett-like behavioral and motor deficits in male and female rats. K. PATTERSON*; V. HAWKINS; K. ARPS; D. MULKEY; M. OLSEN. *Univ. of Alabama At Birmingham, Univ. of Connecticut.*

3:45 **764.12** Identification of novel CDKL5 substrates involved in cytoskeletal regulation. L. BALTUSSEN*; S. CLAXTON; M. MOESKOPS; V. CHRISTODOULOU; H. FLYNN; B. SNIJDERS; S. ULTANIR. *The Francis Crick Inst.*

4:00 **764.13** Histone deacetylase 3 associates with MeCP2 to regulate FOXO and social behavior. A. NOTT*; J. CHENG; F. GAO; Y. LIN; E. GJONESKA; T. KO; P. MINHAS; A. V. ZAMUDIO; J. MENG; F. ZHANG; P. JIN; L. TSAI. *MIT, Emory Univ. Sch. of Med.*

4:15 **764.14** Genetic rescue of brain morphometry in a mouse model of neurodevelopmental disorder. R. ALLEMANG-GRAND*; J. ELLEGOOD; L. SPENCER-NOAKES; B. J. NIEMAN; J. P. LERCH. *Mouse Imaging Ctr., Hosp. for Sick Children.*

NANOSYMPOSIUM

765. Sigma-2/PGRMC1 Receptor Function in Disease and Therapeutics

Theme B: Neural Excitability, Synapses, and Glia

Wed. 1:00 PM – *San Diego Convention Center*, 23A

1:00 **765.01** ● Sigma-2/PGRMC1 antagonists as disease-modifying therapeutics for Alzheimer's disease. N. J. IZZO*; K. MOZZONI; C. SILKY; C. REHAK; R. YURKO; G. LOOK; G. RISHTON; M. GRUNDMAN; H. SAFFERSTEIN; S. M. CATALANO. *Cognition Therapeut. Inc.*

1:15 **765.02** ● Inhibition of Sig2R/PGRMC : A potential strategy for treating Alzheimer's disease. B. YI*; J. J. SAHN; P. MEMAR ARDESTANI; A. K. EVANS; L. SCOTT; J. Z. CHAN; J. PIERCE-SHIMOMURA; S. F. MARTIN; M. SHAMLOO. *Stanford Univ., The Univ. of Texas at Austin, The Univ. of Texas at Austin.*

1:30 **765.03** Shedding light on the controversial identity of the ς-2 receptor with PGRMC1. M. L. PATI*; C. ABATE; M. NISO; F. BERARDI; N. A. COLABUFO. *Univ. Degli Studi Di Bari.*

1:45 **765.04** ● On the identity of ς-2 binding sites and PGRMC1: Evidence in neurons relating to Alzheimer's disease. K. MOZZONI; N. J. IZZO; R. YURKO; C. SILKY; C. REHAK; G. LOOK; G. RISHTON; H. SAFFERSTEIN; S. M. CATALANO*. *Cognition Therapeut. Inc.*

2:00 **765.05** Divergent cytotoxic and metabolically stimulative functions of ς-2 receptors: Structure-activity relationships in a series of SN79 analogs. H. NICHOLSON; W. ALSHARIF; C. R. MCCURDY; W. D. BOWEN*. *Brown Univ., Univ. of Mississippi.*

2:15 **765.06** Targeting Sig2R/PGRMC1 for treating neurological disorders. J. J. SAHN; T. R. HODGES; M. D. WOOD; L. L. SCOTT; R. C. YEN; J. PIERCE-SHIMOMURA; A. A. PIEPER; T. C. YIN; T. PRICE; G. MEJIA; A. FERRAGUD; V. SABINO; P. M. ARDESTANI; M. SHAMLOO; S. MARTIN*. *Univ. of Texas at Austin, Univ. of Texas at Austin, The Univ. of Iowa, The Univ. of Texas, Boston Univ. Sch. of Med., Stanford Univ., Stanford Univ.*

2:30 **765.07** The role of miRNA in regulating neuroprotective function of progesterone in ischemic brain. T. NGUYEN*; C. SU; M. SINGH. *Univ. of North Texas Hlth. Sci. Ctr.*

2:45 **765.08** Reduction of ς-2 receptor density in sleep deprived mice. J. XU*; M. LIM; D. HOLTZMAN; R. MACH. *Washington Univ. Sch. of Med., VA Portland Hlth. Care Ctr. and Oregon Hlth. & Sci. Univ., Washington Univ. Sch. of Med., Univ. of Pennsylvania.*

3:00 **765.09** ● The ς-2 receptor has different but overlapping binding sites for small molecules as measured by radioligand binding studies. R. H. MACH*; B. P. LIEBERMAN. *Univ. of Pennsylvania.*

3:15 **765.10** PGRMC1/ς-2 receptor: A novel carbon monoxide sensor to regulate cell function. M. SUEMATSU*; Y. KABE. *Keio Univ. Sch. of Med.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

NANOSYMPOSIUM

766. Amyloid-Beta Toxicity

Theme C: Neurodegenerative Disorders and Injury

Wed. 1:00 PM – *San Diego Convention Center*, 24A

1:00 **766.01** Reduced amyloid-β clearance in the hippocampus of Abca7 knockout mouse. W. S. KIM*; Y. FU; J. HSIAO; G. PAXINOS; G. M. HALLIDAY. *Neurosci. Res. Australia, Univ. of New South Wales.*

1:15 **766.02** Antiviral activities of amyloid-ß (Aß) against the AD-linked virus HSV1. W. EIMER*; D. VIJAYA KUMAR; K. J. WASHICOSKY; X. O. BREAKEFIELD; D. Y. KIM; R. E. TANZI; R. D. MOIR. *Massachusetts Gen. Hosp.*

1:30 **766.03** Antimicrobial and endotoxin neutralization activities of amyloid-β (Aβ) protein in animal and cell culture models. D. VIJAYA KUMAR*; S. CHOI; K. J. WASHICOSKY; W. A. EIMER; J. GHOFRANI; A. LEFKOWITZ; G. MCCOLL; L. E. GOLDSTEIN; A. LI; R. E. TANZI; R. D. MOIR. *Massachusetts Gen. Hosp. & Harvard Med. Sch., Boston Univ., Albert Einstein Col. of Med., Univ. of Melbourne.*

1:45 **766.04** Metal binding enhances the antimicrobial activity of the amyloid-β (Aβ) protein of Alzheimer's disease. R. D. MOIR*; D. K. VIJAYA KUMAR; K. J. WASHICOSKY; D. Y. KIM; M. JÄDICKE; W. A. EIMER; R. E. TANZI. *Massachusetts Gen. Hosp., Technische Univ.*

2:00 **766.05** Characteristics of amyloid-β oligomers from human Alzheimer's disease brain. D. L. BRODY*; T. ESPARZA; N. WILDBUGER; N. CAIRNS. *Washington Univ.*

2:15 **766.06** Amyloid β oligomers inhibit nutrient-induced mitochondrial activity in neurons. A. NORAMBUENA*; H. WALLRABE; Z. SVINDRYCH; E. SWANSON; G. S. BLOOM. *Univ. of Virginia.*

2:30 **766.07** Subcellular conformational-selective interference with endogenous Aβ Oligomers in primary fibroblasts and induced pluripotent stem cells from human Alzheimer's disease patients. G. MELI*; V. LA MARCA; C. SCOPA; A. MANCA; F. RUGGERI; R. SCARDIGLI; A. CATTANEO. *European Brain Res. Inst. (EBRI), IFT - CNR, Scuola Normale Superiore (SNS).*

2:45 **766.08** Exogenous amyloidogenic proteins function as seeds in Aβ aggregation. K. ONO*; R. TAKAHASHI; T. IKEDA; M. MIZUGUCHI; T. HAMAGUCHI; M. YAMADA. *Showa Univ. Sch. of Med., Kanazawa Univ. Grad. Sch. of Med. Sci., Toyama Univ.*

3:00 **766.09** Evidence that exosome surface-associated amyloid β peptide is highly neurotoxic. E. EITAN*; D. KAPOGIANNIS; M. MATTSON, 21224. *Natl. Inst. On Aging, Natl. Inst. on Aging Intramural Res. Program.*

3:15 **766.10** Endothelial-specific effects of picalm on amyloid-β homeostasis. A. RAMANATHAN*; Z. ZHAO; A. P. SAGARE; B. V. ZLOKOVIC. *USC.*

3:30 **766.11** ● The role of clusterin in the amyloid cascade in human neurons. J. ROBBINS*; R. KILLICK; E. M. RIBE; M. MARESCA; M. N. PANGALOS; S. LOVESTONE; J. PRICE. *King's Col. London, King's Col. London, Univ. of Oxford, AstraZeneca, AstraZeneca.*

3:45 **766.12** The effects of peripheral and central high insulin on brain insulin signaling and amyloid-β in young and old PS1/APP mice. M. STANLEY*; S. L. MACAULEY; E. E. CAESAR; L. J. KOSCAL; W. R. MORITZ; G. O. ROBINSON; J. ROH; H. JIANG; D. M. HOLTZMAN. *Washington Univ. In St. Louis.*

4:00 **766.13** Withdrawn.

4:15 **766.14** α-synuclein enhances amyloid-β-induced ectopic cell cycle re-entry in primary cortical neurons and hAPPJ20 mice. S. S. KHAN*; M. LACROIX; S. E. LESNÉ; G. S. BLOOM. *Univ. of Virginia, Univ. of Minnesota, Univ. of Virginia.*

NANOSYMPOSIUM

767. Alzheimer's Disease: Animal Models

Theme C: Neurodegenerative Disorders and Injury

Wed. 1:00 PM – *San Diego Convention Center*, 33C

1:00 **767.01** The τ-Fyn interaction affects memory in a τ-Fyn double knockout mouse. G. M. LIU*; R. J. TAUGHER; J. A. WEMMIE; G. LEE. *Univ. of Iowa.*

1:15 **767.02** Accumulation of phosphorylated τ in neurons in FUS-silenced mice. S. ISHIGAKI*; Y. FUJIOKA; D. HONDA; S. YOKOI; K. ENDO; H. OKADO; H. WATANABE; M. KATSUNO; A. TAKASHIMA; G. SOBUE. *Nagoya Univ. Grad. Sch. of Med., Tokyo Metropolitan Inst. of Med. Sci., Gakushuin Univ. Grad. Sch. of Sci.*

1:30 **767.03** *In vivo* multimodal imaging of tauopathy revealed a rapid turnover of pathological τ inclusions in a tauopathy mouse model. N. SAHARA*; H. TAKUWA; A. ISHIKAWA; T. URUSHIHATA; T. MINAMIHISAMATSU; M. TOKUNAGA; M. SHIMOJO; S. UCHIDA; I. MATSUMOTO; M. ZHANG; T. SUHARA; M. HIGUCHI. *Natl. Inst. of Radiological Sci.*

1:45 **767.04** Manganese-enhanced magnetic resonance imaging (MEMRI) identification of pre-pathological neuronal dysfunction precedes significant τ pathology in rTg4510 mice. S. N. FONTAINE*; D. LYONS; S. MEIER; A. INGHAM; M. BELL; E. M. MILLER; M. VANDSBURGER; J. F. ABISAMBRA. *Univ. of Kentucky, Univ. of Kentucky, Univ. of Kentucky.*

2:00 **767.05** τ pathology in aged cynomolgus monkeys with long term type 2 diabetes mellitus. Z. ZHANG*; F. YUE; C. LU; Y. AI; R. C. GRONDIN; R. C. GRONDIN; G. A. GERHARDT; G. A. GERHARDT; D. M. GASH; D. M. GASH. *Univ. of Kentucky, Univ. of Kentucky Col. of Med., Beijing Inst. of Geriatrics, Xuanwu Hosp. of Capital Med. Univ., Wincon TheraCells Biotechnologies Co., Ltd.*

2:15 **767.06** No overt deficits in τ-deficient C57Bl/6. $Mapt^{tm1(EGFP)Kit}$ GFP knockin mice. A. VAN HUMMEL*; M. BI; J. VAN DER HOVEN; A. VOLKERLING; W. S. LEE; D. TAN; A. BONGERS; S. CHUA; A. ITTNER; Y. D. KE; L. ITTNER. *Univ. of New South Wales, Bioolgical Resources Imaging Laboratory, Mark Wainwright Analytical Centre, UNSW, Neurosci. Res. Australia.*

2:30 **767.07** A novel animal model for spread of τ pathology in mice. M. K. SCHULTZ*, JR. *Merck & Co.*

2:45 **767.08** ● Tg4510 mice provide an effective model for testing neuroprotective therapies in early-stage Alzheimer's disease. P. R. MOUTON*; H. A. PHOULADY; D. GOLDGOF; L. HALL; M. GORDON; D. MORGAN. *USF Hlth. Byrd Alzheimer's Inst., Univ. of South Florida, USF Hlth. Byrd Alzheimer's Inst.*

3:00 **767.09** A neuronal cell culture model of Alzheimer's disease with amyloid-β (Aβ) and τ pathology, in the absence of FAD mutations. V. MURESAN*; Z. LADESCU MURESAN. *Rutgers The State Univ. of New Jersey.*

3:15 **767.10** Inhibition of p25/Cdk5 attenuates AD-like pathology in P301S mice and iPSC-derived neural cells from fAD patients. J. SEO*; Y. LIN; O. KRITSKIY; P. PAO; S. ELMSAOURI; W. RAJA; D. DEY; M. RAM; T. KO; L. TSAI. *MIT.*

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3:30 **767.11** Cerebral microvascular dysfunction in TgAD F334 rats a model of Alzheimer's disease. J. MCLAURIN*; L. JOO; A. LAI; J. SLED; B. STEFANOVIC. *Sunnybrook Res. Inst., Sunnybrook Res. Inst., Hosp. for Sick Children.*

3:45 **767.12** Visual assessment (Electroretinography) in the TgF344-AD rat model: A potential Alzheimer's disease biomarker. F. G. DE OLIVEIRA-SOUZA*; M. L. DERAMUS; A. GOODMAN; L. SMITH; R. FARRUKH; L. MCMAHON; T. KRAFT; C. E. STRANG; M. BOLDING. *Univ. of Alabama At Birmingham, Univ. of Alabama At Birmingham, Univ. of Alabama At Birmingham, Univ. of Alabama At Birmingham, Univ. of Alabama At Birmingham, Univ. of Alabama At Birmingham, Univ. of Alabama At Birmingham.*

4:00 **767.13** Tor as a key regulator of neural and neurovascular function in mouse models of Alzheimer's disease. V. GALVAN*; S. HUSSONG; C. VAN SKIKE; J. JAHRLING; N. DEROSA; C. POMILIO; A. OLSON. *U Texas Hlth. Sci. Ctr. At San Antonio, Univ. of Texas Hlth. Sci. Ctr. at San Antonio, Univ. of Texas Hlth. Sci. Ctr. at San Antonio, Univ. of Buenos Aires.*

4:15 **767.14** Neurotoxicity related to tetracycline transactivator expression in tdp-43 mouse model of frontotemporal lobar degeneration. L. KUKREJA*; R. SHAHIDEHPOUR; G. RODRIGUEZ; G. KIM; K. R. SADLEIR; J. CSERNANSKY; M. MESULAM; R. J. VASSAR; H. DONG; C. GEULA. *Northwestern Univ., Northwestern Univ., Northwestern Univ.*

NANOSYMPOSIUM

768. Oxidative Stress and Antioxidants in Neurological and Psychiatric Diseases

Theme C: Neurodegenerative Disorders and Injury

Wed. 1:00 PM – *San Diego Convention Center*, 32B

1:00 **768.01** ▲ Nanodelivery of cerebrolysin reduces α-synuclein, neuronal nitric oxide synthase and brain pathology in Parkinson's disease. A. OZKIZILCIK*; A. SHARMA; R. PATNAIK; D. F. MURESANU; J. V. LAFUENTE; A. NOZARI; H. MOESSLER; R. TIAN; H. S. SHARMA. *Univ. of Arkansas, Uppsala Univ. Hosp., Indian Inst. of Technology, Banaras Hindu Univ., Univ. of Med. & Pharm., Univ. of Basque Country, Massachusetts Gen. Hospital, Harvard Med. Sch., Ever Neuro Pharma, Univ. of Arkansas.*

1:15 **768.02** High dimensional analysis of the myeloid landscape in Multiple Sclerosis. B. P. LEUNG*; R. F. CATENA; A. BARRANTES; B. SCHREINER; C. STADELMANN-NESSLER; T. TOWN; B. BODENMILLER; B. BECHER. *USC, Univ. of Zurich, Univ. of Zurich, Univ. of Goettingen, USC.*

1:30 **768.03** Utilizing a tunable antioxidant enzyme to define specific oxidative stress related biomarkers versus non-selective oxidative tombstones: Implications for aging and neurodegeneration. I. ALIM*; J. T. CAULFIELD; S. S. KARUPPAGOUNDER; D. E. WILLIS; R. R. RATAN. *Burke Med. Res. Inst.*

1:45 **768.04** Aberrant redox regulation of amino acid homeostasis mediates neurodegeneration in Huntington's disease. B. D. PAUL*; J. I. SBODIO; S. H. SNYDER. *Johns Hopkins Univ. Sch. of Med.*

2:00 **768.05** Status epilepticus in immature rats is associated with oxidative stress and mitochondrial dysfunction. J. OTAHAL*; J. FOLBERGROVÁ; P. JEŠINA; H. KUBOVÁ; R. DRUGA. *Inst. of Physiol. CAS, Inst. of Physiol. CAS.*

2:15 **768.06** Green tea decreases dopamine metabolism in the dorsal Striatum of Haloperidol treated rats: What can we expect? T. MALIK*; D. J. HALEEM. *Natl. Univ. of Hlth. Sciences, Basic Scie, Panjwani Ctr. of Mol. Research, ICCBS.*

2:30 **768.07** Chemoproteomic approach to characterizing the role of 4-HNE in accelerated cognitive impairment and traumatic brain injury. S. H. LEE*; E. M. PIERCE; M. BEN AISSA; E. NEPOMUCENO; G. R. J. THATCHER. *Univ. of Illinois At Chicago, Univ. of Illinois At Chicago.*

2:45 **768.08** Glutathione as a glutamate reservoir: GLU that binds inflammation and neurotransmission. T. W. SEDLAK*; M. KOGA; S. SNYDER; A. SAWA. *Johns Hopkins Sch. of Med.*

NANOSYMPOSIUM

769. Axon Growth and Trafficking in Neurodegenerative Disorders

Theme C: Neurodegenerative Disorders and Injury

Wed. 1:00 PM – *San Diego Convention Center*, 25A

1:00 **769.01** Par3-mediated retrograde trafficking of BACE1 limits its convergence with APP. H. ZHANG*; M. SUN. *Robert Wood Johnson Med. School, Rutgers Univ.*

1:15 **769.02** Parkinson's disease-associated mutant VPS35 causes mitochondrial dysfunction by recycling DLP1 complexes. W. WANG*; X. WANG; H. FUJIOKA; C. HOPPEL; A. L. WHOEN; M. A. CALDWELL; P. J. CULLEN; J. LIU; X. ZHU. *Case Western Reserve Univ., Case Western Reserve Univ., Case Western Reserve Univ., Univ. of Bristol, Trinity Col., Univ. of Bristol, Shanghai Jiao Tong Univ. Sch. of Med.*

1:30 **769.03** Controlled intracellular delivery of AMPA receptors regulates the postsynapse. M. ESTEVES DA SILVA*; M. ADRIAN; P. SCHÄTZLE; J. LIPKA; T. WATANABE; S. CHO; K. FUTAI; C. J. WIERENGA; L. C. KAPITEIN; C. C. HOOGENRAAD. *Cell Biology, Utrecht Univ., Intl. Inst. of Mol. and Cell Biol., Brudnick Neuropsychiatric Res. Institute, Univ. of Massachusetts Med. School, Erasmus Med. Ctr.*

1:45 **769.04** Transport deficits of axonal endo-lysosomes augment mitochondria pathology in spinal motor neurons of asymptomatic fALS mice. Y. XIE*; B. ZHOU; M. LIN; Z. SHENG. *NIH/NINDS.*

2:00 **769.05** Impaired retrograde transport of axonal autophagosomes contributes to autophagic stress in Alzheimer's disease neurons. Q. CAI*; P. TAMMINENI; X. YE. *Rutgers, The State Univ. of New Jersey.*

2:15 **769.06** Facilitation of axon regeneration by enhancing mitochondrial transport and rescuing energy deficits. B. ZHOU*; P. YU; M. LIN; T. SUN; Z. SHENG. *NINDS, NHLBI.*

2:30 **769.07** Compartment-specific regulation of neuronal autophagy during homeostasis and starvation. S. MADAY*. *Univ. of Pennsylvania Sch. of Med.*

2:45 **769.08** Motility and degradation in the endolysosomal system in dendrites. C. YAP*; L. DIGILIO; L. MCMAHON; B. WINCKLER. *Univ. of Virginia Sch. of Med.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

NANOSYMPOSIUM

770. Inflammatory and Non-Inflammatory Mechanisms of NeuroHIV/AIDS

Theme C: Neurodegenerative Disorders and Injury

Wed. 1:00 PM – *San Diego Convention Center*, 4

1:00 **770.01** Pathway dysregulations associated with neuroAIDS in humans without HIVE. P. P. SANNA*; V. REPUNTE-CANONIGO; E. MASLIAH; C. LEFEBVRE. *Scripps Res. Inst., UCSD, Inst. Gustave Roussy.*

1:15 **770.02** Allopregnanolone regulation of mitochondrial function may attenuate HIV-1 Tat and morphine-mediated neurotoxicity. J. J. PARIS*; S. KIM; J. BALINANG; S. ZHOU; P. E. KNAPP; K. F. HAUSER. *Virginia Commonwealth Univ., Virginia Commonwealth Univ., Virginia Commonwealth Univ.*

1:30 **770.03** Methamphetamine and HIV-1/gp120 protein induce lasting changes in gene expression affecting dopaminergic and serotonergic neurotransmission. A. B. SANCHEZ*; R. MAUNG; M. KAUL; . TMARC GROUP. *Sanford Burnham Prebys Discovery Med. Inst., Translational Methamphetamine AIDS Res. Ctr. (TMARC), UCSD.*

1:45 **770.04** HIV-1 Tat induced loss of dendritic spines: Evidence from longitudinal *in vivo* multiphoton imaging. J. D. RAYBUCK*; S. A. THAYER. *UMN, Univ. of Minnesota.*

2:00 **770.05** Effects of flaxseed lignin, secoisolariciresinol diglucose, on endogenous antioxidant response pathway in HIV-infected macrophages. K. S. WILLIAMS*; K. JORDAN-SCIUTTO. *Univ. of Pennsylvania.*

2:15 **770.06** Alterations in dendritic spine density and morphology in neuroAIDS: Variable susceptibility amongst brain regions in two rodent models of HAND. L. FESTA*; C. LIN; B. PLATT; S. FLORESCO; B. WATERHOUSE; O. MEUCCI. *Drexel Univ. Col. of Med., The Univ. of British Columbia, Drexel Univ. Col. of Med.*

2:30 **770.07** Role of atf6b in HIV-associated neurocognitive disorders. C. AKAY ESPINOZA*; P. LIN. *Univ. of Pennsylvania Dept. of Pathology and Lab. Med.*

2:45 **770.08** Intraneuronal β-amyloid accumulation in HIV-1 transgenic rats. H. LI*; C. MACTUTUS; R. BOOZE. *Univ. of South Carolina.*

3:00 **770.09** Examining the effect of HIV on measures of medial prefrontal cortex functioning. K. WALKER; R. HEGDE; D. BYRD; S. MORGELLO; U. CLARK*. *Icahn Sch. of Med. at Mount Sinai.*

3:15 **770.10** Impact of age on Ca^{2+} influx through voltage-gated Ca^{2+} channels in the context of HIV infection. C. KHODR*; L. CHEN; L. AL-HARTHI; X. HU. *Rush Univ. Med. Ctr., Rush Univ. Med. Ctr., Rush Univ. Med. Ctr.*

3:30 **770.11** HIV-1 Tat causes structural abnormalities in CA1 regional microcircuitry, and disturbances in CA1 function and memory formation. W. D. MARKS; A. J. BARBOUR; J. J. PARIS; M. D. DENTON; A. R. MCQUISTON; P. E. KNAPP; K. F. HAUSER*. *Virginia Commonwealth Univ., Virginia Commonwealth Univ.*

3:45 **770.12** Type 1 interferon signaling in morphine-potentiated LP-BM5 murine AIDS. V. D. MCLANE*; L. CAO. *Univ. of New England.*

4:00 **770.13** Creation of a humanized mice brain for studies of HIV-1 neuropathogenesis. W. LI; S. GORANTLA; H. E. GENDELMAN; L. Y. POLUEKTOVA*. *Univ. of Nebraska Med. Ctr.*

NANOSYMPOSIUM

771. Global Organization of Extrastriate Cortex

Theme D: Sensory Systems

Wed. 1:00 PM – *San Diego Convention Center*, 7B

1:00 **771.01** Adult-like organization of high-level visual cortex in human infants. B. M. DEEN*; H. RICHARDSON; D. D. DILKS; A. TAKAHASHI; B. KEIL; L. L. WALD; N. KANWISHER; R. SAXE. *Rockefeller Univ., MIT, Emory Univ., Massachusetts Gen. Hosp.*

1:15 **771.02** Connectivity precedes function in the development of the visual word form area. Z. M. SAYGIN*; D. E. OSHER; E. NORTON; D. YOUSSOUFIAN; S. BEACH; J. FEATHER; N. GAAB; J. GABRIELI; N. KANWISHER. *MIT, Boston Univ., Northwestern Univ., Columbia Univ., Boston Children's Hosp.*

1:30 **771.03** Altered retino-cortical connections and visual cortex reorganization in the recently discovered FHONDA syndrome. K. AHMADI*; A. FRACASSO; J. VAN DIJK; M. VAN GENDEREN; S. O. DUMOULIN; M. B. HOFFMANN. *Otto-von-Guericke Univ., Univ. Med. Ctr. Utrecht, Utrecht Univ., Spinoza Ctr. for Neuroimaging, Bartiméus Inst. for the Visually Impaired, Ctr. for Behavioral Brain Sci.*

1:45 **771.04** Population receptive field estimation applied to high-resolution measurements of visual eccentricity representations in human superior colliculus. E. HALFEN*; S. KATYAL; I. AKBAR; D. RESS. *Baylor Col. of Med., Univ. of Minnesota, Rice Univ.*

2:00 **771.05** Population Receptive Fields reorganization in a subject born with one hemisphere. A. FRACASSO*; Y. KOENRAADS; G. L. PORRO; S. O. DUMOULIN. *Spinoza Ctr. for Neuroimaging, Univ. Med. Ctr.*

2:15 **771.06** Column-level segregation of magno- and parvo-cellular streams in human extrastriate cortex. R. B. TOOTELL*; S. NASR. *MGH-NMR Ctr., Harvard Med. Sch.*

2:30 **771.07** Network-level interactions drive response properties in word- and face-selective cortex. J. D. YEATMAN*; K. N. KAY. *Univ. of Washington, Univ. of Minnesota.*

2:45 **771.08** Visual field map clusters in high-order visual processing: An analysis of a new cluster in the posterior superior temporal sulcus. B. BARTON*; A. A. BREWER. *Univ. of California Irvine, Univ. of California, Irvine.*

3:00 **771.09** Independent responses to transient and sustained stimulation across the cortical visual processing hierarchy. A. STIGLIANI*; B. JESKA; K. GRILL-SPECTOR. *Stanford Univ., Stanford Univ.*

NANOSYMPOSIUM

772. Enduring Consequences of Early Stress II

Theme F: Integrative Physiology and Behavior

Wed. 1:00 PM – *San Diego Convention Center*, 5B

1:00 **772.01** Prenatal air pollution and maternal stress alters early communication and social behavior in developing offspring. C. L. BLOCK*; R. HANAMSAGAR; J. M. TANDLER; C. EROGLU; S. D. BILBO. *Duke Univ., Duke Univ., Duke Univ.*

1:15 **772.02** Mechanisms supporting accelerated hippocampus maturation following early life stress. K. G. BATH*; G. MANZANO-NIEVES; K. HUNTZICKER; T. MOSS; H. GOODWILL. *Brown Univ., Brown Univ.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

1:30 **772.03** Differential DNA methylation of neuro-immune regulatory genes associated with symptom severity and amygdala-prefrontal abnormalities in pediatric post-traumatic stress disorder. T. J. KEDING*; L. A. PAPALE; R. S. ALISCH; R. J. HERRINGA. *Univ. of Wisconsin-Madison Sch. of Med.*

1:45 **772.04** Developmental changes in emotional neurocircuitry and cellular aging in nonhuman primates: Effects of early life stress. E. L. MORIN*; B. HOWELL; E. FECZKO; E. EARL; K. ESTEVES; M. STYNER; S. DRURY; D. FAIR; M. SANCHEZ. *Emory Univ., Emory Univ., Emory Univ., Univ. of Minnesota, Emory Univ., Oregon Hlth. & Sci. Univ., Tulane Univ. Sch. of Med., Univ. of North Carolina, Tulane Univ. Sch. of Med.*

2:00 **772.05** Changes in the translational profile of CA3 neurons in BDNF-Val66Met mice mirrors changes observed after early life stress. J. D. GRAY*; J. F. KOGAN; T. G. RUBIN; E. F. SCHMIDT; N. HEINTZ; B. S. MCEWEN. *Rockefeller Univ.*

2:15 **772.06** Early adversity affects amygdala-cortical functional connectivity: Links to adversity and gut microbial community structure. B. L. CALLAGHAN*; A. FIELDS; L. GABARD-DURNAM; D. GEE; C. CALDERA; B. GOFF; K. HUMPHREYS; J. FLANNERY; E. TELZER; M. SHAPIRO; N. TOTTENHAM. *Columbia Univ., Weill Cornell Med. Col., Univ. of California Los Angeles, Stanford Univ., Oregon, Univ. of Illinois at Urbana Champagne.*

2:30 **772.07** Inhibition of DNA methylation rescues deficits in maternal behavior induced by early-life stress. S. M. KELLER*; T. S. DOHERTY; T. L. ROTH. *Univ. of Delaware.*

2:45 **772.08** Early life stress enhances susceptibility to depression via long-lasting transcriptional and epigenetic alterations in the brain's reward circuitry. C. J. PENA*; H. KRONMAN; E. LOH; I. PURUSHOTHAMAN; H. M. CATES; O. ISSLER; R. C. BAGOT; D. M. WALKER; L. A. FARRELLY; T. LEONG; B. PATEL; I. MAZE; L. SHEN; E. J. NESTLER. *Icahn Sch. of Med. at Mount Sinai.*

3:00 **772.09** The interaction of childhood trauma and recent stress are associated with heightened ventral striatum-medial prefrontal cortex connectivity: Relations with depression and anxiety. J. L. HANSON*; A. R. KNODT; S. R. RADTKE; B. D. BRIGIDI; A. R. HARIRI. *Duke Univ., Univ. of North Carolina at Chapel Hill.*

3:15 **772.10** Agmatine attenuates chronic unpredictable mild stress-induced anxiety, depression-like behaviours and cognitive impairment by modulating nitrergic signalling pathway. N. B. GAWALI*; V. D. BULANI; A. A. CHOWDHURY; M. S. GURSAHANI; A. R. JUVEKAR. *Inst. of Chem. Technology, Mumbai.*

3:30 **772.11** Effects of maternal stress and fluoxetine on outcomes of offspring as adults. V. KIRYANOVA*; S. J. MEUNIER; V. M. SMITH; M. C. ANTLE; R. H. DYCK. *Univ. of Calgary, Univ. of Calgary, Univ. of Calgary.*

NANOSYMPOSIUM

773. Perception and Imagery: Perception and Behavior in Real-World Settings

Theme H: Cognition

Wed. 1:00 PM – *San Diego Convention Center*, 2

1:00 **773.01** The high-order brain dynamics (HOBD) model. J. R. MANNING*; H. LI; Q. LIU. *Dartmouth Col., Dartmouth Col.*

1:15 **773.02** Engagement synchronizes brains and warps time. S. S. COHEN*; S. HENIN; L. C. PARRA. *The CUNY Grad. Ctr., The Grad. Ctr. of the City Univ. of New York, The City Col. of the City Univ. of New York.*

1:30 **773.03** Neuronal integration of temporal information compared across three face patches in the macaque temporal lobe. B. E. RUSS*; N. PERWEZ; K. KOYANO; D. A. LEOPOLD. *NIMH/NIH.*

1:45 **773.04** Using voxel-wise modeling of fMRI responses to natural stories and movies to study semantic representations in human cortex. A. G. HUTH*; J. L. GALLANT. *UC Berkeley.*

2:00 **773.05** Attention selectively modulates dynamical functional connectivity in processing of simultaneously presented spoken and written narratives. M. REGEV*; E. SIMONY; C. BALDASSANO; U. HASSON. *Princeton Univ., Princeton Univ.*

2:15 **773.06** From words to narratives: Amplification of global meaning in the brain. Y. YESHURUN*; U. HASSON. *Princeton Univ.*

2:30 **773.07** ▲ Increases and decreases in BOLD-responses associated with enhanced comprehension of acoustically degraded sentences. M. HAKONEN*; P. J. C. MAY; I. P. JÄÄSKELÄINEN; E. JOKINEN; M. SAMS; H. TIITINEN. *Aalto Univ. Sch. of Sci., Leibniz Inst. for Neurobio., Aalto Univ. Sch. of Electrical Engin.*

2:45 **773.08** Noise-robustness of cortical responses to natural sounds increases from primary to non-primary auditory cortex. A. J. KELL*; J. H. MCDERMOTT. *MIT.*

3:00 **773.09** Short-term memory of natural speech: Processes of semantic regeneration and control. K. MÜSCH*; K. HIMBERGER; T. A. VALIANTE; C. J. HONEY. *Univ. of Toronto, Univ. of Toronto.*

3:15 **773.10** Updating memory hierarchies in hippocampus and medial prefrontal cortex. S. H. COLLIN*; B. MILIVOJEVIC; C. F. DOELLER. *Donders Institute, Radboud Univ.*

3:30 **773.11** Is the hippocampus necessary for long-timescale dynamics in the default network? J. CHEN*; M. D. BARENSE; D. CROMBIE; L. YEUNG; U. HASSON; C. J. HONEY. *Princeton Neurosci. Inst., Univ. of Toronto, Johns Hopkins Univ.*

3:45 **773.12** Neural reactivation of naturalistic memories in developmental amnesia. B. R. BUCHSBAUM*; M. ST-LAURENT; C. DANG; R. OLSEN; S. ROSENBAUM. *Rotman Res. Institute, Baycrest Ctr., Univ. of Toronto, York Univ.*

4:00 **773.13** Overlap between real-world spatial routes triggers divergence of their hippocampal representations. A. J. CHANALES*; S. E. FAVILA; B. A. KUHL. *New York Univ., Univ. of Oregon.*

4:15 **773.14** Using google streetview to examine cognition in virtualized real-world environments. J. D. OZUBKO*; J. ROBIN; B. BELLANA; I. BRUNEC; C. GRADY; S. ROSENBAUM; G. WINOCUR; M. MOSCOVITCH. *SUNY Geneseo, Rotman Res. Inst., Univ. of Toronto, Univ. of Toronto, York Univ., Trent Univ.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
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* Indicates abstract's submitting author

NANOSYMPOSIUM

774. New Electrode Technologies

Theme I: Techniques

Wed. 1:00 PM – *San Diego Convention Center*, 1B

1:00 **774.01** ● High density individually addressable nanowire arrays record intracellular neuronal potentials. R. LIU*; R. CHEN; A. T. E. YOUSSEF; S. LEE; S. HINCKLEY; M. L. KHRAICHE; J. SCOTT; Y. HWANG; A. TANAKA; Y. RO; A. K. MATSUSHITA; X. DAI; C. SOCI; S. BIESMANS; A. JAMES; J. NOGAN; K. L. JUNGJOHANN; D. V. PETE; D. B. WEBB; Y. ZOU; A. BANG; S. A. DAYEH. *UC, San Diego, Sanford Burnham Prebys Med. Discovery Inst., UC, San Diego, UC, San Diego, Nanyang Technological Univ., Sandia Natl. Labs.*

1:15 **774.02** A novel implantable electrode for chronic electrical interfacing with the murine cervical vagus nerve. A. CARAVACA*; G. RIGGOT; R. DESIMONE; K. J. TRACEY; H. SOHAL; E. S. BOYDEN; P. S. OLOFSSON. *Karolinska Institutet, MIT, Feinstein Inst. for Med. Res.*

1:30 **774.03** Sub-cellular, ultra-flexible electrodes for reliable gliosis-free neural interface. L. LUAN*; C. XIE. *The Univ. of Texas At Austin, UT Austin.*

1:45 **774.04** Electrical activation of the rat tibial nerve with a chronically-implanted wireless stimulation system. J. P. PAQUETTE*; Z. MOAZZAM; N. KHODAPARAST; A. R. DUKE; P. B. YOO. *Univ. of Toronto, Nuviant Med. Inc., Univ. of Toronto.*

2:00 **774.05** ● Novel 3d minimal tissue-penetrating probes on conformal flexible substrates for *in-vivo* brain mapping. S. LEE*; F. AZZAZY; M. GANJI; M. KHRAICHE; J. HERMIZ; N. ROGERS; A. YOUSSEF; V. GILJA; S. DAYEH. *UC San Diego, UC San Diego.*

2:15 **774.06** Virtual steerable acousto-optic waveguides for non-invasive deep brain imaging and stimulation. M. CHAMANZAR*; N. DO; J. BLOCH; M. HUH; M. ALAM; M. MAHARBIZ. *Carnegie Mellon Univ., Univ. of California, Berkeley.*

2:30 **774.07** The neuropixels project: Design and performance of 966 selectable site 384 channel Si probes. T. HARRIS*; J. JUN; B. KARSH; B. BARBARITS; W. SUN; S. MUSA; J. PUTZEYS; A. ANDREI; C. LOPEZ. *HHMI Janelia Res. Campus, HHMI Janelia Res. Campus, IMEC.*

2:45 **774.08** Electrical imaging from high density neural recordings. R. FARHOODI*; K. P. KORDING. *Sharif Univ., Northwestern Univ.*

3:00 **774.09** ● Integrated autopatching and close-packed extracellular recording in headfixed mice. B. ALLEN; J. BERNSTEIN; C. CHRONOPOULOS; J. KINNEY; C. LAMANTIA; C. MOORE-KOCHLACS; J. SCHOLVIN*; C. FONSTAD; S. KODANDARAMAIAH; N. KOPELL; E. BOYDEN. *MIT, LeafLabs, Boston Univ., Univ. of Minnesota.*

3:15 **774.10** ● Impedance stability, long-term stimulation stability, and efficacy of IrOx tip metallization for Utah electrode arrays. L. RIETH*; B. BAKER; R. CALDWELL; H. MANDAL; R. SHARMA. *Univ. of Utah, Blackrock Microsystems, Univ. of Utah.*

3:30 **774.11** ● Towards scalable integrated nano-engineered retinal interfaces. A. AKININ*; S. HA; M. KHRAICHE; Y. JING; W. R. FREEMAN; G. A. SILVA; G. CAUWENBERGHS. *UCSD, UCSD, UCSD.*

3:45 **774.12** Software tools for removing noise from intracortical spiking data and local field potentials. D. M. TAYLOR*; T. JOHNSON; J. JIANG. *Cleveland Clin. Lerner Res. Inst., Louis Stokes Cleveland VA Med. Ctr., Case Western Reserve Univ.*

4:00 **774.13** ● Functional assessment of *in vitro* neurotoxicity and network activity using human iPSC derived peripheral neurons on microelectrode arrays. G. C. LUERMAN*; D. HESS; E. GUENTHER; H. BOHLEN. *Axiogenesis Inc, Axiogenesis AG, NMI TT GmbH.*

POSTER

775. Dendritic Arborization

Theme A: Development

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 A1 **775.01** A role for PSD-95 and its binding partners in models of Traumatic Brain Injury. M. V. PATEL*; D. F. MEANEY; B. L. FIRESTEIN. *Rutgers Univ., Univ. of Pennsylvania.*

2:00 A2 **775.02** The role of CPE and its interactor, $p150^{Glued}$, in regulation of neuronal cytoskeleton and migration. C. LIANG*; D. CARREL; H. KIM; B. L. FIRESTEIN. *Dept. of Cell Bio and Neuroscience, Rutgers Univ., Mol. Biosci. Grad. Program, Rutgers Univ.*

3:00 A3 **775.03** Mir125b mediated filopodial dynamics in developing dendrites. R. IYER*; T. KIM; M. E. KANDEL; G. POPESCU; M. U. GILLETTE. *Univ. of Illinois At Urbana-Champaign, Univ. of Illinois at Urbana Champaign, Univ. of Illinois at Urbana Champaign, Univ. of Illinois at Urbana Champaign.*

4:00 A4 **775.04** Effect of the flavonoids quercetin and rutin in the dendritic branching of rat cortical neurons *in vitro*. J. J. SUTACHAN-RUBIO*; A. F. DIAZ ELJAIEK; H. G. GÓMEZ JIMÉNEZ; M. MUÑOZ; M. P. LOZANO; S. L. ALBARRACIN CORDERO. *Pontificia Univ. Javeriana, Pontificia Univ. Javeriana.*

1:00 A5 **775.05** Wnt5a is essential for dendrite maintenance and cognitive functions in adult brain. C. CHEN*; L. OREFICE; S. CHIU; T. LEGATES; S. HATTAR; R. HUGANIR; H. ZHAO; B. XU; R. KURUVILLA. *Johns Hopkins Univ., The Scripps Res. Inst. Florida, Johns Hopkins Univ. Sch. of Med.*

2:00 A6 **775.06** LRRC7 regulates neurite morphogenesis through mGluR5. C. CHONG*; C. NG; H. MAK; Q. LI; G. MCALONAN; S. CHAN. *The Univ. of Hong Kong, The Univ. of Hong Kong, King's Col. London.*

3:00 A7 **775.07** Using small peptides to study protein interactions and dendrite branching. H. MENON*; J. ROSHAL; H. M. CHAPMAN; T. L. WANG; M. R. SPALLER; B. L. FIRESTEIN. *Rutgers, Geisel Sch. of Med. at Dartmouth and Norris Cotton Cancer Ctr.*

4:00 A8 **775.08** Elucidating the mechanism by which the GTPase Rem2 negatively regulates dendritic complexity. K. M. KENNY*; L. ROYER; A. R. MOORE; S. PARADIS. *Brandeis Univ.*

1:00 A9 **775.09** Autism-associated mutation of syntaxin binding protein 5 disrupts dendrite arborization. W. SHEN*; Y. LIN. *Hussman Inst. For Autism.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
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* Indicates abstract's submitting author

2:00 A10 **775.10** Pannexin 1 regulation of neurite development: Molecular mechanisms. L. SWAYNE*; A. K. J. BOYCE; L. E. WICKI-STORDEUR; J. C. SANCHEZ-ARIAS. *Univ. of Victoria.*

3:00 A11 **775.11** DSCAM promotes self-avoidance in neurodevelopment by masking diverse cell adhesion molecules. A. M. GARRETT*; A. L. D. TADENEV; A. KHALIL; P. G. FUERST; R. W. BURGESS. *The Jackson Lab., Univ. of Maine, Univ. of Idaho.*

4:00 A12 **775.12** A pannexin 1 blocker modulates the development of dendritic spines in the postnatal cerebral cortex. J. C. SÁNCHEZ-ARIAS*; L. E. WICKI-STORDEUR; L. A. SWAYNE. *Univ. of Victoria, Univ. of British Columbia.*

1:00 A13 **775.13** Regulation of neuronal morphogenesis by 14-3-3ε (YWHAE) via the microtubule binding protein, doublecortin. B. T. CORNELL*; W. TOMOKA; V. ZHUKAREV; K. TOYO-OKA. *Drexel Univ. Col. of Med.*

2:00 B1 **775.14** Femtogram-level analysis of mass-change dynamics in filopodia on the tips and shafts of developing dendrites in response to semaphorin3A. A. JAIN*; T. KIM; G. POPESCU; M. U. GILLETTE. *Univ. of Illinois at Urbana-Champaign, Univ. of Illinois at Urbana-Champaign.*

3:00 B2 **775.15** ▲ Effects of an early postnatal intoxication event on medium spiny neuron morphology throughout mouse development. J. INGERSOLL*; E. B. D. CLABOUGH. *Hampden-Sydney Col.*

4:00 B3 **775.16** Comparison of Matrigel® and Poly-D-Lysine as plating matrix for mouse embryonic neuronal cell cultures and their effect on cell growth. E. SEKERDAG*; Y. CETIN TAS; G. NUR SAHIN; S. KARAHUSEYINOGLU; I. SOLAROGLU; Y. GURSOY-OZDEMIR. *Koç Univ.*

1:00 B4 **775.17** Histone deacetylase 1 regulates neuronal structure and function via bdnf signaling in developing xenopus tectum *in vivo*. W. SHEN*; H. RUAN; Y. TAO; J. GAO; X. QI; X. GUO. *Hangzhou Normal Univ., Hangzhou Normal Univ., Nanjing Med. Univ. Affiliated Jiangsu Cancer Hosp.*

2:00 B5 **775.18** ▲ Expression of a null mutation gap junction protein during development results in neuronal arbor loss. I. V. KATRITCH; D. DE GUZMAN; E. R. MACAGNO*; M. W. BAKER. *Univ. of California San Diego Div. of Biol. Sci.*

3:00 B6 **775.19** Retinotectal circuit arbor remodeling through DSCAM knockdown *in vivo*. R. A. SANTOS; G. SHORT; S. COHEN-CORY*. *Univ. of California Irvine.*

4:00 B7 **775.20** Celsr2 regulates neuronal dendritic development and neural function. L. CHEN*; Y. HUANG; J. HU; J. DUAN; Y. QU. *Jinan Univ., Hongkong Univ., Jinan Univ.*

1:00 B8 **775.21** Adult hippocampal neurogenesis and its regulation by components of FGF signaling. M. GRONSKA*; M. SCHACHNER; J. HEBERT. *Albert Einstein Col. of Med., Rutgers Univ.*

2:00 B9 **775.22** Properties of optimally tapered dendrites. A. D. BIRD*; H. CUNTZ. *FIAS, Ernst Strungmann Inst. for Neurosci.*

3:00 B10 **775.23** Dendrite remodeling in the developing olfactory circuits. K. TOGASHI*; S. TAKEUCHI; H. KOIZUMI; K. EMOTO. *The Univ. of Tokyo.*

4:00 B11 **775.24** Dendritic Eph specifies pheromone-sensing circuit by organizing dendrite segregation in *Drosophila*. T. CHIHARA*; M. ANZO; S. SEKINE; S. MAKIHARA; K. CHAO; M. MIURA. *Hiroshima Univ., The Univ. of Tokyo, AMED-CREST.*

1:00 B12 **775.25** *In vivo* imaging of golgi complex of neurons in *Drosophila*. W. ZHOU*; J. CHANG. *Huazhong Univ. of Sci. and Technol. (HUS, Britton Chance Ctr. for Biomed. Photonics, Wuhan Natl. Lab. for Optoelectronics-Huazhong Univ. of Sci. and Technol.*

POSTER

776. Autism: Neuromimmune, Microbiota, and Environmental Factors

Theme A: Development

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 B13 **776.01** Abnormal anxiety and social approach behavior in a neonatal model of Ureaplasma infection is associated with increased ammonia levels in brain during early life. S. SORIANO*; B. E. O'NEILL; A. J. LIANG; C. M. MCGRAW; L. E. WEISMAN; R. S. SAMACO. *Baylor Col. of Medicine/Jan and Dan Duncan NRI, Tulane Sch. Of Med., Baylor Col. of Med.*

2:00 B14 **776.02** Early life exposure to the organophosphorus pesticide chlorpyrifos produces behavioral phenotypes relevant to neurodevelopmental disorders. E. L. BERG*; J. K. RIVERA; M. CAREAGA; D. A. BRUUN; P. J. LEIN; J. L. SILVERMAN. *MIND Institute, UC Davis Sch. of Med., UC Davis Sch. of Vet. Med.*

3:00 B15 **776.03** ● Sex differences in autism-like repetitive behavior in response to postnatal opiate exposure in mice. A. REYNOLDS; K. KESAVAN; D. M. CORDERO*; D. SHIN; A. MAZARATI. *UCLA, UCLA, UCLA.*

4:00 B16 **776.04** Cumulative impact of large chromosomal duplications and PCB exposure on DNA methylation, chromatin, and expression of synaptic genes in autism spectrum disorder. M. S. ISLAM*; K. DUNAWAY; R. CHU; S. LOPEZ; R. COULSON; I. PESSAH; P. LOTT; D. YASUI; C. MORDAUNT; M. HORIKE; S. HORIKE; I. KORF; J. LASALLE. *Univ. of California, Davis, Univ. of California, Univ. of California, Univ. of California, Univ. of California, Kanazawa Univ.*

1:00 B17 **776.05** Effects of A1 vs A2 β casein containing diet on glutathione levels: Linking the Gut and the brain via redox -based epigenetic changes. M. S. TRIVEDI*; R. DETH; Y. ZHANG. *Nova Southeastern Univ., Nova Southeastern Univ., Northeastern Univ.*

2:00 B18 **776.06** Effects of maternal serotonin transporter genotype and stress on microbiota throughout pregnancy. B. M. KILLE*; D. J. DAVIS; P. M. HECHT; A. C. ERICSSON; D. Q. BEVERSDORF. *Univ. of Missouri, Univ. of Missouri, USC, Univ. of Missouri.*

3:00 B19 **776.07** The bacterial peptidoglycan sensing molecule Pglyrp2 modulates brain development and behavior. R. DIAZ HEIJTZ*; H. FORSSBERG; T. ARENTSEN. *Karolinska Institutet.*

Wed. PM

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

4:00 B20 **776.08** ● Early life clinical dose penicillin exposure induces longterm effects on gut microbiota, brain inflammation and behavior which are partially restored by beneficial microbe administration. S. LECLERCQ; F. MIAN; A. STANISZ; L. BINDELS; O. KOREN; P. FORSYTHE; J. BIENENSTOCK*. *McMaster Brain-Body Inst., Louvain Drug Res. Institute, Metabolism and Nutr. Res. Group, Univ. catholique de Louvain, Fac. of Medicine, Bar-Ilan Univ.*

1:00 B21 **776.09** Autism-relevant sociability deficits, repetitive behaviors, and neuroanatomical findings in the antigen-driven mouse model of maternal autoantibody related autism. K. L. JONES*; J. ELLEGOOD; E. EDMISTON; M. PRIDE; M. YANG; J. SILVERMAN; J. LERCH; J. CRAWLEY; J. VAN DE WATER. *Univ. of California Davis, Hosp. For Sick Children, Univ. of California Davis.*

2:00 B22 **776.10** Interactions between prenatal and early postnatal immune challenges in a mouse model of autism. E. L. MOKLER; A. J. ALEXANDER; S. M. LANDINO; B. C. FINGER; Y. LI*; V. Y. BOLSHAKOV; G. MISSIG; C. J. MCDOUGLE; W. A. CARLEZON, Jr. *Dept. of Psychiatry, Harvard Med. School, McLean Hosp., McLean Hosp., Lurie Ctr. for Autism, Massachusetts Gen. Hosp..*

3:00 B23 **776.11** Sleep and epileptiform activity in a perinatal immune activation mouse model of autism spectrum disorder (ASD). G. MISSIG*; A. J. ALEXANDER; E. L. MOKLER; A. J. WELLS; B. C. FINGER; C. J. MCDOUGLE; W. A. CARLEZON, Jr. *McLean Hosp., Lurie Ctr. for Autism, Massachusetts Gen. Hosp.*

4:00 B24 **776.12** ● Associations between cytokines, endocrine stress response, and gastrointestinal symptoms in autism spectrum disorder. B. J. FERGUSON*; S. MARLER; L. ALTSTEIN; E. LEE; M. MAZUREK; A. MCLAUGHLIN; K. HARTNETT; E. MACKLIN; E. MCDONNELL; D. DAVIS; A. BELENCHIA; C. GILLESPIE; C. PETERSON; M. BAUMAN; K. MARGOLIS; J. VEENSTRA-VANDERWEELE; D. BEVERSDORF. *Thompson Ctr. For Autism, Univ. of Missouri, Vanderbilt Univ., Massachusetts Gen. Hosp. Biostatistics Ctr., Thompson Ctr. for Autism & Neurodevelopmental Disorders, St. Louis Sch. of Med., Biostatistics Center, Massachusetts Gen. Hosp., The Jackson Lab., Boston Univ. Sch. of Med., Columbia Univ.*

1:00 B25 **776.13** Gene X environment interactions in the development of an autistic-phenotype in mice. D. S. COELHO*; K. JIMENEZ; L. REDUS; L. MYATT; J. C. O'CONNOR. *Univ. of Texas Hlth. Sci. Ctr. At San A, Audie L. Murphy VA Hosp.*

2:00 B26 **776.14** Maternal inflammation impacts fetal neurodevelopment via placental serotonergic dysfunction. N. GOEDEN*; J. VELASQUEZ; K. A. ARNOLD; Y. CHAN; B. T. LUND; G. M. ANDERSON; A. BONNIN. *USC, Yale Univ. Sch. of Med.*

3:00 C1 **776.15** Synergy between partial loss of GABRB3 and gestational immune events in a mouse model of autism. H. LEE*; T. WEERAKKODY; G. C. NASTARIN; Y. WU; J. HUGUENARD; J. B. DING; T. D. PALMER. *Stanford Univ.*

4:00 C2 **776.16** Rapidly reversible altered functional connectivity and autism-like behaviors in a model of maternal inflammation-induced mild brain overgrowth. J. E. LE BELLE; N. G. HARRIS; A. J. SILVA; H. KORNBLUM*. *UCLA, UCLA, UCLA, UCLA Med. Ctr.*

1:00 C3 **776.17** The association between blood levels of inflammatory markers and autism in Jordan. L. ALZGHOUL*; A. H. I. YANIS; S. S. N. MAHMOUD; Y. Z. S. QWAIDER; M. ELDAHABI; S. ALBDOUR. *The Univ. of Jordan, The Univ. of Jordan- Sch. of Med., The Univ. of Jordan- Sch. of Med.*

2:00 C4 **776.18** ▲ Increased microglial priming in autism spectrum disorder, an immunocytochemical study in postmortem human temporal cortex. A. S. LEE*; M. A. MOORE; Z. T. SACCOMANO; E. C. AZMITIA; P. M. WHITAKER-AZMITIA. *Stony Brook Univ., New York Univ., Max Planck Inst. for Biol. Cybernetics, Stony Brook Univ.*

POSTER

777. Adolescents: Mechanisms of Vulnerability

Theme A: Development

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 C5 **777.01** Age dependent response to simulated brain injury in the functional connectome. M. HART*; E. BULLMORE; R. DOLAN; I. GOODYER; P. B. JONES; J. SUCKLING. *Univ. of Cambridge, Dept. of Psychiatry, Wellcome Trust Ctr. for Neuroimaging.*

2:00 C6 **777.02** Inhibition of rho-kinase II has antidepressant-like efficacy in adolescent mice. L. P. SHAPIRO; S. L. GOURLEY*. *Emory Univ., Emory Univ.*

3:00 C7 **777.03** Adolescent exposure to methylmercury and d-amphetamine produce comparable reversal-learning impairments in mice. R. A. SAUER*; S. R. BOOMHOWER; K. R. JOHNSON; M. C. NEWLAND. *Auburn Univ.*

4:00 C8 **777.04** Epigenetic and behavioral influences of adolescent methylmercury exposure in mice. S. R. BOOMHOWER*; S. V. BACH; J. J. DAY; M. C. NEWLAND. *Auburn Univ., Univ. of Alabama at Birmingham.*

1:00 C9 **777.05** Pubertal stress exerts sex-specific deficits on pre-pulse inhibition and forced swim test performance in adulthood. C. DRZEWIECKI*; J. WILLING; L. CORTES; J. JURASKA. *Univ. of Illinois at Urbana/Champaign.*

2:00 C10 **777.06** Novelty preferences are associated with blood flow changes in addiction regions of the brain of female juvenile rats. A. N. ROCK*; M. ROHAN; S. B. LOWEN; K. J. NORMAN; S. L. ANDERSEN. *McLean Hospital; Harvard Med. Sch., McLean Hospital; Harvard Med. Sch., McLean Hospital; Harvard Med. Sch.*

3:00 C11 **777.07** ▲ Adolescent methylphenidate exposure alters nicotine self-administration and the accumbal firing response to nicotine. C. C. DE PRETER*; L. J. HERNANDEZ; S. L. KIRBY; R. B. CAMPBELL; E. BEAUMONT; C. A. BRADLEY; M. I. PALMATIER; R. W. BROWN. *East Tennessee State Univ., East Tennessee State Univ.*

4:00 C12 **777.08** Epigenetic alterations apparent in brain-expressed genes after severe childhood trauma. A. ZIMMERMAN*; F. E. MENNEN; E. L. BEARER. *Univ. of New Mexico Hlth. Sci. Ctr., USC.*

1:00 C13 **777.09** Developmental changes in the influence of COMT genotype on the flexible processing of self-generated information and trait anxiety. E. J. KILFORD*; I. DUMONTHEIL; S. BLAKEMORE. *UCL Inst. of Cognitive Neurosci., Birkbeck, Univ. of London, Univ. Col. London.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

2:00 C14 **777.10** Escalation of methamphetamine intake in adolescent rats compared to adults. S. J. LUIKINGA*; H. B. MADSEN; I. C. ZBUKVIC; A. J. LAWRENCE; J. KIM. *Florey Inst. of Neurosci. and Mental Hlth., Univ. of Melbourne.*

3:00 C15 **777.11** The impact of adolescent alcohol exposure on fear memory acquisition, extinction, consolidation, and recall in adulthood. R. J. NEWSOM*; E. GLOVER; J. CHANDLER; J. GASS. *Med. Univ. of South Carolina.*

4:00 C16 **777.12** Effects of chronic intermittent adolescent ethanol exposure on early and late modulation of Ox/Hcrt system. M. SANCHEZ-ALAVEZ*; W. NGUYEN; S. MORI; D. N. WILLS; B. CONTI; C. L. EHLERS. *Scripps Res. Inst.*

1:00 C17 **777.13** Developmental effects of the AMPA receptor antagonist NBQX differ from adolescent-specific effects of ethanol on social interactions. C. DANNENHOFFER*; E. I. VARLINSKAYA; L. P. SPEAR. *Binghamton Univ.*

2:00 C18 **777.14** Adolescent intermittent binge ethanol alters ERK1/2 phosphorylation expression in the different brain regions of adult rat. W. LIU*; F. T. CREWS. *Univ. of North Carolina-Chapel Hill.*

3:00 C19 **777.15** Arrested development following adolescent alcohol intake? Investigation of risky behavior and NAcc phasic dopamine release during development. L. KRUSE*; A. SCHINDLER; K. REICHARD; J. J. CLARK. *Univ. of Washington.*

4:00 C20 **777.16** Voluntary ethanol consumption during adolescence enhances the sensitivity and response to nicotine within the mesolimbic dopamine system during adulthood. Z. A. RODD*; A. L. BRACKEN; G. A. DEEHAN, Jr; C. P. KNIGHT; R. A. WAIESS; W. J. MCBRIDE; R. L. BELL; S. R. HAUSER. *Indiana Univ, Sch. Med.*

1:00 C21 **777.17** Exposure to nicotine during adolescence increases the neurochemical response to nicotine within the mesolimbic dopamine system during adulthood. S. R. HAUSER*; A. L. BRACKEN; C. P. KNIGHT; G. A. DEEHAN, Jr.; R. A. WAEISS; W. J. MCBRIDE; R. L. BELL; Z. A. RODD. *Indiana Univ. Sch. of Med., Indiana Univ. Sch. of Med., Indiana Univ. Sch. of Med.*

2:00 C22 **777.18** Adolescent alcohol exposure produces resistance to habit formation in adulthood. J. I. OBSORNE; J. M. BARKER; L. CHANDLER*. *Med. Univ. S Carolina.*

3:00 C23 **777.19** ● Sex and adolescent intermittent ethanol promote Pavlovian conditioned approach to cue, no contribution of GLT-1. A. C. MADAYAG; S. J. STRINGFIELD; K. J. REISSNER; B. C. RILEY; C. A. BOETTIGER; D. L. ROBINSON*. *Univ. of North Carolina, Univ. of North Carolina.*

4:00 C24 **777.20** Voluntary exercise prevents adolescent binge ethanol-induced loss of hippocampal neurogenesis by creating resiliency against innate immune activation. R. P. VETRENO*; C. LAWRIMORE; F. T. CREWS. *Univ. of North Carolina At Chapel Hill.*

1:00 C25 **777.21** The effects of the oxytocin agonist way 267464 on social behavior in adult male and female rats following adolescent intermittent ethanol exposure. J. SAALFIELD*; C. DANNENHOFFER; D. WERNER; E. VARLINSKAYA; L. SPEAR. *Binghamton Univ.*

2:00 C26 **777.22** The role of pubertal timing in the social and neural consequences of early adolescent intermittent ethanol exposure. E. U. KIM*; L. P. SPEAR. *Binghamton Univ.*

3:00 C27 **777.23** Binge-like alcohol exposure during adolescence disrupts dopaminergic neurotransmission in the adult prefrontal cortex. H. TRANTHAM-DAVIDSON*; L. CHANDLER. *Med. Univ. of South Carolina, Med. Univ. of South Carolina.*

POSTER

778. Comparative Anatomy

Theme A: Development

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 C28 **778.01** Intrinsic connectivity of the hippocampal formation of pigeons: An *in vitro* tracing study. N. ROOK*; M. STACHO; A. SCHWARZ; V. P. BINGMAN; O. GUNTURKUN. *Ruhr-University Bochum, Bowling Green State Univ.*

2:00 C29 **778.02** Documenting brain diversity in field-caught lizards, from skull to cell: Initial development of a processing pipeline for top down, multi-scale structural analyses of a single brain by integrating specialized microcomputed tomography (diceCT), Nissl-based cytoarchitectonics, and immunohistochemistry. D. F. HUGHES*; P. M. GIGNAC; E. GREENBAUM; A. M. KHAN. *Univ. of Texas At El Paso, Oklahoma State Univ. Ctr. for Hlth. Sci., Univ. of Texas At El Paso.*

3:00 C30 **778.03** Invariant microglial cell densities in mammalian brains. S. E. DOS SANTOS; L. BOTELHO; M. MEDEIROS; J. PORFIRIO; J. BRITO; S. HERCULANO-HOUZEL*. *UFRJ.*

4:00 C31 **778.04** A new high resolution anatomical template for macaque MRI data analysis. C. SPONHEIM*; J. SEIDLITZ; F. Q. YE; D. A. LEOPOLD; L. G. UNGERLEIDER; A. MESSINGER. *Natl. Inst. of Mental Hlth., Univ. of Cambridge, Natl. Inst. of Mental Hlth., Natl. Inst. of Mental Hlth.*

1:00 C32 **778.05** Cortical morphology can be predicted universally by a model with only three parameters: Number of symmetric and assymetric cell divisions, and average neuronal cell volume. B. MOTA*; S. HERCULANO--HOUZEL. *Univ. Federal Do Rio De Janeiro.*

2:00 C33 **778.06** Density and distribution of oxytocin and vasopressin receptors in male and female Richardson's ground squirrels. J. ARAUJO*; A. NGWENYA; G. PROUNIS; A. G. OPHIR; A. N. IWANIUK. *Univ. of Lethbridge, Cornell Univ.*

3:00 C34 **778.07** Quantitative analysis of the distribution of neurons, glial cells and vasculature in the mouse brain. L. VENTURA ANTUNES*; L. BOTELHO; J. MALDONADO; S. HERCULANO-HOUZEL. *Federal Univ. of Rio De Janeiro, MBF Biosci.*

4:00 D1 **778.08** Neurochemical compartmentalization within the pigeon basal ganglia. L. L. BRUCE*; J. T. ERICHSEN; A. J. REINER. *Creighton Univ., Cardiff Univ., The Univ. of Tennessee Hlth. Sci. Ctr.*

1:00 D2 **778.09** ▲ Desert rodents have fewer neurons in their cerebral cortex: Energetic constraints? F. B. CUNHA*; D. MESSEDER; P. MANGER; S. HERCULANO-HOUZEL. *Univ. Federal Do Rio De Janeiro, Univ. Federal do Rio de Janeiro, Univ. of the Witwatersrand.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

2:00 D3 **778.10** The orientation of regional expansion in the human cerebral cortex. D. S. MARGULIES*; C. DELETTRE; S. OLIGSCHLÄGER; R. TORO; O. COULON; G. AUZIAS. *Max Planck Inst. For Human Cognitive and Brain Sci., Inst. Pasteur, Aix Marseille Université, CNRS, Aix Marseille Université, CNRS.*

3:00 D4 **778.11** Figuring out why crows are smart - Area specific analysis of neuron numbers in corvid and non-corvid species. F. STROECKENS*; K. NEVES; S. HERCULANO-HOUZEL; O. GUNTURKUN. *Ruhr-University Bochum, Federal Univ. of Rio de Janeiro.*

4:00 D5 **778.12** A systematic relationship between intracortical myelin and functional connectivity in the human cerebral cortex. J. M. HUNTENBURG*; P. BAZIN; A. GOULAS; D. S. MARGULIES. *MPI for Human Cognitive and Brain Sci., MPI for Human Cognitive and Brain Sci., Univ. Med. Ctr. Hamburg-Eppendorf.*

1:00 D6 **778.13** Comparison of estimates of neuronal number in the telencephalon of day old chicks (*Gallus gallus domesticus*) using the isotropic fractionator method and unbiased stereology. A. NGWENYA*; J. NAHIRNEY; E. STREIBEL; A. N. IWANIUK. *Univ. of Lethbridge.*

2:00 D7 **778.14** Comparative distributions and domains of human and mouse oligodendrocyte progenitor cells in the cortex and white matter. J. OSÓRIO*; K. HEFFERNAN; S. GOLDMAN. *Univ. of Copenhagen, Univ. of Rochester Med. Ctr., Univ. of Copenhagen, Univ. of Rochester Med. Ctr.*

3:00 D8 **778.15** Is there a precursor of the entorhinal cortex in reptiles? E. DESFILIS; A. ABELLÁN; L. MEDINA*. *Univ. Lleida-IRBLleida.*

4:00 D9 **778.16** Functional network organization of the awake pigeon brain. M. BEHROOZI*; F. STROCKENS; X. HELLUY; E. GANC; O. GUNTURKUN. *Inst. of Cognitive Neurosci. , Biopsycholog.*

1:00 D10 **778.17** Lateralized learning processes - Impact of commissural systems on one trial passive avoidance learning. A. SIMON*; R. KLOSE; O. GUNTURKUN. *Ruhr-Universität Bochum.*

2:00 D11 **778.18** Relative size of the pontine nuclei in birds and its relation with their visual environment. A. N. IWANIUK*; C. GUTIERREZ-IBANEZ; D. WYLIE. *Univ. of Lethbridge, Technische Univ. München, Univ. of Alberta.*

3:00 D12 **778.19** Continuous addition of neuronal cells during embryonic and postnatal cuttlefish development. S. E. DOS SANTOS*; B. IMARAZENE; L. BOTELHO; L. BONNAUD-PONTICELLI; S. HERCULANO-HOUZEL. *Federal Univ. of Rio De Janeiro, Muséum Natl. d'Histoire Naturelle.*

4:00 D13 **778.20** The canonical circuit of the avian sensory forebrain. M. STACHO*; O. GUNTURKUN. *Ruhr-University Bochum.*

1:00 D14 **778.21** Ultrastructure differences in various subregions of the corpus callosum between male and female rats; an electron microscopic study. D. J. AL QATTAN*; L. ALZGHOUL; A. I. ABDALLAH; A. K. ABD-ELHAFITH; A. AL-SHATARAT. *The Univ. of Jordan, The university of Jordan, The Univ. of Jordan, The Univ. of Jordan.*

2:00 D15 **778.22** Differential gene expression patterns suggest a distinct embryonic origin of the medial and lateral parts of the entorhinal cortex. A. ABELLAN*; E. DESFILIS; L. MEDINA. *Univ. of Lleida - IRBLLEIDA.*

3:00 D16 **778.23** Anterior to posterior distribution of neurons across the cerebral cortex of infant macaques. M. GABI*; E. C. TURNER; D. J. MILLER; J. H. KAAS. *Vanderbilt Univ.*

4:00 D17 **778.24** Molecular imaging of multitasking processes in the pigeon (*Columba livia*). S. LETZNER*; O. GUNTURKUN; C. BESTE. *Ruhr-University Bochum Inst. For Cognitive Neurosci., Universitaetsklinikum.*

1:00 D18 **778.25** Volumes of claustrums are not directly proportional to volumes of forebrains across the mammalian radiation. J. I. JOHNSON*; B. A. FENSKE; H. YORK. *Michigan State Univ. Dept. of Radiology, Michigan State Univ., Neurosci. Associates, Inc.*

2:00 D19 **778.26** Semantic categories in the pigeon's nidopallium frontolaterale: A reverse engineering approach. R. PUSCH*; C. KOENEN; A. AZIZI; J. KELLERMANN; F. BROKER; S. THIELE; S. CHENG; O. GUNTURKUN. *Ruhr-University Bochum, Ruhr-University Bochum, Ruhr-University Bochum, Ruhr-University Bochum.*

3:00 D20 **778.27** The neural circuit underlying extinction learning in pigeons - evidence from pharmacological studies. M. GAO*; D. LENGERSDORF; M. C. STUTTGEN; O. GUNTURKUN. *Ruhr-University Bochum, Univ. Med. Ctr. Mainz.*

4:00 D21 **778.28** Metabolic changes in the bilateral visual cortex of monocular blindness macaque monkeys: A multi-voxel proton magnetic resonance spectroscopy study. Z. TANG*; L. WU. *Eye & ENT Hosp. of Fudan Univ.*

1:00 D22 **778.29** Domestication affects Purkinje cell size and foliation in the cerebellar cortex in laboratory rats (*Rattus norvegicus*). L. WILLIAMS*; T. SALIK; R. STRYJEK; K. MODLINSKA; W. PISULA; S. M. PELLIS; A. N. IWANIUK. *Univ. of Lethbridge, Polish Acad. of Sci.*

2:00 D23 **778.30** Three-dimensional brain atlas of pygmy squid, *Idiosepius paradoxus*. N. TANAKA*; M. KOIZUMI; S. SHIGENO. *Hokkaido Univ., JAMSTEC.*

3:00 D24 **778.31** ▲ Chromophore formation in developing frogs. M. D. PEREZ*; M. REYES; N. ZUHDI; M. E. DE BELLARD. *California State University, Northridge, CSUN.*

POSTER

779. Development and Evolution

Theme A: Development

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 D25 **779.01** ▲ Physid snails respond to light before hatching. E. M. REMBETSKI; T. M. MCCARTHY; A. K. PACK*. *Utica Col., Utica Col., Utica Col.*

2:00 D26 **779.02** Of mice and pigeons-a comparative view of adult neurogenesis in two different animal models. J. MEHLHORN*; I. MASSON; K. AMUNTS; C. HEROLD. *Inst. of Anat. I, Univ. of Düsseldorf, C. & O. Vogt Inst. of Brain Research, Univ. of Düsseldorf, Inst. of Neurosci. and Med. INM-1, Res. Ctr. Jülich.*

3:00 D27 **779.03** ▲ Cerebral white matter development in rhesus macaque during the early postnatal phase as measured via diffusion MRI. J. YOUNG*; Y. SHI; C. COE; R. KNICKMEYER; M. STYNER. *Univ. of North Carolina At Chapel Hill, Univ. of Wisconsin-Madison.*

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* Indicates abstract's submitting author

4:00 D28 **779.04** The molecular evolution of plasticity and the human hippocampus. B. M. SCHILDER*; B. J. BRADLEY; C. C. SHERWOOD. *George Washington Univ., George Washington Univ.*

1:00 D29 **779.05** Roles of cannabinoid 2 receptor (CB2) in the development of zebrafish nervous system. A. ACEVEDO-CANABAL*; L. COLÓN-CRUZ; M. BEHRA; G. A. YUDOWSKI. *Univ. of Puerto Rico - RCM, Univ. of Puerto Rico - Inst. of Neurobio.*

2:00 D30 **779.06** Ancient origin and conservation of a bilateral map in the mammalian cortex. R. SUAREZ*; A. PAOLINO; L. MORCOM; P. KOZULIN; L. R. FENLON; N. KURNIAWAN; L. J. RICHARDS. *The Univ. of Queensland, The Univ. of Queensland, The Univ. of Queensland.*

3:00 D31 **779.07** The unusual structure and function of the African naked mole rat endocannabinoid system. B. M. BROWE*; E. KEIMPEMA; T. HARKANY; J. LARSON; T. J. PARK. *Univ. of Illinois At Chicago, Med. Univ. of Vienna.*

4:00 D32 **779.08** Prosomeric interpretation of the developing hypothalamus in Xenopus laevis. A. GONZALEZ*; R. MORONA; J. M. LÓPEZ; N. MORENO. *Univ. Complutense Madrid, Univ. Complutense Madrid.*

1:00 D33 **779.09** Claustrum connections of posterior cingulate regions in the marmoset cerebral cortex. D. H. RESER*; B. KNAUER; P. MAJKA; J. M. H. CHAN; K. J. WATKINS; K. WORTHY; M. D. M. QUIROGA; M. G. P. ROSA. *Monash Univ., Monash Univ., Ruhr university Bochum, Polish Acad. of Sci., ARC Ctr. of Res. Excellence in Integrative Brain Function.*

2:00 D34 **779.10** A grayordinate pipeline for magnetic resonance imaging of marmoset brain. T. HAYASHI*; M. GLASSER; C. YOKOYAMA; T. OSE; C. TAKEDA; A. KAWASAKI; J. AUTIO; D. VAN ESSEN. *RIKEN Ctr. For Life Sci. Technologies, Washington Univ. in St Louis.*

3:00 E1 **779.11** *In vivo* cortical dopamine D2 receptor binding in human, macaques and marmosets. C. YOKOYAMA*; J. AUTIO; T. OSE; A. KAWASAKI; C. TAKEDA; K. TAKAHASHI; A. IGESAKA; H. DOI; T. HAYASHI. *RIKEN Ctr. For Life Sci. Technologies (CLST).*

4:00 E2 **779.12** ▲ Neural Crest Derived Chromatophores in Red-Eyed Tree Frogs. P. SANGUANVICHAIKUL*; M. E. DE BELLARD; M. LUEVANOS; M. REYES. *California State Unversity Northridge, CSUN.*

1:00 E3 **779.13** Oxytocin (OT) and arginine-vasopressin (AVP) cell bodies and fibers in the social behavior neural network in rhesus macaque, chimpanzee, and human brains. C. ROGERS*; A. P. ROSS; J. DOOYEMA; M. A. CREE; S. P. SAHU; E. SIEGEL; E. G. STOPA; J. K. RILLING; H. E. ALBERS; T. M. PREUSS. *Emory Univ., Yerkes Natl. Primate Res. Ctr., Georgia State Univ., Georgia State Univ., Yerkes Natl. Primate Res. Ctr., The Warren Alpert Med. School, Brown Univ., Emory Univ., Emory Univ., Emory Univ. Sch. of Med.*

2:00 E4 **779.14** Intracellular distributions of Lactate Dehydrogenase isoenzymes in primate forebrain. T. I. DUKA*; S. ANDERSON; Z. COLLINS; M. RAGHANTI; J. J. ELY; P. R. HOF; D. E. WILDMAN; L. I. GROSSMAN; C. C. SHERWOOD. *George Washington Univ., Kent State Univ., MAEBIOS, Michale E. Keeling Ctr. for Comparative Med. and Res., Icahn Sch. of Med. at Mount Sinai, Univ. of Illinois Urbana-Champaign, Wayne State Univ. Sch. of Med.*

3:00 E5 **779.15** Cerebrovascular β-dystroglycan in vertebrates: Its immunonegativity in anurans and advanced teleostei. D. LORINCZ; V. JANCSIK; E. OSZWALD; O. SEBőK; M. KALMAN*. *Semmelweis University, Dept. of Anatomy, Histology and Embryology, Szent István University, Fac. of Vet. Sci., Semmelweis Univ.*

4:00 E6 **779.16** Analysis of expression patterns of neurotrophin genes in humans and chimpanzees. A. VERENDEEV*; W. D. HOPKINS; C. C. SHERWOOD. *George Washington Univ., George Washington Univ., Georgia State Univ., Yerkes Natl. Primate Res. Ctr., George Washington Univ.*

1:00 E7 **779.17** Analysis of construction mechanism of medaka telencephalon by post-hatch neurogenesis. Y. ISOE*; T. OKUYAMA; Y. SUEHIRO; K. NARUSE; M. KINOSHITA; Y. KAMEI; S. NONAKA; A. SHIMIZU; T. KUBO; H. TAKEUCHI. *The Univ. of Tokyo, NIBB, Kyoto Univ., Keio Univ., Okayama Univ.*

2:00 E8 **779.18** A new model of brain development: BATS. V. MARTINEZ-CERDENO; J. CAMACHO; R. BEHRINGER; J. ARIZA; H. ROGERS; R. IKEDA; S. C. NOCTOR*. *UC Davis, Univ. of Texas, UC Davis.*

3:00 E9 **779.19** ▲ Neocortical neuronal morphology in the Siberian tiger (*Panthera tigris altaica*) and the clouded leopard (*Neofelis nebulosa*). C. B. JOHNSON; M. SCHALL; M. E. TENNISON; M. E. GARCIA; N. B. SHEA-SHUMSKY; M. RAGHANTI; A. H. LEWANDOWSKI; M. F. BERTELSEN; L. WALLER; T. WALSH; J. F. ROBERTS; P. R. HOF; C. C. SHERWOOD; P. R. MANGER; B. G. JACOBS*. *The Colorado Col., Kent State Univ., Cleveland Metroparks Zoo, Copenhagen Zoo, Smithsonian Natl. Zoological Park, Thompson Bishop Sparks State Diagnos. Lab., Icahn Sch. of Med. at Mount Sinai, George Washington Univ., Univ. of the Witwatersrand.*

4:00 E10 **779.20** The connectional architecture of the mouse, cat, rat and macaque cortex in the light of the theory of the dual origin of the cortex. A. GOULAS*; G. BEZGIN; C. C. HILGETAG. *UKE/Institute For Computat. Neurosci., McConnell Brain Imaging Centre, MNI, McGill Univ., Dept. of Hlth. Sciences, Boston Univ.*

1:00 E11 **779.21** Functional test of PCDHB11, the most human-specific neuronal surface protein. G. B. DE FREITAS*; R. A. GONCALVES; M. D. GRALLE. *Federal Univ. of Rio De Janeiro.*

1:00 DP01 **779.22** (Dynamic Poster) Calcium imaging in Hydra. C. DUPRE*; S. SALWI; S. LEONG; R. YUSTE. *Columbia Univ.*

3:00 E12 **779.23** Evidence for generative homology of cerebellum and cerebellum-like structures in a basal vertebrate. C. SURIANO*; D. BODZNICK. *Wesleyan Univ.*

4:00 E13 **779.24** Comparative methylome analyses of human, chimpanzee, macaque brains. S. YI*; I. MENDIZABAL; L. SHI; T. KELLER; G. KONOPKA; T. PREUSS; T. HSIEH; E. HU; Z. ZHANG; B. SU. *Georgia Inst. of Technol., Kunming Inst. of Zoology, Univ. of Texas Southwestern, Emory Univ., North Carolina State Univ.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

POSTER

780. Neurotransmitters and Signaling Molecules

Theme B: Neural Excitability, Synapses, and Glia

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 E14 **780.01** Neuronal and astrocytic monoacylglycerol lipase limit the spread of endocannabinoid signaling in the cerebellum. Y. CHEN*; X. LIU; C. R. VICKSTROM; M. J. LIU; L. ZHAO; A. VIADER; B. F. CRAVATT; Q. LIU. *Med. Col. of Wisconsin, Beijing Sport Univ., The Scripps Res. Inst.*

2:00 E15 **780.02** ● NO/cGMP signaling via Guanylyl Cyclase isoform 1 (NO-GC1) modulates presynaptic transmitter release in somatosensory cortex of mice. Q. WANG; S. C. THAL*; E. MERGIA; D. KOESLING; T. MITTMANN. *Johannes Gutenberg-University, Inst. für Pharmakologie und Toxikologie, Medizinische Fakultät MA N1, Ruhr-Universität Bochum.*

3:00 E16 **780.03** Identification of enzymes involved in endocannabinoid synthesis and metabolism in Hirudo verbana. B. D. BURRELL*; E. KABEISEMAN; R. MISKIMINS. *Univ. of South Dakota, Ctr. for Brain & Behavior Res.*

4:00 E17 **780.04** Characterization of NADPH-diaphorase- and doublecortin-positive neurons in the lizard hippocampal formation. M. M. LIMA*; H. C. PIMENTEL; L. C. R. F. LINS; G. G. VIOLA; M. A. M. FREIRE; M. MARCHIORO. *Univ. of Massachusetts Amherst, Faculdade Estácio de Sergipe, Univ. Federal de Sergipe, Univ. do Estado do Rio Grande do Norte.*

1:00 E18 **780.05** Differential contribution of diacylglycerol lipase-α to phasic and tonic endocannabinoid signaling at hippocampal GABAergic synapses. K. KENESEI*; M. LEDRI; B. TÓTH; B. DUDOK; G. HORVAI; I. KATONA. *Inst. of Exptl. Medicine, HAS, Budapest Univ. of Technol. and Econ., Sch. of Ph.D. Studies, Semmelweis Univ.*

2:00 E19 **780.06** Endocannabinoid regulation of glutamatergic input onto corticotropin releasing neurons in the central nucleus of the amygdala. N. HARTLEY*; A. JAMESON; S. PATEL. *Vanderbilt Univ. Med. Ctr., Vanderbilt Univ.*

3:00 E20 **780.07** Molecular, morphological and physiological properties of different CB_1 cannabinoid receptor-expressing interneuron types of the hippocampus. B. DUDOK*; V. MICZÁN; K. KENESEI; M. LEDRI; K. KELEMEN; B. BARTI; M. KISFALI; M. WATANABE; I. KATONA. *Inst. of Exp. Med, HAS, Semmelweis Univ., Pázmány Péter Catholic Univ., Hokkaido Univ. Sch. of Med.*

4:00 E21 **780.08** μ-opioid mediated changes of neuronal iron levels may upregulate Ferritin Heavy Chain protein in specific cortical neurons. B. S. NASH*; R. A. NOLAN; K. TARN; O. MEUCCI. *Drexel Univ. Col. of Med., Drexel Univ. Col. of Med.*

1:00 E22 **780.09** ● Expression of cannabinoid type 1 receptors in the rat spinal cord following surgical incision. P. PRASOON*; R. KUMAR; M. GAUTAM, 110029; S. RAY. *AIIMS, AIIMS.*

2:00 E23 **780.10** Hippocalcin promotes neuronal differentiation and inhibits astrocytic differentiation in neural stem cells. S. PARK*; M. KANG; S. JUNG; J. HAN. *Hanyang University, Biomedicine Inst., Hanyang University, Biomedicine Inst., Hanyang University, Biomedicine Inst.*

3:00 E24 **780.11** Circuit specific modulation of corticotrophin releasing factor in ventral tegmental neurons. J. R. DRISCOLL*; H. L. FIELDS; E. B. MARGOLIS. *Univ. of California San Francisco, Univ. of California, Berkeley, Univ. of California, San Francisco.*

4:00 E25 **780.12** NPY receptor characterization in guinea pig intracardiac neurons: Evidence for multiple receptor subtypes. J. C. HARDWICK*; K. A. LUCKETT; M. GERUNTHO; S. A. ROSEN. *Ithaca Col., Ithaca Col.*

1:00 E26 **780.13** Increased Toll-like receptors in the prefrontal cortex of depressed suicide. X. REN*; H. S. RIZAVI; H. ZHANG; G. N. PANDEY. *Univ. of Illinois at Chicago.*

2:00 E27 **780.14** Potentiation of ASIC channel currents by high affinity endogenous opioids, independent of μ opioid receptor stimulation, in rat sensory neurons. M. FARRAG; H. L. PUHL; V. RUIZ-VELASCO*. *Penn State Col. of Med., Natl. Inst. of Health, Natl. Inst. on Alcohol Abuse and Alcoholism.*

3:00 E28 **780.15** Glucocorticoid receptor exon 1F and dynamics of DNA methylation in teenage suicide. H. S. RIZAVI*; D. R. GRAYSON; H. ZHANG; X. REN; G. N. PANDEY. *Univ. Illinois Chicago.*

4:00 E29 **780.16** Galanin receptor expression and origins of galanin input from noradrenergic nuclei to the bed nucleus of the stria terminalis. A. GARGIULO*; J. R. BARSON; B. D. WATERHOUSE. *Drexel Univ. Col. of Med., Rowan Univ. Sch. of Med.*

1:00 E30 **780.17** Neuropeptide and protease systems in stress-responsive dense core secretory vesicles analyzed by mass spectrometry-based peptidomics, proteomics, and protease activity profiling. C. B. LIETZ*; D. J. GONZALEZ; A. J. O'DONOGHUE; Z. JIANG; T. TONEFF; N. BANDEIRA; V. HOOK. *Univ. of California San Diego, Univ. of California San Diego, Univ. of California San Diego, Univ. of California San Diego, Univ. of California San Diego.*

2:00 E31 **780.18** Naloxone blocks the neurogenesis, evaluated by double labelled cells, induced by paced mating in the olfactory bulb of the female rat. M. SANTOYO ZEDILLO*; R. G. PAREDES G.; W. PORTILLO MARTINEZ. *Inst. de Neurobiologia, UNAM, Inst. de Neurobiologia,UNAM.*

3:00 E32 **780.19** Characterization of L-to-D peptide isomerase activity in *Aplysia* californica. H. TAI*; I. LIVNAT; J. W. CHECCO; E. V. ROMANOVA; P. M. YAU; J. V. SWEEDLER. *Univ. of Illinois At Urbana-Champaign.*

4:00 E33 **780.20** ▲ Role of central acetylcholine release in the regulation of locomotion circuits. A. C. BLAKE, Jr; M. HEREDIA; H. O. LAWAL*. *Delaware State Univ., Delaware State Univ.*

1:00 E34 **780.21** Cortical disinhibition by ChAT expressing interneurons. A. J. GRANGER*; B. L. SABATINI. *Harvard Med. Sch., Harvard Med. Sch.*

2:00 E35 **780.22** Effects of cholinergic activation on hippocampal local field potentials and a long-term spatial memory task. C. S. TANG; O. PAULSEN*. *Univ. of Cambridge.*

3:00 E36 **780.23** Brain wide projectome of cholinergic neurons of the mouse basal forebrain. Y. KIM*; H. PI; S. RANADE; A. NARASIMHAN; P. OSTEN; A. KEPECS. *Col. of Medicine, Penn State Univ., Cold Spring Harbor Lab.*

4:00 E37 **780.24** Pharmacological identification of cholinergic receptor subtypes in modulation of a sensory-motor circuit in *Drosophila melanogaster*. C. MALLOY*; A. OMAR; E. SOMASUNDARAM; R. COOPER. *Univ. of Kentucky, Univ. of Kentucky.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

1:00 E38 **780.25** Overexpression of vesicular acetylcholine transporter in ChAT-ChR2-EYFP transgenic mice alters short-term synaptic plasticity at cholinergic synapses. J. O'MALLEY*; R. DASGUPTA; F. SEIBT; M. BEIERLEIN. *McGovern Med. Sch. At Uthealth.*

1:00 DP02 **780.26** (Dynamic Poster) Modulation of cholinergic, but not noradrenergic, signaling in rat prefrontal cortex reverses traits of sevoflurane anesthesia. D. PAL*; B. H. SILVERSTEIN; D. LI; S. WISIDAGAMAGE; G. A. MASHOUR. *Univ. of Michigan.*

3:00 F1 **780.27** Inhalation of cigarette smoking-relevant nicotine aerosol induces cardiac arrhythmia leading to systemic and uterine hemodynamic disruption in pregnant rats. X. M. SHAO*; H. E. LÓPEZ-VALDÉS; J. LIANG; J. L. FELDMAN. *David Geffen Sch. Med. at UCLA, Fac. of Medicine, Univ. Nacional Autónoma de México, David Geffen Sch. Med. at UCLA.*

4:00 F2 **780.28** 7-Methoxytacrine - 4-pyridinealdoxime hybrid as novel prophylactic agent with reactivation properties in organophosphate intoxications. O. SOUKUP*; J. KORABECNY; E. NEPOVIMOVA; D. JUN; K. KUCA. *Univ. of Defence, Univ. of Def., Univ. of Defese, Univ. Hosp. Hradec Kralove.*

POSTER

781. G-Protein-Coupled Receptors

Theme B: Neural Excitability, Synapses, and Glia

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 F3 **781.01** Role of membrane anchoring of RGS7 in regulating $GABA_B$-GIRK in hippocampus. O. I. OSTROVSKAYA*; C. ORLANDI; K. A. MARTEMYANOV. *The Scripps Res. Inst.*

2:00 F4 **781.02** The orphan receptor GPR158 is a novel stress-induced modulator of signaling in depression. C. ORLANDI*; L. P. SUTTON; C. SONG; B. S. MUNTEAN; K. A. MARTEMYANOV. *The Scripps Res. Inst. (TSRI).*

3:00 F5 **781.03** Orphan receptor GPR158 modulates intrinsic excitability and synaptic transmission of layer 2/3 neurons in prelimbic cortex. C. SONG*; C. ORLANDI; L. P. SUTTON; K. A. MARTEMYANOV. *The Scripps Res. Inst.*

4:00 F6 **781.04** ● M_4 activation reduces striatal dopamine release and has antipsychotic-like effects via a CB_2 cannabinoid receptor-dependent mechanism. D. J. FOSTER*; J. M. WILSON; M. S. MAHMOOD; D. H. REMKE; J. WESS; L. J. MARNETT; S. PATEL; C. M. NISWENDER; C. K. JONES; Z. XIANG; C. W. LINDSLEY; J. M. ROOK; P. J. CONN. *Vanderbilt Ctr. For Neurosci. Drug Discovery, Natl. Inst. of Diabetes and Digestive and Kidney Dis., Vanderbilt Univ., Vanderbilt Univ.*

1:00 F7 **781.05** ● Tubulin acetylation translocates $G\alpha_s$ from lipid-rafts: A novel mechanism for antidepressant effects of HDAC-6 inhibitors. H. SINGH*; J. SCHAPPI; A. PRADHAN; M. RASENICK. *Univ. of Illinois At Chicago, Univ. of Illinois at Chicago, Univ. of Illinois at Chicago, Jesse Brown VAMC, university of Illinois at Chicago.*

2:00 F8 **781.06** ● Sustained antidepressant treatment increases cAMP signaling by translocating $G\alpha_s$ from lipid rafts and increasing association with type 6 adenylyl cyclase (AC6): A process independent of monoamine transporters. J. SCHAPPI*; M. RASENICK. *Univ. of Illinois At Chicago, Univ. of Illinois at Chicago.*

3:00 F9 **781.07** ● A cellular model for ketamine antidepressant action reveals an NMDA-receptor independent mechanism: Roles for $G\alpha_s$ lipid rafts and cyclic AMP. N. WRAY*; J. SCHAPPI; M. RASENICK. *Univ. of Illinois at Chicago Dept. of Physiol. and Biophysics, Univ. of Illinois at Chicago, Univ. of Illinois at Chicago.*

4:00 F10 **781.08** TIAM2S-mediated hippocampal neural circuitry shapes affective behaviors via non-canonical, GEF-independent signaling. C. CHU*; J. CHEN; H. S. SUN. *Natl. Cheng Kung Univ., Natl. Cheng Kung Univ.*

1:00 F11 **781.09** ● A new class of lipid mediator: Phosphorylated N-acylethanolamines and their receptors. Y. KIHARA*; H. MIZUNO; D. SHEFFLER; R. RIVERA; J. CHUN. *The Scripps Res. Inst., The Scripps Res. Inst., Sanford Burnham Prebys Med. Discovery Inst.*

2:00 F12 **781.10** Role of gpr40 for PUFA-mediated BDNF synthesis. T. YAMASHIMA*; A. MATHIVANAN. *Kanazawa Univ. Grad Sch. Med.*

3:00 F13 **781.11** ● Exploring occupancy of the histamine H3 receptor by BF2.649 (pitolisant) in humans using PET. P. SABIONI*; P. RUSJAN; P. DI CIANO; E. MANSOURI; S. HOULE; A. WILSON; I. BOILEAU; A. LAVEILLE; M. CAPET; T. DUVAUCHELLE; J. C. SCHWARTZ; B. LE FOLL. *CAMH - Ctr. For Addiction and Mental Hlth., Univ. of Toronto, Bioprojet.*

4:00 F14 **781.12** Activity-dependent polarization of calcium release from intracellular stores. N. A. LAMBERT*; S. RAJAPAKSHA; Q. WAN. *Med. Col. of Georgia.*

1:00 F15 **781.13** ● D_1 receptor activation in the SNr evokes GABA release and increased motor activity and is tonically inhibited by M_4 receptor signaling. M. S. MOEHLE*; T. PANCANI; N. BYUN; Z. XIANG; J. WESS; J. M. ROOK; C. M. NISWENDER; C. K. JONES; C. M. LINDSLEY; P. J. CONN. *Vanderbilt Univ., NIDDK.*

2:00 F16 **781.14** Behavioral consequences of biased D2 dopamine receptor signaling in medium spiny neurons. S. J. ROSE*; T. F. PACK; S. M. PETERSON; E. BORRELLI; M. G. CARON. *Duke Univ. Med. Ctr., UC Irvine.*

3:00 F17 **781.15** Evidence for noncanonical adrenergic and dopaminergic activation: Dopamine as an adrenergic α2 receptor agonist. V. CASADÓ ANGUERA*; M. SÁNCHEZ-SOTO; M. ESTEFANIA; Y. HIDEAKI; J. MALLOL; E. I. CANELA; A. CORTÉS; S. FERRÉ; V. CASADÓ. *Univ. of Barcelona, Ctr. de Investigación Biomédica en Red sobre Enfermedades Neurodegenerativas, Natl. Inst. on Drug Abuse, Intramural Res. Program, Natl. Inst. of Hlth.*

4:00 F18 **781.16** Dopamine via dopamine receptor 4 alters GnRH neuron activity. L. DAIRAGHI*; S. CONSTANTIN; S. WRAY. *NIH.*

1:00 F19 **781.17** Structure of LSD in complex with a human serotonin receptor. B. L. ROTH*; D. WACKER. *Univ. of North Carolina At Chapel Hill.*

2:00 F20 **781.18** Polychlorinated biphenyl 19 blocks G-protein coupled receptor-mediated Ca^{2+} signaling by blocking store-operated Ca^{2+} entry. S. LEE*; K. LEE; S. JO; K. KIM; S. CHOI. *Dent. Res. Institute, Seoul Natl. Univ., Kangwon Natl. Univ. Sch. of Med., Div. of Integrative Biosci. and Biotechnology, Pohang Univ. of Sci. and Technol.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 F21 **781.19** Peripheral or central administration of GPR4 blocker NE 52-0057 does not affect central chemosensitivity or cardio-vascular homeostasis. S. KASPAROV*; P. S. HOSFORD; V. MOSIENKO; K. KISHI; G. JURISIC; K. SEUWEN; B. KINZEL; M. LUDWIG; J. A. WELLS; I. N. CHRISTIE; A. V. GOURINE; A. G. TESCHEMACHER. *Univ. Bristol, Univ. Col. London, Novartis Inst. for Biomed. Res.*

4:00 F22 **781.20** Differential expression of the cannabinoid receptor 1 (CB1) as a function of the homozygous genotypes of the single nucleotide polymorphism rs2180619. M. A. BARRERA-TLAPA; G. BENÍTEZ-KING; S. ALARCÓN; U. CABALLERO-SÁNCHEZ; M. VÁLDES-TOVAR; M. MÉNDEZ-DÍAZ; O. PROSPÉRO-GARCÍA; A. E. RUIZ-CONTRERAS*. *Lab. Neurogenomica Cognitiva, Fac. Psicologia, UNAM, Lab. de Neurofarmacología, Subdirección de Investigaciones Clínicas, Inst. Nacional de Psiquiatría Ramón de la Fuente Muñiz (INPRFM), Lab. de Canabinoides, Depto. Fisiología, Fac. Medicina, UNAM.*

1:00 F23 **781.21** The putative cannabinoid receptor gpr55: Expression, modulation of hippocampal plasticity and behavior. K. M. HURST*; C. BADGLEY; J. EDWARDS. *BYU.*

2:00 F24 **781.22** Sgip1 alters internalization and modulates signaling of activated cannabinoid receptor 1 in biased manner. J. BLAHOS*; A. HÁJKOVÁ; M. DVOřÁKOVÁ; L. PREZEAU; S. RADENKOVIč. *Inst. of Mol. Genet. AS CR, IMG ASCR, IGF, SAS.*

3:00 F25 **781.23** Evolutionary diversification of cannabinoid CB_1R and CB_2R genes, expression and function in human, rhesus monkey, rat and mouse. Q. LIU*; H. ZHANG; C. LI; H. QU; Z. XI; E. L. GARDNER; E. S. ONAIVI. *Intramural Res. Program, NIDA/ NIH, Natl. Institue on Drug Abuse, NIH, Peking Univ., Peking Univ., William Paterson Univ.*

POSTER

782. Synaptic Integration

Theme B: Neural Excitability, Synapses, and Glia

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 F26 **782.01** Synaptic actions of isoflurane on hippocampal and cortical connections. B. MACIVER*. *Stanford Univ.*

2:00 F27 **782.02** ●▲The effect of Ferrostatin-1 on intrinsic and synaptic properties of hippocampal neurons. V. I. NAVARRO*; L. P. MONTES; C. D. LOYOLA BALTAZAR; R. SKOUTA; K. FENELON. *Univ. of Texas At El Paso, Univ. of Texas at El Paso.*

3:00 F28 **782.03** ●▲Effects of early lead exposure on synaptic transmission and plasticity in mouse hippocampal neurons. L. E. MARTINETTI*; A. TENA; E. PERU; K. FÉNELON. *The Univ. of Texas At El Paso.*

4:00 F29 **782.04** ● Characterization caudal pontine reticular nucleus afferent connections relevant to sensorimotor gating. J. C. CANO; S. A. PACE*; K. FÉNELON. *Univ. of Texas - El Paso.*

1:00 F30 **782.05** Endocannabinoid control of NMDAR-dependent supra-linear dendritic integration via co-agonist supply. K. BOHMBACH*; E. M. SCHÖNHENSE; D. MINGE; A. ZIMMER; H. BECK; C. HENNEBERGER. *Univ. of Bonn Med. Sch., Univ. of Bonn, Univ. of Bonn Med. Sch., German Ctr. of Neurodegenerative Dis. (DZNE), Univ. Col. London.*

2:00 F31 **782.06** Excitatory synaptic signaling in parvalbumin positive interneurons in mouse primary visual cortex. L. SANCHO*; B. L. BLOODGOOD. *UC San Diego, UC San Diego.*

3:00 F32 **782.07** Synaptic connections between hippocampal CA2 pyramidal cells. K. OKAMOTO*; Y. IKEGAYA. *The Univ. of Tokyo, The Univ. of Tokyo.*

4:00 F33 **782.08** Abundance of recurrent and lateral inhibition in the dentate gyrus of the hippocampus. C. ESPINOZA; S. J. GUZMAN*; P. JONAS. *Inst. of Sci. and Technol. (IST) Austria.*

1:00 F34 **782.09** Properties and detailed temporal dynamics of inhibitory synaptic communication between perisomatic-region targeting inhibitory neurons and pyramidal cells in mouse hippocampal CA3 region. D. SCHLINGLOFF*; Z. KOHUS; S. KÁLI; L. ROVIRA-ESTEBAN; O. PAPP; T. F. FREUND; N. HÁJOS; A. I. GULYÁS. *Inst. of Exptl. Medicine, HAS.*

2:00 F35 **782.10** Afferent synaptic connectivity of the medial septum. F. FUHRMANN*; D. JUSTUS; D. FRIEDRICHS; M. K. SCHWARZ; S. REMY. *German Ctr. For Neurodegenerative Dis. DZNE, Univ. of Bonn Med. Ctr., Univ. of Bonn Med. Ctr.*

3:00 F36 **782.11** Modulation of neuronal excitation/ inhibition balance by the light/dark cycle. K. HE*; M. D. BRIDI; A. KIRKWOOD. *Chinese Acad. of Sci., Johns Hopkins Univ.*

POSTER

783. Tauopathies

Theme C: Neurodegenerative Disorders and Injury

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 F37 **783.01** ● Molecular analysis of τ in canine brain and CSF. K. VAN KOLEN*; D. VAN HAVER; D. DHUYVETTER; L. DELBROEK; I. VERBERNE; A. F. MARREIRO; M. VANDERMEEREN; K. GEVAERT; I. PIKE; M. WARD; D. LATTO; H. BORGHYS; M. H. MERCKEN. *Janssen PRD, VIB/UGent, KUL, Proteome Sci.*

2:00 F38 **783.02** Selective regional and neuronal vulnerability in frontotemporal dementia with MAPT mutations. L. LIN*; J. A. BROWN; L. T. GRINBERG; W. W. SEELEY. *Univ. of California, San Francisco.*

3:00 F39 **783.03** Loss of SFPQ, an intra-nuclear counterpart of FUS causes FTLD-like phenotypes. Y. FUJIOKA*; S. ISHIGAKI; S. YOKOI; D. HONDA; H. OKADO; H. WATANABE; M. KATSUNO; G. SOBUE. *Nagoya Univ. Grad. Sch. of Med., Dept. of Brain Develop. and Neural Regeneration, Tokyo Metropolitan Inst. of Med. Sci., Res. Div. of Dementia and Neurodegenerative Disease, Nagoya Univ. Grad. Sch. of Med.*

4:00 F40 **783.04** Optogenetic based regulation of autophagy against tauopathies. J. BINDER*; J. WEICK; V. DERETIC; K. BHASKAR. *Univ. of New Mexico, Univ. of New Mexico.*

1:00 F41 **783.05** Survival in 4-repeat tauopathies is associated with cerebrospinal fluid phosphorylated τ. K. A. FIRN*; L. M. SHAW; D. J. IRWIN; M. GROSSMAN; C. T. MCMILLAN. *Univ. of Pennsylvania, Univ. of Pennsylvania.*

2:00 F42 **783.06** Amyloid induced axonal degeneration in p301L τ mice. C. A. NISHIOKA*; H. LIANG; S. SUN. *Loma Linda Univ., UC Riverside.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 F43 **783.07** Biochemical characterization of novel transgenic mouse tauopathy models carrying a variant of the human triple-repeat τ gene and/or the hAPP gene. A. ARNER*; A. ADAME; E. ROCKENSTEIN; M. MANTE; D. MASLIAH; E. MASLIAH; R. A. RISSMAN. *UCSD, UCSD.*

4:00 F44 **783.08** Role of the microglial TREM2 receptor in a model of tauopathy induced by gene transfer in mice. A. BEMELMANS*; A. VAUTHENY; G. AUREGAN; C. JOSÉPHINE; M. GAILLARD; K. CAMBON; P. HANTRAYE. *CEA.*

1:00 F45 **783.09** Altered τ phosphorylation in neurons cultured from a new τ transgenic mouse model of human tauopathy. N. YANKOVA*; M. BONDULICH; W. NOBLE; D. HANGER. *King's Col. London, King's Col. London, Inst. of Psychiatry, Psychology & Neuroscience, Dept. of Basic and Clin. Neurosci.*

2:00 F46 **783.10** Disease-related MAPT mutations alter steady-state levels of τ protein. J. GAMACHE*; K. ASHE; M. KOOB. *Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota.*

3:00 F47 **783.11** *In vivo* imaging of mitochondrial transport in the rTg4510 mouse model of tauopathy. J. D. JOHNSON*; R. LEES; D. URSU; J. S. JACKSON; M. J. O'NEILL; M. ASHBY. *Univ. of Bristol, Eli Lilly and Co.*

POSTER

784. Amyloid-Beta Toxicity

Theme C: Neurodegenerative Disorders and Injury

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 F48 **784.01** Roles of Aβ plaques on the dynamics of soluble Aβ in the brains of APP transgenic mice. Y. NAKA*; T. WAKABAYASHI; T. HASHIMOTO; T. IWATSUBO. *The Univ. of Tokyo.*

2:00 F49 **784.02** Antibodies targeting the N-terminal part of the amyloid β-peptide can impair the lateral assembly of filaments and the intrinsic stability of amyloid fibrils. A. PAMRÉN*; I. IAKOVLEVA; T. ISLAM; K. BRÄNNSTRÖM; L. SANDBLAD; A. OLOFSSON. *Umeå Univ.*

3:00 F50 **784.03** The architecture of the amyloid fibrils controls the ability to induce fibril-catalyzed secondary nucleation. M. ISLAM*; K. BRÄNNSTRÖM; A. OLOFSSON. *Umeå Univ.*

4:00 F51 **784.04** Tracking *de novo* intracellular amyloid β generation using fluorogenic click-labeled amyloid precursor protein and super-resolution microscopy. L. R. CZERNIEWSKI*; S. CRICK; J. LEE; P. I. HANSON; A. CASHIKAR; Q. XIAO; M. KIM. *Washington Univ. In St. Louis, Washington Univ. in St. Louis, Washington Univ. Sch. of Med., Washington Univ. Sch. of Med.*

1:00 F52 **784.05** The effects of apoe genotype on aβ levels in human liver. G. E. SERRANO*; C. MAAROUF; J. WALKER; A. GARCIA; L. SUE; T. G. BEACH. *Banner Sun Hlth. Res. Inst., Banner Sun Hlth. Res. Inst.*

2:00 F53 **784.06** The anti-inflammatory annexin A1 induces the clearance and degradation of the amyloid β peptide. M. RIES*; R. LOIOLA; U. N. SHAH; S. GENTLEMAN; E. SOLITO; M. SASTRE. *Imperial Col. London, Queen Mary Univ. of London.*

3:00 G1 **784.07** The redox state of methionine 35 in amyloid-β (1-42) peptide (A-βP) determines the amplitude of prostaglandin E_2 (PGE_2) release from rat microglia *in vitro*. G. POZZOLI*; F. MISITI; E. CLEMENTI; G. TRINGALI; C. DELLO RUSSO; L. LISI; P. NAVARRA. *Catholic Univ. Sch. Med., Univ. of Cassino, Natl. Council of Res.*

4:00 G2 **784.08** Probing amyloid β-induced cell death using a fluorescence-peptide conjugate in Alzheimer's disease mouse. J. BAE*; H. JIN. *Kyungpook Natl. Univ., Cell Matrix Res. Institute, Kyungpook Natl. Univ., Col. of Vet. Medicine, Kyungpook Natl. Univ.*

1:00 G3 **784.09** The determinants of amyloid-β fibril formation. K. K. BRÄNNSTRÖM*; T. ISLAM; L. SANDBLAD; A. OLOFSSON. *Umeå Univ., Med. chemistry, Dept. of Mol. Biol., Med. chemistry.*

2:00 G4 **784.10** PICALM mediates autophagic aβ clearance and toxicity mitigation in pericytes. E. LAWSON*; B. V. ZLOKOVIC; Z. ZHAO. *USC.*

3:00 G5 **784.11** Justicidin A decreases amyloid β peptide via inhibiting endocytosis of amyloid β precursor protein. Y. CHUN*; S. CHUNG; G. FOUCHE; V. MAHARAJ; H. YANG. *Korea Inst. of Sci. and Technol., Sungkyunkwan Univ., Council for Scientific and Industrial Res., Univ. of Pretoria.*

4:00 G6 **784.12** Apolipoprotein E isoforms impact pericyte-mediated Aβ metabolism. M. TACHIBANA*; Y. YAMAZAKI; G. BU; T. KANEKIYO. *Mayo Clin.*

1:00 G7 **784.13** Reciprocal crosstalk between amyloid β and presenilin 1. K. M. ZOLTOWSKA*; M. MAESAKO; O. BEREZOVSKA. *Mass Gen. Hospital/Harvard Med. Sch.*

2:00 G8 **784.14** Epigenetic regulation of HDAC1 SUMOylation protects against amyloid-β toxicity in a mouse model of Alzheimer's disease. E. H. LEE*; C. TAO; W. HSU; Y. MA; S. CHENG. *Inst. of Biomed. Sciences, Academia Sinica, Grad. Inst. of Life Sciences, Natl. Def. Med. Ctr.*

3:00 G9 **784.15** Genome wide screening of molecules involved in Aβ uptake by CRIPSR/Cas9 system. I. EBINUMA*; Y. HORI; T. TOMITA. *The Univ. of Tokyo.*

4:00 G10 **784.16** ▲ Oligomeric amyloid β 1-42 induces a reversible loss of catecholaminergic afferents in the rat insular cortex. R. PEREZ ORTEGA*; P. MORENO-CASTILLA; O. URREGO MORALES; F. BERMÚDEZ-RATTONI. *Univ. Nacional Autónoma De México.*

1:00 G11 **784.17** Large soluble oligomers of amyloid β-protein from Alzheimer brain are far less bioactive than the smaller oligomers to which they dissociate. T. YANG*; S. LI; H. XU; D. WALSH; D. SELKOE. *Brigham and Women's Hosp.*

2:00 G12 **784.18** Rho-associated protein kinase 1 (ROCK1) is increased in Alzheimer's disease and ROCK1 depletion reduces amyloid-β levels in brain. B. W. HENDERSON; E. G. GENTRY; T. RUSH; J. C. TRONCOSO; M. THAMBISETTY; T. J. MONTINE; J. H. HERSKOWITZ*. *Univ. of Alabama at Birmingham, Birmingham, Johns Hopkins Sch. of Med., Natl. Inst. on Aging, Univ. of Washington, The Univ. of Alabama At Birmingham.*

3:00 G13 **784.19** Alzheimer-associated Aβ oligomers impact the central nervous system to induce peripheral metabolic deregulation. J. R. CLARKE*; N. M. LYRA E SILVA; C. P. FIGUEIREDO; W. L. KLEIN; D. P. MUÑOZ; L. A. VELLOSO; S. T. FERREIRA; F. G. DE FELICE. *Federal Univ. of Rio De Janeiro, Federal Univ. of Rio de Janeiro, Northwestern Univ., Queen's Univ., State Univ. of Campinas.*

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* Indicates abstract's submitting author

4:00 G14 **784.20** Spatial distribution of Raman shifts within amyloid β aggregates *in vitro*. Y. NAGASHIMA*; A. IWATA. *Dept. of Neurology, The Univ. of Tokyo.*

1:00 G15 **784.21** Biologically produced Aβ species induce pathological endosomal phenotypes *in vitro*. M. SAWA*; X. CHEN; O. NATERA; M. PEARN; W. MOBLEY. *UCSD.*

2:00 G16 **784.22** ▲ Circadian alterations impact the regulation of insulin degrading enzyme in the brain of Alzheimer patients. T. KIM; J. MOTT; I. TRINH; B. SPENCER; P. A. DESPLATS*. *Univ. California San Diego, UCSD.*

3:00 G17 **784.23** p53 dependent SIRT6 expression protects Aβ induced DNA damage. H. CHOI*; E. JUNG; H. SONG; A. KIM; Y. HWANG; H. RYU; I. MOOK-JUNG. *Seoul Natl. Univ. Col. of Med., Ctr. for Neuro-Medicine, Brain Sci. Institute, KIST.*

4:00 G18 **784.24** Mechanisms of suppression of Kv1.1 channel activity by Aβ(1-42). K. DEBOEUF*; M. ISLAM; J. FARLEY. *Indiana Univ. Bloomington, Indiana Univ. Bloomington.*

1:00 G19 **784.25** Suppression of Adiponectin receptor 1 exacerbates $A\beta_{1-42}$ -induced memory impairment and neurodegeneration via down-regulating insulin signaling. M. KIM*; S. U. REHMAN; N. B. ABID; M. KIM. *Gyeongsang Natl. Univ.*

2:00 G20 **784.26** Oxidative damage impairs cholinergic function in cultured neurons exposed to Alzheimer's-linked Aβ-oligomers. L. E. SANTOS*; C. FIGUEIREDO-FREITAS; N. NUNES-TAVARES; S. T. FERREIRA; F. G. DE MELLO. *UFRJ.*

3:00 G21 **784.27** ● Modification of aggregation kinetics and cytotoxicity of amyloid β peptide through insertion of aminoacid point mutations. A. ESTRADA-RODRIGUEZ; J. TREVIÑO-GARZA; H. MARTINEZ-RODRIGUEZ; R. VIDALTAMAYO; V. ZOMOSA*. *UANL, UANL, Univ. de Monterrey, UANL.*

4:00 G22 **784.28** Aggregation dependent effects of Aβ1-40 on human brain pericyte. N. SCHULTZ*; K. BRÄNNSTRÖM; A. OLOFSSON; M. WENNSTRÖM. *Lund Univ., Dept. of Med. Biochem. and Biophysics.*

1:00 G23 **784.29** Possible role of membrane fluidity in the modulation of neurotoxicity of Alzheimer's amyloid β peptide. E. J. FERNANDEZ*; F. J. SEPULVEDA; N. RIFFO; D. BASCUÑAN; S. A. SANCHEZ; L. G. AGUAYO. *Univ. De Concepcion.*

2:00 G24 **784.30** The distribution of neuronal pserstat3 is affected by a mediator released by astrocytes in response to AβOs. Y. A. MUÑOZ*; A. PAULA-LIMA; M. T. NUÑEZ. *Univ. of Chile, Univ. of Chile.*

POSTER

785. Alzheimer's Disease: Anti-Amyloid Beta Therapeutics

Theme C: Neurodegenerative Disorders and Injury

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 G25 **785.01** Identification of short brain penetrant amylin receptor based peptides as potential therapeutic agents for Alzheimer's disease. R. N. SOUDY*; W. FU; K. KAUR; J. JHAMANDAS. *Univ. of Alberta, Chapman Univ.*

2:00 G26 **785.02** ● Effects of amylin receptor antagonist AC253 fragments on β amyloid (Aβ) - and human amylin-induced depression of hippocampal long-term potentiation. R. KIMURA*; R. SOUDY; W. FU; D. WESTAWAY; J. JHAMANDAS. *Tokyo Univ. of Science, Yamaguchi, Univ. of Alberta, Univ. of Alberta.*

3:00 G27 **785.03** Systemic administration of amylin receptor antagonist, cyclic AC253, improves spatial memory in Aβ over-expressing (TgCRND8) mice. A. N. PATEL*; R. SOUDY; W. FU; D. MACTAVISH; J. YANG; D. WESTAWAY; J. JHAMANDAS. *Univ. of Alberta, Ctr. for Prions and Protein Folding Diseases, Univ. of Alberta.*

4:00 G28 **785.04** ● Plaque-clearing by a murine anti-pyroglutamate-3 Aβ IgG2a monoclonal antibody with and without a CDC mutation. H. CREHAN*; B. LIU; M. KLEINSCHMIDT; J. RAHFELD; K. X. LE; M. PARK; M. DI CARLI; V. REISER; W. TRIGG; B. HUTTER-PAIER; I. LUES; S. SCHILLING; C. A. LEMERE. *Brigham & Women's Hosp., Harvard Med. Sch., Probiodrug, Fraunhofer Inst. for Cell Therapy and Immunol., BWH, GE Healthcare, GE Healthcare, QPS.*

1:00 G29 **785.05** Tocotrienol-rich fraction inhibits amyloid β fibrillation *in vitro* and in transgenic mouse model of Alzheimer's disease. N. F. IBRAHIM*; D. YANAGISAWA; L. W. DURANI; H. S. HAMEZAH; H. A. DAMANHURI; W. Z. WAN NGAH; I. TOOYAMA. *Shiga Unversity of Med. Sci., Universiti Kebangsaan Malaysia.*

2:00 G30 **785.06** ▲ Antioxidative stress effect of epicatechin and catechin induced by $A\beta_{25-35}$ in rats and use of the electrostatic potential and the Fukui function as a tool to elucidate specific sites of interaction. M. MUNOZ ARENAS*; T. CRUZ-GONZÁLEZ; E. CORTEZ-TORRES; F. PEREZ-SEVERIANO; B. ESPINOSA; J. GUEVARA; A. PEREZ-BENITEZ; F. MELENDEZ-BUSTAMÁNTE; A. DÍAZ; R. RAMÍREZ. *Facultad De Ciencias Químicas, BUAP, 2. Laboratorio Exptl. de Enfermedades Neurodegenerativas, Inst. Nacional de Neurología y Neurocirugía, Manuel Velasco Suárez, 14269, 3. Departamento de Neuroquímica, Inst. Nacional de Neurología y Neurocirugía, Manuel Velasco Suárez, 14269., 4. Departamento de Bioquímica, Inst. Nacional de Enfermedades Respiratorias, 5. Departamento de Bioquímica, Facultad de Medicina, Univ. Nacional Autónoma de México.*

3:00 G31 **785.07** ● TREM2-deficiency reduces the efficacy of immunotherapeutic amyloid clearance. X. XIANG*; G. WERNER; B. BOHRMANN; F. MAZAHERI; A. CAPELL; R. FEEDERLE; I. KNUESEL; G. KLEINBERGER; C. HAASS. *Biomed. Ctr. (BMC), Biochemistry,LMU, Roche Innovation Ctr. Basel, German Ctr. for Neurodegenerative Dis. (DZNE) Munich, Helmholtz Zentrum München.*

4:00 G32 **785.08** Aβ vaccination with bee venom derived phospholipase A2 (bvPLA2) ameliorates Alzheimer's disease pathology through the induction of Aβ-specific Treg population in 3xTg-AD mice. H. BAE*; H. BAEK; C. LEE; G. LEE; D. CHOI. *Col. of Korean Med.*

1:00 G33 **785.09** ● Epigenetic modulation of amyloid precursor protein (APP) metabolites and other Alzheimer's disease biomarkers *in vitro* and *in vivo*. C. VOLMAR*; H. SALAH-UDDIN; P. HALLEY; G. LAMBERT; A. WODRICH; S. MANOAH; N. PATEL; N. MEHTA; G. SARTOR; K. JANCZURA; S. DESSE; D. DORCIUS; C. WAHLESTEDT. *Univ. of Miami Miller Sch. of Medicine, Ctr. For Therapeut. Innovation.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
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* Indicates abstract's submitting author

2:00 G34 **785.10** Lipoprotein receptor related protein 1 as a therapeutic target for Alzheimer's disease. A. RAMACHANDRAN*; S. KUMAR; K. V. RUPANAGUDI; H. S. ILAMATHI; S. S. THAKUR; M. CHAND; P. KHANNA; S. C. JAIN; V. RAVINDRANATH. *Indian Inst. of Sci., Ctr. for Cell. and Mol. Biol., Univ. of Delhi.*

3:00 G35 **785.11** Inflammation induces natural anti-amyloid β antibodies in a murine Alzheimer's disease model. M. J. CHUMLEY*; M. A. THOMPSON; K. C. PAULHUS; M. J. EIMERBRINK; J. L. PETERMAN; J. D. WHITE. *Texas Christian Univ., Texas Christian Univ.*

4:00 G36 **785.12** ● Sigma-2/PGRMC1 antagonist pharmacodynamic target engagement biomarker discovery for Alzheimer's disease. C. REHAK*; N. IZZO; K. MOZZONI; C. SILKY; R. YURKO; H. SAFFERSTEIN; S. CATALANO. *Cognition Therapeut. Inc.*

1:00 G37 **785.13** Prevention of Aβ-induced deficits in long term potentiation (LTP) *in vitro* and *in vivo* by MRZ-99030 and MRZ-14042. G. RAMMES*; R. D. JEGGO. *Clin. Rechts der Isar, Lundbeck.*

2:00 G38 **785.14** Treatment with a Clusterin/ApoJ peptide reduces amyloid pathology in APP/PS1 mice. D. A. HOTTMAN*; D. S. CHERNICK; Y. ZHANG; A. GRAM; R. OMTRI; K. KANDIMALLA; L. LI. *Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota.*

3:00 G39 **785.15** Treatment with Aβ oligomer eliminating D-peptide causes uptake of Aβ species by neurons in Tg AD model mice. T. VAN GROEN*; I. KADISH; M. TUSCHE; N. JIANG; D. WILLBOLD. *Univ. Alabama-Birmingham, Forschungszentrum Juelich.*

4:00 G40 **785.16** ● Stem cells treatment for Alzheimer's disease. T. BOLMONT*; A. LUKASHEV. *EPFL STI IMT LOB, Stemedica Intl.*

1:00 G41 **785.17** Mesenchymal stem cells protect hippocampal neurons from oxidative stress and synapse damage induced by amyloid-β oligomers. M. GODOY*; L. SARAIVA; L. CARVALHO; A. VASCONCELOS-DOS-SANTOS; H. BEIRAL; L. SINIS; N. CUNHA-E-SILVA; A. GALINA-FILHO; A. VIEYRA; F. DE FELICE; S. FERREIRA; R. MENDEZ-OTERO. *Univ. Federal Do Rio De Janeiro, UFRJ.*

2:00 G42 **785.18** Anti-Aβ42 camel heavy-chain variable domain counteracts Aβ42-induced pathological effects. G. HE*; X. YANG; Y. WAN; Z. JIA; Z. ZHOU. *Inst. of Life Sciences, Southeast Univ., CAS Key Lab. of Receptor Research, Shanghai Inst. of Materia Medica, Chinese Acad. of Sci., Neurosciences and Mental Health, The Hosp. for Sick Children, Dept. of Physiology, Univ. of Toronto.*

3:00 G43 **785.19** ● Prevention of τ increase in cerebrospinal fluid of APP transgenic mice suggests downstream effect of BACE1 inhibition. J. SCHELLE*; L. HÄSLER; J. GÖPFERT; T. JOOS; H. VANDERSTICHELE; E. STOOPS; U. NEUMANN; D. SHIMSHEK; M. STAUFENBIEL; M. JUCKER; S. KÄSER. *DZNE, German Ctr. For Neurodegenerative Dis., Hertie Inst. for Clin. Brain Res., Grad. Sch. of Cell. and Mol. Neurosci., Natural and Med. Sci. Inst., ADx NeuroSciences, Novartis Inst. for BioMedical Res.*

4:00 G44 **785.20** Regulation of amyloid-β precursor protein (APP) and β-secretase 1 (BACE1) expression by transcription factor modulating compounds mithramycin A and tolfenamic acid in human cells. B. L. BAYON*; K. NHO; B. MALONEY; N. CHOPRA; D. K. LAHIRI. *Indiana Univ. Sch. of Med., Indiana Univ. Sch. of Med., Indiana Univ. Sch. of Med., Indiana Univ. Sch. of Med.*

1:00 G45 **785.21** Amelioration of aβ (1-42) induced plasticity impairment by inhibition of g9a/glp complex in ca1 hippocampal neurons. M. SHARMA*; T. DIERKES; S. SREEDHARAN. *Natl. Univ. of Singapore, Zoological Institute, Tech. Univ. Braunschweig.*

2:00 G46 **785.22** ● Characterization of novel, highly stable, and cytotoxic oligomers in the context of transthyretin amyloid disorders. Y. S. EISELE*; L. PLATE; G. J. MORGAN; G. C. LANDER; N. REIXACH; J. N. BUXBAUM; L. R. WISEMAN; E. T. POWERS; J. W. KELLY. *The Scripps Res. Inst., The Scripps Res. Inst., The Scripps Res. Inst., The Scripps Res. Inst., The Scripps Res. Inst.*

POSTER

786. Pharmacology for Alzheimer's Disease Therapeutics

Theme C: Neurodegenerative Disorders and Injury

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 G47 **786.01** Neuroprotective, anti-amyloidogenic and neurotrophic effects of total flavonoids from Dracoephalum Mololariea L in Alzheimer's deficits. R. LIU*; H. JIANG; Y. WANG; M. HU; J. LI; L. WANG; T. ZHANG; J. XING. *Inst. of Materia Medica, Inst. of Materia Medica, Xinjiang Inst. of Materia Medica.*

2:00 G48 **786.02** ● TFEB activation and protective effects by ouabain in Alzheimer's disease models. H. SONG*; S. YOON; D. KIM. *Univ. of Ulsan Col. of Med.*

3:00 G49 **786.03** Modulation of adenosine homeostasis is associated with the improvement of neuronal dysfunction in a mouse model of Alzheimer's disease. C. LEE*; C. CHANG; C. LIN; H. LAI; Y. KAO; Y. CHANG; S. CHENG; H. CHEN; D. BLUM; J. FANG; Y. LIN; Y. CHERN. *Inst. of Biomed. Sci. Academia Sinica, Sch. of Pharmacy, Natl. Taiwan Univ., Inserm UMR-S1172, Alzheimer & Tauopathies, Univ. de Lille, Labex DISTALZ, Dept. of Chemistry, Natl. Taiwan Univ., Dept. of Chinese Pharmaceut. Sci. and Chinese Med. Resources, China Med. Univ.*

4:00 G50 **786.04** Oral administration of MSX-3, an adenosine A_{2A}R antagonist, reduces amyloid load and memory déficits of APP/PS1dE9 mice. E. FAIVRE*; J. COELHO; K. ZORNBACH; E. MALIK; E. MARCINIAK; L. CELLAI; K. CARVALHO; V. FLATEN; D. DEMEYER; S. EDDARKAOUI; R. CAILLIEREZ; M. SCHNEIDER; S. HUMEZ; N. SERGEANT; Y. CHERN; C. MUELLER; L. BUÉE; A. HALLE; L. LOPES; D. BLUM. *Jean Pierre Aubert Center/Inserm, Inserm UmR-S1172, Alzheimer & Tauopathies, Univ. de Lille, Labex DISTALZ, Inst. De Medicina Mol. (IMM), Faculdade de Medicina de Lisboa, Res. Ctr. Caesar, PharmaCenter Bonn, Pharmaceut. Institute, Univ. of Bonn, Inst. of biomedical Sci. (IBMS), Academia Sinica.*

1:00 H1 **786.05** Intranasal orexin A (hypocretin 1) increases neuronal activation in cortical and basal forebrain regions implicated in memory and attention. C. B. CALVA; J. R. FADEL*. *Univ. of South Carolina Sch. of Med.*

2:00 H2 **786.06** ● Compound A, a selective and potent muscarinic acetylcholine M4 receptor positive allosteric modulator (PAM), is active in pre-clinical models sensitive to clinically-active antipsychotic drugs. S. M. GRAUER*; X. ZHOU; N. JOCHNOWITZ; L. A. HYDE; N. HASTINGS; G. VARTY; R. MAZZOLA; J. MORROW. *Merck Res. Labs, Merck Res. Labs, Merck Res. Labs.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 H3 **786.07** Sesamol reverse memory deficit and restore phospho-GSK3β decreased in hippocampus in intracerebroventricular streptozotocin induced Alzheimer's disease model. M. GOLECHHA*; J. BHATIA; V. PARIHAR; D. SAXENA; D. ARYA. *All India Inst. of Med. Sci. (AIIMS), Indian Inst. of Publ. Hlth. Gandhinagar, Univ. of California, Irvine, Indian Inst. of Publ. Hlth. Gandhinagar.*

4:00 H4 **786.08** Systemic administration of IGF-II facilitates memory enhancement in rats with decreased TrkB receptor activity in the brain. J. H. GRAHAM*; T. CONNER; K. BARANOWSKY. *Emory and Henry Col., Emory and Henry Col.*

1:00 H5 **786.09** Protective effects of a dimeric derivative of ferulic acid in animal models of Alzheimer's disease. D. SONG*; J. JUNG; J. YAN; H. LI; M. SULTAN; K. SHIN. *Col. of Medicine, Hallym Univ., Hallym Univ., The Catholic Univ. of Korea.*

2:00 H6 **786.10** ● Estimating receptor occupancy requirements for positive allosteric modulators of the M1 muscarinic acetylcholine receptor as cognitive enhancers. D. BEHER*; A. SAND; M. NÉNY; J. HANTSON; S. OUSSON; B. PERMANNE; A. QUATTROPANI; C. WIESSNER. *Asceneuron SA.*

3:00 H7 **786.11** The locus coeruleus: A potential link between cerebrovascular and neuronal pathology in Alzheimer's disease. S. C. KELLY*; P. T. NELSON; S. E. COUNTS. *Michigan State Univ., Michigan State Univ., Univ. of Kentucky, Univ. of Kentucky, Michigan State Univ., Mercy Hlth. St. Mary's.*

4:00 H8 **786.12** Investigating the effects of Chromobacterium violaceum violacein at the human serotonin 2C receptor. L. FEARS*; M. CURTIS; T. JOHNSON; H. FENTRESS. *Tennessee State Univ., Tennessee State Univ.*

1:00 H9 **786.13** Cognitive deficits and impaired long-term potentiation in adiponectin knockout mice. J. BLOEMER*; W. SMITH; A. ALHOWAIL; D. BHATTACHARYA; S. BHATTACHARYA; P. DAS; R. JUDD; V. SUPPIRAMANIAM. *Auburn Univ., Auburn Univ.*

2:00 H10 **786.14** Significant and asymmetric depletion of basal forebrain cholinergic system in primary progressive aphasia with Alzheimer pathology. N. LALEHZARI; D. T. OHM*; G. KIM; S. WEINTRAUB; E. H. BIGIO; M. MESULAM; C. GEULA. *Northwestern Univ.*

3:00 H11 **786.15** Amyloid β co-localizes with tyrosine hydroxylase in the locus coeruleus and with dopamine β hydroxylase in the infralimbic medial prefrontal cortex of mice with forebrain specific overexpression of corticotropin releasing factor: Anatomical evidence for putative regulated co-secretion. J. A. ROSS*; B. A. S. REYES; V. RISBROUGH; R. J. VALENTINO; E. J. VAN BOCKSTAELE. *Drexel Univ. Col. of Med., Univ. of California, The Children's Hosp. of Philadelphia.*

4:00 H12 **786.16** Aβ oligomer-induced synapse loss in mature culture hippocampal neurons and brain's macaques: Protection by an anti-diabetic agent. A. F. BATISTA*; L. FORNY-GERMANO; N. LYRA E SILVA; J. BRITO-MOREIRA; M. GRALLE; S. BOEHNKE; B. COE; A. LABLANS; C. HOLSCHER; S. MARQUES; A. MARTINEZ; W. KLEIN; J. HOUZEL; S. FERREIRA; D. MUNOZ; F. DE FELICE. *Federal Univ. of Rio de Janeiro, Queen's Univ., Lancaster Univ., Northwestern Univ.*

1:00 H13 **786.17** Amyloid β peptide induces Dserine dependent NMDAR dysfunction in the mouse hippocampus. B. WANG; P. KHACHO; E. HRISTOVA; M. J. LALANDE; M. A. SNYDER*; R. BERGERON. *Ottawa Hosp. Res. Inst., Univ. of Ottawa.*

2:00 H14 **786.18** Efr3a regulates oligomeric amyloid-β induced disruption of excitatory transmitter release in hippocampus. Y. HE*; M. WEI; F. HUANG; Y. ZHOU. *Zhejiang Univ. Sch. of Med., Chinese Acad. of Sci.*

POSTER

787. Parkinson's Neuroprotection II

Theme C: Neurodegenerative Disorders and Injury

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 H15 **787.01** UCH-L1 in nigrostriatal dopaminergic neurodegeneration: Neurotoxicant exposure and aging. B. M. WINNER*; M. M. FARTHING; H. ZHANG; K. J. LOOKINGLAND; J. L. GOUDREAU. *Michigan State Univ.*

2:00 H16 **787.02** Matrix metalloproteinase-8 inhibitor ameliorates inflammatory responses and behavioral deficits in LRRK2 G2019S Parkinson's disease model mice. T. KIM*; J. JEON; J. PARK; J. KIM; H. NOH; H. KIM*; H. SEO*. *Hayang Univ., Ewha Womans Univ.*

3:00 H17 **787.03** Regulation and function of the y-chromosome gene SRY in acute and chronic animal models of Parkinson's disease. P. PINARES-GARCIA*; H. LOKE; D. THYAGARAJAN; V. HARLEY; J. LEE. *Hudson Inst. of Med. Res., Monash Univ., Monash Univ.*

4:00 H18 **787.04** Analysis of PKCγ substrates in the nigro-striatum system: The role of CSPα phosphorylation in the neuronal survival. T. SHIRAFUJI*; T. UEYAMA; K. YOSHINO; N. ADACHI; S. TANAKA; I. HIDE; N. SAITO; N. SAKAI. *Dept. Mol. and Pharmacol. Neurosci. Hiroshima Univ., Lab. of Mol. Pharmacology, Bosignal Res. Center, Kobe Univ.*

1:00 H19 **787.05** Nicotine-afforded neuroprotection of dopaminergic neurons is mediated by the α 4 subunit of nicotinic acetylcholine receptors. E. CUEVAS*; S. LANTZ; S. SARKAR; S. ALI; S. ALI; W. SLIKKER; M. G. PAULE; S. IMAM. *NCTR/FDA.*

2:00 H20 **787.06** Neuroprotector role of URB597 over inhibition of microglial activation in MTPT neuronal damage induce in adult C57BL6J mice. G. LOPEZ-ARMAS*; A. TEJEDA- MARTÍNEZ; J. JURADO-TRIANA; M. FLORES-SOTO. *Ctr. De Enseñanza Técnico Industrial, Ctr. Universitario de Ciencias Exactas e Ingeniería., Ctr. de Enseñanza Técnico Industrial (CETI), Ctr. de Investigación Biomédica de Occidente (CIBO-IMSS).*

3:00 H21 **787.07** Inhibition of PTP1B increases a lysosomal degradation of α-synuclein in SH-SY5Y cells. H. CHOI*; J. KIM; K. PARK; H. LIM. *Korea Brain Res. Inst.*

4:00 H22 **787.08** Elucidation of extracellular matrix-related gene expression pattern in patients with Parkinson's disease. M. KIM*; M. LEE; J. YU; J. SEO; Y. SHIN; S. WI; S. CHO. *Yonsei Univ. Col. of Med., Brain Korea 21 PLUS Project for Med. Science, Yonsei Univ.*

1:00 H23 **787.09** The therapeutic potential of alternative respiratory enzymes in neurodegeneration. K. M. HOLMSTROEM*; P. K. DHANDAPANI; M. SZIBOR; H. T. JACOBS. *Univ. of Helsinki.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

2:00 H24 **787.10** The vra1 locus plays a neuroprotective role in a 6ohda model of Parkinson's disease. M. JEWETT*; I. JIMENEZ FERRER; E. N. LINDAU; M. SWANBERG. *LUND UNIVERSITY.*

3:00 H25 **787.11** Astrocytic High mobility group box 1 upregulates TH exprssion to maintain dopaminergic neurons in MPTP induced PD like model. S. KIM*; M. RYU; J. HAN; Y. JANG; J. KIM; M. LEE; I. RYU; G. KWEON; J. HEO. *Chungnam Natl. Univ. of Sch. of Med.*

4:00 H26 **787.12** Neuroprotective effect of FTY720 in a mouse model of Parkinson's disease. E. PEPIN*; G. L.LEMIEUX; G. BUREAU; G. MASSICOTTE; M. CYR. *Univ. Du Québec À Trois-Rivières.*

1:00 I1 **787.13** GSK J4 protects neurons from oxidative stress via a catalase-like mechanism in Parkinson's disease model. M. MU*; T. LIANG; Z. QIAN; W. YUNG; Y. KE. *The Chinese Univ. of Hong Kong, Lab. of Neuropharmacology, Fudan Univ. Sch. of Pharmacy.*

2:00 I2 **787.14** ▲ Age effects on astrocyte-mediated neuroprotection against a Parkinson's disease model. B. YARBERRY*; A. NGUYEN; M. BAINS; J. L. ROBERTS. *Trinity Univ., Trinity Univ., Univ. of Incarnate Word.*

3:00 I3 **787.15** Neuroprotective and anxiolytic effect of weak static magnetic field in the rat. R. UZAN*; Y. LOBODA; L. SCHACHTER; J. FINBERG. *Technion-Israel Inst. of Technol.*

4:00 I4 **787.16** Nicotine as a therapeutic candidate in a pre-clinical model of progressive PD: Regulation of parkin function. S. M. LANTZ*; E. CUEVAS; S. SARKAR; S. FERGUSON; D. LAW; S. F. ALI; W. SLIKKER, Jr; M. G. PAULE; S. Z. IMAM. *NCTR/FDA.*

1:00 I5 **787.17** Environmental enrichment protects from transcriptional disturbances in a predisposition PD model. Z. WASSOUF; T. HENTRICH; N. CASADEI; S. SAMER; M. CELKOVA; O. RIESS*; J. M. SCHULZE-HENTRICH. *Univ. of Tuebingen.*

2:00 I6 **787.18** Parkin modulates proteasome activity in dopamine axon terminals following neurotoxic insult. T. LANSDELL*; K. J. LOOKINGLAND; J. L. GOUDREAU. *Michigan State Univ., Michigan State Univ.*

3:00 I7 **787.19** [^{11}C]PBR28 PET imaging of the exercise-induced reduction in neuroinflammation and behavior improvement in a rat model of Parkinson´s Disease. C. C. REAL*; P. KOPSCHINA FELTES; D. VÁLLEZ GARCÍA; J. DOORDUIN; L. R. G. BRITTO; E. F. J. DE VRIES. *ICB - Univ. of São Paulo (USP), Univ. Med. Ctr. Groningen.*

4:00 I8 **787.20** ● Manganese-enhanced magnetic resonance imaging for detection of vasoactive intestinal peptide receptor 2-agonist therapy in a model of Parkinson's disease. K. OLSON*; A. BADE; C. SCHUTT; J. DONG; S. SHANDLER; M. BOSKA; R. MOSLEY; H. GENDELMAN; Y. LIU. *UNMC, UNMC, Longevity Biotech.*

1:00 I9 **787.21** ● Preclinical validation of Bach1 inhibition for the development of Parkinson's disease therapy. M. AHUJA*; N. AMMAL KAIDERY; J. MORGAN; K. IGARASHI; O. C. ATTUCKS; B. THOMAS. *Augusta Univ., Augusta Univ., Tohoku Univ. Grad. Sch. of Med., vTv Therapeut. LLC.*

2:00 I10 **787.22** Simvastatin-loaded PEG-PLA polymersomes confers neuroprotection through inhibition of inflammation in Parkinson's disease. D. MANICKAVASAGAM*; K. NOVAK; J. R. RICHARDSON; M. O. OYEWUMI. *Kent State Univ., Northeast Ohio Med. university.*

3:00 I11 **787.23** Inhibition of the enzyme 5α-reductase by dutasteride induces neuroprotection of dopaminergic neurons of male mice when administered before but not after MPTP. N. LITIM*; M. MORISSETTE; D. CARUSO; R. MELCANGI; T. DI PAOLO. *Neurosci. Res. Unit, CHU De Quebec, Laval University, Fac. of Pharm., Univ. degli Studi di Milano.*

4:00 I12 **787.24** A study on the relationship of pick1 and parkin. J. HE*; P. K. YEUNG; K. K. CHUNG; S. K. CHUNG; J. XIA. *The Hong Kong Univ. of Sci. and Technol., The Univ. of Hong Kong.*

1:00 J1 **787.25** ● Splice-variant and isoform-dependent isradipine-inhibition of recombinant L-type Ca^{2+} currents evoked by substantia nigra dopamine neuron-like activity patterns. N. J. ORTNER*; G. BOCK; A. DOUGALIS; M. KHARITONOVA; J. DUDA; P. TULUC; T. POMBERGER; N. STEFANOVA; F. PITTERL; T. CIOSSEK; H. OBERACHER; H. J. DRAHEIM; B. LISS; J. STRIESSNIG. *Univ. of Innsbruck, Univ. of Ulm, Med. Univ. of Innsbruck, Med. Univ. of Innsbruck, Boehringer Ingelheim Pharma GmbH & Co KG.*

POSTER

788. Immune Responses and Glial Functions in Neurodegenerative Disease

Theme C: Neurodegenerative Disorders and Injury

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 J2 **788.01** Local inflammation associated with amyloid-β deposition in postmortem retinas of AD and MCI patients. Y. KORONYO*; D. FUCHS; E. BARRON; J. SHEYN; A. RENTSENDORJ; N. J. HART; C. A. MILLER; D. R. HINTON; K. L. BLACK; M. KORONYO-HAMAOUI. *Cedar-Sinai Med. Ctr., Keck Sch. of Medicine, Univ. of Southern California, Keck Sch. of Medicine, Univ. of Southern California, Cedars-Sinai Med. Ctr.*

2:00 J3 **788.02** IL-33 modulates the inflammatory response in the brains of Alzheimer's disease mouse model. W. FU*; A. K. FU; K. HUNG; M. Y. YUEN; X. ZHOU; D. S. MAK; I. C. CHAN; F. Y. LIEW; T. H. CHEUNG; N. Y. IP. *The Hong Kong Univ. of Sci. and Technol., The Hong Kong Univ. of Sci. and Technol., The Hong Kong Univ. of Sci. and Technol., Univ. of Glasgow, Soochow Univ.*

3:00 J4 **788.03** IL-33 ameliorates Alzheimer's disease-like pathology and cognitive decline. A. FU*; K. HUNG; M. Y. YUEN; X. ZHOU; D. S. MAK; I. C. CHAN; T. H. CHEUNG; B. ZHANG; W. FU; F. Y. LIEW; N. Y. IP. *The Hong Kong Univ. of Sci. and Technol., The Hong Kong Univ. of Sci. and Technol., The Hong Kong Univ. of Sci. and Technol., HKUST Shenzhen Res. Inst., Zhejiang Univ., Univ. of Glasgow, Soochow Univ.*

4:00 J5 **788.04** The role of extracellular vesicles in the neuroinflammation in Alzheimer's disease. Y. YANG*. *Lund Univ.*

1:00 J6 **788.05** Glial responses in the cerebral cortex of Lewy body diseases. A. SERRANO-POZO*; G. ALDRIDGE; Q. ZHANG; M. P. FROSCH; N. NARAYANAN; B. T. HYMAN. *Dept. of Neurol. of the Univ. of Iowa, Massachusetts Gen. Hosp.*

2:00 J7 **788.06** ● Aberrant T cells enter brain and induce Alzheimer's-like neurodegeneration. C. J. WHEELER*. *Cedars-Sinai Med. Ctr.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 J8 **788.07** ●▲Microglial SOCS3 prevents IL6 production in Alzheimer's disease model mice. N. IWAHARA*. *Sapporo Med. Univ.*

4:00 J9 **788.08** TREM2 levels are preserved in the Frontal Cortex and Hippocampus in prodromal Alzheimer's disease. M. NADEEM*; S. PEREZ; B. HE; J. C. MIGUEL; M. M. AHMADI; L. MAHADY; E. MUFSON. *Barrow Neurolog. Inst., Barrow Neurolog. Inst., Barrow Neurolog. Inst., Barrow Neurolog. Inst., Banner Hlth., Barrow Neurolog. Inst., Barrow Neurolog. Inst.*

1:00 J10 **788.09** Effect of granulocyte and macrophages colonie stimulating factor (GM-CSF) in the hippocampus of transgenic animals for Alzheimer's disease. D. S. PAIVA*; Y. L. GIULIO; S. A. A. ROMARIZ; P. M. MARTIM; M. L. QUINTELLA; S. W. HAN; B. O. MONTEIRO. *Unifesp.*

2:00 J11 **788.10** Amyloid pathology and microglial cells are affected life-long after stress exposure in early-life. L. HOEIJMAKERS*; A. AMELIANCHIK; D. IVAN; A. VAN DAM; P. J. LUCASSEN; A. KOROSI. *Univ. of Amsterdam, VU Med. Ctr.*

3:00 J12 **788.11** TYROBP/DAP12 and its role in Alzheimer's disease. J. HAURE-MIRANDE*; S. KIM; M. WANG; B. ZHANG; E. SCHADT; S. GANDY; M. EHRLICH. *Icahn Sch. of Med. at Mount Sinai, Icahn Sch. of Med. at Mount Sinai.*

4:00 J13 **788.12** Pathological τ impairs anti-inflammatory interleukin-37 on Alzheimer's disease. A. C. MARTINI*; W. W. POON; D. CHENG; R. A. AGER; R. C. BOHANNAN; D. BAGLIETTO-VARGAS; M. I. DIAMOND; A. J. RAJIC; R. C. KIM; D. H. CRIBBS; J. BUSCIGLIO; F. M. LAFERLA; R. MEDEIROS. *UFSC, Inst. for Memory Impairments and Neurolog. Disorders, Univ. of Texas Southwestern Med. Ctr., Univ. of California, The Univ. of Queensland.*

1:00 J14 **788.13** Innate immune cell circadian rhythms in aging and Alzheimer's disease. C. TSAI*; K. I. ANDREASSON. *Stanford Univ.*

2:00 J15 **788.14** ▲Trem2 deficiency reduces proliferation, increases cell death and exacerbates inflammation in a mouse model of Alzheimer's disease. T. R. JAY*; M. BROIHIER; G. LANDRETH; B. LAMB. *Case Western Reserve Univ., Case Western Reserve Univ., Indiana Univ.*

3:00 J16 **788.15** Soluble epoxide hydrolase regulates astrocyte immune responses and GFAP expression through suppression of STAT3 phosphorylation. F. SHIE*; S. SHEN; Y. HSU; P. HSU; Y. LEE. *Ctr. For Neuropsychiatric Research, Natl. Hlth. Res. Inst., Natl. Yang-Ming Univ.*

4:00 J17 **788.16** Soluble TREM2 (sTREM2) inhibits cellular apoptosis and induces pro-inflammatory response in microglia. X. CHEN*; L. ZHONG; T. WANG; Z. WANG; G. BU. *Inst. of Neuroscience, Med. College, Xiamen.*

1:00 J18 **788.17** ● Soluble TREM2 levels in neurodegenerative disorders. L. BEKRIS*; M. KHRESTIAN; Y. SHAO; J. LEVERENZ. *Cleveland Clin. Genomic Med. Inst., Cleveland Clin.*

2:00 K1 **788.18** Determine the mechanism of lysophosphatidic acid (LPA)-induced apoptosis. Y. DONG; Y. WU; H. CHEN; M. CUI; X. XU*. *Harvard Children's Hosp. Boston, Univ. of California, Riverside, Oklahoma Med. Res. Fndn., Univ. of Tennessee.*

3:00 K2 **788.19** ▲ ^{3}H-PK11195 binding reflects astrogliosis and reduces pathological neuroinflammation in TgAPP Alzheimer's disease mice. S. SEDDIGHI*; B. BRERA; M. L. DE CEBALLOS. *Univ. of Tennessee, Knoxville, Cajal Inst.*

4:00 K3 **788.20** ▲ Effects of IL-34 on macrophage immunological profile in response to Alzheimer's-related amyloid-β_{42} assemblies. N. J. HART*; L. R. ZUROFF; T. TORBATI; D. FUCHS; J. SHEYN; A. RENTSENDORJ; Y. KORONYO; E. Y. HAYDEN; D. B. TEPLOW; K. L. BLACK; M. KORONYO-HAMAOUI. *Cedars-Sinai Med. Ctr., UCLA, Cedars-Sinai Med. Ctr.*

1:00 K4 **788.21** Class a scavenger receptor deficiency impairs immune response of microglia and astrocytes in app/ps1 transgenic mice. F. A. CORNEJO*; M. VRUWINK; P. MUÑOZ; M. ANDRES; R. VON BERNHARDI. *Pontificia Univ. Católica De Chile.*

2:00 K5 **788.22** Brain immune imbalance underlies depressive-like behavior induced by Alzheimer's amyloid-β oligomers in mice. F. CAMPOS RIBEIRO*; J. LEDO; E. AZEVEDO; D. BECKMAN; D. RAZOLLI; L. SANTOS; H. MELO; M. BELLIO; A. TEIXEIRA; L. VELLOSO; D. FOGUEL; F. DE FELICE; S. FERREIRA. *Federal Univ. of Rio De Janeiro, Rockfeller Univ., Federal Univ. of Rio de Janeiro, Federal Univ. of Minas Gerais, Campinas State Univ.*

3:00 K6 **788.23** Examining the role of adaptive immunity and peripheral immune cell infiltration in Alzheimer's disease pathogenesis. S. E. MARSH*; E. M. ABUD; L. L. MCINTYRE; A. KARIMZADEH; A. LAKATOS; S. T. YEUNG; L. LAU; M. A. INLAY; C. M. WALSH; W. W. POON; M. BLURTON-JONES. *Univ. of California, Irvine, Univ. of California, Irvine, Univ. of California, Irvine.*

4:00 K7 **788.24** Inflammasome activation in the pre clinical and clinical stages of alzheimers disease pathology in down syndrome. L. FLORES AGUILAR*; M. IULITA; T. WISNIEWSKI; J. BUSCIGLIO; A. CUELLO. *McGill Univ., Univ. de Montreal, New York Univ. Sch. of Med., Univ. of California.*

1:00 K8 **788.25** Synaptic effect of glatiramer acetate immunomodulation in a mouse AD model. S. LI*; Y. KORONYO; D. FUCHS; D. DALEY; J. SHEYN; T. TORBATI; A. RENTSENDORJ; E. HAYDEN; K. BLACK; D. TEPLOW; M. KORONYO. *Wenzhou Uinversity, Cedars-Sinai Med. Ctr., UCLA.*

2:00 K9 **788.26** Tenascin-C is associated with cored amyloid-β plaques in pathology burdened cognitively normal elderly and in Alzheimer's disease. Z. MI*; W. HALFTER; E. E. ABRAHAMSON; W. E. KLUNK; C. A. MATHIS; E. J. MUFSON; M. D. IKONOMOVIC. *Univ. of Pittsburgh, VA Pittsburgh Healthcare Syst., Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh, Barrow Neurolog. Inst.*

3:00 K10 **788.27** Lipopolysaccharide (LPS) associates with amyloid in Alzheimer's brain. X. ZHAN; B. STAMOVA; L. JIN; C. DECARLI; B. PHINNEY; F. R. SHARP*. *Univ. of California At Davis, Univ. of California at Davis, Univ. of California at Davis.*

4:00 K11 **788.28** CCL4 and CXCL10, two chemokines in neurovascular unit controlled by blood mononuclear cells from patients with Alzheimer's disease. J. VERITE*; G. PAGE; A. JULIAN; D. CHASSAING; P. COURAUD; M. PACCALIN; T. JANET. *Univ. of Poitiers, Univ. of Paris Descartes.*

1:00 K12 **788.29** Antibiotic-induced perturbations in gut microbial diversity influences neuro-inflammation and amyloidosis in a murine model of Alzheimer's disease. M. R. MINTER*; C. ZHANG; V. LEONE; D. L. RINGUS; X. ZHANG; P. OYLER-CASTRILLO; M. W. MUSCH; R. E. TANZI; E. B. CHANG; S. S. SISODIA. *The Univ. of Chicago, Massachusetts Gen. Hosp., The Univ. of Chicago.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

2:00 K13 **788.30** Cerebrospinal fluid soluble triggering receptor expressed on myeloid cells 2 (TREM2) in aging and Alzheimer's disease. K. HENJUM; I. S. ALMDAHL; V. ÅRSKOG; L. MINTHON; O. HANSSON; T. FLADBY; L. N. NILSSON*. *Univ. of Oslo and Oslo Univ. Hosp., Dept. of Neurology, Fac. Division, Akershus Univ. Hospital, Univ. of Oslo, Dept. of Clin. Sci. Malmö, Memory Clinic, Clin. Memory Res. Unit, Lund.*

POSTER

789. HIV-Related Neuroinflammation and Neurotoxicity

Theme C: Neurodegenerative Disorders and Injury

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 K14 **789.01** Fine motor control impairment in chronic HIV is similar to and less severe to that seen in Parkinson's disease. T. MARTIN*; M. TRAGER; A. VELISAR; M. MILLER KOOP; E. MÜLLER-OEHRING; K. POSTON; T. SCHULTE; H. BRONTE- STEWART. *Stanford Univ., SRI international, Stanford Univ., Palo Alto Univ.*

2:00 K15 **789.02** Subversion of Schwann cell glucose metabolism by Mycobacterium leprae. B. S. MIETTO*; R. C. A. MEDEIROS; K. G. C. VASCONCELLOS; F. K. L. CARDOSO; T. G. T. PINTO; L. S. RODRIGUES; M. GANDINI; J. J. AMARAL; S. L. G. ANTUNES; S. CORTE-REAL; P. S. ROSA; M. C. V. PESSOLANI; J. A. C. NERE; E. N. SARNO; L. R. B. SILVA; M. SOLA-PENNA; M. F. OLIVEIRA; M. O. MORAES; F. A. LARA. *Fiocruz, UERJ, Natl. Inst. of Metrology, Fiocruz, Lauro de Souza Lima Inst., UFRJ.*

3:00 K16 **789.03** Magnetoencephalography as a biomarker of HIV central nervous system impact among young adults with HIV: Preliminary findings. S. L. NICHOLS*; A. ROBB SWAN; A. ANGELES; C. FENNEMA-NOTESTINE; R. R. LEE; M. HUANG. *Univ. of California San Diego, UCSD, UCSD.*

4:00 K17 **789.04** MMP-9 facilitation of HIV neuropathogenesis. R. B. MEEKER*; Y. XIE; K. S. WILLIAMS. *Univ. of North Carolina at Chapel Hill Dept. of Neurol., Univ. of Pennsylvania.*

1:00 L1 **789.05** Matrix metalloproteinase-mediated mislocalization of aquaporin-4 and impaired metabolite clearance in HIV. P. BOZZELLI*; M. ALLEN; K. CONANT. *Georgetown Univ.*

2:00 L2 **789.06** IFNβ protects neurons in a CCL4-dependent fashion against HIV-1 GP-120 induced injury. V. E. THANEY*; M. M. HOEFER; R. MAUNG; M. KAUL. *Sanford Burnham Prebys Med. Discovery Inst., Sanford Burnham Prebys Med. Discovery Inst.*

3:00 L3 **789.07** Aging with HIV - neurofunctional correlates of cognitive interference and motor demands: A comparison with Parkinson's disease. E. M. MULLER-OEHRING*; K. L. POSTON; H. M. BRONTE-STEWART; C. HARDCASTLE; T. MARTIN; A. PFEFFERBAUM; E. V. SULLIVAN; T. SCHULTE. *Stanford Univ. Sch. of Med., SRI Intl., Stanford Univ. Sch. of Med., Palo Alto Univ.*

4:00 L4 **789.08** Excitability of mPFC pyramidal neurons is increased in older HIV-1 transgenic rats through alteration in K^+ channel activity. L. CHEN*; C. E. KHODR; L. AL-HARTHI; X. HU. *Rush Univ. Med. Ctr., Rush Univ. Med. Ctr.*

1:00 L5 **789.09** Co-morbid Effects of Methamphetamine and HIV-1 Tat inMicroglia Neurotoxic Activity: Role of CX3CR1/CX3L1 Axis. J. LIU; E. XU; H. LIU; H. (. XIONG*. *Univ. of Nebraska Med. Ctr., Univesity of Nebraska Med. Ctr.*

2:00 L6 **789.10** Neuroprotective effects of fatty acid amide hydrolase inhibition in a HIV-1 tat model of neuoAIDS. D. J. HERMES*; C. XU; M. J. NIPHAKIS; K. MACKIE; B. F. CRAVATT; A. LICHTMAN; B. IGNATOWSKA-JANKOWSKA; S. FITTING. *Univ. of North Carolina, Scripps Res. Inst., Indiana Univ., Virginia Commonwealth Univ., Hebrew Univ. of Jerusalem.*

3:00 L7 **789.11** Resveratrol analog timbd modifies HIV-1 gp120 associated inflammation in astrocytes. F. E. ABDALLA*; A. NOOKALA; A. KUMAR; H. BHAT. *Univ. of Missouri Kansas City, UMKC.*

4:00 L8 **789.12** ▲ longitudinal effects of combinatory antiretroviral therapy on white matter microstructure during childhood brain development. A. SAREMI*; N. JAHANSHAD; W. PRASITSUEBSAI; T. M. NIR; L. AURPIBUL; K. PRUKSAKAEW; S. LERDLUM; P. VISRUTARATNA; S. J. KERR; T. PUTHANAKIT; R. PAUL; V. G. VALCOUR; P. M. THOMPSON; J. ANANWORANICH. *USC, The Thai Red Cross AIDS Res. Ctr., Chiang Mai Univ., Chulalongkorn Univ. Hosp., Chiang Mai Univ., Univ. of Missouri, Univ. of California, SEARCH-Thailand, USC, Henry M. Jackson Fndn. for the Advancement of Military Med.*

1:00 L9 **789.13** Diminished nestin positive neurons in pediatric SIV infection. L. RODRIGUEZ; R. JOBARTEH; M. SWANG; A. CHARLES; N. ALGARZAE; K. VAN ROMPAY; K. DE PARIS; M. W. BURKE*. *Howard Univ., UC Davis, Univ. of North Carolina, Howard Univ. Col. of Med.*

2:00 L10 **789.14** ▲ Characterizing cathepsin B/serum amyloid p complex-induced neuronal dysfunction in a mouse model of HIV-associated encephalitis. A. M. OGANDO VÉLEZ*; Y. M. CANTRES-ROSARIO; M. PLAUD; S. GORANTLA; L. M. MELÉNDEZ. *Univ. of Puerto Rico, Med. Sci. Campus, Univ. of Nebraska Med. Ctr.*

3:00 L11 **789.15** Anti-n-methyl-d-aspartate receptor encephalitis: From model to medicine. B. JONES*; A. GOEHRING; E. GOUAUX; G. L. WESTBROOK. *OHSU Vollum Inst.*

4:00 L12 **789.16** Efficacy and mechanism of action of low dose emetine against human cytomegalovirus. R. MUKHOPADHYAY*. *Johns Hopkins Sch. of Med.*

POSTER

790. Ischemia: Perinatal and Recovery

Theme C: Neurodegenerative Disorders and Injury

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 L13 **790.01** Altered fractional anisotropy in developing white matter after congenital heart surgery in a piglet model. N. ISHIBASHI*; A. V. KOROTCOV; L. KOROTCOVA; S. LIN; S. RAMACHANDRA; S. KUMAR; K. AGEMATSU; P. WANG; R. A. JONAS. *Childrens Natl. Med. Ctr., Howard Univ., George Washington Univ.*

2:00 L14 **790.02** Modification of commensal gut bacteria induces protection from ischemic stroke brain injury. C. BENAKIS*; C. POON; G. SITA; M. MURPHY; D. BREA; J. MOORE; G. RACCHUMI; L. LING; E. PAMER; I. COSTANTINO; J. ANRATHER. *Weill Cornell Med., Mem. Sloan Kettering Cancer Ctr.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 M1 **790.03** Involvement of HMGB1-RAGE signaling on the regulation of central post-stroke pain. S. TOKUYAMA*; W. MATSUURA; S. HARADA; K. LIU; M. NISHIBORI. *Kobe Gakuin Univ., Okayama Univ.*

4:00 M2 **790.04** *In vivo* reprogramming factor expression promotes functional recovery in a mouse model of ischemic brain injury. J. SEO*; J. YU; S. WI; Y. SHIN; M. KIM; H. KIM; S. CHO. *Yonsei Univ. Col. of Med., Brain Korea 21 PLUS Project for Med. Science, Yonsei Univ. Col. of Med., Yonsei Univ. Col. of Med.*

1:00 M3 **790.05** Disruption of brain cholesterol homeostasis following neonatal hypoxia-ischemia. F. LU; J. ZHU; F. CHEHAB; D. M. FERRIERO; X. JIANG*. *UCSF, UCSF, UCSF.*

2:00 M4 **790.06** Spinal grafting of allogeneic neural precursors (NPCs) in a rat model of spinal ischemic and traumatic injury: Assessment of descending motor tract and primary afferent synapse formation with grafted cells. T. TADOKORO*; M. R. NAVARRO; O. KAKINOHANA; S. MARSALA; M. MARSALA. *UCSD.*

3:00 M5 **790.07** Extension of therapeutic time window of tissue plasminogen activator with sp-8203 combination therapy in rat embolic stroke models. W. KIM*; A. M. A. ANTHONY JALIN; H. SONG; C. JU; K. PAHK; H. NOH; C. JOUNG; G. CHO; B. KIM; J. RYU. *Col. of Med. Korea Univ., Central Res. institute, Shin Poong Pharm. Co. Ltd.*

4:00 M6 **790.08** Sprouting and "side-switch" of contralateral corticospinal fibers in the spinal cord after large unilateral cortical stroke in adult mice. J. KAISER*; A. RICCIARDI; A. WAHL; N. HAGENBUCH; C. FÖLDY; M. E. SCHWAB. *Brain Res. Inst., Univ. and ETH Zurich, Univ. Zurich, Univ. Zurich, Univ. and ETH Zurich.*

1:00 M7 **790.09** Inhibition of glucose transporters attenuate recurrent hypoglycemia-induced increase in intra-ischemic acidosis in insulin-treated diabetic rats. A. K. REHNI*; V. SHUKLA; K. R. DAVE. *Univ. of Miami Sch. of Med., Univ. of Miami Sch. of Med., Neurosci. Program.*

2:00 M8 **790.10** ● A multi-potent neuroprotectant LMT356 reduces tissue plasminogen activator-evoked adverse effects in rat embolic stroke. K. PAHK; C. JU*; A. M. A. ANTHONY JALIN; H. SONG; H. NOH; C. JOUNG; G. CHO; W. KIM. *Korea Univ. Med. Col., Central Res. Institute, Shin Poong Pharm. Co. Ltd.*

3:00 M9 **790.11** Effect of CD49d-positive allogeneic mesenchymal stromal cells on transmigration across blood-brain barrier after intra-arterial delivery into rats. L. CUI*; J. JOLKKONEN. *Univ. of Eastern Finland.*

4:00 M10 **790.12** ● Roles of protein disulfide isomerase-A3 against neuronal damage induced by spinal cord and transient forebrain ischemia. D. YOO*; I. HWANG; J. CHOI; J. CHO; D. KIM; Y. YOON. *Col. of Vet Med, Seoul Natl. Univ., Col. of Vet. Medicine, Kangwon Natl. Univ., Dept. of Neurobiology, Sch. of Medicine, Kangwon Natl. Univ., Dept. of Biochem. and Mol. Biology, Res. Inst. of Oral Sciences, Col. of Dentistry, Gangneung-Wonju Natl. Univ.*

1:00 M11 **790.13** Neonatal hypoxia/Ischemia in rats - Short term hypothermia induced neuroprotection and tissue sparing as evidenced by MRI. L. TOLPPANEN*; K. LEHTIMÄKI; G. VILLETTI; A. NURMI; F. FACCHINETTI. *Charles River Discovery, Chiesi Farmaceutici S.p.A.*

2:00 M12 **790.14** Effects of deletion of peroxiredoxins II on bilateral common carotid artery occlusion-induced impairments of hippocampal function. Y. LEE*; W. JEON; J. HAN. *Konkuk Univ., Korea Inst. of Oriental Med.*

3:00 M13 **790.15** Obesity moderates racial and ethnic differences in white matter hyperintensity volumes between African Americans and European Americans. A. SEIXAS*; G. JEAN-LOUIS; V. NEWSOME; M. DE LEON; R. OSORIO-SUAREZ; A. R. RAMOS; T. OYEGBILE; L. GLODZIK. *NYU Sch. of Med., NYU Sch. of Med., Univ. of Miami, Georgetown Univ.*

4:00 M14 **790.16** Repositioning of vitamin B_2 for treatment of ischemic stroke patients. F. C. PÉREZ*; A. DA SILVA-CANDAL; M. RODRÍGUEZ-YÁÑEZ; S. ARIAS-RIVAS; M. SANTAMARÍA-CADAVID; A. VIEITES-PRADO; E. RODRÍGUEZ-CASTRO; T. SOBRINO; M. LOZA; J. CASTILLO. *Clin. Neurosciences Res. Lab. Hospita, Clin. Neurosciences Res. Laboratory, Hosp. Clínico Universitario, Hlth. Res. Inst. of Santiago de Compostela (IDIS), Dept. of Neurology, Clin. Neurosciences Res. Laboratory, Hosp. Clínico Universitario, Hlth. Res. Inst. of Santiago de Compostela (IDIS), 1Department of Neurology, Clin. Neurosciences Res. Laboratory, Hosp. Clínico Universitario, Hlth. Res. Inst. of Santiago de Compostela (IDIS), Clin. Neurosciences Res. Laboratory, Hosp. Clínico Universitario, Hlth. Res. Inst. of Santiago de Compostela (IDIS), Dept. of Pharmacology, Univ. de Santiago de Compostela, Discovery group BioFarma, Hlth. Res. Inst. of Santiago de Compostela, BioFarma Res. Group, Ctr. de Investigación en Medicina Mol. y Enfermedades Crónicas (CIMUS), Univ. of Santiago de Compostela.*

1:00 M15 **790.17** Astrocytes and new CA1 neurons in rat forebrain ischemia. Y. OUYANG*; L. XU; L. LI; R. G. GIFFARD. *Stanford Univ. Sch. of Med.*

2:00 M16 **790.18** ● Automated assessment of forepaw force production in rodents: Application in a rodent model of cortical ischemia. H. PARK*; J. COOPERRIDER; H. CHAN; C. WATHEN; J. T. GALE; K. B. BAKER; A. G. MACHADO. *Cleveland Clin.*

3:00 M17 **790.19** ● 3K3A-APC and human neural progenitor cells for stroke repair in mice. Z. ZHAO*; Y. WANG; S. REGE; M. WANG; G. SI; J. GRIFFIN; S. GOLDMAN; B. ZLOKOVIC. *USC, USC, The Scripps Res. Inst., Univ. of Rochester Med. Ctr.*

4:00 M18 **790.20** Intranasal erythropoietin administration protects CA1 hippocampal neurons against cerebral ischemia in Wistar rat. R. MACIAS-VÉLEZ*; M. RIVERA CERVANTES. *Univ. De Guadalajara.*

1:00 N1 **790.21** Intraoperative monitoring of cerebral blood flow during brain tumor and cerebrovascular surgery by laser speckle flow imaging: Reliability and Practicality of measuring regional cerebral perfusion. T. INOUE*; M. IDEGUCHI; S. NOMURA; H. KOIZUMI; H. GOTO; Y. HIRAYAMA; E. SUEHIRO; F. OKA; K. SUGIMOTO; K. KAJIWARA; K. YOSHIKAWA; H. ISHIHARA; M. SUZUKI. *Yamaguchi Univ. Sch. of Med., Ube-shi Rehabil. Hosp.*

2:00 N2 **790.22** Transfer of bacterial lipopolysaccharide-primed murine and human monocytes protects the brain from cerebral ischemic injury. L. GARCIA-BONILLA*; M. MURPHY; C. BENAKIS; D. BREA; C. IADECOLA; J. ANRATHER. *Weill Cornell Med. Col.*

3:00 N3 **790.23** A peptide disrupting kv2.1/syntaxin interaction is neuroprotective in cerebral ischemia. C. YEH*; A. M. BULAS; K. A. HARTNETT; C. T. ANDERSON; R. DI MAIO; T. TZOUNOPOULOS; D. SUN; R. KHANNA; E. AIZENMAN. *Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Arizona.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

4:00 N4 **790.24** Proportional stroke recovery in the rat: Evidence for a cross-species biological recovery process that incorporates initial impairment, infarct volume and rehabilitation intensity. M. S. JEFFERS*; S. KARTHIKEYAN; D. CORBETT. *Univ. of Ottawa.*

1:00 N5 **790.25** Effects of constraint-induced movement therapy (CIMT) and neural precursor cell (NPC) transplantation in the corpus callosum of the hypoxic-ischemic hemiplegic mouse model. P. RUMAJOGEE*; S. ALTAMENTOVA; J. LI; D. VAN DER KOOY; M. G. FEHLINGS. *Univ. Hlth. Network, Inst. of Med. Sci.*

POSTER

791. *In Vivo* Studies of Ischemia and Neuroprotection

Theme C: Neurodegenerative Disorders and Injury

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 N6 **791.01** Docosahexaenoic acid provides neuroprotection by upregulating Iduna expression in the ischemic penumbra. N. G. BAZAN; P. K. MUKHERJEE; V. BALASZCZUK; A. OBENAUS; L. KHOUTOROVA*; S. HONG; L. BELAYEV. *LSU, Loma Linda Univ., Baylor Col. of Medicine.*

2:00 N7 **791.02** Differential analysis of oxygen radical formation in vasculature and parenchyma and its suppression by a nitrone (PBN) in an experimental model of ischemia/reperfusion by intravital fluorescence microscopy. A. TASKIRAN SAG*; M. YEMISCI; Y. GURSOY-OZDEMIR; E. S. ERDENER; D. YUCE; T. DALKARA. *Hacettepe Univ. Inst. of Neurolog. Sci., Hacettepe Univ. Cancer Inst.*

3:00 N8 **791.03** Mechanisms of ischemic post-conditioning in the retina. S. KEIL*; B. MATHEW; L. TORRES; S. ROTH. *Univ. of Illinois Chicago, Univ. of Illinois, Univ. of Illinois.*

4:00 N9 **791.04** Auraptene acts as an anti-inflammatory and neuroprotective agent in the mouse brain. S. OKUYAMA*; M. MORITA; M. KAJI; K. SHIMAMOTO; Y. OOKIDO; Y. AMAKURA; M. YOSHIMURA; M. NAKAJIMA; Y. FURUKAWA. *Col. of Pharmaceut. Sciences, Matsuyama Univ.*

1:00 N10 **791.05** ▲ Establishment of the therapeutic window of the S-allylcysteine in an animal model to 1 hour of ischemia and 14 days of reperfution. C. A. ORTIZ*; P. D. MALDONADO. *Inst. Nacional De Neurología Y Neurocirugía.*

2:00 N11 **791.06** Restoring cell surface expression of GABA (B) receptors: A potential strategy to limit neuronal death in cerebral ischemia. K. BALAKRISHNAN*; D. BENKE. *Univ. of Zurich, Univ. of Zurich.*

3:00 N12 **791.07** CD38 knockout mice show significant protection against ischemic brain damage despite high level poly-ADp-ribosylation. A. LONG; J. H. PARK; N. KLIMOVA; D. J. LOANE; T. KRISTIAN*. *Veterans Affairs Maryland Hlth. Ctr. Syst., Univ. of Maryland Sch. of Med.*

4:00 N13 **791.08** Ischaemia-induced erased perineuronal nets and damaged, but persisting GABAergic neurons in the nucleus reticularis thalami of wildtype and 3xTg mice. W. HARTIG*; S. APPEL; A. SUTTKUS; J. GROSCHE; D. MICHALSKI. *Univ. Leipzig, PFI, Effigos GmbH, Univ. Leipzig, Dept of Neurol.*

1:00 N14 **791.09** Neuroprotection by BDNF following OGD is higher in hippocampus than in cerebral cortex in an "*Ex vivo*" model of rat brain slices. P. GONZALEZ-RODRIGUEZ*; E. FONT; B. ANUNCIBAY-SOTO; D. PÉREZ-RODRÍGUEZ; C. PÉREZ-GARCÍA; A. FERNÁNDEZ-LÓPEZ. *Univ. de Leon, Inst. de Biomedicina, Inst. de Biomedicina.*

2:00 N15 **791.10** ▲ The impact of BDNF-Val66Met polymorphism upon GABAergic innervation of cortical pyramidal neurons and spiny striatal neurons in an animal model of ischemic stroke. H. ACTOR-ENGEL; B. S. RANA; Y. CHEN; S. CHO; C. J. AOKI*. *New York Univ., Burke Med. Res. Inst., Weill Cornell Med. Coll.*

3:00 N16 **791.11** The glucagon like peptide 1 receptor agonist exendin4 ameliorates warfarin associated hemorrhagic transformation after cerebral ischemia. M. CUI*; F. Z. CHEN; W. F. WANG; H. Y. DING; Q. YANG; Q. DONG. *Fudan Univ. Huashan Hosp.*

4:00 N17 **791.12** L Nio induced focal subcortical white matter stroke in mice. Y. WANG*; Z. ZHAO; A. MONTAGNE; B. ZLOKOVIC. *Keck Sch. of Medicine, USC.*

1:00 N18 **791.13** Pharmacologically induced hypothermia extends the therapeutic window for tpa to 6 hr after onset of embolic stroke in mice. J. LEE*; S. WON; L. WEI; S. YU. *Emory Univ.*

1:00 DP03 **791.14** (Dynamic Poster) Robotic rehabilitation promotes stabilization of peri-infarct cortical circuits and inter-hemispheric connectivity: *In vivo* study of structural and functional plasticity. A. ALLEGRA MASCARO*; E. CONTI; S. LAI; C. SPALLETTI; A. P. DI GIOVANNA; C. ALIA; A. PANARESE; L. SACCONI; S. MICERA; M. CALEO; F. S. PAVONE. *European Lab. for Non-linear Spectroscopy, Univ. of Florence, Natl. Res. Council, Scuola Superiore Sant'Anna, Neurosci. Institute, Natl. Res. Council, Scuola Normale Superiore, EPFL.*

3:00 O1 **791.15** Neuroprotective effects of melatonin under chronic cerebral hypoperfusion, in rats. G. LETECHIPIA-VALLEJO*; M. CERVANTES; M. LÓPEZ-RODRÍGUEZ; L. FLORES-DOMÍNGUEZ; V. ZAMORA-LANDA; M. OLVERA-CORTES. *UNIVERSIDAD MICHOACANA, UNIVERSIDAD MICHOACANA, UNIVERSIDAD MICHOACANA, Inst. Mexicano del Seguro Social.*

4:00 O2 **791.16** Hyaluronic acid hydrogel combined with cell therapy in experimental stroke. L. SIMOES BRAGA BOISSERAND*; J. PAPASSIN; N. COLLOMB; E. BARBIER; C. ROME; O. DETANTE. *Grenoble Inst. Des Neurosciences, CHU Grenoble.*

1:00 O3 **791.17** Impact of CRHR1 blockade on the expression of BDNF, TRKB, and TH in the VTA following global cerebral ischemia. N. F. NARVAEZ LINARES*; J. ISAA; P. BARRA DE LA TREMBLAYE; H. PLAMONDON. *Univ. of Ottawa.*

2:00 O4 **791.18** Nesting environment impacts hypoxic-ischemic injury in rodents. B. M. MASON*; V. ROMERO; L. ROLLINS; S. LAMOUR; N. WALTON; P. LONDOÑO; S. DONALDSON; S. EID. *Univ. of Massachusetts, Boston.*

3:00 O5 **791.19** ● DS-1040, a novel selective thrombin-activatable fibrinolysis inhibitor does not increase hemorrhagic risk in a mechanical model of stroke in rats. T. ISHRAT; B. PILLAI; A. Y. FOUDA; W. ELDAHSHAN; H. AHMED; K. NOGUCHI*; S. C. FAGAN. *Univ. of Georgia, Charlie Norwood VA Med. Ctr., Daiichi Sankyo Co., Ltd.*

4:00 O6 **791.20** Rescuing the ischemic retina. B. MATHEW*; L. TORRES; S. KEIL; S. ROTH. *Univ. of Illinois At Chicago, Univ. of Illinois.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

1:00 O7 **791.21** Protein synthesis inhibition in the peri-infarct cortex slows motor recovery in rats. M. SCHUBRINGGIESE*; J. HOSP; S. LEEMBURG; A. LUFT. *Univ. of Zurich, Univ. Hosp. of Zurich.*

2:00 O8 **791.22** Quantitative measurements of membrane-bound enzyme activity involved in ischemic damage and neuroprotection. Y. OU*; R. WILSON; B. YIN; S. G. WEBER. *Univ. of Pittsburgh.*

3:00 O9 **791.23** Effects of intranasal Orexin-A treatment on neuroinflammation in an asphyxial cardiac arrest rodent Model. H. R. MODI*; Q. WANG, 21210; E. GREENWALD; A. SAVONENKO; R. GEOCADIN; N. THAKOR. *Johns Hopkins Univ., Johns Hopkins Univ., Johns Hopkins Univ.*

4:00 O10 **791.24** Role of intracellular calcium receptor inositol 1,4,5-triphosphate type 1 (IP3R1) in rat hippocampus after neonatal anoxia. J. M. IKEBARA*; D. S. CARDOSO; B. C. V. DE CAMPOS; T. A. S. BRETHERICK; N. M. M. DIAS; G. S. V. HIGA; S. H. TAKADA; A. H. KIHARA. *Univ. Federal Do ABC, Univ. de Sâo Paulo.*

1:00 O11 **791.25** Polyunsaturated fatty acids potentiates the neuroprotective effect of Cop-1 in a cerebral ischemia/reperfusion model. E. E. GARCIA-VENCES*; K. CANTÚ SALDAÑA; Y. CRUZ MARTINEZ; V. GALVEZ SUSANO; R. DE JESUS BENAVIDES; D. LOERA; C. MORENO; A. IBARRA. *Univ. Anahuac Mexico Norte.*

2:00 O12 **791.26** Differences in the unfolded protein response (UPR) between astroglia and microglia following cerebral global ischemia. E. FONT BELMONTE*; B. ANUNCIBAY-SOTO; M. SANTOS-GALDIANO; P. GONZALEZ-RODRIGUEZ; M. REGUEIRO-PURRIÑOS; A. FERNANDEZ-LOPEZ. *Univ. de Leon, Inst. de Biomedicina.*

3:00 O13 **791.27** ● Unfolded protein response (UPR) and autophagy are involved in the neuroprotection after focal cerebral ischemia mediated by 2-hydroxyarachidonic acid. I. F. UGIDOS*; P. GONZÁLEZ-RODRÍGUEZ; B. ANUNCIBAY-SOTO; D. PÉREZ-RODRÍGUEZ; M. SANTOS-GALDIANO; X. BUSQUETS; A. FERNÁNDEZ-LÓPEZ. *Univ. de Leon. Inst. de Biomedicina., Biología Celular, IUNICS. Univ. des Illes Balears.*

4:00 O14 **791.28** ● The treatment with the neuroprotective agent, 2-hydroxyarachidonic acid, after transient focal cerebral ischemia restores the ischemia-induced increases in free fatty acid levels. A. FERNANDEZ-LOPEZ*; I. F. UGIDOS; M. IBARGUREN; D. J. LÓPEZ; M. PADILLA-MARCOS; C. JAUME-BOUZÁ; P. V. ESCRIBÁ. *Univ. de Leon, Inst. de Biomedicina, Biología Celular, IUNICS. Univ. des Illes Balears.*

POSTER

792. Ischemia and Hemorrhage: Translational Studies

Theme C: Neurodegenerative Disorders and Injury

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 O15 **792.01** ● Chronic anemia is associated with significant white matter atrophy. S. CHOI; J. COLOGNIER; A. D. BUSH; T. D. COATES; R. I. WOOD*; J. C. WOOD. *USC, USC, USC, Keck Sch. Med. USC.*

2:00 O16 **792.02** Leukocyte response is regulated by microRNA let7i in patients with acute ischemic stroke. G. JICKLING*; B. P. ANDER; N. SHROFF; B. STAMOVA; C. DYKSTRA-AIELLO; X. SHAN; D. LIU; F. R. SHARP. *Univ. of California Davis.*

3:00 O17 **792.03** Withdrawn.

4:00 O18 **792.04** ▲ Cellular mechanisms underlying the ischemic damage in area CA3 of the hippocampus. C. TECUATL TOLAMA*; E. J. GALVAN ESPINOSA. *CINVESTAV Sede Sur.*

1:00 P1 **792.05** *In situ* expression of pluripotency factors improves functional recovery by hippocampal neurogenesis and synaptic plasticity in hypoxic-ischemic brain injury. S. WI*; J. SEO; J. YU; Y. SHIN; M. KIM; S. CHO. *Yonsei Univ. Col. of Med., Brain Korea 21 PLUS Project for Med. Science, Yonsei Univ. Col. of Med.*

2:00 P2 **792.06** Quality and quantity mononuclear cells rescue peri-infarct lesion during acute stroke phase. T. NAKAYAMA*. *Tokai Univ.*

3:00 P3 **792.07** Post-stroke intranasal (+)-naloxone reduces microglial activation and improves behavioral recovery in rat model of stroke. J. E. ANTTILA*; K. ALBERT; E. S. WIRES; K. MÄTLIK; L. LORAM; L. WATKINS; K. RICE; Y. WANG; B. K. HARVEY; M. AIRAVAARA. *Inst. of Biotechnology, Univ. of Helsinki, Intramural Res. Program, Natl. Inst. on Drug Abuse, NIH, Univ. of Colorado.*

4:00 P4 **792.08** Chronic cerebral hypoperfusion rodent model by bilateral ICA ligation in different species for hemodynamic assessment of human moyamoya disease. K. LEE*; Y. KWON; G. PARK; E. CHOI; B. YUN; J. LEE; J. HONG. *Dept. of Neurology, Ajou Univ. Sch. of Med., Suwon.*

1:00 P5 **792.09** Acute but not delayed caffeine administration offers neuroprotection in a mouse model of neonatal hypoxic ischemic brain injury. E. DI MARTINO*; M. WINERDAL; M. E. WINERDAL; B. B. FREDHOLM; O. WINQVIST; U. ÅDÉN. *Karolinska Institutet, Karolinska Institutet, Karolinska Institutet.*

2:00 P6 **792.10** ● Anti-neuroprotective effects on neuronal damage following transient forebrain ischemia by garlic extract treatment. S. YI*; D. YOO; I. HWANG. *SoonChunHyang Univ., Seoul Natl. Univ.*

3:00 P7 **792.11** Identification of new chemical drugs to protect ischemic brain injury based on the inhibition of AMP-activated protein kinase. J. EOM; T. KIM; B. SEO; J. KOH; Y. KIM*. *Sejong Univ., Univ. of Ulsan Col. of Med.*

4:00 P8 **792.12** Therapeutic potential of a STEP-derived peptide in cerebral ischemia. S. RAJAGOPAL; R. PODDAR; L. WINTER; A. M. ALLAN; S. PAUL*. *Univ. of New Mexico, Univ. of New Mexico, Univ. New Mexico.*

1:00 P9 **792.13** Newborn piglet brain slices for studying cellular mechanism in cerebral palsy. V. RANCIC*; A. RUANGKITTISAKUL; B. RAWAL; J. TURNER; P. CHEUNG; K. BALLANYI. *Univ. of Alberta, Univ. of Alberta.*

2:00 P10 **792.14** B cell-neuronal interactions induce neuroprotection in an *in-vitro* stroke model. V. TORRES*; S. B. ORTEGA; X. KONG; A. M. STOWE. *UT Southwestern.*

3:00 P11 **792.15** Activated protein C (APC) in the acute phase suppresses the development of cerebral infarction after focal cerebral ischemia. K. YAMATO*; Y. NAKAJO; H. YAMAMOTO–IMOTO; K. KOKAME; T. MIYATA; H. KATAOKA; J. C. TAKAHASHI; H. YANAMOTO. *Natl. Cerebral and Cardiovasc. Ctr., Res. Laboratory, Rakuwa–kai Otowa Hosp., Natl. Cerebral and Cardiovasc. Ctr., Natl. Cerebral and Cardiovasc. Ctr., Osaka Univ. Grad. Sch. of Med.*

4:00 P12 **792.16** Spatiotemporal synchrony predicts brain viability in a rodent model of ischemic stroke. E. G. WANN*; N. S. JACOBS; R. D. FROSTIG. *Univ. of California Irvine Dept. of Neurobio. and Behavior.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

1:00 Q1 **792.17** Association between diabetes &lt chronic cerebral hypoperfusion induces cognitive impairments &lt enhances microglia expression in the hippocampus of middle aged rats. A. N. HUBNER*; E. D. F. FERREIRA; R. M. M. W. OLIVEIRA; H. MILANI. *State Univ. of Maringa.*

2:00 Q2 **792.18** ● Inhibiting post-stroke neuroinflammation by ischemia-targeted complement modulation limits acute injury and promotes motor and cognitive recovery after murine stroke. A. ALAWIEH*; F. LANGLEY; L. KULIK; M. HOLERS; S. TOMLINSON. *Med. Univ. of South Carolina, Univ. of Colorado Sch. of Med., Ralph H. Johnson VA Med. Ctr.*

3:00 Q3 **792.19** Modeling upper extremity impairments after subcortical white matter stroke in rats: Forelimb strength and skill decrements in an isometric pull task after focal infarcts of the posterior limb of the internal capsule. E. NUDI*; B. R. BARKSDALE; S. K. YOUNG; T. A. JONES. *Univ. of Texas at Austin, Univ. of Texas at Austin, Univ. of Texas at Austin.*

4:00 Q4 **792.20** Optogenetic stimulation improves iPS-NPCs transplantation therapy after ischemic stroke. D. CHEN; Z. Z. WEI; K. BERGLUND; X. GU; M. SONG; O. MOHAMAD; S. YU*; L. WEI. *Emory Univ., Ctr. for Visual and Neurocognitive Rehabilitation, Atlanta VA Med. Ctr., Neurol., Emory Univ. Sch. Med.*

1:00 Q5 **792.21** Ripk mediates outcome after intracerebral hemorrhage in mice. S. LULE*; L. M. MCALLISTER; Y. ZHENG; L. WU; J. BERTIN; M. J. WHALEN. *Mgh/Harvard Med. Sch., GlaxoSmithKline.*

2:00 Q6 **792.22** BMP-4 expression by pericytes after ischemia aggravates white matter damage. M. UEMURA*. *Kyoto Univ.*

3:00 Q7 **792.23** Post stroke dietary supplementation of omega3 polyunsaturated fatty acids combined with docosahexaenoic acid treatment promote neurological recovery in aged mice after cerebral ischemia. X. JIANG*; J. SUENAGA; H. PU; Z. WENG; Y. SHI; X. HU; J. CHEN. *Inst. of Brain Disorders & Recovery, State Key Lab. of Med. Neurobio. and Inst. of Brain Sciences,Fudan Univ., Inst. of Brain Disorders & Recovery, Univ. of Pittsburgh Sch. of Med., Geriatric Research, Educational and Clin. Center, Veterans Affairs Pittsburgh Hlth. Care Syst.*

4:00 Q8 **792.24** Lacunar stroke in the rat using an optrode and rose bengal causes selective lesion of the forelimb representation of the internal capsule. T. WEN*; A. SINDHURAKAR; V. CONTRERAS; H. PARK; J. B. CARMEL. *Burke Med. Res. Inst., Weill Med. Col. of Cornell Univ.*

1:00 Q9 **792.25** ● Effect of systemic hemopexin therapy after intracerebral hemorrhage. Y. CAO; Z. YAN; J. CHEN-ROETLING; R. F. REGAN*. *Thomas Jefferson Univ.*

2:00 Q10 **792.26** Quantifying deficits in forelimb force generation using an automated skilled reaching task after middle cerebral artery occlusion in rats. K. S. VALENZUELA*; N. MITTAL; T. A. JONES; T. SCHALLERT. *The Univ. of Texas At Austin.*

3:00 Q11 **792.27** ▲ Learned-subordinate use of the paretic forelimb after motor cortical infarcts in rats: Effects of prior task experience. D. MILLER*; K. V. TRUONG; E. T. NUDI; T. A. JONES. *Univ. of Texas At Austin, Univ. of Texas At Austin, Univ. of Texas At Austin, Univ. of Texas At Austin.*

POSTER

793. Ischemia: Human

Theme C: Neurodegenerative Disorders and Injury

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 Q12 **793.01** Cerebral blood flow is impaired in concussed rugby players immediately following injury and affected by previous concussion history. J. M. SERRADOR*; M. FALVO. *Rutgers.*

2:00 Q13 **793.02** The effects of concussion-prone athletics on the brain: A comparison of football, cross-country, and socioeconomically matched non-athletes using diffusion-imaging. B. A. CARON; D. A. KELLAR; F. PESTILLI; H. CHENG; S. D. NEWMAN; N. L. PORT*. *Indiana Univ., Indiana Univ., Indiana Univ.*

3:00 Q14 **793.03** Resting-state MEG reveals different patterns of aberrant functional connectivity in combat-related mild traumatic brain injury. M. HUANG*; D. L. HARRINGTON; A. ROBB SWAN; A. ANGELES; S. NICHOLS; A. DRAKE; T. SONG; M. DIWAKAR; C. W. HUANG; V. B. RISBROUGH; A. DALE; H. BARTSCH; R. LEE; D. G. BAKER. *UCSD, VA San Diego Healthcare Syst., Univ. of California San Diego, Naval Med. Ctr., UCSD, UCSD, UCSD, VA Ctr. of Excellence for Stress and Mental Hlth.*

4:00 R1 **793.04** Melatonin attenuates traumatic brain injury induced inflammation. J. JI*. *Nanjing Med. Univ.*

1:00 R2 **793.05** Speech comprehension in patients with persistent vegetative state : A neuroimaging approach. Y. OKAHARA*; K. UTSUMI; K. TAKANO; K. ODAKA; Y. UCHINO; K. KANSAKU. *Res. Inst. of NRCD, Chiba Univ. Grad. Sch. of Med., Brain Res. Institute, Niigata Univ., Chiba Ryogo Ctr., Univ. of Electro-Communications.*

2:00 R3 **793.06** Returning to form: Factors affecting sleep disturbance duration and recovery following traumatic brain injury. N. R. GRIFFIN*; E. WICKWIRE; G. T. MANLEY; P. MUKHERJEE; J. YUE; M. VASSAR; W. A. GORDON; D. O. OKONKWO; A. B. VALADKA; D. M. SCHNYER. *The Univ. of Texas At Austin, Univ. of Maryland, Univ. of California, San Francisco, Icahn Sch. of Med. at Mount Sinai, Univ. of Pittsburgh, Virginia Commonwealth Univ.*

3:00 R4 **793.07** ● An arterial spin labeling demonstration of decreased functional connectivity following mild traumatic brain injury. N. M. WISEMAN*; A. IRAJI; E. HAACKE; Z. KOU. *Wayne State Univ., Wayne State Univ., Wayne State Univ., Wayne State Univ.*

4:00 R5 **793.08** Evidence for neuroreparative mechanisms after a season of concussion-naive play in female varsity rugby players. K. Y. MANNING*; K. BLACKNEY; A. BROWN; L. FISCHER; R. BARTHA; T. DOHERTY; A. SCHRANZ; C. BARREIRA; D. FRASER; J. HOLMES; G. DEKABAN; R. MENON. *Univ. of Western Ontario, Univ. of Western Ontario, Univ. of Western Ontario, Fowler Kennedy Sport Med., Univ. of Western Ontario, London Hlth. Sci. Ctr., Univ. of Western Ontario.*

1:00 R6 **793.09** Cognitive function in contact sport: Effects of cumulative head impact exposure and chronic athletic involvement. D. BREWER DELUCE*; T. D. WILSON; A. M. OWEN. *The Univ. of Western Ontario, The Univ. of Western Ontario.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

2:00 R7 **793.10** Frontal pole cortical deficits in mild, moderate, and severe traumatic brain injuries. C. EIERUD*; D. E. NATHAN; T. TESLOVICH; G. RIEDY; G. BONAVIA; J. OLLINGER. *Natl. Intrepid Ctr. of Excellence, North Tide LLC, Sage Consulting.*

3:00 R8 **793.11** ● The accuracy of head impact sensors and concussion assessment tools in collegiate football players. A. D. REBCHUK*; H. J. BROWN; G. P. SIEGMUND; J. BLOUIN. *The Univ. of British Columbia, MEA Forensic Engineers & Scientists, Djavad Mowafaghian Ctr. for Brain Hlth., The Inst. for Computing, Information, and Cognitive Systems.*

4:00 R9 **793.12** The effects of concussion-prone athletics on brain function: A comparison of football, cross-country, & socioeconomically matched non-athletes using fMRI. D. A. KELLAR, 47405; B. A. CARON; N. PORT; F. PESTILLI; H. CHENG; S. D. NEWMAN*. *Indiana Univ., Indiana Univ.*

1:00 R10 **793.13** Effects of caffeine and hypothermia on neuropathology in P6 rats with experimentally induced hypoxic ischemic brain injury. A. L. SMITH*; M. POTTER; H. M. CONTRERAS-MORA; T. S. ROSENKRANTZ; R. H. FITCH. *Univ. of Connecticut, The Univ. of Connecticut Hlth. Ctr.*

2:00 R11 **793.14** Metal-metal interactions in zinc-induced neurotoxicity: The possible involvements in the pathogenesis of vascular dementia. M. KAWAHARA*; D. MIZUNO; K. TANAKA. *Musashino Univ., Yamagata Univ.*

3:00 R12 **793.15** Could sildenafil repair hippocampal brain injuries in term neonatal encephalopathy? A. A. YAZDANI*; P. BALIAN; Z. KHOJA; K. CUI; G. LUHESHI; P. WINTERMARK. *Montreal Childrens Hosp., Douglas Mental Hlth. Univ. Inst.*

4:00 R13 **793.16** Inhibition of sustained TRPM2 channel activity represents a novel neuro-restorative strategy to improve memory function after global cerebral ischemia. R. M. DIETZ*; J. E. ORFILA; G. DENG; P. S. HERSON. *Neuronal Injury Program, Univ. of Colorado, Univ. of Colorado.*

1:00 R14 **793.17** Vasodilatory regulation failure in transient postischemic hyperperfusion in rats. K. NAKAMURA*; T. MUTOH; K. SASAKI; Y. TAKI; T. ISHIKAWA; T. KINOSHITA. *Res. Inst. For Brain & Blood Vessels Akita, Inst. of Development, Aging and Cancer, Tohoku Univ., Inst. of Development, Aging and Cancer, Tohoku Univ.*

2:00 R15 **793.18** ▲ Chronic MRI abnormalities in adult rats following *in utero* insult: Modeling the brain injury associated with chorioamnionitis. T. R. YELLOWHAIR*; S. ROBINSON; L. L. JANTZIE. *Univ. of New Mexico Sch. of Med., Johns Hopkins Univ.*

3:00 R16 **793.19** Microrna-210/iscu axis mediates neuronal cell death in neonatal hypoxic-ischemic brain injury. Q. MA*; Y. LI; C. DASGUPTA; L. ZHANG. *Loma Linda Univ.*

4:00 R17 **793.20** Inflammation and vulnerable blood vessels aggravate ischemic injuries in a mouse model of Type 1 diabetes. A. C. LO*; A. K. W. LAI. *Dept. of Ophthalmology, The Univ. of Hong Kong.*

1:00 S1 **793.21** Responses of human mesenchymal stem/stromal cells on brain ischemia. H. OHTAKI*; S. TANIGUCHI; Y. TANAKA; J. WATANABE; K. MIYAMOTO; A. YOSHIKAWA; K. DOHI; K. HONDA. *Showa Univ. Sch. of Med., Showa Univ. Sch. of Med., Showa Univ. Sch. of Med., Showa Univ. Fujigaoka Hosp., Showa Univ. Sch. of Med., Tokyo Jikei Univ. Sch. of Med.*

2:00 S2 **793.22** Synaptic and glial modifications induced by perinatal asphyxia. F. CAPANI*; M. HERRERA; A. GONZALEZ; C. QUARRACINO; S. MUCCI; R. KOLLIKERS-FRERS. *Inst. Inv. Cardiológicas, UBA-CONICET, Univ. Católica Argentina-CIPP, Univ. Maimonides , Facultad de Farmacia y Bioquimica.*

3:00 S3 **793.23** ▲ Resveratrol sustain neuronal survival through AMPK activation. A. P. RAMIREZ*, SR; I. ALQUISIRAS-BURGOS; A. ORTIZ-PLATA; J. PEDRAZA-CHAVERRÍ; P. AGUILERA. *Inst. Nacional De Neurología Y Neurocirugía Ma, Inst. Nacional De Neurología Y Neurocirugía Ma, Inst. Nacional De Neurología Y Neurocirugía Ma, Univ. Nacional Autónoma de México.*

4:00 S4 **793.24** Alternative splicing of leukocyte mRNAs differs after intracerebral hemorrhage and ischemic stroke of different etiologies. C. J. DYKSTRA-AIELLO*; G. C. JICKLING; B. ANDER; X. ZHAN; D. LIU; H. HULL; M. ORANTIA; C. HO; F. R. SHARP; B. S. STAMOVA. *Univ. of California, Davis.*

1:00 S5 **793.25** The role of α-synuclein in mediating secondary ischemic brain damage. T. KIM*; S. MEHTA; B. KAIMAL; K. LYONS; R. VEMUGANTI. *Univ. of Wisconsin - Madison.*

2:00 S6 **793.26** The functional assessment of edaravone-induced neuroprotection after hypoxic insults. T. MORITA*; S. SHIBUTA; J. KOSAKA; Y. FUJINO. *Osaka Univ. Grad. Sch. of Med., Ctr. for Med. Science, Intl. Univ. of Hlth. and Welfare.*

3:00 S7 **793.27** Impaired cholinergic function following orthopedic surgery. H. HUANG*; L. WAN; A. RAJAN; N. SCHWAB; J. TANNER; C. PRICE; M. DING. *Univ. of Florida, Univ. of Florida.*

4:00 S8 **793.28** Differential regulation of VEGF co-receptors in the hypoxic developing mouse brain in response to exogenous stimulation of the hypoxia-inducible transcription factor (HIF) system. R. TROLLMANN*; G. BOIE; M. RICHTER; F. BRACKMANN; S. JUNG. *Univ. of Erlangen.*

1:00 S9 **793.29** Methylene blue promotes cortical neurogenesis following photothrombotic stroke in rats. D. G. L. TUCKER; M. AHMED; Y. DONG; Y. LU; R. WANG; Q. ZHANG*. *Augusta Univ.*

POSTER

794. Injury and Trauma I

Theme C: Neurodegenerative Disorders and Injury

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 S10 **794.01** Improved group differentiation of adolescent traumatic brain injury using multi-modal registration and automatic multi-atlas tract extraction (automate) toolkit. F. RASHID*; E. L. DENNIS; J. VILLALON-REINA; G. PRASAD; J. FASKOWITZ; T. BABIKIAN; R. MINK; C. BABBITT; J. JOHNSON; C. GIZA; R. ASARNOW; P. THOMPSON. *USC, USC, UCLA, UCLA, Miller Children's Hosp., LAC+USC Med. Ctr.*

2:00 S11 **794.02** ● Test-retest reliability of KINARM robot assessments of sensorimotor and cognitive function in elite athletes: Towards the assessment of sport-related concussion. C. MANG*; T. D. MAH; M. S. COSH; S. H. SCOTT; B. W. BENSON; S. P. DUKELOW. *Univ. of Calgary, Winsport Med. Clin., Queen's Univ.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 S12 **794.03** Characterization of iron deposition changes in cerebral regions of young athletes using susceptibility-weighted imaging. X. MAO*; B. JOHNSON; T. M. TALAVAGE; S. SLOBOUNOV. *Purdue Univ., The Pennsylvania State Univ., Purdue Univ., The Pennsylvania State Univ.*

4:00 S13 **794.04** The neural correlates of loss of consciousness during vector memory. A. D. SPADONI*; I. A. STRIGO; A. N. SIMMONS. *UCSD, Veterans Affairs San Diego Healthcare Syst, SFVAMC.*

1:00 S14 **794.05** Neural basis of cognitive impairments in patient with diffuse axonal injury. S. UBUKATA*; N. OISHI; G. SUGIHARA; W. YASSIN; T. ASO; H. FUKUYAMA; T. MURAI; K. UEDA. *Kyoto Univ., Kyoto Univ., Kyoto Univ., Tokyo Univ.*

2:00 T1 **794.06** 40-Hz auditory steady-state responses in patients with disorders of consciousness: Positive correlation between Coma Recovery Scale-Revised results and phase-locking index. M. BINDER; U. GÓRSKA; I. GRISKOVA-BULANOVA*. *Jagiellonian Univ., Vilnius Univ.*

3:00 T2 **794.07** Leucovorin decreases radiation-induced brain injury in nasopharyngeal carcinoma patients: A retrospective analysis. Z. LIANG; S. WANG; C. WANG; S. FENG; J. HUANG; Y. YANG; M. KANG; Y. KUANG; F. JIA; M. XIE; C. FIDELIS; S. ULLAH; F. M. SESSLER*; W. GAO; Z. CHENG; F. LI. *Zhongshan Sch. of Medicine, Sun Yat-sen Univ., The Fifth Affiliated Hosp. of Sun Yat-sen Univ., Zhuhai Inst. of Med. Science, China, The Fifth Affiliated Hosp. of Sun Yat-sen University, China, The First Affiliated Hosp. of Sun Yat-sen University, China, The Fifth Affiliated Hosp. of Sun Yat-sen University, China, Drexel Univ. Col. of Med.*

4:00 T3 **794.08** Dynamic virtual environments in the computer assisted rehabilitation environment (CAREN): Developing novel assessments for service members with comorbid mild traumatic brain injury and post traumatic stress disorder. M. M. ONAKOMAIYA*; M. M. PAPE; K. B. HIGHLAND; D. S. CLAYBORNE; S. E. KRUGER. *Walter Reed Natl. Military Med. Ctr., Cherokee Nation Technol. Solutions, Def. and Veterans Ctr. for Integrative Pain Mgmt., Uniformed Services Univ. of the Hlth. Sci., Henry M. Jackson Fndn.*

1:00 T4 **794.09** Day-time sleepiness after mild traumatic brain injury correlates to initial IGF-1 level. Y. CHIANG*; S. TSAI; W. CHIU; K. LIAO; J. WU; K. CHEN. *Taipei Med. Univ., Taipei Med. Univ., Wan Fang Hosp., Taipei Med. Univ.*

2:00 T5 **794.10** Meg decision-making network differences in veterans with PTSD and TBI. J. R. STAPLETON-KOTLOSKI*; J. A. ROWLAND; I. MCGOWIN; J. V. RAWLEY; G. ALBERTO; D. W. GODWIN; K. TABER. *Wake Forest Univ. Sch. of Med., W.G. Hefner VAMC, Wake Forest Univ. Sch. of Med., Wake Forest Univ. Sch. of Med., Wake Forest Univ. Sch. of Med., Wake Forest Univ. Sch. of Med., W.G. Hefner VAMC.*

3:00 T6 **794.11** The effects of aerobic exercise on corticospinal excitability in high versus low physically active individuals. J. EL-SAYES*; T. LULIC; H. J. FASSETT; A. J. NELSON. *McMaster Univ.*

4:00 T7 **794.12** ● Fetal neuronal exosome miR-9 and its downstream targets BDNF, REST and Synapsin: Robust non-invasive maternal biomarkers of ETOH mediated fetal brain injury. N. DARBINIAN*; E. J. GOETZL; N. MERABOVA; E. LAURETTI; G. TATEVOSIAN; D. MARTIROSYAN; L. GOETZL. *Lewis Katz Sch. of Med. at Temple Univ., Ctr. for Neural Repair and Rehabilitation, Shriners Hosp. Pediatric Res. Center, Lewis Katz Sch. of Med. at Temple Univ., Univ. of California, Obstetrics & Gynecology, Lewis Katz Sch. of Med. at Temple Univ.*

1:00 T8 **794.13** Minocycline reduces chronic microglial activation following traumatic brain injury. D. J. SHARP*; A. JOLLY; J. COLE; P. JENKINS; M. PATEL; A. P. GOLDSTONE; R. GUNN; P. MATTHEWS; G. SCOTT. *Imperial Col. London.*

2:00 T9 **794.14** The auditory steady-state response can be a predictable index of conscious outcome in patients with severe head injury in the early stage. S. HIRANO*. *Osaka Dent. Univ.*

3:00 T10 **794.15** Neural and epigenetic contributions to posttraumatic stress symptoms: The influence of hippocampal volume and glucocorticoid receptor gene methylation. M. W. MCNERNEY*; T. SHENG; A. LEE; D. LYONS; S. SOMAN; J. NECHVATAL; J. HALLMAYER; R. O'HARA; W. ASHFORD; J. YESAVAGE; M. ADAMSON. *VA, Stanford Med. Sch., Beth Isreal, Dept. of Defence.*

4:00 T11 **794.16** Preliminary expression profiling of τ-positive cholinergic basal forebrain neurons in the nucleus basalis of Meynert in postmortem chronic traumatic encephalopathy brain: A Chronic Effects of Neurotrauma Consortium Study. E. J. MUFSON*; S. E. PEREZ; B. HE; S. LEE; E. PETRKOVA; A. C. MCKEE; S. D. GINSBERG. *Barrow Neurolog. Inst., Nathan Kline Inst., New York Univ. Langone Med. Ctr., Boston Univ. Sch. Med.*

1:00 T12 **794.17** Preventing mild traumatic brain injury in women's soccer: An assessment of the relationship between cerebrovascular reactivity changes and daily loading. D. O. SVALDI*; E. C. MCCUEN; J. P. E. MUSIC; C. JOSHI; E. A. NAUMAN; T. M. TALAVAGE. *Purdue Univ., Purdue Univ., Purdue Univ., Purdue Univ., Purdue Univ.*

2:00 T13 **794.18** Concussion alters basal cerebral blood flow and reactive capacity: A dual-echo pCASL fMRI study. C. I. MARK*; A. CHAMPAGNE; A. BHOGAL; I. JOHNSRUDE; D. COOK. *Queen's Univ., Univ. Med. Ctr. Utrecht, Univ. of Western Ontario.*

3:00 T14 **794.19** The influence of aerobic exercise on intracortical circuits in high versus low physically active individuals. T. LULIC*; J. EL-SAYES; F. J. HUNTER; A. J. NELSON. *McMaster Univ., McMaster Univ.*

4:00 T15 **794.20** Brain structure in premature infants: Liberal vs. restricted red blood cell transfusions. A. V. TERESHCHENKO*; A. METZGER; V. MAGNOTTA; J. WIDNESS; P. NOPOULOS. *Univ. of Iowa, Univ. of Iowa, Univ. of Iowa.*

1:00 T16 **794.21** Executive dysfunction associated with greater number of lifetime concussions in amateur soccer players. L. E. HUNTER*; M. LIPTON. *Albert Einstein Col. of Med., Albert Einstein Col. of Med.*

2:00 T17 **794.22** Unsupervised diffusion component analysis in post-traumatic epilepsy. D. DUNCAN*; P. VESPA; A. W. TOGA. *USC, UCLA, USC.*

3:00 T18 **794.23** How do the dynamics of functional brain connectivity change during recovery from traumatic brain injury? J. S. CRONE*; P. M. VESPA; E. E. LUTKENHOFF; M. M. MONTI. *UCLA, UCLA.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
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* Indicates abstract's submitting author

POSTER

795. Injury and Trauma II

Theme C: Neurodegenerative Disorders and Injury

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 U1 **795.01** ● Evaluation of a wearable head-up display assisted spine instrumentation system. R. CHEN*; P. K. HAN; P. SI; W. D. FREEMAN; S. M. PIRRIS; J. W. YOON. *Georgia Inst. of Technol., Mayo Clin., St Vincent's Spine and Brain Inst.*

2:00 U2 **795.02** ● A quantitative motor assessment with normative data for traumatic brain injury. P. K. JOHNSON*; C. J. KINCAID; S. D. GRIMSHAW; E. D. BIGLER; S. K. CHARLES. *Brigham Young Univ., Brigham Young Univ., Brigham Young Univ., Brigham Young Univ.*

3:00 U3 **795.03** Estimation of single subject fMRI reproducibility. J. M. JANSMA*; G. RUTTEN. *Elisabeth Hosp., Elisabeth Tweesteden Hosp.*

4:00 U4 **795.04** Disrupted γ synchrony after mild traumatic brain injury and its link with cerebellar white matter damage. C. WANG*; M. E. COSTANZO; D. KEYSER; K. BASHIRELAHI; D. DARMON; D. L. PHAM; M. J. ROY; P. RAPP. *HJF/USUHS, HJF/USUHS, USUHS, The Henry M. Jackson Fndn., USUHS.*

1:00 U5 **795.05** Withdrawn.

2:00 U6 **795.06** pyMIND: Open-source, python-based multimodal integrated neural data acquisition for conducting basic science research in neurointensive care units. U. AGRAWAL*; A. C. OYALOWO; A. PILLING; S. LEE; W. F. ASAAD. *Brown Univ., Brown Univ., NIH, Brown Univ., Alpert Med. Sch., Rhode Island Hosp., Rhode Island Hosp.*

3:00 U7 **795.07** Pain susceptibility after trauma: Physical, psychological or premorbid. I. STRIGO*; A. SPADONI; S. INSLICHT; A. SIMMONS. *UC San Francisco, SFVAMC, US San Diego, SDVAHS.*

4:00 U8 **795.08** ● Magnetoencephalography shows hemisphere compensation in a case of penetrating head injury caused by a metal rod. G. RABELLO*; K. WALTON; R. ROZENTAL; R. M. C. DA SILVA FILHO; R. LLINÁS. *New York Univ. Sch. of Med., CDTS/FIOCRUZ, Univ. Federal do Rio de Janeiro, Hosp. Municipal Miguel Couto.*

1:00 U9 **795.09** A putative panel of PTSD signatures consisting of proteins and differentially methylated probes. N. CHAKRABORTY; R. KUMAR; J. L. MEYERHOFF*; R. YANG; A. GAUTAM; S. MUHIE; D. ABU AMARA; R. YEHUDA; F. DOYLE; O. WOLKOWITZ; S. MELLON; C. MARMAR; R. HAMMAMIEH; M. JETT. *USACEHR, 3Advanced Biomed. Cancer Research, Natl. Cancer Res., Georgetown Univ., 5Steven and Alexandra Cohen Veterans Ctr. for the Study of Posttraumatic Stress and Traumatic Brain Injury, Dept. of Psychiatry, NYU Sch. of Med., Dept. of Psychiatry, Mount Sinai Sch. of Med., Dept. of Computer Science, Univ. of California Santa Barbara, Dept. of Psychiatry, Univ. of California San Francisco.*

2:00 U10 **795.10** PTSD and mTBI result in perturbations to magnetoencephalographic resting-state spectral connectivity. B. DUNKLEY*; E. W. PANG; M. J. TAYLOR. *The Hosp. For Sick Children.*

3:00 U11 **795.11** Combining diffusion tensor imaging and robotics to assess structural changes and sensorimotor recovery following sport-related concussion. A. CHAMPAGNE*; N. COVERDALE; H. BRETZKE; C. MARK; J. NASHED; S. SCOTT; D. COOK. *Queen's Univ., Queen's Univ.*

4:00 U12 **795.12** Striatal dopamine transporter regulation in obesity. C. WU*; S. P. GARAMSZEGI; X. XIE; D. MASH. *Univ. of Miami, Univ. of Miami.*

1:00 U13 **795.13** Physiological consequences of mild traumatic brain injury in individuals with acute and chronic symptoms. A. L. YASEN; E. K. EDWARDS; M. M. LIM; K. B. WEYMANN; A. D. CHRISTIE*. *Univ. of Oregon, VA Portland Hlth. Care Syst., Oregon Hlth. & Sci. Univ.*

2:00 U14 **795.14** ●▲Pain-related white matter tract deficit in patients with mTBI related persistent headache. M. LIM*; A. KHALAF; Z. YANG; V. METZGER-SMITH; J. CORDERO; Y. HE; S. SHUKLA; L. LIN; D. SONG; R. LEE; G. POLSTON; A. TSAI; A. LEUNG. *UCSD, VA San Diego Healthcare Syst.*

3:00 U15 **795.15** Electrophysiological markers of variations in perceptual and cognitive processing in coma. R. L. MAH*; J. F. CONNOLLY; A. E. FOX-ROBICHAUD; C. HAMIELEC. *McMaster Univ.*

4:00 U16 **795.16** Mild traumatic brain injury patients recruit compensatory mechanisms to integrate visual information. T. RUIZ*; D. SPIEGEL; A. BALDWIN; R. HESS; R. FARIVAR-MOHSENI. *McGill MUHC, McGill MUHC.*

1:00 U17 **795.17** ● Alcohol dependence after blast versus non-blast TBI in an OEF/OIF veteran population. B. ARYANFAR*; K. PANIZZON; A. PAPAZYAN; C. SPINELLI; A. SHINDE; R. WALLIS. *VA Greater Los Angeles Healthcare Syst., VA Greater Los Angeles Healthcare Syst., David Geffen UCLA Sch. of Med., Univ. of California, Santa Barbara, David Geffen UCLA Sch. of Med.*

2:00 U18 **795.18** Diverging trajectories in children after traumatic brain injury: Predicting outcomes. E. L. DENNIS*; F. RASHID; M. ELLIS; T. BABIKIAN; J. VILLALON-REINA; Y. JIN; A. OLSEN; R. MINK; C. BABBITT; J. JOHNSON; C. GIZA; P. THOMPSON; R. ASARNOW. *Imaging Genet. Center, SNII, Keck Som USC, UCLA, Norwegian Univ. of Sci. and Technol., Harbor-UCLA Med. Ctr. and Los Angeles BioMedical Res. Inst., Miller Children's Hosp., LAC+USC Med. Ctr., UCLA Brain Injury Res. Ctr.*

3:00 V1 **795.19** The relationship between overt responsiveness and white matter abnormalities in patients with disorders of consciousness. C. A. STAFFORD*; A. OWEN; D. FERNÁNDEZ-ESPEJO. *Univ. of Western Ontario, Univ. of Birmingham.*

4:00 V2 **795.20** ● Accumulated head trauma predicts longitudinal white matter diffusion alterations in college athletes. A. R. ASTURIAS*; M. CIESLAK; L. VOLZ; C. GREENE; J. D. RALSTON; S. T. GRAFTON. *Univ. of California Santa Barbara, Univ. of California Santa Barbara, X2 Biosystems.*

1:00 V3 **795.21** Sensory connectivity and lesion type predict hand function in children with unilateral spastic cerebral palsy. D. GUPTA*; A. BARACHANT; A. M. GORDON; H. KUO; J. B. CARMEL; K. M. FRIEL. *Burke-Cornell Med. Res. Inst., Weill Cornell Med. Col. of Cornell Univ., Columbia Univ., Blythedale Children's Hosp.*

2:00 V4 **795.22** ▲ Heart rate, minute ventilation, and maximum oxygen uptake in healthy and post-concussed collegiate female athletes. D. C. MALLOY*; S. ADAMS. *Pfeiffer Univ., Pfeiffer Univ.*

3:00 V5 **795.23** Role of subconcussive head impacts in pre- and postseason changes in SCAT3 scores. A. SHAH*; B. STEMPER; R. CHIARIELLO; A. LAROCHE; Y. WANG; L. NELSON; M. MCCREA. *Med. Col. of Wisconsin, Med. Col. of Wisconsin.*

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* Indicates abstract's submitting author

4:00 V6 **795.24** Comparison of age-related brain atrophy in elderly East Asians and Caucasians. H. JANG*; H. KIM; H. LEE; K. KIM. *Brain and Cognitive Sciences, Seoul Natl. Univ., Univ. of Ulsan.*

1:00 V7 **795.25** A brain-computer interface for communication with DOC patients. C. GUGER*; B. ALLISON. *g.tec Guger Technologies OG, Guger Technologies OG.*

2:00 V8 **795.26** Differentiation of emotional trauma and loss of consciousness through examination of cortical thickness. A. SIMMONS*; A. D. SPADONI; R. KLAMING; I. STRIGO. *UCSD, SDVAHS, UCSF, SFVAHS.*

3:00 V9 **795.27** ● Interactions between COMTval158met polymorphism and trauma history in Active-Duty Marines: A role in the development of PTSD. J. DESLAURIERS*; D. T. ACHESON; M. A. GEYER; D. G. BAKER; C. NIEVERGELT; V. B. RISBROUGH. *Univ. of California San Diego, Veterans Affairs Ctr. of Excellence for Stress and Mental Hlth., San Diego Veterans Affairs Heathcare Syst.*

POSTER

796. Extrastriate Cortex I

Theme D: Sensory Systems

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 V10 **796.01** Modular connectivity between amygdala and the ventral visual stream. A. M. MEIER*; Q. WANG; A. BURKHALTER. *Washington Univ. Sch. of Med., Allen Inst. for Brain Sci.*

2:00 V11 **796.02** Maintenance of spatial information modulates β rhythms within MT cortex. Z. BAHMANI DEHKORDI*; M. DALIRI; Y. MERRIKHI; M. PARSA; B. NOUDOOST. *Inst. For Res. In Fundamental Sci., Iran Univ. of Sci. and Technol., Montana State Univ., Montana State Univ.*

3:00 V12 **796.03** Differential expression of the m1 acetylcholine receptor by inhibitory neurons in macaque MT and LIP indicates distinct neuromodulatory compartments in cortex. J. J. COPPOLA*; A. A. DISNEY. *Vanderbilt Univ.*

4:00 V13 **796.04** Understanding the relationship between specific spatial abilities and map reading skills using fMRI. A. J. BIES; M. E. SERENO*. *Univ. of Oregon.*

1:00 V14 **796.05** Spontaneous cortical waves in area MT of the awake marmoset. Z. W. DAVIS*; L. MULLER; T. J. SEJNOWSKI; J. MARTINEZ-TRUJILLO; J. REYNOLDS. *Salk Inst. for Biol. Studies, Western Univ.*

2:00 V15 **796.06** Response sparseness for natural movies in macaque V1 and V4 estimated by 2-photon calcium imaging. K. IKEZOE*; T. FUKAZAWA; S. NISHIMOTO; S. MITA; I. FUJITA. *Univ. of Yamanashi, Osaka Univ. and Natl. Inst. of Information and Communications Technol.*

3:00 V16 **796.07** Model of MT spike count variability accounts for state-dependent tuning disparities. J. LOMBARDO*; M. MACELLAIO; B. LIU; S. E. PALMER; L. C. OSBORNE. *Univ. of Chicago.*

4:00 V17 **796.08** Functional topography of the cortical inputs to layer 1 neurons of medial secondary visual cortex in mice. Y. LAM*; S. SHERMAN. *Univ. of Chicago.*

1:00 V18 **796.09** Stereoscopic depth may increase cognitive responses within visual comfortable zone. H. CHO*; M. KANG; S. AHN; M. KWON; J. CHOI; S. C. JUN. *Gwangju Inst. of Sci. and Technol. (GIST), Korea Inst. of Sci. and Technol.*

2:00 W1 **796.10** Transsaccadic integration of spatial frequency information in an fMRIa paradigm. B. BALTARETU*; B. T. DUNKLEY; J. D. CRAWFORD. *York Univ., Hosp. for Sick Children.*

3:00 W2 **796.11** Diffusion properties of human visual white matter correlate with stereoacuity. H. OISHI*; H. TAKEMURA; S. C. AOKI; I. FUJITA; K. AMANO. *Grad. Sch. of Frontier Biosci., Osaka Univ., Ctr. for Information and Neural Networks (CiNet), Natl. Inst. of Information and Communications Technology, and Osaka Univ., Japan Society for the Promotion of Sci.*

4:00 W3 **796.12** Laminar patterns of interareal axonal projections reveal a hierarchical organization of mouse visual cortical areas. R. D'SOUZA*; Q. WANG; A. MEIER; A. BURKHALTER. *Washington Univ. Sch. of Med., Allen Inst. for Brain Sci.*

1:00 W4 **796.13** Steady-state signatures of visual short-term plasticity and perceptual filling-in. S. M. LONG*; M. A. GANNON; M. M. GARDNER; N. A. PARKS. *Univ. of Arkansas.*

2:00 W5 **796.14** Selective flow of sensory-motor information in the reciprocal connectivity in mouse frontoparietal cortex. T. SATO*; T. K. SATO; M. HASEGAWA; T. ITOKAZU; R. KIMURA. *Ctr. For Integrative Neurosci., Technische Univ. München.*

3:00 W6 **796.15** Space and choice in mouse parietal cortex during virtual navigation. M. KRUMIN*; K. D. HARRIS; M. CARANDINI. *Univ. Col. London.*

4:00 W7 **796.16** Clustering V4 neurons based on their responses to simple shapes. R. EGHBALI; A. PASUPATHY; W. BAIR*. *Univ. of Washington, Univ. of Washington.*

1:00 W8 **796.17** Primate prefrontal cortex and the representation of partially occluded shapes. A. FYALL; H. CHOI; E. T. SHEA-BROWN; A. K. PASUPATHY*. *Univ. of Washington, Univ. Washington, Univ. Washington.*

2:00 W9 **796.18** Neural responses in the inferior temporal cortex to partially occluded and occluding stimuli. T. NAMIMA*; A. PASUPATHY. *Univ. of Washington.*

POSTER

797. Mouse Visual Cortex

Theme D: Sensory Systems

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 W10 **797.01** Generation of a mesoscale connectome of the mouse visual system using individual functional maps for viral targeting. P. A. GROBLEWSKI*; A. BERNARD; A. CETIN; C. FARRELL; D. FENG; M. GARRETT; N. GAUDREAULT; K. E. HIROKAWA; A. HO; T. KEENAN; A. KRIEDBERG; Y. LI; F. LONG; V. MALDONADO; S. MIHALAS; L. NG; J. PHILLIPS; T. SIUDA; C. THOMPSON; W. WAKEMAN; C. KOCH; H. ZENG; J. A. HARRIS. *Allen Inst. For Brain Sci.*

2:00 W11 **797.02** The structure of population coding and fluctuations in mouse visual cortex. G. K. OCKER*; S. DE VRIES; R. AYER; J. SIEGLE; D. DENMAN; J. LECOQ; R. C. REID; M. A. BUICE. *Allen Inst. for Brain Sci.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 W12 **797.03** Characterization of calcium events and spiking activity *in vivo* and their relationship in multiple cell types using transgenic mouse lines. U. KNOBLICH*; J. WATERS; C. REID; C. KOCH; H. ZENG; L. LI. *Allen Inst. for Brain Sci.*

4:00 X1 **797.04** Functional characterization of visual responses in the Cortical Activity Map. S. E. DEVRIES*; M. GARRETT; G. K. OCKER; M. A. BUICE; J. LECOQ; A. BERNARD; D. FENG; L. NG; S. OLSEN; C. REID; H. ZENG; C. KOCH. *Allen Inst. For Brain Sci.*

1:00 X2 **797.05** The common coordinate framework: A 3d mouse brain atlas delineated by multi-modality references. Q. WANG*; J. A. HARRIS; Y. LI; J. ROYALL; P. LESNAR; S. DING; B. FACER; K. HIROKAWA; A. HO; S. SUNKIN; A. BERNARD; C. KOCH; H. ZENG; L. NG. *Allen Inst. for Brain Sci.*

2:00 X3 **797.06** Spike-free inference from calcium imaging. K. Q. LEPAGE*; U. KNOBLICH; L. LI; R. IYER; S. MIHALAS; C. ANASTASSIOU; M. A. BUICE. *Allen Inst. For Brain Sci., Allen Inst. for Brain Sci.*

3:00 X4 **797.07** Standardizing optical recording of neural activity for large scale data generation and analysis. J. LECOQ*; K. ROLL; P. HARGRAVE; J. LARKIN; C. WHITE; S. CROSS; F. GRIFFIN; S. CALDEJON; T. NGUYEN; S. DE VRIES; G. OCKER; M. BUICE; D. SULLIVAN; T. SIUDA; T. KEENAN; W. WAKEMAN; J. PERKINS; D. WILLIAMS; C. FARRELL; J. PHILLIPS; C. KOCH; H. ZENG; A. BERNARD. *Allen Inst., Allen Inst.*

4:00 X5 **797.08** The ALLEN Cortical Activity Map: A survey of visually evoked cellular responses in mouse. A. BERNARD*; N. BOWLES; M. BUICE; S. CALDEJON; S. CROSS; C. FARRELL; D. FENG; M. GARRETT; N. GAUDREAULT; F. GRIFFIN; P. GROBLEWSKI; P. HARGRAVE; A. HO; T. KEENAN; A. KRIEDBERG; J. LARKIN; J. LECOQ; L. NG; G. OCKER; S. OLSEN; J. PERKINS; J. PHILLIPS; R. C. REID; K. ROLL; C. SLAUGHTERBECK; S. DE VRIES; W. WAKEMAN; C. WHITE; D. WILLIAMS; C. KOCH. *Allen Inst. for Brain Sci.*

1:00 X6 **797.09** Development of customized instrumentation for standardized, high-throughput *in vivo* imaging and analysis. T. M. KEENAN*; J. PERKINS; D. SULLIVAN; T. SIUDA; R. DIETZMAN; D. WILLIAMS; P. HARGRAVE; C. SLAUGHTERBECK; P. GROBLEWSKI; J. LECOQ; N. GAUDREAULT; C. FARRELL. *Allen Inst. for Brain Sci.*

2:00 X7 **797.10** Cascade Models of Cortical Activity Map based on structural connectivity. R. IYER*; N. S. GRADDIS; S. DE VRIES; J. A. HARRIS; M. A. BUICE; S. MIHALAS. *Allen Inst. For Brain Sci.*

3:00 X8 **797.11** Highly conserved functional boundaries of the visual cortex are observed using standardized methods for intrinsic signal imaging in a broad survey of the mouse visual cortex. N. GAUDREAULT*; S. CALDEJON; F. GRIFFIN; E. KENJI LEE; M. GARRETT; J. ZHUANG; P. GROBLEWSKI; K. HIROKAWA; J. HARRIS; W. WAKEMAN; F. LONG; L. NG; C. SLAUGHTERBECK; T. KEENAN; C. FARREL; J. PHILLIPS; H. ZENG; A. BERNARD. *Allen Inst.*

4:00 X9 **797.12** The Allen Cortical Activity Map Data Portal: Interactive navigation and visualization of evoked cellular responses in the mouse visual cortex. D. FENG; W. WAKEMAN; C. KOCH*; L. KUAN; Y. LI; F. LONG; K. GODFREY; T. FLISS; N. SJOQUIST; F. LEE; T. DOLBEARE; A. SODT; M. CHAPIN; C. BARBER; S. SHI; C. LAU; C. THOMPSON; S. DE VRIES; M. GARRETT; M. BUICE; A. BERNARD; M. HAWRYLYCZ; C. REID; J. PHILLIPS; H. ZENG; L. NG. *Allen Inst. for Brain Sci., Allen Inst. For Brain Sci.*

1:00 X10 **797.13** Developmental origin of the function & circuits organization in the mouse visual cortex. Y. LI*; Y. DAN. *Interdisciplinary Inst. of Neurosci. and Te, Howard Hughes Med. Inst.*

2:00 X11 **797.14** Dependence on visual features, running speed and virtual speed across the mouse visual cortex. E. M. DIAMANTI*; A. B. SALEEM; K. D. HARRIS; M. CARANDINI. *Univ. Col. London.*

3:00 X12 **797.15** Serotonergic modulation of visual response properties in awake mouse primary visual cortex. A. MICHAIEL*; C. NIELL. *Univ. of Oregon.*

4:00 X13 **797.16** Dissecting functional organization of mouse visual cortex. M. HU*; R. V. RIKHYE; M. J. GOARD; M. SUR. *MIT, Univ. of California, Santa Barbara, MIT.*

1:00 X14 **797.17** Functional diversity of VIP interneurons in mouse primary visual cortex. E. RICHLER*; E. M. CALLAWAY. *Salk Inst. SNL-C.*

2:00 X15 **797.18** Functional *in vivo* connectivity of Vasoactive Intestinal Peptide expressing inhibitory interneuron subtypes in mouse visual cortex. A. GARG*; A. E. CASALE; E. M. CALLAWAY. *Salk Inst. For Biol. Studies, UCSD.*

3:00 X16 **797.19** Response profiles of a neuronal population excited by intracortical microstimulations in the mouse visual cortex. N. SUEMATSU*; K. TAKATANI; Y. HAYASHIDA; Y. OKAZAKI; T. YAGI. *Osaka Univ., Osaka Univ.*

4:00 X17 **797.20** Spatial clustering of tuning in mouse primary visual cortex. D. L. RINGACH*; P. J. MINEAULT; E. TRING; N. D. OLIVAS; P. GARCIA-JUNCO-CLEMENTE; J. T. TRACHTENBERG. *UCLA, UCLA, UCLA Neurobio.*

1:00 X18 **797.21** Common adaptive dynamics in somatosensory and visual cortex of mice. N. J. PRIEBE*; Y. KATZ; B. LI; I. LAMPL. *Univ. Texas, Austin, Weizmann Inst. Of Sci., UT Austin.*

2:00 Y1 **797.22** All-optical interrogation of functional connectivity in mouse visual cortex. L. E. RUSSELL*; A. M. PACKER; H. W. P. DALGLEISH; M. HAUSSER. *Univ. Col. London.*

3:00 Y2 **797.23** Enhanced spatial resolution during locomotion and heightened attention in mouse primary visual cortex. P. J. MINEAULT*; E. TRING; J. T. TRACHTENBERG; D. L. RINGACH. *UCLA, UCLA Neurobio.*

4:00 Y3 **797.24** Neural adaptation and position tolerance increase along a putative ventral visual pathway in rats. D. KALIUKHOVICH*; H. OP DE BEECK. *KU Leuven, KU Leuven.*

1:00 Y4 **797.25** Modulation of V1 neurons activity by the lateral-posterior nucleus in mice. U. KEYSAN*; N. CORTES; S. THOMAS; C. CASANOVA. *Univ. de Montréal.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

POSTER

798. Visual Cortex Human

Theme D: Sensory Systems

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 Y5 **798.01** Understanding neural representations in early visual areas using convolutional neural networks. Y. ZHANG*; C. MASSOT; T. ZHI; G. PAPANDREOU; A. YUILLE; T. LEE. *Carnegie Mellon Univ., Peking Univ., UCLA.*

2:00 Y6 **798.02** Tracking neurochemical and BOLD-changes in the human visual cortex using simultaneous short echo semi-LASER spectroscopy and BOLD-imaging at 7 Tesla. B. IP*; A. BERRINGTON; A. T. HESS; A. J. PARKER; U. E. EMIR; H. BRIDGE. *Univ. of Oxford.*

3:00 Y7 **798.03** Sparse and distributed codes of neuronal population in primary visual cortex. Z. LI*; Y. ZHANG; M. LI; F. LIU; H. JIANG; T. LEE; S. TANG. *Carnegie Mellon Univ., Peking Univ., IDG/McGovern Inst. for Brain Res. at Peking Univ.*

4:00 Y8 **798.04** Tuning similarity predominates over retinal or cortical proximity in accounting for the correlated spontaneous activity in human visual cortex. J. RYU*; S. LEE. *Seoul Natl. Univ.*

1:00 Y9 **798.05** Quantifying the links between electrical stimulation of the human primary visual cortex, size of affected cortical area, neuronal population activity, and subjective experience. J. WINAWER; J. PARVIZI*. *New York Univ., Stanford Univ.*

2:00 Y10 **798.06** Coaxial anisotropy shared between perceptual and cortical point spreads in human visual system. J. RYU*; S. LEE. *Brain and Cognitive Sci., Brain and Cognitive Neurosci.*

3:00 Y11 **798.07** Investigating cortical feedback of objects and background scene to foveal and peripheral V1 using fMRI. M. BENNETT*; L. S. PETRO; L. MUCKLI. *Univ. of Glasgow.*

4:00 Y12 **798.08** Population coding in visual cortex underlies visual size perception. C. MOUTSIANA*; B. DE HAAS; A. PAPAGEORGIOU; N. FINLAYSON; D. SCHWARZKOPF. *Kingston Univ. London, UCL, Imperial Col., UCL.*

1:00 Y13 **798.09** ▲ Retinotopically-specific variation in cortical thickness in V1 relates to performance on a central visual discrimination task. D. LEE*; W. K. BURGE; A. S. ELKHETALI; K. M. VISSCHER. *The Univ. of Alabama At Birminghan.*

2:00 Y14 **798.10** Visual mental imagery in high-field fMRI. M. A. VAN DEN BOOM*; M. J. VANSTEENSEL; M. A. H. RAEMAEKERS; N. F. RAMSEY. *Univ. Med. Ctr. Utrecht.*

3:00 Y15 **798.11** Evoked and high-frequency markers of sustained visual perception in scalp EEG. E. M. GERBER*; L. Y. DEOUELL. *Hebrew Univ. of Jerusalem, Hebrew Univ. of Jerusalem.*

4:00 Y16 **798.12** Eccentricity-specific characteristics of V1 are altered following central vision loss. W. BURGE*; J. GRIFFIS; R. NENERT; M. DEFENDERFER; D. DECARLO; L. ROSS; K. VISSCHER. *Univ. of Alabama At Birmingham, Univ. of Alabama At Birmingham, Univ. of Alabama At Birmingham, Univ. of Alabama At Birmingham, Univ. of Alabama At Birmingham, The Pennsylvania State Univ.*

1:00 Y17 **798.13** A cortical and cerebellar network for dynamic visual prediction in humans. L. S. PETRO*; F. M. CARVALHO; A. T. PATON; F. W. SMITH; L. MUCKLI. *Univ. of Glasgow, Univ. of Sao Paulo, Univ. of East Anglia.*

POSTER

799. Striate Cortex Plasticity II

Theme D: Sensory Systems

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 Y18 **799.01** Matrix metalloproteinase-9 induced by light reintroduction reactivates plasticity in adult mouse visual cortex. S. MURASE*; E. M. QUINLAN. *Univ. of Maryland at Col. Park Dept. of Biol.*

2:00 Z1 **799.02** A crucial role for the fellow eye in the darkness-induced recovery of visual acuity in the amblyopic eye of felines. D. E. MITCHELL*; P. BOBBIE-ANSAH; K. R. DUFFY. *Dalhousie Univ.*

3:00 Z2 **799.03** Recovery from the effects of long-term monocular deprivation following dark exposure or retinal inactivation. K. DUFFY*; M. FONG; M. F. BEAR; D. E. MITCHELL. *Dalhousie, MIT.*

4:00 Z3 **799.04** Waves of inter-individual variability during development of human visual cortex. K. M. MURPHY*; S. BESHARA; C. R. SIU; J. G. A. PINTO; D. G. JONES. *McMaster Univ., McMaster Univ., Pairwise Affinity.*

1:00 Z4 **799.05** Nicotinic activation of somatostatin inhibitory neurons by Lypd6-nAChRa2 system restores plasticity in adult visual cortex. M. SADAHIRO*; M. P. DEMARS; P. N. BURMAN; A. ZIMMER; H. MORISHITA. *Icahn Sch. of Med. At Mount Sinai, Icahn Sch. of Med. At Mount Sinai, Univ. of Bonn.*

2:00 Z5 **799.06** Neuronal responses correlated with shifts in interocular balance induced by short-term deprivation in adult macaque visual cortex. R. A. MILLER*, III; M. BEGUM; D. TS'O. *SUNY Upstate Med. Univ., SUNY Upstate Med. Univ.*

3:00 Z6 **799.07** Time-course of the involvement of cholinergic receptors subtypes in a repetitive visual / cholinergic stimulation. M. GROLEAU*; M. CHAMOUN; M. BHAT; E. VAUCHER. *Univ. De Montreal.*

4:00 Z7 **799.08** Protracted development of human V1: Glutamate receptors linked with plasticity and orientation selectivity. C. SIU*; S. BESHARA; D. G. JONES; K. M. MURPHY. *McMaster Univ., Pairwise Affinity, McMaster Univ.*

1:00 Z8 **799.09** Postnatal systemic inflammation suppresses developmental cortical plasticity. M. R. SMITH*; P. BURMAN; M. SADAHIRO; B. A. KIDD; J. T. DUDLEY; H. MORISHITA. *Icahn Sch. of Med. At Mount Sinai, Icahn Sch. of Med. at Mount Sinai.*

2:00 Z9 **799.10** Neuromodulator induced bidirectional changes in ocular dominance in the mouse primary visual cortex. S. HONG*; S. HUANG; A. KIRKWOOD. *Johns Hopkins Univ.*

3:00 Z10 **799.11** The role of spontaneous correlations in structuring co-tuned networks in cortical development. B. HEIN*; G. B. SMITH; D. E. WHITNEY; P. HUELSDUNK; D. FITZPATRICK; M. KASCHUBE. *Frankfurt Inst. For Advanced Studies, IMPRS for Neural Circuits, Max Planck Inst. for Brain Res., Goethe Univ., Max Planck Florida Inst. for Neurosci.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

4:00 Z11 **799.12** Temporary retinal inactivation promotes rapid recovery from monocular deprivation in mice and kittens. M. FONG*; D. E. MITCHELL; K. R. DUFFY; P. NORTHRUP; Y. ATIYAS; F. M. VAN DESSEL; J. U. DEERE; M. F. BEAR. *MIT, Dalhousie Univ., MIT, Wellesley Col.*

1:00 Z12 **799.13** Impact of PV neuron development on visual responses. S. J. KUHLMAN*; B. FEESE; N. MCGUIER; J. KAUTTONEN. *Carnegie Mellon Univ.*

2:00 Z13 **799.14** Prominent role of MMP9 in the bidirectional regulation of visual cortex synaptic plasticity by visual experience. C. L. LANTZ*; E. M. QUINLAN. *Univ. of Maryland.*

3:00 Z14 **799.15** Cross-modal plasticity at thalamocortical synapses. G. RODRIGUEZ; H. LEE*. *Johns Hopkins Univ., Johns Hopkins Univ.*

4:00 AA1 **799.16** Tuned inhibition model accounts for adaptation-induced tuning shifts in macaque V1 and V2. D. J. THENGONE*; Y. YU; J. VICTOR. *Weill Cornell Grad. Sch. of Med. Sci.*

1:00 AA2 **799.17** Changes in peripheral vision induced by simulated central field loss. N. CHEN*; K. SHIN; R. MILLIN; M. KWON; B. S. TJAN. *Dept. of Psychology, Univ. of Southern C, Dept. of Psychology, Univ. of Southern California, Dept. of Psychology, Univ. of Washington, Dept. of Ophthalmology, Univ. of Alabama at Birmingham, Dept. of Psychology, Neurosci. Grad. Program, Univ. of Southern California.*

POSTER

800. Extrastriate Cortex II

Theme D: Sensory Systems

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 AA3 **800.01** *In vivo* visualization of multiple areas around the superior temporal sulcus of the common marmoset. W. SUZUKI*; T. TANI; T. BANNO; N. MIYAKAWA; H. ABE; T. HAYAMI; N. ICHINOHE. *Natl. Ctr. of Neurol. and Psychiatry, Natl. Inst. of Neurosci., RIKEN BSI, Univ. of Pennsylvania Sch. of Med.*

2:00 AA4 **800.02** Spiking irregularity in V2 neurons of amblyopic monkeys. Y. WANG*; B. ZHANG; X. TAO; G. SHEN; E. L. SMITH, III; Y. M. CHINO. *Univ. of Houston, Nova Southeastern Univ., Baylor Col. of Med.*

3:00 AA5 **800.03** *In-vivo* visualization of myelin, color- and disparity-biased stripes in monkey area v2 using sub-mm resolution (f)mri at 3 tesla. X. LI*; J. ARSENAULT; T. JANSSENS; Q. ZHU; W. VANDUFFEL. *Res. Group Neurophysiology, KU Leuven, A. A. Martinos Ctr. for Biomed. Imaging, MGH, Dept. of Radiology, Harvard Med. Sch.*

4:00 AA6 **800.04** A retinotopic proto-organization in IT present at birth. M. J. ARCARO*; J. L. VINCENT; P. SCHADE; K. SRIHASAM; M. S. LIVINGSTONE. *Harvard Med. Sch.*

1:00 AA7 **800.05** Convolutional network modeling of the primate dorsal and ventral visual streams. B. P. TRIPP*. *Univ. of Waterloo.*

2:00 AA8 **800.06** Revealing Details: Spatial-frequency selective domains for a coarse-to-fine processing in macaque V4. Y. LU*; J. YIN; Z. CHEN; Y. LIU; H. GONG; L. QIAN; X. LI; I. M. ANDOLINA; W. WANG. *Inst. of Neuroscience, CAS, Univ. of Chinese Acad. of Sci.*

3:00 AA9 **800.07** Feedback signals from higher-order visual cortex affect spike-responses of neurons in the 'intermediate' area in the pattern-processing stream. J. Y. HUANG*; C. WANG; B. DREHER. *The Univ. of Sydney, The Univ. of Sydney.*

4:00 AA10 **800.08** ● Interactions between macaque retinotopic areas and IT for segmenting and recognizing objects in a visual scene. J. K. HESSE*; D. Y. TSAO. *Caltech.*

1:00 AA11 **800.09** θ-rhythmic spiking of visual cortical area V4 neurons arises from receptive field center-surround interactions. R. KIENITZ*; J. T. SCHMIEDT; K. A. SHAPCOTT; K. KOUROUPAKI; M. C. SCHMID. *Ernst Strüngmann Inst. (ESI) For Neurosci., Newcastle Univ.*

2:00 AA12 **800.10** Effect of adapter duration on repetition suppression in macaque inferior temporal cortex. P. KURAVI*; R. VOGELS. *K.U.Leuven.*

3:00 AA13 **800.11** A cross-validated cytoarchitectonic atlas of the human ventral stream. M. ROSENKE*; K. S. WEINER; M. BARNETT; M. FROST; K. ZILLES; K. AMUNTS; R. GOEBEL; K. GRILL-SPECTOR. *Stanford Univ., Maastricht Univ., C. and O. Vogt Inst. for Brain Research, Heinrich Heine Univ. Düsseldorf, Inst. for Neurosci. and Med. (INM-1), and JARA Brain, Res. Ctr. Jülich, Univ. Hosp. Aachen, RWTH Aachen, Netherlands Inst. for Neurosci., Stanford Neurosci. Inst.*

4:00 AA14 **800.12** Impact of visual cortico-striatal loop disruption on neural processing within the parahippocampal place area. S. NASR*; H. D. ROSAS, 02129. *Athinoula A Martinos Ctr. for Biomed. Imaging, Harvard Med. Sch., Martinos Ctr. for Biomed. Imaging.*

1:00 AA15 **800.13** Does the dorsal medial visual area represent a unique target of the koniocellular pathway? B. MOORE*; J. D. BOYD; O. P. ROY; J. A. MAVITY-HUDSON; V. A. CASAGRANDE. *Vanderbilt Univ., Univ. of British Columbia, Univ. of Virginia Hlth. Syst.*

2:00 AA16 **800.14** A deep convolutional energy model of V4 accurately predicts responses to natural movies. M. D. OLIVER*; J. GALLANT. *UC Berkeley.*

3:00 AA17 **800.15** Proliferation of macromolecular tissue in human cortex underlies development of face processing. J. GOMEZ*; M. BARNETT; V. NATU; A. MEZER; K. S. WEINER; K. AMUNTS; K. ZILLES; K. GRILL-SPECTOR. *Stanford Univ., Hebrew Univ. of Jerusalem, Heinrich-Heine Univ. Düsseldorf, RWTH Aachen Univ.*

4:00 AA18 **800.16** Sensitivity of v2 neurons to curvatures in infant monkeys. B. ZHANG*; Y. WANG; X. TAO; G. SHEN; E. L. SMITH, III; I. OHZAWA; Y. CHINO. *Nova Southeastern Univ., Univ. of Houston, Osaka Univ.*

POSTER

801. Representation of Objects and Scenes

Theme D: Sensory Systems

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 BB1 **801.01** Neural mechanisms for visual object detection in *Drosophila*. M. KELES*; M. A. FRYE. *UCLA.*

2:00 BB2 **801.02** A fusion mechanism for depth cues in monkey MT? M. ARMENDARIZ*; H. BAN; A. WELCHMAN; W. VANDUFFEL. *KU Leuven, Natl. Inst. of Information and Communications Technol., Osaka Univ., Univ. of Cambridge, Harvard Med. Sch., Massachusetts Gen. Hosp.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 BB3 **801.03** Neural representation of occluded objects in macaque V4. S. D. ZHU*; L. ZHANG; R. VON DER HEYDT. *Johns Hopkins Univ., Johns Hopkins Univ.*

4:00 BB4 **801.04** ▲ Dual mechanisms of pattern completion in macaque identified by removal of visual area TE. J. M. FREDERICKS*; M. A. G. ELDRIDGE; K. A. LOWE; B. J. RICHMOND. *NIH.*

1:00 BB5 **801.05** Spiking neuronal network for optimal context integration in vision. J. LEE*; R. IYER; S. MIHALAS. *Allen Inst., Allen Inst. for Brain Sci.*

2:00 BB6 **801.06** Familiarity sculpts figure ground selectivity through inhibitory interactions in monkey inferotemporal cortex. N. RATAN MURTY*; S. P. ARUN. *Indian Inst. of Sci., Indian Inst. of Sci.*

3:00 BB7 **801.07** Neural model for stimulus-specific adaptation of neurons in area IT. M. A. GIESE*; P. KURAVI; R. VOGELS. *Hertie Inst. For Clin. Brain Sci. / CIN, Lab. Neuro en Psychofysiologie.*

4:00 BB8 **801.08** Building object view invariance in a newly-discovered network in inferior temporal cortex. P. BAO*; D. Y. TSAO. *Caltech.*

1:00 BB9 **801.09** Modeling electrocorticography signals on the macaque inferior temporal cortex in space, time and frequency domains using hierarchical visual features of convolutional neural networks. H. DATE*; K. KAWASAKI; M. OZAY; T. HONGO; I. HASEGAWA; T. OKATANI. *Tohoku Univ., Niigata Univ.*

2:00 BB10 **801.10** A simple, wireless system for remote, high-throughput behavioral testing of nonhuman primates. E. B. ISSA*; K. M. SCHMIDT, 02139; S. OHAYON; J. J. DICARLO. *Massachusetts Inst. of Technol. Dept. of Brain and Cognitive Sci.*

3:00 BB11 **801.11** Image-grain comparison of core object recognition behavior in humans, monkeys and machines. R. RAJALINGHAM*; E. B. ISSA; K. KAR; K. SCHMIDT; J. J. DICARLO. *MIT, MIT.*

1:00 DP04 **801.12** (Dynamic Poster) A stimulus-driven analysis of convolutional neural network models of visual cortex. M. MCGILL*; D. TSAO; P. PERONA. *Caltech, Caltech, Caltech, Caltech.*

1:00 BB12 **801.13** Object classification and separation of object manifolds in the human brain. C. JEW*; X. WANG; R. D. S. RAIZADA. *Univ. of Rochester, Univ. of Rochester.*

2:00 BB13 **801.14** Manifolds of tool-graspability and viewpoint in the human brain. X. WANG*; C. JEW; R. RAIZADA. *Univ. of Rochester.*

3:00 BB14 **801.15** Neural representation of action-related object pairs in human visual cortex. R. WANG*; Y. XU. *Harvard Univ.*

4:00 BB15 **801.16** The cortical network of usability evaluations for unknown tools. M. A. GANN*; M. HIMMELBACH. *Hertie-Institute For Clin. Brain Res.*

1:00 BB16 **801.17** Impairment of tool evaluation in patients with apraxia. M. HIMMELBACH*; M. BARABAS; A. KIRSCHNER. *Hertie-Institute For Clin. Brain Res.*

2:00 BB17 **801.18** White matter connectivity of the dynamic object perception network. J. A. PYLES*; M. J. TARR. *Carnegie Mellon Univ.*

3:00 BB18 **801.19** How does movement affect object recognition? D. BURK*; D. SHEINBERG. *Brown Univ.*

4:00 CC1 **801.20** Localizing functional regions of interest based on responses to dynamic naturalistic stimuli. S. A. NASTASE*; J. S. GUNTUPALLI; J. V. HAXBY; Y. O. HALCHENKO. *Dartmouth Col., Univ. of Trento.*

1:00 CC2 **801.21** Intrinsic activity of the human brain and stimulus semantics are reflected in patterns of brain activity evoked by natural vision. D. KIM*; K. KAY; G. SHULMAN; M. CORBETTA. *Washington Univ. In St. Louis, Univ. of Minnesota, Washington Univ. Sch. of Med.*

2:00 CC3 **801.22** The neural semantic representations of fine-grained object categories. M. KUMAR*; K. D. FEDERMEIER; L. FEI-FEI; D. M. BECK. *Univ. of Illinois at Urbana-Champaign, Univ. of Illinois at Urbana-Champaign, Stanford Univ.*

3:00 CC4 **801.23** Human scene-selective cortex represents the statistical distribution of object and action categories in natural movies. U. KELES; D. STANSBURY; J. L. GALLANT; T. CUKUR*. *Bilkent Univ., Univ. of California, Berkeley.*

4:00 CC5 **801.24** Human scene-selective areas represent the distance to and orientation of large surfaces. M. D. LESCROART*; J. L. GALLANT. *UC Berkeley, UC Berkeley.*

1:00 CC6 **801.25** Neural representation of spatial boundary cues in visual cortex. R. CHENG*; K. FERRARA; S. LEE; S. PARK. *Johns Hopkins Univ., Georgetown Univ., Univ. of Trento.*

2:00 CC7 **801.26** The effect of consecutive TMS-fMRI on the contralateral preference for scenes within scene-selective occipital place area. E. H. SILSON*; I. I. A. GROEN; C. I. BAKER. *Natl. Inst. of Mental Hlth.*

3:00 CC8 **801.27** The effect of consecutive TMS-fMRI on scene representations in high-level visual cortex. C. I. BAKER*; E. H. SILSON; I. I. A. GROEN. *NIH.*

4:00 CC9 **801.28** The role of the occipital place area in guiding eye movements through scenes. G. L. MALCOLM; E. H. SILSON; J. R. HENRY; J. E. INGEHOLM*; C. I. BAKER. *Univ. of East Anglia, NIH / NIMH.*

1:00 CC10 **801.29** The encapsulated structure of the scene network facilitates scene recognition. X. HAO*; X. WANG; X. Z. KONG; J. LIU. *Beijing Normal Univ., Beijing Normal Univ.*

2:00 CC11 **801.30** S100B modulates functional connectivity of key regions for human scene/place recognition. S. XU*; X. KONG; J. LIU. *Beijing Normal Univ., Beijing Normal Univ.*

POSTER

802. Prosthetic Vestibular Stimulation

Theme D: Sensory Systems

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 DD1 **802.01** Effect of stochastic mastoid vibration on perception of vestibular recognition of rotary motion. R. KABBALIGERE*; F. KARMALI; B. LEE; C. LAYNE. *Univ. of Houston, Massachusetts Eye and Ear Infirmary.*

2:00 DD2 **802.02** ● Dynamics of eye movements and secondary vestibular neurons during prosthetic vestibular stimulation. C. PHILLIPS*; L. LING; K. NIE; A. NOWACK; J. T. RUBINSTEIN; J. O. PHILLIPS. *Univ. of Washington.*

3:00 DD3 **802.03** ● Relationship between vestibular evoked compound action potential responses and electrically elicited VOR. A. L. NOWACK; L. LING; K. NIE; C. PHILLIPS; J. O. PHILLIPS*; J. RUBINSTEIN. *Univ. of Washington, Univ. of Washington.*

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4:00 DD4 **802.04** Single-unit activity of chinchilla vestibular afferent neurons in response to passive rotation and prosthetic electrical stimulation. P. REN*. *Johns Hopkins Univ. Sch. of Med.*

1:00 DD5 **802.05** The subadditive integration of neural responses to passive head rotation and galvanic vestibular stimulation in the vestibular nuclei. G. KIM*; E. JEON; K. KIM; S. LEE. *Inha Univ., Inha Univ. Hosp., Inha Univ.*

2:00 DD6 **802.06** Neural correlates of transmastoid galvanic vestibular stimulation in alert primates: Linking vestibular afferent activation to perceptual, ocular and postural responses. A. KWAN*; D. E. MITCHELL; P. A. FORBES; J. BLOUIN; K. E. CULLEN. *McGill Univ., McGill Univ., Delft Univ. of Technol., Univ. of British Columbia.*

3:00 DD7 **802.07** ▲ Customizing transcutaneous electrocortical stimulation: An objective thresholding technique using sinusoidal galvanic vestibular stimulation and lateral body sway. H. A. TRIER*; S. B. DOUGLAS; C. ZUMARAN; A. L. ALCHEHAYED; J. M. SERRADOR; S. J. WOOD. *Azusa Pacific Univ., Rutgers Biomed. Healthy Sci., Dept. of Veteran Affairs.*

4:00 DD8 **802.08** Plasticity within vestibular reflex pathways: Implications for use of vestibular prostheses. D. E. MITCHELL*; C. C. DELLA SANTINA; K. E. CULLEN. *McGill Univ., Johns Hopkins Univ. Sch. of Med.*

POSTER

803. Vestibular System: Central Pathways

Theme D: Sensory Systems

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 DD9 **803.01** Distribution of vestibulosympathetic input to spinal glutamatergic interneurons. G. C. WALTER*; M. PERREAULT. *Emory Univ.*

2:00 DD10 **803.02** ▲ Light-sheet based whole-brain neuronal activity recording during vestibular stimulation in zebrafish larvae. V. BORMUTH*; R. CANDELIER; G. DEBREGEAS; G. MIGAULT. *Univ. Pierre Et Marie Curie.*

3:00 DD11 **803.03** Evolution of spatiotemporal dynamics from otolith sensory afferents to cortex. S. LIU*; J. LAURENS; R. CHAN; X. YU; D. DICKMAN; G. C. DEANGELIS; D. E. ANGELAKI. *Baylor Col. of Med., Univ. of Rochester.*

4:00 DD12 **803.04** Modulatory role of orexin on synaptic transmission in the central vestibular system. Y. JIANG*; T. LAM; C. MA; D. SHUM; J. WANG; Y. CHAN. *The Univ. of Hong Kong, Nanjing Univ.*

1:00 DD13 **803.05** Temporal whitening of natural self-motion stimuli by early vestibular pathways. K. E. CULLEN*; D. E. MITCHELL; A. KWAN; J. CARRIOT; M. J. CHACRON. *McGill Univ., McGill Univ., McGill Univ., Univ. of Western Ontario.*

2:00 DD14 **803.06** Central vestibular neurons integrate inputs from limb and labyrinth in an additive manner. D. M. MILLER*; C. D. BALABAN; W. M. DEMAYO; G. H. BOURDAGES; B. J. YATES; A. A. MCCALL. *Univ. of Pittsburgh, The Commonwealth Med. Col.*

3:00 DD15 **803.07** Monosynaptic viral tracing reveals direct inputs to mouse efferent vestibular neurons. M. A. MATHEWS; A. MURRAY; A. J. CAMP*. *Univ. of Sydney, Univ. Col. London.*

4:00 DD16 **803.08** ▲ Convergence of linear acceleration and yaw rotation signals in the vestibular nucleus. B. ABBATEMATTEO; L. H. CARNEY; M. WEI; S. D. NEWLANDS*. *Univ. of Rochester Med. Ctr., Univ. of Rochester Med. Ctr.*

1:00 DD17 **803.09** Behavioral expression of orexin-modulated transmission in the vestibular nucleus of postnatal rats. U. LAM*; C. MA; D. SHUM; J. WANG; Y. CHAN. *Univ. of Hong Kong, Nanjing Univ.*

2:00 EE1 **803.10** Convergence properties of sparse codes adapted to natural head motion. P. HAUSAMANN*; S. GLASAUER; M. KLEINSTEUBER; P. MACNEILAGE. *Tech. Univ. of Munich, Bernstein Ctr. for Computat. Neurosci., Univ. Hosp. of Munich.*

3:00 EE2 **803.11** Connectivity of the human vestibular cortex revealed by diffusion-based probabilistic fiber tracking. M. W. GREENLEE*; A. WIRTH; S. M. FRANK; A. L. BEER. *Univ. Regensburg, Univ. Hosp. Regensburg, Dartmouth Col.*

4:00 EE3 **803.12** Visual-vestibular processing in the human Sylvian fissure. S. M. FRANK*; A. M. WIRTH; P. U. TSE; M. W. GREENLEE. *Dartmouth Col., Univ. of Regensburg.*

POSTER

804. Vestibular System: Periphery

Theme D: Sensory Systems

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 EE4 **804.01** Response characteristics of horizontal semicircular canal afferents to behaviorally-inspired stimuli in late-stage larvae of Xenopus laevis. K. D. GENSBERGER; S. HÄNZI; M. G. PAULIN; H. STRAKA; L. F. HOFFMAN*. *Ludwig-Maximillians-Universität München, Univ. of Otago, UCLA Sch. Med.*

2:00 EE5 **804.02** Adaptive modifications in vestibular epithelia of Egyptian fruit bats. K. R. CHOY; Y. N. TON; W. METZNER*; L. F. HOFFMAN. *UCLA, Geffen Sch. of Med. at UCLA.*

3:00 EE6 **804.03** Dynamics of vestibular afferents and their contribution to neck motor-unit activity during electrical vestibular stimulation. P. A. FORBES*; A. KWAN; B. G. RASMAN; D. E. MITCHELL; K. E. CULLEN; J. BLOUIN. *Delft Univ. of Technol., Univ. of British Columbia, McGill Univ.*

4:00 EE7 **804.04** The ORL-1 receptor activation inhibits the voltage gate calcium current in vestibular afferent of rat. E. SESEÑA MENDEZ*; R. VEGA; A. ORTEGA; E. LUIS; E. SOTO. *Fac. De Medicina, Univ. Autonoma De Puebla, BUAP.*

1:00 EE8 **804.05** Vestibular hair cell loss in type 2 diabetic T2DN rats. S. WANG; A. ARTEAGA; D. S. SANDLIN; R. R. GUYTON; Y. YU; F. FAN; R. J. ROMAN; D. E. VETTER; K. T. YEE; W. ZHOU; H. ZHU*. *Univ. MS Med. Ctr. Dept ENT, Univ. MS Med. Ctr. Dept Pharmacol., Univ. MS Med. Ctr. Dept Neurobio. & Anatom. Sci.*

2:00 EE9 **804.06** Withdrawn.

3:00 EE10 **804.07** The vestibular calyx ending as an axon initial segment: Na^+ channels and implications for function. A. LYSAKOWSKI*; J. M. GOLDBERG. *Univ. of Illinois at Chicago, Univ. of Chicago.*

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4:00 EE11 **804.08** Serotonin modulation of ionic currents in the vestibular system primary afferent neurons. E. SOTO*; J. LIMA; E. LUIS; R. VEGA. *Univ. Autonoma De Puebla, Univ. Autónoma de Puebla.*

1:00 EE12 **804.09** Peripheral vestibular damage after exposure to mild, blast wave trauma. S. LIEN*; Z. MRIDHA; J. D. DICKMAN. *Baylor Col. of Med.*

2:00 EE13 **804.10** Mouse otolith organs in cleared temporal bone. E. TIGNOR; R. COOK; A. PERACHIO; T. MAKISHIMA*. *Univ. of Texas Med. Br.*

3:00 EE14 **804.11** Cilia genes play differing roles in aminoglycoside-induced hair cell death. T. STAWICKI; E. W. RUBEL; D. W. RAIBLE*. *Univ. of Washington, Univ. of Washington, Box 357420.*

POSTER

805. Visual Sensory-Motor II

Theme D: Sensory Systems

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 EE15 **805.01** Quantifying individual behavioral signatures in larval zebrafish. E. A. NAUMANN*; J. E. FITZGERALD; T. W. DUNN; F. ENGERT. *Harvard Univ.*

2:00 EE16 **805.02** Mismatch receptive-fields in mouse visual cortex. P. ZMARZ*; G. B. KELLER. *Freidrich Miescher Inst.*

3:00 EE17 **805.03** An optogenetics-based approach to determine functional connectivity in the central brain of *Drosophila*. P. T. WEIR*; M. H. DICKINSON. *Caltech.*

4:00 EE18 **805.04** Action-effect contingency modulates readiness potentials. T. VERCILLO*; S. O'NEIL; F. JIANG. *Univ. of Nevada, Reno, Univ. of Nevada, Reno.*

1:00 FF1 **805.05** Functional properties of mirror neurons of the monkey presupplementary motor area f6. A. LIVI; M. LANZILOTTO; M. MARANESI*; M. GERBELLA; L. FOGASSI; G. RIZZOLATTI; L. BONINI. *Univ. of Parma, Dept. di Neuroscienze, Inst. Italiano di Tecnologia (IIT).*

2:00 FF2 **805.06** MEG shows a progressive sensory-to-motor transformation for reaching in cortical space and time. G. BLOHM*; H. ALIKHANIAN; W. C. GAETZ; H. C. GOLTZ; J. F. X. DESOUZA; D. O. CHEYNE; J. D. CRAWFORD. *Queen's Univ., Queen's Univ., Children's Hosp. of Philadelphia, Univ. of Toronto, York Univ., Hosp. for Sick Children.*

3:00 FF3 **805.07** Merging visible and invisible light in rat V1 using a cortical prosthetic system. E. E. THOMSON*; I. ZEA; Y. THENAISIE; F. WENDY; W. WINDHAM; M. NICOLELIS. *Duke Univ.*

4:00 FF4 **805.08** Don't look: Cerebellar and cortical activity during an antisaccade task in adolescents with FASD. A. D. BOLANOS*; B. A. COFFMAN; P. KODITUWAKKU; J. M. STEPHEN. *Univ. of New Mexico, The Mind Res. Network, Univ. of New Mexico.*

1:00 FF5 **805.09** Natural saccadic eye movements of the awake, running mouse. J. M. SAMONDS*; N. J. PRIEBE. *Univ. of Texas At Austin.*

2:00 FF6 **805.10** Eye movements affect the coupling between visual information and body sway of young adults. P. F. POLASTRI ZAGO*; M. B. BRITO; F. A. BARBIERI; R. L. MORAES; D. N. LIMA; B. C. CAVALIERI; J. A. BARELA; S. T. RODRIGUES. *Univ. Estadual Paulista - UNESP/Campus Bauru, Cruzeiro do Sul Univ.*

3:00 FF7 **805.11** Characterizing the dynamic neural transition from sensory input to motor output - an EEG/fMRI study. T. T. NGUYEN*; T. POTTER; R. G. GROSSMAN; C. KARMONIK; Y. ZHANG. *Univ. of Houston, Houston Methodist Hosp. Neurolog. Inst.*

4:00 FF8 **805.12** β frequency coherence between PPC and PFC local field potentials in monkeys performing a memory guided saccade task. R. J. GERTH*; N. HALL; C. OLSON; C. COLBY. *Univ. of Pittsburgh, Ctr. for Neural Basis of Cognition, Univ. of Pittsburgh.*

1:00 FF9 **805.13** Descending control of landing in *Drosophila* is gated by behavioral state. J. M. ACHE*; S. NAMIKI; A. LEE; K. BRANSON; G. M. CARD. *HHMI/Janelia Res. Campus.*

2:00 FF10 **805.14** Altered balance between top-down and bottom-up saccadic control across exploration and exploitation. B. A. EBITZ*; T. MOORE; T. BUSCHMAN. *Princeton Univ., Stanford Univ., Princeton Univ.*

3:00 FF11 **805.15** Using the optocollic response to determine visual perception in the homing pigeon (*Columba livia*). J. T. ERICHSEN*; C. M. DILLINGHAM; J. A. BARNES; T. MEYDAN. *Cardiff Univ., Trinity Col. Dublin.*

4:00 FF12 **805.16** Marmoset viewing preferences for social stimuli. J. HYMAN; R. LANDMAN*; J. SHARMA; R. DESIMONE; G. FENG. *MIT, Broad Inst.*

1:00 FF13 **805.17** Internal models hold the key to prey fixation in dragonflies: Evidence from a perturbative study. M. MISCHIATI*; A. LEONARDO. *Howard Hughes Med. Inst. Janelia Farm Res. Campus.*

POSTER

806. Bimanual Coordination: Behavior and Muscles

Theme E: Motor Systems

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 FF14 **806.01** Unimanual versus bimanual arm cycling movements - muscle activity variances. M. MRAVCSIK; N. ZENTAI; L. BOTZHEIM; J. LACZKO*. *Univ. of Pecs, Pazmany Peter Catholic Univ., MTA Wigner Res. Ctr. for Physics.*

2:00 FF15 **806.02** Kinematic analysis of bimanual coordination during food manipulation in head-fixed rats. M. IGARASHI*; J. WICKENS. *Okinawa Inst. of Sci. and Technol.*

3:00 FF16 **806.03** Characterizing *de novo* learning of a feedback control policy using a novel bimanual reaching task. J. PAKPOOR*; A. M. HAITH. *Johns Hopkins Univ., Johns Hopkins Univ. Sch. of Med.*

4:00 FF17 **806.04** The role of handedness in a multi frequency bimanual coordination task. S. PANZER*; M. MASSING; D. KENNEDY; C. H. SHEA. *Saarland Univ., Texas A&M Univ.*

1:00 FF18 **806.05** Competing demands of individual movements modulate visual control in bimanual activities. S. D. SARDAR*; S. YEO; R. F. REYNOLDS; J. ALLSOP; T. D. PUNT. *Univ. of Birmingham.*

2:00 GG1 **806.06** Bimanual corrective responses are driven by the biomechanics of the upper limbs. D. CORDOVA BULENS*; F. CREVECOEUR; J. THONNARD; P. LEFÈVRE. *Univ. catholique de Louvain.*

Wed. PM

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3:00 GG2 **806.07** Bilateral reflexes in shared bimanual task are asymmetric. J. SCHAFFER*; R. L. SAINBURG. *The Pennsylvania State Univ., Penn State Col. of Med.*

4:00 GG3 **806.08** A virtual-reality based circle drawing task to assess spatial and temporal characteristics between mirror- and non-mirror-symmetrical upper limb movements. P. SHIH*; C. J. STEELE; A. VILLRINGER; B. SEHM. *MPI for Human Cognitive and Brain Sci., Cerebral Imaging Centre, Douglas Mental Hlth. Institute, McGill Univ., Mind and Brain Institute, Charité and Humboldt Univ.*

1:00 GG4 **806.09** Inter-limb reaction times depend strongly on the certainty of perturbation direction and modestly on the coordination pattern. I. KURTZER*; T. FITZGERALD; A. YASIN. *New York Inst. of Technol. Col. of Osteo. Med.*

2:00 GG5 **806.10** The consistent nature of interference associated with the activation of homologous and non-homologous muscles. D. M. KENNEDY*; C. H. SHEA. *Texas A&M Univ.*

POSTER

807. Motor Systems and Plasticity in Voluntary Movement

Theme E: Motor Systems

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 GG6 **807.01** A single session of acute intermittent hypoxia increases corticospinal excitability in humans. L. CHRISTIANSEN*; M. A. URBIN; G. S. MITCHELL; M. A. PEREZ. *Univ. of Miami, Univ. of Florida.*

2:00 GG7 **807.02** Acute intermittent hypoxia enhances synaptic-like plasticity after human spinal cord injury. M. URBIN*; L. CHRISTIANSEN; G. S. MITCHELL; M. A. PEREZ. *Univ. of Miami Sch. of Med., Univ. of Florida.*

3:00 GG8 **807.03** Classification of neurons in the motor reticular formation and their changes after a unilateral pyramidal tract lesion in primate. B. ZAAIMI*; D. S. SOTEROPOULOS; K. M. FISHER; S. N. BAKER. *Newcastle Univ.*

4:00 GG9 **807.04** ▲ Rapid plasticity in human motor cortex following temporary digit fusion. M. GARDNER*; M. M. GANNON; S. M. LONG; N. A. PARKS. *Univ. of Arkansas.*

1:00 GG10 **807.05** Cortical reorganization following peripheral nerve change: A functional connectivity analysis. F. P. FISCHMEISTER*; E. MATT; A. AMINI; R. SCHMIDHAMMER; R. BEISTEINER. *Med. Univ. of Vienna, Ludwig Boltzmann Inst. for Exptl. and Clin. Traumatology.*

2:00 GG11 **807.06** Motor imagery of muscle contraction is available to induce long-lasting potentiation in indirect cortico-motoneuronal excitation in a relaxed muscle. S. IRIE*; T. NAKAJIMA; S. SUZUKI; R. ARIYASU; T. KOMIYAMA; Y. OHKI. *Kyorin Univ. Sch. of Medicine, Chiba Univ.*

3:00 GG12 **807.07** Mirror visual feedback induced changes in resting state functional connectivity in a complex ball-rotation task. V. RJOSK*; J. LEPSIEN; E. KAMINSKI; M. HOFF; B. SEHM; C. J. STEELE; A. VILLRINGER; P. RAGERT. *MPI for Human Cognitive and Brain Sci., Cerebral Imaging Centre, Douglas Mental Hlth. Institute, McGill Univ., Charité and Humboldt Univ., Univ. of Leipzig.*

4:00 GG13 **807.08** Characterisation of glutamatergic and $GABA_A$ mediated neurotransmission in motor and dorsolateral prefrontal cortex using paired-pulse TMS-EEG. R. CASH*; Y. NODA; R. ZOMORRODI; N. RADHU; F. FARZAN; T. RAJJI; R. CHEN; Z. DASKALAKIS; P. FITZGERALD; D. BLUMBERGER. *Monash Alfred Psychiatry Res. Ctr., Ctr. for Addiction and Mental Hlth., Univ. of Toronto & Toronto Western Res. Institute, Univ. Hlth. Network.*

1:00 GG14 **807.09** The involvement of different motor cortical interneurons in the plasticity induction with paired associative stimulation. Z. NI*; C. GUNRAJ; R. CHEN. *Krembil Neurosci Ctr. and Toronto Western Resch Inst.*

2:00 HH1 **807.10** The influence of an acute bout of lower-limb cycling on sensorimotor integration. K. E. BROWN*; J. L. NEVA; C. S. MANG; W. R. STAINES; L. A. BOYD. *Univ. of British Columbia, Univ. of British Columbia, Univ. of British Columbia, Univ. of Waterloo.*

3:00 HH2 **807.11** Anodal transcranial direct current stimulation (tDCS) over motor cortex enhances split-belt treadmill adaptation in stroke. X. LI*; S. M. MORTON. *Univ. of Delaware, Univ. of Delaware.*

4:00 HH3 **807.12** Rats gone wild: How seminatural rearing of laboratory animals shapes behavioral development and alters somatosensory and motor cortex organization. D. F. COOKE*; M. K. L. BALDWIN; M. S. DONALDSON; J. HELTON; D. S. STOLZENBERG; L. KRUBITZER. *UC Davis, UC Davis.*

1:00 HH4 **807.13** Participation of medial prefrontal cortex in plasticity induced by acrobatic exercise training. S. R. MOTA-ORTIZ*; P. N. DIAS; C. R. PIRES; W. F. DE OLIVEIRA; R. S. PIRES. *Univ. Cidade De São Paulo.*

2:00 HH5 **807.14** Targeted cortical reorganization using optogenetics in non-human primates. D. B. SILVERSMITH; A. YAZDAN-SHAHMORAD*; P. SABES. *UCB-UCSF, Univ. of California San Francisco.*

3:00 HH6 **807.15** An acute bout of exercise modulates interhemispheric inhibition in primary and non-primary motor-related areas. J. L. NEVA*; K. E. BROWN; L. A. BOYD. *Univ. of British Columbia.*

4:00 HH7 **807.16** Changes in cortical activity induced by an intervention using electromyography-driven functional electrical stimulation in individuals with moderate to severe chronic stroke. K. B. WILKINS*; C. CARMONA; J. DROGOS; J. SULLIVAN; J. P. A. DEWALD; J. YAO. *Northwestern Univ., Northwestern Univ.*

1:00 HH8 **807.17** Contribution of BDNF to spontaneous and modified recovery after stroke in a rat model. B. FRITSCH*; L. TOMETTEN; M. R. CURADO; J. REIS. *Univ. of Freiburg/ Neurocenter.*

2:00 HH9 **807.18** Anodal transcranial direct current stimulation enhances intra-limb motor transfer. F. A. ROTTMANN; M. R. CURADO; B. FRITSCH; J. REIS*. *Univ. of Freiburg.*

3:00 HH10 **807.19** Learning specific VTA activation in a skilled reaching task. S. LEEMBURG*; T. CANONICA; A. LUFT. *Univ. of Zurich.*

4:00 HH11 **807.20** ● Enhanced motor recovery by vagus nerve stimulation requires cholinergic innervation in a rat model of ischemic stroke. A. D. RUIZ*; S. HAYS, 75080; A. BERRY; S. VALLEJO; L. BARRON; X. CARRIER. *Univ. of Texas At Dallas, Univ. of Texas at Dallas.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

1:00 HH12 **807.21** Interhemispheric pathway modulation between homotopic sites in rat primary motor cortex (MI) leads to expression of new motor output in the ipsilateral forelimb. A. L. CURRY*; V. PELLICER-MORATA; B. MORSHED; S. NARAYANA; R. S. WATERS. *Univ. of Memphis, Univ. of Memphis, Univ. of Tennessee Hlth. Sci. Ctr., Univ. of Memphis, Univ. of Tennessee Hlth. Sci. Ctr.*

2:00 HH13 **807.22** ●▲ The storm within me: Multiple sclerosis exacerbations vaticinate meteorological events. P. BATTA*; A. R. HIRSCH. *Smell and Taste Treatment and Res. Fndn., Smell & Taste Treatment and Res. Fndn.*

3:00 HH14 **807.23** Plastic changes in pyramidal neurons in layer V of the rat motor cortex in an experimental model of motor activity. M. N. VÁZQUEZ HERNÁNDEZ*; D. C. GONZÁLEZ-TAPIA; N. I. MARTÍNEZ-TORRES; D. GONZÁLEZ-TAPIA; I. GONZÁLEZ-BURGOS. *Ctr. De Investigacion Biomedica De Occidente, Univ. Politécnica de la Zona Metropolitana de Guadalajara.*

4:00 HH15 **807.24** ▲ Different types of exercise induce distinct changes in the expression of synaptic proteins in the brain areas of aged rats. C. R. SCARANSI*, ESQ; R. M. S. GUTIERREZ; D. O. LUSTOSA; C. C. REAL; L. R. G. BRITTO; R. S. PIRES. *Univ. Cidade De São Paulo, Univ. of São Paulo.*

1:00 HH16 **807.25** Activity-dependent changes in the AMPA glutamate receptor subunits in the motor cortex and prefrontal cortex during aging rats. R. M. S. GUTIERREZ*; C. C. REAL; P. C. GARCIA; C. R. SCARANSI; L. R. G. BRITTO; R. S. PIRES. *City Univ. of São Paulo, Univ. of Sao Paulo.*

2:00 HH17 **807.26** ● Spatial and polarity precision of concentric high-definition transcranial direct current stimulation. D. Q. TRUONG*; M. ALAM, 10031; N. KHADKA; D. ADAIR; M. BIKSON. *City Col. of New York, CUNY, City Col. of New York, City Col. of New York, City Univ. of New York, City Univ. of New York, City Col. of New York, City Univ. of New York.*

3:00 II1 **807.27** ● Cortical network targets of cerebellar transcranial magnetic stimulation. M. A. HALKO*; M. DANNHAUER; R. MACLEOD; D. BROOKS; A. PASCUAL-LEONE. *Beth Israel Deaconess Med. Ctr., Univ. of Utah, Northeastern Univ.*

4:00 II2 **807.28** Effect of unidirectional iTBS with simultaneous directional high-definition tDCS on primary motor cortex excitability. S. TREMBLAY*; R. HANNAH; V. RAWJI; J. C. ROTHWELL. *Univ. Col. London.*

POSTER

808. Gait: Muscle Activity, Exercise, and Biomechanics

Theme E: Motor Systems

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 II3 **808.01** Dependence of neurofeedback control on walking speed in humans. F. EHTEMAM*; T. KIEMEL. *Univ. of Maryland, Univ. of Maryland.*

2:00 II4 **808.02** Simulation of adaptive interlimb coordination during locomotion on split-belt treadmill using a rat hindlimb neuromusculoskeletal model. S. FUJIKI*; A. SHINYA; T. FUNATO; K. TSUCHIYA; D. YANAGIHARA. *The Univ. of Tokyo, Kyoto university, The Univ. of Electro-Communications.*

3:00 II5 **808.03** Improvement of sprint cycling performance by trans-spinal direct current stimulation. S. SASADA*; T. ENDOH; T. ISHII; T. KOMIYAMA. *Dept. of Food and Nutr. Science, Sagami W, Uekusa Gakuen Univ., Chiba Univ., Chiba Univ.*

4:00 II6 **808.04** Kinematics of forward and backward walking in the mouse. M. G. VEMULA; G. N. ORLOVSKY; T. G. DELIAGINA; P. V. ZELENIN*. *Karolinska Inst.*

1:00 II7 **808.05** Leveraging energetics of walking to change gait symmetry. R. T. ROEMMICH*; K. A. LEECH; A. J. GONZALEZ; A. J. BASTIAN. *Kennedy Krieger Inst., Johns Hopkins Univ. Sch. of Med.*

2:00 II8 **808.06** Mobile technology sensors detect reduction in turning velocity off medication compared to on in Parkinson's disease patients. M. MILLER KOOP*; S. OZINGA; J. L. ALBERTS. *Cleveland Clin.*

3:00 II9 **808.07** Age-dependent alterations in muscular control of sit-to-stand strategies with dynamic knee extensor fatiguing exercise. M. A. BRYANTON; M. BILODEAU*. *Univ. of Ottawa, Bruyère Res. Inst., Univ. of Ottawa, Univ. of Ottawa.*

4:00 II10 **808.08** Does gradual training affect muscle coactivation during motor learning? A. SCHMALTZ; A. DILLON; L. PAQUETTE; A. DOMINGO*. *San Diego State Univ., San Diego State Univ.*

1:00 II11 **808.09** Functional contribution of the mesencephalic locomotor region to locomotor control. N. JOSSET*; M. ROUSSEL; M. LEMIEUX; F. BRETZNER. *Ctr. De Recherche Du CHU De Québec.*

2:00 II12 **808.10** Locomotor adaptation to push-off resistance during overground walking: Ipsi- and contralateral effects. M. BERTRAND-CHARETTE; J. B. NIELSEN; L. J. BOUYER*. *Univ. Laval Fac Med., Univ. of Copenhagen.*

3:00 II13 **808.11** Creating flexible motor memories in human walking. K. A. LEECH*; R. T. ROEMMICH; A. J. BASTIAN. *Johns Hopkins Univ., Kennedy Krieger Inst.*

4:00 II14 **808.12** ● Step by step variability of kinematic trajectory compared when walking with a wide range of speeds in people with poststroke hemiparesis. D. D. RUMBLE*; C. P. HURT; D. A. BROWN. *Univ. of Alabama At Birmingham.*

1:00 II15 **808.13** The effects of optic flow and treadmill speed on the spatial and temporal components of gait. A. H. POLLACK*; T. J. RAND; M. MUKHERJEE. *Creighton Univ. Sch. of Med., Univ. of Nebraska Omaha.*

2:00 II16 **808.14** Planar covariation of hindlimb elevation angles is present during walking of intact and spinal cats and in simulated locomotion of a neuromechanical model. A. N. KLISHKO*; M. A. LEMAY; I. N. BELOOZEROVA; S. N. MARKIN; I. A. RYBAK; B. I. PRILUTSKY. *Georgia Inst. of Technol., Temple Univ., Barrow Neurolog. Inst., Drexel Univ.*

3:00 II17 **808.15** Virtual reality augments learning of the spatial component of a gait coordination task differently for each leg. T. J. RAND*; J. L. FUJAN-HANSEN; M. MUKHERJEE. *Univ. of Nebraska At Omaha.*

4:00 JJ1 **808.16** ● Locomotor muscle activity responses to walking in an environment of reduced postural demands. S. A. GRAHAM*; D. A. BROWN. *Univ. of Alabama At Birmingham, Univ. of Alabama At Birmingham.*

1:00 JJ2 **808.17** The positioning between the feet and pelvis when avoiding obstacles. B. J. MCFADYEN*; L. DUGAS; L. J. BOUYER. *Laval Univ., CIRRIS.*

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2:00 JJ3 **808.18** ● Synergy analysis of rat walking for elucidating the dysfunction due to neurological disorder. R. SUZUKI*; T. FUNATO; D. YANAGIHARA; S. FUJIKI; Y. SATO; S. AOI; K. TSUCHIYA. *The Univ. of Electro-Communications, The Univ. of Tokyo, Kyoto Univ.*

3:00 JJ4 **808.19** Local dynamic stability in activations of muscle synergies during treadmill walking. B. KIBUSHI*; S. HAGIO; M. KOUZAKI. *Kyoto Univ., Res. fellow of the japan society for the promotion of science, Tokyo Univ.*

4:00 JJ5 **808.20** Perceptual, physiological and neuromechanical correlates of effort associated with step-length manipulations during split-belt walking. N. SANCHEZ*; S. PARK; J. M. FINLEY. *USC.*

1:00 JJ6 **808.21** Behavioural phenotyping using pressure sensor derived signals reveals early signs of pathological phenotype in the 3xTg mouse model of Alzheimer's disease. M. CARREÑO*; M. C. MENDRANO; F. MARTINS; M. BOMPART; K. LOPEZ DE IPIÑA; A. MOUJAHID; X. LEINEKUGEL. *INSERM U1215, Univ. of the Basque Country (UPV/EHU), Univ. of Bordeaux.*

2:00 JJ7 **808.22** Lesions to the olivo-cerebellar pathway disturbed a toe trajectory during stepping over an obstacle in rat. Y. SATO*; S. AOKI; D. YANAGIHARA. *Teikyo Heisei Univ., Okinawa Inst. of Sci. and Technol., The Univ. of Tokyo.*

3:00 JJ8 **808.23** Effects of shoe heel height and heel areas on gait. R. UTSUMI*; S. YOSHIOKA; S. FUKASHIRO. *Univ. of Tokyo.*

4:00 JJ9 **808.24** Constraint-induced forced use the paretic leg during treadmill walking in individuals post stroke. C. HSU; J. KIM; R. TANG; E. ROTH; W. RYMER; M. WU*. *Rehabil. Inst. of Chicago, Northwestern Univ. - Chicago.*

1:00 JJ10 **808.25** ▲ Application of a multilayer perceptron neural network with an iPod as a wireless gyroscope platform to classify reduced arm swing gait for people with Erb's palsy. T. J. MASTROIANNI*; R. LEMOYNE. *Cognition Engin., Northern Arizona Univ.*

2:00 JJ11 **808.26** Differential activation of the leg muscles during cycling interacts with transition to running in triathletes. A. J. KOVACS*; C. L. CAMIC; L. E. BRADLEY; P. GRIFFITH; E. A. DURHAM; T. L. MILLER; H. S. BAWEJA. *Univ. of Wisconsin - La Crosse, San Diego State Univ.*

3:00 JJ12 **808.27** On the combined task of walking and grasping, transporting and placing a dowel on a target in young adults. R. MORAES*; L. O. SANTOS; A. A. S. COSTA. *Univ. of Sao Paulo, Univ. of Sao Paulo.*

1:00 DP05 **808.28** (Dynamic Poster) Active versus passive perceptual control of locomotion: The preference for ballistic movements during walking. S. L. BARTON*; S. STEINMETZ; J. S. MATTHIS; B. FAJEN. *Rensselaer Polytechnic Inst., Univ. of Texas at Austin.*

1:00 JJ13 **808.29** V3 spinal interneurons are crucial in regulating weight-loading movement. H. ZHANG*; D. DESKA-GAUTHIER; Y. ZHANG. *Dalhousie Univ.*

2:00 JJ14 **808.30** Investigation of biologic feedback influence on knee biomechanics during running. H. ARGUNSAH BAYRAM*; M. B. BAYRAM. *Acibadem Univ., Kessler Fndn.*

POSTER

809. Posture: Aging, Injury, and Disease

Theme E: Motor Systems

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 JJ15 **809.01** Brain activation changes during balance and attention demanding tasks in older adults with multiple sclerosis. M. E. HERNANDEZ*; G. CHAPARRO; E. O'DONNELL; R. HOLTZER; M. IZZETOGLU; R. W. MOTL. *UIUC, Yeshiva Univ., Drexel Univ.*

2:00 JJ16 **809.02** ●▲ Acute postural control deficits in Division I college athletes following mild concussions. S. SORIA*; M. J. RAUH; D. J. GOBLE; H. S. BAWEJA. *San Diego State Univ.*

3:00 JJ17 **809.03** ▲ A novel method for evaluating risks for fall and forgetfulness in the elderly using handwriting characteristics. Y. HOSOKAWA*; H. TAKATSU; K. WATANABE; T. WATANABE; E. TANAKA; T. ANME; H. KAWAGUCHI. *Toyo Univ., Tsukuba Univ., Japan Univ. of Hlth. Sci.*

4:00 KK1 **809.04** Center of pressure variables in dynamic functional tasks that are related to a history of falls in community dwelling older adults. K. NEWMAN; M. HUANG*; A. RIGHTER. *Univ. of Michigan Flint.*

1:00 KK2 **809.05** The video head impulse test predicts the ability to reweight vestibular information during stance in patients with vestibular disorders. J. VAN KORDELAAR*; J. H. PASMA; M. CENCIARINI; C. MAURER. *Univ. of Twente, Delft Univ. of Technol., Univ. Freiburg.*

2:00 KK3 **809.06** Visual-vestibular processing deficits in subacute mild traumatic brain injury. W. WRIGHT*; R. T. TIERNEY; J. K. MCDEVITT. *Temple Univ., East Stroudsburg Univ.*

3:00 KK4 **809.07** ●▲ Dual-tasking diverts attention from postural control in older adults. J. ERRAM*; B. TAYLOR; P. GILBERT; D. GOBLE; H. BAWEJA. *Col. of Hlth. and Human Services, Col. of Sci.*

4:00 KK5 **809.08** ●▲ Normative data for the btracks sports balance test in school and college athletes. C. FRENCHIK*; S. M. SORIA; M. J. RAUH; D. J. GOBLE; H. BAWEJA. *San Diego State Univ., San Diego State Univ.*

1:00 KK6 **809.09** Effect of light load on balance in young and older adults. N. R. BIRCHFIELD*; N. DOUNSKAIA. *Arizona State Univ.*

2:00 KK7 **809.10** Mulitfractal analysis of center of pressure in peripheral neuropathy. J. H. ANDERSON*. *Univ. of Minnesota Dept. of Otolaryngology, Minneapolis VA Hlth. Care Syst.*

3:00 KK8 **809.11** Activation timing of postural muscles and P300 component of event-related potential during bilateral arm flexion in oddball task with different presentation probability of target stimulus in the elderly. C. YAGUCHI*; K. FUJIWARA. *Hokkaido Bunkyo Univ., Kanazawa Gakuin Univ.*

4:00 KK9 **809.12** ●▲ Implementation of BTrackS for assessment of balance in individuals with stroke. C. GRAFF*; H. S. BAWEJA; D. J. GOBLE. *San Diego State Univ.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

1:00 KK10 **809.13** ● Postural control with concurrent cognitive tasks in Parkinson's disease patients. M. M. BURKE*, III; B. TAYLOR; J. ERRAM; J. V. FILOTEO; P. E. GILBERT; D. J. GOBLE; H. S. BAWEJA. *San Diego State Univ., Dept. of Psychology, Col. of Sciences, San Diego State University, San Diego, CA, Sch. of Exercise and Nutritional Sciences, Col. of Hlth. and Human Services, San Diego State University, San Diego, CA, Dept. of Psychiatry, Univ. of California at San Diego, San Diego, CA. Veterans Affairs, San Diego Hlth. Care System, San Diego, CA.*

2:00 KK11 **809.14** ▲ Effects of transcranial direct current stimulation (tDCS) to the dorsolateral prefrontal cortex (DLPFC) on neurocognitive performance and balance in combat military personnel. K. E. HUPFELD; C. J. KETCHAM*. *Elon Univ.*

3:00 KK12 **809.15** Anticipatory postural adjustments after perturbations in people with Parkinson's disease who do and do not freeze. D. S. PETERSON*; C. SCHLENSTEDT; F. HORAK. *Oregon Hlth. and Sci. Univ., Univ. of Kiel, Oregon Hlth. & Sci. Univ.*

POSTER

810. Central Pattern Generating Circuits: Models

Theme E: Motor Systems

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 KK13 **810.01** Deep sequencing and single-cell qPCR approaches to identify and characterize genes important for function of the crab stomatogastric ganglion. A. J. NORTHCUTT*; A. G. OTOPALIK; V. B. GARCIA; E. MARDER; D. J. SCHULZ. *Univ. of Missouri-Columbia, Brandeis Univ.*

2:00 KK14 **810.02** Imaging reveals variable neuronal participation in rhythmic motor networks on multiple timescales. E. S. HILL*; E. MORAVAC; A. BRUNO; J. WANG; W. FROST. *Rosalind Franklin Univ. of Med. and Sci.*

3:00 KK15 **810.03** Measuring the stability of a neural oscillator using orthogonal perturbations. J. M. RATLIFF*; T. O'LEARY; A. RINBERG; E. MARDER. *Brandeis Univ., Univ. of Cambridge, Harvard Univ.*

4:00 KK16 **810.04** Synaptic factors that determine activity phase in an oscillatory network. F. NADIM*; D. MARTINEZ; H. ANWAR; A. BOSE. *New Jersey Inst. of Technol., New Jersey Inst. of Technol., New Jersey Inst. of Technol.*

1:00 KK17 **810.05** Single-neuron phase maintenance in an oscillatory network. H. ANWAR*; D. MARTINEZ; F. NADIM. *NJIT, Rutgers-Newark.*

2:00 KK18 **810.06** Separation of the heartbeat CPG and switch CPG by targeted application of myomodulin in the medicinal leech. B. J. NORRIS*; A. WENNING-ERXLEBEN; R. L. CALABRESE. *California State Univ., Emory Univ.*

3:00 LL1 **810.07** Interaction of the Na^+/K^+ pump current with the h-current regulates bursting activity in CPG neurons. D. KUEH*; W. H. BARNETT; G. S. CYMBALYUK; R. L. CALABRESE. *Emory Univ., Georgia State Univ.*

4:00 LL2 **810.08** Robustness of a rhythmic motor pattern to changes in pH. J. HALEY*; E. MARDER. *Brandeis Univ.*

1:00 LL3 **810.09** Dustribution of respiratory-related neurons in C3-C5 cervical segments and their responses to blockade of GABAa and Glycine receptors in decerebrate rats. T. G. BEZDUDNAYA; M. A. LANE; V. MARCHENKO*. *Drexel Univ. Col. of Med.*

2:00 LL4 **810.10** When complex structures may not matter. A. G. OTOPALIK*; A. SUTTON; E. MARDER. *Brandeis Univ., Volen Ctr. for Complex Systems.*

3:00 LL5 **810.11** Coordinated increase of conduction velocities allows for phase maintenance of a rhythmic motor pattern. M. DEMAEGD*; M. CRUZ; B. KNOTT; C. BAINBRIDGE; W. STEIN. *Illinois State Univ.*

4:00 LL6 **810.12** Development of fin function and sensory innervation in zebrafish. H. R. KATZ*; J. LU; M. E. HALE. *Univ. of Chicago, Univ. of Chicago, Univ. of Chicago.*

1:00 LL7 **810.13** The mechanics and sensory feedback of pectoral fins in a model of complex locomotion in adult zebrafish. N. N. SAWYER; K. W. HENDERSON; M. E. HALE*. *Univ. of Chicago.*

2:00 LL8 **810.14** Computational modeling and analysis of half-center CPGs. J. AUSBORN*; A. C. SNYDER; B. J. BACAK; N. A. SHEVTSOVA; J. E. RUBIN; I. A. RYBAK. *Drexel Univ. Col. of Med., Univ. of Pittsburgh.*

3:00 MM1 **810.15** Phase reduction of an inter-segmental network model of stick insect locomotion. A. YELDESBAY*; P. HOLMES; T. TOTH; S. DAUN. *Inst. of Zoology, Univ. of Cologne, Cognitive Neuroscience, Inst. of Neurosci. and Med. (INM-3), Res. Ctr. Juelich, Program in Applied and Computat. Mathematics, Princeton Univ.*

4:00 MM2 **810.16** Temporal characteristics of paw shake response in the cat. J. GREEN; A. KLISHKO; B. PRILUTSKY; G. S. CYMBALYUK*. *Georgia State Univ., Georgia Inst. of Technol.*

1:00 MM3 **810.17** Phase analysis in a reduced model of the leech heartbeat system. A. L. WEAVER*; B. M. EVOY. *St. Michael's Col.*

2:00 MM4 **810.18** Topographical organization of peripheral nerve axons following complete nerve transection and regeneration. E. ZELLMER*; M. MACEWAN; D. MORAN. *Washington Univ. In St. Louis.*

3:00 MM5 **810.19** Parameter tuning for stable bipedal walking of a neuromusculoskeletal model by genetic algorithms. D. ICHIMURA*; Y. TAKAGI; T. YAMAZAKI. *The Univ. of Electro-Communications, Heisei Ougi Hosp.*

4:00 MM6 **810.20** Adult cortical activation patterns during timing of fine movements: An fNIRS study. S. ALPHONSA*; B. E. STUDENKA; R. B. GILLAM. *Utah State Univ., Utah State Univ.*

1:00 MM7 **810.21** An exploration of the capacity of coupled-oscillator CPG models to adapt to dynamic perturbations during simulated bipedal locomotion. A. MARJANINEJAD*; F. VALERO-CUEVAS; J. FINLEY. *USC, USC.*

POSTER

811. Rhythmic Motor Patterns: Neuromodulation

Theme E: Motor Systems

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 MM8 **811.01** ▲ Allatostatin- C signaling systems in the lobster: Identification and characterization of peptides and receptors. M. E. STANHOPE; M. K. ARMSTRONG; J. H. CARMICHAEL; R. R. FISHER; T. J. LAMEYER; M. G. PASCUAL; P. WALSH; A. E. CHRISTIE; P. S. DICKINSON*. *Bowdoin Coll, Univ. of Hawaii at Manoa.*

Wed. PM

• Indicated a real or perceived conflict of interest, see page 154 for details.
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* Indicates abstract's submitting author

2:00 MM9 **811.02** Enhanced licking and grooming lead to increased c-fos expression in medullary serotonin-containing neurons and increased immunostaining for serotonin 2c receptors in the hypoglossal motor nucleus. L. KUBIN*; R. K. DAS; A. PARKAR; K. B. HERR. *Univ. of Pennsylvania.*

3:00 MM10 **811.03** Modulating brain state using a novel TMS-based neurofeedback approach. K. L. RUDDY*; J. H. BALSTERS; D. MANTINI; N. WENDEROTH. *ETH Zurich, KU Leuven.*

4:00 MM11 **811.04** Peptidergic (G-SIFamide/MCN5) modulation of a rhythmically-active microcircuit. D. M. BLITZ; A. P. COOK; M. P. NUSBAUM*. *Miami Univ., Perelman Sch. of Medicine, Univ. of Pennsylvania.*

1:00 MM12 **811.05** Possible role of glycine-related spontaneous activity in the developmental network. A. ARATA*; A. NISHIYAMA; T. KAKIZAKI; H. SHIMOMURA; Y. TAKESHIMA; Y. YANAGAWA. *Hyogo Col. of Med., Hyogo Col. of Med., Gunma Univ., Hyogo Col. of Med.*

2:00 NN1 **811.06** Tonic 5nM dopamine (DA) permits and abolishes activity-dependent regulation of the hyperpolarization-activated (I_h) and transient potassium (I_A) currents, respectively, in the lateral pyloric neuron (LP), a component of the pyloric circuit of the spiny lobster, Panulirus interruptus. A. R. PARKER*; D. J. BARO. *Georgia State Univ., Georgia State Univ.*

3:00 NN2 **811.07** Animal-to-animal variability of circuit components revealed by neuromodulation in the absence of spikes. P. ROSENBAUM*; E. MARDER. *Brandeis Univ.*

4:00 NN3 **811.08** Neuromodulation produces complex changes in resonance profiles of neurons in an oscillatory network. D. M. FOX*; H. G. ROTSTEIN; F. NADIM. *NJIT, NJIT, NJIT.*

1:00 NN4 **811.09** Serotonin reduces synaptic efficacy of myelinated afferents and depresses PAD by the activation of 5-HT_{1B} receptors in the *in vitro* mouse spinal cord. D. GARCÍA-RAMIREZ*; J. MILLA-CRUZ; J. CALVO; C. VILLALÓN; S. HOCHMAN; J. QUEVEDO. *CINVESTAV, CINVESTAV, Emory Univ.*

2:00 NN5 **811.10** Spatial distribution effects on axonal excitability and modulation. E. ROSA*; R. FOLLMANN; W. STEIN. *Illinois State Univ., Illinois State Univ.*

3:00 NN6 **811.11** Sustained block of cannabinoid-1 receptor induced changes in spinal motoneurons. P. VEERARAGHAVAN, 34136; L. BALLERINI*; A. NISTRI. *SISSA, SISSA-ISAS.*

4:00 NN7 **811.12** History dependent effects of repeated neuromodulator application to a small motor circuit. D. J. POWELL*; T. O'LEARY; E. MARDER. *Brandeis Univ., Univ. of Cambridge.*

1:00 NN8 **811.13** Descending modulation of thoracic motor activity in the stick insect. T. STOLZ*; M. DIESNER; S. NEUPERT; J. SCHMIDT. *Univ. of Cologne.*

2:00 NN9 **811.14** Spatial preference of cell body location in the crustacean commissural ganglion. R. FOLLMANN*; C. J. GOLDSMITH; W. STEIN. *Illinois State Univ.*

3:00 NN10 **811.15** ▲ Understanding the skin response to transcranial Direct Current Stimulation (tDCS). N. KHADKA*; F. EZQUERRO; A. H. MOFFA; A. L. ZANNOU; F. ZUNURA; D. Q. TRUONG; F. FREGNI; J. DMOCHOWSKI; A. R. BRUNONI; M. BIKSON. *The City Col. of New York, Univ. Hospital, Univ. of Sao Paulo, Univ. of São Paulo, Harvard Med. Sch.*

4:00 NN11 **811.16** The pH-sensing feedback system of the CNS. B. ROBERTSON*; E. JALALVAND; H. TOSTIVINT; P. WALLÉN; S. GRILLNER. *Dept. of Neuroscience, Karolinska Institutet, Muséum Natl. d'Histoire Naturelle.*

1:00 NN12 **811.17** ▲ Characterization and mechanism of stretch feedback in the heart of the American lobster, Homarus americanus. X. QU*; E. S. DICKINSON; K. HARMON; P. S. DICKINSON. *Bowdoin Col.*

2:00 NN13 **811.18** Effects of neuromodulation on synchronized activity of electrically coupled motor neurons with variable intrinsic properties. B. J. LANE*; D. K. WILSON; D. J. SCHULZ. *Univ. of Missouri Columbia.*

POSTER

812. ALS: Genetic Models

Theme E: Motor Systems

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 NN14 **812.01** ▲ A novel *Drosophila* model of ALS based on profilin 1. E. N. MUNOZ*; A. COYNE; B. ZAEPFEL; S. YAO; D. ZARNESCU. *Univ. of Arizona.*

2:00 OO1 **812.02** Uncovering cellular energetics at the neuromuscular junction in a *Drosophila* model of ALS. E. MANZO*; I. LORENZINI; A. G. O'CONNER; J. BARROWS; A. JOARDAR; R. SATTLER; D. C. ZARNESCU. *Univ. of Arizona, Barrow Neurolog. Inst., Univ. of Arizona, Univ. of Arizona.*

3:00 OO2 **812.03** ●▲ Withdrawn.

4:00 OO3 **812.04** Knock-in DSOD1 mutations cause ALS-like phenotypes in *Drosophila*. A. H. HELD*; P. MAJOR; D. LIPSCOMBE; K. A. WHARTON. *Brown Univ.*

1:00 OO4 **812.05** Generation of a model for pre-symptomatic ALS in *Drosophila* by substitution of TBPH with wild type and mutant hTDP-43. D. B. MORTON*; J. CHANG. *Oregon Hlth. Sci. Univ.*

2:00 OO5 **812.06** Effects of mGlu5 receptor genetic ablation in the SOD^{1G93A} mouse model of amyotrophic lateral sclerosis. C. USAI*; L. CATTANEO; M. MILANESE; T. BONIFACINO; M. MELONE; E. GALLIA; I. MUSANTE; F. CONTI; A. PULITI; G. BONANNO. *Natl. Rese Council, Univ. of Genoa, Univ. Politecnica delle Marche and Ctr. Neurobiol. of Aging, INRCA IRCCS, Univ. of Genoa and Gaslini Inst.*

3:00 OO6 **812.07** ▲ Meta-analysis of treatment efficacy in relation to disease progression in the G93A SOD1 mouse model of amyotrophic lateral sclerosis. T. E. KITTEL*; R. KIM; T. ZHANG; G. COAN; C. S. MITCHELL. *Georgia Inst. of Technol.*

4:00 OO7 **812.08** SOD-1 loss of function and gain of function contribute to neurodegeneration in patient allele knock-in models of familial ALS in C. elegant. S. N. BASKOYLU*; J. YERSAK; P. O'HERN; A. C. HART. *Brown Univ.*

1:00 OO8 **812.09** Comparative analysis of the effects of genetically-altered UPR on disease pathogenesis in different mtSOD1 ALS mouse models. Y. DZHASHIASHVILI*; C. P. MONCKTON; R. B. KUNJAMMA; B. POPKO. *Univ. of Chicago, Univ. of Illinois at Chicago.*

2:00 OO9 **812.10** Combining the hexanucleotide repeat expansion and loss of function of c9orf72 to model Amyotrophic Lateral Sclerosis in the mouse. L. P. BOGDANIK*; L. CANTOR; A. KIEFFER; C. LUTZ. *The Jackson Lab.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 OO10 **812.11** Progressive motor deficits and neuropathology in a TDP43 transgenic mouse of Amytrophic lateral sclerosis. Y. D. KE*; A. VAN HUMMEL; S. IPPATI; L. M. ITTNER. *The Univ. of New South Wales.*

4:00 OO11 **812.12** A frontotemporal dementia and motor neuron disease mouse model of TDP-43 proteinopathy. A. HARMON; S. DAVIS; K. GAN; M. A. GITCHO*. *Delaware State Univ., Delaware Ctr. for Neurosci. Res.*

1:00 OO12 **812.13** Knockin of point mutations using the CRISPR/Cas9 system and HDR to generate ALS missense mutations in zebrafish tardbp and fus. G. A. ARMSTRONG*; A. LISSOUBA; P. DRAPEAU. *CRCHUM, CRCHUM, CRCHUM.*

2:00 OO13 **812.14** Novel targets for modulation of plasticity in a mouse model of motoneuron degeneration. R. GULINO; S. FORTE; R. PARENTI; M. GULISANO*. *BIOMETEC, Univ. of Catania, IOM Ricerca srl.*

3:00 OO14 **812.15** ● Mice lacking Death Receptor 6 (Tnfrsf21) develop spontaneous, progressive motor neuron degeneration. B. IKIZ; M. SCHANER; S. D. CROLL; Y. BAI; W. FURY; M. G. DOMINGUEZ; B. ZAMBROWICZ; N. STAHL; A. J. MURPHY; L. E. MACDONALD; M. L. LACROIX-FRALISH*. *Regeneron Pharmaceuticals, Inc.*

4:00 PP1 **812.16** ▲ CRISPR/Cas9 genome editing in the zebrafish Danio rerio as a tool to examine ALS-associated gene function in motor neurons. C. SMITH*; L. LABOISSONNIERE; R. CHOWDURY; M. LYNCH; M. SIERRA; J. TRIMARCHI. *Iowa State Univ., Iowa State Univ., Ames High Sch.*

1:00 PP2 **812.17** Transcriptome analysis of mutant hPFN1 mouse model of ALS. D. FIL*; A. DELOACH; D. ALKAM; M. KIAEI. *Univ. of Arkansas For Med. Sci.*

POSTER

813. Neuroendocrine Anatomy and Physiology

Theme F: Integrative Physiology and Behavior

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 PP3 **813.01** Sex differences in glutamatergic output from arcuate kisspeptin neurons to POMC and AgRP neurons. J. QIU*; M. A. BOSCH; C. C. NESTOR; S. L. PADILLA; R. D. PALMITER; M. J. KELLY; O. K. RØNNEKLEIV. *Dept. of Physiol. and Pharmacology, Oregon Hlth. and Sci. Univ., Howard Hughes Med. Institute, Univ. of Washington, Oregon Hlth. and Sci. Univ.*

2:00 PP4 **813.02** Influence of sex and sexual maturity on prolactin receptor expression in the rat subfornical organ. A. KAMESH*; A. V. FERGUSON. *Queen's Univ.*

3:00 PP5 **813.03** The TRPV1 receptors are modulated by estradiol and progesterone in the ovary of guinea pig. V. ALATRISTE*; I. MARTÍNEZ; D. I. LIMÓN; L. MARTÍNEZ; I. HERRERA-CAMACHO; F. LUNA; O. GONZÁLEZ-FLORES. *BUAP, CIRA, CINVESTAV-UAT.*

4:00 PP6 **813.04** A switch in RNA transcript levels down-regulates the activity of the thyrotropin-releasing hormone-degrading ectoenzyme in primary cultures of tanycytes. A. RODRÍGUEZ-RODRÍGUEZ; A. COTE-VÉLEZ; B. URRIETA-CHÁVEZ; P. JOSEPH-BRAVO; J. CHARLI*. *Inst. de Biotecnología, Univ. Nacional Autonoma de Mexico (UNAM).*

1:00 PP7 **813.05** ● The neural regulation of thyroid and parathyroid glands. H. HOTTA*; A. ONDA; H. SUZUKI; A. SRIDHAR; K. FAMM. *Tokyo Metropolitan Inst. of Gerontology, GlaxoSmithKline plc.*

2:00 PP8 **813.06** Investigation of the glycinergic innervation of TRH neurons in the hypothalamic paraventricular nucleus. E. VARGA; E. FARKAS; G. ZSÉLI; M. WATANABE; H. U. ZEILHOFER; R. M. LECHAN; C. FEKETE*. *Inst. of Exptl. Medicine, Hungarian Acad. of Sci., Dept. of Anatomy, Hokkaido Univ. Sch. of Med., Inst. of Pharmacol. and Toxicology, Univ. of Zurich, Dept. of Medicine, Div. of Endocrinology, Diabetes and Metabolism, Tupper Res. Institute, Tufts Med. Ctr., Dept. of Neuroscience, Tufts Univ. Sch. of Med.*

3:00 PP9 **813.07** Thyrotropin-releasing hormone neurons of the dorsomedial nucleus of the hypothalamus and energy balance. K. VARGAS ORIHUELA; L. JAIMES-HOY; H. URBINA; E. SÁNCHEZ-JARAMILLO; P. I. JOSEPH-BRAVO*; J. CHARLI. *Inst. de Biotecnologia, Univ. Nacional Autonoma de Mexico (UNAM), Inst. Nacional de Psiquiatria.*

4:00 PP10 **813.08** Hyperthyroidsm modulates hypotalamic Tyrosine Hydroxilase activity and PRL signaling during late pregnancy and early lactacion in rats. G. E. PENNACCHIO*; C. ACOSTA; A. SELTZER; M. SOAJE; G. A. JAHN; S. R. VALDEZ. *Ctr. Cientifico Y Tecnologico CONICET Mendoza, IMBECU CCT-CONICET, FCEN Univ. Nacional de Cuyo, IHEM CCT-CONICET, FCM Univ. Nacional de Cuyo.*

1:00 PP11 **813.09** Adaptive resetting of tuberoinfundibular dopamine (TIDA) neuronal network activity in lactation and other reproductive states. C. T. PEREZ*; A. HELLYSAZ; J. VAN LUNTEREN; C. BROBERGER. *Karolinska Inst.*

2:00 PP12 **813.10** Artificial rearing modifies the negative feedback in the gh/igf-1 axis in neonatal rats. C. G. TORIZ*; A. MARTÍNEZ-MUÑOZ; C. SOLANO-AGAMA; I. JIMÉNEZ-ESTRADA; M. GONZÁLEZ DEL PLIEGO; M. E. MENDOZA-GARRIDO; A. I. MELO-SALAZAR. *CINVESTAV-IPN, Ctr. for Res. in Animal Reproduction, UATx, UNAM.*

3:00 PP13 **813.11** GABAergic modulation of tuberoinfundibular dopamine (TIDA) neuron network activity. R. AMMARI*; C. BROBERGER. *Karolinska Institutet.*

4:00 PP14 **813.12** A comparative high spatial resolution analysis of genetic markers for neuronal GABA and glutamate in the rat hypothalamus. A. G. WATTS*; N. T. CARLOS; F. J. ABU-JABER; G. SANCHEZ-WATTS; J. D. HAHN. *USC, Univ. of Southern California Dept. of Biol. Sci.*

1:00 PP15 **813.13** RFRP-3 actions on corticotropin-releasing hormone neurons. J. KIM*; G. M. ANDERSON; K. J. IREMONGER. *Univ. of Otago.*

2:00 PP16 **813.14** ▲ Localization and levels of luteinizing hormone in the mouse brain during estrous cycle stages. P. BIDINOTTO*; K. SRACIC; J. A. BLAIR; S. BHATTA; G. CASADESUS. *Kent State Univ., Kent State Univ.*

3:00 QQ1 **813.15** Evidence for progesterone receptor expression within Cajal-Retzius cells of the neonatal dentate gyrus. A. J. NEWELL*; C. K. WAGNER. *Univ. At Albany.*

4:00 QQ2 **813.16** Dopaminergic innervation patterns within medial prefrontal cortex are altered by developmental exposure to a synthetic progestin used to prevent preterm birth. M. LOLIER*; C. K. WAGNER. *Univ. At Albany.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

1:00 QQ3 **813.17** Effects of estrogen therapy on neurochemistry of female rats in animal model of perimenopause. N. PESTANA*; C. M LEITE; R. CAROLINO; P. RIVAS; L. L K ELIAS; J. ANTUNES RODRIGUES; J. ANSELMO-FRANCI. *Univ. de São Paulo-Faculdade de Medicina de Ribeirão Preto/FMRP, Univ. de São Paulo, Univ. de São Paulo, Univ. de São Paulo Faculdade de Medicina de Ribeirão Preto, Univ. de São Paulo Faculdade de Odontologia de Ribeirão Preto.*

2:00 QQ4 **813.18** A transcriptomic analysis of the female mouse brain: Effect of the estrous cycle in 4 brain regions. L. M. DICARLO*; C. M. VIED; R. S. NOWAKOWSKI. *Florida State Univ. Col. of Med.*

POSTER

814. Neuropeptides: Physiology And Behavior

Theme F: Integrative Physiology and Behavior

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 QQ5 **814.01** Corticotropin-releasing factor (CRF) receptors modulate oxytocin release in the bed nucleus of the stria terminalis (BNST). D. MARTINON*; J. A. DABROWSKA. *Rosalind Franklin Univ. of Med. and Scien.*

2:00 QQ6 **814.02** ▲ Ghrelin activates corticotropin-releasing factor neurons of the hypothalamic paraventricular nucleus via regulation of GABA inputs. A. CABRAL*; E. PORSTIANKY; E. SÁNCHEZ JARAMILLO; J. ZIGMAN; M. PERELLO. *Lab. of Neurophysiology- Multidisciplinary Inst. of Cell Biol., Image analysis laboratory, Dirección de Investigaciones en Neurociencias, Inst. Nacional de Psiquiatría Ramón de la Fuente Muñiz, Dept. of Intrnl. Med. (Divisions of Hypothalamic Res. and Endocrinology).*

3:00 QQ7 **814.03** Chronic stress causes an enhanced NMDA receptor function in the hypothalamic corticotrophin-releasing hormone (CRH)-expressing neurons. J. ZHOU; Z. ZHAO; D. LI*. *UT MD Anderson Cancer Ctr., The Second Hospial of HeBei Med. Univ., UT-MD Anderson Cancer Ctr.*

4:00 QQ8 **814.04** Modulation of corticotropin-releasing factor-induced activation of noradrenergic neurons by a cannabinoid type 1 receptor agonist. R. WYROFSKY*; B. A. S. REYES; L. G. KIRBY; E. J. VAN BOCKSTAELE. *Drexel Univ. Col. of Med., Lewis Katz Sch. of Med. at Temple Univ.*

1:00 QQ9 **814.05** Corticotropin-releasing factor and a-Helical CRF modulate 50 kHz and 22 kHz ultrasonic calling behavior and anxiety in rats. J. O. TAYLOR*; V. GJINI; B. COOPER. *TCU.*

2:00 QQ10 **814.06** Control of BNST CRF neurons by norepinephrine and stress. T. FETTERLY*; E. K. AWAD; Y. SILBERMAN; D. G. WINDER. *Vanderbilt Univ. Med. Ctr., Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ., Penn State Col. of Med.*

3:00 QQ11 **814.07** Male and female rats show different behavioral and neuronal responses to central CRF receptor activation. S. M. KLAMPFL*; Y. YANG; J. CHANG; V. VIAU. *Univ. of British Columbia.*

4:00 QQ12 **814.08** Distribution of corticotropin-releasing factor neurons in the mouse brain: A study using corticotropin-releasing factor modified yellow fluorescent protein knock-in mouse. K. ITOI*; J. KONO; K. KONNO; A. H. TALUKDER; T. FUSE; K. UCHIDA; S. YAMAGATA; S. HORIO; M. ABE; M. WATANABE; K. SAKIMURA. *Lab. Information Biol., Tohoku Univ., Dept. Anat., Hokkaido Univ., Tokushima Univ., Niigata Univ.*

1:00 QQ13 **814.09** Morphological analysis of hypothalamic corticotropin-releasing hormone (CRH) neurons. K. J. IREMONGER*; T. BITTAR; B. NAIR. *Univ. of Otago.*

2:00 QQ14 **814.10** The effects of oxytocin in the bed nucleus of stria terminalis (BNST) on anxiety and fear. M. MOADDAB*; J. DABROWSKA. *Chicago Med. Sch. (RFUMS).*

3:00 QQ15 **814.11** The oxytocin system as regulator of stress and anxiety: Underlying molecular mechanisms. B. JUREK*; I. D. NEUMANN. *Univ. Regensburg.*

1:00 DP06 **814.12** (Dynamic Poster) Optogenetic activation of oxytocin neurons evokes pain avoidance behaviors. S. LUKS-MORGAN*; C. L. WEE; M. NIKITCHENKO; J. GAGNON; E. SONG; O. RANDLETT; I. H. BIANCO; A. M. B. LACOSTE; A. GRAMA; D. G. C. HILDEBRAND; A. SCHIER; S. KUNES; F. ENGERT; A. D. DOUGLASS. *Univ. of Utah, Univ. of Utah, Harvard Univ., Univ. Col. London.*

1:00 QQ16 **814.13** ▲ Effects of oxytocin and quinpirole in the amygdaloid modulation of anxiety. A. HERNANDEZ*; M. PÉREZ DE LA MORA; M. CRESPO RAMIREZ; K. FUXE. *Inst. For Cell. Physiol., Karolinska Inst.*

2:00 QQ17 **814.14** Oxytocin interacts with GABA in the medial prefrontal cortex to reduce anxiety-like behavior. S. SABIHI*; S. MAURER; C. POST; B. LEUNER. *Ohio State Univ., Ohio State Univ., Ohio State Univ.*

3:00 QQ18 **814.15** Oxytocin attenuates neural and behavioral responses to chemosensory stress signals. D. SCHEELE*; A. MAIER; T. MENBA; F. MOHR; W. MAIER; R. HURLEMANN. *Univ. of Bonn.*

4:00 QQ19 **814.16** ▲ Effects of clonidine and oxytocin in the modulation of anxiety in rat. J. HERNANDEZ MONDRAGON*; M. PÉREZ DE LA MORA. *Inst. De Fisiologia Celular, UNAM.*

1:00 QQ20 **814.17** Differential activation of vasopressin receptors on the amygdaloid modulation of fear and anxiety in the rat. O. R. HERNANDEZ PEREZ*; M. CRESPO; K. FUXE; M. PEREZ DE LA MORA. *Univ. Nacionalautonoma De México, Univ. Nacional Autonoma De México, Karolinska Institutet, Univ. Nacional Autonoma de México.*

2:00 RR1 **814.18** Orexin depolarizes central amygdala neurons via activation of orexin receptor 1 and downstream activity of sodium calcium exchanger. E. T. DUSTRUDE*; C. S. BERNABE; S. BHATNAGAR; P. L. JOHNSON; A. I. MOLOSH; A. SHEKHAR. *Indiana Univ. Sch. of Med., Stark Neurosciences Res. Inst., Indiana Univ. Sch. of Med., Med. Neurosciences Grad. Program, Perelman Sch. of Med., Indiana Clin. and Translational Sci. Inst.*

3:00 RR2 **814.19** Topographical organization of perifornical orexin neurons; Implications for stress-induced disorders. P. J. RONAN*; T. D. SKOG; J. J. BRUDVIG; L. B. CALLAHAN; C. H. SUMMERS. *VA Research/USD Sanford Sch. of Med., Univ. of South Dakota.*

4:00 RR3 **814.20** Role of the orexin (hypocretin) system in contextual fear conditioning in rats. H. WANG*; S. LI; G. J. KIROUAC. *Univ. of Manitoba, Univ. of Manitoba.*

1:00 RR4 **814.21** Inhibition of orexin neurons by DREADDs promotes resilience to social defeat. D. EACRET*; L. GRAFE; S. LUZ; S. BHATNAGAR. *Children's Hosp. of Philadelphia.*

2:00 RR5 **814.22** Influence of PACAP on stress related phenotypes. K. R. LEZAK*; A. J. ALEXANDER; R. J. DONAHUE; A. M. WELLS; W. A. CARLEZON, Jr. *McLean Hospital, Harvard Med. Sch.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
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* Indicates abstract's submitting author

3:00 RR6 **814.23** Enkephalin and δ opioïd receptor promote the resilience to chronic stress. M. S. HENRY*; N. VERNOUX; M. TREMBLAY; G. DROLET. *Ctr. De Recherche Du CHU De Québec.*

4:00 RR7 **814.24** Anatomical, morphological, and electrophysiological properties of central amygdala dynorphin neurons. J. G. MCCALL*; B. A. COPITS; V. K. SAMINENI; R. W. GEREAU, IV. *Washington Univ.*

1:00 RR8 **814.25** The effects of prior stress on anxiety-like responding to intra-BNST pituitary adenylate cyclase activating polypeptide (PACAP) in male and female rats. S. B. KING*; B. BRUMBAUGH; D. VORMSTEIN-SCHNEIDE; V. MAY; S. E. HAMMACK. *Univ. of Vermont, Univ. of Vermont Col. of Med.*

2:00 RR9 **814.26** Experimentally-induced colitis promotes anxiogenesis — a possible role for central amygdala CRH neurons. B. HUNT*; K. D. NYUYKI; Q. J. PITTMAN; K. A. SHARKEY; J. S. BAINS. *Univ. of Calgary, Univ. of Calgary.*

POSTER

815. Circadian Mechanisms

Theme F: Integrative Physiology and Behavior

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 RR10 **815.01** Constant light during lactation programs circadian and metabolic functions in rat pups. M. PALMA*; I. OSNAYA; A. BALDERAS; D. ORTEGA; D. ORTEGA; C. ESCOBAR BRIONES. *UNAM.*

2:00 RR11 **815.02** Parental exposure to dim light at night prior to mating alters offspring adaptive immunity. Y. M. CISSE*; R. J. NELSON. *The Ohio State Univ. Wexner Med. Ctr., The Ohio State Univ. Wexner Med. Ctr.*

3:00 RR12 **815.03** Circadian misalignment between hypothalamus and ovary in obese mice Neotomodon alstoni. M. PEREZ-MENDOZA; C. R. JUAREZ-TAPIA; G. MARTINEZ-MORALES; M. CARDENAS LEON; M. MIRANDA-ANAYA*. *Facultad De Ciencias, UNAM, 2. Instituto de Ciencias Médicas y de la Nutrición, Salvador Zubirán.*

4:00 RR13 **815.04** Acute effects of light at night on glucose metabolism in rats. A. KALSBEEK*; A. OPPERHUIZEN; D. STENVERS; R. D. JANSEN; E. FOPPEN; E. FLIERS. *Academic Med. Ctr. (AMC), Dept Endocrinol & Metab, Netherlands Inst. for Neurosci. (NIN).*

1:00 RR14 **815.05** ▲ Chronic lead exposition affects neuronal activation of the suprachiasmatic nuclei of the male rat. H. A. MOLINA*; J. ROJAS-CASTAÑEDA; P. DURAN. *Univ. Nacional Autónoma De México, Inst. Nacional de Pediatría.*

2:00 RR15 **815.06** Characterization of the rhesus monkey suprachiasmatic nucleus during aging. D. H. EGHLIDI*; V. T. GARYFALLOU; S. G. KOHAMA; H. F. URBANSKI. *Beth Israel Deaconess Med. Ctr. and Harvard M, Oregon Natl. Primate Res. Ctr.*

3:00 RR16 **815.07** Kv12-encoded channels selectively regulate nighttime firing rates 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.*

4:00 RR17 **815.08** An eIF2α kinase GCN2 regulates circadian clock timing and entrainment. R. CAO*; N. D. ZAVALÍA; L. ZHU; K. STORCH; S. AMIR; N. SONENBERG. *Univ. of Minnesota Med. Sch., Concordia Univ., McGill Univ., McGill Univ.*

1:00 RR18 **815.09** The phosphorylation of CREB at Serine-133 contributes to both SCN clock timing and entrainment. K. L. WHEATON; K. HANSEN; S. ATEN; K. R. HOYT*; K. OBRIETAN. *Ohio State Univ. Col. of Pharm., Ohio State Univ. Col. of Med.*

2:00 RR19 **815.10** Cannabinoids change circadian timing and recruit astrocytes to modulate GABAergic neurotransmission within the SCN. L. M. HABLITZ*; C. N. ALLEN. *Oregon Hlth. and Sci. Univ.*

3:00 RR20 **815.11** ● Multiscale mathematical modeling of vigilance state feedback on the circadian clock. C. DINIZ BEHN*; M. MURRAY; V. BOOTH. *Colorado Sch. of Mines, Univ. of Colorado Anschutz Med. Campus, Colorado Sch. of Mines, Univ. of Michigan.*

4:00 RR21 **815.12** Realignment of behavioural state and sub-cortical brain activity following chemogenetic activation of melanopsin retinal ganglion cells (mRGCs). N. MILOSAVLJEVIC*; J. CEHAJIC-KAPETANOVIC; C. A. PROCYK; R. J. LUCAS. *The Univ. of Manchester, Ctr. for Ophthalmology & Vision Sciences, Inst. of Human Development, Fac. of Med. and Human Sci. and Manchester Royal Eye Hosp.*

1:00 RR22 **815.13** Photoentrainment and glutamatergic synaptic transmission in the SCN of ipRGC conditional vGlut2 KO mice. M. MOLDAVAN; P. J. SOLLARS; C. N. ALLEN*; G. E. PICKARD. *Oregon Hlth. Sci. Univ., Univ. of Nebraska, Univ. of Nebraska Med. Ctr.*

2:00 SS1 **815.14** Circadian phase shifts induced by matrix metalloproteinase-2/-9 inhibition in the suprachiasmatic nucleus correlate with an endogenous rhythm in enzymatic activity. K. ABRAHAMSSON*; R. PROSSER. *Univ. of Tennessee.*

3:00 SS2 **815.15** Excitatory $GABA_A$ receptor responses in the suprachiasmatic nucleus control phase shifts of circadian rhythms. J. K. MCNEILL*, IV; J. WALTON; E. ALBERS. *Georgia State Univ.*

4:00 SS3 **815.16** Impairment of the rat estrous cycle as a consequence of a 2 hour restricted feeding protocol. J. P. HERNANDEZ, 09230; P. ESTEVEZ; M. I. GUTIERREZ; G. D. CORTES; C. Y. JAVIER; A. FLORES*; C. C. SILVA. *FES Zaragoza-UNAM, FES Zaragoza-UNAM.*

1:00 SS4 **815.17** Behavioral & neural response to variation in the timing of restricted feeding. A. RASTOGI*; E. M. MINTZ. *Kent State Univ.*

2:00 SS5 **815.18** Locomotor sensitization and circadian food entrainment. H. N. OPIOL*; N. DE ZAVALIA; T. DELORME; P. SOLIS; S. RUTHERFORD; S. AMIR. *Ctr. For Studies In Behavioral Neurobiology, Con, Concordia Univ.*

3:00 SS6 **815.19** Entrainment in a polyphasic light regime is affected by sex, age, activity, and light levels. T. J. WALBEEK*; D. A. MAY; I. MISHRA; M. R. GORMAN. *UCSD, Univ. of Delhi.*

4:00 SS7 **815.20** ▲ Effects of superior colliculus (SC) lesions on circadian rhythms and masking in diurnal grass rats. O. KHACHERIAN; A. GOODWIN; A. J. GALL*. *Hope Col.*

1:00 SS8 **815.21** Circadian characterization of a VPA induced model of autism in rats. S. FERRARO*; N. DE ZAVALIA; S. AMIR. *Concordia Univ.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

2:00 SS9 **815.22** Transgenerational epigenetic effect of cocaine on circadian behavior and cocaine reward. A. YAW*; A. SHEMERY; R. A. PROSSER; J. D. GLASS. *Kent State Univ., Univ. of Tennessee.*

3:00 SS10 **815.23** *In vivo* imaging of clock gene expression in multiple tissues of freely moving mice. T. HAMADA*; S. KENNETH; M. ISHIKAWA; N. MIYAMOTO; S. HONMA; H. SHIRATO; K. HONMA. *Hokkaido Univ., Hokkaido Univ. Grad. Sch. of Med., Hokkaido Univ. Grad. Sch. of Hlth. Sci., Hokkaido Univ. Grad. Sch. of Med., Hokkaido Univ. Grad. Sch. of Med.*

4:00 SS11 **815.24** Intracellular calcium in the suprachiasmatic nucleus and the resetting of circadian phase. J. C. WALTON*; J. K. MCNEILL, IV; H. E. ALBERS. *Georgia State Univ.*

1:00 SS12 **815.25** Effects of photoperiod alteration on the hypothalamic-pituitary-adrenal stress axis and behavior in male C57BL/6J mice fed soy-based and soy-free diets. B. M. BAUMAN*; R. J. HANDA; T. J. WU. *Uniformed Services Univ., Colorado State Univ.*

2:00 SS13 **815.26** Diurnal corticosterone is necessary but not sufficient for optimal conditioned fear extinction learning in male rats. E. R. WOODRUFF*; L. E. CHUN; D. TIRADO; R. L. SPENCER. *Univ. of Colorado At Boulder, Univ. of Miami.*

3:00 SS14 **815.27** Stem-like cells of the adult mouse suprachiasmatic nucleus examined in explant cultures. D. BELIGALA; A. DE; A. MALIK; M. E. GEUSZ*. *Bowling Green State Univ., Cincinnati Children's Hosp. and Med. Ctr., Bowling Green State Univ.*

4:00 SS15 **815.28** Circadian rhythms of adolescent rodents and the effects of adolescent circadian misalignment on mood and alcohol sensitivity. C. A. VADNIE*; B. P. HASLER; P. K. PAREKH; M. L. BERTHOLOMEY; J. D. OLIVER-SMITH; E. J. FITZGERALD; C. A. MCCLUNG. *Univ. of Pittsburgh.*

POSTER

816. Control of Sleep

Theme F: Integrative Physiology and Behavior

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 SS16 **816.01** State-dependent population synchrony in prefrontal cortex of freely moving non-human primate. R. MILTON*; N. SHAHIDI; V. DRAGOI. *Univ. of Texas Hlth. Sci. Ctr. At Houst.*

2:00 SS17 **816.02** A novel role of Arc gene in sleep. A. SUZUKI*; R. W. GREENE. *UT Southwestern Med. Ctr.*

3:00 SS18 **816.03** Knockdown of AT1 receptor expression in sleep-promoting areas improves sleep in a rodent model of stress-induced insomnia. G. CANO*; A. F. SVED. *Univ. of Pittsburgh Dept. of Neurosci.*

4:00 SS19 **816.04** Involvement of interneuronal peptides in sleep duration in mammals. G. N. KANDA*; K. SUMIYAMA; R. G. YAMADA; H. R. UEDA. *RIKEN, Osaka Univ., Univ. of Tokyo.*

1:00 SS20 **816.05** Optogenetic activation of MCH neurons in MCH knockout mice increases sleep at night. R. KONADHODE*; D. PELLURU; C. BLANCO-CENTURION; M. LIU; P. SHIROMANI. *Med. Univ. of South Carolina, Ralph Johnson VAMC.*

2:00 SS21 **816.06** Dorsomedial hypothalamus circuits for sleep regulation. K. CHEN*; M. XU; Y. DAN. *Univ. of California Berkeley, Howard Hughes Med. Inst.*

3:00 SS22 **816.07** VTA dopaminergic neurons regulate sleep-wake states. A. EBAN-ROTHSCHILD*; G. ROTHSCHILD; W. J. GIARDINO; J. R. JONES; L. DE LECEA. *Stanford Univ., Univ. of California, San Francisco.*

4:00 SS23 **816.08** ● Optogenetic manipulation of basal forebrain parvalbumin neuron terminals in TRN modulates sleep spindles and NREM sleep. S. THANKACHAN*; J. M. MCNALLY; J. T. MCKENNA; C. YANG; R. E. STRECKER; R. E. BROWN; R. W. MCCARLEY. *VA Boston Healthcare Sys. & Harvard Med. Sch.*

1:00 SS24 **816.09** ▲ Octopamine regulation of sleep and arousal. D. SITARAMAN*; V. RAMIREZ. *Univ. of San Diego, Univ. of San Diego.*

2:00 SS25 **816.10** Role of the cholinergic transmission from the nucleus basalis of Meynert to the thalamic reticular nucleus in sleep regulation. P. DONG*; X. HOU; K. NI; P. JIANG; X. LI. *Inst. of Neurosci.*

3:00 SS26 **816.11** Optogenetic inhibition of spiking during slow wave activity prevents consolidation of neuroprosthetic learning. T. GULATI*; L. GUO; D. RAMANATHAN; A. HISHINUMA; A. BODEPUDI; K. GANGULY. *San Francisco VA Med. Center/ UCSF.*

4:00 TT1 **816.12** Forward genetic screening in mice identifies a novel sleep-regulating gene. H. FUNATO*; C. MIYOSHI; M. SATO; A. IKKYU; M. KAKIZAKI; N. HOTTA; S. KANNO; K. HARUNA; S. WAKANA; M. YANAGISAWA. *Toho Univ. Sch. of Med., Univ. Tsukuba, WPI-IIIS, RIKEN BRC.*

1:00 TT2 **816.13** Optogenetic activation of VLPO galaninergic neurons promotes sleep in mice. D. KROEGER*; L. L. FERRARI; E. ARRIGONI; T. E. SCAMMELL; C. B. SAPER; R. VETRIVELAN. *BIDMC / Harvard Univ.*

2:00 TT3 **816.14** Cation composition changes in brain interstitial space control the sleep-wake cycle. F. DING*; J. O'DONNELL; Q. XU; N. KANG; N. GOLDMAN; M. NEDERGAARD. *Univ. of Rochester.*

3:00 TT4 **816.15** Differential regulation of wake, sws and rem sleep by pontomedullary GABAergic, glutamatergic and phox2b-expressing neurons. C. ANACLET*; P. M. FULLER. *BIDMC Harvard.*

4:00 TT5 **816.16** The effects of Locus Coeruleus optogenetic stimulation on sleep Traits and Memory Consolidation. K. SWIFT*; B. GROSS; A. SERGEEVA; D. BAUER; G. POE. *Univ. of Michigan.*

POSTER

817. Thirst and Water Balance

Theme F: Integrative Physiology and Behavior

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 TT6 **817.01** Glial immunolabeling in female rats after short term vs long term furosemide treatment. S. L. CORE*; K. CURTIS. *Oklahoma State Univ. Ctr. For Hlth. Scienc.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

2:00 TT7 **817.02** Maternal salt overloading changes behavioral, neuroendocrine and transcriptome responses in adult offspring. M. SANTOS DA SILVA*; F. LUCIO-OLIVEIRA; C. HINDMARCH; A. S. MECAWI; M. P. GREENWOOD; L. L. K. ELIAS; D. MURPHY; J. ANTUNES-RODRIGUES. *Ribeirao Preto Med. Sch. - USP, Sch. of Clin. Sciences, Univ. of Bristol, Fac. of Medicine, Univ. of Malaya, Inst. of Biology, Federal Rural Univ. of Rio de Janeiro.*

3:00 TT8 **817.03** Chronic dehydration induced brain plasticity and exhibited high expression of vasopressin and renal water channel aquaporin type 2 of meriones shawi. A. ELGOT*; O. ELHIBA; H. GAMRANI. *Cadi Ayyad Univ. (UCAM), Fac. of Sci., laboratory of biomedical sciences, Higher Inst. of Hlth. Sciences, Hassan First University, Complexe Universitaire, route de Casablanca B.P 555 Settat, Morocco., Lab. of Neurosciences, Pharmacol. and Environment, Cadi Ayyad Univ. (UCAM), Fac. of Sci. Semlalia, B.P. 2390, Marrakesh, Morocco.*

4:00 TT9 **817.04** Reproductive status does not affect phasic activity patterning in hypothalamic vasopressin neurons. C. H. BROWN*; R. A. AUGUSTINE. *Univ. Otago, Univ. of Otago.*

1:00 TT10 **817.05** Thirst neurons anticipate the homeostatic consequences of eating and drinking. C. A. ZIMMERMAN*; Y. LIN; D. E. LEIB; L. GUO; E. L. HUEY; G. E. DALY; Z. A. KNIGHT. *UCSF.*

2:00 TT11 **817.06** High salt intake activates microglia-mediated astrocytes remodeling to modulate the excitability of vasopressin neurons. M. PRAGER-KHOUTORSKY*; K. Y. CHOE; T. W. FARMER; D. I. LEVI; K. K. MURAI; C. W. BOURQUE. *McGill Univ.*

3:00 TT12 **817.07** Perinatal exposure to commercial mixture of polybrominated diphenyl ethers DE79 affects vasopressin content and mRNA expression in hypothalamic nuclei of adult rats. M. Y. ÁLVAREZ-GONZÁLEZ*; E. SÁNCHEZ-ISLAS; S. MUCIO-RAMÍREZ; P. DE GORTARI; M. I. AMAYA; M. LEÓN-OLEA. *Inst. Nacional De Psiquiatría Ramón De La Fuente, Inst. Nacional De Psiquiatría Ramón De La Fuente.*

4:00 TT13 **817.08** Direct actions of adropin on hypothalamic paraventricular nucleus neurons. S. P. LOEWEN*; A. V. FERGUSON. *Queen's Univ.*

1:00 TT14 **817.09** Clock-driven vasopressin neurotransmission mediates anticipatory thirst prior to sleep. C. GIZOWSKI*; C. ZAELZER; C. W. BOURQUE. *Res. Inst. of the MUHC.*

2:00 UU1 **817.10** Sex differences in angiotensin II-induced behavioral desensitization are not mediated by activational or organizational effects of gonadal hormones. J. SANTOLLO*; D. DANIELS. *Univ. at Buffalo Dept. of Psychology.*

3:00 UU2 **817.11** Nucleus accumbens dopamine responds to fluid balance-restoring stimuli in a state-dependent manner. S. M. FORTIN*; M. F. ROITMAN. *Univ. of Illinois At Chicago.*

4:00 UU3 **817.12** Intracerebroventricular administration of thyrotropin-releasing hormone suppresses water intake without affecting feed consumption in the neonatal chicks. S. KAWAKAMI*; Y. HAYASHI. *Hiroshima Univ. Grad. Sch. of Biosphere Sci.*

1:00 UU4 **817.13** Estradiol enhances vasopressin (AVP) secretion induced by dehydration through estrogen receptor β without affecting transient receptor potential vanilloid subtype 1 (TRPV1) gene expression in the supraoptic nucleus. T. VILHENA-FRANCO*; G. ALMEIDA-PEREIRA; F. LUCIO-OLIVEIRA; A. S. MECAWI; L. L. K. ELIAS; J. ANTUNES-RODRIGUES. *Univ. of Sao Paulo, Dept. of Physiological Sciences, Inst. of Biology, Federal Rural Univ. of Rio de Janeiro.*

POSTER

818. Appetitive and Incentive Learning and Memory: Conditioning II

Theme G: Motivation and Emotion

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 UU5 **818.01** Cortico striato limbic circuits in Pavlovian reward conditioning: A western blot analysis. R. ZANCA*; R. CAAMANO-TUBIO; J. AVILA; P. SERRANO; A. DELAMATER. *Hunter Col., The Grad. Ctr., Brooklyn Col.*

2:00 UU6 **818.02** Aged dominant negative p38α mapk mice exhibit conserved adult-neurogenesis and context fear discrimination. D. CORTEZ*; K. T. DINELEY, 77550. *UTMB, The Univ. of Texas Med. Br.*

3:00 UU7 **818.03** Dietary copper and zinc on fear extinction, NMDAR 2A and 2B, and Cu/Zn superoxide dismutase 1 expression: Implications for learning impairment. C. NEELY*; K. BOGGS; S. LIPPI; J. FLINN. *George Mason Univ.*

4:00 UU8 **818.04** Chronic exercise restores contextual conditioning and reinstatement of conditioned fear in ageing mice. J. H. KIM*; V. BUI; H. MADSEN; A. HANNAN; A. SHORT. *Florey Neurosci. Inst.*

1:00 UU9 **818.05** Individual differences in reward-related behaviors predict conditioned fear responses in rats. A. GHEIDI*; C. J. FITZPATRICK; R. L. ATKINSON; J. D. MORROW. *Univ. of Michigan, Univ. of Michigan, Univ. of Michigan.*

2:00 UU10 **818.06** α-1 adrenergic blockade during sleep impairs fear memory consolidation in a mouse model of PTSD. J. WALTON*; J. HARTMANN; K. J. RESSLER. *McLean Hospital, Harvard Med. Sch.*

3:00 UU11 **818.07** Less reliable task state beliefs underpin an age-related decline in probabilistic reversal learning. D. HAEMMERER*; T. H. B. FITZGERALD; S. LI; E. DÜZEL; R. J. DOLAN. *Inst. of Cognitive Neurosci., Max Planck–UCL Ctr. for Computat. Psychiatry and Ageing Res., Tech. Univ. Dresden, German Ctr. for Neurodegenerative Dis.*

4:00 UU12 **818.08** Neonatal pain and stress affect subsequent fear conditioning and sensory function in the rat. M. A. BURMAN*; C. SIMMONS; V. EATON; B. SASSO; E. HOLMQVIST; M. LEONARDO; J. GENTRY; T. KING. *Univ. of New England.*

1:00 UU13 **818.09** Factors influencing developmental differences in retention of Pavlovian fear conditioning. K. L. BROWN*; M. J. SODOMA; J. H. FREEMAN. *The Univ. of Iowa.*

2:00 UU14 **818.10** The role of infralimbic prefrontal cortex during behaviors guided by reward and punishment avoidance. R. N. GENTRY*; M. R. ROESCH. *Univ. of Maryland, Col. Park.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 VV1 **818.11** ▲ To eat or not to eat: Are conditioned taste aversion and attenuation of neophobia opposite learning? M. TREJO-CASTILLO; G. R. ROLDAN*. *Natl. Autonomous Univ. of Mexico, Natl. Autonomous Univ. of Mexico.*

4:00 VV2 **818.12** Activation of NMDA receptors enhances aversive taste memory formation. M. J. OLVERA-CALTZONTZIN*; M. MIRANDA. *Univ. Nacional Autonoma De Mexico, Univ. Nacional Autonoma de Mexico.*

1:00 VV3 **818.13** Effects of long term Intermittent and withdrawal of sugar or high fructose corn syrup-55 consumption on taste preference and new aversive learning. D. BADILLO JUAREZ*; M. I. MIRANDA. *Inst. De Neurobiología UNAM.*

2:00 VV4 **818.14** Hypersensitivity and slower rate of habituation to pleasant food tastes in reward brain regions in obese compared to healthy weight children. Z. L. MESTRE*; A. BISCHOFF-GRETHE; C. E. WIERENGA; D. STRONG; K. N. BOUTELLE. *Ctr. For Healthy Eating and Activity Res. UC, Univ. of California San Diego, Univ. of California San Diego, Univ. of California San Diego.*

3:00 VV5 **818.15** Medial auditory thalamus is necessary for expression of auditory trace eyelid conditioning. L. C. HOFFMANN*; S. J. ZARA; A. N. MANLEY; M. D. MAUK. *Univ. of Texas At Austin.*

POSTER

819. Reward: Neuropharmacology

Theme G: Motivation and Emotion

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 VV6 **819.01** Involvement of reactive oxygen species in methamphetamine-induced behavior changes and dopamine release in the nucleus accumbens. E. JANG*; D. M. HEDGES; A. C. NELSON; D. J. OBRAY; T. G. EKINS; B. T. GARCIA; S. P. KIM; J. Y. LEE; N. J. KIM; B. BITTER; K. M. SONG; S. J. JANG; H. Y. KIM; C. H. HEO; C. H. YANG; S. C. STEFFENSEN. *Daegu Haany Univ., Brigham Young Univ., Daegu Haany Univ.*

2:00 VV7 **819.02** The acute stress attenuated appetitive behaviors for social and sexual stimuli in long-term morphine-withdrawn rats. Y. BAI*; X. ZHENG; D. BELIN; Y. ZHANG; Z. LIU. *Inst. of Psychology,Chinese Acad. of Sci., Univ. of Cambridge.*

3:00 VV8 **819.03** Disulfiram inhibits approach behaviors during a Pavlovian conditioned approach paradigm. K. Z. PASQUARIELLO; D. DANIELS*; P. J. MEYER. *Univ. at Buffalo Dept. of Psychology.*

4:00 VV9 **819.04** ● Investigation of the discriminative and reinforcing properties of the κ-opioid receptor agonist CR845 in rats. D. J. HEAL*; J. GOSDEN; N. SLATER; S. HOLLAND; J. SLADE; F. MENZAGHI; R. SPENCER; S. SMITH. *RenaSci Ltd, Cara Therapeut. Inc.*

1:00 VV10 **819.05** ▲ Benzodiazpines and their dual administration with ethanol increase accumbal transient dopamine release events. D. R. RAKOWSKI*; S. A. SCHELP; Z. BRODNIK; R. A. ESPAÑA; K. J. PULTORAK; E. B. OLESON. *Univ. of Colorado Denver.*

2:00 VV11 **819.06** Oral estrogen administration alters neural activity associated to reversal learning in young healthy women. J. BAYER*; T. TUSCH; L. H. SCHULTE; J. GLÄSCHER; T. SOMMER. *Univ. Med. Ctr. Hamburg Eppendorf.*

3:00 VV12 **819.07** Phosphodiesterase 4 (PDE4) inhibition: A novel approach to treat deficits in motivation. A. N. HANKS*; Z. A. HUGHES. *Pfizer.*

4:00 VV13 **819.08** Effect of chronic opioid exposure and spontaneous withdrawal on reactivity to palatable food in rats. S. DANIELS*; M. PRATT; F. LERI. *Univ. of Guelph, Univ. of Guelph.*

1:00 VV14 **819.09** Dual self-administration of oxycodone and high fructose corn syrup in rats. M. MINHAS*; F. LERI. *Univ. of Guelph.*

2:00 VV15 **819.10** Exploring the aversive effect of hypoglycemia in laboratory rats. T. A. HORMAN*; M. F. FERNANDES; F. LERI. *Univ. of Guelph.*

3:00 VV16 **819.11** A comparison of the effects of peripheral or centrally-active CB1 receptor antagonists on palatable feeding and cue-induced reinstatement in the rat. W. E. PRATT*; S. GALLAGHER; R. YING; K. VEMURI; A. MAKRIYANNIS. *Wake Forest Univ., Northeastern Univ.*

4:00 VV17 **819.12** *In vivo* studies of the role of ERK1/2 phosphatase MKP3 in dopaminergic neurons on cocaine associated dopamine signaling and behaviors. S. LEWANDOWSKI*; D. L. BERNSTEIN; R. A. ESPAÑA; O. V. MORTENSEN. *Drexel Univ., Drexel Univ., Drexel Univ., Drexel Univ.*

1:00 VV18 **819.13** ● Molecular mechanisms of action of M_5 muscarinic acetylcholine receptor allosteric modulators. A. BERIZZI*; P. RUEDA; A. J. LAWRENCE; C. J. LANGMEAD; A. CHRISTOPOULOS. *Monash Univ., Monash Univ., The Florey Inst. of Neurosci. and Mental Hlth.*

2:00 VV19 **819.14** Supralinear effects of combined oxytocin administration and opioid blockade on contingent social gaze dynamics. M. R. PIVA*; O. DAL MONTE; M. TRINGIDES; S. W. C. CHANG. *Yale Univ., Yale Univ., Yale Univ.*

3:00 VV20 **819.15** Serotonin promotes sustained attention to viewer-directed social signals. H. B. WEINBERG-WOLF*; N. FAGAN; O. DAL MONTE; S. W. CHANG. *Yale Univ., Yale Univ. Sch. of Med.*

4:00 VV21 **819.16** Repeated low-dose ketamine elicits a sex-differential effect on behavioral sensitization and reward state. K. J. SCHOEPFER*; S. K. SALAND; K. N. WRIGHT; C. E. STRONG; M. KABBAJ. *Florida State Univ.*

1:00 VV22 **819.17** Abuse potential of low dose intermittent ketamine exposure in male and female rats. C. STRONG*; K. J. SCHOEPFER; A. M. DOSSAT; S. K. SALAND; F. JOHNSON; M. KABBAJ. *Florida State Univ., Florida State Univ.*

2:00 VV23 **819.18** Reinforcing properties of intermittent, low-dose ketamine in males and female Sprague-Dawley rats. K. N. WRIGHT*; C. E. STRONG; K. J. SCHOEPFER; M. N. ADDONIZIO; M. KABBAJ. *Florida State Univ.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

POSTER

820. Neuroimaging and Behavioral Studies of Depression

Theme G: Motivation and Emotion

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 VV24 **820.01** ● Activation of the ventral striatum during monetary incentive delay task and temperament, stress, and plasma homovanillic acid in mood disorder patients. Y. WAKATSUKI*; N. HASHIMOTO; Y. OGURA; Y. NAKAI; T. MIYAMOTO; K. KITAGAWA; R. OKUBO; K. TOYOSHIMA; R. KAMEYAMA; H. NARITA; Y. FUJI; Y. NAKATO; K. ITO; Y. KAKO; S. ASAKURA; S. NAKAGAWA; T. INOUE; I. KUSUMI. *Dept. of Psychiatry, Hokkaido Univ. Grad, Nakae Hosp., Dept. of Psychiatry, Tokyo Med. Univ.*

2:00 VV25 **820.02** θ, α or β - classification of major depression disorder using suport vector machines. A. A. KOLODZIEJ*; M. MAGNUSKI; A. BRZEZICKA. *Univ. of Social Sci. and Humanities In Wa, Jagiellonian Univ., Univ. of Social Sci. and Humanities.*

3:00 VV26 **820.03** Neurobiology of processing vocal emotions in unipolar depression. K. KOCH*; L. SCHWARZ; M. REINL; M. ERB; T. ETHOFER. *Univ. of Tuebingen, Univ. of Tuebingen.*

4:00 WW1 **820.04** White matter abnormalities in major depression worldwide: Meta-analytic findings of 1,538 cases and controls from the ENIGMA-MDD DTI working group. S. M. KELLY*; L. S. VAN VELZEN; S. HATTON; A. ALEMAN; B. BAUNE; U. DANNLOWSKI; M. DEPPE; B. COUVY DUCHESNE; T. FRODL; I. H. GOTLIB; N. GROENEWOLD; D. GROTEGERD; H. KUGEL; H. KUNUGI; J. LAGOPOULOS; T. A. LETT; K. L. MCMAHON; N. G. MARTIN; S. MEINERT; M. SACCHET; M. J. WRIGHT; M. J. PORTELLA; L. TOZZI; D. STEIN; H. WALTER; M. WALTER; I. B. HICKIE; P. M. THOMPSON; N. JAHANSHAD; L. SCHMAAL. *USC, 2. VU Univ. Med. Ctr. and Neurosci. Campus Amsterdam, Brain and Mind Ctr., Univ. of Groningen, Univ. Med. Ctr., Discipline of Psychiatry, Sch. of Medicine, Univ. of Adelaide, Univ. of Münster, Univ. of Münster, Dept. of Neurol., QIMR Berghofer Med. Res. Inst., Otto-von-Guericke Univ. Magdeburg, Stanford Univ., Univ. Med. Ctr. Groningen, Univ. of Münster, Dept. of Clin. Radiology, Natl. Ctr. of Neurol. and Psychiatry, Brain and Mind Centre, Univ. of Sydney, Charité Universitats Medizin Berlin, Ctr. for Advanced Imaging, Univ. of Queensland, Univ. of Münster, Dept. of Psychiatry, Stanford University, Stanford, CA, United States, QIMR Berghofer Med. Res. Institute, Brisbane, Australia, Hosp. de Sant Pau, Trinity Col. Inst. of Neuroscience, Dublin, Ireland, Univ. of Cape Town, Leibniz Inst. for Neurobio., Brain and Mind Centre, Univ. of Sydney, NSW, Australia, Imaging Genet. Center, Keck Sch. of Medicine, Univ. of Southern California, Marina del Rey, VU Univ. Med. Ctr. and Neurosci. Campus Amsterdam.*

1:00 WW2 **820.05** Resting-state functional connectivity similarity to clinical depression predicts self-reported mood scores in healthy individuals. J. F. HUCKINS*; P. E. HOLTZHEIMER; E. M. GORDON; T. F. HEATHERTON; A. T. CAMPBELL; R. WANG; V. MISHRA; W. M. KELLEY. *Dartmouth Col., Dartmouth-Hitchcock Med. Ctr., VISN 17 Ctr. of Excellence for Res. on Returning War Veterans, Dartmouth Col.*

2:00 WW3 **820.06** ● Resting-state functional connectivity classifies patients with major depressive disorder into clinically distinct sub-groups. N. K. SAVALIA*; C. M. COOPER; P. F. AGRES; M. Y. CHAN; L. HAN; M. FAVA; B. KURIAN; P. MCGRATH; R. PARSEY; M. WEISSMAN; M. H. TRIVEDI; G. S. WIG. *Univ. of Texas At Dallas, Univ. of Texas Southwestern Med. Ctr., Massachusetts Gen. Hosp., Columbia Univ. Col. of Physicians and Surgeons and the New York State Psychiatric Inst., Stony Brook Univ.*

3:00 WW4 **820.07** Cognitive behavior therapy (CBT) changes resting-state and task brain activity across MDD and PTSD. Y. I. SHELINE*; Z. YANG; D. OATHES; S. E. BRUCE; T. D. SATTERTHWAITE; P. A. COOK; E. MIKKELSEN; E. SATCHELL; R. T. SHINOHARA; H. SHOU. *Univ. of Pennsylvania, Washington Univ., Univ. of Pennsylvania, Univ. of Pennsylvania.*

4:00 WW5 **820.08** Altered dynamics of fMRI intrinsic connectivity relate to changed patterns of information integration in major depressive disorder. A. RIES*; C. MENG; C. SORG; A. WOHLSCHLÄGER. *Tech. Univ. of Munich, Tech. Univ. of Munich, Tech. Univ. of Munich.*

1:00 WW6 **820.09** Thalamocortical connectivity is related to age of illness onset in major depressive disorder. E. C. BROWN*; D. L. CLARK; S. HASSEL; G. MACQUEEN; R. RAMASUBBU. *Univ. of Calgary, Univ. of Calgary, Aston Univ.*

2:00 WW7 **820.10** ● Functional connectivity instability within the default mode network in major depression. T. WISE*; L. MARWOOD; A. M. PERKINS; A. HERANE-VIVES; R. JOULES; D. J. LYTHGOE; W. LUH; S. C. R. WILLIAMS; A. H. YOUNG; A. J. CLEARE; D. ARNONE. *King's Col. London, Inst. of Psychiatry, Psychology & Neuroscience, King's Col. London, Cornell Univ.*

3:00 WW8 **820.11** Probabilistic tractography-guided analyses of connectivity in patients with severe major depression treated with electroconvulsive therapy. E. TSOLAKI*; K. NARR; R. ESPINOZA; N. POURATIAN. *Univ. of California Los Angeles, Ahmanson-Lovelace Brain Mapping Center, Dept. of Neurology, Univ. of California Los Angeles; Dept. of Psychiatry and Biobehavioral Sciences, Univ. of California Los Angeles, 3Department of Psychiatry and Biobehavioral Sciences, Univ. of California Los Angeles.*

4:00 WW9 **820.12** ● Changes in white matter microstructure in adults with treatment-resistant depression. S. SNIDER*; A. NUGENT; M. LENER; D. LUCKENBAUGH; C. ZARATE. *Natl. Inst. of Mental Hlth.*

1:00 WW10 **820.13** Predicting outcome in patients with first-episode psychosis treated concurrently with antipsychotic and antidepressant medications. S. RASMUSSEN*; P. I. ROSEBUSH; M. F. MAZUREK. *McMaster Univ.*

2:00 WW11 **820.14** Serum levels of autotaxin in major depressive disorders and schizophrenia: A pilot study. K. ITAGAKI; C. SHIBASAKI; K. OGA; W. OMORI; N. KAJITANI; H. ABE; M. OKADA-TSUCHIOKA; M. TAKEBAYASHI*. *Natl. Hosp Org Kure Med. Centr, Div. Psychiat, Neurosci, Inst. for Clin. Res, NHO Kure Med. Centr, Dept Psychiat, NHO Kure Med. Centr, Mihara Hosp.*

3:00 WW12 **820.15** Effect of physical exercise on cortical activity in elderly depressive patients: A randomized clinical trial. A. C. DESLANDES*; H. SILVEIRA, 22793395; J. LAKS, 22793395. *UERJ, UFRJ, UFRJ.*

4:00 WW13 **820.16** Serotonin-1A receptor polymorphism alters functional connectivity of default mode network. H. ZHENG*; K. ONODA; Y. WADA; S. MITAKI; S. YAMAGUCHI. *Fac. of Medicine, Shimane Univ.*

Wed. PM

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

1:00 WW14 **820.17** ●▲Decreased posterior cingulate cortex volume in early adulthood depression. A. GUTIERREZ*; M. MALARET; B. CARON; D. KELLAR; S. D. NEWMAN. *Indiana Univ. Bloomington.*

2:00 WW15 **820.18** Unaffected twins discordant for affective disorders show changes in anterior callosal white matter microstructure. J. MACOVEANU*; M. VINBERG; L. V. KESSING; K. MADSEN; H. R. SIEBNER; W. BAARÉ. *Copenhagen Univ. Hosp. Rigshospitalet, Copenhagen Univ. Hosp. Hvidovre.*

3:00 WW16 **820.19** Examining the objectivity of using handwriting characteristics to evaluate the risk of mental health disorders using the clustering method. Y. MASHIO*; N. TANAKA; H. KAWAGUCHI. *Toyo Univ., Toyo Univ., Toyo Univ.*

4:00 WW17 **820.20** ● Habenula responses to reward prediction errors and losses in healthy and depressed individuals. B. A. ELY*; K. E. SIP; J. XU; D. L. ROSENTHAL; W. K. GOODMAN; V. GABBAY; K. A. B. LAPIDUS; E. R. STERN. *Icahn Sch. of Med. At Mount Sinai, New York Univ., Icahn Sch. of Med. At Mount Sinai, Icahn Sch. of Med. At Mount Sinai, Icahn Sch. of Med. At Mount Sinai, Nathan S. Kline Inst. for Psychiatric Res., Northwell Hlth.*

1:00 DP07 **820.21** (Dynamic Poster) Age effects on brain structural networks in major depressive disorder. T. CHEN*; J. WANG; X. HUANG; Q. GONG. *West China Hosp. of Sichuan Univ., Hangzhou Normal Univ., Sichuan Univ.*

2:00 WW18 **820.22** The orbitofrontal cortex and depression. E. T. ROLLS*; W. CHENG; J. QIU; W. LIU; Y. TANG; C. HUANG; X. WANG; J. ZHANG; W. LIN; L. ZHENG; J. PU; S. TSAI; A. C. YANG; C. LIN; F. WANG; P. XIE; J. FENG. *Oxford Ctr. For Computat. Neurosci., Fudan Univ., Fudan Univ., Natl. Yang-Ming Univ., Univ. of Warwick.*

3:00 WW19 **820.23** ● Cortical excitability responses to ketamine in patients with treatment-resistant bipolar disorder. K. WILLS*; A. NUGENT; D. A. LUCKENBAUGH; C. A. ZARATE, Jr. *Natl. Inst. of Mental Hlth.*

4:00 WW20 **820.24** Real-time fMRI neurofeedback motivates engagement of cognitive strategies for depression. K. E. MACDUFFIE*; K. C. DICKERSON; J. MACINNES; K. M. EDDINGTON; T. J. STRAUMAN; R. ADCOCK. *Duke Univ., Duke Univ., Univ. of North Carolina at Greensboro.*

POSTER

821. Stress and Trauma: Therapeutics

Theme G: Motivation and Emotion

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 DP08 **821.01** (Dynamic Poster) Amygdala NeuroFeedback reduces military stress vulnerability. J. N. KEYNAN; A. COHEN; A. DAVIDOV; N. GREEN; G. JACKONT; I. PODLIPSKY-KLOVATCH; K. GINAT; E. FRUCHTER; M. CAVAZZA; T. HENDLER*. *Tel-Aviv Sourasky Med. Ctr., Tel-Aviv Univ., IDF, Univ. of Kent, Tel-Aviv Sourasky Med. Ctr., Tel-Aviv Univ., Tel-Aviv Univ.*

2:00 WW21 **821.02** ● Anxiolytic activity and enhancement of fear extinction demonstrated by BNC210 in rodent models translates directly to the clinic in a CCK4-challenge model of panic attack in healthy volunteers. S. M. O'CONNOR*; C. J. COLES; J. D. MIKKELSEN. *Bionomics Limited.*

3:00 WW22 **821.03** The effect of Jiu Jitsu training on symptoms of PTSD. A. E. WILLING*; R. DEICHERT; R. WOOD; S. A. GIRLING; J. GONZALEZ; D. HERNANDEZ; E. FORAN; K. KIP. *Univ. South Florida, Tampa Jiu JItsu, Palm Yoga, Univ. of South Florida, Univ. of South Florida, Univ. South Florida.*

4:00 XX1 **821.04** The effects of Gabapentin and Pregabalin in the consolidation and reconsolidation of auditory threat memory in rats. L. DIAZ-MATAIX*; S. A. SERKA; J. E. LEDOUX. *New York Univ., Nathan Kline Inst.*

1:00 XX2 **821.05** 5α-reductase mediates sensorimotor gating deficits induced by stress. L. J. MOSHER*; S. C. GODAR; M. BORTOLATO. *Kansas Univ., Univ. of Utah.*

2:00 XX3 **821.06** Early social isolation disrupt neuronal plasticity: Cerebrolysin ameliorate the morphological changes. C. P. SANCHEZ*; M. FLORES-JIMÉNEZ; S. GUZMÁN-VELÁZQUEZ; G. SOLIS; M. MÁRQUEZ-PORTILLO; J. MENDOZA; S. ZAMUDIO; C. G. TORIZ; G. FLORES; I. CAMACHO-ABREGO; A. I. MELO; J. A. ARELLANO ALAMO; S. X. RODRÍGUEZ ROMERO. *CIRA-CINVESTAV Lab-Tlaxcala, Inst. Politécnico Nacional, CINVESTAV-IPN, BUAP, Inst. de Fisiología, BUAP.*

3:00 XX4 **821.07** Effect of modulated signaling by the endocannabinoid anandamide in stress-induced behavior. M. TEVOSIAN; K. RADYUSHKIN; N. UEDA; D. G. DEUTSCH; B. LUTZ*. *Univ. Med. Ctr. Mainz, Kagawa Univ. Sch. of Med., Stony Brook Univ.*

4:00 XX5 **821.08** Dietary reversal ameliorates high-fat diet induced working and spatial memory deficits early in life. C. S. ROBINSON*; E. BRUNO; S. JACKSON; J. BOGGS; E. L. FELDMAN. *Med. Univ. of South Carolina, Univ. of Michigan.*

1:00 XX6 **821.09** Behavioral and molecular effects of perinatal music on rat pups. H. YANIK*; M. BEKER; I. KIRPINAR; B. ELIBOL. *Murat Hudevendigar Univ., Bezmialem Vakif Univ., Bezmialem Vakif Univ.*

2:00 XX7 **821.10** Enhanced effect of anti-influenza virus drug on drug-induced abnormal jumping behavior in mice. N. ONO*. *Miki Hlth. Sci. Res. Inst.*

3:00 XX8 **821.11** Withdrawn.

4:00 XX9 **821.12** Characterization of serum derived exosomal RNAs by RNAseq analysis. H. KANG*; K. CHOI; S. LEE; S. SEOL; E. KIM. *Chung-Ang Univ.*

1:00 XX10 **821.13** Hepatic regulation of homeostatic recovery with glucose intervention following traumatic stress. M. A. CONOSCENTI*; N. J. SMITH; T. R. MINOR. *UCLA, UCLA, UCLA, New Jersey Med. Sch. and Veterans Affairs.*

2:00 XX11 **821.14** Anxiolytic effect of Brosimum Alicastrum and its relationship with c-Fos and synaptophysin expression on Wistar rat hippocampus. C. R. VUELVAS-OLMOS*; J. E. MUÑOZ-ALATORRE; R. M. GONZÁLEZ-GONZÁLEZ; H. PARRA-DELGADO; A. L. PERAZA-CAMPOS; J. L. COLLÁS-AGUILAR; O. GONZÁLEZ-PÉREZ; J. GUZMÁN-MUÑIZ; N. A. MOY-LÓPEZ. *Univ. of Colima, Univ. of Colima.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

POSTER

822. Psychostimulants and Other Drugs of Abuse

Theme G: Motivation and Emotion

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 XX12 **822.01** Sensory reinforcement is related to the reinforcing efficacy of food cues, and to locomotor activity during a cocaine conditioned cue preference paradigm. P. MEYER*; A. M. GEORGE; J. A. TRIPI; C. D. MARTIN; K. ISHIWARI; C. P. KING; A. A. PALMER; J. B. RICHARDS. *Univ. at Buffalo Dept. of Psychology, Res. Inst. on Addictions, Univ. at Buffalo, UCSD.*

2:00 XX13 **822.02** ● Estradiol microinjections to the mPOA increase cocaine-induced conditioned place preference. C. L. ROBISON*; J. R. MARTZ; R. G. WILL; C. C. RAY; J. M. DOMINGUEZ. *Univ. of Texas at Austin, Univ. of Texas at Austin.*

3:00 XX14 **822.03** Ontogeny of cocaine pharmacokinetics. M. A. MOHD-YUSOF*; D. E. HUMPHREY; A. T. QUIROZ; C. P. PLANT; C. A. CRAWFORD; S. A. MCDOUGALL. *California State Univ.*

4:00 XX15 **822.04** Central and peripheral inflammatory responses associated with caffeine and cocaine administration in mice. J. MUNIZ; B. GONZALEZ; J. CADET; E. GARCIA-RILL; F. J. URBANO; V. BISAGNO*. *ININFA-CONICET, NIDA-NIH, Univ. of Arkansas for Med. Sci., IFIByNE (UBA-CONICET), ININFA-CONICET.*

1:00 XX16 **822.05** Assessing genetic mechanisms of intravenous cocaine self-administration and novelty-related behaviors using the Diversity Outbred mouse population. P. E. DICKSON*; T. WILCOX; T. A. ROY; E. J. CHESLER. *The Jackson Lab.*

2:00 XX17 **822.06** Epigenetic alterations in the mouse testis after chronic cocaine administration: Potential involvement in transgenerational cocaine-induced phenotypes. B. GONZALEZ*; J. A. MUÑIZ; J. CADET; E. GARCIA-RILL; F. J. URBANO; A. VITULLO; V. BISAGNO; C. GONZALEZ. *ININFA - Pharmacol. Res. Inst., NIDA Intramural Program, Mol. Neuropsychiatry Res. Br., UAMS - for Translational Neuroscience, Dept. of Neurobio. and Developmental Sci., IFIByNE - Inst. of Physiology, Mol. Biol. and Neurosciences, Maimonides University, CEBBAD - Ctr. for Biomedical, Biotechnological, Envrn. and Diagnos. Studies.*

3:00 XX18 **822.07** Heritability of cocaine-conditioned avoidance behavior. M. EID; D. PULLMANN; P. VENTO; T. C. JHOU*. *Med. Univ. of South Carolina, Med. Univ. of South Carolina.*

4:00 XX19 **822.08** Transgenerational effects of embryonic cocaine exposure in zebrafish. C. A. BOYLE; A. SCHEIDEGGER; T. DARLAND*. *Univ. of North Dakota, Univ. of North Dakota Sch. of Med. and Hlth. Sci.*

1:00 XX20 **822.09** Cadherin 13 (Cdh13) gene deletion alters reinstatement and instrumental responding for intravenous cocaine. C. P. KING*; N. P. ROBERSON; C. L. VERSAGGI; A. A. PALMER; P. J. MEYER. *Univ. At Buffalo, Univ. of California San Diego.*

2:00 XX21 **822.10** The impact of abstinence from methamphetamine on brain metabolites. A. BURGER*; S. BROOKS; D. J. STEIN; F. M. HOWELLS. *Univ. of Cape Town.*

3:00 XX22 **822.11** Monitoring methamphetamine-induced calcium dysregulation in the endoplasmic reticulum in rat brain. S. BÄCK*; P. KOIVULA; J. NECARSULMER; B. K. HARVEY. *Natl. Inst. on Drug Abuse.*

4:00 YY1 **822.12** Identification of Individual differences in novelty seeking in heterogeneous stock rats. A. M. GEORGE*; C. D. MARTIN; K. ISHIWARI; P. J. MEYER; A. A. PALMER; J. B. RICHARDS. *Res. Inst. On Addictions, The State Univ. of New York at Buffalo, UCSD.*

1:00 YY2 **822.13** Concurrent development of conditioned place preference and object aversion in place-object compound conditioning with methamphetamine US: Implications for opponent-process theories of drug conditioning. Y. KOSAKI*. *Keio Univ.*

2:00 YY3 **822.14** Lethal and hyperthermic effects of Synthetic Psychoactive Cathinones. O. N. ISSA*; D. MUSKIEWICZ; N. HALL; T. OSTING; F. RESENDIZ GUTIERREZ; F. S. HALL; Y. PIAO; I. SORA. *Univ. of Toledo, Col. of Pharm. and Phar, Capital Med. Univ., Kobe Univ.*

3:00 YY4 **822.15** NrCAM regulating neural systems in addiction vulnerability. H. ISHIGURO*; T. SAKURAI; N. MOTOHASHI; E. S. ONAIVI. *Univ. of Yamanashi, Kyoto Univ., William Paterson Univ.*

4:00 YY5 **822.16** Drugs of abuse alter SGK1 phosphorylation and activity in the ventral tegmental area. M. A. DOYLE*; V. BALI; S. KASKA; S. E. COOPER; M. S. MAZEI-ROBISON. *Michigan State Univ., Michigan State Univ., Michigan State Univ.*

1:00 YY6 **822.17** ● Impulsivity and frontal asymmetry in substance-dependent individuals. I. BERRIOS-TORRES*; B. K. RUNDLE; M. STANFORD; J. H. PATTON. *Baylor Univ., Hope & Healing Ctr.*

2:00 YY7 **822.18** Dysregulated dopamine transporter function associated with α-PVP “flakka” abuse and delirium. P. ILLIANO*; S. GARAMSZEGI; D. MASH. *Univ. of Miami Miller Sch. of Med., Univ. of Miami Miller Sch. of Med.*

3:00 YY8 **822.19** The effect of xylazine on the intrinsic excitability of rat prefrontal cortex pyramidal cells. P. SANABRIA-RAMIREZ*; K. COLON; N. MOREIRA; S. ALEGRE; A. FRET; J. ROJAS; N. BETANCOURT; C. A. JIMENEZ-RIVERA. *Univ. Central Del Caribe, Univ. of Puerto Rico-Bayamon Campus, Univ. of Puerto Rico-Medical Sci. Campus.*

4:00 YY9 **822.20** The rewarding and reinforcing effects of the novel ketamine analog methoxetamine in rats: Evidence of its abuse potential. C. D. BOTANAS*; J. DE LA PEÑA; I. DELA PENA; H. KIM; Y. LEE; J. CHEONG. *Uimyung Res. Inst. For Neurosci., Lab. of Medicinal Chemistry, Sch. of Pharmacy, Kyunghee Univ.*

POSTER

823. Drugs of Abuse: Extracellular Matrix and Inflammation

Theme G: Motivation and Emotion

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 YY10 **823.01** Role for granulocyte colony stimulating factor in the rewarding effects of cocaine. D. D. KIRALY*; E. S. CALIPARI; B. LABONTE; S. J. RUSSO; E. J. NESTLER. *Icahn Sch. of Med. at Mount Sinai, Icahn Sch. of Med. at Mount Sinai.*

2:00 YY11 **823.02** Is depressive like behaviour during abstinence from chronic alcohol associated with intestinal permeability and brain immune signalling? J. L. HOLMES*; M. R. HUTCHINSON; F. E. CORRIGAN. *Univ. of Adelaide, Univ. of Adelaide.*

Wed. PM

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract’s submitting author

3:00 YY12 **823.03** Late aging-associated increases in neuroinflammation do not significantly alter induction of neuroimmune genes by acute alcohol intoxication. A. GANO*; T. L. DOREMUS-FITZWATER; T. DEAK. *Binghamton Univ.*

4:00 YY13 **823.04** Ethanol enhances methamphetamine neurotoxicity: Role of inflammation. A. L. BLAKER*; S. LIANGPUNSAKUL; B. K. YAMAMOTO. *Indiana Univ. Sch. of Med., Univ. of Toledo Col. of Med., Indiana Univ. Sch. of Med.*

1:00 YY14 **823.05** Binge methamphetamine self-administration behavior is attenuated by treatment with the anti-inflammatory drug, ibudilast. K. D. FISCHER*; B. K. YAMAMOTO. *Indiana Univ. Sch. of Med.*

2:00 ZZ1 **823.06** Cocaine induced proinflammatory signaling in the nucleus accumbens and medial prefrontal cortex exacerbates drug seeking. K. T. BROWN*; S. LEVIS; T. FABISIAK; C. O'NEIL; A. NORTHCUTT; L. WATKINS; R. BACHTELL. *Univ. of Colorado Boulder.*

3:00 ZZ2 **823.07** The effects of inflammation on motivation and reinstatement in cocaine self-administration. M. ATHANASSIOU*; E. MINOGIANIS; A. SAMAHA; D. STELLWAGEN. *McGill Univ., Univ. de Montréal.*

4:00 ZZ3 **823.08** Intermittent alcohol during adolescence produces altered cytokine reactivity when rats are re-challenged as adults: Sex differences and stimulus specificity. A. S. VORE*; T. L. DOREMUS-FITZWATER; A. GANO; T. DEAK. *Binghamton Univ.*

1:00 ZZ4 **823.09** ▲ Long-term voluntary oral methamphetamine administration impairs spatial learning & memory via increased hippocampal neuroinflammation and disrupted synaptic protein. D. SHOR*; J. A. AVILA; R. M. ZANCA; D. DRAPALA; N. PALEOLOGOS; P. A. SERRANO. *CUNY Hunter Col., The Grad. Ctr.*

2:00 ZZ5 **823.10** Repeated administration of the designer cathinone and bath salt drug MDPV produces a proinflammatory state. M. POMPILUS*; T. REDLER; T. YANG; L. M. COLON-PEREZ; C. MARTYNIUK; J. ZUBCEVIC; M. FEBO. *Univ. of Florida, Univ. of Florida.*

3:00 ZZ6 **823.11** Astrocyte modulation of heroin-conditioned immune effects. J. E. PANICCIA*; M. E. JONES; C. L. LEBONVILLE; D. T. LYSLE. *Univ. of North Carolina-Chapel Hill.*

4:00 ZZ7 **823.12** Does the environmental enrichment change oxidative stress parameters in the hippocampus and frontal cortex of cocaine-conditioned rats? R. GOMEZ*; L. FREESE; G. CALETTI; S. BANDIERA; M. S. NIN; L. STEFFENS; A. STEINMETZ; D. J. MOURA; H. M. T. BARROS. *Univ. Federal Do Rio Grande Do Sul (UFRGS), Univ. Federal de Ciências da Saúde de Porto Alegre (UFCSPA), Univ. Federal do Rio Grande do Sul, Univ. Federal de Ciências da Saúde de Porto Alegre (UFCSPA).*

1:00 ZZ8 **823.13** Time course and regional selectivity of matrix metalloproteinases activation in a mouse model of ethanol dependence. H. K. SIDHU*; M. KREIFELDT; C. CONTET. *The Scripps Res. Inst.*

2:00 ZZ9 **823.14** Synaptic plasticity in extended amygdala and anterior cingulate cortex and negative reinforcement learning related to escalation of alcohol self-administration in alcohol-dependent rats: Role of matrix metalloproteinases. B. GO*; B. M. WALKER. *Washington State Univ., Washington State Univ.*

3:00 ZZ10 **823.15** Integrins and focal adhesion kinase as a signaling pathway for mmp-9 induction of transient synaptic plasticity in cocaine relapse. C. GARCIA-KELLER*; A. BOBADILLA; M. SCOFIELD; S. M. SPENSER; C. MONFORTON; P. W. KALIVAS. *Med. Univ. of South Caroline.*

4:00 ZZ11 **823.16** Knockdown of cartilage link protein-1 within the medial prefrontal cortex disrupts perineuronal nets and acquisition of cocaine preference. J. H. HARKNESS*; M. SLAKER; B. SORG. *Washington State University, Vancouver, Washington State University, Vancouver.*

1:00 ZZ12 **823.17** Expression of cFOS & Perineuronal nets in the cerebellum of mice trained to acquire cocaine-induced preference conditioning. Effects of re-exposure to the cue. M. CARBO-GAS*; J. MORENO-RIUS; I. GIL-MIRAVET; D. CARULLI; C. SANCHIS-SEGURA; M. MIQUEL. *Univ. Jaume I, Lab. for Neuroregeneration Netherlands Inst. for Neurosci.*

2:00 ZZ13 **823.18** Extended access to cocaine self-administration persistently upregulates perineuronal nets in Golgi cerebellar neurons. J. MORENO-RIUS*; C. NICOLAS; I. GIL-MIRAVET; M. CARBO-GAS; M. SOLINAS; M. MIQUEL. *Univ. Jaume I, Univ. de Poitiers.*

POSTER

824. Alcohol: Behavioral Studies II

Theme G: Motivation and Emotion

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 ZZ14 **824.01** Acoustic characteristics of ultrasonic vocalizations are predictive of alcohol consumption in long-evans rats. N. MITTAL*; J. RENO; A. MARTINEZ; S. PRASLA; W. T. MADDOX; T. SCHALLERT; C. DUVAUCHELLE. *Univ. of Texas At Austin, Univ. of Texas, Univ. of Texas.*

2:00 AAA1 **824.02** Ethanol withdrawal-induced hyperalgesia transferred to neighboring prairie voles. A. T. WALCOTT*; A. E. RYABININ. *Oregon Hlth. and Sci. Univ.*

3:00 AAA2 **824.03** Effects of various alcoholic beverages on learning and memory in mice. N. HASHIKAWA-HOBARA*; K. KATSUKI; A. MATSUMOTO; N. HASHIKAWA. *Okayama Univ. of Sci., Okayama Univ. of Sci.*

4:00 AAA3 **824.04** Nicotine facilitates cue-triggered approach in alcohol exposed. rats. H. A. PEARSON*; G. LONEY; P. MEYER. *Univ. At Buffalo - The State Univ. of Ne, Univ. At Buffalo - The State Univ. of New York.*

1:00 AAA4 **824.05** Acute ethanol exposure during late mouse neurodevelopment results in long term deficits in memory retrieval, but not in social responsiveness. E. B. CLABOUGH*; K. HOULE; M. ABDI. *Hampden-Sydney Col., Med. Col. of South Carolina, Hampden-Sydney Col.*

2:00 AAA5 **824.06** Alcohol consumption and exposure does not impair go/no-go discrimination learning but causes over-responding on go trials in rats. H. FISHER*; M. BREEN; T. HITE; T. RABY; M. RAY; A. ANJI; M. KUMARI; C. PICKENS. *Kansas State Univ., Kansas State Univ.*

3:00 AAA6 **824.07** Influence of alcohol on cortical arousal in distressed violent partners. B. C. FINK*; E. D. CLAUS; J. F. CAVANAGH; D. A. HAMILTON; B. C. HOWELL; S. SALWAY. *Univ. of New Mexico, Mind Res. Network, Univ. of New Mexico.*

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* Indicates abstract's submitting author

4:00 AAA7 **824.08** ▲ Moderate chronic fetal alcohol exposure causes motor learning deficits in adult outbred Swiss-Webster mice. T. H. REEKES*; T. VINYARD, III; W. ECHOLS; A. EUBANK, III; M. BOULDIN; W. MURRAY; S. BREWER; B. BROWN; H. WILLIS, Jr; Z. TABRANI; C. FAVERO; E. B. D. CLABOUGH. *Hampden-Sydney Col., Ursinus Col.*

1:00 AAA8 **824.09** Compulsive alcohol drinking involves focusing on optimal responding. F. W. HOPF*; D. DAREVSKY. *UCSF, UCSF.*

2:00 AAA9 **824.10** Voluntary induction of alcohol dependence in rats self-administering alcohol vapor. O. GEORGE*; M. D. COLE; G. DE GUGLIELMO. *Scripps Resch Inst.*

3:00 AAA10 **824.11** Long-term binge-like ethanol drinking is predicted by rearing behavior in Long-Evans rats. S. PANDEY; P. BADVE; S. F. LEIBOWITZ; J. R. BARSON*. *Drexel Univ. Col. of Med., The Rockefeller Univ.*

4:00 AAA11 **824.12** ▲ Decreased sensitivity to the initial rewarding effects of EtOH in high alcohol preferring vs. low alcohol preferring mice. Z. J. KOZICK*; N. J. GRAHAME; J. E. GRISEL. *Bucknell Univ., IUPUI, Bucknell Univ.*

1:00 AAA12 **824.13** The effects of chronic intermittent ethanol exposure on the extinction and recall of fear memories-the impact of sex. J. T. GASS*; R. NEWSOM; J. MCGONIGAL. *Med. Univ. South Carolina.*

2:00 AAA13 **824.14** Investigating the neuronal effects of prolonged alcohol and sugar use and identifying novel pharmacotherapeutics that reduce consumption following long-term intake. P. M. KLENOWSKI*; O. L. PATKAR; M. SHARIFF; A. BELMER; M. J. FOGARTY; M. C. BELLINGHAM; S. E. BARTLETT. *Queensland Univ. of Technol., Univ. of Queensland.*

3:00 AAA14 **824.15** Alcohol sensitivity and alcohol induced toxicity increase with aging in *Drosophila*. A. K. DENOBREGA*; A. P. MELLERS; E. NOAKES; K. PIQUE; L. C. LYONS. *Florida State Univ.*

4:00 AAA15 **824.16** Fear conditioned cues increase voluntary ethanol intake in mice with a history of chronic intermittent ethanol exposure. H. HAUN*; I. ROBBINS; J. GASS; M. LOPEZ; H. BECKER. *Med. Univ. of South Carolina, Med. Univ. of South Carolina & VAMC.*

1:00 AAA16 **824.17** Single-exposure conditioned place preference to alcohol in Sprague-Dawley rats: Evidence for a generalizable model of initial sensitivity to alcohol. T. B. NENTWIG*; K. P. MYERS; J. E. GRISEL. *Bucknell Univ.*

POSTER

825. Alcohol: Brain Circuitry I

Theme G: Motivation and Emotion

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 AAA17 **825.01** Whole brain Fos mapping in alcohol dependent and non-dependent rats: The impact of withdrawal, anticipation of drinking, and alcohol drinking. A. J. KIMBROUGH*; O. GEORGE. *The Scripps Res. Inst., The Scripps Res. Inst.*

2:00 AAA18 **825.02** Acute alcohol administration before Task 2 learning diminishes Task 1 memory assemblies reactivation mapped by Fos expression. O. E. SVARNIK*; I. I. RUSAK; A. I. BULAVA; Y. I. ALEXANDROV. *Inst. of Psychology RAS, Inst. of Psychology RAS.*

3:00 AAA19 **825.03** ▲ The effects of chronic binge alcohol exposure on amphetamine reward behavior, correlation with nucleus accumbens c-Fos expression. L. O'LOUGHLIN*; C. IRVING; J. NORENA; S. GALER; P. IVAIN; C. CHADWICK; K. ELISMAN; J. A. SCHROEDER. *Connecticut Col.*

4:00 AAA20 **825.04** Stress increases alcohol self-administration via excitatory GABA signaling within the ventral tegmental area. A. OSTROUMOV*; A. THOMAS; B. KIMMEY; J. KARSCH; W. DOYON; J. DANI. *Univ. of Pennsylvania.*

1:00 AAA21 **825.05** Dissociation between ethanol effects on the striatal projections to the substantia nigra and the globus pallidus. K. P. ABRAHAO*; D. M. LOVINGER. *NIAAA/NIH, NIAAA/NIH.*

2:00 AAA22 **825.06** Peripheral dopamine D2 receptors mediate acute ethanol effects on dopamine transmission in the mesolimbic reward system. J. D. OBRAY*; A. J. PAYNE; D. M. HEDGES; B. GARCIA; B. BITTER; S. MCCARTHY; M. WOODBURY; S. HOPE; J. G. LEE; E. Y. JANG; C. H. YANG; S. C. STEFFENSEN. *Brigham Young Univ., Daegu Haany Univ.*

3:00 AAA23 **825.07** Functional switch in GABA(A) receptors on VTA GABA neurons by acute and chronic ethanol involves brain-derived neurotrophic factor. S. S. PISTORIUS*; A. C. NELSON; T. J. WOODWARD; H. J. PARK; S. D. BAIR; D. M. MATTHEWS; S. C. STEFFENSEN. *Brigham Young Univ.*

4:00 AAA24 **825.08** Glutamate NMDA receptor-mediated plasticity in the ventral tegmental area by acute and chronic ethanol. A. C. NELSON*; T. J. WOODWARD; H. J. PARK; S. S. PISTORIUS; S. D. BAIR; D. M. MATTHEWS; S. C. STEFFENSEN, 84602. *Brigham Young Univ.*

1:00 AAA25 **825.09** Overlapping microstructural and functional connectivity disturbances in binge drinkers: A shift in cortico-limbic neural balance. L. MORRIS*; N. G. DOWELL; M. CERCIGNANI; N. HARRISON; V. VOON. *Univ. of Cambridge, Brighton and Sussex Med. Sch.*

2:00 AAA26 **825.10** ● Neuromedin u regulates alcohol intake and alcohol-induced reward in rodents via the mesolimbic dopamine system. D. P. VALLÖF*; A. LYDIA KALAFATELI; J. ENGEL; E. JERLHAG. *Univ. of Gothenburg.*

3:00 BBB1 **825.11** Restraint stress increases acquisition of operant ethanol self-administration in part through stress hormone receptors in the VTA. W. M. DOYON*, JR; N. NEALE; J. A. DANI. *Univ. of Pennsylvania.*

4:00 BBB2 **825.12** $GABA_A$ receptor δ-subunit knockdown in the VTA results in sex-specific decreases in binge-like alcohol consumption. L. M. DARNIEDER*; L. C. MELÓN; J. F. DEBOLD; K. A. MICZEK; J. MAGUIRE. *Tufts Univ. Sackler Sch. of Grad. Biomed, Tufts Univ. Sch. of Med., Tufts Univ.*

1:00 BBB3 **825.13** The OX1R is the primary orexin receptor subtype within the ventral tegmental area and central nucleus of the amygdala that selectively modulates binge-like ethanol drinking. J. OLNEY*; M. NAVARRO; T. THIELE. *Univ. of North Carolina At Chapel Hill, Univ. of North Carolina At Chapel Hill.*

2:00 BBB4 **825.14** Altered mesocorticolimbic synchrony in selectively bred alcohol preferring versus outbred rats engaged in a cued alcohol drinking task. A. M. MCCANE*; S. AHN; L. RUBCHINSKY; S. S. JANETSIAN; D. N. LINSENBARDT; C. L. CZACHOWSKI; C. C. LAPISH. *Indiana University-Purdue Univ. Indianapolis, East Carolina Univ., Indiana University-Purdue Univ. Indianapolis.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 BBB5 **825.15** stroke triggers nigrostriatal plasticity and increases alcohol consumption in rats. J. WANG*; C. C. HUANG; E. A. R. HELLARD; T. MA; X. WANG; A. SELVAMANI; F. SOHRABJI. *Texas A&M Hlth. Sci. Ctr.*

4:00 BBB6 **825.16** The effect of ethanol metabolite on GABA co-release from nigrostriatal pathway. J. KIM*; S. GANESAN; L. CHEN; J. DING. *Stanford Univ.*

1:00 BBB7 **825.17** ● Accumbal and laterodorsal glucagon-like peptide 1 receptors regulate alcohol-mediated behaviors in rodents. E. JERLHAG*; J. A. ENGEL; D. VALLÖF. *Univ. of Gothenburg.*

2:00 BBB8 **825.18** Neuronal ensembles for behavioral maladaptation: Alcohol cue-activated neurons in the nucleus accumbens core mediate the "incubation" of alcohol seeking. N. SUTO; A. LAQUE; V. REPUNTE-CANONIGO; G. DE NESS; G. E. WAGNER; T. KERR; D. WATRY; B. T. HOPE; P. SANNA; F. WEISS*. *The Scripps Res. Inst., NIDA/NIH/IRP.*

3:00 BBB9 **825.19** Complementary roles for accumbens shell output pathways in preventing and promoting relapse to alcohol seeking. G. GIBSON*; A. A. PRASAD; J. FRADKIN; J. M. POWER; G. P. MCNALLY. *UNSW Australia.*

4:00 BBB10 **825.20** Taurine effects on behaviors and in α_2 $GABA_A$ receptor subunit or BDNF mRNA expression in the frontal cortex of chronically treated or alcohol-abstinent rats. F. B. ALMEIDA*; A. W. HANSEN; G. CALETTI; S. BANDIERA; L. FREESE; H. M. T. BARROS; R. GOMEZ. *UFCSPA, UFRGS.*

1:00 BBB11 **825.21** Adolescence chronic caffeine exposure increases immature mPFC dendritic spine density and promotes depressive-like behavior and alcohol drinking in mice. D. J. HINTON*; K. E. NETT; Y. CHOI; A. OLIVEROS; D. HAINES; S. CHOI; D. CHOI. *Mayo Clin. Col. of Med.*

2:00 BBB12 **825.22** The role of the insular cortex in modulating alcohol self-administration related behaviors. A. A. JARAMILLO*; S. B. STEWART; B. FORTINO; Z. A. MCELLIGOTT; J. BESHEER. *Univ. of North Carolina at Chapel Hill.*

3:00 BBB13 **825.23** Distinct synaptic strengthening of the striatal direct and indirect pathways drives alcohol consumption. Y. CHENG*; C. HUANG; T. MA; X. WEI; X. WANG; J. LU; J. WANG. *Texas A&M Hlth. Sci. Ctr., Texas A&M Hlth. Sci. Ctr., Texas A&M Hlth. Sci. Ctr.*

4:00 BBB14 **825.24** Pallidal overexpression of mu-opioid receptors sensitizes alcohol-preferring AA rats to naltrexone's effects on ethanol intake. J. K. UHARI-VÄÄNÄNEN*; M. YLITALO; M. KOSKELA; B. K. HARVEY; V. OINIO; A. RAASMAJA; M. T. AIRAVAARA; P. PIEPPONEN; K. KIIANMAA. *Univ. of Helsinki, Natl. Inst. for Hlth. and Welfare, Univ. of Helsinki, Natl. Inst. of Health, Natl. Inst. on Drug Abuse, Intramural Res. Program.*

1:00 BBB15 **825.25** μ opioid receptors in the RMTg regulate ethanol consumption and locomotion in rats. R. FU*; W. ZUO; H. LIU; L. WU; W. LI; W. WU; A. HEPURKER; A. KAUR; J. LI; J. YE. *Rutgers, The State Univ. of New Jersey.*

2:00 BBB16 **825.26** Ethanol withdrawal drives hyperalgesia via reduction of m-type potassium channels in the lateral habenula. S. KANG*; J. LI; J. YE. *Rutgers, The State Univ. of New Jersey.*

3:00 BBB17 **825.27** The role of the rostromedial tegmental nucleus in withdrawal-induced negative affect. E. J. GLOVER*; E. M. STARR; Y. CHAO; N. W. BURNHAM; L. J. CHANDLER; T. C. JHOU. *Med. Univ. of South Carolina, Med. Univ. of South Carolina, Univ. of North Carolina.*

POSTER

826. Alcohol: Brain Circuitry II

Theme G: Motivation and Emotion

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 BBB18 **826.01** Ethanol exposure *in utero*: Effects on radial migration, form, and function of pyramidal neurons in the somatosensory cortex. L. C. DELATOUR*; H. H. YEH. *Geisel Sch. of Med. At Dartmouth.*

2:00 BBB19 **826.02** Prefrontal cortical NMDA receptor antagonism and alcohol-escalated aggression in mice. E. L. NEWMAN*; M. TERUNUMA; T. WANG; J. F. DEBOLD; K. A. MICZEK. *Tufts Univ., Univ. of Leicester, Tufts Univ.*

3:00 BBB20 **826.03** Role of MPFC to ACBC projections in sensitivity to a nicotine+alcohol compound interoceptive cue. P. A. RANDALL*; J. BESHEER. *Univ. of North Carolina at Chapel Hill, Univ. of North Carolina at Chapel Hill, Univ. of North Carolina at Chapel Hill.*

4:00 BBB21 **826.04** Alcohol-induced alterations in the prefrontal cortex proteome of adolescent and adult C57BL6J mice suggest calcium and glutamate signaling as functional regulators of age-dependent differences in alcohol drinking. A. E. AGOGLIA*; S. E. HOLSTEIN; C. W. HODGE. *Univ. of North Carolina at Chapel Hill.*

1:00 BBB22 **826.05** Chronic ethanol exposure alters excitatory transmission from the orbitofrontal cortex to the dorsal striatum. R. RENTERIA*; C. M. GREMEL. *Univ. of California San Diego.*

2:00 BBB23 **826.06** Optogenetic dissection of cea crf pathways in alcohol dependence. G. DE GUGLIELMO*; M. B. POMRENZE; M. KALLUPI; E. CRAWFORD; G. F. KOOB; R. O. MESSING; O. GEORGE. *Scripps Res. Inst., The Univ. of Texas at Austin, Natl. Inst. on Drug Abuse.*

3:00 BBB24 **826.07** The role of extended amygdala corticotropin neurons in binge ethanol drinking. J. M. IRVING*; C. J. MAEHLER; K. S. GIRVEN; D. R. SPARTA. *Univ. of Maryland Sch. of Med., Univ. of Maryland Sch. of Med., Univ. of Maryland, Baltimore.*

4:00 BBB25 **826.08** Interleukin-1 modulation of GABA transmission in the mouse central amygdala after chronic ethanol exposure. M. BAJO*; M. A. HERMAN; S. KHOM; F. P. VARODAYAN; S. E. MONTGOMERY; A. J. ROBERTS; M. ROBERTO. *Scripps Res. Inst., The Scripps Res. Inst.*

1:00 BBB26 **826.09** Oxytocin decreases central amygdala GABAergic signaling in naive but not alcohol dependent rats. D. KIRSON*; C. S. OLEATA; M. ROBERTO. *The Scripps Res. Inst.*

2:00 CCC1 **826.10** Sex-specific differences in CB1 and ethanol effects on glutamatergic transmission in the central amygdala of msP and Wistar rats. M. ROBERTO*; C. S. OLEATA; D. KIRSON. *Scripps Res. Inst.*

3:00 CCC2 **826.11** Amygdala and prefrontal cortex modulation of punished ethanol seeking. L. R. HALLADAY*; A. KOCHARIAN; A. HOLMES. *Natl. Inst. on Alcohol Abuse and Alcoholism.*

4:00 CCC3 **826.12** The PACAP system of the BNST modulates withdrawal-induced alcohol drinking and anxiety-like behavior. A. FERRAGUD*; C. VELAZQUEZ-SANCHEZ; P. COTTONE; V. SABINO. *Boston Univ. Sch. of Med.*

1:00 CCC4 **826.13** ▲ Maladaptive behavioral regulation in alcohol dependence: Role of dynorphin / κ-opioid receptor modifications in the bed nucleus of the stria terminalis. C. ERIKSON*; B. M. WALKER. *Washington State Univ.*

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2:00 CCC5 **826.14** Dysregulation of hippocampal and frontocortical jnk signaling in alcohol dependence. A. R. PAHNG*; R. I. PAULSEN; M. A. FAROOQ; K. N. EDWARDS; S. EDWARDS. *LSU Hlth. Sci. Ctr.*

3:00 CCC6 **826.15** Hippocampal and striatal ENT1 regulates mitochondrial function to contribute to ethanol intoxication and withdrawal. D. R. LINDBERG*; D. HINTON; A. OLIVEROS; S. CHOI; D. CHOI. *Mayo Med. School, Mayo Clin., Mayo Grad. Sch.*

4:00 CCC7 **826.16** Deficits in spatial and nonspatial memory following binge-like ethanol exposure in the early postnatal period suggest damage to hippocampal-prefrontal circuitry. Z. GURSKY*; K. E. BOSCHEN; A. Y. KLINTSOVA. *Univ. of Delaware.*

1:00 CCC8 **826.17** Low concentration ethanol impacts neural circuit function in the medial septum/diagonal band of Broca. S. L. MILLER*; H. H. YEH. *The Geisel Sch. of Med. At Dartmouth.*

2:00 CCC9 **826.18** Chronic intermittent ethanol alters CRF-dependent synaptic plasticity in the hypothalamus and HPA axis hormonal and behavioral responses to repeated stress. V. N. MARTY*; Y. MULPURI; D. H. TERRY; M. PEMPENA; S. YEE; I. SPIGELMAN. *UCLA.*

3:00 CCC10 **826.19** Electroacupuncture attenuates hyperalgesia in rats at withdrawal from chronic voluntary alcohol drinking involving habenula μ opioid receptors. J. LI*; H. LIU; C. FU; R. FU; J. H. YE. *NJMS, New Jersey Med. Sch.*

4:00 CCC11 **826.20** Neurons in the orbitofrontal cortex encode relative preference during alcohol and sucrose seeking. J. HERNANDEZ*; R. SIEGAL; D. E. MOORMAN. *Neurosci. and Behavior Program, Univ. of Massachusetts Amherst, Univ. of Massachusetts - Amherst.*

POSTER

827. Addiction: Ethanol and Volatile Solvents

Theme G: Motivation and Emotion

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 CCC12 **827.01** Association analysis of variants in the PIP5K1C gene and alcohol dependence. A. D. ROSEN*; C. MUENCH; M. L. SCHWANDT; E. A. TAWA; Z. A. KAMINSKY; F. W. LOHOFF. *Natl. Inst. On Alcohol Abuse and Alcoholism, Johns Hopkins Univ. Sch. of Med.*

2:00 CCC13 **827.02** Early-ethanol exposure and vinpocetine treatment alter structural- and GTPase signalling-related proteins in the ventral hippocampus of Sprague-Dawley rats: A proteomic study. P. C. SWART*; V. A. RUSSELL; J. J. DIMATELIS. *Univ. of Cape Town.*

3:00 CCC14 **827.03** Transgenerational effects of chronic ethanol treatment in *Caenorhabditis elegans*. D. M. GUZMAN*; D. SUCICH; J. T. PIERCE. *The Univ. of Texas.*

4:00 CCC15 **827.04** The BDNF valine 68 to methionine polymorphism alters mouse reward sensitivity and anxiolytic effects of alcohol. S. A. SAKHAI*; N. MORISOT; D. RON. *Univ. of California, San Francisco, Univ. of California, San Francisco.*

1:00 CCC16 **827.05** Modulation of alcohol reward, anxiety, & gene expression by the transcriptional regulator Lim-domain-only 3 (LMO3). A. M. SAVARESE*; A. LASEK. *Univ. of Illinois At Chicago, Univ. of Illinois At Chicago.*

2:00 CCC17 **827.06** ● Role for corticotropin-releasing factor in the central amygdala in alcohol drinking after traumatic stress. A. SCHREIBER*; N. GILPIN. *LSUHSC.*

3:00 CCC18 **827.07** ▲ Chronic orofacial pain induces cognitive and emotional alterations it leads to increase the predisposition to develop addiction. C. SOSA; N. E. GUTIÉRREZ; C. D. MONTES; J. JIMENEZ; I. O. PEREZ-MARTINEZ*. *Lab. of Dent. research, FES-Iztacala.*

4:00 CCC19 **827.08** Alcohol reward in male and female periadolescent rats: Effects of fixed vs. ascending dosing. E. BATES*; N. S. PENTKOWSKI; A. R. ZAVALA. *California State University, Long Beach, Univ. of New Mexico, Albuquerque.*

1:00 CCC20 **827.09** Activation of 5-HT_2 receptors via CaMK II signaling in lateral habenula mediates pain at ethanol withdrawal in rats. W. ZUO*; L. WU, Female; R. FU, Male; A. BEKKER, Male; J. YE, Male. *Rutgers New Jersey Med. Sch., The 2nd People's Hosp. of Guangdong Province, Rutgers, The State Univ. of New Jersey, New Jersey Med. Sch.*

2:00 CCC21 **827.10** Ethanol use in mice differentially alters stress resilience in a modality-specific manner. A. GRIZZELL*; B. N. DULKA; J. LINDSAY; R. PROSSER; M. A. COOPER. *Univ. of Tennessee, Univ. of Tennessee.*

3:00 CCC22 **827.11** Sex differences and hormone effects on ethanol-enhanced risky behavior with probability discounting in rats. K. G. WALLIN*; J. R. CHESLEY; J. CASTRILLON; R. I. WOOD. *Keck Sch. of Med. of the Univ. of Southern California, USC, Keck Sch. of Med. of Univ. of Southern California.*

4:00 CCC23 **827.12** Cyclohexane affects sensitization, reward and incentive motivation in instrumental progressive-ratio schedules. T. V. CAMPOS ORDONEZ*; D. ZARATE-LOPEZ; O. GONZALEZ-PEREZ; J. BURITICA. *Univ. of Colima, Univ. of Colima, Univ. of Guadalajara.*

1:00 CCC24 **827.13** Participation of voltage-gated sodium and calcium channels on toluene cardiac effects. D. GODINEZ-HERNANDEZ; M. CARREON-GARCIDUEÑAS; L. ORTEGA-VARELA; M. Y. GAUTHEREAU*. *Univ. Michoacana De San Nicolás De Hidalgo, Univ. Michoacana De San Nicolás De Hidalgo, Univ. Michoacana De San Nicolás De Hidalgo.*

2:00 CCC25 **827.14** Evaluation of the antioxidant capacity of environmental enrichment in animals exposed to toluene. Y. YEE-RÍOS; S. MONTES; N. PAEZ-MARTINEZ*. *Inst. Politecnico Nacional, Inst. Nacional de Neurología y Neurocirugía Manuel Velasco Suarez, Inst. Nacional de Psiquiatría Ramón de la Fuente Muñiz.*

3:00 CCC26 **827.15** Decreased seizure threshold in mice following twenty-four hour exposure to toluene vapor. S. P. CALLAN; C. DAVIDSON; S. E. BOWEN*. *Wayne State Univ., Wayne State Univ.*

POSTER

828. Alcohol: Cell Signaling

Theme G: Motivation and Emotion

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 DDD1 **828.01** Actions of alcohol in mice expressing ethanol-resistant GluN2 NMDA receptor subunits. P. ZAMUDIO-BULCOCK; J. BENEROFF; C. SMOTHERS; B. HUGHES; G. HOMANICS; J. J. WOODWARD*. *Med. Univ. of South Carolina, Univ. of Pittsburgh, Med. Univ. of South Carolina.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

2:00 DDD2 **828.02** Dysregulated signaling pathways in alcohol self-administering rats. V. R. CANONIGO*; B. ZORMAN; P. SUMAZIN; P. SANNA. *The Scripps Res. Inst., Baylor Col. of Med.*

3:00 DDD3 **828.03** Role of the orphan GPCR, GPR88, in ethanol-associated behaviors. S. BEN HAMIDA*; S. MENDONÇA-NETTO; L. BOULOS; R. MALDONADO; B. KIEFFER. *Inst. Universitaire En Santé Mentale Douglas, Laboratori de Neurofarmacologia, Departament de Ciències Experimentals i de la Salut, PRBB, Univ. Pompeu Fabra, IGBMC, Inst. Génétique Biologie Moléculaire Cellulaire.*

4:00 DDD4 **828.04** Prosapip1- a novel mediator of alcohol abuse disorder. S. LAGUESSE*; N. MORISOT; F. LIU; D. RON. *Univ. of California San Francisco.*

1:00 DDD5 **828.05** Chronic ethanol consumption and withdrawal affect the expression of microRNAs in mouse brain. K. MIZUO*; R. MURAKAMI; S. OKAZAKI; S. WATANABE. *Sapporo Med. Univ.*

2:00 DDD6 **828.06** Potentiation of stress-induced corticosterone release during ethanol withdrawal is associated with upregulation of corticosterone synthesis in the adrenals. T. L. DOREMUS-FITZWATER*; A. S. VORE; A. GANO; T. DEAK. *Binghamton Univ.*

3:00 DDD7 **828.07** Novel role of glyoxalase 1 in stimulant response to ethanol. A. M. BARKLEY-LEVENSON*; K. M. J. MCMURRAY; A. A. PALMER. *Univ. of California San Diego, Univ. of Cincinnati.*

4:00 DDD8 **828.08** Targets of low dose alcohol in the rat brain. W. HUANG; A. DIETERICH; X. QIN; M. D. LI; S. L. CHANG*. *Seton Hall Univ., Temple Univ. Sch. of Med.*

1:00 DDD9 **828.09** Alcohol molecular tolerance of BK channels via β-catenin gene regulation. J. O. GARCIA; A. BURGOS; J. SOTO; K. CORDERO; S. JIMENEZ; S. N. TREISTMAN; C. VELAZQUEZ-MARRERO*. *Univ. of Puerto Rico at Carolina, Univ. of Puerto Rico Med. Sci. Campus/ Inst. of Neurobio.*

2:00 DDD10 **828.10** Effects of glucagon-like peptide-1 (glp-1) receptor stimulation on alcohol consumption in alcohol-preferring vervet monkeys. A. FINK-JENSEN*; A. MOLANDER; J. J. HOLST; M. PTITO; R. PALMOUR. *Psychiatric Ctr. Cph and Lab. of Neuropsychiatry, Psychiatric Ctr. Copenhagen and Lab. of Neuropsychiatry, Univ. of Copenhagen, Endrocrinol. Res. Section and Section for Translational Metabolic Physiology, Univ. of Copenhagen, Sch. of Optometry, Univ. of Montreal, Montreal, QC, Canada H3T, Dept. of Psychiatry, McGill University, Montreal, Canada and Behavioural Sci. Foundation, St. Kitts.*

3:00 DDD11 **828.11** Chronic intermittent alcohol exposure alters negative affect and endocannabinoid-related mRNA expression in ovariectomized female rats. L. BAXTER-POTTER*; A. HENRICKS; A. BERGER; J. LUGO; R. MCLAUGHLIN. *Washington State Univ.*

4:00 DDD12 **828.12** Glycine receptor α1 subunit regulates consumption and conditioned preference to ethanol. S. S. GALLEGOS*; B. MUNOZ; P. MURATH; D. M. LOVINGER; G. E. HOMANICS; L. G. AGUAYO. *Univ. of Concepcion, Natl. Inst. on Alcohol Abuse and Alcoholism, Natl. Inst. of Hlth., Univ. of Pittsburgh.*

1:00 DDD13 **828.13** Estrogenic enhancement of ethanol reward requires activation of both ERα and ERβ. E. R. HILDERBRAND*; A. W. LASEK. *Univ. of Illinois At Chicago.*

2:00 DDD14 **828.14** Enhanced transition from impulsive to compulsive ethanol seeking behavior is associated with increased ERK-ΔFosB activity during ethanol extinction. P. A. STARSKI*; A. OLIVEROS; A. CUI; S. CHOI; D. CHOI. *Mayo Clin., Univ. of Rochester.*

3:00 EEE1 **828.15** Effects of chronic alcohol in an animal model of depression: Role of cortical α-2 adrenoceptors. B. GETACHEW*; Y. TIZABI. *Howard Univ. Col. of Med.*

4:00 EEE2 **828.16** Involvement of GABA-A receptors expressing the α5 subunit in the reinstatement of alcohol seeking in rats. C. CHANDLER; J. REEVES-DARBY; S. JONES; G. LI; J. COOK; D. M. PLATT*. *Univ. of Mississippi Med. Ctr., Univ. of Mississippi Med. Ctr., Univ. of Wisconsin-Milwaukee.*

1:00 EEE3 **828.17** Modulating properties of Ethanol on dopamine levels, rewarding and psychostimulant effects of 3, 4-methylenedioxypyrovalerone (MDPV). M. H. BUENROSTRO-JAUREGUI*; R. LÓPEZ-ARNAU; P. MUÑOZ-VILLEGAS; A. CIUDAD-ROBERTS; D. PUBILL; E. ESCUBEDO; J. CAMARASA. *Univ. Enrique Díaz De León, Univ. of Barcelona.*

2:00 EEE4 **828.18** Ethanol dependence and the Cdk5 signaling pathway. S. P. GOULDING*; G. DE GUGLIELMO; O. GEORGE; C. CONTET. *The Scripps Res. Inst.*

3:00 EEE5 **828.19** Chronic alcohol use enhances vulnerability to compulsive cocaine self-administration by promoting degradation of HDAC4 and HDAC5. E. A. GRIFFIN*, JR; P. MELAS; R. ZHOU; Y. LI; K. KEMPADOO; L. COLNAGHI; K. TAYLOR; E. KANDEL; D. KANDEL. *Columbia Univ., Karolinska Institutet, Columbia Univ., Columbia Univ., Columbia Univ.*

POSTER

829. Cocaine: Behavioral Studies I

Theme G: Motivation and Emotion

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 EEE6 **829.01** Effects of a 5-HT_{1B} receptor agonist on locomotion and reinstatement of cocaine-conditioned place preference after abstinence from repeated injections in mice. T. DER-GHAZARIAN*; S. BRUNSWASSER; K. DAI; K. STEFANCO; T. CALL; S. SCOTT; S. NOUDALI; R. GARCIA; J. NEISEWANDER. *Arizona State Univ., Washington Univ. Sch. of Med.*

2:00 EEE7 **829.02** Activation of central glucagon-like peptide-1 (GLP-1) receptors is sufficient to reduce cocaine seeking in rats. N. S. HERNANDEZ*; C. A. TURNER; J. D. WOLFHEIMER; H. D. SCHMIDT. *Univ. of Pennsylvania.*

3:00 EEE8 **829.03** Behavioral effects of dietary zinc manipulation and methods for brain zinc assessment. L. A. RODRIGUEZ*; J. L. GOMEZ; R. ELLIS; M. MICHAELIDES; K. M. DALY. *Natl. Inst. On Drug Abuse.*

4:00 EEE9 **829.04** Effects of a series of novel nociceptin opioid receptor (NOPr) agonists on the rewarding actions of cocaine. K. LUTFY*; P. MARQUEZ; A. HAMID; N. ZAVERI. *Western Univ. of Hlth. Sci., Astraea Therapeutics, LLC.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

1:00 EEE10 **829.05** Prior exposure to alcohol has no effect on cocaine self-administration and relapse: Evidence from a rat model against the gateway hypothesis. I. FREDRIKSSON*; S. ADHIKARY; P. STEENSLAND; L. VENDRUSCOLO; Y. SHAHAM; A. BONCI; J. M. BOSSERT. *Karolinska Institutet, IRP-NIDA, NIH, IRP-NIDA, NIH, IRP-NIDA, NIH, Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med.*

2:00 EEE11 **829.06** Nutritional omega-3 fatty acid deficiency intensifies anxiety- and depression-like behaviors after withdrawal in rats subjected to incubation of cocaine-craving. S. SERRANO*; N. RODRIGUEZ-SOSA; J. R. GESTE; C. S. MALDONADO-VLAAR. *Univ. of Puerto Rico-Rio Piedras Campus.*

3:00 EEE12 **829.07** Early life exposure to dietary high-salt induces neuroadaptations that facilitate increased cocaine seeking. P. M. DINGESS*; F. W. FLYNN; T. E. BROWN. *Univ. of Wyoming, Univ. of Wyoming.*

4:00 EEE13 **829.08** A buprenorphine analog attenuates drug-primed and stress-induced cocaine reinstatement. T. M. HILLHOUSE; J. E. HALLAHAN; E. M. JUTKIEWICZ; S. M. HUSBANDS; J. R. TRAYNOR*. *Univ. of Michigan, Weber State Univ., Univ. of Bath.*

1:00 EEE14 **829.09** δ-opioid receptor (DOR) antagonism introduced by tryptophan substitution in CJ-15,208 prevents opioid antinociceptive tolerance and stress-induced reinstatement of extinguished drug-conditioned place preference. J. P. MCLAUGHLIN*; S. O. EANS; J. M. MEDINA; K. A. HYMEL; S. N. SENADHEERA; T. F. MURRAY; J. V. ALDRICH. *Univ. of Florida, Univ. of Florida, Univ. of Kansas, Creighton Univ., Univ. of Florida.*

2:00 FFF1 **829.10** Effects of ς receptor ligands on the discriminative-stimlus effects of cocaine in rats. T. HIRANITA*; J. L. KATZ. *NCTR/FDA, NIDA-IRP/NIH/DHHS.*

3:00 FFF2 **829.11** The role of hypocretin (orexin) and dynorphin in reward and anxiety following chronic cocaine administration and withdrawal. T. A. GENTILE*; S. SIMMONS; J. MUSCHAMP. *Temple Univ., Temple Univ.*

4:00 FFF3 **829.12** Citrus limon essential oil blocks the psychostimulant effect and increase the threshold of epileptic seizures in mice submitted to a new model of crack-cocaine inhalation. O. W. CASTRO*; C. CAVALCANTE; N. TAVEIROS-SILVA; F. SOUZA; I. SANTANA; A. PACHECO; J. SANTOS-NETO; M. AMARAL; M. ARAÚJO; D. PIMENTEL; M. DUZZIONI. *Federal Univ. of Alagoas, Federal Univ. of Alagoas.*

1:00 FFF4 **829.13** Acute administration of a short acting κ antagonist reduces signs of withdrawal from extended access cocaine self-administration. M. VALENZA*; E. R. BUTELMAN; M. KREEK. *The Rockefeller Univ.*

2:00 FFF5 **829.14** Role of D1 and D2 receptors for the induction and expression of cocaine-induced behavioral sensitization in preweanling rats. K. N. RUDBERG; A. VELIZ; L. C. ROMERO; A. E. GONZALEZ; A. MOHD-YUSOF; S. A. MCDOUGALL*. *California State Univ.*

3:00 FFF6 **829.15** Effect of a dopamine D3 receptor partial agonist on cocaine-induced locomotion and self-administration. J. P. BONADONNA*; G. L. POWELL; A. K. CARLSON; R. MENDOZA; R. H. MACH; R. R. LUEDTKE; K. XU; J. L. NEISEWANDER. *Arizona State Univ., Univ. of Pennsylvania, Univ. of North Texas.*

4:00 FFF7 **829.16** Effects of sub-chronic anabolic steroids exposure on cocaine conditioning and anxiety-like behaviors in adult male rats. J. R. GESTE*; M. POMPILUS, 00931; S. SERRANO-TORRES; G. MOLINA; A. LOYOLA; T. ORTIZ-LINARES; M. DUQUE-OSORNO; E. COLON-MORALES; C. S. MALDONADO-VLAAR. *Univ. of Porto Rico, Univ. of Puerto Rico-Rio Piedras.*

POSTER

830. Cocaine: Behavioral Studies II

Theme G: Motivation and Emotion

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 FFF8 **830.01** ▲ The long term effects of repeated cocaine exposure on impulse inhibition: A pilot study. N. MACK*; C. COWAN; K. PONDER; D. HOLT; M. SHOUP-KNOX; J. DYCHE. *James Madison Univ.*

2:00 FFF9 **830.02** Ultrasonic vocalizations in sign-tracker vs. goal-trackers: No difference in food cue responses, but larger acute and sensitized responses in sign-trackers. J. A. TRIPI*; M. L. DENT; P. J. MEYER. *Univ. at Buffalo.*

3:00 FFF10 **830.03** Persistence of one-trial and ten-trial cocaine-induced conditioned activity in adult rats. A. E. MORAN*; V. REAL; G. J. KAPLAN; S. A. MCDOUGALL. *California State Univ.*

4:00 FFF11 **830.04** Sex differences in the gut microbiome during cocaine self-administration in rats. J. B. BECKER*; H. KERVER; R. HEIN; C. M. BASSIS. *Univ. of Michigan, Univ. of Michigan, Univ. of Michigan.*

1:00 FFF12 **830.05** Addiction-linked drug history results in compulsive appetite via disruption in non-homeostatic control of food intake. A. LAQUE; A. MATZEU; M. W. BUCZYNSKI; G. DE GUGLIELMO; G. DE NESS; G. E. WAGNER; T. KERR; A. M. GREGUS; T. C. JHOU; R. C. RITTER; F. WEISS; N. SUTO*. *Scripps Res. Inst. Dept. of Mol. and Exptl. Med., Med. Univ. of South Carolina, Washington State Univ.*

2:00 FFF13 **830.06** Prenatal stress and pubertal anxiety are related with adult vulnerability to cocaine-induced conditioning place preference. V. PASTOR*; M. E. PALLARÉS; S. OLSZEVICKI; M. C. ANTONELLI. *Inst. De Biología Celular Y Neurociencia.*

3:00 FFF14 **830.07** Characterization of collaborative cross mouse strains with extreme initial locomotor sensitivity to cocaine. S. SCHOENROCK*; J. FARRINGTON; P. KUMAR; S. KHAN; F. P. MANUEL DE VILLENA; W. VALDAR; L. M. TARANTINO. *Univ. of North Carolina At Chapel Hill, Univ. of North Carolina Chapel Hill, Univ. of North Carolina Chapel Hill, Univ. of North Carolina Chapel Hill, Univ. of North Carolina Chapel Hill.*

4:00 FFF15 **830.08** Acute sleep deprivation enhances conditioned place preference. T. E. BJORNESS*; R. W. GREENE. *Univ. of Texas, Southwestern Med. Ctr., North Texas VMAC.*

1:00 FFF16 **830.09** ● Adolescents don't fear punishment in the face of reward: Possible role of dopamine. A. MUTTI*; W. WONG; V. S. RAMACHANDRA; M. MARINELLI. *Univ. of Texas At Austin, Rosalind Franklin Univ. of Med. and Sci.*

2:00 FFF17 **830.10** Context-induced relapse to cocaine seeking after punishment-imposed abstinence in a rat model. Y. PELLOUX*; S. ADHIKARY; J. BOSSERT; Y. SHAHAM. *NIDA IRP.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 FFF18 **830.11** The development of addiction-like behavior does not require DLS-dependent habitual drug-seeking. B. F. SINGER*; M. M. FADANELLI; A. B. KAWA; M. B. SCHWEIR; C. W. CARTER; T. E. ROBINSON. *Univ. of Michigan.*

4:00 FFF19 **830.12** Effects of an aversive white noise stimulus on cocaine self-administration, extinction, and reinstatement in adolescent and adult male rats. G. J. SUESS*; J. N. DAVE; A. C. WHITE; R. G. WILLIAMS; B. A. DANIEL; B. F. WILLIAMS; K. J. FRANTZ. *Georgia State Univ., Univ. of Washington.*

1:00 FFF20 **830.13** The vulnerable brain "persists": Undiminished responding to 33 msec drug cues predicts cocaine relapse. A. R. CHILDRESS*; K. JAGANNATHAN; P. REGIER; S. DARNLEY; T. FRANKLIN; D. LANGLEBEN; Z. MONGE; J. J. SUH; K. YOUNG; R. WETHERILL; K. KAMPMAN; R. EHRMAN; M. GAWRYSIAK; R. SZUCS-REED; C. P. O'BRIEN. *Univ. PENN Perelman Sch. Med., VA Med. Ctr.*

2:00 FFF21 **830.14** The vulnerable brain 'persists': Lifetime emotional, physical, and/or sexual abuse is associated with increased responding across a 500 msec cue task. P. S. REGIER*; K. JAGANNATHAN; T. FRANKLIN; D. LANGLEBEN; J. SUH; R. EHRMAN; C. P. O'BRIEN; A. R. CHILDRESS. *Univ. of Pennsylvania.*

3:00 FFF22 **830.15** The effects of cocaine self-administration on social bonds in the prairie vole. A. N. PERRY*; B. S. CUSHING. *Univ. of Texas at El Paso.*

4:00 FFF23 **830.16** The saccharin presence decrease the value of cocaine on conditioning place preference but not for rats created in an enriched environment. L. FREESE*; F. B. ALMEIDA; G. CALETTI; N. HEIDRICH; L. ZAVARIZE; R. GOMEZ; H. M. T. BARROS*. *Univ. Federal De Ciências Da Saúde De Porto Alegre - UFCSPA, Univ. Federal de Ciências da Saúde de Porto Alegre - UFCSPA, Univ. do Vale do Rio dos Sinos - UNISINOS, Univ. Federal do Rio Grande do Sul - UFRGS, Univ. Federal De Ciências Da Saúde De Porto Alegre - UFCSPA.*

1:00 FFF24 **830.17** Gender differences in motivational effects of natural rewards and cocaine. M. MARTINI*; U. DATTA; W. SUN. *Univ. of Tennessee Hlth. Sci. Ctr.*

2:00 FFF25 **830.18** Individual differences and predisposition to drug abuse. N. J. BEACHER*; J. KULIK; J. STAMOS; K. COFFEY; A. PAWLAK; D. ESTRIN; M. DAMCEVSKA; M. WEST. *Rutgers The State Univ. of New Jersey.*

3:00 FFF26 **830.19** ▲ The speed of intravenous cocaine delivery in the past predicts the risk of relapse to drug use in the future. A. B. GUEYE*; F. ALLAIN; A. SAMAHA. *Univ. De Montréal.*

4:00 GGG1 **830.20** A history of chronic restraint stress increases vulnerability to drug-priming-, but not cue-induced reinstatement of cocaine seeking in rats. K. T. BALL*; E. STONE; O. BEST; H. EDSON; S. NARDINI; P. NEUCILER; M. SMOLINSKY. *Bloomsburg Univ, Pennsylvania.*

1:00 GGG2 **830.21** ▲ The association between operant novelty seeking and cocaine withdrawal on cue-induced reinstatement in rats. D. P. HAGARTY*; A. K. SUTER; I. GONZALEZ; F. PINEDA; C. HARRIS; A. M. GANCARZ. *California State University, Bakersfield.*

2:00 GGG3 **830.22** Sex dependent differences in cocaine seeking by rats under punishment. U. DATTA*; M. MARTINI; W. SUN. *Univ. of Tennessee.*

POSTER

831. Cocaine: Brain Circuitry II

Theme G: Motivation and Emotion

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 GGG4 **831.01** Sphingosine-1-phosphate and fingolimod regulate PKA/DARPP-32 signaling in striatal medium spiny neurons via neuronal S1P receptor mechanisms. K. UEMATSU*; T. SHUTO; Y. SYOJI; N. UCHIMURA; A. NISHI. *Kurume Univ. Sch. of Med., Kurume Univ. Sch. of Med., Kurume Univ. Sch. of Med.*

2:00 GGG5 **831.02** Overexpression of caveolin-1 in the nucleus accumbens enhances cocaine-induced locomotor activity. K. GROSS*; K. TONN; L. MARTINEZ; B. HEAD; P. MERMELSTEIN. *Univ. of Minnesota, Univ. of California San Diego.*

3:00 GGG6 **831.03** Multi-scale regulation of nucleus accumbens somatostatin interneurons controls sensitivity to cocaine. E. A. RIBEIRO*; E. J. NESTLER. *Icahn Sch. of Med. At Mount Sinai.*

4:00 GGG7 **831.04** Social stress increases cocaine seeking via CRF-DA interaction in VTA. X. HAN*; D. R. ROSE; C. S. KO; J. F. DEBOLD; K. A. MICZEK. *Tufts Univ.*

1:00 GGG8 **831.05** Role of intra-accumbens brain-derived neurotrophic factor on cocaine seeking. A. BOBADILLA*; C. GARCIA-KELLER; V. CHAREUNSOUK; J. HYDE; J. HEINSBROEK; P. W. KALIVAS. *Med. Univ. of South Carolina.*

2:00 GGG9 **831.06** The role of Hypocretin Receptor 1 in the VTA in modulating motivated behavior and dopamine neurotransmission. D. L. BERNSTEIN*; C. E. BASS; R. A. ESPAÑA. *Drexel Univ., Univ. of Buffalo, Drexel Univ. Col. of Med.*

3:00 GGG10 **831.07** Administration of orexin-A in the paraventricular nucleus of the thalamus activates hypothalamic orexin neurons in animals with a history of cocaine dependence. A. MATZEU*; F. WEISS; R. MARTIN-FARDON. *Scripps Res. Inst., The Scripps Res. Inst., The Scripps Res. Insitute.*

4:00 GGG11 **831.08** Opposing roles of orexin and dynorphin in the paraventricular nucleus of the thalamus. R. MARTIN-FARDON*; M. KALLUPI; F. WEISS; O. GEORGE; P. SCHWEITZER; A. MATZEU. *Scripps Res. Inst., Scripps Res. Inst.*

1:00 GGG12 **831.09** Extinction training is required for transient synaptic potentiation in accumbens core and shell. D. ROBERTS-WOLFE*; C. SHIELDS; C. GIPSON; J. HEINSBROEK; A. BOBADILLA; P. KALIVAS. *Med. Univ. of South Carolina, Col. of Charleston, Arizona State Univ.*

2:00 GGG13 **831.10** Antagonism of mGlu2/3 receptors in the nucleus accumbens prevents oxytocin from reducing cued methamphetamine-seeking in male and female rats. A. BERNHEIM*; S. GHEE; C. M. REICHEL. *Med. Univ. of South Carolina.*

3:00 GGG14 **831.11** Oxytocin's impact on cocaine-seeking is mediated by the subthalamic nucleus. K. LEONG*; C. M. REICHEL. *Med. Univ. of South Carolina.*

4:00 GGG15 **831.12** Antagonism of mGlu2/3 receptors prevents oxytocin from reducing cocaine seeking in male and female rats. C. M. REICHEL*; K. LEONG; A. BERNHEIM. *Med. Univ. of South Carolina.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

1:00 GGG16 **831.13** Effect of DREADD-mediated modulation of Gq-coupled signaling in lateral habenula neurons on cue-induced reinstatement of cocaine seeking in rats. S. G. NAIR*; J. BROWNE; M. M. ESTABROOK; J. F. NEUMAIER. *Univ. of Washington.*

2:00 GGG17 **831.14** The nucleus accumbens core is less active during reinstatement to cocaine seeking in animals with a history of alcohol use as compared to cocaine use only. B. STENNETT*; B. JACKSON; L. KNACKSTEDT. *Univ. of Florida.*

3:00 GGG18 **831.15** ▲ Effects of environmental enrichment and abstinence on cocaine seeking and RNA expression within the nucleus accumbens shell. M. ST. PETER*; G. L. POWELL; T. BENSON; T. CHAUDHURY; D. ALCAZAR; R. BASTLE; N. PERRONE-BIZZOZERO; J. NEISEWANDER. *Arizona State Univ., Arizona State Univ., Arizona State Univ., Univ. of New Mexico.*

4:00 GGG19 **831.16** ▲ Using Kappa Opioid Receptor DREADDs to transiently inactivate rat basolateral amygdala during conditioned cocaine seeking and fear learning. E. CASTILLO*; R. DANG; S. V. MAHLER. *UC Irvine.*

1:00 GGG20 **831.17** Ventral Pallidum in Context: Roles for VP and its inputs in cocaine and natural-reward seeking behavior. H. SCHOCH*; J. CEVALLOS; S. V. MAHLER. *Univ. of California Irvine.*

2:00 GGG21 **831.18** A Punishment-Induced Abstinence Model of Cocaine Relapse: Characterization in male and female rats, and effects of chemogenetic ventral pallidum inhibition. C. RUIZ*; M. HUERTA; H. SCHOCH; S. V. MAHLER. *UC Irvine.*

3:00 GGG22 **831.19** Selective deletion of GIRK 2 channels in dopamine neurons increases cocaine self-administration and produces a bidirectional locomotor response. S. DOMINGUEZ-LOPEZ*; A. L. SHARPE; R. SHARMA; K. D. WICKMAN; M. J. BECKSTEAD. *Univ. of Texas Hlth. Sci. Ctr. at San A, Univ. of the Incarnate Word, Univ. of Texas Hlth. Sci. Ctr. at San A, Univ. of Minnesota.*

4:00 GGG23 **831.20** The role of Accumbens in cue induced relapse. J. KULIK*; N. BEACHER; J. STAMOS; K. COFFEY; D. ESTRIN; M. WEST. *Rutgers The State Univ. of New Jersey, Rutgers Univ.*

1:00 GGG24 **831.21** Activation of amylin receptors in the ventral tegmental area attenuates cocaine seeking in rats. C. A. TURNER*; N. S. HERNANDEZ; J. M. MAURER; H. D. SCHMIDT. *Univ. of Pennsylvania.*

2:00 GGG25 **831.22** Transfer of cue-triggered cocaine-seeking behavior and its dependence on dopamine signaling. S. B. OSTLUND*; A. T. LIU; B. HALBOUT. *UCI Sch. of Med.*

3:00 GGG26 **831.23** Corticostriatal c-fos expression in differentially reared rats following reinstatement of cocaine-seeking behaviors. Z. S. ORBAN*; C. A. JOHN; K. M. EVENSON; O. R. LOPEZ; D. A. JANTZ; K. R. OLESEN; M. J. GILL. *North Central Col.*

4:00 HHH1 **831.24** ▲ PEPA and glutamate: The role of infralimbic AMPA receptors in diminishing reinstatement of cocaine seeking behavior of differentially reared rats. A. LUNDQUIST; H. FALZARANO; E. SMIGLA; E. KENDALL; R. WROBLESKI; M. MILOVANOVIC; M. E. WOLF; M. T. STEFANIK; M. J. GILL*. *North Central Col., Rosalind Franklin Univ.*

1:00 HHH2 **831.25** ▲ Role of nucleus accumbens shell AMPA receptors in cocaine-seeking behavior of differentially reared rats. M. R. CROMWELL*; C. A. JOHN; E. BARTOLI; R. WROBLESKI; A. LUNDQUIST; M. MILOVANOVIC; M. E. WOLF; M. T. STEFANIK; M. J. GILL. *North Central Col., Rosalind Franklin Univ. of Med.*

2:00 HHH3 **831.26** Phasic dopamine release in the nucleus accumbens during cocaine self-administration under different operant schedules. I. OLIVA*; M. J. WANAT. *Univ. of Texas at San Antonio.*

3:00 HHH4 **831.27** Selective breeding for intravenous cocaine self-administration modifies basal levels of dopamine and acetylcholine in the nucleus accumbens shell. K. W. GRASING*; H. XU; F. YANG; S. DAS. *Kansas City Veterans Affairs Med. Ctr., The Univ. of Kansas Med. Ctr.*

POSTER

832. Cognition and Behavior: Dopamine and Dopamine Receptors

Theme H: Cognition

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 HHH5 **832.01** Visual input pathways for dopamine responses reflecting predicted reward value in blindsight monkeys. N. TAKAKUWA*; R. KATO; P. REDGRAVE; T. ISA. *NIPS, SOKENDAI, Univ. of Sheffield, Kyoto Univ.*

2:00 HHH6 **832.02** Dopamine at indifference: Accumbal dopamine transients are valence dependent. G. C. LOEWINGER*; G. ESBER; D. CAPRIOLI; Y. MATEO; D. LOVINGER. *NIAAAA, NIH, Brooklyn Col. of The City Univ. of New York, Natl. Inst. on Drug Abuse, NIH, NIAAAA, NIH.*

3:00 HHH7 **832.03** ● Expression changes in prefrontal cortex after neurotransmission blocking of the nucleus accumbent pathways. T. HIKIDA*; S. YAO; A. FUKAKUSA; M. MORITA; H. KIMURA; K. HIRAI; T. ANDO; H. TOYOSHIBA; A. SAWA. *Kyoto Univ. Grad. Sch. of Med., Takeda Pharmaceut. Co. Limited, Johns Hopkins Univ. Sch. of Med.*

4:00 HHH8 **832.04** Learning deficits involving nucleus accumbens D2-receptor expressing neurons in a DISC1 mouse model. M. MORITA*; T. MACPHERSON; A. SAWA; T. HIKIDA. *Kyoto Univ. Grad. Sch. of Med., Johns Hopkins Univ. Sch. of Med.*

1:00 HHH9 **832.05** Loss of dopamine D2 receptors in glutamatergic or GABAergic neurons produces differential behavioral outputs. D. L. GRAHAM*; T. S. TRAMMELL; L. R. ANDERSON; G. LEE; M. RUBINSTEIN; G. D. STANWOOD. *Florida State Univ. Col. of Med., Florida State Univ. Col. of Med., Consejo Nacional de Investigaciones Científicas y Técnicas.*

2:00 HHH10 **832.06** ▲ Dorsal striatum neurons expressing dopamine-1 receptors are recruited during fear extinction and are activated by DREADD-induced dopamine. M. MINER*; C. A. BOUCHET; B. A. LLOYD; H. L. HAKE; T. M. NICASTRO; N. M. GRAY; E. C. LOETZ; B. N. GREENWOOD. *Psychology Dept.*

3:00 HHH11 **832.07** The effect of 3,4-Methylenedioxymethamphetamine (MDMA, ecstasy) on extinction and reconsolidation of fear memory. E. C. LOETZ*; A. SANCHEZ RODRIGUEZ; M. R. MONDRAGON; B. LLOYD; C. P. SIMPSON; B. N. GREENWOOD. *Univ. of Colorado Denver.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
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* Indicates abstract's submitting author

4:00 HHH12 **832.08** ▲ Dopamine release in the nucleus accumbens and dorsal striatum during voluntary exercise. G. J. GILLAN*; S. A. SCHELP; K. J. PULTORAK; N. M. HADDAD; E. B. OLESON; B. N. GREENWOOD. *Univ. of Colorado Denver, Univ. of Colorado Denver, Univ. of Colorado Denver.*

1:00 HHH13 **832.09** DREADD-induced activation of the nigrostriatal dopamine pathway modulates fear extinction and reduces fear renewal. C. A. BOUCHET*; M. A. MINER; A. J. ROSBERG; N. M. GRAY; T. M. NICASTRO; B. A. LLOYD; E. C. LOETZ; B. N. GREENWOOD. *Univ. of Colorado.*

2:00 HHH14 **832.10** ▲ Exercise increases mTOR signaling in brain areas involved in cognition and emotion. B. LLOYD*; H. HAKE; J. BURNS; E. LOETZ; M. FLESHNER; S. BLAND; B. GREENWOOD. *Univ. of Colorado Denver, Univ. of Colorado, Univ. of Colorado.*

3:00 HHH15 **832.11** The role of prefrontal interneuron subtypes in working memory. A. I. ABBAS*; M. J. M. SUNDIANG; J. A. GORDON. *Columbia University/NYS Psychiatric Inst.*

4:00 HHH16 **832.12** VTA activity mediates stress-induced oscillations in the nucleus accumbens. A. HARRIS*; L. A. CHAMBERLIN; L. N. KRETSGE; A. DEMSAS; J. A. GORDON. *Columbia Univ., Drexel Univ. Col. of Med.*

1:00 HHH17 **832.13** mPFC activation of BLA SOM+ interneurons mediates safety. J. M. STUJENSKE*; S. GOLDBURG; L. DIAZ; W. D. HARDIN; S. S. BOLKAN; T. R. REARDON; T. SPELLMAN; J. A. GORDON; E. LIKHTIK. *Columbia Univ., Barnard Col., Columbia Univ., Weill Cornell Med. Col., Columbia Univ., Hunter Col.*

2:00 HHH18 **832.14** Receiprocal thalamo-prefrontal activity supports spatial working memory. S. S. BOLKAN*; J. M. STUJENSKE; T. X. A. P. SPELLMAN; J. A. GORDON; C. KELLENDONK. *Columbia Univ., Columbia Univ., Cornell Univ., Columbia Univ., Columbia Univ.*

3:00 HHH19 **832.15** θ-frequency oscillatory stimulation of vHPC inputs to the mPFC increases anxiety-like behavior. N. PADILLA COREANO*; S. CANETTA; W. D. HARDIN; R. WARREN; D. R. BLACKMAN; C. KELLENDONK; J. A. GORDON. *Columbia Univ., Columbia Univ., Columbia Univ., Barnard Col.*

POSTER

833. Functional Mechanisms of Attention

Theme H: Cognition

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 HHH20 **833.01** Cognitive ERPs in behaving monkeys: Spatial attention to the heading direction. C. LOCKWOOD*; W. VAUGHN; C. DUFFY. *Univ. of Rochester.*

2:00 HHH21 **833.02** Attenuated μ-opioid receptor function in female rat locus coeruleus. H. M. GUAJARDO*; A. HO; R. J. VALENTINO. *Univ. of Pennsylvania, The Univ. of Pennsylvania, Children's Hospital of Philadelphia.*

3:00 HHH22 **833.03** ▲ Effects of protein kinase C activation on attention deficits following loss of corticopetal cholinergic neurons. C. S. LEONG*; E. B. MANESS; D. I. BARAKI; J. A. BURK. *Col. of William and Mary.*

4:00 HHH23 **833.04** BOLD signal amplitude, not functional connectivity, differentiates the awake from anesthetized brain. M. E. GHANTOUS*. *Northwestern Univ. Dept. of Physiol., Northwestern Univ.*

1:00 HHH24 **833.05** Investigating the role of the receptor tyrosine kinase ErbB4 in attention and impulsivity in mice. E. MARCHISELLA*; E. REMMELINK; B. KOOPMANS; R. VAN DER LOO; R. WIJNANDS; A. B. SMIT; S. SPIJKER; M. LOOS. *Sylics, BV, Vrije Univ.*

2:00 HHH25 **833.06** Sign-tracking as an index of poor cholinergic-attentional control extends to complex motor performance and is associated with attenuated choline transporter function. M. SARTER*; A. KOSHY CHERIAN; V. PARIKH; P. VALUSKOVA; B. YEGLA; A. KUCINSKI. *Univ. of Michigan Dept. of Psychology, Univ. of Michigan, Temple Univ.*

3:00 HHH26 **833.07** Frequency tags in virtual reality: Studying the neuronal mechanisms of visual selective attention in *Drosophila melanogaster*. M. J. GRABOWSKA*; B. VAN SWINDEREN. *The Univ. of Queensland.*

4:00 HHH27 **833.08** ● Pharmacological manipulation of the cholinergic system for cognitive enhancement in young healthy rats. B. FISHER*; A. C. MAR; L. M. SAKSIDA; T. J. BUSSEY; T. W. ROBBINS. *Univ. of Cambridge, Wellcome Trust and MRC Behavioural and Clin. Neurosci. Inst., New York Univ. Med. Ctr.*

1:00 HHH28 **833.09** Pattern of anatomical connectivity between the midbrain lateral tegmental nucleus and the superior colliculus in the mouse. W. YOU*; S. P. MYSORE. *The Johns Hopkins Univ., Johns Hopkins Univ.*

2:00 HHH29 **833.10** Combinatorial inhibition for efficient location-invariant stimulus selection. N. R. MAHAJAN*; S. P. MYSORE. *Johns Hopkins Univ.*

3:00 HHH30 **833.11** Cholinergic-dependent shifts to cue-directed behavior. K. B. PHILLIPS*; M. SARTER. *Univ. of Michigan.*

4:00 HHH31 **833.12** Context-specific activity in Caudate Nucleus during a covert attention task. F. ARCIZET*; R. J. KRAUZLIS. *LSR-NIH, LSR-NIH.*

1:00 HHH32 **833.13** Immediate early gene response in the medial prefrontal cortex does not vary under conditions of context and object novelty. Q. CHANG*; M. STEINFELD; A. W. KUSNECOV. *Rutgers Univ.*

2:00 HHH33 **833.14** Dynamics of θ oscillation during multiple components of exploration. A. M. BARTH*; A. DOMONKOS; T. F. FREUND; V. VIKTOR. *Inst. of Exptl. Medicine, HAS.*

3:00 HHH34 **833.15** Effects of N-desmethylclozapine on attentional performance following loss of basal forebrain corticopetal cholinergic inputs. E. B. MANESS*; C. S. LEONG; J. A. BURK. *Col. of William and Mary.*

4:00 HHH35 **833.16** Choline transport in peripheral lymphocytes as a proxy for brain cholinergic capacity. A. KOSHY CHERIAN*; V. PARIKH; Q. WU; Y. MAO-DRAAYER; R. BLAKELY; M. SARTER. *Univ. of Michigan, Temple Univ., Univ. of Michigan Med. Sch., Florida Atlantic Univ.*

1:00 HHH36 **833.17** Pharmacosynthetic inhibition of the rat subthalamic nucleus impairs attentional set-formation. S. S. DHAWAN*; D. S. TAIT; V. J. BROWN. *Univ. of St Andrews.*

2:00 HHH37 **833.18** Inhibition of prelimbic cortex glutamatergic signalling induces deficits in attentional set-shifting. A. J. WHYTE*; D. S. TAIT; E. M. BOWMAN; V. J. BROWN. *Univ. of St Andrews.*

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* Indicates abstract's submitting author

3:00 HHH38 **833.19** ▲ Sleep loss impairs attention and memory performance in the object recognition task. H. ROSENBLATT; J. KRY; K. MCNALLY; J. CORDEIRA*. *Western Connecticut State Univ.*

4:00 HHH39 **833.20** Lynx1 dampens arousal and attention in adult mice. Y. MAKINO*; R. REH; A. COVELLO; W. STAGNARO; T. K. HENSCH. *Harvard Univ., Boston Children's Hosp.*

1:00 HHH40 **833.21** dopamine transporter in reversal learning & attention. A. CYBULSKA*; J. DABROWSKA; S. NIEDZIELEC; R. ZAKRZEWSKA. *Nencki Inst., Cardinal Stefan Wyszynski Univ. in Warsaw, Nencki Inst.*

2:00 III1 **833.22** ● Dissociable effects of D1 partial agonists and positive allosteric modulators on prefrontal excitability, neurotransmitter release, and cognitive performance. D. YOUNG*; A. ROSSI; S. GEE; P. TIERNEY; G. BEKHEET; L. ZHANG; W. HOWE; R. KOZAK. *Pfizer Inc.*

3:00 III2 **833.23** ● Comparison of acute and chronic effects of methylphenidate on the locus coeruleus and ventral tegmental area. T. KARIM; C. REYES-VASQUEZ; N. DAFNY*. *Univ. of Texas Med. Sch. at Houston.*

POSTER

834. Cognition: Corticostriatal Circuits

Theme H: Cognition

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 III3 **834.01** The role of cortex in dynamic interactive environments, a "Videogame" for rats. L. CALCATERRA*; G. LOPES; J. NOGUEIRA; J. FRAZÃO; A. KAMPFF. *Sainsbury Wellcome Ctr., Champalimaud Neurosci. Programme, Champalimaud Ctr. for the Unknown, Sainsbury Wellcome Ctr.*

2:00 III4 **834.02** ● Cortically projecting basal forebrain parvalbumin positive neurons regulate top-down processing in mice. J. CHOI*; H. EUNJIN; B. KIM; H. HAN; R. BROWN; R. MCCARLEY; J. T. MCKENNA; T. KIM. *Korea Inst. of Sci. and Tech. (KIST), Harvard Med. Sch., Kyunghee Med. Hosp.*

3:00 III5 **834.03** Fructose effects on body weight, food consumption, and striatal dopamine DRD2 and BDNF gene expression. A. IZQUIERDO*; Y. ZOKEN; M. GARCIA; T. TRUONG; E. E. HART; A. STOLYAROVA; A. B. THOMPSON; Z. YING; F. GÓMEZ-PINILLA. *UCLA, UCLA, UCLA.*

4:00 III6 **834.04** Cognitive actions of corticotropin-releasing factor (CRF) across distinct prefrontal cortex (PFC)-dependent cognitive processes. S. HUPALO*; C. W. BERRIDGE. *Univ. of Wisconsin - Madison, Univ. of Wisconsin - Madison.*

1:00 III7 **834.05** ▲ Differential modulation of glutamate dynamics in the dorsal striatum and nucleus accumbens during nicotine withdrawal. M. ZIMMERMAN*; R. D. COLE; V. PARIKH. *Temple Univ.*

2:00 III8 **834.06** Behavioral characterization of female zinc-transporter 3 (ZnT3) knockout mice. S. THACKRAY*; B. B. MCALLISTER; R. H. DYCK. *Univ. of Calgary.*

3:00 III9 **834.07** "Binge-like" exposure to toluene during adolescence produces alterations in the excitability of mPFC neurons that are sub-region and projection specific. W. N. WAYMAN*; J. J. WOODWARD. *Med. Univ. of South Carolina.*

4:00 III10 **834.08** Persistent cognitive and neuroplastic alterations following repeated exposure of adolescent rats to the psychoactive inhalant toluene. K. M. BRAUNSCHEIDEL*; J. T. GASS; P. J. MULHOLLAND; J. J. WOODWARD. *Med. Univ. of South Carolina Dept. of Neurosciences.*

1:00 III11 **834.09** Initial training with a specific sensing modality determines rat ability to integrate unisensory perceptual strategies in a multisensory pattern discrimination task. A. DI FILIPPO*; L. GODENZINI; M. ORRÙ; M. DIAMOND; D. ZOCCOLAN. *Intl. Sch. For Advanced Studies (SISSA).*

2:00 III12 **834.10** Simultaneous resting-state and visually-driven functional networks in the macaque brain. F. A. DE AZEVEDO*; M. ORTIZ-RIOS; L. C. AZEVEDO; D. Z. BALLA; G. LOHMANN; N. K. LOGOTHETIS; G. K. KELIRIS. *Max Planck Inst. For Biol. Cybernetics, Max Planck Inst. For Biol. Cybernetics, Univ. of Manchester, Univ. of Antwerp.*

3:00 III13 **834.11** Functional connectivity of the claustrum in humans and rats at 7T MRI. D. A. SEMINOWICZ; S. KRIMMEL; A. RAMSEY; J. TEIXEIRA DA SILVA; N. HASSELGRAVE; M. G. WHITE; M. PANICKER; D. H. RESER; B. N. MATHUR*. *Univ. of Maryland Sch. of Dent., Univ. of Maryland Sch. of Med., Univ. of Maryland Sch. of Med., Monash Univ.*

4:00 III14 **834.12** Maturation of prefrontal cortex circuits in primates: A longitudinal neuroimaging study during infancy. Z. A. KOVACS-BALINT*; E. FECZKO; E. EARL; L. LI; J. STEELE; M. STYNER; J. BACHEVALIER; D. FAIR; M. SANCHEZ. *Emory Univ., Oregon Hlth. & Sci. Univ., Emory Univ., Univ. of North Carolina, Emory Univ., Ctr. for Behav. Neurosci.*

1:00 III15 **834.13** Neuroanatomical variation in domestic dog breeds. E. E. HECHT*; D. A. GUTMAN; W. DUNN, Jr; O. P. KEIFER, Jr; S. SAKAI; M. KENT; T. M. PREUSS. *Georgia State Univ., Emory Univ. Sch. of Med., Emory Univ. Sch. of Med., Michigan State Univ., The Univ. of Georgia at Athens, Emory Univ.*

2:00 III16 **834.14** Functional and developmental characterization of the visual afferent to the pallium in zebrafish. K. YAMAMOTO*; S. BLOCH; C. FROC. *Neuro-Psi, CNRS, Univ. Paris-Sud, Univ. Paris-Saclay, Neuro-Psi, CNRS, Univ. Paris-Sud, Univ. Paris-Saclay.*

3:00 III17 **834.15** Allyl isothiocyanate differentially modulates the C-start escape response in Danio rerio. J. ALZAGATITI; A. ROBERTS; R. CHOE; J. CHORNAK; R. BUCK; S. NEMANPOUR; D. WONG; F. OSADI; M. HOANG; J. ALIPIO; E. LAURENT; D. L. GLANZMAN*. *UCLA, UCLA, UCLA, Brown Univ., CSU San Bernardino, Univ. of St. Andrews, UCLA.*

4:00 III18 **834.16** α oscillatory inputs and short-term depression underlie action inhibitory control in a model of the striatum. S. ARDID*; J. SHERFEY; M. M. MCCARTHY; J. HASS; N. KOPELL. *Boston Univ., Central Inst. of Mental Hlth. at Heidelberg Univ.*

1:00 III19 **834.17** Oscillations guide rule-based action in a laminar model of prefrontal cortex. J. SHERFEY*; S. ARDID; M. MCCARTHY; J. HASS; N. KOPELL. *Boston University, Sch. of Med., Boston Univ.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

POSTER

835. Cognition: Striatal Regions

Theme H: Cognition

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 III20 **835.01** Inactivation of the dorsomedial striatum leads to impairment in spatial working memory. H. AKHLAGHPOUR*; J. P. TALIAFERRO; J. CHOI; J. AU; I. B. WITTEN. *Princeton Univ.*

2:00 III21 **835.02** Selective control of the maintenance and retrieval of spatial working memory by the cortico-striatal adenosine A_{2A} receptor under specific cognitive load. L. ZHIHUI*; C. HANGJUN; L. FEI; C. LONG; G. WEI; R. XIANGPENG; Z. LIPING; C. JIANGFAN. *The Eye Hosp. of Wenzhou Med. Univ., Boston University, Sch. of Med.*

3:00 III22 **835.03** ● The differential contribution of primate striatal regions to serial reversal learning. S. A. JACKSON*; N. K. HORST; N. HORIGUCHI; T. W. ROBBINS; A. C. ROBERTS. *Univ. of Cambridge, Univ. of Cambridge, Univ. of Cambridge.*

4:00 III23 **835.04** ▲ Involvement of thalamic inputs to dorsomedial striatum in inhibitory control in the 5-choice serial reaction time task in rats. J. SAUND; D. DAUTAN; C. ROSTRON; G. URCELAY; T. GERDJIKOV*. *Univ. of Leicester, Rutgers Univ., Open Univ., Sch. of Psychology.*

1:00 III24 **835.05** Anesthetic doses of ketamine improve reversal learning in a go/no-go task in rats. A. PAJSER*; M. K. CRABTREE; C. L. PICKENS. *Kansas State Univ., Kansas State Univ.*

2:00 III25 **835.06** Incremental motor learning induces a DAT-mediated shift in synaptic plasticity in striatal neurons: Relevance for prodromal Parkinson' disease. E. DE LEONIBUS*; N. GIORDANO; A. IEMOLO; M. MANCINI; F. CACACE; M. DE RISI; E. LATAGLIATA; V. GHIGLIERI; G. BELLENCHI; S. PUGLISI-ALLEGRA; P. CALABRESI; B. PICCONI. *CNR, Fondazione Santa Lucia, Clinica Neurologica, Univ. di Perugia.*

3:00 III26 **835.07** Regulation of goal-directed action selection by cocaine, MDMA, and orbitofrontal BDNF-TrkB. E. G. PITTS*; K. GARZA; S. L. GOURLEY. *Emory Univ.*

4:00 III27 **835.08** A model-based reinforcement learning model using Rescorla-Wagner principle reproduces Pavlovian-to-Instrumental Transfer. K. OKITSU*; Y. SAKAI. *Tamagawa Univ., Tamagawa Univ. Brain Sci. Inst.*

1:00 III28 **835.09** Age-related corticostriatal decline underlies temporal constraints in action execution. J. BERTRAN-GONZALEZ*; Z. SKRBIS; M. BAILEY; P. BALSAM; B. BALLEINE; J. GOETZ; M. MATAMALES. *The Univ. of Queensland, Columbia Univ., Univ. of New Sout Walles.*

2:00 III29 **835.10** Aging-related dysfunction of striatal cholinergic interneurons produces conflict in action selection. M. MATAMALES*; Z. SKRBIS; R. HATCH; B. BALLEINE; J. GOETZ; J. BERTRAN-GONZALEZ. *The Univ. of Queensland, Univ. of New South Walles.*

3:00 III30 **835.11** Action and habit in a reward devaluation/inflation paradigm. S. E. CONRAD*; M. R. PAPINI. *Texas Christian Univ.*

4:00 III31 **835.12** Chronic consumption of a palatable food increases microglia number and size in the dorsomedial striatum and reduces sensitivity to outcome devaluation. L. H. CORBIT*; S. BECCHI; M. KENDIG; J. HOOD. *Univ. of Sydney.*

1:00 III32 **835.13** Heterogeneous connectivity indicates pivotal hubs for network communication in the dorsal anterior cingulate cortex: An anatomy-guided discovery. W. TANG*; S. N. HABER. *Univ. of Rochester Med. Ctr.*

2:00 III33 **835.14** Regional differences in morphology of the striatal medium spiny neurons. I. BICANIC; D. DZAJA; U. BORNSCHEIN; I. I. KOSTOVIC*; Z. PETANJEK. *Sch. of Medicine, Univ. of Zagreb, Sch. of Medicine, Univ. of Zagreb, Max Planck Inst. for Evolutionary Anthrop., Sch. of Med, Univ. of Zagreb.*

3:00 III34 **835.15** ● Preventing falls in PD in a rat model of impaired cognitive control of complex movements by a pro-cholinergic combination treatment. A. J. KUCINSKI*; I. E. M. DE JONG; M. SARTER. *Univ. of Michigan, H. Lundbeck A/S.*

POSTER

836. Models of Memory Consolidation, Protection, and Enhancement

Theme H: Cognition

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 III35 **836.01** ▲ Pavlovian learning under enhanced D2-type activity facilitates heterosexual motivation in gonadectomized male rats. M. BARRADAS*; M. B. TECAMACHALTZI-SILVARÁN; L. I. GARCÍA-HERNÁNDEZ; P. CARRILLO-CASTILLA; J. MANZO-DENES; G. CORIA-AVILA. *Ctr. De Investigaciones Cerebrales, Univ. Veracruzana.*

2:00 III36 **836.02** High-yawning rats showed different memory abilities in the object recognition task. J. EGUIBAR*; L. DIAZ; A. UGARTE; A. TRUJILLO; C. CORTES. *Benemerita Univ. Autonoma de Puebla.*

3:00 III37 **836.03** Neuroprotective effect of hypothermia in the behavioral assessment of rats submitted to neonatal anoxia. V. VASQUEZ MATSUDA*; A. V. MACHADO-NILS; G. F. XAVIER. *Univ. of São Paulo / Biosci. Inst.*

4:00 III38 **836.04** α2-antiplasmin as a potential mediator contributing to memory function and age-related cognitive decline. E. KAWASHITA*; K. ISHIHARA; O. MATSUO; S. AKIBA. *Kyoto Pharmaceut. Univ., Kindai Univ.*

1:00 III39 **836.05** Deleterious effects of hypertension on the organization of recent and remote memories in the spontaneously hypertensive rat. A. PULGA; A. HAMBUCKEN; A. COSTET; J. MOREL; B. BONTEMPI*. *Inst. of Neurodegenerative Diseases, CNRS UMR 5293.*

2:00 III40 **836.06** Deep brain stimulation of the nucleus basalis of meynert improves working memory. R. LIU*; J. CRAWFORD; P. CALLAHAN; A. V. TERRY; C. CONSTANTINIDIS; D. T. BLAKE. *Augusta Univ., Augusta Univ., Wake Forest Sch. Med.*

3:00 III41 **836.07** Optogenetic analysis of polyphenol-induced resilience against sleep deprivation-associated cognitive deficits. C. SMITH*; T. FROLINGER; J. WANG; G. M. PASINETTI. *Icahn Sch. of Med. At Mount Sinai, Icahn Sch. of Med. At Mount Sinai, James J. Peters Veterans Affairs Med. Ctr.*

4:00 III42 **836.08** Gender associated molecular responses in cognitive impairment mediated by chronic sleep deprivation. T. FROLINGER*; C. SMITH; J. WANG; G. M. PASINETTI. *Icahn Sch. of Medicine, Mount Sinai Med. Cent, Dietary Supplement Res. Center, Icahn Sch. of Med., Geriatric Research, Educ. and Clin. Center, James J. Peters Veterans Affairs Med. Ctr.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

1:00 III43 **836.09** Sleep-dependent acquisition and adaptation of neocortical semantic networks - a restricted boltzmann machine model. N. DUPUY*; M. VAN ROSSUM. *Univ. of Edinburgh, KTH Royal Inst. of Technol.*

2:00 III44 **836.10** SCOP-dependent circadian regulation of memory formation for novel object. K. SHIMIZU*; Y. KOBAYASHI; E. NAKATSUJI; M. YAMAZAKI; K. SAKIMURA; Y. FUKADA. *Dept. Biol. Sciences, The Univ. of Tokyo, Niigata Univ.*

3:00 III45 **836.11** Neuroprotective role of intermittent hypobaric hypoxia in unpredictable chronic mild stress induced depression in rats. N. KUSHWAH*, JR; V. JAIN; N. KHAN. *Def. Inst. of Physiol. and Allied Sci., DIPAS, DRDO Delhi, DIPAS, DRDO Delhi.*

4:00 III46 **836.12** Effects of astrocytic and region-specific knock outs of Ndufs4 on volatile anesthetic response. R. RAMADASAN NAIR*; J. HUI; P. G. MORGAN; M. M. SEDENSKY. *Seattle Children's Res. Inst.*

1:00 III47 **836.13** Development and structural plasticity of dendritic spines throughout the critical period for imprinting. G. BATISTA*; E. DOMINGUEZ; J. JHONSON; M. COSTA-MATTIOLI; J. L. PENA. *Albert Einstein Col. of Med., Baylor Col. of Med.*

2:00 III48 **836.14** ● Young pigs exhibit differential exploratory behavior during novelty preference tasks in response to age, sex, and delay. S. A. FLEMING*; R. N. DILGER. *Univ. of Illinois at Urbana-Champaign, Neurosci. Program.*

3:00 III49 **836.15** ▲ The effects of adrenergic receptor antagonists on avain memory. N. J. WEBB*; A. HRIBAR; J. PEGUES; T. WILLIAMS; L. DAY. *Univ. of Mississippi, Univ. of Mississippi.*

4:00 III50 **836.16** Behavioral and neurobiological evaluation of memory in the neotropical lizard Tropidurus hispidus. J. R. SANTOS; L. G. SANTOS; E. L. SANTOS; E. R. SANTOS; F. S. GONZAGA; L. B. JESUS; L. P. M. JESUS; R. S. SILVA; A. M. GOIS; M. MACEDO-LIMA; M. A. FREIRE*; M. MARCHIORO. *Federal Univ. of Sergipe, Federal Univ. of Sergipe, Univ. of Massachusetts Amherst, State Univ. of Rio Grande Do Norte, Federal Univ. of Sergipe.*

1:00 III51 **836.17** Dna methylation maintains long-term sensitization in *Aplysia*. K. PEARCE*; D. CAI; S. CHEN; M. E. KIMBROUGH; X. ZHAO; E. J. MOC; V. KONG; B. CHEEMA; S. APICHON; D. MIRESMAILI; R. SUMNER; A. RANGCHI; A. ZOBI; D. L. GLANZMAN. *UCLA, UCLA, UCLA, UCLA, David Geffen Sch. of Med. at UCLA, David Geffen Sch. of Med. at UCLA, David Geffen Sch. of Med. at UCLA.*

2:00 III52 **836.18** Cognitive enhancement requires prenatal diet modification in *Drosophila*. F. V. BOLDUC*; C. ROSENFELT; S. LANGER; D. CHAMBERS; A. ANDROSCHUK; A. LAU; L. SMITHSON; P. MANDHANE. *Univ. of Alberta, Univ. of Alberta.*

3:00 JJJ1 **836.19** A Gαq signaling mutant that extends memory 10-fold via enhanced consolidation. R. AREY*; G. STEIN; R. KALETSKY; C. T. MURPHY. *Princeton Univ., Princeton Univ.*

POSTER

837. Cognition: Nucleus Accumbens

Theme H: Cognition

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 JJJ2 **837.01** Prelimbic neurons encode reward predictive cues following reward devaluation. E. A. WEST*; M. NIEDRINGHAUS; R. M. CARELLI. *Univ. of North Carolina at Chapel Hill.*

2:00 JJJ3 **837.02** Oscillatory dynamics in the prelimbic cortex form to a reward-predictive cue following learning. M. NIEDRINGHAUS*; E. A. WEST; D. A. SACKETT; R. M. CARELLI. *Univ. of North Carolina, Chapel Hill.*

3:00 JJJ4 **837.03** The role of nucleus accumbens shell versus core in magnitude-based decision making. D. A. SACKETT*; M. P. SADDORIS; X. WANG; R. M. CARELLI. *Univ. of North Carolina At Chapel Hill, Univ. of Colorado - Boulder.*

4:00 JJJ5 **837.04** Characterizing Fos-expressing neuronal ensembles in the rat nucleus accumbens that are associated with amphetamine sensitization. R. V. FALLON*; F. J. RUBIO; B. L. WARREN; B. T. HOPE. *Johns Hopkins Univ., NIDA.*

1:00 JJJ6 **837.05** Differential excitability of nucleus accumbens core and shell neuronal ensembles activated by cocaine-associated contexts. J. J. ZIMINSKI; G. MARGETTS-SMITH; E. KOYA. *Univ. of Sussex.*

2:00 JJJ7 **837.06** Enhanced excitability of nucleus accumbens, but not orbitofrontal cortex neuronal ensembles following sucrose memory recall. S. HESSLER*; J. ZIMINSKI; M. C. SIEBURG; G. MARGETTS-SMITH; H. S. CROMBAG; E. KOYA. *Univ. of Sussex.*

3:00 JJJ8 **837.07** The identification of sucrose cue-evoked corticostriatal neuronal ensemble activity patterns underlying hunger states. M. C. SIEBURG*; G. MARGETTS-SMITH; S. HESSLER; J. ZIMINSKI; H. S. CROMBAG; E. KOYA. *Univ. of Sussex.*

4:00 JJJ9 **837.08** Effort-related motivational effects of the proinflammatory cytokine interleukin 6: Implications for studies of depression. S. E. YOHN*; Y. ARIF; A. HAILEY; Y. BAQI; C. MULLER; N. SAN MIGUEL; M. CORREA; J. D. SALAMONE. *Univ. of Connecticut, Univ. of Connecticut, Univ. Bonn, Univ. Jaume I.*

1:00 JJJ10 **837.09** Blockade of uptake for dopamine, but not norepinephrine or 5-HT, increases selection of high effort instrumental activity: Implications for treatment of effort-related motivational symptoms in psychopathology. J. D. SALAMONE*; S. E. YOHN; E. ERRANTE; A. ROSENBLOOM SNOW; M. SOMMERVILLE; K. TOKARSKI; N. ZAFAR; M. CORREA. *Univ. of Connecticut Dept. of Psychology, Univ. of Connecticut, Univ. Jaume I.*

2:00 JJJ11 **837.10** Behavioral economics and dopamine function: The VMAT2 inhibitor tetrabenazine alters elasticity of demand for food reinforcement, increasing sensitivity to effort related response costs. J. YANG*; S. E. YOHN; M. SOMMERVILLE; M. CORREA; J. D. SALAMONE. *Univ. of Connecticut, Univ. of Jaume I.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 JJJ12 **837.11** ● Agomelatine reverses impairments in effort-based decision-making tasks in mice treated with a dopamine-depleting agent: Comparison with fluoxetine. M. CORREA*; C. CARRATALA-ROS; N. SAN MIGUEL; J. RIBES; R. OLIVARES-GARCIA; J. ORTET; L. LOPEZ-CRUZ; C. GABRIEL; P. DELAGRANGE; J. D. SALAMONE. *Psicobiologia. Univ. Jaume I, Inst. de Recherches Servier, Univ. of Connecticut.*

4:00 JJJ13 **837.12** When I wake up, I immediately check the status of my manuscript: Urge to publish predicts striatal reward signal in the prospect of publication. S. KRACH*; L. MÜLLER-PINZLER, 23538; L. RADEMACHER; F. PAULUS. *Luebeck University, Dept. of Psychiatry, Lübeck Univ.*

1:00 JJJ14 **837.13** Dopamine's role during the acquisition of conditioned behaviors towards cues signaling different reward sizes. M. J. LEFNER*; M. J. WANAT. *The Univ. of Texas At San Antonio.*

2:00 JJJ15 **837.14** Reduced behavioral activation in the Wistar-Kyoto rat model of depression: Neurochemical mechanisms. A. M. FARRAR*; S. MYRON; A. OMAR; B. ABBOTT; I. TUNCALI; F. DHANG; M. PEREIRA. *Univ. of Massachusetts, Amherst.*

POSTER

838. Learning and Memory: Molecules and Circuit Dynamics

Theme H: Cognition

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 JJJ16 **838.01** Memory trace superimposition impairs recall in a mouse model of Alzheimer's disease. S. POLL*; L. SCHMID; J. STEFFEN; D. EHNINGER; M. FUHRMANN. *German Ctr. for Neurodegenerative Dis. (DZNE).*

2:00 JJJ17 **838.02** *In vivo* imaging of state-dependent modulation of dendritic Ca^{2+} signaling in hippocampal CA1 pyramidal cells. S. V. ROLOTTI*; N. DANIELSON; M. LADOW; A. LOSONCZY. *Columbia Univ.*

3:00 JJJ18 **838.03** Calcium imaging of lfp-related hippocampal ensemble dynamics. A. D. GROSMARK*; G. TURI; M. A. S. LADOW; A. LOSONCZY. *Columbia Univ.*

4:00 JJJ19 **838.04** The application of a parylene neural probe for *in vivo* recordings from multiple sub-regions of the rat hippocampus. H. XU*; A. WELTMAN; M. HSIAO; E. MENG; T. BERGER; D. SONG. *USC.*

1:00 JJJ20 **838.05** Doxorubicin alters mechanisms of memory formation in *ex vivo* and *in vivo* models of Chemobrain. A. H. ALHOWAIL*; V. SUPPIRAMANIAM; R. ARNOLD. *Auburn Univ., Auburn Univ.*

2:00 JJJ21 **838.06** Reconstruction and simulation of the hippocampus in the human brain project. A. ROMANI*; N. ANTILLE; J. COURCOL; A. DEVRESSE; J. DYNES; J. FALCK; M. GEVAERT; J. GONZALO; A. GULYAS; S. JIMENEZ; S. KALI; L. KANARI; S. LANGE; H. LU; A. MERCER; M. MIGLIORE; J. PALACIOS; S. RAMASWAMY; M. REIMANN; R. RIQUELME; C. RÖSSERT; Y. SHI; J. SHILLCOCK; A. THOMSON; W. VAN GEIT; L. VANHERPE; H. MARKRAM; E. MULLER. *Blue Brain Project, Brain Mind Institute, EPFL, Univ. Col. London, Inst. of Exptl. Medicine, Hungarian Acad. of Sci., Univ. of Westminster, Inst. of Biophysics, Natl. Res. Council.*

3:00 JJJ22 **838.07** Spaced training offsets cognitive deficits in Down syndrome model mice. A. LE; B. M. COX; J. C. LAUTERBORN; J. N. CRAWLEY; G. LYNCH; C. M. GALL*. *Univ. of California, Univ. of California Davis Sch. of Med.*

4:00 JJJ23 **838.08** Mitochondrial CB1 signaling in the brain mediates adverse effects of cannabinoids. E. SORIA*; T. DESPREZ; L. BELLOCCHIO; G. MARSICANO. *INSERM U862, Neurocentre Magendie, INSERM.*

1:00 JJJ24 **838.09** Astroglial CB1 receptors control memory via D-serine. L. M. ROBIN*; J. F. OLIVEIRA DA CRUZ; V. C. LANGLAIS; M. METNA-LAURENT; A. BUSQUETS-GARCIA; E. SORIA-GOMEZ; T. PAPOUIN; B. BOSIER; F. DRAGO; A. VAN EECKHAUT; I. SMOLDERS; F. GEORGES; A. PANATIER; S. H. R. OLIET; G. MARSICANO. *Neurocentre Magendie, Univ. of Catania, Vrije Univ. Brussel, Interdisciplinary Inst. for Neurosci.*

2:00 JJJ25 **838.10** Pregnenolone prevents cannabinoid-induced psychosis. A. BUSQUETS-GARCIA*; E. SORIA-GOMEZ; Y. MACKENBACH; G. FERREIRA; P. PIAZZA; G. MARSICANO. *Inserm U862, INRA UMR1282.*

3:00 JJJ26 **838.11** Excitatory hilar mossy cells are the major local circuit integrators in the dentate gyrus. X. XU*; Y. SUN; T. IKRAR. *Univ. California, Irvine, Univ. of California, Irvine.*

4:00 JJJ27 **838.12** The activity of ryanodine receptor calcium release channel is a critical determinant of long term potentiation in hippocampus. F. HIESS*; J. YAO; R. WANG; J. MICLAT; S. CHEN. *Univ. of Calgary, Univ. of Calgary.*

1:00 JJJ28 **838.13** Sepsis leads to impaired contextual memory and abnormal hippocampal ensemble dynamics. J. J. STROHL*; T. S. HUERTA; A. SABHARWAL; P. T. HUERTA. *The Feinstein Inst. For Med. Res.*

2:00 JJJ29 **838.14** The effect of developmental vitamin d deficiency on spatial learning and memory in wistar rats. A. AL-HARBI; A. RAHMAN; K. M. KHAN*. *Kuwait Univ., Kuwait Univ. Fac. of Med.*

3:00 JJJ30 **838.15** Circuit connection and function of the subicular neurons that project to hippocampal CA1. Y. SUN*; X. XU. *Univ. of California Irvine Dept. of Anat. and Neurobio.*

4:00 JJJ31 **838.16** Comparing memory models with and without dendrites. G. C. MEL*; B. W. MEL. *USC, USC.*

1:00 JJJ32 **838.17** Hippocampal area CA2 properties under enhanced cholinergic tone and influence of supramammillary inputs on this physiological state. V. ROBERT*; L. THERREAU; V. CHEVALEYRE; R. PISKOROWSKI. *CNRS UMR8118.*

2:00 JJJ33 **838.18** Intrahippocampal infusions of the extracellular matrix protein reelin ameliorates fear memory impairment associated with kindling of the basolateral amygdala. J. J. BOTTERILL*; N. NOGOVITSYN; H. J. CARUNCHO; L. E. KALYNCHUK. *Univ. of Saskatchewan, Univ. of Saskatchewan, Univ. of Saskatchewan, Univ. of Saskatchewan.*

3:00 JJJ34 **838.19** Hippocampal ensemble dynamics timestamp events in long-term memory. A. RUBIN*; N. GEVA; L. SHEINTUCH; Y. ZIV. *Weizmann Inst. of Sci.*

4:00 JJJ35 **838.20** A competitive network model for cognitive map in large scale environments. S. LIU; B. SI*; Y. LIN. *Univ. of Chinese Acad. of Sci., Chinese Acad. of Sci., Chinese Acad. of Sci.*

1:00 DP09 **838.21** (Dynamic Poster) 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.*

2:00 JJJ36 **838.22** ▲ Insulin receptor labeling in zebra finch brain as revealed by confocal microscopy. A. T. HON; D. J. BAILEY*. *St. Norbert Col.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

POSTER

839. Modulation of Cognition and Behavior II

Theme H: Cognition

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 JJJ37 **839.01** The role of vitamin D in the adult brain. T. H. BURNE*; J. MCGRATH; N. GROVES. *Queensland Brain Inst.*

2:00 JJJ38 **839.02** ● Effects in anxiety behaviour after consumption of vegetal shortening or soy oil in 45 days age old Wistar rats. A. G. MARTINEZ*; T. NERI-GOMEZ, Miss; R. E. JIMENEZ-LÒPEZ; A. SÀNCHEZ-CHINCHILLAS; R. BUSTAMANTE-GARCÌA. *Fac Quimica, UNAM, CENTRO MEDICO SIGLO XXI. IMSS., UNAM, UNAM, UNAM.*

3:00 JJJ39 **839.03** Sparsely-activating dentate granule cells decode hippocampal experience to promote neurogenesis. G. W. KIRSCHEN*; J. SHEN; B. SCHROEDER; G. MAN; S. GE. *Stony Brook Univ., Stony Brook Univ.*

4:00 JJJ40 **839.04** Startle habituation and prepulse inhibition in rats selectively bred for endurance capacity. J. WIKGREN*; M. UTRIAINEN; S. LENSU; M. S. NOKIA; H. VALLI; E. MÄKINEN; S. L. BRITTON; L. G. KOCH; H. KAINULAINEN. *Univ. Jyvaskyla, Univ. of Jyväskylä, Univ. of Jyväskylä, Univ. of Michigan Med. Sch.*

1:00 JJJ41 **839.05** Gladiolus dalenii van geel lyophilisate reverses scopolamine induced amnesia and improves oxidative stress damage in rat. G. T. NGOUPAYE*; D. B. PAHAYE; F. T. DJANKPA; J. L. NGONDI; E. NGO BUM. *Univ. of Dschang-Dschang Cameroon, Univ. of KwaZulu-Natal, Univ. of Ngaoundéré, Uniformed Services Univ. of the Hlth. Sci., Univ. of Yaounde 1.*

2:00 JJJ42 **839.06** ● Acute dosing of vortioxetine strengthens event-related brain activity associated with engagement of attention and cognitive functioning in rats. B. LAURSEN*; C. H. BUNDGAARD; C. GRAVERSEN; M. GRUPE; C. SANCHEZ; S. C. LEISER; H. B. D. SORENSEN; A. M. DREWES; J. F. BASTLUND. *H. Lundbeck A/S, Tech. Univ. of Denmark, Aalborg Univ. Hosp., H. Lundbeck A/S.*

3:00 JJJ43 **839.07** Dissociative effects of memantine in two operant behaviors as trained in different regimens. S. CHEN; R. CHENG*; R. LIAO. *Natl. Cheng-Chi Univ., Lee Kong Chian Sch. of Medicine, NTU, Natl. Cheng-Chi Univ., Natl. Cheng-Chi Univ.*

4:00 JJJ44 **839.08** Hyper-hippocampal glycogen deposit induced by preloading of exercises and high carbohydrate diet: A possible strategy to enhance memory function. M. SOYA*; T. SHIMA; T. MATSUI; H. SOYA. *Fac. of Hlth. and Sport Science, Univ. of Tsukuba, Res. Fellow of JSPS.*

1:00 JJJ45 **839.09** Chronic effects of the 'biased' 5-HT_{1A} receptor agonists F13714 and F15599 on object pattern separation, hippocampal plasticity and 5-HT_{1A} receptor density in rats. B. T. VAN HAGEN*; N. P. VAN GOETHEM; R. SCHREIBER; A. NEWMAN-TANCREDI; M. VARNEY; J. PRICKAERTS. *Maastricht Univ., Suadeo Drug Discovery Consulting LLC, Neurolixis.*

2:00 JJJ46 **839.10** Spatial and timing strategy in active place navigation task on rotating arena. T. NEKOVAROVA*; K. MALENINSKA; K. VALES; A. STUCHLIK. *NIMH, IPHYS, CAS.*

3:00 JJJ47 **839.11** Novel small molecule-disease-modifying therapy for alzheimer's and other neurodegenerative diseases. R. TAYLOR, 98195; W. WALKER; K. CHURCH; L. H. KAWAS*; J. HARDING. *M3 Biotech. Inc.*

4:00 JJJ48 **839.12** Effects of early-adolescent, mid-adolescent, or adult stress on morphine conditioned place preference. C. SHIELDS; S. BECKER; L. BAKNER*. *Linfield Col.*

POSTER

840. Human Cognition and Memory VI

Theme H: Cognition

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 JJJ49 **840.01** Anticipatory brain activation, and current depression and mania symptoms predict subsequent recognition of emotional faces in depressed individuals with bipolar disorder, depressed individuals with major depressive disorder and healthy controls. A. MANELIS*; T. LIU; H. A. SWARTZ; M. L. PHILLIPS. *Univ. of Pittsburgh.*

2:00 JJJ50 **840.02** Degraded perceptual representation contributes to memory encoding deficits following total sleep deprivation. J. POH*; M. W. L. CHEE. *Duke-NUS Grad. Med. Sch., Natl. Univ. of Singapore.*

3:00 JJJ51 **840.03** vmPFC and autobiographical memory consolidation: Two windows to the past. D. N. BARRY*; M. J. CHADWICK; E. A. MAGUIRE. *Univ. Col. London, Univ. Col. London.*

4:00 JJJ52 **840.04** Internal attention training improves working memory and distractor suppression in young adults. S. N. SKINNER*; A. J. SIMON; D. A. ZIEGLER; A. GAZZALEY. *Univ. of California, San Francisco, Univ. of California, San Francisco.*

1:00 JJJ53 **840.05** Differentiation of incorrectly predicted memories after restudy. G. KIM*; K. A. NORMAN; N. B. TURK-BROWNE. *Princeton Univ., Princeton Univ.*

2:00 JJJ54 **840.06** Research assistant. Z. HU*; S. E. MARINO; S. V. PAKHOMOV; J. CIBULA; M. DING. *Univ. of Florida, Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota, Univ. of Florida.*

3:00 JJJ55 **840.07** Pinging the brain reveals hidden states for working memory guided behaviour. M. WOLFF*; J. JOCHIM; T. BUSCHMAN; E. G. AKYÜREK; M. G. STOKES. *Univ. of Groningen, Univ. of Oxford, Princeton Univ.*

4:00 JJJ56 **840.08** Using targeted memory reactivation to induce forgetting. K. C. NEWMAN-SMITH*; R. GOMEZ; L. NADEL. *Univ. of Arizona.*

1:00 JJJ57 **840.09** Basic visual working memory functions and their relation to perceptual and long-term memory functions in the medial temporal lobe. S. SCHENK*; R. K. LECH; B. SUCHAN. *Ruhr Univ. Bochum.*

2:00 JJJ58 **840.10** Dynamic brain states in working memory. W. CAI*; J. TAGHIA; S. RYALI; T. CHEN; V. MENON. *Stanford Univ. Sch. of Med., Stanford Univ. Sch. of Med.*

3:00 JJJ59 **840.11** Withdrawn.

4:00 JJJ60 **840.12** Deconstructing episodic memories to track their reconstruction in EEG time courses. J. LINDE DOMINGO*; M. WIMBER. *Univ. of Birmingham.*

1:00 JJJ61 **840.13** ● Bidirectional modulation of episodic memory for words by repeated focal stimulation of Broca's area using a new wearable magnetic brain stimulator. S. A. HELEKAR*; R. J. ALCAZAR-FELIX; B. S. JOHN; H. U. VOSS. *Houston Methodist Res. Inst., Escuela de Medicina del Tecnológico de Monterrey, Weill Cornell Med.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

2:00 KKK1 **840.14** Oscillatory EEG networks predict visual short-term memory retention on individual trials. A. WODEYAR*; R. SRINIVASAN. *Univ. of California, Irvine.*

3:00 KKK2 **840.15** The neural underpinnings of visuospatial working memory in neurofibromatosis type 1. A. IBRAHIM*; C. MONTOJO; K. H. KARLSGODT; K. HAUT; C. E. BEARDEN. *Univ. of Michigan, The Kavli Fndn., Univ. of California, Rush Univ. Med. Ctr.*

4:00 KKK3 **840.16** Neural mechanisms of HIV-associated working memory. S. N. SIEGEL*; Y. ZHU; H. HUANG; R. COHEN; M. DING. *Univ. of Florida.*

1:00 KKK4 **840.17** Change in effects of odor contexts over time that modify memory in relation to order of remote and recent past episodes. M. ABE*; Y. UGAWA. *Inst. of Development, Aging and Cancer, Fukushima Med. Univ.*

2:00 KKK5 **840.18** A causal role for θ-phase alignment during episodic memory encoding. A. GONZALEZ*; V. Y. VILDAVSKI; A. M. NORCIA; A. D. WAGNER. *Stanford Univ.*

3:00 KKK6 **840.19** Weakening memories through closed-loop modulation of perceptual distraction. A. C. MENNEN*; J. POPPENK; M. T. DEBETTENCOURT; K. A. NORMAN. *Princeton Univ., Queen's Univ.*

4:00 KKK7 **840.20** The temporal dynamics of human memory replay. S. MICHELMANN*; B. GRIFFITHS; B. STARESINA; M. WIMBER; R. CHELVARAJAH; D. ROLLINGS; V. SAWLANI; H. HAMER; S. GOLLWITZER; G. KREISELMEYER; H. BOWMAN; S. HANSLMAYR. *Univ. of Birmingham, Univ. Hosp. Birmingham NHS Fndn. Trust, Epilepsy Center, Univ. Hosp. Erlangen, Ctr. for Cognitive Neurosci. and Cognitive Systems and the Sch. of Computing.*

1:00 KKK8 **840.21** The role of posterior parietal activity in episodic retrieval. M. FIATI*; P. BRIGHT. *Anglia Ruskin.*

2:00 KKK9 **840.22** Narrative coherence and temporal structure in the posterior medial network. M. ALY*; J. CHEN; N. B. TURK-BROWNE; U. HASSON. *Princeton Univ.*

3:00 KKK10 **840.23** Hippocampal-targeted θ-burst transcranial magnetic stimulation enhances associative memory. A. TAMBINI*; D. E. NEE; M. D'ESPOSITO. *UC Berkeley.*

4:00 KKK11 **840.24** Modulation of oscillatory power and connectivity in the human posterior cingulate cortex supports the encoding and retrieval of episodic memories. J. W. GERMI*; B. LEGA; M. RUGG. *Univ. of Texas Southwestern, Univ. of Texas at Dallas.*

1:00 KKK12 **840.25** ERP neural indices of nicotine withdrawal-related cognitive disruption during performance of N-back working memory task. D. EVANS*. *Moffitt Cancer Ctr.*

2:00 KKK13 **840.26** Altered neural substrates within cognitive networks of postpartum during working memory process. Y. BAK*; Y. NAH; N. SHIN. *Ewha Womans Univ. Sch. of Med., Yonsei Univ.*

3:00 KKK14 **840.27** Reinstatement of schemas in sensory neocortex is guided by medial prefrontal cortex and hippocampus. R. J. MOLITOR*; M. L. SCHLICHTING; M. L. MACK; K. F. GUARINO; S. MCKENZIE; H. EICHENBAUM; A. R. PRESTON. *Univ. of Texas At Austin, New York Univ., Boston Univ.*

4:00 KKK15 **840.28** Emotional memory enhancements related to intrinsic and recognition-related functional connectivity of the right lateral occipital cortex. S. M. KARK*; E. A. KENSINGER. *Boston Col.*

1:00 KKK16 **840.29** The impact of cognitive reserve on event-related potential changes during working memory activation in amnesia mild cognitive impairment. L. GU*. *Neuropsychiatric Inst.*

POSTER

841. Human Cognition: Individual Differences II

Theme H: Cognition

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 KKK17 **841.01** Hyperalignment increases reliability and consistency of individual differences in brain responses. F. MA*; J. S. GUNTUPALLI; J. V. HAXBY. *Dartmouth Col., Univ. of Trento.*

2:00 KKK18 **841.02** Prenatal androgen effects on neural processing of reward. S. L. ZELLE*; A. M. BELTZ; K. L. KORMAN BRYK; S. J. WILSON; S. A. BERENBAUM. *The Pennsylvania State Univ.*

3:00 KKK19 **841.03** LDA classification of EEG reveals differences between improvising and non-improvising musicians in a musical Stroop task. A. GOLDMAN*; P. SAJDA. *Columbia Univ., Columbia Univ.*

4:00 KKK20 **841.04** Effects of sleep deprivation on white matter integrity in the human brain. S. XU*; Z. FANG; F. YANG; A. SPAETH; N. GOEL; M. BASNER; D. DINGES; S. WANG; J. DETRE; H. RAO. *Univ. of Pennsyivania, Shanghai Intl. Studies Univ., Univ. of Pennsylvania, Univ. of Pennsylvania, Univ. of Pennsylvania.*

1:00 KKK21 **841.05** Hierarchical clustering for neuroelectrophysiological data analysis. C. WEI*; Y. WANG; C. LIN; T. JUNG. *UCSD, UCSD, Univ. Technol. Sydney.*

2:00 KKK22 **841.06** Connector and local hub connectivity predicts modularity and performance in multiple cognitive tasks. M. A. BERTOLERO*; B. T. T. YEO; M. D'ESPOSITO. *Univ. of California, Berkeley, Natl. Univ. of Signapore.*

3:00 KKK23 **841.07** Males and females evaluate facial attractiveness using different cognitive and affective strategies. K. M. RAPUANO*; T. F. HEATHERTON; W. M. KELLEY. *Dartmouth Col.*

4:00 KKK24 **841.08** How network topology drives individual differences in structure-function relationships. H. E. BAIDOO-WILLIAMS*; C. GREENE; S. T. GRAFTON; J. M. VETTEL; S. F. MULDOON. *Univ. At Buffalo - The State Univ. of Ne, U.S Army Res. Lab., Univ. of California, Santa Babara, Univ. of California, Santa Babara, Univ. of Pennsylvania, Univ. at Buffalo, SUNY.*

1:00 KKK25 **841.09** Whole-brain spatiotemporal dynamics in fMRI resting state activity is longitudinally distinct in individuals. A. T. BARIA*; A. V. APKARIAN. *Northwestern Univ.*

2:00 KKK26 **841.10** The association between the COMT Val158Met polymorphism and psychological and cognitive performance. S. M. LYLE; X. F. TATIN; L. D. HILL; M. S. LORENZETTI; A. TARTAR; J. L. TARTAR*. *Nova Southeastern Univ., AgroParisTech, Nova Southeastern Univ.*

3:00 KKK27 **841.11** ● Withdrawn.

4:00 KKK28 **841.12** The relationship between cortisol and cognitive functioning across the adult lifespan. U. SAELZLER*; S. RESNICK; S. D. MOFFAT. *Georgia Inst. of Technol., Natl. Inst. on Aging.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

1:00 KKK29 **841.13** ● Genetic contributions to individual differences in functional neuroimaging measures of impulsive decision making. A. ELTON*; C. T. SMITH; M. H. PARRISH; S. H. OPPLER; T. H. MCKIM; C. A. BOETTIGER. *The Univ. of North Carolina At Chapel Hill, Univ. of North Carolina at Chapel Hill, The Univ. of North Carolina At Chapel Hill, Univ. of North Carolina at Chapel Hill, Univ. of North Carolina at Chapel Hill.*

2:00 KKK30 **841.14** The influence of handedness on space-magnitude association. H. LEE*; S. CHO. *Chung-Ang Univ.*

3:00 KKK31 **841.15** Dopaminergic modulation of intrinsic striatal functional connectivity varies with dopamine synthesis capacity. D. FURMAN*; R. WHITE; A. BERRY; W. JAGUST; M. D'ESPOSITO. *Univ. of California Berkeley, Univ. of California - San Francisco.*

POSTER

842. Perception and Imagery: Perception and Related Predictions Across Different Modalities

Theme H: Cognition

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 KKK32 **842.01** Tactile texture invariance and its peripheral neural basis. H. P. SAAL*; J. D. LIEBER; Z. M. BOUNDY-SINGER; A. I. WEBER; S. J. BENSMAIA. *Univ. of Chicago.*

2:00 KKK33 **842.02** Accumulation of vibrissal and neuronal evidence leads to texture decisions in rats. M. E. DIAMOND*; Y. ZUO. *Intl. Sch. for Advanced Studies.*

3:00 KKK34 **842.03** Whisker-based texture discrimination using near-instantaneous versus intensive codes. C. SCHWARZ*; M. OLADAZIMI. *Univ. Tuebingen.*

4:00 KKK35 **842.04** The coding of natural textures in primate somatosensory cortex. J. D. LIEBER*; H. P. SAAL; Z. M. BOUNDY-SINGER; A. I. WEBER; S. J. BENSMAIA. *Univ. of Chicago, Univ. of Washington.*

1:00 KKK36 **842.05** What can texture representations in monkey IT neurons tell us about human texture perception? Z. A. KALATHUPIRIYAN*; S. P. ARUN. *Ctr. For Neuroscience, Indian Inst. of Sci., Indian Inst. of Sci.*

2:00 KKK37 **842.06** Measuring tactile roughness perception using 3D-printed parametric textures. C. TYMMS*; E. P. GARDNER; D. ZORIN. *New York Univ., New York Univ. Sch. of Med.*

3:00 KKK38 **842.07** Markov-chain roving-like paradigm reveals bayesian surprise in somatosensory mmn. K. TERTEL*; D. OSTWALD; F. BLANKENBURG. *Freie Univ. Berlin, Humboldt-Universität zu Berlin, Freie Univ. Berlin.*

4:00 KKK39 **842.08** Prototype effects on the retrieval of location information in touch. E. AZAÑÓN*; R. D. FINZI; M. R. LONGO. *Birkbeck, Univ. of London.*

1:00 KKK40 **842.09** Kinesthetic perception resulting from integration of kinesthetic illusion induced by tendon vibration and visual stimulus. E. SHIBATA*; F. KANEKO; R. TAKAHASHI; Y. ITAGUCHI. *Sapporo Med. Univ.*

2:00 KKK41 **842.10** Opposing effects of summary statistics on peripheral discrimination. C. M. ZIEMBA*; E. P. SIMONCELLI. *New York Univ., Howard Hughes Med. Inst.*

3:00 KKK42 **842.11** Simple combination rules for sensitivities to image statistics. J. D. VICTOR*; S. M. RIZVI; M. M. CONTE. *Weill Cornell Med. Col.*

4:00 KKK43 **842.12** Prior expectations induce pre-stimulus sensory templates. P. KOK*; P. MOSTERT; F. P. DE LANGE. *Princeton Univ., Radboud Univ.*

1:00 KKK44 **842.13** Local multipoint correlations support categorical classification of objects and backgrounds. A. M. HERMUNDSTAD*; T. TESILEANU; J. J. BRIGUGLIO; K. SLAVKOVA; S. M. RIZVI; M. M. CONTE; J. D. VICTOR; V. BALASUBRAMANIAN. *Univ. of Pennsylvania, Janelia Res. Campus, Grad. Center, City Univ. of New York, Weill Cornell Med. Col.*

2:00 KKK45 **842.14** The neural representation of timbre in auditory cortex. J. K. BIZLEY*; K. C. WOOD; T. ETHERINGTON; G. P. JONES; H. ATILGAN; S. M. TOWN. *Univ. Col. London.*

3:00 KKK46 **842.15** Lossy compression of sound texture by the human auditory system. W. F. MLYNARSKI*; J. H. MCDERMOTT. *MIT.*

4:00 KKK47 **842.16** The effect of music on resting-state fMRI. Z. LIN*; E. WENGER; S. KÜHN. *Univ. of Michigan, Max Planck Inst. for Human Develop., Univ. Clin. Hamburg-Eppendorf.*

1:00 KKK48 **842.17** The dissociation of global and local auditory regularity perception with fluctuations in conscious vigilance. R. M. GIBSON*; A. M. OWEN; D. CRUSE; T. A. BEKINSCHTEIN. *Univ. of Western Ontario, Univ. of Western Ontario, Univ. of Birmingham, Univ. of Cambridge.*

2:00 KKK49 **842.18** Tracking "what" predictions across the auditory processing hierarchy. L. MELLONI*; C. M. SCHWIEDRZIK; T. THESEN; W. DOYLE; O. DEVINSKY; W. SINGER; C. E. SCHROEDER. *NYU Langone Med. Ctr., Max Planck Inst. for Brain Res., Rockefeller Univ., Columbia Univ., Nathan Kline Inst.*

3:00 KKK50 **842.19** ● Music-induced attentional enhancement during visual perceptual tasks. A. HEWETT*; B. MORILLON. *Brain.Fm, Aix-Marseille Univ.*

4:00 KKK51 **842.20** Simultaneous measurements of BOLD fMRI activity in the Superior Temporal Sulcus and behavior during perception of the McGurk effect. J. RENNIG*; M. S. BEAUCHAMP. *Baylor Col. of Med.*

1:00 KKK52 **842.21** Angular distance reproduction using multimodal sensory information. S. GLASAUER*; J. BAYER; J. YUDICE; C. J. BOCKISCH. *Ludwig-Maximilian-University, Univ. Clin.*

2:00 KKK53 **842.22** Motor systems are involved during imaging composition of music. J. LU*; H. YANG; C. LUO; D. YAO. *UESTC.*

3:00 KKK54 **842.23** Functional connectivity of human voice-sensitive brain areas. L. CERAVOLO*; E. SCARIATI JAUSSI; S. FRÜHHOLZ; D. VAN DE VILLE; D. GRANDJEAN. *Swiss Ctr. For Affective Sci., Univ. of Geneva, Univ. of Zürich, Ecole Polytechnique Federale de Lausanne, Univ. of Geneva.*

4:00 KKK55 **842.24** Cognitive processes of familiar and novel tastes. A. ONZO*; K. MOGI. *Sony CSL.*

1:00 KKK56 **842.25** Molecular complexity influences olfaction to mixed odorants compared to component odorants. M. HAMAKAWA*; T. OKAMOTO. *Kyushu Univ., Kyushu Univ.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

POSTER

843. Language in Normal and Damaged Brains

Theme H: Cognition

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 KKK57 **843.01** Neurophysiological dynamics of phrase structure building operations during sentence reading. M. J. NELSON*; I. EL KAROUI; K. GIBER; L. COHEN; S. CASH; J. PARVIZI; L. NACCACHE; J. HALE; C. PALLIER; S. DEHAENE. *Neurospin Res. Ctr., Inst. du Cerveau et de la Moelle Épinière Res. Ctr. (ICM), Massachusetts Gen. Hosp., AP-HP, Groupe Hospitalier Pitié-Salpêtrière, Stanford Univ., AP-HP, Groupe Hospitalier Pitié-Salpêtrière, Cornell Univ., Univ. Paris 11, Collège de France.*

2:00 KKK58 **843.02** Multimodal sensory-motor transformations for speech. G. B. COGAN*; J. VIVENTI; D. POEPPEL; B. PESARAN. *Duke Univ., New York Univ., Max Planck Inst. for Empirical Aesthetics, New York Univ.*

3:00 KKK59 **843.03** Response-related readiness potential to speech preparation . H. M. MUELLER*; H. WESSELMEIER. *Neurolinguistics.*

4:00 KKK60 **843.04** Emergence of cognitive, language and motor deficits associated with structural brain abnormalities in an infant with the FOXP2 mutation. M. K. SAINI*; R. ELWARD; G. ARGYROPOULOS; M. MISHKIN; F. VARGHA-KHADEM. *Univ. Col. London, Great Ormond Street Hosp., Natl. Inst. of Mental Hlth.*

1:00 KKK61 **843.05** Brain mechanisms of speech modification following feedback in second language communication. H. JEONG*; B. THYREAU; R. SAITO; C. S. KIKUCHI; T. NOZAWA; W. SUZUKI; M. SUGIURA; R. KAWASHIMA. *Tohoku Univ., Miyagi Univ. of Educ.*

2:00 KKK62 **843.06** Role of network disruption in chronic post-stroke aphasia. A. U. TURKEN*; T. J. HERRON, 94553; K. PARKER; B. CURRAN; N. F. DRONKERS. *Veterans Affairs North Cal Hlth. Care Syst., VA Northern California Hlth. Care Syst., UC Davis Med. Sch.*

3:00 KKK63 **843.07** Embodied information processing for action-related words the effect of constrained arm posture. M. YASUDA*; T. HIGUCHI. *Tokyo Metropolitan Univ., Tokyo Metropolitan Univ.*

4:00 KKK64 **843.08** Non-invasive brain stimulation improves lexical retrieval of action words in post-stroke aphasia. M. BRANSCHEIDT*; J. HOPPE; P. ZWITSERLOOD; G. LIUZZI. *Human Brain Physiol. and Stimulation Lab., Univ. Hosp. Zurich, Univ. Med. Ctr. Hamburg-Eppendorf, Wilhelms-University Münster.*

1:00 KKK65 **843.09** Disruption of laughter and sneezing in individuals with a mutation of the FOXP2 gene. F. VARGHA-KHADEM*; M. MISHKIN. *UCL Inst. of Child Hlth., Great Ormond Street Hosp. for Children NHS Fndn. Trust, Natl. Inst. of Mental Hlth.*

2:00 KKK66 **843.10** The role of the frontal lobes in abstract word production. K. A. COUSINS*; S. ASH; M. GROSSMAN. *Univ. of Pennsylvania.*

3:00 KKK67 **843.11** Lexical ambiguity processing in Parkinson's disease: A neurophysiological study. A. ANGWIN*; N. DISSANAYAKA; K. MCMAHON; P. SILBURN; D. COPLAND. *Univ. of Queensland, Royal Brisbane & Women's Hosp.*

4:00 KKK68 **843.12** Heritability of comprehension of narrative speech in a large normal population. A. BABAJANI-FEREMI*. *The Univ. of Tennessee Hlth. Sci. Ctr.*

1:00 KKK69 **843.13** ● Kanji word processing in the ventral anterior temporal lobe: A postoperative neuropsychological study in patients with temporal lobe epilepsy. M. OTA*; R. MATSUMOTO; A. SHIMOTAKE; M. SAKAMOTO; M. DAIFU; T. NAKAE; T. KIKUCHI; K. YOSHIDA; T. KUNIEDA; S. MIYAMOTO; R. TAKAHASHI; M. A. LAMBON- RALPH; A. IKEDA. *Kyoto Univ. Grad. Sch. of Med., Kyoto University, Grad. Sch. of Med., Kyoto Univ. Grad. Sch. of Med., Univ. of Manchester, Sch. of Psychological Sci.*

2:00 KKK70 **843.14** Evaluating the effects of melodic intonation therapy by functional and anatomical connectivity. K. TABEI*; M. SATOH; C. NAKANO; N. KATO; A. ITO; Y. SHIMOJI; H. KIDA; H. SAKUMA; H. TOMIMOTO. *Mie Univ., Tunoda Hosptal, Mie Prefectural Central Med. Ctr., Suzuka Central Gen. Hosp.*

3:00 LLL1 **843.15** Abnormal self-schema in semantic memory in major depressive disorder: Evidence from event-related brain potentials. M. KIANG*; F. FARZAN; D. M. BLUMBERGER; M. KUTAS; M. C. MCKINNON; V. KANSAL; T. RAJJI; Z. J. DASKALAKIS. *Univ. of Toronto, Ctr. for Addiction and Mental Hlth., UCSD, McMaster Univ., St. Joseph's Healthcare Hamilton.*

4:00 LLL2 **843.16** Method to study if Wernicke's aphasia patients understand that they do not understand language or speak it understandably. E. L. ALTSCHULER*; I. CHELLQUIST; S. SHADANI; S. WEPRIN; H. FAROOQI; A. SEIWELL; S. AZIZ; A. PRICE. *Temple Univ. Sch. of Med., Temple Univ., Temple Univ. Sch. of Med., Temple Univ. Sch. of Med.*

1:00 LLL3 **843.17** Cortical encoding of sensorimotor and linguistic features in American Sign Language. M. K. LEONARD*; B. LUCAS; S. BLAU; D. P. CORINA; E. F. CHANG. *UCSF, Univ. of California, Davis.*

2:00 LLL4 **843.18** Linguistic P600 is dependent on syntactic prediction: Integration and syntactic violation. S. TOKIMOTO*; N. TOKIMOTO; Y. MIYAOKA. *Mejiro Univ., Shobi Univ., Hiroshima Univ. of Econ.*

3:00 LLL5 **843.19** Conduction aphasia in American Sign Language. D. P. CORINA*; S. PEDERSEN; U. BELLUGI; G. HICKOK. *UC Davis, The Salk Inst., UC Irvine.*

4:00 LLL6 **843.20** Phase analysis of network dynamics in human simple language production: Formation and temporal evolution of reciprocal networks between primary language areas. K. J. O'NEILL*, III; P. A. HOUSE; B. GREGER. *Arizona State Univ., Univ. of Utah.*

1:00 LLL7 **843.21** An evaluation of different connectivity metrics for the mapping of human language networks. S. YELLAPANTULA*; B. AAZHANG; N. TANDON. *Rice Univ., Rice Univ., Univ. of Texas Hlth. Sci. Ctr.*

2:00 LLL8 **843.22** Passive functional mapping of language areas using electrocorticographic signals in humans. J. R. SWIFT*; W. G. COON; C. GUGER; P. BRUNNER; M. BUNCH; T. LYNCH; B. FRAWLEY; A. L. RITACCIO; G. SCHALK. *Wadsworth Ctr., State Univ. of New York at Albany, g.tec neurotechnology USA, Inc, Albany Med. Col.*

3:00 LLL9 **843.23** ▲ The effects of late bilingualism on the white matter of the brain, connectometry approach. A. ANJOMSHOA*; M. DOLATSHAHI; A. KAMALIAN; F. RAHMANI; N. HOSSEINI; M. H. AARABI. *Tehran Univ. Of Med. Sci., Basir Eye Hlth. Res. Ctr., Student Scientific Res. Center, TUMS.*

4:00 LLL10 **843.24** Network controllability underlies the role of the inferior frontal gyrus in word selection processes. J. D. MEDAGLIA*; D. HARVEY; N. WHITE; D. S. BASSETT; R. H. HAMILTON. *Univ. of Pennsylvania, Moss Rehabil. Res. Inst.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

1:00 LLL11 **843.25** The plasticity of lexical selection mechanism in word production: Event-related potential evidence from short-term language switching training in unbalanced Chinese-English bilinguals. C. KANG*; F. MA; T. GUO. *Beijing Normal Univ., Sch. of Education, Univ. of Cincinnati, State Key Lab. of Cognitive Neurosci. and Learning & IDG/McGovern Inst. for Brain Research, Beijing Normal Univ., Ctr. for Collaboration and Innovation in Brain and Learning Sciences, Beijing Normal Univ.*

POSTER

844. Schizophrenia Circuits and Systems

Theme H: Cognition

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 LLL12 **844.01** Chemo-genetic silencing of hippocampal area CA2 decreases hippocampal low γ oscillations. G. M. ALEXANDER*; L. BROWN; S. FARRIS; D. LUSTBERG; B. GLOSS; N. PLUMMER; P. JENSEN; S. M. DUDEK. *Natl. Inst. of Envrn. Hlth. Sci., Univ. of North Carolina Chapel Hill, Natl. Inst. of Envrn. Hlth. Sci.*

2:00 LLL13 **844.02** A thalamo-cortical genetic co-expression network is associated with thalamic functional connectivity linked with familiar risk for schizophrenia. L. A. ANTONUCCI*; G. PERGOLA; P. DI CARLO; P. TAURISANO; M. PAPALINO; R. PASSIATORE; A. BERTOLINO; G. BLASI. *Univ. of Bari Aldo Moro, Univ. of Bari Aldo Moro, Psychiatry Unit - Bari Univ. Hosp.*

3:00 LLL14 **844.03** 7-Tesla MRI reveals regional hippocampal volume deficits of dentate gyrus in childhood-onset schizophrenia. D. ZHOU; S. LIU; R. A. BERMAN; D. D. BROADNAX; J. L. RAPOPORT; A. G. THOMAS*. *Child Psychiatry Branch, NIMH, Section on Cognitive Neurophysiol. & Imaging, NIMH, NIMH.*

4:00 LLL15 **844.04** Delay differential analysis for nonlinear dynamical clustering of mismatch negativity EEG data in large cohorts of schizophrenia patients and healthy participants. R. KIM*; C. LAINSCSEK; M. L. THOMAS; T. COGS INVESTIGATORS; T. J. SEJNOWSKI; G. A. LIGHT. *UCSD, Howard Hughes Med. Institute, Salk Inst. for Biol. Studies, UCSD, UCSD, UCSD.*

1:00 LLL16 **844.05** Dynamic functional connectivity in individuals at clinical high risk for psychosis, early illness schizophrenia patients, and healthy controls. E. MENNIGEN*; D. H. MATHALON; B. RASHID; E. DAMARAJU; Y. DU; S. L. FRYER; R. L. LOEWY; V. D. CALHOUN. *The Mind Res. Network, The Univ. of New Mexico, Technische Univ. Dresden, Univ. of California, San Francisco VA Med. Ctr.*

2:00 LLL17 **844.06** Altered relationships between functional connectivity networks during the resting-state and auditory processing in schizophrenia. R. HASHIMOTO*; R. OKADA; T. ITAHASHI; S. HASEGAWA; M. TANI; N. KATO; M. MIMURA. *Tokyo Metropolitan Univ., Showa Univ., Showa Univ. Sch. of Med., Keio Univ.*

3:00 LLL18 **844.07** Transdiagnostic mapping from intrinsic functional network onto working memory ability. M. YAMASHITA*; Y. YOSHIHARA; R. HASHIMOTO; N. YAHATA; N. ICHIKAWA; Y. SAKAI; T. YAMADA; N. MATSUKAWA; G. OKADA; S. C. TANAKA; K. KASAI; N. KATO; Y. OKAMOTO; B. SEYMOUR; H. TAKAHASHI; M. KAWATO; H. IMAMIZU. *ATR, Kyoto Univ., Showa Univ., Univ. of Tokyo, NIRS, Hiroshima Univ., Kyoto Prefectural Univ. of Med., CiNet, Univ. of Cambridge.*

4:00 LLL19 **844.08** Piriform functional connectivity in schizophrenia. S. KIPARIZOSKA; T. IKUTA*. *Univ. of Mississippi, Univ. of Mississippi.*

1:00 LLL20 **844.09** Differential Impact of withdrawal from prior D2 antagonist vs aripiprazole treatment on dopamine system activity in MAM model of schizophrenia. S. SONNENSCHEIN*; K. M. GILL; S. A. MILLER; A. A. GRACE. *Univ. of Pittsburgh.*

2:00 LLL21 **844.10** Hippocampal CA3 hyperactivity may contribute to a psychosis-like phenotype in mice. D. SCOTT*; C. A. TAMMINGA. *UT Southwestern.*

3:00 LLL22 **844.11** Hippocampal subregional differences in response to entorhinal cortex and amygdala input in MAM model of schizophrenia. K. M. GILL*; A. A. GRACE. *Univ. of Pittsburgh Dept. of Neurosci.*

4:00 LLL23 **844.12** Mismatch negativity depends on somatostatin interneurons and is affected in a genetic model of schizophrenia. J. P. HAMM*; J. A. GOGOS; R. YUSTE. *Columbia Univ.*

1:00 LLL24 **844.13** ● Hippocampal hyperactivity: The driver for psychosis? E. I. IVLEVA*; S. ASLAN; Y. FANG; C. B. SACCO; H. LU; M. D. RUGG; C. A. TAMMINGA. *UT Southwestern Med. Center, Dept. of Psychiatry, Advance MRI, LLC; Univ. of Texas at Dallas, Johns Hopkins Univ., Univ. of Texas at Dallas.*

2:00 LLL25 **844.14** Constitutively boosting dopamine neuron spike activity subtly alters indices of dopamine transmission some spontaneous and learned behaviors and attenuates amphetamine responsivity. A. S. KALMBACH*; M. O. CHOHAN; N. CHUHMA; S. MINGOTE; S. PASKEWITZ; S. E. GORHAM; J. LIZARDI-ORTIZ; K. TAYLOR; J. P. ADELMAN; D. L. SULZER; P. BALSAM; H. MOORE; S. RAYPORT. *Columbia Univ., New York State Psychiatric Inst., New York State Psychiatric Inst., Columbia Univ., Oregon Hlth. and Sci. Univ., Columbia Univ., Barnard Col., New York State Psychiatric Inst., Columbia Univ.*

3:00 LLL26 **844.15** ● Schizophrenia genome-wide association studied with computer simulation: Γ oscillations and information flow in CA3. M. A. SHERIF*; S. A. NEYMOTIN; W. W. LYTTON. *Yale Univ., VA Connecticut Healthcare Syst., Yale Univ., SUNY Downstate Med. Ctr., Ain Shams Univ., SUNY Downstate Med. Ctr., SUNY Downstate Med. Ctr., Kings County Hosp. Ctr.*

4:00 LLL27 **844.16** Selectively reduced dentate gyrus GluN1 is associated with hippocampal CA3 and CA1 hyperactivity and psychosis behaviors in a mouse genetic model. C. TAN*; S. SOUTHCOTT; M. YANAGI; W. LI; C. A. TAMMINGA. *UTSW.*

1:00 LLL28 **844.17** Haploinsufficiency of the 22q11.2-microdeletion gene *Mrpl40* disrupts short-term synaptic plasticity and working memory through dysregulation of mitochondrial calcium. P. DEVARAJU*; J. YU; D. EDDINS; M. M. MELLADO-LAGARDE; L. EARLS; J. J. WESTMORELAND; G. QUARATO; D. R. GREEN; S. S. ZAKHARENKO. *St. Jude Children's Res. Hosp., St. Jude Children's Res. Hosp.*

2:00 LLL29 **844.18** Hemisphere- and lag-dependent differences in dynamic neural interactions in schizophrenia. C. CHORN*; A. P. GEORGOPOULOS; A. LEUTHOLD. *Univ. of Minnesota, Univ. of Minnesota.*

3:00 LLL30 **844.19** Duplication of hVIPR2 elicits cognitive and social behavorial deficits in a novel BAC transgenic mouse model. X. TIAN; A. RICHARD; K. HOLMES; I. V. SAVAGE; W. YANG; N. GOEDERS; X. LU*. *Louisiana State Univ. Hlth. Sci. Ctr., California Lutheran Univ., UCLA.*

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* Indicates abstract's submitting author

4:00 LLL31 **844.20** Rescue of impaired CA1 hippocampal network dynamics in an animal model of schizophrenia. A. CARLETON*; T. MARISSAL; C. BERTOLLINI; R. SALAZAR; S. MUTEL; M. DE ROO; D. MULLER. *Univ. of Geneva, university of geneva.*

1:00 LLL32 **844.21** Global signal representation is spatially shifted in schizophrenia. G. J. YANG*; J. D. MURRAY; M. F. GLASSER; G. D. PEARLSON; C. SCHLEIFER; G. REPOVS; J. H. KRYSTAL; A. ANTICEVIC. *Yale Univ., Washington Univ. in St. Louis, Univ. of Ljubljana.*

2:00 LLL33 **844.22** Spatio-temporal alterations in working memory-related neuromagnetic activity in patients with schizophrenia while on and off antipsychotic medication. D. Y. RUBINSTEIN*; D. P. EISENBERG; F. W. CARVER; T. HOLROYD; D. R. WEINBERGER; J. A. APUD; R. COPPOLA; K. F. BERMAN. *Natl. Inst. of Mental Hlth., Brown Univ., NIH, Lieber Inst. for Brain Develop., Natl. Inst. of Mental Hlth.*

3:00 LLL34 **844.23** ● Pyramidal neuron heterogeneity in dorsolateral prefrontal and posterior parietal areas of monkey neocortex. G. GONZALEZ-BURGOS*; T. MIYAMAE; D. ARION; D. A. LEWIS. *Univ. of Pittsburgh, Univ. of Pittsburgh.*

4:00 LLL35 **844.24** Spectral 1/f noise differences account for apparent oscillatory band-specific effects in Schizophrenia. B. Q. ROSEN*; E. PETERSON; A. CAMPBELL; A. BELGER; B. VOYTEK. *UCSD, Univ. of North Carolina at Chapel Hill.*

1:00 LLL36 **844.25** Altered temporal structure of spontaneous brain activity in Schizophrenia. F. KONDO*; Z. HUANG; G. NORTHOFF. *Univ. of Ottawa, Royal Ottawa Mental Hlth. Ctr.*

2:00 LLL37 **844.26** Severely dysregulated thalamocortical rhythms and psychotic-like behavior of mice lacking $Ca_V3.1$ T-type Ca^{2+} channel in N-methyl-D-aspartate receptor hypofunction, as an advanced schizophrenia model. S. CHOI*; E. YU; E. HWANG; R. CANCRO; R. R. LLINÁS. *New York Univ. Sch. of Med., Marine Biol. Lab., Korea Inst. of Sci. and Technol., New York Univ. Sch. of Med.*

3:00 LLL38 **844.27** NR2B subunit vulnerability in developing prefrontal cortex in a neurodevelopmental model for schizophrenia: Physiology and mechanism. Y. GULCHINA*; M. A. SNYDER; S. XU; F. ELEFANT; W. GAO. *Drexel Univ. Col. of Med., Drexel Univ.*

4:00 LLL39 **844.28** Investigation of resting state α-band oscillatory brain activity on a nonhuman primate model of schizophrenia. A. TRUNK*; V. OLÁH; G. STEFANICS; I. HERNÁDI. *Univ. of Pecs, Univ. of Zurich & ETH Zurich.*

1:00 LLL40 **844.29** Aberrant Ca^{2+} channel function in fast-spiking interneurons in an NMDAR hypofunction mouse model of schizophrenia. V. JEEVAKUMAR*; A. BOHANNON; J. HABLITZ; K. NAKAZAWA. *Univ. of Alabama At Birmingham.*

POSTER

845. Schizophrenia: Developmental Models

Theme H: Cognition

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 LLL41 **845.01** ● Developmental disturbances in thalamocortical connection are sufficient to produce almost all features of schizophrenia. R. RAJAKUMAR*. *Univ. Western Ontario.*

2:00 LLL42 **845.02** Role of Transforming growth factor β in schizophrenia related behaviours in neonatal ventral hippocampus lesioned rats. A. T. JOSEPH*; S. K. BHARDWAJ; L. K. SRIVASTAVA. *Douglas Mental Hlth. Univ. Inst.*

3:00 LLL43 **845.03** Effects of sex and late embryonic methylazoxymethanol exposure on working memory. S. C. PENLEY; K. NESTOR; S. W. THRELKELD*. *Wheaton Col., Rhode Island Col.*

4:00 LLL44 **845.04** Inducible rescue of NMDA receptor deficiency to measure the plasticity of neural networks. C. MIELNIK*; M. A. BINKO; R. ISLAM; M. MILENKOVIC; W. HORSFALL; E. K. LAMBE; A. J. RAMSEY. *Univ. Of Toronto, Univ. of Toronto.*

1:00 LLL45 **845.05** Disruption of neonatal neurogenesis produces cognitive deficits that are distinct from those observed in schizophrenia. M. TSE*; P. T. PIANTADOSI; M. AUGER; S. CAHILL; J. D. COLE; J. S. SNYDER; S. B. FLORESCO. *Univ. British Columbia, Univ. British Columbia.*

2:00 LLL46 **845.06** ● Developing novel blood-based protein biomarker for schizophrenia with MIA background. A. OH-NISHI*; T. MAEDA; T. SUHARA. *Kitasato Univ., RESVO Inc, Kitasato university, Natl. Inst. for Quantum and Radiological Sci. and Technol. Natl. institute of radiological science.*

3:00 LLL47 **845.07** ● Behavioral characterization of the mouse models of Ch16p11.2 microdeletion and duplication syndromes. T. SHIMADA; E. D. LAKE; N. M. WALTON; K. TAJINDA; M. MATSUMOTO; H. ITO; M. ADACHI*. *Astellas Res. Inst. of America, Astellas Pharma Inc.*

4:00 LLL48 **845.08** ● Investigation of anatomical basis underlying working memory impairment in chronic phencyclidine-treated mice. Y. ARIME*; K. AKIYAMA. *Dokkyo Med. Univ.*

1:00 LLL49 **845.09** Superantigens as a T-cell-based model for maternal immune activation: Cytokine responses of pregnant Balb/c and C57/BL6 mice to staphylococcal enterotoxin B. R. GLASS*; A. W. KUSNECOV, 08854. *Rutgers Univ.*

2:00 LLL50 **845.10** ● Behavioral and molecular analysis of dysbindin-1 single point mutation mice. E. H. CHANG*; T. S. CHANDON; L. E. YEUNG; K. BARBARI; K. FERNANDO; A. K. MALHOTRA. *Zucker Hillside Hospital, Feinstein Inst.*

3:00 LLL51 **845.11** ● Ketamine induced developmental schizophrenia model shows altered 40 Hz auditory steady-state response in adult mice. F. KATSUKI*; J. T. MCKENNA; J. M. MCNALLY; R. E. STRECKER; R. W. MCCARLEY. *VA Boston Healthcare System/Harvard Med. Sch.*

4:00 LLL52 **845.12** Mice haploinsufficient for Map2k7, a schizophrenia risk gene, show altered acquisition and performance on a touchscreen rodent gambling task. R. L. OPENSHAW*; D. M. THOMSON; J. A. PRATT; B. J. MORRIS. *Univ. of Glasgow, Univ. of Strathclyde.*

1:00 LLL53 **845.13** Impaired attentional setshifting and reversal learning in a neurodevelopmental rat model of schizophrenia. S. J. DESAI*; B. ALLMAN; N. RAJAKUMAR. *Dept. of ACB, Univ. of Western Ontario.*

2:00 LLL54 **845.14** Behavioral characterization of neurodevelopmental MAM-E17 rat model. R. GRAF*; Z. A. HUGHES. *Pfizer Inc.*

3:00 LLL55 **845.15** Perceptual oddity discrimination is impaired in the offspring of rats exposed to an inflammatory event during pregnancy. B. R. LINS*; Q. M. GREBA; R. K. THERA; S. E. CZINER; J. G. HOWLAND. *Univ. of Saskatchewan, Byram Hills High Sch.*

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4:00 LLL56 **845.16** Inducible rescue of NMDA receptors in a mouse model of schizophrenia: Neurophysiological consequences. M. A. BINKO*; C. A. MIELNIK; A. J. RAMSEY; E. K. LAMBE. *Univ. of Toronto, Univ. of Toronto.*

1:00 LLL57 **845.17** Do antipsychotic drugs influence only salience allocation processes that involve integration of information from prior experience ? Evidence from overshadowing and latent inhibition studies in dopamine d2 receptor deficient mice. P. M. MORAN*; M. J. O'CALLAGHAN; C. BAY-RICHTER; C. M. P. O'TUATHAIGH; J. L. WADDINGTON; D. M. HEERY. *Univ. of Nottingham, Univ. of Nottingham, Aarhus Univ., Univ. Col. Cork, Royal Col. of Surgeons in Ireland, Univ. of Nottingham.*

2:00 LLL58 **845.18** Schizophrenia-relevant ‚endophenotypes' in response to hyperstimulated NRG1/ErbB4 signaling. M. SOTO-BERNARDINI; T. UNTERBARNSCHEIDT; E. DERE; C. DULLIN; A. RONNENBERG; M. M. BRZÓZKA; A. MARTENS; F. ALVES; M. ROSSNER; H. EHRENREICH; K. NAVE; M. H. SCHWAB*. *Max-Planck Inst. of Exp Med., Ludwig-Maximilians-Universität München, Hannover Med. Sch.*

3:00 LLL59 **845.19** Alterations in the synaptic plasticity associated to behavioral impairment in a schizophrenia like model. M. G. HERNANDEZ*; L. LARA VALDERRABANO; C. LÓPEZ RUBALCAVA; E. GALVÁN. *CINVESTAV SUR.*

4:00 LLL60 **845.20** Challenges for reproducibility in a mouse maternal immune activation model and recommendations for standardization. M. ESTES*; D. JOHN; D. VAN DER LIST; L. HAAPANEN; I. SHAFFER; A. MARTINEZ-HORTA; M. FOOTE; R. F. BERMAN; J. VAN DE WATER; A. MCALLISTER. *UC Davis, UC Davis, UC Davis.*

1:00 LLL61 **845.21** NEAT1- long noncoding RNA associated with paraspeckles: Role in oligodendrogenesis and angiogenesis - relevance to schizophrenia. P. L. KATSEL*; P. ROUSSOS; P. FAM; W. TAN; M. PLETNIKOV; S. NAKAGAWA; V. HAROUTUNIAN. *Icahn Sch. of Med. At Mount Sinai, Johns Hopkins Univ. Sch. of Med., RIKEN.*

2:00 LLL62 **845.22** Oxidative stress-driven parvalbumin interneuron impairment as a core mechanism in psychiatric disorders. J. CABUNGCAL*; M. CUENOD; J. T. COYLE; M. D. PUHL; M. DIDRIKSEN; A. A. GRACE; K. GILL; T. HENSCH; H. MORISHITA; A. S. LAMANTIA; T. MAYNARD; L. LINDEMANN; U. MEYER; S. GIOVANOLI; P. O'DONNELL; P. STEULLET; K. Q. DO. *Dept. of Psychiatry, Univ. Hosp. of Lausanne, Harvard Med. School, McLean Hosp., Synaptic Transmission, H. Lundbeck A/S, Departments of Neuroscience, Univ. of Pittsburgh, Ctr. for Brain Science, Harvard Univ., Mindich Child Hlth. & Develop. Institute, and Friedman Brain Institute, Icahn Sch. of Med. at Mount Sinai, GW Inst. for Neuroscience, The George Washington Univ., Roche Pharmaceut. and Early Develop. Neuroscience, Opthalmology & Rare Dis. (NORD) DTA, F. Hoffmann-La Roche Ltd, Inst. of Pharmacol. and Toxicology, Univ. of Zurich-Vetsuisse, Neurosci. and Pain Res. Unit, BioTherapeutics Res. and Development, Pfizer Inc.*

3:00 LLL63 **845.23** Degradation of perineuronal nets in medial prefrontal cortex impairs prepulse inhibition and crossmodal object recognition memory: Implications for schizophrenia. J. G. HOWLAND*; Q. GREBA; J. W. PAYLOR; N. K. ZABDER; B. G. MURRAY; I. R. WINSHIP. *Univ. Saskatchewan, Univ. of Alberta, Univ. of Saskatchewan.*

4:00 LLL64 **845.24** Male rats are susceptible whilst females are resilient to developing schizophrenia like neophobic responses following social isolation. K. ATMORE*; V. RUSSELL; D. STEIN; F. HOWELLS. *Univ. of Cape Town, Univ. of Cape Town.*

1:00 LLL65 **845.25** The BDNF Val66Met genotype interacts with glucocorticoid stress hormone to regulate prepulse inhibition of acoustic startle, an endophenotype of schizophrenia. M. VAN DEN BUUSE*; M. NOTARAS; R. HILL; J. GOGOS. *La Trobe Univ., Florey Inst. for Neurosci. and Mental Hlth., Columbia Univ.*

2:00 LLL66 **845.26** Investigation of Disc1 gene status and stress exposure in female rats on behavior and hippocampal plasticity. J. MITCHELL*; M. J. GLENN. *Colby Col.*

3:00 LLL67 **845.27** NMDA receptor blockade has differential effects on the synaptic proteome in juvenile versus adult mice. K. BORGMANN-WINTER; N. BOWMAN; A. BANERJEE; W. BILKER; S. SIEGEL; C. HAHN*. *Univ. of Pennsylvania, Children's Hosp. of Philadelphia, Univ. Pennsylvania Sch. Med.*

4:00 LLL68 **845.28** Progression of schizophrenia-like symptomology during periadolescent development is sexually dimorphic in DISC1 knockout Sprague Dawley rats. M. J. GLENN*; W. YU; A. A. BATALLAN. *Colby Col.*

1:00 LLL69 **845.29** Kynurenic acid in the fetal mouse brain: On the role of mother-placenta-fetus dynamics. F. M. NOTARANGELO*; N. GOEDEN; A. POCIVAVSEK; S. BEGGIATO; K. WONS; A. BONNIN; R. SCHWARCZ. *Univ. of Maryland Sch. of Med., Zikha Neurogenetic Institute, Keck Sch. of Med. of the Univ. of Southern California, Dept. of Cell and Neurobiology, Keck Sch. of Med. of the Univ. of Southern California.*

2:00 LLL70 **845.30** ● A schizophrenia-associated SNP in zinc transporter SLC39A8 causes deficits in glutamate receptor activity and elevates the innate immune response. W. TSENG*; M. L. WEBER; V. R. BIEBER; T. A. LANZ; H. XI; R. D. BELL; E. L. HONG; D. L. BUHL. *Pfizer, Univ. of Maryland Sch. of Med.*

POSTER

846. Biochemical Techniques

Theme I: Techniques

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 MMM1 **846.01** ● Quantification of circulating Aβ40 and Aβ42 levels in blood and CSF in human and rodents using ultra sensitive single molecule counting (SMC™). L. CHEN*; A. VAHEDI; S. HAMREN; J. MISTRY; Q. XIAO; J. HWANG. *MilliporeSigma, MilliporeSigma, MilliporeSigma.*

2:00 MMM2 **846.02** Fast and sensitive detection of DA, 5-HT and metabolites using the UHPLC ALEXYS Neurotransmitter Analyzer. M. EYSBERG*; L. VAN HEERWAARDEN; H. BROUWER; F. CACCIAPAGLIA; N. REINHOUD. *Antec, Antec USA.*

3:00 MMM3 **846.03** A Method for MRI-guided reversible inactivation of thalamic regions. M. K. ERADATH*; M. A. PINSK; S. KASTNER. *Princeton Univ., Princeton Univ.*

4:00 MMM4 **846.04** Free-flow calibration of microelectrode biosensors substantially underestimates analyte concentration in tissue. A. NEWTON*; M. J. WALL; M. J. E. RICHARDSON. *Univ. of Warwick, Univ. of Warwick.*

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* Indicates abstract's submitting author

1:00 MMM5 **846.05** The effect of low molar excess of 4-oxo-2-nonenal and 4-hydroxy-2-nonenal on α-synuclein oligomerization. L. ALMANDOZ GIL*; H. WELANDER; E. IHSE; C. LENDEL; M. KARLSSON; J. SIGVARDSON; L. LANNFELT; M. INGELSSON; K. KULTIMA; J. BERGSTRÖM. *Uppsala Univ., Swedish Univ. of Agr. Sci., Uppsala Univ., Bioarctic Neurosci., Uppsala Univ.*

2:00 MMM6 **846.06** Fluorescence activated cell sorting (FACS) and gene expression analysis of Fos-expressing neurons from fresh and frozen rat brain tissue. F. RUBIO*; X. LI; Q. LIU; R. CIMBRO; B. T. HOPE. *Behavioral Neurosci. Res. Branch, NIDA IRP, NIH, Div. of Rheumatology, Sch. of Medicine, Johns Hopkins Univ.*

3:00 MMM7 **846.07** ▲ Examining common laboratory methods that may alter sensitivity of carbon fiber electrodes in amperometric recordings of dopamine. W. T. PRATER; W. M. MCDONALD; M. D. BEANE; D. B. LESTER*. *Univ. of Memphis.*

4:00 MMM8 **846.08** The enhancement of the accuracy of absolute quantification of dopamine using tailored fast-scan cyclic voltammetry. Y. KANG*; Y. OH; H. SHIN; C. PARK; M. DEWAELE; I. KIM; K. E. BENNET; K. H. LEE; D. JANG. *Hanyang Univ., Mayo Clin., Mayo Clin.*

1:00 MMM9 **846.09** Continuous, real-time monitoring of drugs *in vivo* using electrochemical aptamer-based sensors. P. A. VIEIRA*; N. ARROYO-CURRAS; J. SOMERSON; K. L. PLOENSE; K. W. PLAXCO; T. E. KIPPIN. *Univ. of California Santa Barbara, California State Univ. Dominguez Hills, Univ. of California Santa Barbara.*

2:00 MMM10 **846.10** NO and H_2S modulate heme oxygenase (HO) activity during *in vitro* hyperosmotic stimulus. R. COLETTI*; F. M. V. VECHIATO; J. B. M. DE LIMA; F. LUCIO-OLIVEIRA; G. ALMEIDA-PEREIRA; L. L. K. ELIAS; J. ANTUNES-RODRIGUES. *Sch. of Med. of Ribeirao Preto/ Usp, Southern Minas Federal Inst.*

3:00 MMM11 **846.11** *In vivo* regulation of glycogen synthase kinase 3b activity unveiled by the quantitative measurement of its phosphoisotype. S. HISANAGA*; A. KRISHNANKUTTY; T. KIMURA; T. SAITO; A. ASADA; K. ANDO; K. AOYAGI; M. OHARA-IMAIZUMI; K. ISHIGURO. *Tokyo Metropolitan Univ., Kyorin Univ., Juntendo Univ.*

4:00 MMM12 **846.12** ▲ Evaluating the effectiveness of alternative fbs on neuroblastoma cells. S. M. PECK*; D. P. BALUCH. *W.M. Keck Lab/Sols.*

1:00 MMM13 **846.13** The characterization of calf brain isolated celularl nuclear membrane Gal-specific lectin. T. MACHARADZE*; L. KHARAZISHVILI; R. AKHALKATSI. *Tbilisi State Univ.*

2:00 MMM14 **846.14** ● Probing gapdh and siah-1 interactions in mammalian cell lines using proximity ligation assay. H. SINGH*. *Milliporesigma.*

3:00 MMM15 **846.15** ● Comparison of Synaptech versus CMA probes for the quantification of extracellular acetylcholine, dopamine and its metabolites by cerebral microdialysis in freely-moving rats. H. L. ROWLEY*; R. S. KULKARNI; L. PINDER; D. J. HEAL; P. SEGLUND. *Renasci Ltd, Synaptech Inc.*

4:00 MMM16 **846.16** ▲ Revised methodology for SYNORF-1 antibody staining in planarians. T. MCCHARLES; A. HAGHGOO; E. REPO; A. STILLAR; M. J. SAARI*. *Nipissing UNiversity, Nipissing Univ.*

1:00 MMM17 **846.17** Prolonged *in vivo* monitoring of extracellular change of dopamine. C. PARK*; Y. OH; Y. KANG; M. DEWAELE; H. SHIN; D. KIM; K. BENNET; I. KIM; K. LEE; D. JANG. *Hanyang Univ., Mayo Clin., Mayo Clin.*

2:00 MMM18 **846.18** High throughput assay for identification of aggregating compounds. S. M. NIELSEN*. *H Lundbeck A/S.*

3:00 MMM19 **846.19** Desorption and reduction kinetic analysis using multi-waveform cyclic voltammetry. H. SHIN*; D. KIM; Y. OH; C. PARK; Y. KANG; M. DEWAELE; I. KIM; K. E. BENNET; K. H. LEE; D. JANG. *Hanyang Univ., Mayo Clin., Mayo Clin.*

POSTER

847. Genetic Techniques

Theme I: Techniques

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 MMM20 **847.01** A TIGRE reporter mouse line driving Cre- and tTA-dependent expression of the red calcium indicator R-CaMP1.07. P. BETHGE*; L. EGOLF; D. A. LORENZO; D. GONIOTAKI; L. MADISEN; F. F. VOIGT; M. OHKURA; J. NAKAI; H. ZENG; A. AGUZZI; F. HELMCHEN. *Univ. of Zurich, Inst. of Neuropathology, Allen Inst. for Brain Sci., Saitama Univ.*

2:00 MMM21 **847.02** A genetic labeling tool to depict the complete neuronal lineages in individual *Drosophila* brains. Y. LI*; M. GHAZZI; Y. ZHAO; T. CHEN; B. YE; D. CAI. *Univ. of Michigan, Univ. of Michigan, Univ. of Michigan.*

3:00 MMM22 **847.03** Trace reconstruction of ancestral cells by enzymatic recoding. M. ÅKERBLOM*; M. T. MCMANUS. *UCSF Diabetes Ctr., UCSF, Diabetes Ctr.*

4:00 MMM23 **847.04** ● The characterization of a genetic toolbox for neuroscience: Neuron-specific cre, fluorescent cre activity reporter and conditional optogentics knock-in rats. Z. LIU*; G. ZHAO, 63146; X. CUI, 63146. *Horizon Discovery.*

1:00 MMM24 **847.05** ● Efficient introduction of hetozygous and homozygous disease-related mutations into human iPSCs using CRISPR/Cas9 to model Alzheimer's disease. D. KWART*; D. PAQUET; A. CHEN; A. SPROUL; S. JACOB; S. TEO; K. OLSEN; A. GREGG; S. NOGGLE; M. TESSIER-LAVIGNE. *The Rockefeller Univ., Columbia Univ. Med. Ctr., The New York Stem Cell Fndn.*

2:00 MMM25 **847.06** Systemic delivery of AAVs driving patterned gene expression by ultra-conserved enhancer elements. P. R. WILLIAMS*; C. WANG; Y. LI; Z. JUNJIE; Z. HE. *Harvard Med. Sch. / Boston Children's Hospita, Harvard Med. School/Boston Children's Hosp., Harvard Med. School/ Boston Children's Hospitla.*

3:00 MMM26 **847.07** Magnetogenetics: Remote non-invasive magnetic activation of neuronal activity with a magnetoreceptor (MAR). S. ZHANG*. *Shenzhen Univ.*

4:00 MMM27 **847.08** Generation of oxytocin receptor modified prairie voles by using CRISPR/Cas. K. HORIE*; T. HIRAYAMA; S. SUZUKI; T. FUKUDA; S. HIDEMA; K. NISHIMORI. *Tohoku Univ., Iwate Univ.*

1:00 MMM28 **847.09** ● Viral vector mediated transdifferentiation of resident oligodendrocytes into functional neurons. T. J. MCCOWN*; M. S. WEINBERG; H. E. CRISWELL. *Univ. of North Carolina, Univ. of North Carolina at Chapel Hill, Univ. of North Carolina at Chapel Hill.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

2:00 MMM29 **847.10** Cre -dependent DREADD (designer receptors exclusively activated by designer drugs) mice. R. H. J. OLSEN*; H. ZHU; D. K. ARYAL; D. J. URBAN; B. L. ROTH; U. HOCHGESCHWENDER. *UNC Chapel Hill Med. Sch., Central Michigan Univ.*

3:00 MMM30 **847.11** Use of an optimized chimeric envelope glycoprotein enhances the efficiency of retrograde gene transfer of a pseudotyped lentiviral vector in the primate brain. M. FUJIWARA; S. TANABE; H. TSUGE; S. UEZONO; K. NAGAYA; M. SUGAWARA; S. KATO; K. KOBAYASHI; K. INOUE*; M. TAKADA. *Primate Res. Inst., Kyoto Univ., Fukushima Med. Univ.*

4:00 MMM31 **847.12** ▲ Global DNA methylation variation induced by cannabidiol in cerebral cortex of rats. D. MORALES-LARA*; F. DUARTE-AKÉ; J. PASTRANA TREJO; C. DE LA PEÑA; R. MECHOULAM; E. MURILLO RODRIGUEZ. *Univ. Anahuac Mayab, Ctr. de Investigación Científica de Yucatán. A.C., Univ. Anahuac Mayab, Dept. of Medicinal Chem. and Natural Products.*

1:00 MMM32 **847.13** Investigation of CRISPR-CAS9 system strategies for knockdown of the luteinizing hormone receptor. S. BHATTA*; J. A. BLAIR; G. CASADESUS. *Kent State Univ., Kent State Univ.*

2:00 MMM33 **847.14** Comparative connectomics of the adult male and hermaphrodite *C. elegans*. S. J. COOK*; T. JARRELL; Y. WANG; K. NGUYEN; C. BRITTIN; M. YAKOVLEV; L. TANG; E. BAYER; O. HOBERT; H. BUELOW; D. HALL; S. EMMONS. *Albert Einstein Col. of Med., Albert Einstein Col. of Med., Albert Einstein Col. of Med., Univ. of Leeds, Penn State Univ., Columbia Univ.*

3:00 MMM34 **847.15** Upgrading transgenic DNA components by inducible gene replacement. C. LIN*; C. POTTER. *Johns Hopkins Univ. Sch. of Med.*

4:00 MMM35 **847.16** Identification of deletions in the Hdc gene of *Drosophila melanogaster* generated through transposon-excision mutagenesis. G. WESSELING; J. VELDMAN; M. G. BURG*. *Grand Valley State Univ., Grand Valley State Univ.*

1:00 MMM36 **847.17** ▲ Hypothamic cells show increased methylation to the administration of CBD in rats. J. C. PASTRANA TREJO*; F. DUARTE-ÁKE; D. MORALES LARA; C. DE-LA-PEÑA; R. MECHOULAM; E. MURILLO-RODRIGUEZ. *Univ. Anahuac Mayab, Ctr. de Investigación Científica de Yucatán. A.C., Inst. for Drug Research.*

2:00 MMM37 **847.18** The development of a viral mediated CRISPR/Cas9 system for doxycycline dependent inducible *in vitro* and *in vivo* genome editing. C. A. DE SOLIS*; A. HO; R. HOLEHONNUR; J. PLOSKI. *Univ. of Texas At Dallas, UT Southwestern, Univ. of Texas at Dallas.*

3:00 MMM38 **847.19** MitoTev-TALEs: A new generation of monomeric nucleases to reduce mutant mtDNA. C. V. PEREIRA*; S. R. BACMAN; S. L. WILLIAMS; C. T. MORAES. *Univ. of Miami, Miller Sch. of Med.*

4:00 MMM39 **847.20** Comparative study of gene transduction efficiency for retrograde gene transfer lentiviral vector with novel fusion envelope glycoproteins. S. KATO*; K. KOBAYASHI. *Fukushima Med. Univ., CREST/JST.*

1:00 MMM40 **847.21** ● Targeted sequencing powered by long read smrt sequencing in neurological disorders. S. KUJAWA*; A. SETHURAMAN; K. ENG, 94025. *Pacific Biosci.*

2:00 MMM41 **847.22** Genetic labeling strategies for functional analysis of human neocortical cell types and microcircuits in *ex vivo* brain slice cultures. J. T. TING*; P. CHONG; R. GWINN; C. COBBS; J. G. OJEMANN; A. KO; C. D. KEENE; C. KOCH; E. LEIN. *Allen Inst. For Brain Sci., Swedish Neurosci. Inst., Swedish Neurosci. Inst., Univ. of Washington Med. Ctr., Harborview Med. Ctr., Univ. of Washington Med. Ctr., Allen Inst. For Brain Sci.*

3:00 MMM42 **847.23** *In vivo* genome editing for single-cell labeling of endogenous proteins in the mammalian brain. J. NISHIYAMA*; T. MIKUNI; Y. SUN; N. KAMASAWA; R. YASUDA. *Max Planck Florida Inst. For Neurosci., Florida Atlantic Univ.*

4:00 MMM43 **847.24** Generation of transgenic mice with tightly regulated expression for cell type-specific studies. T. L. DAIGLE*; L. MADISEN; U. KNOBLICH; M. M. TAKENO; B. R. LEE; H. GU; M. MILLS; L. GRAY; J. T. TING; N. MACARICO DA COSTA; B. TASIC; H. ZENG. *Allen Inst. For Brain Sci., Allen Inst. for Brain Sci.*

1:00 MMM44 **847.25** Exploring the 3D landscape of chromatin across neural differentiation. P. RAJARAJAN*; W. LIAO; S. E. GIL; N. ABE; S. HO; J. TCW; K. BRENNAND; S. AKBARIAN. *Icahn Sch. of Med. At Mt. Sinai, New York Genome Ctr., Ctr. for Genomic Regulation, Icahn Sch. of Med. at Mt. Sinai.*

2:00 MMM45 **847.26** A robust activity marking system for exploring active neuronal ensembles. Y. LIN*; A. SORENSEN; Y. COOPER; M. BARATTA; F. WENG; Y. ZHANG; M. HEMBERG; R. FROPF; J. YIN; S. MAIER. *MIT, Univ. of Colorado, Wellcome Trust Sanger Inst., Univ. of Wisconsin-Madison.*

3:00 MMM46 **847.27** Scalable, high-resolution mapping of subcellular localization of endogenous proteins in the mammalian brain by SLENDR. T. MIKUNI*; J. NISHIYAMA; Y. SUN; N. KAMASAWA; R. YASUDA. *Max Planck Florida Inst., Florida Atlantic Univ.*

4:00 MMM47 **847.28** Molecular identification of active neurons defined by FOS expression or phosphorylation of ERK1/2. D. LEIB*; Z. A. KNIGHT. *UCSF.*

1:00 MMM48 **847.29** ● Investigation of the gene-modification efficiency of CRISPR/Cas9 in the common marmoset. W. KUMITA*; K. SATO; E. SASAKI. *Central Inst. For Exptl. Animals, Keio Univ., RIKEN.*

2:00 MMM49 **847.30** Integrated analysis of the Jackson Laboratory knockout mouse project 2 (KOMP2) data. V. KUMAR*; D. LEE; V. PHILIP; J. CLARK; K. SVENSON; S. RIZZO; R. E. BRAUN; E. J. CHESLER. *Jackson Lab., Jackson Lab., Jackson Lab.*

POSTER

848. Electrode Arrays II

Theme I: Techniques

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 MMM50 **848.01** Viability of a novel micro-electrocorticography electrode array design for intrasulcal implantation in macaca mulatta primary somatosensory cortex. T. N. HEARN*; J. C. TANNER; J. LACHAPELLE; J. BURNS, IV; J. GRAINGER; E. KEEFER; J. CHENG; S. HELMS TILLERY. *Arizona State Univ., Draper, Nerves Inc.*

Wed. PM

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

2:00 MMM51 **848.02** ● A new rotating tethered system with multiple, electrical, optical and fluid connections for many-channel electrical and chemical recording in behaving rodents. D. J. WOODWARD*; J. CHANG. *Neurosci. Res. Inst. of North Carolina, Biographics Inc.*

3:00 MMM52 **848.03** Spatial pattern optimization for neural stimulation with high-density multi-electrode arrays. A. P. BUCCINO*; G. CAUWENBERGHS; P. D. HÄFLIGER. *Univ. of Oslo, Univ. of California San Diego.*

4:00 MMM53 **848.04** Multimodal validation of signal stability from chronically implanted micro-electrocorticographic arrays. M. TRUMPIS*; M. INSANALLY; C. CHIANG; C. WANG; J. KING; R. C. FROEMKE; J. VIVENTI. *Duke Univ., New York Univ. Sch. of Med.*

1:00 MMM54 **848.05** Self-splaying silicon carbide electrode assemblies for stable recording and stimulation. Y. COHEN*; B. PEARRE; J. SHEN; D. SEMU; F. DEKU; A. JOSHI-IMRE; S. F. COGAN; T. GARDNER. *Boston Univ., Univ. of Texas.*

2:00 MMM55 **848.06** Autonomous microelectrodes for intracellular neural recording. S. SAMPATH KUMAR*; M. S. BAKER; M. OKANDAN; J. MUTHUSWAMY. *Arizona State Univ., Sandia Natl. Labs.*

3:00 MMM56 **848.07** A multi-target 3D printed microdrive for simultaneous single-unit recordings in freely behaving rats. M. W. BILLARD*; F. BAHARI; C. TULYAGANOVA; K. D. ALLOWAY; B. J. GLUCKMAN. *Penn State, Penn State, Penn State, Penn State, Penn State.*

4:00 MMM57 **848.08** jULIEs - juxtaneuronal ultra-low impedance electrodes: Nanostructured neural probes for highly-localized and minimally invasive extracellular recordings in the olfactory bulb. R. R. RÁCZ*; M. KÖLLő; W. WRAY; A. SCHAEFER. *The Francis Crick Inst. - Mill Hill Lab.*

1:00 MMM58 **848.09** Large-scale single unit activity recorded with high-density silicon probes in the hippocampus of freely behaving animals. M. BAUZA; J. KRUPIC; S. BURTON*; J. O'KEEFE; T. HARRIS. *Univ. Col. London, HHMI Janelia Res. Ctr.*

2:00 MMM59 **848.10** High-density extracellular recording from the buccal ganglia of *Aplysia* californica using a novel thin-film electrode array. Z. J. SPERRY; H. J. CHIEL; J. P. SEYMOUR; H. LU; C. E. KEHL; K. NA; E. YOON; T. M. BRUNS*. *Univ. of Michigan, Univ. of Michigan, Case Western Reserve Univ., Case Western Reserve Univ., Case Western Reserve Univ., Univ. of Michigan, Univ. of Michigan.*

3:00 MMM60 **848.11** Focused ultrasound over frontal eye field of macaque monkeys: Modulation of visual search performance and EEG index of attention. W. ZINKE*; J. D. COSMAN; J. D. SHUMAN; J. D. SCHALL; C. F. CASKEY. *Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ.*

4:00 MMM61 **848.12** 3D tissue reconstruction provides accurate neuronal quantification near chronically-implanted hybrid microelectrode array. M. HAN*; H. DUONG. *Huntington Med. Res. Inst.*

1:00 MMM62 **848.13** A open-source system and interface standards for very high data rate neurophysiology and low latency closed-loop experiments. J. VOIGTS*; A. CUEVAS LOPEZ; J. P. NEWMAN; J. H. SIEGLE; G. C. LOPES; S. L. MONDRAGON; Y. A. PATEL; E. BURGUIÈRE; C. KEMERE; C. I. MOORE; A. S. WIDGE; A. KAMPFF; J. VIVENTI; M. WILSON. *MIT, Inst. de Neurociencias de Alicante, Allen Inst., UCL, ICM Brain & Spine Inst., Georgia Tech., Rice, Brown, Harvard Med. Sch., Duke.*

2:00 NNN1 **848.14** An all-carbon-based, transparent, flexible micro-electrocorticography device for large scale optical and electrical access to brain circuits. J. LEE*; N. DRISCOLL; I. OZDEN; Z. YU; A. KASKELA; E. KAUPPINEN; A. NURMIKKO. *Brown Univ., Aalto Univ.*

3:00 NNN2 **848.15** ● Long-term implantable interface of high flexible multi-channel electrodes monitoring with wireless recording system. T. ARAKI*; F. YOSHIDA; S. YOSHIMOTO; T. UEMURA; T. KAIJYU; T. SUZUKI; M. HIRATA; T. SEKITANI. *Osaka Univ., Osaka Univ., Natl. Inst. of Information and Communications Tec.*

4:00 NNN3 **848.16** ● Exploiting high content datasets recorded with high density Multi Electrode Array to investigate compounds functional effects with LTP protocols in cortico-hippocampal brain slices. A. MACCIONE*; S. ZORDAN; A. UGOLINI; C. VIRGINIO; M. CORSI; D. LONARDONI; M. GANDOLFO; L. BERDONDINI. *Inst. Italiano Di Tecnologia, Aptuit Ctr. for Drug Discovery & Development, Drug Design & Discovery, 3Brain GmbH.*

1:00 NNN4 **848.17** Electrode materials affect the network formation and electrophysiological development of interfaced cortical neurons. C. H. THOMPSON; W. A. KHAN; W. LI; E. K. PURCELL*. *Michigan State Univ., Michigan State Univ., Michigan State Univ.*

2:00 NNN5 **848.18** Assessing the validity of extracellular recordings and variability of spike-triggered stimulation experiments. E. RODRIGUEZ MANYARI*; D. J. GUGGENMOS; G. VAN ACKER III; R. J. NUDO. *Univ. of Kansas, Univ. of Kansas Med. Ctr., Univ. of Kansas Med. Ctr., MetroHealth Systems.*

3:00 NNN6 **848.19** ● Recording and visualizing activity from thousands of single neurons. M. R. ANGLE*; E. HUBER; D. POUZZNER; C. LAREAU, 95112; M. KOLLO. *Paradromics, The Francis Crick Inst.*

4:00 NNN7 **848.20** ● Resonant inductive power harvesting in a mm-sized neural implant for brain activity mapping. C. KIM; G. CAUWENBERGHS*. *UCSD, UCSD.*

1:00 NNN8 **848.21** Withdrawn.

2:00 NNN9 **848.22** ● Optimizing biomorphic microelectrode arrays for electrophysiological and neurochemical recordings. P. HUETTL*; A. LEDO; C. LOURENÇO; F. POMERLEAU; R. E. HAMPSON; S. A. DEADWYLER; J. LARANJINHA; R. BARBOSA; G. A. GERHARDT. *Univ. Kentucky, Univ. of Coimbra, Wake Forest Univ.*

3:00 NNN10 **848.23** ● Evaluating high-resolution frequency spectral estimation approaches to real-time frequency modulation neurofeedback. R. J. GOUGELET*; A. C. OUYANG; R. D. PATEL; X. WANG; B. VOYTEK. *Univ. of California San Diego Dept. of Cognitive Sci., UCSD, Univ. of California San Diego, UCSD, UCSD, UCSD, UCSD, UCSD.*

4:00 NNN11 **848.24** Utilization of multi-electrode array technology to investigate electrophysiological properties within human cerebral organoids. M. E. HESTER*. *The Res. Inst. At Nationwide Childrens Hos.*

1:00 NNN12 **848.25** Recording large, distributed neuronal populations with next-generation electrode arrays in behaving mice. N. A. STEINMETZ*; M. PACHITARIU; C. P. BURGESS; C. ROSSANT; T. HARRIS; M. CARANDINI; K. D. HARRIS. *Univ. Col. London, Janelia Res. Campus.*

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* Indicates abstract's submitting author

POSTER

849. Models of Excitability: Networks and Single Neurons II

Theme I: Techniques

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 NNN13 **849.01** Developing an *in vitro* system for investigating neuronal linear system identification. T. ISOMURA*; T. TOYOIZUMI; K. KOTANI; Y. JIMBO. *The Univ. of Tokyo, RIKEN Brain Sci. Inst., The Univ. of Tokyo.*

2:00 NNN14 **849.02** Neural networks closure. J. LETELIER*; C. MAUREIRA. *Univ. of Chile, Univ. de Chile.*

3:00 NNN15 **849.03** Characterization of a novel analysis method for single trial analysis of fluctuating neural responses. J. T. MOHL*; V. C. CARUSO; C. GLYNN; S. TOKDAR; J. M. GROH. *Duke Univ.*

4:00 NNN16 **849.04** Approximate Bayesian Computation to estimate parameters of spiking neural models of superior colliculus. R. VEALE*; T. ISA; M. YOSHIDA. *Natl. Inst. for Physiological Sci., Kyoto Univ.*

1:00 NNN17 **849.05** Simplified models of interstitial flow and diffusion. K. HOLTER*; K. H. PETTERSEN; A. M. DALE; A. DEVOR; K. MARDAL. *Universitetet I Oslo, Norwegian Univ. of Life Sci., UCSD.*

2:00 NNN18 **849.06** Rivalry with irregular spiking: Resolving mutual inhibition and the balanced state. B. COHEN; C. C. CHOW*; S. VATTIKUTI. *NIH/NIDDK.*

3:00 NNN19 **849.07** Expanding NEURON support for reaction-diffusion models. R. A. MCDOUGAL*; C. TROPPER; M. L. HINES; W. W. LYTTON. *Yale Univ., McGill Univ., SUNY Downstate.*

4:00 NNN20 **849.08** UncertainPy: A Python toolbox for uncertainty quantification in neural and neural-network models. S. TENNØE*; G. HALNES; M. LEPPERØD; J. FEINBERG; G. T. EINEVOLL; H. P. LANGTANGEN. *Univ. of Oslo, Norwegian Univ. of Life Sci., Univ. of Oslo, Univ. of Oslo, Simula Res. Lab.*

1:00 NNN21 **849.09** The correlated state in cortical circuits. R. DARSHAN*; C. VAN VREESWIJK; D. HANSEL. *Hebrew Univ., Ctr. for Neurophysics, Physiol. and Pathology; Cerebral Dynamics, Learning and Memory Lab; CNRS-UMR8119 and Univ. Paris Descartes.*

2:00 NNN22 **849.10** Applying uncertainty quantification and sensitivity analysis to spiking neural network models of asynchronous irregular firing activity. K. D. CARLSON*; J. B. AIMONE. *Sandia Natl. Labs.*

3:00 NNN23 **849.11** A novel method for simulating stochastic reaction and diffusion of complex biomolecules. X. LI*; W. HOLMES. *Ohio Univ.*

4:00 NNN24 **849.12** Dataassimilation of membrane dynamics and channel kinetics with a neuromorphicintegrated circuit. J. WANG*; D. BREEN; R. KUBENDRAN; S. SHIRMAN; F. BROCCARD; H. D. I. ABARBANEL; G. CAUWENBERGHS. *UCSD, Univ. of California San Diego, Univ. of California San Diego, Univ. of California San Diego, Univ. of California San Diego.*

1:00 NNN25 **849.13** Serial spike time correlations affect probability distribution of joint spike events. M. SHAHI*; G. PIPA; C. VAN VREESWIJK. *Univ. of Osnabrueck, Paris Descartes Univ.*

2:00 NNN26 **849.14** An unsupervised complex spike detection algorithm relying on two signal feature selectors: Time Frequency Manifold and Power. S. BATIR*; S. MITOLO; T. MUZZU; S. SCHULTZ. *Dept of Bioengineering, Imperial Col. of London, Imperial Col. London.*

3:00 NNN27 **849.15** Translational regulation of re1 silencing transcription factor (rest) using a synthetic rna binding protein approach. M. GATTI IOU*; S. CRISCUOLO; L. MARAGLIANO; F. CESCA; F. BENFENATI. *Italian Inst. of Technol. (IIT), Univ. of Genova Med. Sch.*

4:00 NNN28 **849.16** Ultrasonic neuromodulation biophysics predicts intrinsic capacity for cell-type-selective stimulation. M. PLAKSIN*; E. KIMMEL; S. SHOHAM. *Technion - Israel Inst. of Technol., Technion - Israel Inst. of Technol.*

1:00 NNN29 **849.17** Measuring encoding efficiency in networks of correlated poisson neurons. V. H. MINCES*; A. A. CHIBA. *UCSD.*

POSTER

850. Algorithms and Network Models for Cognition and Behavior

Theme I: Techniques

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 NNN30 **850.01** Understanding the mechanisms of motor temporal scaling using a recurrent neural network model. N. HARDY*; J. L. ROMERO-SOSA; D. V. BUONOMANO. *UCLA, UCLA, UCLA.*

2:00 NNN31 **850.02** Optimal pixel-wise reconstruction of visual scenes from two photon imaging of mouse V1. S. GARASTO*; M. GO; A. A. BHARATH; S. R. SCHULTZ. *Imperial Col. London.*

1:00 DP10 **850.03** (Dynamic Poster) The virtual mouse brain. C. BERNARD*; F. MELOZZI; M. WOODMAN; V. JIRSA. *INSERM U1106.*

4:00 NNN32 **850.04** Using a large-scale neural model of cortical object processing to investigate the neural substrate for holding multiple items in short-term memory and for performing a paired associate task. Q. LIU; A. ULLOA; B. HORWITZ*. *Natl. Inst. on Deafness and Other Communication Disorders, Univ. of Maryland, Neural Bytes, LLC.*

1:00 NNN33 **850.05** Efficient and scalable massively parallel neural networks with hodgkin-huxley neurons for human-level simulations. L. N. LONG*. *Pennsylvania State Univ.*

2:00 NNN34 **850.06** Measuring causality in simulations of large scale brain networks. M. MANNINO*; S. L. BRESSLER, 33431. *Florida Atlantic Univ., Florida Atlantic Univ.*

3:00 NNN35 **850.07** Computational characteristics of large scale brain simulations. F. CREMONESI*; J. PLANAS; F. DELALONDRE; F. SCHÜRMANN. *Ecole Polytechnique Fédérale De Lausanne.*

4:00 NNN36 **850.08** A computational model of interacting neuronal populations for decision making and behaviour selection in Xenopus tadpole. R. BORISYUK*; R. MERRISON-HORT; S. KOUTSIKOU; A. ROBERTS; S. R. SOFFE. *Plymouth Univ., Univ. of Bristol.*

• Indicated a real or perceived conflict of interest, see page 154 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

1:00 NNN37 **850.09** Modeling tritocerebrum by using artificial spiking neural networks. effects of temperature and social status. K. MENDOZA-ANGELES*; S. ARELLANO-TIRADO; A. ESPINOZA-GARCÍA; I. CHAIREZ; J. HERNÁNDEZ-FALCÓN. *Univ. Nacional Autónoma De México, Inst. Politécnico Nacional, Univ. Nacional Autónoma de México.*

2:00 NNN38 **850.10** A model for zebrafish adaptive optomotor behavior. S. ROMANI; H. ROUAULT; M. B. AHRENS; N. VLADIMIROV*. *Janelia Res. Campus / HHMI.*

3:00 NNN39 **850.11** ● Examination of large-scale functional brain networks in *Drosophila*. K. MANN*, IV; C. GALLEN; T. CLANDININ. *Stanford, Univ. of California, Berkeley, Stanford.*

4:00 NNN40 **850.12** The computational role of dopamine, basal ganglia, and hippocampus in extinction and spontaneous recovery. J. RODNY; D. C. NOELLE*. *Univ. of California, Merced.*

POSTER

851. Computational Tools for Human Data II

Theme I: Techniques

Wed. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 NNN41 **851.01** EEG metastable states in the resting human brain. T. SASE*; K. KITAJO. *RIKEN Brain Sci. Inst.*

2:00 NNN42 **851.02** Discovering consistency in human brain activities with noisy visual inputs using reservoir kernel machines. H. SUETANI*; Y. MIZUNO; K. KITAJO. *Oita Univ., RIKEN Brain Sci. Inst.*

3:00 NNN43 **851.03** Individual differences in noise-induced human brain dynamics. K. KITAJO*; T. SASE; Y. MIZUNO; H. SUETANI. *RIKEN Brain Sci. Inst., Oita Univ.*

4:00 NNN44 **851.04** Optimal solutions of human hand movements using inverse musculoskeletal model. M. BOOTS*; R. HARDESTY; A. SOBINOV; V. GRITSENKO; M. MANSOURI; R. A. GAUNT; S. YAKOVENKO. *West Virginia Univ., Univ. of Pittsburgh.*

1:00 NNN45 **851.05** 'Good-enough' approximation of musculoskeletal dynamics. A. SOBINOV*; M. BOOTS; R. HARDESTY; V. GRITSENKO; S. YAKOVENKO. *West Virginia Univ.*

2:00 NNN46 **851.06** Encoding spoken and written digits as continuous trajectories in recurrent neural networks. V. GOUDAR*; D. BUONOMANO. *UCLA, UCLA.*

3:00 NNN47 **851.07** Forward modeling in fMRI: Efficacy and limits. D. E. NEE*; A. R. E. VANDENBROUCKE; E. S. LORENC; M. D'ESPOSITO. *Univ. of California, Berkeley.*

4:00 NNN48 **851.08** Resolving large-scale networks in ultra-high field fMRI (9.4T) of the human brain. J. STELZER*; P. EHSES; J. BAUSE; K. SCHEFFLER; G. LOHMANN. *Universitaetsklinik Tuebingen, Neuroimaging, Dept. of Biomed. Magnetic Resonance, Univ. of Tübingen, Max Planck Inst. for Biol. Cybernetics, MRC dept, Universitaetsklinik Tuebingen, Neuroimaging.*

1:00 NNN49 **851.09** Transcranial magnetic stimulation (tms) coil designing for high electromagnetic field gradient generation. Q. MENG*; E. HONG; Y. YANG; H. LU; F. CHOA. *Univ. of Maryland, Baltimore County, Univ. of Maryland, Baltimore, Natl. Inst. on Drug Abuse.*

2:00 NNN50 **851.10** Using algebraic topology to characterize mesoscale structure in resting state fMRI. C. GIUSTI*; G. HENSELMAN; R. GHRIST; R. C. GUR; R. E. GUR; T. D. SATTERTHWAITE; D. S. BASSETT. *Univ. of Pennsylvania, Univ. of Pennsylvania, Univ. of Pennsylvania.*

3:00 NNN51 **851.11** Space-independent community structure of the human connectome. R. BETZEL*; J. MEDAGLIA; L. PAPADOPOULOS; D. BASSETT. *Univ. of Pennsylvania, Univ. of Pennsylvania, Univ. of Pennsylvania, Univ. of Pennsylvania.*

4:00 NNN52 **851.12** A method for the automatic quantification of the first response of the corticocortical evoked potential measured with ECoG. D. HERMES*; A. VASSILEVA; K. J. MILLER; N. F. RAMSEY; F. S. S. LEIJTEN; G. HUISKAMP. *Stanford Univ., UMC Brain Ctr. Rudolf Magnus, Univ. Med. Ctr. Utrecht, Brain Ctr. Rudolf Magnus, Univ. Med. Ctr. Utrecht, Stanford Univ.*

1:00 OOO1 **851.13** Using a large-scale neural model to simulate laminar fmri activity for a visual delayed match-to-sample task. P. T. CORBITT*; A. ULLOA; B. HORWITZ. *NIDCD, NIH, Neural Bytes LLC, Natl. Inst. on Deafness and Other Communication Disorders.*

2:00 OOO2 **851.14** White matter connectivity supports increasing diversity of neural dynamics across normative neurodevelopment. E. TANG*; C. GIUSTI; G. BAUM; S. GU; A. E. KAHN; D. ROALF; R. C. GUR; R. E. GUR; T. D. SATTERTHWAITE; D. S. BASSETT. *Univ. of Pennsylvania, Univ. of Pennsylvania.*

3:00 OOO3 **851.15** Energy landscape underpinning module dynamics in the human connectome. A. ASHOURVAN*; S. GU; M. G. MATTAR; J. M. VETTEL; D. BASSETT. *Univ. of Pennsylvania, Army Res. Lab., Univ. of Pennsylvania, Univ. of Pennsylvania, Univ. of Pennsylvania, Univ. of Pennsylvania.*

4:00 OOO4 **851.16** Direct experimental validation of transcranial electric stimulation models with intracranial recordings in human. Y. HUANG*; A. LIU; B. LAFON; D. FRIEDMAN; M. DAYAN; X. WANG; O. DEVINSKY; L. PARRA. *City Col., New York Univ. Sch. of Med., Mayo Clin.*

1:00 OOO5 **851.17** Network changes between task- and resting- state functional connectivity predict behavior across datasets. M. SALEHI*; D. SCHEINOST; E. S. FINN; M. D. ROSENBERG; M. M. CHUN; R. CONSTABLE. *Yale Univ., Yale Sch. of Med., Yale Univ., Yale Univ., Yale Univ., Yale Sch. of Med.*

2:00 OOO6 **851.18** ● Multifaceted mental workload classifier - PHYSIOPRINT. D. POPOVIC*; M. STIKIC; D. KLYDE; G. PARK. *Advanced Brain Monitoring, Systems Technol. Inc.*

3:00 OOO7 **851.19** Small World Analyses of Resting State fMRI imaging comparing path length using both weighted and unweighted graphs. M. L. MEHALICK*; J. HUGHES; P. WALKER; A. GLUECK; A. TSCHIFFELY; C. KUO; A. CHEN. *Naval Med. Res. Ctr., Naval Med. Res. Ctr., Henry M. Jackson Fndn., Univ. of California.*

4:00 OOO8 **851.20** Effectiveness of screw ecog:feasibility test. S. LEE*. *Hanyang Univ.*

1:00 OOO9 **851.21** Exploiting spatiotemporal structure in connecting electrocorticographic neural activity with human perception and behavior. A. OMIGBODUN*; W. K. DOYLE; O. DEVINSKY; D. FRIEDMAN; T. THESEN; V. GILJA. *Univ. of California San Diego, New York Univ. Sch. of Med., New York Univ. Sch. of Med.*

2:00 OOO10 **851.22** Towards a theory of conscious systems. S. R. DEISS*. *Applied Neurodynamics, UC San Diego.*

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3:00 OOO11 **851.23** Functional role of topological cycles in the human structural connectome. A. E. SIZEMORE*; C. GIUSTI; R. BETZEL; D. S. BASSETT. *Univ. of Pennsylvania.*

4:00 OOO12 **851.24** Developmental changes in cortical folding patterns affect scalp EEG profiles: A large-scale cortex simulation study. K. FUJII*; H. KANAZAWA; Y. KUNIYOSHI. *Univ. of Tokyo, JSPS Res. Fellow.*

1:00 OOO13 **851.25** Automatic fine-scale correspondence mapping in human white matter. T. GLOZMAN*; L. GUIBAS. *Stanford Univ.*

2:00 OOO14 **851.26** Group-level statistics on EEG effective source connectivity. M. MIYAKOSHI*; N. BIGDELY-SHAMLO; C. LEE; T. MULLEN; S. MAKEIG. *Swartz Ctr. For Computat. Neuroscience, INC, UCSD, Qusp Labs, Univ. of California San Diego.*

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* 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.

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665.04	**S.M. Paul:** A. Employment/Salary (full or part-time); Voyager Therapeutic.
665.07	**T. Maes:** A. Employment/Salary (full or part-time); ORYZON GENOMICS EMPLOYEE. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); ORYZON GENOMICS SHAREHOLDER. F. Consulting Fees (e.g., advisory boards); ADDF REVIEW BOARD. **F. Cavalcanti:** A. Employment/Salary (full or part-time); ORYZON GENOMICS employee. **C. Mascaró:** A. Employment/Salary (full or part-time); ORYZON GENOMICS S.A. **D. Rotllant:** A. Employment/Salary (full or part-time); ORYZON GENOMICS employee. **C. Buesa:** A. Employment/Salary (full or part-time); ORYZON GENOMICS employee. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); ORYZON GENOMICS shareholder.
665.08	**C. Tohda:** 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; Japan Bio Products Co., Ltd..
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674.04	**H. Zhang:** 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; This work was supported by the EU seventh framework programme NeuroKine (no 31672).
675.07	**J.E. Totosy de Zepetnek:** Other; jtotosydezepetnek0@shire.com.
675.20	**M.G. Sabbir:** A. Employment/Salary (full or part-time); Albrechtsen Research Centre, St. Boniface Hospital.
676.17	**S. Hell:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); SWH owns shares of the companies Abberior GmbH and Abberior Instruments GmbH, producing dyes and microscopes for superresolution microscopy, respectively..
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678.18	**T. Wang:** A. Employment/Salary (full or part-time); Center for Developmental Biology, RIKEN.
680.10	**L. Steward:** A. Employment/Salary (full or part-time); Roche. **N. Anastasi:** A. Employment/Salary (full or part-time); Roche. **A. Marcuz:** A. Employment/Salary (full or part-time); Roche. **N. Be:** A. Employment/Salary (full or part-time); Roche. **M. Guridi Ormazabal:** A. Employment/Salary (full or part-time); Roche.
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689.18	**W.N. Frankel:** F. Consulting Fees (e.g., advisory boards); Clarus Ventures/EpiPM.
690.02	**D. Fabbro:** A. Employment/Salary (full or part-time); PIQUR Therapeutics AG. **P. Hillmann:** A. Employment/Salary (full or part-time); PIQUR Therapeutics AG. **A. Noack:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); PIQUR Therapeutics AG. **W. Loscher:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); PIQUR Therapeutics AG.
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	Therapeutics. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Sage Therapeutics. **A.J. Robichaud:** A. Employment/Salary (full or part-time); Sage Therapeutics. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/ patent holder, excluding diversified mutual funds); Sage Therapeutics. **J.J. Doherty:** A. Employment/Salary (full or part-time); Sage Therapeutics. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Sage Therapeutics.
690.22	**M.A. Rogawski:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Perampanel was a gift of Eisai. F. Consulting Fees (e.g., advisory boards); Served as a consultant to Eisai.
691.03	**A. Buchin:** A. Employment/Salary (full or part-time); École normale supérieure, Paris, Peter the Great St. Petersburg Polytechnic University, NRU Higher School of Economics, Center for Cognition and Decision Making. 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; ANR-10-LABX-0087 IEC, ANR-10-IDEX-0001-02 PSL, FRM FDT20140930942, Contract no. 14.6008.21.0001 unique ID project RFMEFI60815X0001. **A. Chizhov:** A. Employment/ Salary (full or part-time); Ioffe Institute, Computational Physics Laboratory. 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; RFBR 15-29-01344,15-04-0623, 16-04-00998. **G. Huberfeld:** A. Employment/ Salary (full or part-time); Université Pierre et Marie Curie, Pitié-Salpêtrière Hôpital, AP-HP, Neurophysiology Department, INSERM U1129. 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; ERC-322721. **R. Miles:** A. Employment/Salary (full or part-time); Institut du Cerveau et de la Moelle Epinière, Cortex et Epilepsie Group. 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; ERC-322721. **B. Gutkin:** A. Employment/Salary (full or part-time); École normale supérieure, Laboratoire des Neurosciences Cognitives, Group for Neural Theory, NRU Higher School of Economics, Center for Cognition and Decision Making. 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; ANR-10-LABX-0087 IEC, ANR-10-IDEX-0001-02 PSL, Contract no. 14.6008.21.0001, unique ID project RFMEFI60815X0001.
691.12	**D.C. Millard:** A. Employment/Salary (full or part-time); Axion Biosystems. **H.B. Hayes:** A. Employment/Salary (full or part-time); Axion Biosystems. **A.M. Nicolini:** A. Employment/Salary (full or part-time); Axion Biosystems. **C.A. Arrowood:** A. Employment/Salary (full or part-time); Axion Biosystems. **J.D. Ross:** A. Employment/Salary (full or part-time); Axion Biosystems.
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693.08	**M. Cavallari:** A. Employment/Salary (full or part-time); Center for Neurological Imaging, Department of Radiology, Brigham and Women's Hospital, Harvard Medical School, Boston, MA, USA. 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; Supported by Research Fellowship Award from Questcor/Mallinckrodt Pharmaceuticals. **S. Egorova:** 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; receives research support from Merck Serono, Novartis and Foundation for Neurologic Diseases Boston. **B.C. Healy:** 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; receives research support from Merck Serono, Novartis and Genzyme. **M. Palotai:** 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; supported by the MS International Federation McDonald Fellowship Award. **J. Prieto:** 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; Supported by Research Fellowship Award from Questcor/ Mallinckrodt Pharmaceuticals. **B. Glanz:** 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

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694.02	**A. Marreiro:** Other; PhD grant partially funded by Janssen Pharmaceutica. **K. Van Kolen:** A. Employment/Salary (full or part-time); Janssen Pharmaceutica. **W. Bruinzeel:** A. Employment/Salary (full or part-time); Janssen Pharmaceutica. **M.H. Mercken:** A. Employment/Salary (full or part-time); Janssen Pharmaceutica.
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697.03	**K. Duff:** 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; Research Funding from GE Healthcare. **J.M. Hoffman:** 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; Research Funding from GE Healthcare.
697.07	**J.C. Masdeu:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Lilly. F. Consulting Fees (e.g., advisory boards); GE Healthcare, Lilly.

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698.01	**D.L. Czilli:** A. Employment/Salary (full or part-time); Eli Lilly and Co. **L. Li:** A. Employment/Salary (full or part-time); Eli Lilly and Co. **M. Hayashi:** A. Employment/Salary (full or part-time); Eli Lilly and Co. **Y. Tian:** A. Employment/Salary (full or part-time); Eli Lilly and Co..
698.11	**J. Molet:** A. Employment/Salary (full or part-time); CEA/LETI/CLINATEC. 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; Fondation Avenir, Eurotalents/Carnot. **K. Arvanitakis:** A. Employment/Salary (full or part-time); University of Sydney. **F. Reinhart:** A. Employment/Salary (full or part-time); CEA. **C. Chabrol:** A. Employment/Salary (full or part-time); CEA/LETI/CLINATEC. **J. Le Ber:** A. Employment/Salary (full or part-time); CEA/LETI/CLINATEC. **G. Barboux:** A. Employment/Salary (full or part-time); CEA/LETI/CLINATEC. **C. Perrin:** A. Employment/Salary (full or part-time); CEA/LETI/CLINATEC. **M. Dorchymont:** A. Employment/Salary (full or part-time); CEA/LETI/CLINATEC. **D. Agay:** A. Employment/Salary (full or part-time); CEA/LETI/CLINATEC. **A. Benabid:** A. Employment/Salary (full or part-time); CEA/LETI/CLINATEC. **J. Mitrofanis:** A. Employment/Salary (full or part-time); University of Sydney. **C. Moro:** A. Employment/Salary (full or part-time); CEA/LETI/CLINATEC.
698.26	**M.J. Buttini:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Elan Pharmaceuticals.
699.05	**K.R. Walker:** A. Employment/Salary (full or part-time); Psychogenics. **W. Arias:** A. Employment/Salary (full or part-time); Psychogenics. **J. Berger:** A. Employment/Salary (full or part-time); Psychogenics. **N. Chirichella:** A. Employment/Salary (full or part-time); Psychogenics. **B.S. Nunez:** A. Employment/Salary (full or part-time); Psychogenics. **R. Springer:** A. Employment/Salary (full or part-time); Psychogenics. **K. Cirillo:** A. Employment/Salary (full or part-time); Psychogenics. **J. Sanchez-Padila:** A. Employment/Salary (full or part-time); Psychogenics. **G. Tombaugh:** A. Employment/Salary (full or part-time); Psychogenics. **A. Ghavami:** A. Employment/Salary (full or part-time); Psychogenics. **S. Ramboz:** 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; PsychoGenics.
699.11	**S. Pontis:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Patent holder. **M. Migliore:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Patent holder. **R. Scarpelli:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Patent holder. **D. Piomelli:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Patent holder.
700.10	**G.M. Petzinger:** F. Consulting Fees (e.g., advisory boards); US World Meds.
700.11	**R.J. Miller:** A. Employment/Salary (full or part-time); Washington University. 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; Brighfocus Foundation, Cure Alzheimer's Fund, Glen Foundation for Medical Research, Metropolitian Life Foundation, NIH/NINDS 2R01NS065667-05, NIH/NIA 5K23AG030946, Pharma Consortium (Amgen, AstraZeneca, Biogen Idec, Eisai, Eli Lilly and Co., FORUM, Hoffman La-Roche Inc., Pfizer Biotherapeutics R and D, Sanofi-Aventi), Ruth K. Broadman Biomedical Research Foundation, NIH/NIA U19AG32438, NIH RR00954, Biogen/Abbvie. C. Other Research Support

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	(receipt of drugs, supplies, equipment or other in-kind support); Alzheimer's Association, Anonymous Foundation, Avid Radiopharmaceuticals. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/ patent holder, excluding diversified mutual funds); C2N Diagnostics. F. Consulting Fees (e.g., advisory boards); IMI, Global Alzheimer's Platform, FORUM, OECD, Roche, Boehringer Ingelheim, Merck.
700.14	**C.G. van Horne:** Other; Educational support grant through Medtronic.
700.15	**C.R. Butson:** 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; NSF 10037840. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Intelect Medical. F. Consulting Fees (e.g., advisory boards); St Jude Medical, Functional Neuromodulation.
700.19	**J. Daneault:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neuromotrix. **B. Carignan:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neuromotrix.
701.03	**P. Asthana:** 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; GRF grant from the Research Grant Council of the Hong Kong Special Administrative Region Government (CityU 161212)..
702.09	**K. Hensley:** 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; XoNovo Ltd.. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); XoNovo Ltd. **L. Braiman-Wiksman:** A. Employment/Salary (full or part-time); XoNovo. **I. Nevo:** A. Employment/Salary (full or part-time); XoNovo Ltd..
702.10	**T.T. Denton:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); TD has intellectual property related to data in the presentation. **K. Hensley:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); KH has intellectual property related to data in the presentation and KH has equity in a company developing LK derivatives for neurological disease.
703.12	**A. Tsu:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); intellectual property rights/patent holder. **K. Ganguly:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Intellectual property rights/patent holder.
703.18	**O. Steward:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Co-founder of Axonis.
704.12	**J. Hucklenbroich:** A. Employment/Salary (full or part-time); J.H. is an employee of Quiagen GmbH, Hilden, Germany.
706.08	**N. Prakash:** A. Employment/Salary (full or part-time); City of Hope Medical Group. **C. Mihaela:** A. Employment/Salary (full or part-time); City of Hope Medical Group. **P. Frankel:** A. Employment/Salary (full or part-time); City of Hope. **R. Morgan:** A. Employment/Salary (full or part-time); City of Hope Medical Group.
706.09	**J. Fudin:** A. Employment/Salary (full or part-time); Stratton VA Medical Center; Albany NY (Full Time employee).

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	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; PI, CASE SERIES DESCRIBING TAPENTADOL USE IN PATIENTS ON HEMODIALYSIS. This is at VA above but not funded. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); None. D. Fees for Non-CME Services Received Directly from Commercial Interest or their Agents (e.g., speakers' bureaus); Speaking Engagements; Astra Zeneca, DepoMed, Endo, Kaléo, Millennium Health LLC, Pernix. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); CEO and Owner of Remitigate LLC. F. Consulting Fees (e.g., advisory boards); Consulting/Advisory Boards; Astra Zeneca, DepoMed, Endo, Kaléo, Kashiv Pharma, KemPharm, Scilex Pharmaceuticals. Other; Not applicable.
706.11	**M.I. Nemenov:** A. Employment/Salary (full or part-time); LasMed LLC. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); LasMed LLC.
707.06	**N. Bunnett:** Other; Takeda Pharmaceuticals Inc.
707.18	**M. Gunasekaran:** A. Employment/Salary (full or part-time); Northwell health, Feinstein institute for medical research.
708.04	**P. Kulkarni:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); EKAM. **C. Ferris:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); EKAM, Animal Imaging Research.
708.07	**S.M. Goebel-Goody:** A. Employment/Salary (full or part-time); Pfizer, Inc. **A. Pike:** A. Employment/Salary (full or part-time); Pfizer, Inc. **S. Humphreys:** A. Employment/ Salary (full or part-time); Pfizer, Inc. **R. Torella:** A. Employment/Salary (full or part-time); Pfizer, Inc. **E. Dunn-Sims:** A. Employment/Salary (full or part-time); Pfizer, Inc. **C. Hsu:** A. Employment/Salary (full or part-time); Pfizer, Inc. **C. Tyszkiewicz:** A. Employment/Salary (full or part-time); Pfizer, Inc. **N. Nawreen:** A. Employment/Salary (full or part-time); Pfizer, Inc. **D. Horton:** A. Employment/Salary (full or part-time); Pfizer, Inc. **R. Suzuki:** A. Employment/ Salary (full or part-time); Pfizer, Inc..
716.04	**V.A. Bastakov:** A. Employment/Salary (full or part-time); Institute for information transmission problems RAS. **O.Y. Orlov:** A. Employment/Salary (full or part-time); Institute for information transmission problems RAS. **E.I. Kiseleva:** A. Employment/Salary (full or part-time); A.N. Severtsov Institute of Ecology and Evolution RAS.
718.21	**H. Lu:** A. Employment/Salary (full or part-time); PCOM - GA campus.
720.23	**M. Lodge:** A. Employment/Salary (full or part-time); University of Basel. **G. Rizzi:** A. Employment/Salary (full or part-time); University of Basel. **K.R. Tan:** A. Employment/ Salary (full or part-time); University of Basel.
721.08	**F. Brajot:** A. Employment/Salary (full or part-time); Ohio University.
722.23	**Y.E. DeDios:** A. Employment/Salary (full or part-time); Wyle Science, Technology and Engineering Group provided support in the form of salary for author YD but did not have any additional role in the study design, data collection and analysis..
725.01	**M.B. Solomon:** 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; Corcept Therapeutics. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Corcept Therapeutics.
729.19	**S.H. Scott:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); SHS is the cofounder

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	and chief scientific officer of BKIN Technologies, the company that commercializes the robotic technology used in this study.
729.22	**R. Vemuganti:** A. Employment/Salary (full or part-time); University of Wisconsin, Madison, William S. Middleton VA Hospital. **S. Mehta:** A. Employment/Salary (full or part-time); University of Wisconsin, Madison. **P. Cengiz:** A. Employment/Salary (full or part-time); University of Wisconsin, Madison. **R. Dempsey:** A. Employment/Salary (full or part-time); University of Wisconsin, Madison.
729.26	**S. Chan:** A. Employment/Salary (full or part-time); Research fellow (full time). **K. Hayakawa:** A. Employment/Salary (full or part-time); Assistant Professor (full time). **A. Smith:** A. Employment/Salary (full or part-time); Research fellow (full time). **V. Nurcombe:** A. Employment/Salary (full or part-time); Principal Investigator (full time). **E. Lo:** A. Employment/Salary (full or part-time); Professor (full time).
730.06	**I.F. Caliman:** A. Employment/Salary (full or part-time); Indiana University School of Medicine.
730.07	**M.N. Hill:** Other; Hill is a consultant for Pfizer.
730.13	**I. Renes:** A. Employment/Salary (full or part-time); Danone Nutricia Research. **J. Knol:** A. Employment/Salary (full or part-time); Danone Nutricia Research. **S. Wang:** A. Employment/Salary (full or part-time); Danone Nutricia Research.
731.09	**G.E. Jaskiw:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); shares of ITCI. F. Consulting Fees (e.g., advisory boards); Guidepoint Global.
731.17	**M.C. Hoener:** A. Employment/Salary (full or part-time); Is an employee of F. Hoffmann-La Roche. **P. Cottone:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Received RO5256390 from F. Hoffmann-La Roche.
733.06	**M.J. Schnitzer:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/ patent holder, excluding diversified mutual funds); Mark J. Schnitzer is a co-founder of and the chief scientist of Inscopix Inc., the company that manufacturers the integrated microscope..
733.15	**S. Kang:** A. Employment/Salary (full or part-time); PI.
734.03	**D. 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.
734.08	**X. Yao:** A. Employment/Salary (full or part-time); Janssen R & D / Full. **J. Shoblock:** A. Employment/Salary (full or part-time); Janssen R & D / Full. **G. Chen:** A. Employment/ Salary (full or part-time); Janssen R & D/ Full.
734.10	**C.J. Fee:** 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; BioHaven Pharmaceuticals. **R.M. Berman:** A. Employment/Salary (full or part-time); BioHaven Pharmaceuticals. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); shares in BioHaven Pharmaceuticals Holding Company. **V. Coric:** A. Employment/Salary (full or part-time); BioHaven Pharmaceuticals. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); shares in BioHaven Pharmaceuticals Holding Company, co-inventor on a patent “Glutamate agents in the treatment of mental disorders” Patent number: 8778979. **G. Sanacora:** 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, Bristol-Myers Squibb, Eli Lilly & Co., Johnson & Johnson, Hoffman La-Roche, Merck & Co., Naurex, Servier. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Sanofi-Aventis. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); shares in BioHaven Pharmaceuticals Holding Company, co-inventor on a patent “Glutamate agents in the treatment of mental disorders” Patent number: 8778979. F. Consulting Fees (e.g., advisory boards); Allergan, Alkermes, AstraZeneca, BioHaven Pharmaceuticals, Hoffman La-Roche, Janssen, Merck, Naurex, Servier Pharmaceuticals, Taisho Pharmaceuticals, Teva, VistaGen Therapeutics. **M. Banasr:** 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; BioHaven Pharmaceuticals.
735.08	**R. Hen:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Servier.
735.11	**E. Roberts:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); BlackThorn. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); BlackThorn. F. Consulting Fees (e.g., advisory boards); BlackThorn. **W.A. Carlezon:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Patent #: 6528518. Treatment of depression with kappa receptor antagonists. F. Consulting Fees (e.g., advisory boards); Consultant for Seracor.
735.14	**A.F. Schatzberg:** 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; Brain Resource Company Operations Pty Ltd. **L.M. Williams:** 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; Brain Resource Company Operations Pty Ltd.
735.16	**J. Shoblock:** A. Employment/Salary (full or part-time); Janssen Research & Development, LLC. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Owns stock in Johnson & Johnson (JNJ). **W.A. Eckert:** A. Employment/Salary (full or part-time); Janssen Research & Development, LLC. **W. Chen:** A. Employment/Salary (full or part-time); Janssen Research & Development. **N. Welty:** A. Employment/Salary (full or part-time); Janssen Research & Development. **G. Chen:** A. Employment/Salary (full or part-time); Janssen Research & Development.
735.21	**A. Baskys:** 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; MoodNote LLC.
736.04	**D. Morilak:** 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; H. Lundbeck A/S. F. Consulting Fees (e.g., advisory boards); Lundbeck Research, USA.
736.05	**O.H. Schroeder:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NeuroProof GmbH.
736.07	**L.E. Newman:** A. Employment/Salary (full or part-time); National Institute of Mental Health. **E.M. Richards:** A. Employment/Salary (full or part-time); National Institute of Mental Health. **E.D. Ballard:** A. Employment/Salary (full or part-time); National Institute of Mental Health. **D.A. Luckenbaugh:** A. Employment/Salary (full or part-time); National Institute of Mental Health. **M. Park:** A.

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	Employment/Salary (full or part-time); National Institute of Mental Health. **P. Yuan:** A. Employment/Salary (full or part-time); National Institute of Mental Health. **R. Machado-Vieira:** A. Employment/Salary (full or part-time); National Institute of Mental Health. **C.A. Zarate:** A. Employment/Salary (full or part-time); National Institute of Mental Health. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Holds use patent for ketamine..
736.10	**J. Kehr:** A. Employment/Salary (full or part-time); Employed by Pronexus. 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; Principal investigator. **F. Ichinose:** A. Employment/Salary (full or part-time); Employee. **F. Wang:** A. Employment/Salary (full or part-time); Employee. **S. Schmidt:** A. Employment/Salary (full or part-time); Employee. **S. Yoshitake:** A. Employment/Salary (full or part-time); Employee.
736.11	**P. Pitychoutis:** A. Employment/Salary (full or part-time); full-time employment.
737.02	**S. Huh:** A. Employment/Salary (full or part-time); full. 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; IBS-R002-G1.
738.12	**B.J. Wiltgen:** 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; RO1 NS088053 to B.J.W..
738.15	**K. Minatohara:** 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; Shionogi & Co., Ltd. **M. Akiyoshi:** 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; Shionogi & Co., Ltd. **H. Okuno:** 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; Shionogi & Co., Ltd..
739.12	**M.J. Schnitzer:** Other; Inscopix Inc..
739.16	**L. An:** A. Employment/Salary (full or part-time); Dept. of Physiology, University of Saskatchewan, Saskatoon, SK, Canada. **C. Lapish:** A. Employment/Salary (full or part-time); Department of Psychology, Stark Neuroscience Institute, Institute for Mathematical Modeling and Computational Sciences, Indiana University–Purdue University Indianapolis, Indianapolis, Indiana, US. **J. Howland:** A. Employment/Salary (full or part-time); Dept. of Physiology, University of Saskatchewan, Saskatoon, SK, Canada.
741.06	**M.R. Weed:** A. Employment/Salary (full or part-time); Bristol-Myers Squibb. **J. Polino:** A. Employment/Salary (full or part-time); Bristol-Myers Squibb. **D. Post-Munson:** A. Employment/Salary (full or part-time); Bristol-Myers Squibb. **M. Bookbinder:** A. Employment/Salary (full or part-time); Bristol-Myers Squibb. **L. Kiss:** A. Employment/Salary (full or part-time); Bristol-Myers Squibb. **J. Herrington:** A. Employment/Salary (full or part-time); Bristol-Myers Squibb. **L.J. Bristow:** A. Employment/Salary (full or part-time); Bristol-Myers Squibb.
741.23	**D.T. Hubbard:** A. Employment/Salary (full or part-time); Employee of ACADIA Pharmaceuticals. **E.S. Burstein:** A. Employment/Salary (full or part-time); ACADIA Pharmaceuticals. **C. Bellizzi:** A. Employment/Salary (full or part-time); ACADIA Pharmaceuticals. **K. McFarland:** A. Employment/Salary (full or part-time); ACADIA Pharmaceuticals.
741.24	**I. Limon Perez De Leon:** A. Employment/Salary (full or part-time); Neuropharmachology Laboratory BUAP.
742.16	**T.E. Salt:** F. Consulting Fees (e.g., advisory boards); Neurexpert Ltd.
743.09	**S. Kosmidis:** A. Employment/Salary (full or part-time); Columbia Medical Center, HHMI. **A. Polyzos:** A. Employment/Salary (full or part-time); BRFAA. **L. Khrimian:** A. Employment/Salary (full or part-time); Columbia Medical Center. **G. Karsenty:** A. Employment/Salary (full or part-time); Columbia Medical Center. **E. Kandel:** A. Employment/Salary (full or part-time); Columbia Medical Center, HHMI.
743.11	**S. Rege:** A. Employment/Salary (full or part-time); Alkahest. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Alkahest. **T. Heikkinen:** A. Employment/Salary (full or part-time); Charles River Laboratories. **H. Hackbart:** A. Employment/Salary (full or part-time); Alkahest. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Alkahest. **E. Czirr:** A. Employment/Salary (full or part-time); Alkahest. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Alkahest. **I. Gallager:** A. Employment/Salary (full or part-time); Alkahest. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Alkahest. **R. Hodgson:** A. Employment/Salary (full or part-time); Charles River Laboratories. **S. Braithwaite:** A. Employment/Salary (full or part-time); Alkahest. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Alkahest. **S. Minami:** A. Employment/Salary (full or part-time); Alkahest. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Alkahest.
744.11	**S. Deepeshwar:** A. Employment/Salary (full or part-time); Full, Swami Vivekananda Yoga Anusandhana Samsthana (S-VYASA).
745.17	**B.R. Fischl:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); BF has a financial interest in CorticoMetrics, a company whose medical pursuits focus on brain imaging and measurement technologies..
746.02	**E.W. Large:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Circular Logic, LLC.
747.01	**A. Pascual-Leone:** F. Consulting Fees (e.g., advisory boards); Neuroelectrics. **R. Cohen Kadosh:** F. Consulting Fees (e.g., advisory boards); Neuroelectrics.
747.04	**L. Dubreuil Vall:** A. Employment/Salary (full or part-time); Neuroelectrics. **G. Ruffini:** A. Employment/Salary (full or part-time); Neuroelectrics.
747.11	**E. Cordell:** A. Employment/Salary (full or part-time); Lumos Labs. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Lumos Labs. **N. Ng:** A. Employment/Salary (full or part-time); Lumos Labs. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Lumos Labs. **K. Kerlan:** A. Employment/Salary (full or part-time); Lumos Labs. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Lumos Labs. **C. Simone:** A. Employment/Salary (full or part-time); Lumos Labs. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Lumos Labs. **G. Morrison:** E.

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	Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Lumos Labs. F. Consulting Fees (e.g., advisory boards); Lumos Labs.
748.04	**M.D. Riedy:** A. Employment/Salary (full or part-time); US Dept. of Defense, SPAWAR SSC Atlantic.
749.17	**M. Shanahan:** A. Employment/Salary (full or part-time); Imperial College London.
750.18	**N.F. Ng:** A. Employment/Salary (full or part-time); Lumos Labs, Inc. **C. Simone:** A. Employment/Salary (full or part-time); Lumos Labs, Inc. **G. Morrison:** A. Employment/Salary (full or part-time); Lumos Labs, Inc..
751.03	**R. Subramanian:** A. Employment/Salary (full or part-time); Suven Life Sciences LTD. **S. Edula:** A. Employment/Salary (full or part-time); Suven Life Sciences LTD. **S. Petlu:** A. Employment/Salary (full or part-time); Suven Life Sciences LTD. **M. Nissankararao:** A. Employment/Salary (full or part-time); Suven Life Sciences LTD. **M. Srirangavaram:** A. Employment/Salary (full or part-time); Suven Life Sciences LTD. **V. Mekala:** A. Employment/Salary (full or part-time); Suven Life Sciences LTD. **K. Mudigonda:** A. Employment/Salary (full or part-time); Suven Life Sciences LTD. **R. Nirogi:** A. Employment/Salary (full or part-time); Suven Life Sciences LTD.
751.25	**J. Ekholm:** A. Employment/Salary (full or part-time); Pacific Biosciences. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Pacific Biosciences. **Y. Tsai:** A. Employment/Salary (full or part-time); Pacific Biosciences. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Pacific Biosciences. **T.A. Clark:** A. Employment/Salary (full or part-time); Pacific Biosciences. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Pacific Biosciences.
752.07	**A.D. Whyment:** A. Employment/Salary (full or part-time); NeuroSolutions Ltd. **F. Zhao:** A. Employment/Salary (full or part-time); NeuroSolutions Ltd. **M. van den Top:** A. Employment/Salary (full or part-time); NeuroSolutions Ltd. **J. Pryor:** A. Employment/Salary (full or part-time); NeuroSolutions Ltd. **D. Spanswick:** A. Employment/Salary (full or part-time); NeuroSolutions Ltd.
753.03	**A.M. Stamatakis:** A. Employment/Salary (full or part-time); Inscopix. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Inscopix. **S. Gulati:** A. Employment/Salary (full or part-time); Inscopix. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Inscopix. **M. Trulson:** A. Employment/Salary (full or part-time); Inscopix. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Inscopix. **S.L. Otte:** A. Employment/Salary (full or part-time); Inscopix. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Inscopix.
753.10	**M.W. Jenkins:** 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; GlaxoSmithKline. **H.J. Chiel:** 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; GlaxoSmithKline.
753.11	**M.W. Jenkins:** 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; GlaxoSmithKline. **H.J. Chiel:** 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; GlaxoSmithKline.
753.12	**E. Lothet:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); GlaxoSmithKline. **H. Lu:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); GlaxoSmithKline. **S. Lewis:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); GlaxoSmithKline. **M. Jenkins:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); GlaxoSmithKline. **H. Chiel:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); GlaxoSmithKline.
753.13	**M.W. Jenkins:** 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; GlaxoSmithKline. **H. Lu:** 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; GlaxoSmithKline. **H.J. Chiel:** 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; GlaxoSmithKline.
754.04	**A.E. Bustion:** A. Employment/Salary (full or part-time); Impel NeuroPharma.
754.10	**G.T. Tharmarajah:** A. Employment/Salary (full or part-time); Precision NanoSystems, Inc.. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Precision NanoSystems, Inc. **E. Ouellet:** A. Employment/Salary (full or part-time); Precision NanoSystems Inc.. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Precision NanoSystems Inc. **A. Thomas:** A. Employment/Salary (full or part-time); Precision NanoSystems Inc.. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Precision NanoSystems Inc. **T. Leaver:** A. Employment/Salary (full or part-time); Precision NanoSystems Inc.. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Precision NanoSystems Inc. **A. Wild:** A. Employment/Salary (full or part-time); Precision NanoSystems Inc.. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Precision NanoSystems Inc. **C.L. Hansen:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Precision NanoSystems Inc. **P. Cullis:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Precision NanoSystems Inc. **J.R. Taylor:** A. Employment/Salary (full or part-time); Precision NanoSystems Inc.. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Precision NanoSystems Inc. **E. Ramsay:** A. Employment/Salary (full or part-time); Precision NanoSystems Inc.. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Precision NanoSystems Inc..
754.11	**M.V. Ivannikov:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Revalesio Corp. **M. Sugimori:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind

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	support); Revalesio Corp. **R.R. Llinas:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Revalesio Corp..
754.14	**Z. Du:** A. Employment/Salary (full or part-time); BrainXell Inc. **M. Hendrickson:** A. Employment/Salary (full or part-time); BrainXell Inc. **B. Dungar:** A. Employment/Salary (full or part-time); BrainXell Inc. **S. Zhang:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); BrainXell Inc..
754.17	**T.Q. Hoang:** A. Employment/Salary (full or part-time); Part-time, Fluid Synchrony, LLC, Part-time, Univesity of Southern California. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/ patent holder, excluding diversified mutual funds); Stock, Fluid Synchrony, LLC. F. Consulting Fees (e.g., advisory boards); Consultant, Wallace H Coulter Foundation. **M. Vaishya:** A. Employment/Salary (full or part-time); Full-time, Fluid Synchrony, LLC. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/ patent holder, excluding diversified mutual funds); stock, Fluid Synchrony, LLC. **C. Jones:** A. Employment/Salary (full or part-time); Full-time, Fluid Synchrony, LLC. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Stock, Fluid Synchrony, LLC. **S. Stronks:** A. Employment/Salary (full or part-time); Full-time, Fluid Synchrony, LLC. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/ patent holder, excluding diversified mutual funds); Stock, Fluid Synchrony, LLC. **L. Rodriguez:** A. Employment/ Salary (full or part-time); Full-time, Fluid Synchrony, LLC. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Stock, Fluid Synchrony, LLC. **R. Castro:** A. Employment/Salary (full or part-time); Part-time, Fluid Synchrony, LLC. **C. Gutierrez:** A. Employment/ Salary (full or part-time); Part-time, Fluid Synchrony, LLC, Full-time, Google. **J. Field:** A. Employment/Salary (full or part-time); Part-time, Fluid Synchrony, LLC. **E.F. Meng:** A. Employment/Salary (full or part-time); Full-time, USC, Part-time, Fluid Synchrony, LLC. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/ patent holder, excluding diversified mutual funds); Stock, Fluid Synchrony, LLC. F. Consulting Fees (e.g., advisory boards); Consultant, Alfred Mann Foundation.
754.18	**C. Mazur:** A. Employment/Salary (full or part-time); Ionis Pharmaceuticals, Inc.. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/ patent holder, excluding diversified mutual funds); Ionis Pharmaceuticals, Inc. **D. Wolf:** A. Employment/Salary (full or part-time); Biogen, Inc.. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/ patent holder, excluding diversified mutual funds); Biogen, Inc. **B. Powers:** A. Employment/Salary (full or part-time); Ionis Pharmaceuticals, Inc.. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Ionis Pharmaceuticals, Inc. **J. Sullivan:** A. Employment/ Salary (full or part-time); inviCRO, LLC. **J. Hoppin:** A. Employment/Salary (full or part-time); inviCRO, LLC. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); inviCRO, LLC. **E. Swayze:** A. Employment/Salary (full or part-time); Ionis Pharmaceuticals, Inc.. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/ patent holder, excluding diversified mutual funds); Ionis Pharmaceuticals, Inc. **A. Verma:** A. Employment/Salary (full or part-time); Biogen, Inc.. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Biogen, Inc..
754.19	**T. Briston:** A. Employment/Salary (full or part-time); Eisai. **S. Lewis:** A. Employment/Salary (full or part-time); Eisai. **M. Koglin:** A. Employment/Salary (full or part-time); Eisai. **K. Mistry:** A. Employment/Salary (full or part-time); Eisai. **Y. Shen:** A. Employment/Salary (full or part-time); Eisai. **N. Hartopp:** A. Employment/Salary (full or part-time); Eisai. **H. Fukumoto:** A. Employment/Salary (full or part-time); Eisai. **M.R. Duchen:** 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; Research funded by Eisai. **G. Szabadkai:** 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; Research funded by Eisai. **J. Staddon:** A. Employment/Salary (full or part-time); Eisai. **M. Roberts:** A. Employment/Salary (full or part-time); Eisai. **B. Powney:** A. Employment/Salary (full or part-time); Eisai.
754.23	**J. Thentu:** A. Employment/Salary (full or part-time); Suven Life Sciences LTD., Hyderabad, India. **G. Bhyrapuneni:** A. Employment/Salary (full or part-time); Suven Life Sciences LTD., Hyderabad, India. **V. Palacharla:** A. Employment/ Salary (full or part-time); Suven Life Sciences LTD., Hyderabad, India. **R. Nirogi:** A. Employment/Salary (full or part-time); Suven Life Sciences LTD., Hyderabad, India.
754.24	**S.H. Nye:** A. Employment/Salary (full or part-time); ENDECE, LLC. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); ENDECE, LLC. **J.G. Yarger:** A. Employment/Salary (full or part-time); ENDECE, LLC. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); ENDECE, LLC.
755.03	**K.H. Ambert:** A. Employment/Salary (full or part-time); Intel. **K.S. Muppalla:** A. Employment/Salary (full or part-time); Intel.
755.08	**C. Moro:** A. Employment/Salary (full or part-time); CEA-Leti/Clinatec. 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; Fondation France Parkinson. **J. Molet:** A. Employment/Salary (full or part-time); CEA-Leti/Clinatec. 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; EuroTalents/Carnot. **V. Auboiroux:** A. Employment/Salary (full or part-time); CEA-Leti / Clinatec. 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; Fondation France Parkinson. **F. Reinhart:** A. Employment/Salary (full or part-time); CEA-Leti / Clinatec. 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; Fondation France Parkinson. **S. Renault:** A. Employment/Salary (full or part-time); CEA-Leti / Clinatec. **C. Chabrol:** A. Employment/Salary (full or part-time); CEA-Leti / Clinatec. **N. Torres-Martinez:** A. Employment/Salary (full or part-time); CEA-Leti / Clinatec. **J. Mitrofanis:** A. Employment/Salary (full or part-time); Sydney University. **A. Benabid:** A. Employment/Salary (full or part-time); CEA-Leti / Clinatec.
755.11	**P. Rittner:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Equipment grant from NVIDIA Corporation.
762.02	**L. de Lecea:** A. Employment/Salary (full or part-time); I have been a paid consultant with Merck..
764.02	**M.R. Heaven:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Owns share in Vulcan Analytical.

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765.01	**N.J. Izzo:** A. Employment/Salary (full or part-time); Cognition Therapeutics, 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; 1R41AG052249-01. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/ patent holder, excluding diversified mutual funds); Cognition Therapeutics, Inc. **K. Mozzoni:** A. Employment/ Salary (full or part-time); Cognition Therapeutics, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics, Inc. **C. Silky:** A. Employment/Salary (full or part-time); Cognition Therapeutics, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/ patent holder, excluding diversified mutual funds); Cognition Therapeutics, Inc. **C. Rehak:** A. Employment/ Salary (full or part-time); Cognition Therapeutics, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics, Inc. **R. Yurko:** A. Employment/Salary (full or part-time); Cognition Therapeutics, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics, Inc. **G. Look:** A. Employment/ Salary (full or part-time); Cognition Therapeutics, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics, Inc. **G. Rishton:** A. Employment/Salary (full or part-time); Cognition Therapeutics, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics, Inc. **M. Grundman:** F. Consulting Fees (e.g., advisory boards); Cognition Therapeutics Inc. **H. Safferstein:** A. Employment/Salary (full or part-time); Cognition Therapeutics, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/ patent holder, excluding diversified mutual funds); Cognition Therapeutics, Inc. **S.M. Catalano:** A. Employment/ Salary (full or part-time); Cognition Therapeutics, 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; U01AG047059. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics, Inc.
765.02	**M. Shamloo:** F. Consulting Fees (e.g., advisory boards); Cognition Therapeutic.
765.04	**K. Mozzoni:** A. Employment/Salary (full or part-time); Cognition Therapeutics Inc. **N.J. Izzo:** A. Employment/ Salary (full or part-time); Cognition Therapeutics Inc. **R. Yurko:** A. Employment/Salary (full or part-time); Cognition Therapeutics Inc. **C. Silky:** A. Employment/Salary (full or part-time); Cognition Therapeutics Inc. **C. Rehak:** A. Employment/Salary (full or part-time); Cognition Therapeutics Inc. **G. Look:** A. Employment/Salary (full or part-time); Cognition Therapeutics Inc. **G. Rishton:** A. Employment/Salary (full or part-time); Cognition Therapeutics Inc. **H. Safferstein:** A. Employment/Salary (full or part-time); Cognition Therapeutics Inc. **S.M. Catalano:** A. Employment/Salary (full or part-time); Cognition Therapeutics Inc..
765.09	**R.H. Mach:** F. Consulting Fees (e.g., advisory boards); Cognition Therapeutics, Inc..
766.11	**J. Robbins:** A. Employment/Salary (full or part-time); AstraZeneca. **M. Maresca:** A. Employment/Salary (full or part-time); AstraZeneca. **M.N. Pangalos:** A. Employment/ Salary (full or part-time); AstraZeneca.
767.08	**P.R. Mouton:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Stereology Resource Center, IP interest in automatic stereology. **H.A. Phoulady:** A. Employment/Salary (full or part-time); University of South Florida. **D. Goldgof:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); IP interest in automatic stereology. **L. Hall:** A. Employment/Salary (full or part-time); University of South Florida. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); IP interest in automatic stereology. **M. Gordon:** A. Employment/Salary (full or part-time); USF Professor. **D. Morgan:** A. Employment/Salary (full or part-time); USF Professor. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); IP interest in automatic stereology.
774.01	**R. Liu:** 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; NSF ECCS-1351980, UCSD Center for Brain Activity Mapping. **R. Chen:** 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; NSF ECCS-1351980, UCSD Center for Brain Activity Mapping. **A.T.E. Youssef:** 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; NSF ECCS-1351980, UCSD Center for Brain Activity Mapping. **S. Lee:** 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; NSF ECCS-1351980, UCSD Center for Brain Activity Mapping. **S. Hinckley:** 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; NSF ECCS-1351980, UCSD Center for Brain Activity Mapping. **M.L. Khraiche:** 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; NSF ECCS-1351980, UCSD Center for Brain Activity Mapping. **J. Scott:** 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; NSF ECCS-1351980, UCSD Center for Brain Activity Mapping. **Y. Hwang:** 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; NSF ECCS-1351980, UCSD Center for Brain Activity Mapping. **A. Tanaka:** 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; NSF ECCS-1351980, UCSD Center for Brain Activity Mapping. **Y. Ro:** 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; NSF ECCS-1351980, UCSD Center for Brain Activity Mapping. **A.K. Matsushita:** 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; NSF

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	ECCS-1351980, UCSD Center for Brain Activity Mapping. **X. Dai:** 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; NSF ECCS-1351980, UCSD Center for Brain Activity Mapping. **C. Soci:** 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; NSF ECCS-1351980, UCSD Center for Brain Activity Mapping. **S. Biesmans:** 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; NSF ECCS-1351980, UCSD Center for Brain Activity Mapping. **A. James:** 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; NSF ECCS-1351980, UCSD Center for Brain Activity Mapping. **J. Nogan:** 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; NSF ECCS-1351980, UCSD Center for Brain Activity Mapping. **K.L. Jungjohann:** 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; NSF ECCS-1351980, UCSD Center for Brain Activity Mapping. **D.V. Pete:** 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; NSF ECCS-1351980, UCSD Center for Brain Activity Mapping. **D.B. Webb:** 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; NSF ECCS-1351980, UCSD Center for Brain Activity Mapping. **Y. Zou:** 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; NSF ECCS-1351980, UCSD Center for Brain Activity Mapping. **A. Bang:** 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; NSF ECCS-1351980, UCSD Center for Brain Activity Mapping. **S.A. Dayeh:** 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; NSF ECCS-1351980, UCSD Center for Brain Activity Mapping.
774.05	**S. Lee:** 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; NSF, UCSD Center for Brain Activity Mapping. **F. Azzazy:** 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; NSF, UCSD Center for Brain Activity Mapping. **M. Ganji:** 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; NSF, UCSD Center for Brain Activity Mapping. **M. Khraiche:** 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; NSF, UCSD Center for Brain Activity Mapping. **J. Hermiz:** 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; NSF, UCSD Center for Brain Activity Mapping. **N. Rogers:** 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; NSF, UCSD Center for Brain Activity Mapping. **A. Youssef:** 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; NSF, UCSD Center for Brain Activity Mapping. **V. Gilja:** 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; NSF, UCSD Center for Brain Activity Mapping. **S. Dayeh:** 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; NSF, UCSD Center for Brain Activity Mapping.
774.09	**C. Chronopoulos:** Other; affiliated with a company, Leaflabs, commercializing some of these technologies. **J. Kinney:** Other; affiliated with a company, Leaflabs, commercializing some of these technologies. **C. Lamantia:** Other; affiliated with a company, Leaflabs, commercializing some of these technologies. **J. Scholvin:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); co-inventors on patents (assigned to MIT) on related technologies. **C. Fonstad:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); co-inventors on patents (assigned to MIT) on related technologies. **E. Boyden:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); co-inventors on patents (assigned to MIT) on related technologies.
774.10	**L. Rieth:** A. Employment/Salary (full or part-time); Blackrock Microsystem. **H. Mandal:** A. Employment/Salary (full or part-time); Blackrock Microsystems.
774.11	**A. Akinin:** 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; UCSD Institute for Engineering in Medicing: Galvanizing Engineering in Medicine, UCSD Clinical Translation Research Institute, Nanovision Biosciences.
774.13	**G.C. Luerman:** A. Employment/Salary (full or part-time); Axiogenesis. **D. Hess:** A. Employment/Salary (full or part-time); Axiogenesis AG. **E. Guenther:** A. Employment/Salary (full or part-time); NMI TT GmbH. **H. Bohlen:** A. Employment/Salary (full or part-time); Axiogenesis AG. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Axiogenesis AG.
776.03	**K. Kesavan:** A. Employment/Salary (full or part-time); University of California, Los Angeles. **D.M. Cordero:** A. Employment/Salary (full or part-time); University of California, Los Angeles. **D. Shin:** A. Employment/Salary

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	(full or part-time); University of California, Los Angeles. **A. Mazarati:** A. Employment/Salary (full or part-time); University of California, Los Angeles.
776.08	**S. Leclercq:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Department of Pathology and Molecular Medicine, McMaster University, Hamilton, Ontario, Canada. **P. Forsythe:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Firestone Institute for Respiratory Health and Department of Medicine, McMaster University, Hamilton, Ontario, Canada. **J. Bienenstock:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Department of Pathology and Molecular Medicine, McMaster University, Hamilton, Ontario, Canada..
776.12	**J. Veenstra-VanderWeele:** 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; Seaside Therapeutics, Forest, SynapDx, Novartis, Roche. F. Consulting Fees (e.g., advisory boards); Roche, Novartis, SynapDx. **D. Beversdorf:** Other; Research in Autism Spectrum Disorders - Associate Editor.
777.19	**C.A. Boettiger:** F. Consulting Fees (e.g., advisory boards); BlackThorn Therapeutics, Inc..
780.02	**Q. Wang:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); scholarship council (Grand NO.201406140131 to Qi Wang), NEUROWIND e.V. **S.C. Thal:** 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; German Research Foundation (DFG: CRC1080, TPA7 to Thomas Mittmann). C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); scholarship council (Grand NO.201406140131 to Qi Wang), NEUROWIND e.V. **T. Mittmann:** 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; German Research Foundation (DFG: CRC1080, TPA7 to Thomas Mittmann).
780.09	**P. Prasoon:** A. Employment/Salary (full or part-time); Senior Research Fellowship from University Grants Commission,India. 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; Financial support has been provided by Department of Biotechnology (Grant no-BT/PR14279/MED/30/452/2010), Government of India.
781.04	**C.M. Niswender:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); AstraZeneca. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Is an inventor on patents protecting M4 PAMs. **C.K. Jones:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); AstraZeneca. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Is an inventor on patents protecting M4 PAMs. **C.W. Lindsley:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); AstraZeneca. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Is an inventor on patents protecting M4 PAMs. **P.J. Conn:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); AstraZeneca. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/ patent holder, excluding diversified mutual funds); Is an inventor on patents protecting M4 PAMs.
781.05	**M. Rasenick:** A. Employment/Salary (full or part-time); University of Illinois at 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; NIMH T32 MH0667631, VA Merit Award BX001149-01, NCCIH RO1AT009169, NIAAA P50 AA022538. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Eli Lilly, Lundbeck. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); PAX Neuroscience. F. Consulting Fees (e.g., advisory boards); Pfizer, Takeda.
781.06	**M. Rasenick:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Eli Lilly, Lundbeck. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Pax Neuroscience. F. Consulting Fees (e.g., advisory boards); Pfizer, Takeda.
781.07	**M. Rasenick:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Eli Lilly, Lundbeck. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Pax Neuroscience. F. Consulting Fees (e.g., advisory boards); Pfizer, Takeda.
781.09	**H. Mizuno:** A. Employment/Salary (full or part-time); Ono Pharmaceutical Co., Ltd. **J. Chun:** 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; Ono Pharmaceutical Co, NIH (NS084398).
781.11	**A. Laveille:** A. Employment/Salary (full or part-time); Bioprojet. **M. Capet:** A. Employment/Salary (full or part-time); Bioprojet. **T. Duvauchelle:** A. Employment/ Salary (full or part-time); Bioprojet. **J.C. Schwartz:** A. Employment/Salary (full or part-time); Bioprojet. **B. Le Foll:** 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; Bioprojet.
781.13	**C.M. Niswender:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); AstraZeneca. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Inventor of patents for M4 PAMs. **C.K. Jones:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); AstraZeneca. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Inventor of patents for M4 PAMs. **C.M. Lindsley:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); AstraZeneca. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/ patent holder, excluding diversified mutual funds); Inventor of patents for M4 PAMs. **P.J. Conn:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); AstraZeneca. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/ patent holder, excluding diversified mutual funds); Inventor of patents for M4 PAMs.
782.02	**V.I. Navarro:** A. Employment/Salary (full or part-time); University of Texas - El Paso. 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; 1SC1GM118242, 5R25GM069621-11. **L.P. Montes:** A. Employment/Salary (full or part-time); University of Texas - El Paso. 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

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	come to an institution; 1SC1GM118242, HRD-1202008. **C.D. Loyola Baltazar:** A. Employment/Salary (full or part-time); University of Texas - El Paso. 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; 1SC1GM118242. **R. Skouta:** A. Employment/Salary (full or part-time); University of Texas - El Paso. 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; 1SC1GM118242. **K. Fenelon:** A. Employment/Salary (full or part-time); University of Texas - El Paso. 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; 1SC1GM118242.
782.03	**L.E. Martinetti:** A. Employment/Salary (full or part-time); University of Texas- El Paso. 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; 1SC1GM118242, 5R25GM069621. **A. Tena:** A. Employment/Salary (full or part-time); University of Texas-El Paso. 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; 1SC1GM118242. **E. Peru:** A. Employment/Salary (full or part-time); University of Texas-El Paso. 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; 1SC1GM118242. **K. Fénelon:** A. Employment/Salary (full or part-time); University of Texas-El Paso. 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; 1SC1GM118242.
782.04	**J.C. Cano:** A. Employment/Salary (full or part-time); University of Texas - El Paso. 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; 1SC1GM118242. **S.A. Pace:** A. Employment/Salary (full or part-time); University of Texas - El Paso. 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; 1SC1GM118242. **K. Fénelon:** A. Employment/Salary (full or part-time); University of Texas - El Paso. 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; 1SC1GM118242.
783.01	**K. Van Kolen:** A. Employment/Salary (full or part-time); Janssen PRD. **D. Dhuyvetter:** A. Employment/Salary (full or part-time); Janssen PRD. **L. Delbroek:** A. Employment/ Salary (full or part-time); Janssen PRD. **I. Verberne:** A. Employment/Salary (full or part-time); Janssen PRD. **M. Vandermeeren:** A. Employment/Salary (full or part-time); Janssen PRD. **I. Pike:** A. Employment/Salary (full or part-time); Proteome Sciences. **M. Ward:** A. Employment/ Salary (full or part-time); Proteome sciences. **D. Latto:** A. Employment/Salary (full or part-time); Proteome sciences. **H. Borghys:** A. Employment/Salary (full or part-time); Janssen PRD. **M.H. Mercken:** A. Employment/Salary (full or part-time); Janssen PRD.

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784.27	**V. Zomosa:** 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 CB 2013-2014 GRANT: 220006.
785.02	**R. Kimura:** A. Employment/Salary (full or part-time); Center for Liberal Arts and Sciences, Tokyo University of Science, Yamaguchi, Japan. 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; Alberta Prion Research Institute (Alberta Innovates Bio Solutions), the Alzheimer Society of Alberta and NWT, Alberta Innovates Health Solutions.
785.04	**H. Crehan:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Antibodies from Probiodrug. GE-180 Cassettes from General Electric. **C.A. Lemere:** F. Consulting Fees (e.g., advisory boards); Serves on the Probiodrug Scientific Advisory Board.
785.07	**B. Bohrmann:** A. Employment/Salary (full or part-time); Roche Innovation Center Basel. **I. Knuesel:** A. Employment/Salary (full or part-time); Roche Innovation Center Basel. **C. Haass:** Other; C.H. is an advisor of F. Hoffmann - La Roche..
785.09	**C. Wahlestedt:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Co-founder of Epigenetix and IntelliSyn RD.
785.12	**C. Rehak:** A. Employment/Salary (full or part-time); Cognition Therapeutics Inc.. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics Inc. **N. Izzo:** A. Employment/ Salary (full or part-time); Cognition Therapeutics Inc.. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics Inc. **K. Mozzoni:** A. Employment/Salary (full or part-time); Cognition Therapeutics Inc.. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics Inc. **C. Silky:** A. Employment/ Salary (full or part-time); Cognition Therapeutics Inc.. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics Inc. **R. Yurko:** A. Employment/Salary (full or part-time); Cognition Therapeutics Inc.. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics Inc. **H. Safferstein:** A. Employment/ Salary (full or part-time); Cognition Therapeutics Inc.. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics Inc. **S. Catalano:** A. Employment/Salary (full or part-time); Cognition Therapeutics Inc.. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/ patent holder, excluding diversified mutual funds); Cognition Therapeutics Inc..
785.16	**T. Bolmont:** A. Employment/Salary (full or part-time); Stemedica International. **A. Lukashev:** A. Employment/ Salary (full or part-time); Stemedica International.
785.19	**J. Schelle:** A. Employment/Salary (full or part-time); Ulf Neumann, Novartis Institutes for BioMedical Research, Neuroscience, 4056 Basel, Switzerland, Derya R. Shimshek, Novartis Institutes for BioMedical Research, Neuroscience, 4056 Basel, Switzerland, Hugo Vanderstichele, ADx NeuroSciences, 9052 Gent, Belgium, Erik Stoops, ADx NeuroSciences, 9052 Gent, Belgium. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Matthias Staufenbiel, Department

PRESENTATION NUMBER	STATEMENT
	of Cellular Neurology, Hertie Institute for Clinical Brain Research, University of Tübingen, 72076 Tübingen, Germany. **H. Vanderstichele:** A. Employment/Salary (full or part-time); Hugo Vanderstichele, ADx NeuroSciences, 9052 Gent, Belgium. **E. Stoops:** A. Employment/Salary (full or part-time); Erik Stopps, ADx NeuroSciences, 9052 Gent, Belgium. **U. Neumann:** A. Employment/Salary (full or part-time); Ulf Neumann, Novartis Institutes for BioMedical Research, Neuroscience, 4056 Basel, Switzerland. **D. Shimshek:** A. Employment/Salary (full or part-time); Derya Shimshek, Novartis Institutes for BioMedical Research, Neuroscience, 4056 Basel, Switzerland. **M. Staufenbiel:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Matthias Staufenbiel, Department of Cellular Neurology, Hertie Institute for Clinical Brain Research, University of Tübingen, 72076 Tübingen, Germany.
785.22	**E.T. Powers:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Pfizer Inc. **J.W. Kelly:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Pfizer Inc, Misfolding Diagnostics Inc. F. Consulting Fees (e.g., advisory boards); Pfizer Inc, Misfolding Diagnostics Inc.
786.02	**H. Song:** A. Employment/Salary (full or part-time); ulsan university. **S. Yoon:** A. Employment/Salary (full or part-time); ulsan university. **D. Kim:** A. Employment/Salary (full or part-time); ulsan university.
786.06	**S.M. Grauer:** A. Employment/Salary (full or part-time); Merck Research Labs. **X. Zhou:** A. Employment/Salary (full or part-time); Merck Research Labs. **N. Jochnowitz:** A. Employment/Salary (full or part-time); Merck Research Labs. **L.A. Hyde:** A. Employment/Salary (full or part-time); Merck Research Labs. **N. Hastings:** A. Employment/Salary (full or part-time); Merck Research Labs. **G. Varty:** A. Employment/Salary (full or part-time); Merck Research Labs. **R. Mazzola:** A. Employment/Salary (full or part-time); Merck Research Labs. **J. Morrow:** A. Employment/Salary (full or part-time); Merck Research Labs.
786.10	**D. Beher:** A. Employment/Salary (full or part-time); Asceneuron SA. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Asceneuron SA. **A. Sand:** A. Employment/Salary (full or part-time); Asceneuron SA. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Asceneuron SA. **M. Nény:** A. Employment/Salary (full or part-time); Asceneuron SA. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Asceneuron SA. **J. Hantson:** A. Employment/Salary (full or part-time); Asceneuron SA. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Asceneuron SA. **S. Ousson:** A. Employment/Salary (full or part-time); Asceneuron SA. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Asceneuron SA. **B. Permanne:** A. Employment/Salary (full or part-time); Asceneuron SA. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Asceneuron SA. **A. Quattropani:** A. Employment/Salary (full or part-time); Asceneuron SA. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Asceneuron SA. **C. Wiessner:** A. Employment/Salary (full or part-time); Asceneuron SA. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Asceneuron SA.
787.20	**S. Shandler:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Longevity Biotech, Inc. **H. Gendelman:** Other; Longevity Biotech, Inc.
787.21	**O.C. Attucks:** A. Employment/Salary (full or part-time); vTv Therapeutics LLC.
787.25	**T. Ciossek:** A. Employment/Salary (full or part-time); Boehringer Ingelheim Pharma GmbH & Co KG. **H.J. Draheim:** A. Employment/Salary (full or part-time); Boehringer Ingelheim Pharma GmbH & Co KG.
788.06	**C.J. Wheeler:** Other; author of provisional patent application titled, 'NOVEL BLOOD CELL BIOMARKER FOR LATE ONSET ALZHEIMER'S DISEASE'. This application was assigned U.S. Serial No. 62/212,070..
788.07	**N. Iwahara:** A. Employment/Salary (full or part-time); part-time. 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; KAKENHI.
788.17	**J. Leverenz:** A. Employment/Salary (full or part-time); Cleveland Clinic. 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; Alzheimer's Association, Alzheimer's Drug Discovery Foundation, Genzyme/Sanofi, Lundbeck, Michael J Fox Foundation, NIH. F. Consulting Fees (e.g., advisory boards); Axovant, GE Healthcare, Navidea, Piramal, Teva.
790.10	**C. Ju:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Receipt of drugs, Shin Poong Pharm. Co. Ltd.
790.12	**D. Yoo:** A. Employment/Salary (full or part-time); Research Institute for Veterinary Science and BK21PLUS Program for Creative Veterinary Science.
790.18	**K.B. Baker:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); IntElect Medical, ATI, Cardionomics. **A.G. Machado:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); IntElect Medical, ATI, Cardionomics.
790.19	**J. Griffin:** Other; Dr. Griffin is a consultant for ZZ Biotech LLC and inventor for some uses of 3K3A-APC. **B. Zlokovic:** Other; Dr. Zlokovic is a founder of ZZ Biotech LLC, a biotechnology company with a mission to develop APC and its functional mutants for the treatment of stroke and other neurological disorders.
791.19	**K. Noguchi:** A. Employment/Salary (full or part-time); Daiichi Sankyo Co., Ltd. **S.C. Fagan:** 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; Daiichi Sankyo Co., Ltd., VA Merit Review, the National Institutes of Health.
791.27	**I. F. Ugidos:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Lipopharma Therapeutics SL. **X. Busquets:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Lipopharma Therapeutics SL.
791.28	**M. Ibarguren:** A. Employment/Salary (full or part-time); Lipopharma Therapeutics SL. **D.J. López:** A. Employment/Salary (full or part-time); Lipopharma Therapeutics SL. **P.V. Escribá:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Lipopharma Therapeutics SL.
792.01	**J.C. Wood:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); JW receives in-kind research support from Philips Medical Group.
792.10	**S. Yi:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant

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	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; This work is supported by Soonchunhyang University Research Fund.
792.18	**S. Tomlinson:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); S.T. is a patent holder of CR2-based and B4scFv-based targeted complement inhibitors..
792.25	**R.F. Regan:** 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; Grant support and study drug provided by CSL Behring.
793.07	**E. Haacke:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); MRI patents.
793.11	**G.P. Siegmund:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); MEA Forensic Engineers & Scientists.
794.02	**S.H. Scott:** Other; Dr. Scott is co-founder and chief scientific officer of BKIN Technologies, the company that commercializes the KINARM robotic device..
794.12	**E.J. Goetzl:** Other; Patent application. **L. Goetzl:** Other; Patent application.
795.01	**R. Chen:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); MedCyclops. **P.K. Han:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); MedCyclops. **P. Si:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); MedCyclops. **W.D. Freeman:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); MedCyclops. **S.M. Pirris:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); MedCyclops. **J.W. Yoon:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); MedCyclops.
795.02	**S.K. Charles:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Vykon Technologies LLC.
795.08	**R. Rozental:** Other; ICB, UFRJ.
795.14	**A. Leung:** A. Employment/Salary (full or part-time); VA Healthcare System, UC San Diego.
795.17	**R. Wallis:** 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; SK Life Science Pharmaceuticals, GlaxoSmithKline.
795.20	**A.R. Asturias:** 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; Supported by X2 Biosystems and a General Electric-National Football League Head Health Challenge award.
795.27	**V.B. Risbrough:** 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; VA Merit Award BX002558-01. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Johnson & Johnson.
800.08	**J.K. Hesse:** A. Employment/Salary (full or part-time); HHMI. **D.Y. Tsao:** A. Employment/Salary (full or part-time); HHMI Fellow.
802.02	**L. Ling:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Intellectual property. **K. Nie:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Intellectual property. **J.T. Rubinstein:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Intellectual property. **J.O. Phillips:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Intellectual property.
802.03	**L. Ling:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); University of Washington. **K. Nie:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); University of Washington. **J.O. Phillips:** 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; Cochlear Ltd.. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); University of Washington. **J. Rubinstein:** 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; Cochlear Ltd.. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); University of Washington. F. Consulting Fees (e.g., advisory boards); Cochlear Ltd..
807.20	**A.D. Ruiz:** A. Employment/Salary (full or part-time); University of Texas At Dallas, Texas Biomedical Device Center, Vulintus. **S. HAys:** A. Employment/Salary (full or part-time); University of Texas at Dallas, Texas Biomedical Device Center.
807.22	**A.R. Hirsch:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Smell and Taste Treatment and Research Foundation. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Smell and Taste Treatment and Research Foundation.
807.26	**M. Bikson:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Soterix Medical.
807.27	**A. Pascual-Leone:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/ patent holder, excluding diversified mutual funds); Inventor of several issued and pending patents on the real-time integration of transcranial magnetic stimulation with electroencephalography and magnetic resonance imaging. F. Consulting Fees (e.g., advisory boards); Serves on the scientific advisory boards for Nexstim, Neuronix, Starlab Neuroscience, Neuroelectrics, Axilum Robotics, Magstim Inc., and Neosync.
808.12	**D.D. Rumble:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); American Heart Association. **D.A. Brown:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); KineAssist.
808.16	**D.A. Brown:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); KineAssist.

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808.18	**T. Funato:** 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; JSPS. **D. Yanagihara:** 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; JSPS. **S. Fujiki:** 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; JSPS. **S. Aoi:** 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; JSPS.
809.02	**D.J. Goble:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Holds an equity stake in the parent company for the BTrackS Balance Plate. This conflict of interest was strictly managed by San Diego State University through a mitigation plan..
809.07	**D. Goble:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); receipt of intellectual property rights/patent holder.
809.08	**D.J. Goble:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); BtrackS, inc..
809.12	**D.J. Goble:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Balance Tracking Systems.
809.13	**D.J. Goble:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); BTrackS, San Diego, CA.
812.03	**A. O'Conner:** A. Employment/Salary (full or part-time); University of Arizona. **E. Manzo:** A. Employment/Salary (full or part-time); University of Arizona. **M. Roberts:** A. Employment/Salary (full or part-time); University of Arizona. **D. Zarnescu:** A. Employment/Salary (full or part-time); University of Arizona.
812.15	**M. Schaner:** A. Employment/Salary (full or part-time); Regeneron Pharmaceuticals, Inc.. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Regeneron Pharmaceuticals, Inc. **S.D. Croll:** A. Employment/Salary (full or part-time); Regeneron Pharmaceuticals, Inc.. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Regeneron Pharmaceuticals, Inc. **Y. Bai:** A. Employment/Salary (full or part-time); Regeneron Pharmaceuticals, Inc.. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Regeneron Pharmaceuticals, Inc. **W. Fury:** A. Employment/Salary (full or part-time); Regeneron Pharmaceuticals, Inc.. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Regeneron Pharmaceuticals, Inc. **M.G. Dominguez:** A. Employment/Salary (full or part-time); Regeneron Pharmaceuticals, Inc.. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Regeneron Pharmaceuticals, Inc. **B. Zambrowicz:** A. Employment/Salary (full or part-time); Regeneron Pharmaceuticals, Inc.. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Regeneron Pharmaceuticals, Inc. **N. Stahl:** A. Employment/Salary (full or part-time); Regeneron Pharmaceuticals, Inc.. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Regeneron Pharmaceuticals, Inc. **A.J. Murphy:** A. Employment/Salary (full or part-time); Regeneron Pharmaceuticals, Inc.. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Regeneron Pharmaceuticals, Inc. **L.E. Macdonald:** A. Employment/Salary (full or part-time); Regeneron Pharmaceuticals, Inc.. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Regeneron Pharmaceuticals, Inc. **M.L. LaCroix-Fralish:** A. Employment/Salary (full or part-time); Regeneron Pharmaceuticals, Inc.. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Regeneron Pharmaceuticals, Inc..
813.05	**H. Hotta:** 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; GSK Bioelectronics Exploratory Funding.
815.11	**C. Diniz Behn:** F. Consulting Fees (e.g., advisory boards); Merck and Co..
816.08	**J.T. McKenna:** A. Employment/Salary (full or part-time); Merck MISP. 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 MISP. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Merck MISP.
819.04	**D.J. Heal:** 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; Cara Therapeutics. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Renasci LTD. **J. Gosden:** A. Employment/Salary (full or part-time); Renasci LTD. **N. Slater:** A. Employment/Salary (full or part-time); Renasci LTD. **S. Holland:** A. Employment/Salary (full or part-time); Renasci LTD. **J. Slade:** A. Employment/Salary (full or part-time); Renasci LTD. **F. Menzaghi:** A. Employment/Salary (full or part-time); Cara Therapeutics. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cara Therapeutics. **R. Spencer:** A. Employment/Salary (full or part-time); Cara Therapeutics. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cara Therapeutics. **S. Smith:** A. Employment/Salary (full or part-time); Renasci LTD.
819.13	**P. Rueda:** A. Employment/Salary (full or part-time); Monash University. **A.J. Lawrence:** A. Employment/Salary (full or part-time); The Florey Institute of Neuroscience and mental health. **C.J. Langmead:** A. Employment/Salary (full or part-time); Monash University. **A. Christopoulos:** A. Employment/Salary (full or part-time); Monash University.
820.01	**T. Inoue:** 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; Otsuka Pharmaceutical, Eli Lilly, Eisai, Yoshitomiyakuhin, Mitsubishi Tanabe Pharma, AbbVie GK, Pfizer, Astellas, and Meiji Seika Pharma. D. Fees for Non-CME Services Received Directly from Commercial Interest or their Agents (e.g., speakers' bureaus); Otsuka Pharmaceutical, Pfizer, GlaxoSmithKline, Astellas, Eli Lilly, Mitsubishi Tanabe Pharma, Mochida Pharmaceutical, Meiji Seika Pharma, Asahi Kasei Pharma, Shionogi, Janssen Pharmaceutical, Takeda.
820.06	**M. Fava:** 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; Abbot Laboratories, Alkermes, Inc., American Cyanamid, Aspect Medical Systems, AstraZeneca, Avanir Pharmaceuticals, BioResearch, BrainCells Inc., Bristol-Myers Squibb, CeNeRx BioPharma, Cephalon, Clintara, LLC, Cerecor, Covance, Covidien, Eli Lilly and Company, EnVivo Pharmaceuticals, Inc., Euthymics Bioscience, Inc., Forest Pharmaceuticals, Inc., Ganeden Biotech, Inc., GlaxoSmithKline, Harvard Clinical Research Institute, Hoffman- LaRoche, Icon Clinical Research, i3 Innovus/ Ingenix, Janssen R&D, LLC, Jed Foundation, Johnson & Johnson Pharmaceutical Research & Development, Lichtwer Pharma GmbH, Lorex Pharmaceuticals, Lundbeck Inc., MedAvante, Methylation Sciences Inc., National Alliance for Research on Schizophrenia & Depression, National Center for Complementary and Alternative Medicine, National Institute of Drug Abuse, National Institute of Mental Health, Neuralstem, Inc., Novartis AG, Organon Pharmaceuticals, PamLab, LLC, Pfizer Inc., Pharmacia-Upjohn, Pharmaceutical Research Associates., Inc., Pharmavite® LLC, PharmoRx Therapeutics, Photothera, Reckitt Benckiser, Roche Pharmaceuticals, RCT Logic, LLC (formerly Clinical Trials Solutions, LLC), Sanofi-Aventis US, LLC, Shire, Solvay Pharmaceuticals, Inc., Stanley Medical Research Institute, Synthelabo, Tal Medical, Wyeth-Ayerst Laboratories. D. Fees for Non-CME Services Received Directly from Commercial Interest or their Agents (e.g., speakers' bureaus); Adamed, Co, Advanced Meeting Partners, American Psychiatric Association, American Society of Clinical Psychopharmacology, AstraZeneca, Belvoir Media Group, Boehringer Ingelheim GmbH, Bristol-Myers Squibb, Cephalon, Inc., CME Institute/Physicians Postgraduate Press, Inc., Eli Lilly and Company, Forest Pharmaceuticals, Inc., GlaxoSmithKline, Imedex, LLC, MGH Psychiatry Academy/Primedia, MGH Psychiatry Academy/Reed Elsevier, Novartis AG, Organon Pharmaceuticals, Pfizer Inc., PharmaStar, United BioSource, Corp., Wyeth-Ayerst Laboratories. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Compellis, PsyBrain, Inc., MGH Cognitive & Physical Functioning Questionnaire, Sexual Functioning Inventory, Antidepressant Treatment Response Questionnaire, Discontinuation-Emergent Signs & Symptoms, Symptoms of Depression Questionnaire, SAFER, Lippincott, Williams & Wilkins, Wolkers Kluwer, World Scientific Publishing Co. Pte. Ltd., patent for Sequential Parallel Comparison Design (SPCD), which are licensed by MGH to Pharmaceutical Product Development, LLC (PPD). F. Consulting Fees (e.g., advisory boards); Abbott Laboratories, Acadia, Affectis Pharmaceuticals AG, Alkermes, Inc., Amarin Pharma Inc., Aspect Medical Systems, AstraZeneca, Auspex Pharmaceuticals, Avanir Pharmaceuticals, AXSOME Therapeutics, Bayer AG, ; Best Practice Project Management, Inc., Biogen, BioMarin Pharmaceuticals, Inc., Biovail Corporation, BrainCells, Inc., Bristol-Myers Squibb, CeNeRx BioPharma, Cephalon, Inc., Cerecor, CNS Response, Inc., Compellis Pharmaceuticals, Cypress Pharmaceutical, Inc., DiagnoSearch Life Sciences (P) Ltd., Dinippon Sumitomo Pharma Co. Inc., Dov Pharmaceuticals, Inc., Edgemont Pharmaceuticals, Inc., Eisai, Inc., Eli Lilly and Company, EnVivo Pharmaceuticals, Inc., ePharmaSolutions, EPIX Pharmaceuticals, Inc., Euthymics Bioscience, Inc., Fabre-Kramer Pharmaceuticals, Inc., Forest Pharmaceuticals, Inc., Forum Pharmaceuticals, GenOmind, LLC, GlaxoSmithKline, Grunenthal GmbH, i3 Innovus/Ingenis, Intracellular, Janssen Pharmaceutical, Jazz Pharmaceuticals, Inc., Johnson & Johnson Pharmaceutical Research & Development, LLC, Knoll Pharmaceuticals Corp., Labopharm Inc., Lorex Pharmaceuticals, Lundbeck Inc., MedAvante, Inc., Merck & Co., Inc., MSI Methylation Sciences, Inc., Naurex, Inc., Nestle Health Sciences, Neuralstem, Inc., Neuronetics, Inc., NextWave Pharmaceuticals, Novartis AG, Nutrition 21, Orexigen Therapeutics, Inc., Organon Pharmaceuticals, Osmotica, Otsuka Pharmaceuticals, Pamlab, LLC, Pfizer, Inc., PharmaStar, Pharmavite® LLC, PharmoRx Therapeutics, Precision Human Biolaboratory, Prexa Pharmaceuticals, Inc., Puretech Ventures, PsychoGenics, Psylin Neurosciences, Inc., RCT Logic, LLC (Formerly Clinical Trials Solutions, LLC), Rexahn Pharmaceuticals, Inc., Ridge Diagnostics, Inc., Roche, Sanofi-Aventis US, LLC, Sepracor, Inc., Servier Laboratories, Schering-Plough Corporation, Solvay Pharmaceuticals, Inc., Somaxon Pharmaceuticals, Inc., Somerset Pharmaceuticals, Inc., Sunovion Pharmaceuticals, Supernus Pharmaceuticals, Inc., Synthelabo, Taisho Pharmaceutical, Takeda Pharmaceutical Company, Ltd., Tal Medical, Inc., Tetragenex Pharmaceuticals, Inc., TransForm Pharmaceuticals, Inc., Transcept Pharmaceuticals, Inc., Vanda Pharmaceuticals, Inc., VistaGen. Other; patent application for a combination of Ketamine plus Scopolamine in Major Depressive Disorder (MDD), licensed by MGH to Biohaven. **B. Kurian:** 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; Targacept, Inc., Pfizer, Inc., Johnson & Johnson, Evotec, Rexahn, Naurex, Forest Pharmaceuticals, National Institute of Mental Health. **P. McGrath:** 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; National Institute of Mental Health, New York State Department of Mental Hygiene, Research Foundation for Mental Hygiene (New York State), Forest Research Laboratories, Sunovion Pharmaceuticals, Naurex Pharmaceuticals (now Allergan). **M. Weissman:** 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; National Institute of Mental Health, National Institute on Drug Abuse, National Alliance for Research on Schizophrenia and Depression, The Sackler Foundation, The Templeton Foundation. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Oxford University Press, Perseus Press, American Psychiatric Association Press, MultiHealth Systems. **M.H. Trivedi:** 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; Agency for Healthcare Research and Quality, Cyberonics, Inc., National Alliance for Research in Schizophrenia and Depression, National Institute of Mental Health, National Institute on Drug Abuse. F. Consulting Fees (e.g., advisory boards); Abbott Laboratories, Inc., Abdi Ibrahim, Akzo (Organon Pharmaceuticals Inc.), Alkermes, AstraZeneca, Axon Advisors, Bristol-Myers Squibb Company, Cephalon, Inc., Cerecor, CME Institute of Physicians, Concert Pharmaceuticals, Inc., Eli Lilly & Company, Evotec, Fabre Kramer Pharmaceuticals, Inc., Forest Pharmaceuticals, GlaxoSmithKline, Janssen Global Services, LLC, Janssen Pharmaceutical Products, LP, Johnson & Johnson PRD, Libby, Lundbeck, Meade Johnson, MedAvante, Medtronic, Merck, Mitsubishi Tanabe Pharma Development America, Inc., Naurex, Neuronetics, Otsuka Pharmaceuticals, Pamlab, Parke-Davis Pharmaceuticals, Inc., Pfizer Inc., PgxHealth, Phoenix Marketing Solutions, Rexahn Pharmaceuticals, Ridge Diagnostics, Roche Products Ltd., Sepracor, SHIRE Development, Sierra, SK Life and Science, Sunovion, Takeda, Tal Medical/Puretech Venture, Targacept, Transcept, VantagePoint, Vivus, Wyeth-Ayerst Laboratories.

820.10 **A.M. Perkins:** 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

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	if those funds come to an institution; Has received funding from Bionomics Inc. **R. Joules:** A. Employment/Salary (full or part-time); Employed by Ixico PLC. **D.J. Lythgoe:** F. Consulting Fees (e.g., advisory boards); Consulting for Ixico PLC. **S.C.R. Williams:** 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; Has received support for investigator led studies from Takeda, Pfizer, Lundbeck, P1Vital, Roche and Eli Lilly. **A.H. Young:** 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; lead investigator for the Embolden Study (AZ), BCI Neuroplasticity study, and Aripiprazole Mania Study and investigator initiated studies from AZ, Eli Lilly, Lundbeck, and Wyeth; and has received gran. F. Consulting Fees (e.g., advisory boards); sits on advisory boards for all major pharmaceutical companies with drugs used in affective and related disorders. **A.J. Cleare:** 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; Has received honoraria for speaking from Astra Zeneca (AZ) and an educational organization supported by Pfizer, honoraria for consulting from Allergan and Livanova and r. **D. Arnone:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Has received travel grants from Janssen-Cilag and Servier.
820.12	**A. Nugent:** A. Employment/Salary (full or part-time); National Institute of Mental Health. **M. Lener:** A. Employment/Salary (full or part-time); National Institute of Mental Health. **D. Luckenbaugh:** A. Employment/Salary (full or part-time); National Institute of Mental Health. **C. Zarate:** 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; National Institute of Mental Health. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Patent application for the use of ketamine in depression.
820.17	**A. Gutierrez:** A. Employment/Salary (full or part-time); Part-Time. **B. Caron:** A. Employment/Salary (full or part-time); Part-Time.
820.20	**K.A.B. Lapidus:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Medtronic. F. Consulting Fees (e.g., advisory boards); Halo Neuro, Inc.
820.23	**A. Nugent:** A. Employment/Salary (full or part-time); NIMH. **D.A. Luckenbaugh:** A. Employment/Salary (full or part-time); NIMH. **C.A. Zarate:** 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; NIMH. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Holds a joint patent with the government for ketamine.
821.02	**S.M. O'Connor:** A. Employment/Salary (full or part-time); Bionomics. **C.J. Coles:** A. Employment/Salary (full or part-time); Bionomics. **J.D. Mikkelsen:** A. Employment/Salary (full or part-time); Bionomics.
822.02	**J.M. 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; NIDA R01-DA032789.
822.17	**M. Stanford:** 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; Dreyfus Health Foundation.
825.10	**D.P. Vallöf:** Other; Elisabet Jerlhag. **A. Lydia Kalafateli:** Other; Elisabet Jerlhag. **J. Engel:** Other; Elisabet Jerlhag. **E. Jerlhag:** Other; Elisabet Jerlhag.
825.17	**E. Jerlhag:** Other; EJ has received financial support from the NovoNordisk Foundation.
827.06	**N. Gilpin:** F. Consulting Fees (e.g., advisory boards); Glauser Life Sciences.
830.09	**A. Mutti:** A. Employment/Salary (full or part-time); University of Texas at Austin. 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; Start up funds to Dr. Michela Marinelli from the University of Texas at Austin, National Institutes of Health Grant R01DA020654, American Recovery Reinvestment Act grant R01DA020654-04S1. **V.S. Ramachandra:** A. Employment/ Salary (full or part-time); University of Texas at Austin. **M. Marinelli:** A. Employment/Salary (full or part-time); University of Texas at Austin.
832.03	**T. Hikida:** 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; Takeda Pharmaceutical Company Limited. **S. Yao:** A. Employment/ Salary (full or part-time); Takeda Pharmaceutical Company Limited. **A. Fukakusa:** A. Employment/ Salary (full or part-time); Takeda Pharmaceutical Company Limited. **H. Kimura:** A. Employment/Salary (full or part-time); Takeda Pharmaceutical Company Limited. **K. Hirai:** A. Employment/Salary (full or part-time); Takeda Pharmaceutical Company Limited. **T. Ando:** A. Employment/Salary (full or part-time); Takeda Pharmaceutical Company Limited. **H. Toyoshiba:** A. Employment/Salary (full or part-time); Takeda Pharmaceutical Company Limited.
833.08	**L.M. Saksida:** F. Consulting Fees (e.g., advisory boards); Campden Instruments. **T.J. Bussey:** F. Consulting Fees (e.g., advisory boards); Campden Instruments. **T.W. Robbins:** 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; Lilly, Lundbeck, GSK. F. Consulting Fees (e.g., advisory boards); Cambridge Cognition, Lilly, Lundbeck, Teva, Shire Pharmaceuticals and Merck, Sharp and Dohme.
833.22	**D. Young:** A. Employment/Salary (full or part-time); Pfizer Inc. **A. Rossi:** A. Employment/Salary (full or part-time); Pfizer Inc. **S. Gee:** A. Employment/Salary (full or part-time); Pfizer Inc. **P. Tierney:** A. Employment/Salary (full or part-time); Pfizer Inc. **G. Bekheet:** A. Employment/Salary (full or part-time); Pfizer Inc. **L. Zhang:** A. Employment/Salary (full or part-time); Pfizer Inc. **W. Howe:** A. Employment/Salary (full or part-time); Pfizer Inc. **R. Kozak:** A. Employment/ Salary (full or part-time); Pfizer Inc.
833.23	**N. Dafny:** 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 DA R01 027222.
834.02	**J.T. McKenna:** A. Employment/Salary (full or part-time); Merck MISP. 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 MISP. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Merck MISP.
835.03	**N. Horiguchi:** A. Employment/Salary (full or part-time); NH worked as a visiting scholar from Shionogi & Co.,

PRESENTATION NUMBER	STATEMENT
	Ltd. **T.W. Robbins:** 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; TWR has received research grants from Lilly, Lundbeck and GSK.. F. Consulting Fees (e.g., advisory boards); TWR consults for Cambridge Cognition, Lilly, Lundbeck, Teva, Shire Pharmaceuticals and Merck, Sharp and Dohme.
835.15	**M. Sarter:** 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; Received grant from H. Lundbeck A/S for drug study.
836.14	**S.A. Fleming:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Mead Johnson Nutrition. **R.N. Dilger:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Mead Johnson Nutrition.
837.11	**M. Correa:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); 1Psicobiologia. Universitat Jaume I, Castelló. Spain. **C. Gabriel:** A. Employment/Salary (full or part-time); Unité de Recherche Chimie Neurosciences, Institut de Recherches Servier. **P. Delagrange:** A. Employment/Salary (full or part-time); Unité de Recherche Chimie Neurosciences, Institut de Recherches Servier.
839.02	**A.G. Martinez:** A. Employment/Salary (full or part-time); UNAM. **T. Neri-gomez:** Other; IMSS. **R.E. Jimenez-lòpez:** Other; student. **A. Sànchez-Chinchillas:** A. Employment/Salary (full or part-time); UNAM. **R. Bustamante-garcìa:** A. Employment/Salary (full or part-time); UNAM.
839.06	**B. Laursen:** A. Employment/Salary (full or part-time); H. Lundbeck A/S. **M. Grupe:** A. Employment/Salary (full or part-time); H. Lundbeck A/S. **C. Sanchez:** A. Employment/Salary (full or part-time); H. Lundbeck A/S. **S.C. Leiser:** A. Employment/Salary (full or part-time); H. Lundbeck A/S. **J.F. Bastlund:** A. Employment/Salary (full or part-time); H. Lundbeck A/S.
840.13	**S.A. Helekar:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Houston Methodist Hospital. **H.U. Voss:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Weill Cornell Medicine.
841.13	**C.A. Boettiger:** F. Consulting Fees (e.g., advisory boards); BlackThorn Therapeutics, Inc..
842.19	**B. Morillon:** F. Consulting Fees (e.g., advisory boards); Research Contractor.
843.13	**R. Matsumoto:** Other; Endowed department by UCB, GSK, NihonKoden, Otsuka. **T. Kunieda:** F. Consulting Fees (e.g., advisory boards); endowed by Otsuka. **S. Miyamoto:** F. Consulting Fees (e.g., advisory boards); endowed by Otsuka. **R. Takahashi:** 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; Dainippon Sumitomo Pharma, Boehringer Ingelheim, Novartis, Pfizer Co. Ltd., Takeda Pharmaceutical Company, Mitsubishi Tanabe Pharma, Kyowa Hakko Kirin Co., Otsuka Pharmaceutical Co., Nihon Medi-Physi. D. Fees for Non-CME Services Received Directly from Commercial Interest or their Agents (e.g., speakers' bureaus); Glaxo Smith Kline, FP Pharmaceutical Corp, Novartis, Boehringer Ingelheim Co., Kyowa Hakko Kirin Co., Dainippon Sumitomo Pharma Co., Mitsubishi Tanabe Pharma Co., Glaxo Smith Kline., Otsuka Pharmaceut. F. Consulting Fees (e.g., advisory boards); KAN Research Institute INC., Dainippon Sumitomo Pharma, AbbVie Inc., Takeda Pharmaceutical Company. **A. Ikeda:** Other; Endowed department by UCB, GSK, NihonKoden, Otsuka.
844.13	**C.A. Tamminga:** Other; Dr.Tamminga has served on the advisory board for drug development for Intra-Cellular Therapies, Inc; and as an ad hoc consultant for Eli Lilly Pharmaceuticals, Sunovion, Astellas, Pfizer, Merck.
844.15	**M.A. Sherif:** A. Employment/Salary (full or part-time); VA Connecticut Healthcare System, West Haven, Yale University - Dept. of Psychiatry. **S.A. Neymotin:** A. Employment/Salary (full or part-time); SUNY Downstate Medical Center, Brooklyn, NY. **W.W. Lytton:** A. Employment/Salary (full or part-time); SUNY Downstate Medical Center, Brooklyn, NY.
844.23	**D.A. Lewis:** F. Consulting Fees (e.g., advisory boards); David A. Lewis currently receives investigator-initiated research support from Pfizer. In 2013-2015, he served as a consultant in the areas of target identification and validation and new compound dev.
845.01	**R. Rajakumar:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); patent holder.
845.06	**A. Oh-Nishi:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Stock; more than 5% of RESVO. inc..
845.07	**T. Shimada:** A. Employment/Salary (full or part-time); Astellas Research Institute of America. **E.D. Lake:** A. Employment/Salary (full or part-time); Astellas Research Institute of America. **N.M. Walton:** A. Employment/Salary (full or part-time); Astellas Research Institute of America. **K. Tajinda:** A. Employment/Salary (full or part-time); Astellas Research Institute of America. **M. Matsumoto:** A. Employment/Salary (full or part-time); Astellas Pharma Inc. **H. Ito:** A. Employment/Salary (full or part-time); Astellas Research Institute of America. **M. Adachi:** A. Employment/Salary (full or part-time); Astellas Research Institute of America.
845.08	**K. Akiyama:** F. Consulting Fees (e.g., advisory boards); Taisho Toyama Pharmaceutical Co., Ltd..
845.10	**A.K. Malhotra:** F. Consulting Fees (e.g., advisory boards); Genomind, Takeda Pharmaceuticals, Forum Pharmaceuticals.
845.11	**J.T. McKenna:** A. Employment/Salary (full or part-time); Merck MISP. 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 MISP. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Merck MISP.
845.30	**W. Tseng:** A. Employment/Salary (full or part-time); Pfizer. **M.L. Weber:** A. Employment/Salary (full or part-time); Pfizer. **V.R. Bieber:** A. Employment/Salary (full or part-time); Pfizer. **T.A. Lanz:** A. Employment/Salary (full or part-time); Pfizer. **H. Xi:** A. Employment/Salary (full or part-time); Pfizer. **R.D. Bell:** A. Employment/Salary (full or part-time); Pfizer. **D.L. buhl:** A. Employment/Salary (full or part-time); Pfizer.
846.01	**L. Chen:** A. Employment/Salary (full or part-time); MilliporeSigma. **A. Vahedi:** A. Employment/Salary (full or part-time); MilliporeSigma. **S. Hamren:** A. Employment/Salary (full or part-time); MilliporeSigma. **J. Mistry:** A. Employment/Salary (full or part-time); milliporeSigma. **Q. Xiao:** A. Employment/Salary (full or part-time); MilliporeSigma. **J. Hwang:** A. Employment/Salary (full or part-time); MilliporeSigma.
846.14	**H. Singh:** A. Employment/Salary (full or part-time); MilliporeSigma.
846.15	**H.L. Rowley:** A. Employment/Salary (full or part-time); Renasci LTD. **R.S. Kulkarni:** A. Employment/Salary (full or part-time); Renasci LTD. **L. Pinder:** A. Employment/Salary (full or part-time); r. **D.J. Heal:** A. Employment/Salary (full or part-time); Renasci LTD. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Renasci LTD. **P. Seglund:** A. Employment/Salary (full or part-time);

PRESENTATION NUMBER	STATEMENT
	Synaptech Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Synaptech Inc.
847.04	**Z. Liu:** A. Employment/Salary (full or part-time); Horizon Discovery. **G. Zhao:** A. Employment/Salary (full or part-time); Horizon Discovery. **X. Cui:** A. Employment/Salary (full or part-time); Horizon Discovery.
847.05	**D. Kwart:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); A patent has been filed. **D. Paquet:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); A patent has been filed. **M. Tessier-Lavigne:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); A patent has been filed.
847.09	**T.J. McCown:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Thomas J. McCown.
847.21	**S. Kujawa:** A. Employment/Salary (full or part-time); Pacific Biosciences. **A. Sethuraman:** A. Employment/Salary (full or part-time); Pacific Biosciences. **K. Eng:** A. Employment/Salary (full or part-time); Pacific Biosciences.
847.29	**W. Kumita:** A. Employment/Salary (full or part-time); Central Institute of Experimental Animals. **K. Sato:** A. Employment/Salary (full or part-time); Central Institute of Experimental Animals.
848.02	**D.J. Woodward:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); DJW owns IP, Biographics Inc. **J. Chang:** A. Employment/Salary (full or part-time); full, Biographics Inc.
848.15	**T. Araki:** A. Employment/Salary (full or part-time); Osaka University.
848.16	**A. Ugolini:** A. Employment/Salary (full or part-time); Aptuit. **C. Virginio:** A. Employment/Salary (full or part-time); Aptuit. **M. Corsi:** A. Employment/Salary (full or part-time); Aptuit. **M. Gandolfo:** A. Employment/Salary (full or part-time); 3Brain GmbH.
848.19	**M.R. Angle:** A. Employment/Salary (full or part-time); Paradromics Inc.. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Paradromics Inc. **E. Huber:** A. Employment/Salary (full or part-time); Paradromics Inc.. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Paradromics Inc. **D. Pouzzner:** A. Employment/Salary (full or part-time); Paradromics Inc.. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Paradromics Inc. **C. LaReau:** A. Employment/Salary (full or part-time); Paradromics Inc.. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Paradromics Inc..
848.20	**C. Kim:** 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; UCSD Center for Brain Activity Mapping, UC MRPI. **G. Cauwenberghs:** 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; UCSD Center for Brain Activity Mapping, UC MRPI.
848.22	**P. Huettl:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Quanteon LLC, BrainChem LLC. F. Consulting Fees (e.g., advisory boards); Quanteon LLC. **A. Ledo:** F. Consulting Fees (e.g., advisory boards); Quanteon LLC. **F. Pomerleau:** F. Consulting Fees (e.g., advisory boards); Quanteon LLC. **G.A. Gerhardt:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Quanteon, LLC.
848.23	**R.J. Gougelet:** A. Employment/Salary (full or part-time); University of California, San Diego. **B. Voytek:** 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; California Institute for Telecommunications and Information Technology, Strategic Research Opportunities Program, Sloan Research Fellowship.
850.11	**K. Mann:** A. Employment/Salary (full or part-time); stanford. **C. Gallen:** A. Employment/Salary (full or part-time); uc berkeley. **T. Clandinin:** A. Employment/Salary (full or part-time); STANFORD.
851.18	**D. Popovic:** A. Employment/Salary (full or part-time); Advanced Brain Monitoring. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Advanced Brain Monitoring. **M. Stikic:** A. Employment/Salary (full or part-time); Advanced Brain Monitoring.

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Hotel Floor Plans

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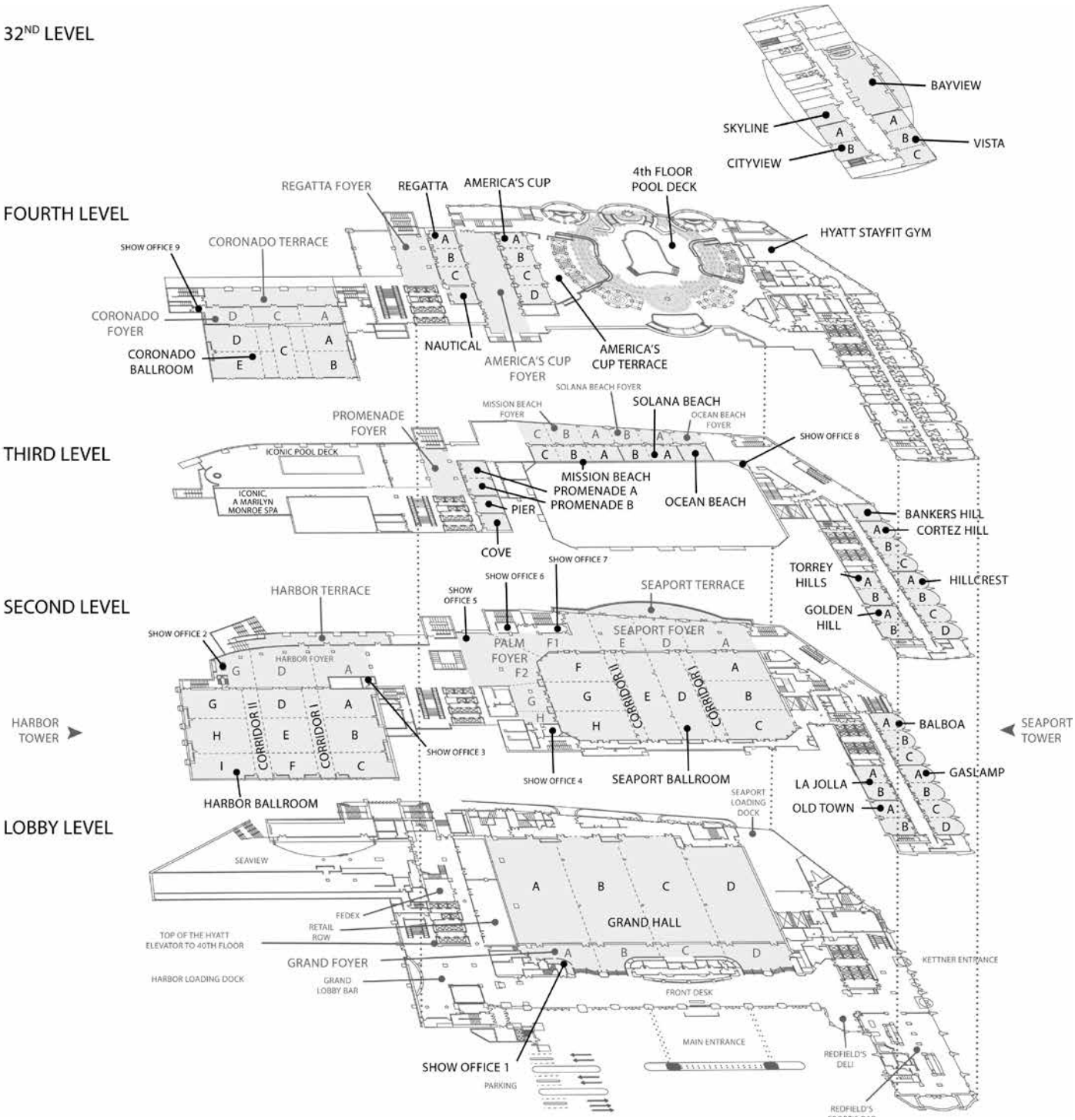
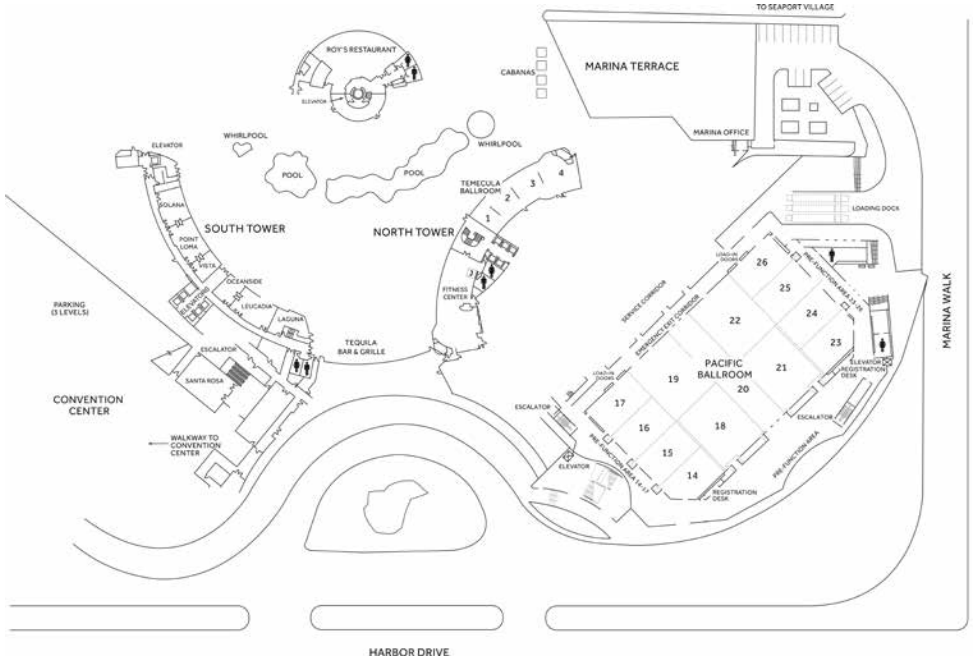


MARRIOTT MARQUIS SAN DIEGO MARINA

333 W Harbor Dr
San Diego, CA 92101

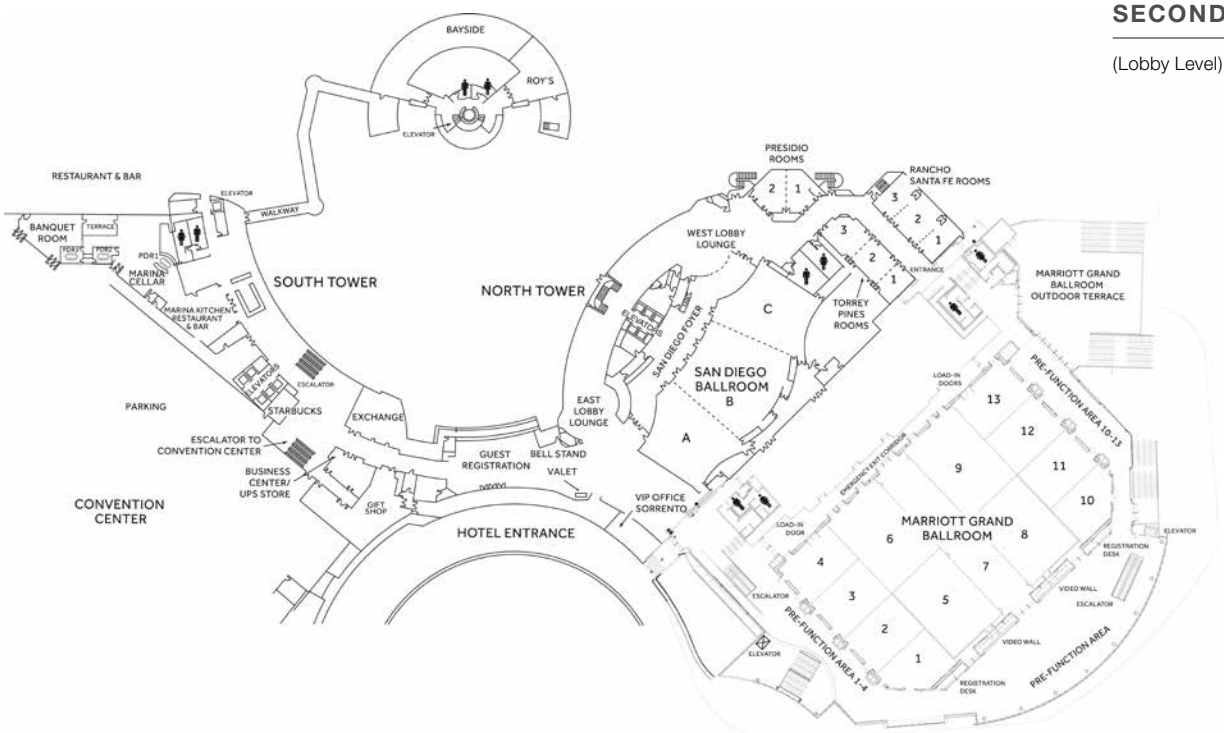
FIRST FLOOR

(Ground Level)



SECOND FLOOR

(Lobby Level)



SOUTH TOWER

Second Floor

Bayside

1st Floor

Laguna
Leucadia
Oceanside
Point Loma
Santa Rosa
Solana
Vista

3rd Floor

Balboa
Cardiff
Carlsbad
Del Mar
Encinitas
Marina Ballroom D–G
Miramar
Mission Hills
Palomar

4th Floor

Catalina
Coronado
Dana Point
La Costa
La Jolla
La Mesa
Malibu
Newport Beach

NORTH TOWER

Lobby Level

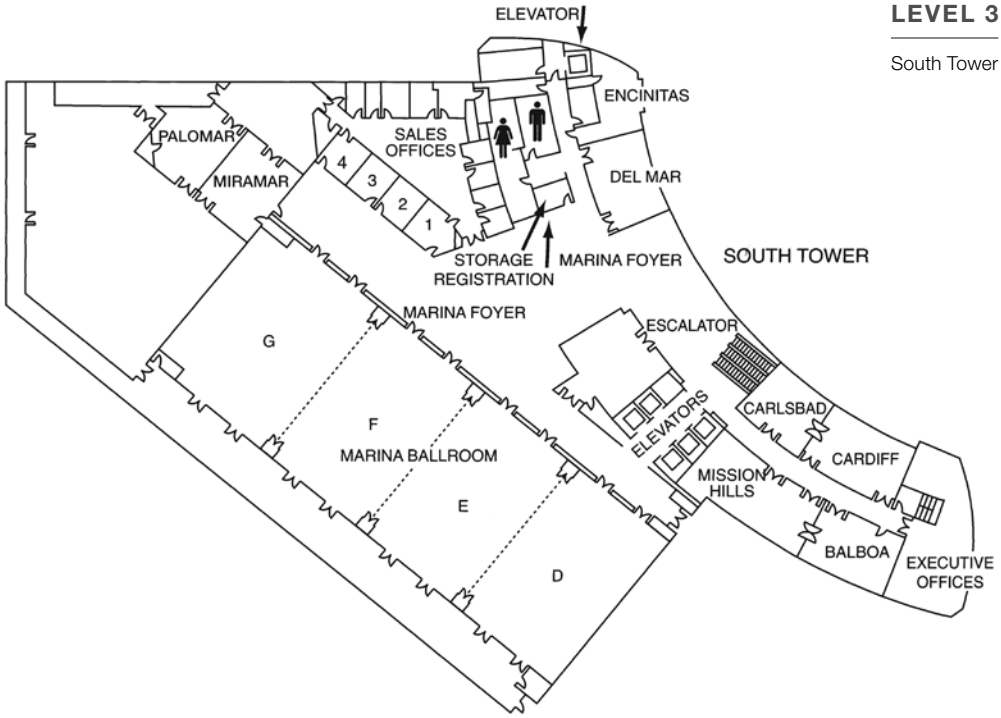
Presidio 1–2
Rancho Santa Fe 1–3
Marriott Ballroom 1–13
San Diego Ballrooms A–C
Torrey Pines 1–3

1st Floor

Temecula

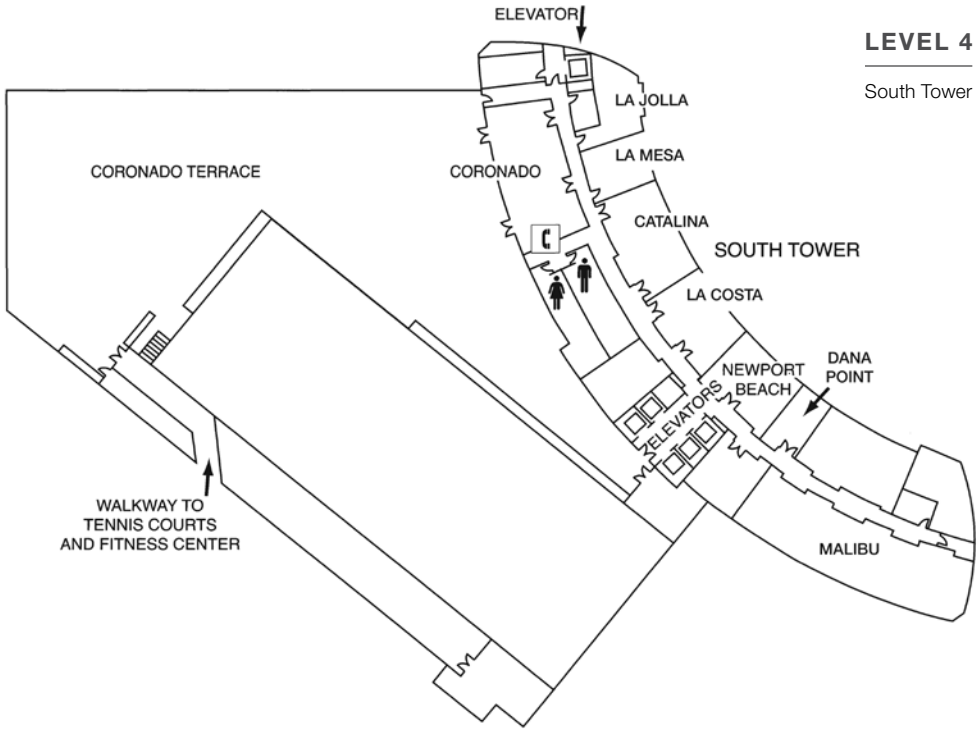
LEVEL 3

South Tower



LEVEL 4

South Tower

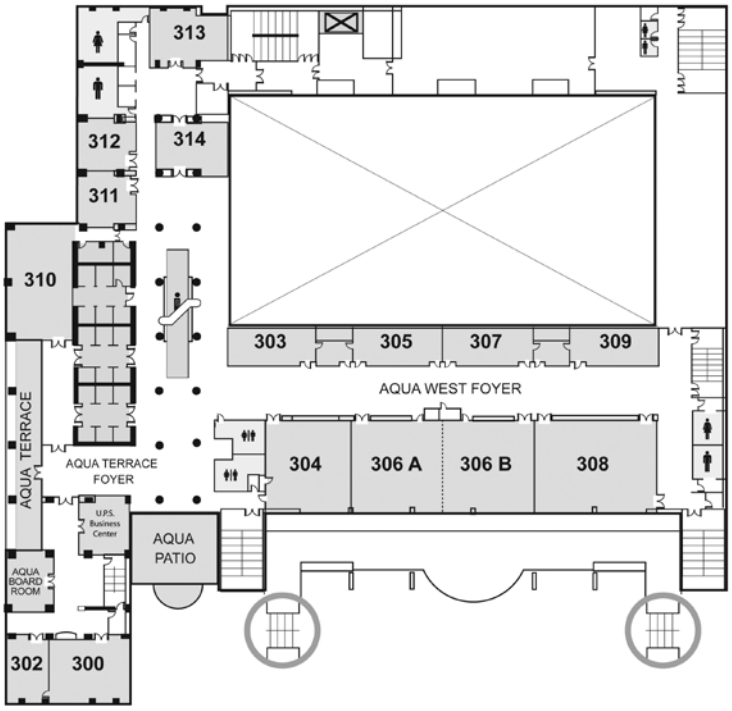


HILTON SAN DIEGO BAYFRONT

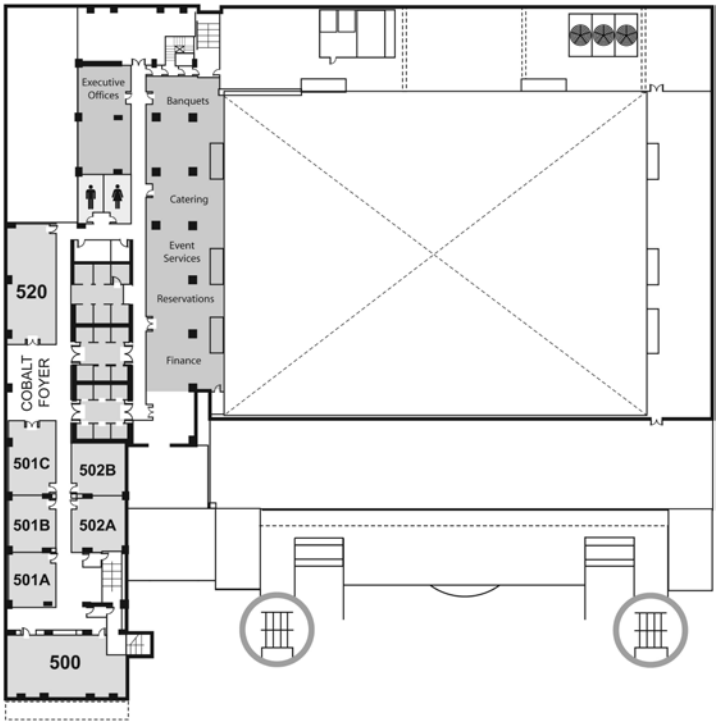
1 Park Blvd
San Diego, CA 92101

= Function Space
= Elevators and Escalators
= Restrooms
= Stairs

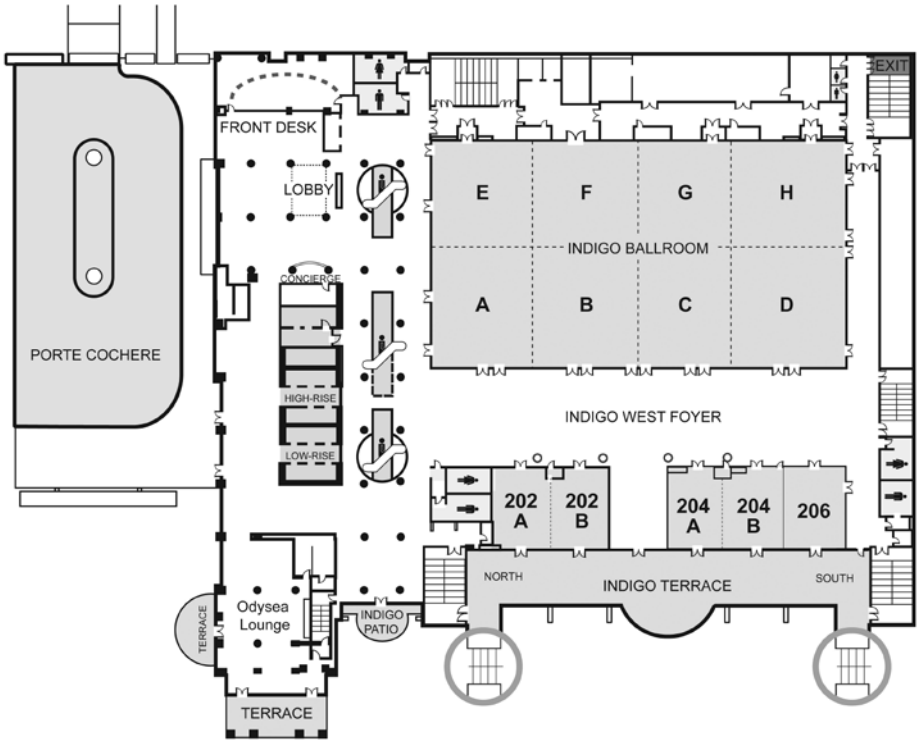
AQUA LEVEL



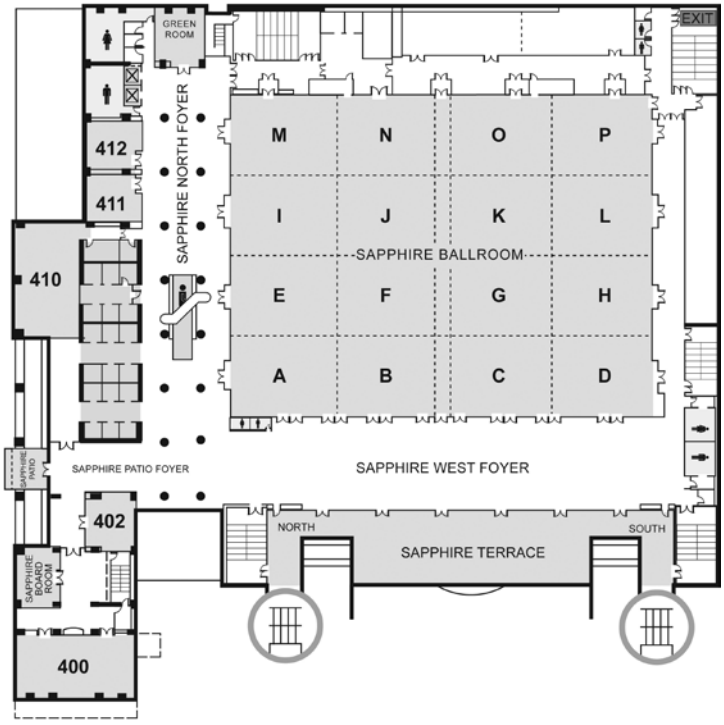
COBALT LEVEL



INDIGO LEVEL

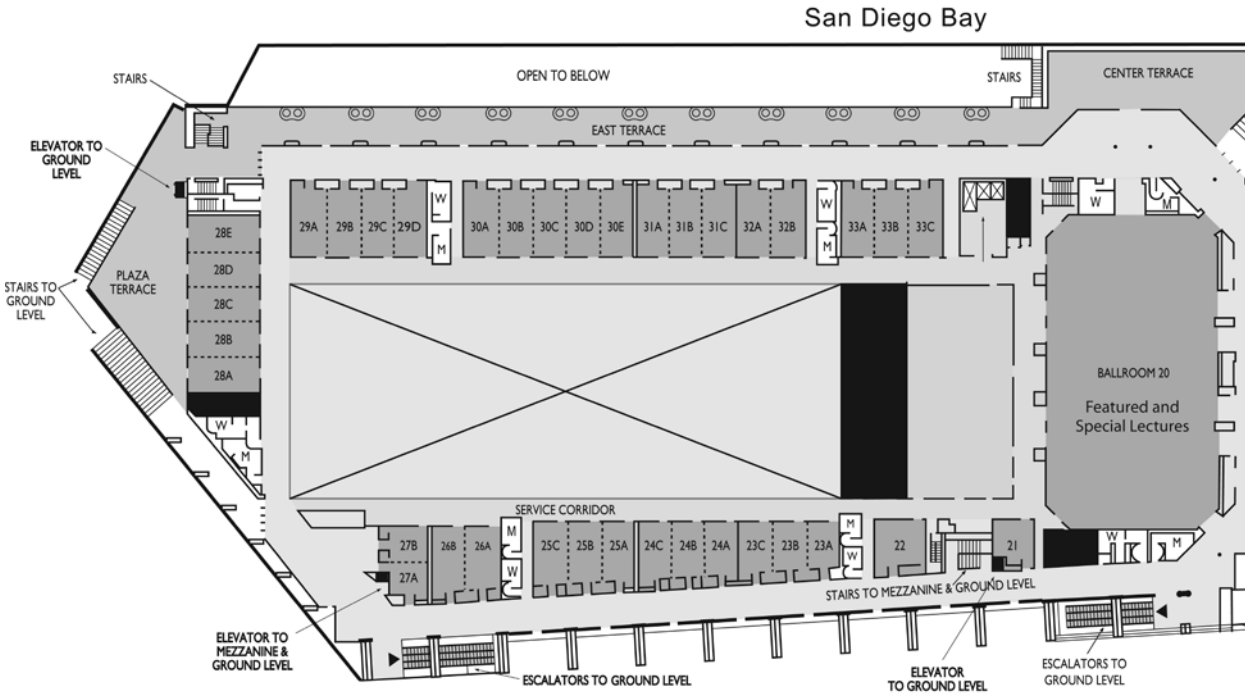


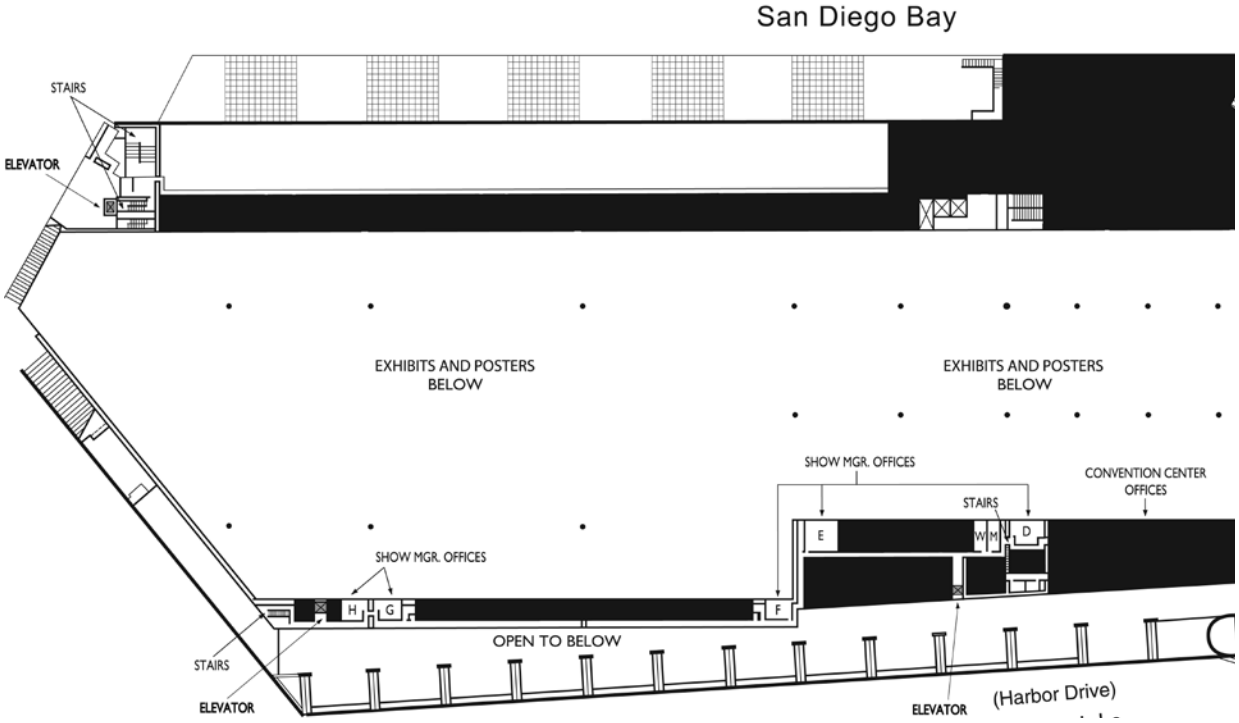
SAPPHIRE LEVEL



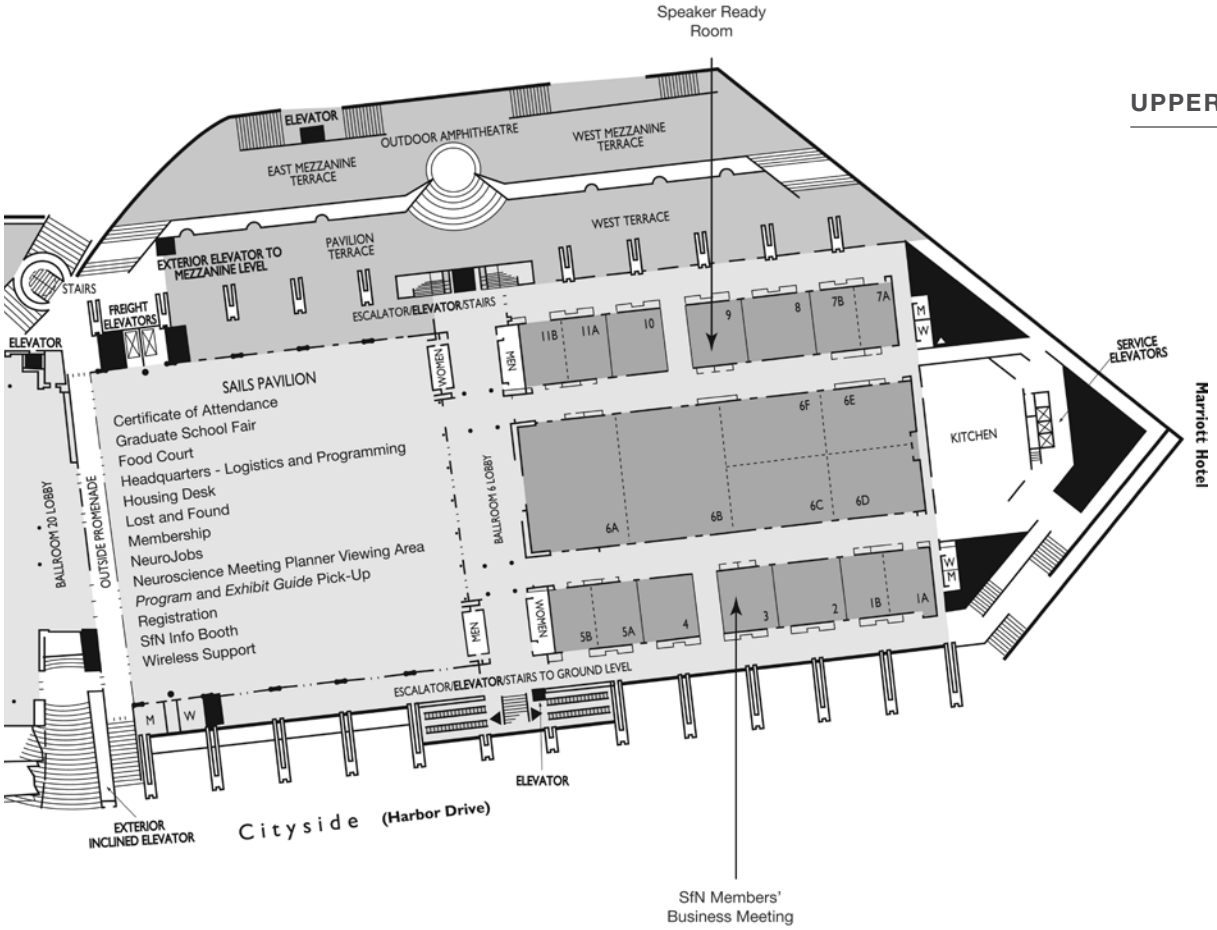
SAN DIEGO CONVENTION CENTER

111 W Harbor Dr
San Diego, CA 92101

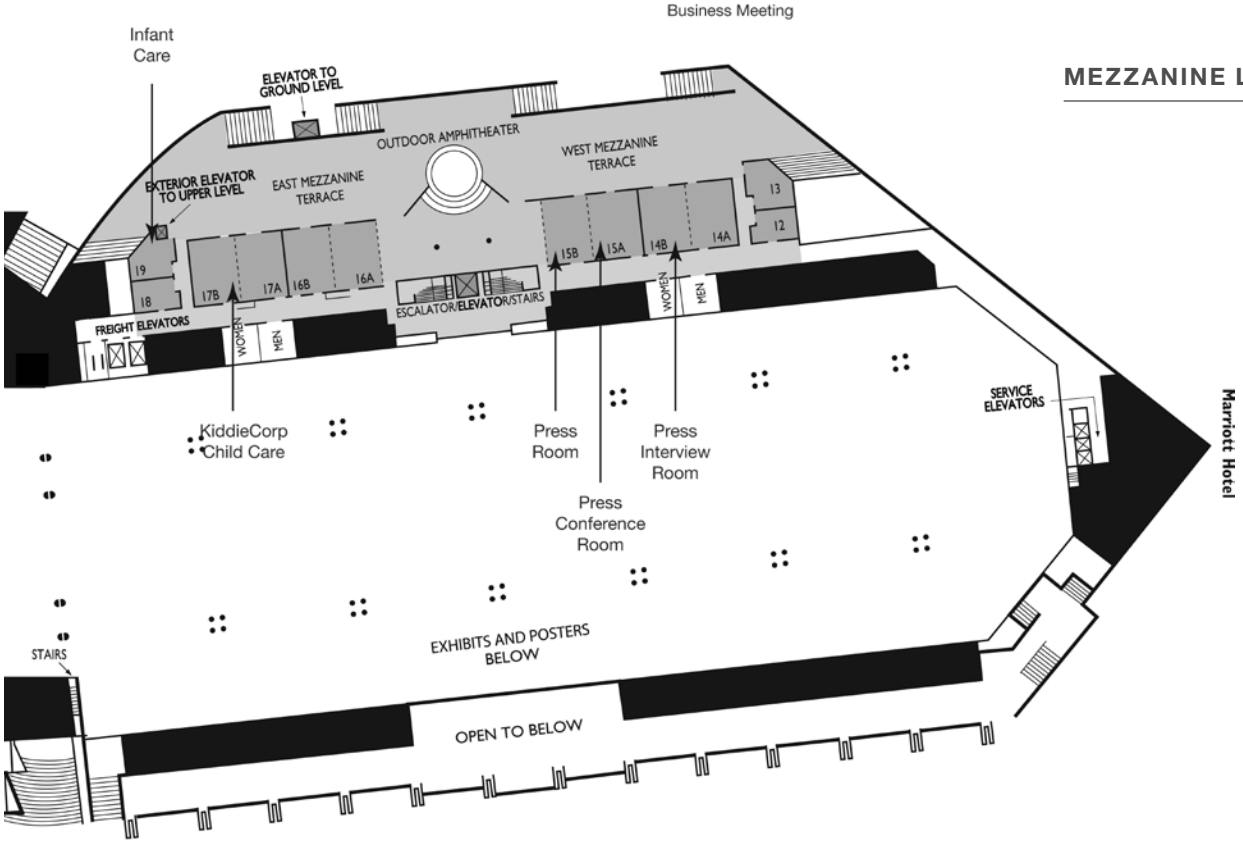




UPPER LEVEL



MEZZANINE LEVEL



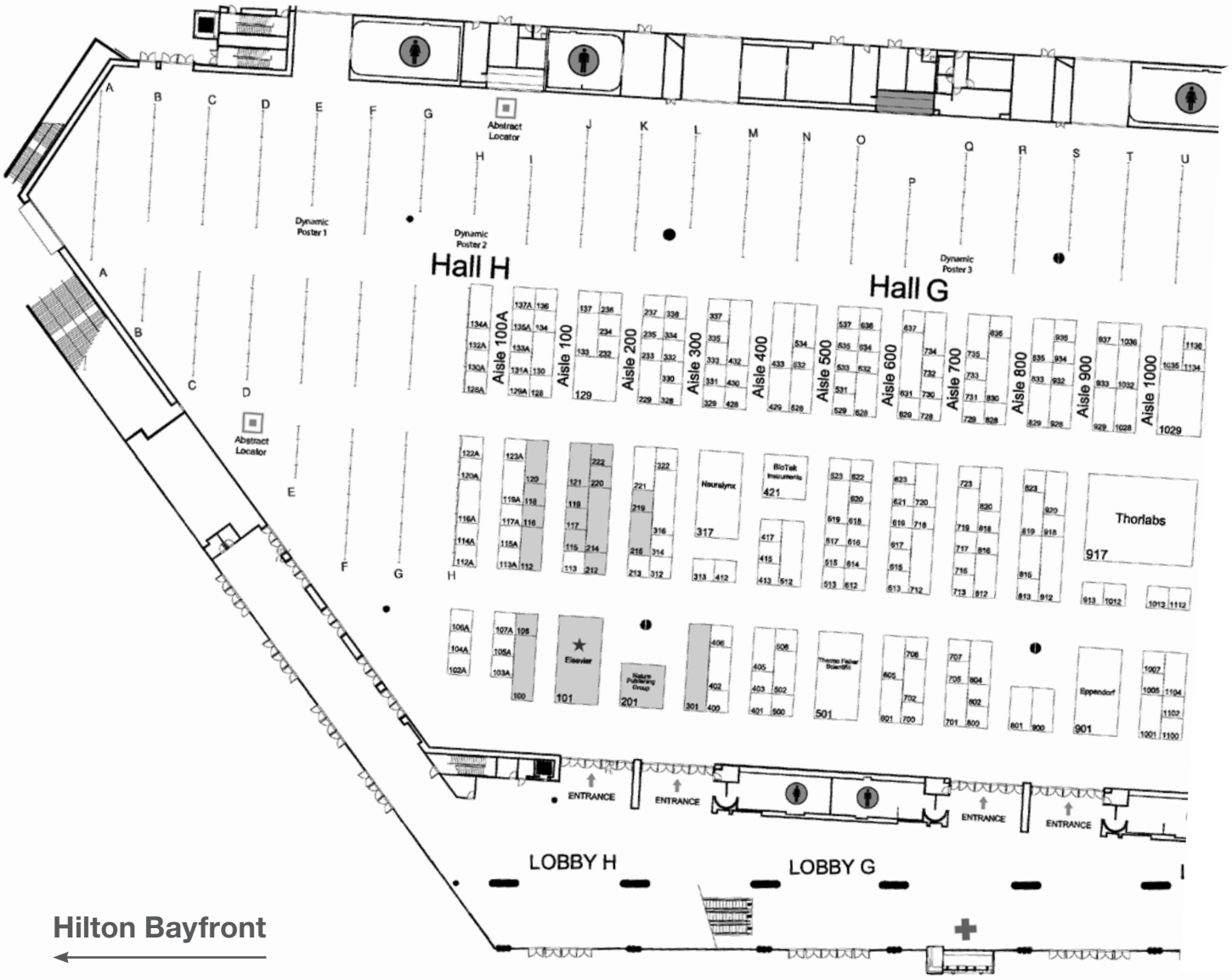
Exhibits and Poster Sessions

SAN DIEGO CONVENTION CENTER

Meeting Dates: November 12–16

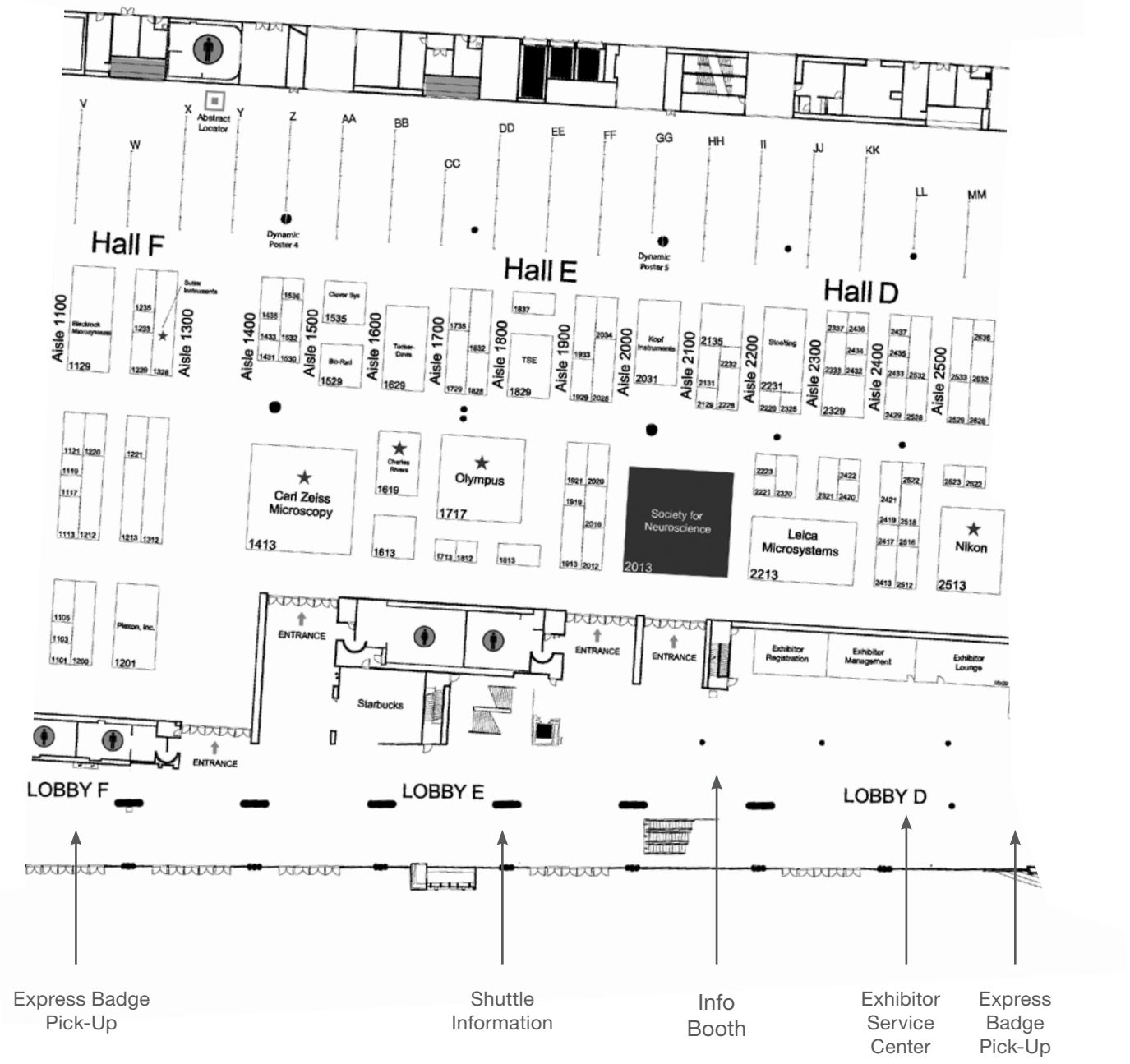
Exhibit Dates: November 13–16

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. Pending fire marshal approval. Floor plans subject to change. For current floor plan, visit **SfN.org/exhibits.**



KEY

- Publishers Row
- SfN Booth
- Nonprofits/ U.S. Government Agencies
- ★ Sustaining Associate Members
- Abstract Locator
- Concession Area
- Women's Restroom
- Men's Restroom
- Entrance



SAN DIEGO CONVENTION CENTER

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- Abstract Locator
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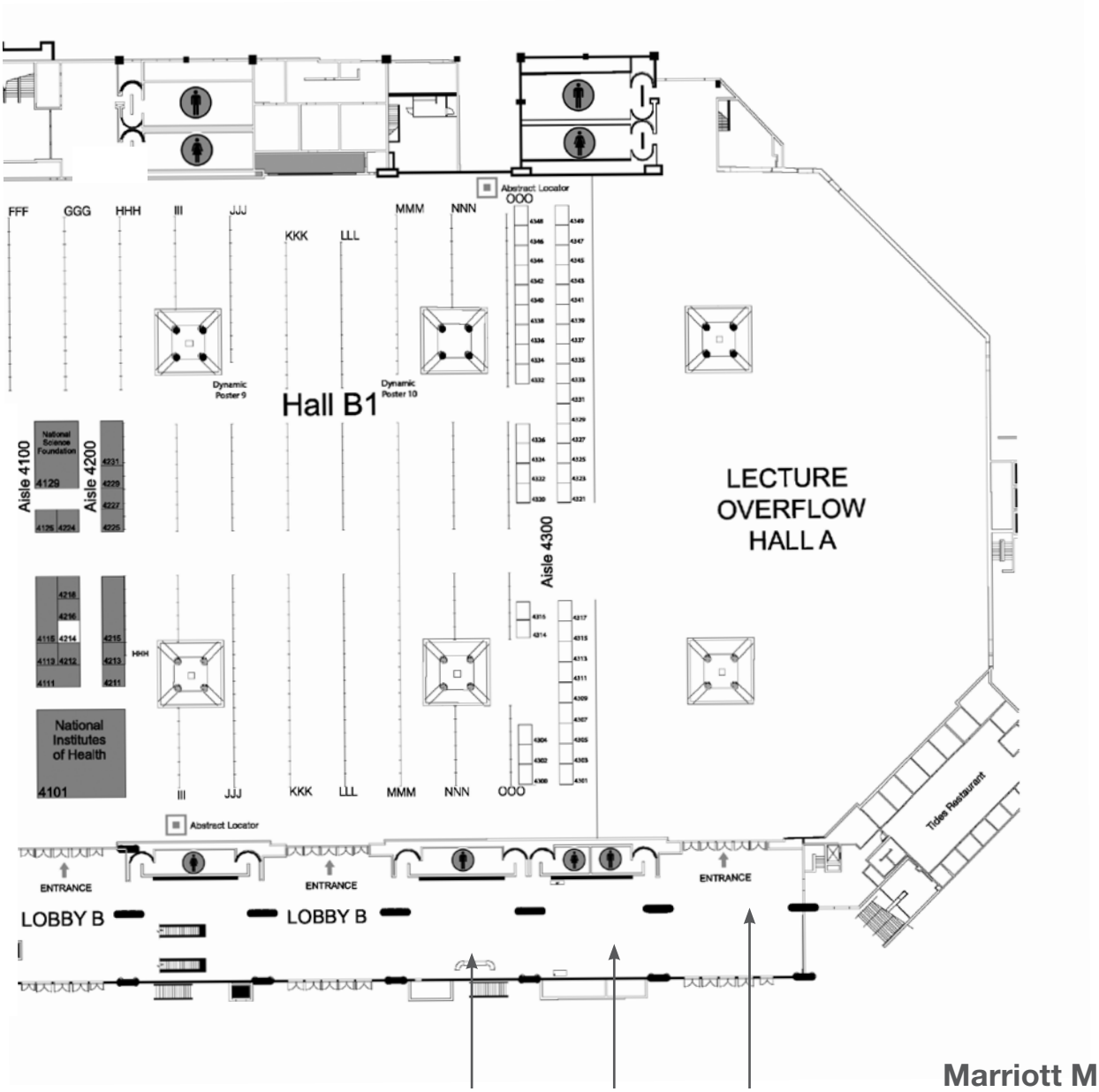

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2017

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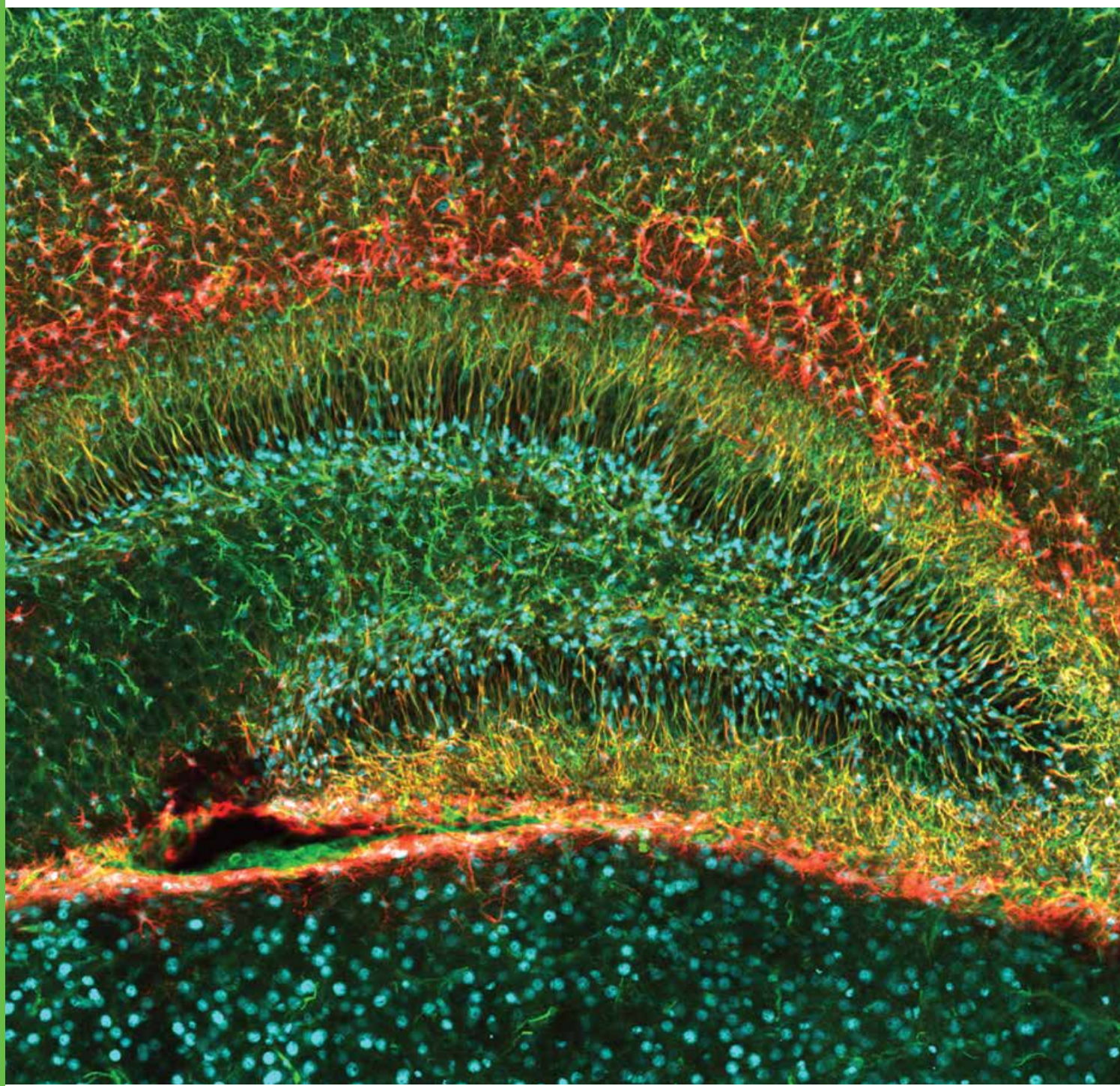
Neuroscience 2016



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