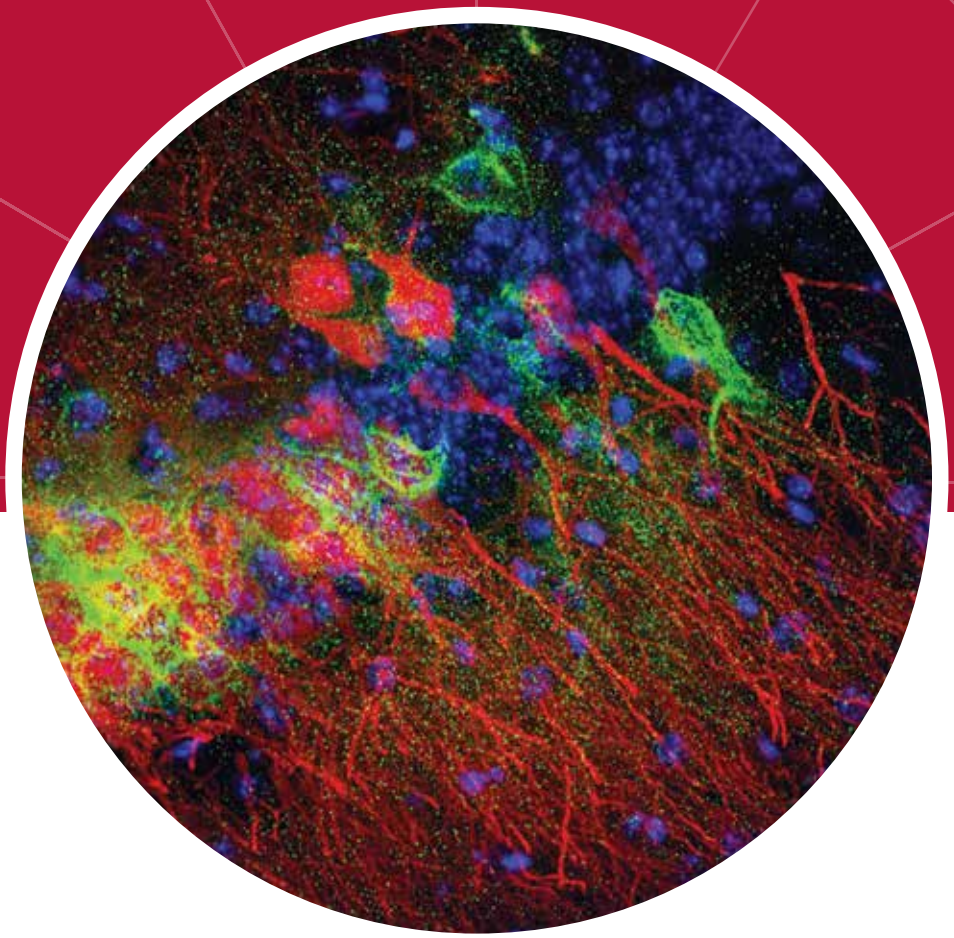
NEUROSCIENCE 2017

SATURDAY

SCIENTIFIC SESSION LISTING:001–093



Washington, DC

Society for Neuroscience

Nov. 11–15

INFORMATION AT A GLANCE

IMPORTANT PHONE NUMBERS

Annual Meeting Headquarters Office

Logistics & Programming

Walter E. Washington Convention Center:
Room 102
Logistics, (202) 249-4200
Programming, (202) 249-4205

Volunteer Leadership Lounge

Walter E. Washington Convention Center:
Salon F, (202) 249 - 4235

Annual Meeting Information Booths

Walter E. Washington Convention Center

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Room 202A, (202) 249-4230

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First Aid and Hospital Numbers

First Aid Room

Walter E. Washington Convention Center:
Hall A, (202) 249-3108
Hall D, (202) 249-3109

George Washington University Hospital
900 23rd Street, NW
Washington, DC 20037
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Key to Poster Floor by Themes

The poster floor begins with Theme A in Hall C and ends with Theme J in Hall A. Refer to the poster floor map at the end of this booklet.

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 on display in Hall A beginning at 1 p.m. on Saturday, Nov. 11, and will remain posted until 5 p.m., Sunday, Nov. 12. One-hour presentations will occur either Saturday afternoon or Sunday morning.

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.changingourcampus.org. 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.

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

Cover Image: This image displays a dense localization of fluorescently labeled perineuronal nets (green) around mouse hippocampal CA2 pyramidal neurons (red) and proximal neurites. Perineuronal nets are stained with Wisteria floribunda agglutinin, CA2 neurons are labeled using a mouse line expressing EGFP under control of the Amigo2 promoter (Gensat). Nuclei are stained with DAPI (blue). **Courtesy, with permission:** Kelly E. Carstens, Mary L. Phillips, Lucas Pozzo-Miller, Richard J. Weinberg and Serena M. Dudek, 2016, *The Journal of Neuroscience,* 36(23): 6312-6320.

Complete Session Listing

Saturday PM

LECTURE *Walter E. Washington Convention Center*

001. DIALOGUES BETWEEN NEUROSCIENCE AND SOCIETY

Sat. 11:00 AM - 1:00 PM — Hall D

Speaker: S. MUKHERJEE, *Columbia Univ.*

Support contributed by: Elsevier

Mukherjee, a physician and researcher, wrote the Pulitzer Prize-winning book *The Emperor of All Maladies: A Biography of Cancer*, which explores the disease that has plagued humans for thousands of years. His new book *The Gene: An Intimate History*, examines the quest to decipher how human heredity combines with life experiences to control our lives. In this lecture, Dr. Mukherjee will engage in a conversation with SfN President Eric Nestler about the excitement and importance of communicating the promise of scientific inquiry to the public.

LECTURE *Walter E. Washington Convention Center*

002. From Mechanisms of Neurogenesis to Neural Repair: Turning Scar-Forming Glia Into Neurons — CME

Sat. 2:00 PM - 3:10 PM — Hall D

Speaker: M. GÖTZ, *Ludwig Maximilian Univ. and Helmholtz Center's Inst. of Stem Cell Res.*

Much is known about molecular and cellular mechanisms of neurogenesis, but it is not clear how to trigger these mechanisms after brain injury. This lecture will review some of the key regulators of neurogenesis and discuss to what extent neurogenesis in the adult mammalian brain differs from neurogenesis in development. The lecture will also address our knowledge about scar formation, direct *in vivo* reprogramming that turns glia into neurons after brain injury, and the state-of-the-art efficiency and maturity of neurons. The lecture will close with data on how new neurons can functionally integrate and connect in brain regions that normally never integrate new neurons.

SYMPOSIUM *Walter E. Washington Convention Center*

003. Neuronal Adaptation and Behavioral Performance in Perceptual and Economic Decisions — CME

Sat. 1:30 PM - 4:00 PM — Ballroom A

Chair: C. PADOA-SCHIOPPA

The implications of neuronal adaptation are more complex than classically recognized. In sensory systems, ambiguous firing rates may result in a "coding catastrophe." In the representation of subjective values, uncorrected adaptation would induce arbitrary choice biases. These observations raise the question of whether adaptation is beneficial to the organism. The symposium will present recent work on perceptual and economic decisions showing that neuronal adaptation ensures optimal coding and thus increases behavioral performance.

1:30 **3.01** Introduction.

1:35 **3.02** Sensory adaptation: Predicting the future from the past. A. A. STOCKER. *Univ. of Pennsylvania.*

2:10 **3.03** Visual cortical adaptation optimizes eye movement precision. L. C. OSBORNE. *Univ. of Chicago.*

2:45 **3.04** Neuronal adaptation of prediction errors benefits learning. K. M. DIEDEREN. *Univ. Cambridge.*

3:20 **3.05** Neuronal adaptation and optimal coding in economic decisions. C. PADOA-SCHIOPPA. *Washington Univ. in St Louis.*

3:55 **3.06** Closing Remarks.

SYMPOSIUM *Walter E. Washington Convention Center*

004. Central Network Dynamics Regulating Visceral And Humoral Functions — CME

Sat. 1:30 PM - 4:00 PM — Ballroom B

Chair: R. J. VALENTINO
Co-Chair: P. G. GUYENET

The brain regulates visceral and immune functions to maintain internal homeostasis, optimally respond to a dynamic external environment, and integrate these functions with ongoing behavior. Using urological, gastrointestinal, and immune systems as examples, this symposium will show how advances in circuit dissection and manipulation and neural recordings across networks linking viscera to cortical regions are revealing how the brain performs this complex integration.

1:30 **4.01** Introduction.

1:35 **4.02** Central circuits in contextual regulation of micturition. H. X. HOU. *Harvard Med. Sch.*

2:10 **4.03** Network dynamics underlying the encoding of visceral sensorimotor information. R. J. VALENTINO. *Natl. Inst. of Drug Abuse.*

2:45 **4.04** The C1 neurons and stress-induced anti-inflammation. P. G. GUYENET. *Univ. Virginia Sch. Med.*

3:20 **4.05** Local inhibitory networks in the medullar regions that regulate gastric motility. M. A. HERMAN. *Univ. of North Carolina Chapel Hill.*

3:55 **4.06** Closing Remarks.

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

MINISYMPOSIUM *Walter E. Washington Convention Center*

005. Short-Circuiting Neurodevelopmental Disorders: Novel Insights and Treatment Strategies — CME

Sat. 1:30 PM - 4:00 PM — Ballroom C

Chair: M. FAGIOLINI
Co-Chair: T. PIZZORUSSO

Neurodevelopmental disorders are often associated with aberrant sensory processing and epilepsy, yet the way such deficits contribute to etiology of the disorder is unknown. This minisymposium will demonstrate how studies of selective central and peripheral neuronal circuits at the micro and macro level allow a new understanding beyond single genes that can be exploited to design interventions and to establish biomarkers that can be translated from animal models to humans.

1:30 **5.01** Introduction.

1:35 **5.02** Visual circuit dysfunction in Rett syndrome from mouse to human. M. FAGIOLINI. *Children's Hosp. Boston Harvard.*

1:55 **5.03** Sensory cortex alterations in mouse models of CDKL5 disorder. T. PIZZORUSSO. *Consiglio Nazionale delle Ricerche.*

2:15 **5.04** Bidirectional modulation of epilepsy networks via real-time switching of firing mode. J. PAZ. *Gladstone Inst. of Neurolog. Dis.*

2:35 **5.05** Microcircuit and macrocircuit level defects in Angelman syndrome. B. D. PHILPOT. *Univ. North Carolina.*

2:55 **5.06** Understanding somatosensory deficits in autism spectrum disorders. L. OREFICE. *Harvard Med. Sch.*

3:15 **5.07** Cerebellar mediated ASD behaviors and treatment. P. TSAI. *UT Southwestern.*

3:35 **5.08** Closing Remarks.

MINISYMPOSIUM *Walter E. Washington Convention Center*

006. Emerging Roles of Somatostatin Inhibitory Neurons in Sensory Cortex Processing and Plasticity — CME

Sat. 1:30 PM - 4:00 PM — 145B

Chair: H. MORISHITA
Co-Chair: H. ADESNIK

Somatostatin-expressing (SOM) neurons are one of the principal classes of GABAergic inhibitory neurons. This minisymposium brings together researchers applying advanced *in vivo* techniques to monitor and manipulate selective neural circuitries in the sensory cortex to discuss novel findings on how behavioral states and sensory inputs uniquely modulate the activity and rhythm of SOM neurons, and how SOM neurons in turn impact sensory processing and plasticity through specific molecular mechanisms.

1:30 **6.01** Introduction.

1:35 **6.02** Cortical gamma band synchronization through somatostatin interneurons. J. VEIT. *UC Berkeley.*

1:55 **6.03** Cortical circuits of long-range GABAergic neurons. A. APICELLA, Jr. *Univ. of Texas at San Antonio.*

2:15 **6.04** Behavioral-state modulation of somatostatin neurons activity in mouse visual cortex. N. ROCHEFORT. *Univ. of Edinburgh.*

2:35 **6.05** Network-level control of cortical sensory tuning mediated by somatostatin interneurons. H. K. KATO. *Univ. of North Carolina.*

2:55 **6.06** Activation of NMDARs selectively regulates the strength of inhibition mediated by somatostatin interneurons. M. J. HIGLEY. *Yale Sch. of Med.*

3:15 **6.07** Nicotinic activation of somatostatin interneurons restores cortical plasticity. H. MORISHITA. *Icahn Sch. of Med. at Mount Sinai.*

3:35 **6.08** Closing Remarks.

MINISYMPOSIUM *Walter E. Washington Convention Center*

007. Nonhuman Primate Optogenetics: Recent Advances and Future Directions — CME

Sat. 1:30 PM - 4:00 PM — 146A

Chair: A. GALVAN
Co-Chair: W. R. STAUFFER

Nonhuman primates (NHP) are the best animal model for studying human cognition and mental health disorders, yet because of their size, complexity, and genetic intractability, the application of optogenetics to NHP studies has been slow. Nevertheless, optogenetic methods are critical to understand the circuit and systems basis for cognition and mental health disorders. This minisymposium will highlight scientific advances using optogenetics in NHPs, demonstrate technical achievements, and identify the challenges ahead.

1:30 **7.01** Introduction.

1:35 **7.02** Towards cell-specific optogenetics in primate thalamus: Insights on the koniocellular LGN projection to V1. M. C. SCHMID. *Newcastle Univ.*

1:55 **7.03** FEF inactivation with improved optogenetic methods. L. ACKER. *Duke Univ.*

2:15 **7.04** Dopamine neuron-specific optogenetic stimulation in rhesus macaques. W. R. STAUFFER. *Univ. of Pittsburgh.*

2:35 **7.05** Towards an all optical interrogation of deep neural circuits with ultra-thin optical fibers. S. OHAYON. *Massachusetts Inst. of Technol. (MIT).*

2:55 **7.06** Pathway-selective optogenetics for elucidating neural network function in primates. K. INOUE. *Primate Res. Institute, Kyoto Univ.*

3:15 **7.07** Selective optogenetic control of Purkinje cells in monkey cerebellum. Y. EL-SHAMAYLEH. *Univ. of Washington.*

3:35 **7.08** Closing Remarks.

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* Indicates abstract's submitting author

MINISYMPOSIUM *Walter E. Washington Convention Center*

008. Adolescence and Reward: Making Sense of Neural and Behavioral Changes Amid the Chaos — CME

Sat. 1:30 PM - 4:00 PM — 151B

Chair: D. M. WALKER
Co-Chair: M. J. PAUL

Adolescence is a time of significant change in the brain and behavior. Evidence suggests that many adolescent-typical changes in behavior are related to increased value placed on rewards and driven by interactions between pubertal hormones, dopaminergic reward circuitry, and prefrontal cortex. This symposium highlights recent developments in our understanding of neural and hormonal contributions to adolescent typical reward-associated behaviors and increased vulnerability to neurological disorders.

1:30 **8.01** Introduction.

1:35 **8.02** Sex, drugs, and reward circuitry: The role of the medial amygdala in sex differences in cocaine sensitivity and reward circuitry during adolescence. D. M. WALKER. *Icahn Sch. of Med. At Mount Sinai.*

1:55 **8.03** Puberty-dependent and puberty-independent regulation of adolescent social, exploratory, and novelty seeking behaviors. M. J. PAUL. *Univ. at Buffalo, SUNY.*

2:15 **8.04** Age and sex differences in motivation and the role of cortico-accumbens circuit maturation. J. M. GULLEY. *Univ. of Illinois at Urbana-Champaign.*

2:35 **8.05** The role of pubertal onset in maturation of the prefrontal cortex and cognition during adolescence. J. WILLING. *Univ. of Illinois.*

2:55 **8.06** Adolescent changes in social reward and corticolimbic circuitry in the hamster. M. R. BELL. *Depaul Univ.*

3:15 **8.07** DCC receptors determine dopamine axon targeting in adolescence. C. FLORES. *McGill Univ.*

3:35 **8.08** Closing Remarks.

LECTURE *Walter E. Washington Convention Center*

009. PRESIDENTIAL SPECIAL LECTURE: Insights From Nonhuman Animals Into the Neurobiology of Language — CME

Sat. 5:15 PM - 6:30 PM — Hall D

Speaker: E. D. JARVIS, *The Rockefeller Univ. and Howard Hughes Med. Inst.*

Support contributed by: Tianqiao & Chrissy Chen Institute

Understanding language can be considered a final frontier toward understanding brain mechanisms of complex behaviors. Language was once considered unique to humans. However, the past several decades have seen a surge in nonhuman animal studies that inform us about language. This lecture will present a modern synthesis of these studies, from molecular, circuit, and behavior levels. A key new concept is that components of language, such as vocal learning, are continuous among species and therefore can provide insight into the mechanisms and evolution of language.

NANOSYMPOSIUM

010. Stem Cell Reprograming and Differentiation

Theme A: Development

Sat. 1:00 PM – *Walter E. Washington Convention Center*, 150A

1:00 **10.01** *In vivo* brain organoid model for generation of vascularized and functional PSC-Derived human brain organoids. A. MANSOUR*; J. GONÇALVE; C. BLOYD; H. LI; S. FERNANDIS; X. JIN; F. H. GAGE. *Salk Inst., salk institute for biological studies, salk institute for biological studies, The Salk Inst. for Biol. Studies, Salk Inst.*

1:15 **10.02** Directed differentiation of corticofugal projection neurons from endogenous cortical progenitors. A. OZKAN*; H. K. PADMANABHAN; S. L. SHIPMAN; V. SAHNI; P. KUMAR; W. EBINA; A. N. BASAK; J. D. MACKLIS. *Harvard Univ., Bogazici Univ.*

1:30 **10.03** ● Novel induction of neural-ectoderm and differentiation of neural progenitors from human iPSCs using pressure. Z. PAPPALARDO; L. CASSEREAU; B. A. ADAMS*; B. DOWNEY; J. LIM. *San Francisco State Univ., Xcell Biosci. Inc.*

1:45 **10.04** Analysis of retinal ganglion cell development and maturation using human pluripotent stem cells. S. OHLEMACHER*; A. SRIDHAR; Y. XIAO; V. SLUCH; D. J. ZACK; A. J. BAUCUM; T. R. CUMMINS; J. S. MEYER. *Indiana Univ. Purdue Univ. at Indianapolis Dept. of Biol., John Hopkins, Indiana Univ.*

2:00 **10.05** Knocking down of heat-shock protein 27 and one of the members of S100 superfamily induces differentiation of functional glutamatergic neurons and astrocytes from placenta-derived multipotent cells. C. CHIEN*; Y. CHENG; C. HUANG; L. TIEN; Y. LEE. *Cathay Gen. Hosp., Fu Jen Catholic Univ., Cathay Gen. Hosp., Natl. Central Univ., Natl. Def. Med. Ctr.*

2:15 **10.06** Investigation of excitatory and inhibitory neuronal phenotypes in Angelman syndrome neurons using rapid-single step neuronal differentiation methods. M. ISHIKAWA*. *Dept. Physiol., Keio Univ. Sch. Med.*

2:30 **10.07** Transcriptional comparisons of iPSC-derived striatal cell models delineate gene network interactions among physical time in culture, cellular maturation, age, and Huntington's disease. V. B. MATTIS*; R. HO; C. TOM; P. MATHKAR; R. G. LIM; C. GEATER; N. ALLEN; P. J. KEMP; L. M. THOMPSON; C. N. SVENDSEN. *Cedars-Sinai, Cedars-Sinai Med. Ctr., Cedars-Sinai Med. Ctr., Univ. of California-Irvine, Cardiff Univ., Univ. California, Cedars-Sinai Med. Ctr.*

2:45 **10.08** Inactivation of neurotoxic CAG expansion repeats in patient iPSC-derived neurons using highly specific Cas9 gene editing system. P. LISOWSKI*; B. MLODY; P. KANNAN; J. PRILLER; E. WANKER; R. KÜHN; A. PRIGIONE. *Max-Delbrück-Center For Mol. Med. (MDC), Inst. of Genet. and Animal Breeding, Max-Delbrück-Center for Mol. Med. (MDC) in the Helmholtz Assn, Charité − Universitätsmedizin.*

3:00 **10.09** Using human induced pluripotent stem cells to model Pitt-Hopkins Syndrome. D. J. HILER*; S. SRIPATHY RAO; A. TUTTLE; B. J. MAHER. *The Lieber Inst. For Brain Develop., Johns Hopkins Sch. of Med., Johns Hopkins Sch. of Med.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
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3:15 **10.10** Differentiation and single cell RNA sequencing of V2a interneurons from human pluripotent stem cells. J. BUTTS*; D. A. MCCREEDY; J. A. MARTINEZ-VARGAS; C. A. GIFFORD; L. J. NOBLE-HAEUSSLEIN; T. C. MCDEVITT. *Gladstone Inst. of Cardiovasc. Dis., UCSF, Univ. of California - Berkeley, Gladstone Inst., Univ. California.*

NANOSYMPOSIUM

011. Autophagy and Degradation

Theme B: Neural Excitability, Synapses, and Glia

Sat. 1:00 PM – *Walter E. Washington Convention Center*, 150B

1:00 **11.01** Autophagy regulates drug-responsive behaviors to cannabinoids and cocaine. C. HE*; S. YAMAMOTO; K. KURAMOTO; W. ZHANG; S. HUANG; A. ROCCHI. *Northwestern Univ. - Chicago.*

1:15 **11.02** Macroautophagy controls striatal circuit development via regulation of Kir2 channels. O. LIEBERMAN*; M. FRIER; E. SANTINI; A. BORGKVIST; D. SULZER. *Columbia Univ., Columbia Univ., Columbia Univ. Med. Ctr., Columbia Univ.*

1:30 **11.03** A role for macroautophagy in postnatal dendritic spine synapse development. G. TANG*; H. LI; H. ZHANG; X. WU; O. ARANCIO. *Columbia University, Dept of Neurol., Columbia Univ., Columbia Univ.*

1:45 **11.04** Basp1 mediates cocaine's locomotor stimulant effect via autophagy. M. M. HARRAZ*; P. GUHA; I. KANG; A. MALLA; P. CORTES; S. H. SNYDER. *Johns Hopkins Univ.*

2:00 **11.05** Selective autophagy degrades protein inclusions in the soma and dendrites of CNS neurons. K. PURTELL*; J. LIM; Y. ZHANG; L. LACHENMAYER; Z. YUE. *Icahn Sch. of Med. At Mount Sinai.*

2:15 **11.06** Parkinson's disease gene SYNJ1 contributes to impaired dopamine transmission and dopamine neuron vulnerability through regulating PIP2 levels. P. PAN; Z. YUE*; P. SHEEHAN; Q. WANG; Y. ZHANG; D. CAI. *Mount Sinai Sch. Med.*

2:30 **11.07** ● Isoform-selective Hsp90 inhibition rescues model of hereditary open-angle glaucoma. J. KOREN*, III; A. SUNTHARALINGAM; V. M. CROWLEY; B. S. J. BLAGG; L. BLAIR. *Mol. Med., The Univ. of Kansas.*

NANOSYMPOSIUM

012. Cognitive Dysfunction in Alzheimer's Disease and Related Dementias

Theme C: Neurodegenerative Disorders and Injury

Sat. 1:00 PM – *Walter E. Washington Convention Center*, 152B

1:00 **12.01** Analysis of Arc interacting proteins in mouse hippocampus during amnesia and its restoration. A. GAUTAM*; S. KAUL; M. THAKUR. *Univ. of Hyderabad, Natl. Inst. of Advanced Industrial Sci. & Technol. (AIST), Banaras Hindu Univ.*

1:15 **12.02** Modeling progressive cognitive impairment in the $APP_{swe}/PS1_{dE9}$ mouse model of amyloidosis by using the Barnes maze test. A. METAXAS*; R. VAITHEESWARAN; S. LI; K. L. LAMBERTSEN; B. FINSEN. *Univ. of Southern Denmark, Chinese Acad. of Sci.*

1:30 **12.03** Individual computer access improves advanced dementia & MCI. P. F. ARAVICH*; A. ORD; A. AZHER; A. P. CHIDESTER; M. S. BINDER; S. SAUTTER. *Eastern Virginia Med. Sch., Regent Univ., Westminster-Canterbury on Chesapeake Bay, Eastern Virginia Med. Sch., Eastern Virginia Med. Sch.*

1:45 **12.04** Murine amyloid-beta disrupts the consolidation, but not retrieval, of contextual memories in C57BL/6J mice. J. D. WHITE*; C. URBANO; J. TAYLOR; J. L. PETERMAN; M. COOKSEY; B. COOPER; M. J. CHUMLEY; G. W. BOEHM. *Texas Christian Univ., Texas Christian Univ.*

2:00 **12.05** The effects of testosterone in chronic intermittent hypoxia induced neurodegeneration. B. SNYDER*; R. L. CUNNINGHAM. *Univ. of North Texas Hlth. Sci. Ctr., Univ. North Texas Hlth. Sci. Ctr.*

2:15 **12.06** Formaldehyde facilitates diabetes-related cognitive deficits. Y. ZHANG*; T. TAN; W. LUO; J. LV; C. HAN; J. N. HAMLIN; H. LUO; H. LI; Y. WAN; X. YANG; Z. TONG; W. SONG. *Univ. of British Columbia, Capital Med. Univ., Shantou Univ. Med. Col., Beijing Geriatric Hosp., McGill Univ., Peking Univ., Central China Normal Univ.*

2:30 **12.07** Activity CA3 pyramidal neuron improve cognitive functions via restoring synaptic deficits in Alzheimer's disease. D. SONG; Q. YANG; H. QING*. *Beijing Inst. of Technol., Beijing Inst. of Technol.*

2:45 **12.08** Cerebellar atrophy and its contribution to cognitive dysfunction in frontotemporal dementia subtypes. Y. CHEN*; F. KUMFOR; R. LANDIN-ROMERO; M. IRISH; J. HODGES; O. PIGUET. *The Univ. of Sydney, ARC Ctr. of Excellence in Cognition and its Disorders, Brain & Mind Centre, The Univ. of Sydney, The Univ. of Sydney.*

NANOSYMPOSIUM

013. Alpha-Synuclein, Tau, and PRP Aggregation and Transmission: Models and Therapeutics

Theme C: Neurodegenerative Disorders and Injury

Sat. 1:00 PM – *Walter E. Washington Convention Center*, 140A

1:00 **13.01** ● Therapeutic antibodies to alpha-synuclein targeting both truncated and full length alpha-synuclein forms bind to fibril seeds and attenuate seeding of alpha-synuclein aggregation by alpha-synuclein fibrils *in vitro* and *in vivo*. P. KALLUNKI*; A. BERGSTROM; I. J. MALIK; F. SOTTY; L. B. VESTERAGER; K. JUST ANDERSEN; L. ØSTERGAARD PEDERSEN; J. B. STAVENHAGEN; P. PARREN; R. RADEMAKER; E. VAN DEN BRINK; T. VINK; D. SATIJN; J. EGEBJERG; K. FOG. *H. Lundbeck A/S, Genmab B.V.*

1:15 **13.02** The molecular tweezer CLR01 shows promise as a therapeutic agent in a mouse model of multiple system atrophy. G. BITAN*; M. HERRERA VAQUERO; M. KALLAB; D. BOUQUIO; K. BIGGS; J. OCHOA; W. POEWE; G. WENNING; F. KLÄRNER; T. SCHRADER; N. STEFANOVA. *UCLA, Med. Univ. Innsbruck, Univ. of Duisburg-Essen.*

1:30 **13.03** Preformed alpha-synuclein fibrils induced synucleinopathy in organotypic brain slice cultures . A. ROUX; X. WANG; J. MA*. *Van Andel Res. Inst.*

1:45 **13.04** Inhibition of membrane-induced alpha-synuclein aggregation as a potential therapeutic strategy in Parkinson's disease. S. DUTTA; D. YSSELSTEIN; R. ARLINGHAUS; L. LIN; C. J. GILPIN; L. A. STANCIU; J. ROCHET*. *Purdue Univ., Purdue Univ., Purdue Univ.*

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* Indicates abstract's submitting author

2:00 **13.05** α-synuclein fibril-induced inclusion spread in rats and mice correlates with dopaminergic neurodegeneration. H. ABDELMOTILIB*; V. DELIC; X. HU; L. A. VOLPICELLI-DALEY; A. B. WEST. *Univ. of Alabama At Birmingham.*

2:15 **13.06** Neuronal defects caused by early formation of alpha-synuclein inclusions. L. A. VOLPICELLI-DALEY*; J. M. FROULA; B. W. HENDERSON; J. GONZALEZ; J. H. VADEN; L. OVERSTREET-WADICHE; J. H. HERSKOWITZ. *Univ. of Alabama At Birmingham, Univ. of Alabama At Birmingham.*

2:30 **13.07** Pharmacological inhibition of the NLRP3 inflammasome protects against synuclein pathology and dopaminergic degeneration. R. GORDON*; E. A. ALBORNOZ; D. C. CHRISTIE; M. R. LANGLEY; V. KUMAR; S. MANTOVANI; A. A. B. ROBERTSON; M. S. BUTLER; L. A. O'NEILL; A. G. KANTHASAMY; K. SCHRODER; M. A. COOPER; T. M. WOODRUFF. *The Univ. of Queensland, The Univ. of Queensland, Iowa State Univ., The Univ. of Queensland, Trinity Col. Dublin.*

2:45 **13.08** ● Differential distribution of alpha-synuclein disease-causing mutants in extracellular vesicles. M. INGELSSON*; G. GUSTAFSSON; D. SEHLIN; A. ERLANDSSON; J. BERGSTRÖM; T. F. OUTEIRO; X. O. BREAKEFIELD; B. T. HYMAN; C. LÖÖV. *Uppsala Univ. / Geriatrics, Massachusetts Gen. Hosp., Univ. Med. Ctr. Goettingen.*

3:00 **13.09** Pathological tau strains from human brains recapitulate the diversity of tauopathies in nontransgenic mouse brain. S. NARASIMHAN*; J. L. GUO; L. CHANGOLKAR; J. D. MCBRIDE; L. V. SILVA; Z. HE; B. ZHANG; R. J. GATHAGAN; J. Q. TROJANOWSKI; V. M. LEE. *Univ. of Pennsylvania.*

3:15 **13.10** Sequelae of anti-prion therapeutics and the appearance of drug resistance. K. GILES*; N. T. NGUYEN; D. B. BERRY; C. CONDELLO; A. OEHLER; B. N. DUGGER; S. B. PRUSINER. *Inst. For Neurodegenerative Diseases, UCSF.*

3:30 **13.11** ● Anti-tau antibodies reduce tau seeding induced by pathological tau species and Alzheimer-like tauopathy in primary neurons from rTg4510 mice. C. VOLBRACHT*; L. HELBOE; L. ØSTERGAARD PEDERSEN; J. FALSIG PEDERSEN; N. ROSENQVIST; J. TORLEIF PEDERSEN. *H. Lundbeck A/S.*

3:45 **13.12** ● MW150, a novel isoform selective p38αMAPK inhibitor drug candidate, protects against memory loss in mouse models of tauopathy. O. ARANCIO*; A. STANISZEWSKI; J. SCHAVOCKY; S. ROY; J. PELLETIER; M. WINDISCH; D. M. WATTERSON. *Columbia Univ., Columbia Univ., Northwestern Univ., NeuroScios.*

4:00 **13.13** ● Global *in vivo* repression of endogenous mouse tau with systemic delivery of a zinc-finger protein transcription factor. S. DEVOS*; B. ZEITLER; S. WEGMANN; K. MARLEN; H. NGUYEN; Q. YU; D. MACKENZIE; C. COMMINS; B. CORJUC; M. C. HOLMES; B. RILEY; S. ZHANG; B. T. HYMAN. *Massachusetts Gen. Hosp., Sangamo Therapeutics, Inc.*

NANOSYMPOSIUM

014. Neuroinflammation: Virus and Infections

Theme C: Neurodegenerative Disorders and Injury

Sat. 1:00 PM – *Walter E. Washington Convention Center*, 147B

1:00 **14.01** $GABA_A$ agonist muscimol reverses morphine and HIV-Tat-induced calcium overload in hippocampal neurons. V. D. MCLANE*; P. E. KNAPP; K. F. HAUSER. *Virginia Commonwealth Univ., Virginia Commonwealth Univ.*

1:15 **14.02** Neurotrophic factors and stress hormones selectively regulate herpes simplex virus 1 and 2 (HSV1 and HSV2) infections in peripheral sensory and autonomic neurons. A. S. BERTKE*; A. M. IVES; A. A. YANEZ. *Virginia Tech.*

1:30 **14.03** Complement dependent synapse loss in a mouse model of HIV-associated neurocognitive disorders. J. W. HAMMOND*; W. Q. QIU; D. F. MARKER; M. J. BELLIZZI; S. LU; H. A. GELBARD. *Univ. of Rochester, Univ. of Rochester.*

1:45 **14.04** The effects of HIV-1 Tat and morphine on hippocampal function. W. MARKS*; V. D. MCLANE; A. R. MCQUISTON; P. E. KNAPP; K. F. HAUSER. *Virginia Commonwealth Univ., Virginia Commonwealth Univ., Virginia Commonwealth Univ.*

2:00 **14.05** Chronic, low dosage methamphetamine modifies memory performance compromised by exposure to HIV-1 Tat protein. M. KAUL*; R. MAUNG; D. OJEDA-JUAREZ; P. SANCHEZ-PAVON; A. B. SANCHEZ; A. J. ROBERTS; -. TMARC GROUP. *Sanford Burnham Prebys Med. Discovery Inst., UCSD, The Scripps Res. Inst.*

2:15 **14.06** HIV-1 Tat effects to influence morphine-tolerance, -dependence, and -conditioned place preference involve C-C chemokine receptor type 5. J. J. PARIS*; M. GONEK; V. D. MCLANE; K. M. LIPPOLD; P. E. KNAPP; W. L. DEWEY; K. F. HAUSER. *Virginia Commonwealth Univ., Virginia Commonwealth Univ., Virginia Commonwealth Univ.*

2:30 **14.07** Exposure to neuroinflammatory HIV-1 Tat protein activates brain microglia, potentiates voluntary consumption and conditioned place preference responses to morphine, and reinstates extinguished reward-seeking behavior. J. P. MCLAUGHLIN*; T. J. CIRINO; S. O. EANS; J. M. MEDINA; H. M. STACY; K. A. HYMEL; M. J. KAUFMAN. *Univ. of Florida, Univ. of Florida, McLean Hosp.*

NANOSYMPOSIUM

015. Touch, Itch, and Pain

Theme D: Sensory Systems

Sat. 1:00 PM – *Walter E. Washington Convention Center*, 147A

1:00 **15.01** The role of USH2A in cutaneous mechanosensation. F. SCHWALLER*; V. BEGAY-MULLER; B. MCDONALD; G. R. LEWIN. *Max Delbruck Centrum.*

1:15 **15.02** Keratinocytes mediate innocuous touch and pain sensation. F. MOEHRING*; A. M. REYNOLDS; A. WEYER; A. MENZEL; T. ARZUA; M. GRZYBOWSKI; A. GEURTS; O. PALYGIN; C. L. STUCKY. *Med. Col. of Wisconsin, Med. Col. of Wisconsin, Med. Col. of Wisconsin.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

1:30 **15.03** High resolution mapping of sub-second behavior features of mouse paw withdrawal. I. ABDUS-SABOOR*; N. FRIED; P. DONG; J. BURDGE; M. LU; L. DING; W. LUO. *Univ. of Pennsylvania.*

1:45 **15.04** Neural recruitment and Mrgpr activity are required for the development of a mouse model of atopic dermatitis. E. A. LERNER*; T. LUO; E. AZIMI; S. B. ELMARIAH. *Massachusetts Gen. Hosp., Massachusetts Generarl Hosp.*

2:00 **15.05** S1PR3 governs inflammatory pain and mechanonociception. R. Z. HILL*; T. MORITA; R. B. BREM; D. M. B. BAUTISTA, 94720. *UC Berkeley, The Rockefeller Univ., Buck Inst. for Res. on Aging, UC Berkeley.*

2:15 **15.06** Optogenetic silencing of CGRPα-expressing sensory neurons alleviates neuropathic pain. A. M. REYNOLDS*; F. MOEHRING; H. ZHANG; C. O'HARA; C. L. STUCKY. *Med. Col. of Wisconsin, Med. Col. of Wisconsin, Med. Col. of Wisconsin.*

2:30 **15.07** Withdrawn

2:45 **15.08** Mechanisms of neurotransmitter release in slowly adapting touch receptors. B. U. HOFFMAN*; Y. BABA; E. V. MOSHAROV; D. SULZER; E. A. LUMPKIN. *Columbia Univ., Columbia Univ., Columbia Univ., Columbia Univ.*

3:00 **15.09** Effect of environmental enrichment on somatosensory plasticity in the neocortex following early blindness. D. L. RAMAMURTHY*; L. A. KRUBITZER. *UC Davis, UC Davis.*

3:15 **15.10** IL-33/ST2 signaling excites sensory neurons and mediates itch responses in a mouse model of poison ivy contact allergy. S. E. JORDT*; B. LIU; Y. TAI; S. ACHANTA; M. M. KAELBERER; A. I. CACERES. *Duke Univ., The Third Clin. Med. College, Zhejiang Chinese Med. Univ.*

3:30 **15.11** The coding of cutaneous temperature in the spinal cord and its modality-specific modulation after injury: an *in vivo* calcium imaging study. C. RAN*; G. N. A. KAMALANI; M. A. HOON; X. CHEN. *Stanford Univ., Stanford Univ., NIH.*

3:45 **15.12** Discovery of protease-activated receptor type 3 (PAR3) ligands and a novel role for PAR3 in pain. T. J. PRICE*; S. N. HASSLER; P. R. RAY, 75080; A. CHAMESSIAN; M. NEIMAN; T. VAN DE VEN; R. JI; G. O. DUSSOR; S. BOITANO; J. VAGNER. *UTD, Univ. of Texas at Dallas, UT Dallas, Duke Univ., Case Western Reserve Univ., Duke Univ., Duke Univ. Med. Ctr., Univ. of Texas At Dallas, Univ. of Arizona.*

NANOSYMPOSIUM

016. Spatial and Feature-Based Attention

Theme D: Sensory Systems

Sat. 1:00 PM – *Walter E. Washington Convention Center*, 156

1:00 **16.01** Cortical state fluctuations predict the accuracy of visual spatial perception in mice. A. M. SPEED; J. P. DEL ROSARIO; C. P. BURGESS; M. CARANDINI; B. HAIDER*. *Georgia Tech. & Emory Univ., Univ. Col. London.*

1:15 **16.02** Spatial attention modulates information processing in mouse primary visual cortex. E. G. MCBRIDE*; S. LEE; E. M. CALLAWAY. *Salk Inst.*

1:30 **16.03** Prefrontal functional inputs in visual cortex during processing of redundant and novel stimuli. J. P. HAMM*; Y. SHYMKIV; R. YUSTE. *Columbia Univ.*

1:45 **16.04** Modeling the effects of perturbing superior colliculus activity on covert perceptual choices. J. P. HERMAN*; R. J. KRAUZLIS. *NEI / NIH, Natl. Eye Inst.*

2:00 **16.05** A diverse neural code gives rise to attentional preparation. A. C. SNYDER*; B. M. YU; M. A. SMITH. *Univ. of Pittsburgh, Carnegie Mellon Univ., Univ. of Pittsburgh.*

2:15 **16.06** Attention alters neural population representations for stimulus shape and location in macaque monkeys. A. B. SERENO*; S. R. LEHKY. *Univ. of Texas McGovern Med. Sch. at Houston, Salk Inst.*

2:30 **16.07** Rhythmic environmental sampling during selective attention reflects a theta-dependent, push-pull relationship between frontal and parietal cortex. I. C. FIEBELKORN*; M. A. PINSK; S. KASTNER. *Princeton Univ.*

2:45 **16.08** Temporal ensemble code of visuospatial attention in primate lateral prefrontal cortex. J. C. MARTINEZ-TRUJILLO*; L. DUONG; M. ABBASS; A. J. SACHS. *Univ. of Western Ontario, Robarts Res. Inst., Univ. of Western Ontario, The Ottawa Hosp.*

3:00 **16.09** Natural visual search for categories alters interregional correlations in the human brain. S. U. H. DAR; T. CUKUR*. *Bilkent Univ., Bilkent Univ., Bilkent Univ., Bilkent Univ.*

3:15 **16.10** Uniqueness drives visual salience independently of local contrast. D. JECK*; H. EGETH; M. QIN; E. NIEBUR. *The Johns Hopkins Univ., The Johns Hopkins Univ., Univ. of Connecticut at Storrs.*

NANOSYMPOSIUM

017. Cellular Adaptations Produced By Cocaine

Theme G: Motivation and Emotion

Sat. 1:00 PM – *Walter E. Washington Convention Center*, 144A

1:00 **17.01** Engineering CRISPR/Cas9 constructs to model the epigenetic and transcriptional phenomena underlying pathogenic mechanisms of cocaine abuse. P. J. HAMILTON*; C. K. LARDNER; Z. S. LORSCH; S. E. MONTGOMERY; R. L. NEVE; E. A. HELLER; E. J. NESTLER. *Mount Sinai Sch. of Med., MIT, Perelman Sch. of Medicine, Univ. of Pennsyl.*

1:15 **17.02** RNA-Seq analysis of cocaine abuse identifies genes associated with adult striatal neurogenesis. D. C. MASH; S. P. GARAMSZEGI*; C. WU; R. T. VONTELL; C. LEE; Z. JIANG; N. TSINOREMAS; K. ARDLIE; T. SULLIVAN; E. GELFAND; G. TURECKI. *Univ. of Miami, Univ. of Miami, Univ. of Miami, Broad Inst., McGill Univ.*

1:30 **17.03** Long-noncoding RNA Gas5 is associated with cocaine action. A. N. BROWN; H. XU; G. J. KAPLAN; R. ADAMS; E. J. NESTLER; J. FENG*. *Florida State Univ., Icahn Sch. of Med. at Mount Sinai.*

1:45 **17.04** Translational control by eIF2A regulates acute and persistent effects of cocaine. S. KHATIWADA*; A. PLACZEK; W. HUANG; G. VIANA DI PRISCO; M. COSTA-MATTIOLI. *Baylor Col. of Med., Mercer Univ. Sch. of Med.*

2:00 **17.05** Cocaine inhibits pathway specific GABA transmission in the VP through a non-dopaminergic mechanism. A. MATSUI*; V. A. ALVAREZ. *NIAAA/NIH.*

2:15 **17.06** Cocaine potency at the dopamine transporter is determined by dopamine neuron activation. Z. D. BRODNIK*; R. A. ESPAÑA. *Drexel Univ., Drexel Univ. Col. of Med.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

2:30 **17.07** Activin A signaling in the dorsal hippocampus mediates incubated cocaine seeking. C. T. WERNER; Z. WANG; J. A. MARTIN; A. F. STEWART; R. VISWANATHAN; A. CACCAMISE; R. L. NEVE; D. M. DIETZ*. *State Univ. of New York at Buffalo, State Univ. of New York At Buffalo, MIT.*

2:45 **17.08** Neural underpinnings of excessive intake of cocaine and food can be different. V. COMPAN*; L. LAURENT; O. ARIBO; G. CONDUCTIER; R. MALDONADO. *Nimes Univ., UNIVERSITY.*

3:00 **17.09** Recent use of cocaine is associated with functional connectivity changes supporting enhanced alerting, but not executive, attention in individuals with cocaine addiction. A. ZILVERSTAND*; M. A. PARVAZ; R. Z. GOLDSTEIN. *Icahn Sch. of Med. at Mount Sinai.*

NANOSYMPOSIUM

018. Perceptual and Spatial Human Learning

Theme H: Cognition

Sat. 1:00 PM – *Walter E. Washington Convention Center*, 143A

1:00 **18.01** Probabilistic forward replay of stimulus sequences in human visual cortex. M. EKMAN*; G. GENNARI; F. P. DE LANGE. *Radboud Univ. Nijmegen, Radboud Univ. Nijmegen.*

1:15 **18.02** Long time no see: Enduring behavioral and neuronal changes in perceptual learning of motion trajectories three years after training. P. U. TSE*; S. M. FRANK; M. W. GREENLEE. *Dartmouth Col., Univ. Regensburg.*

1:30 **18.03** Probing the mechanism of perceptual learning. C. W. TYLER*; J. A. SOLOMON. *Smith-Kettlewell Eye Res. Inst., City Univ. of London, City Univ. of London.*

1:45 **18.04** Context-dependent grid cell activity in the human entorhinal cortex. Z. NADASDY*; T. P. NGUYEN; Á. TÖRÖK; J. Y. SHEN; D. E. BRIGGS; P. N. MODUR; R. J. BUCHANAN. *Sarah Cannon Res. Inst., The Univ. of Texas at Austin, Eötvös Loránd Univ., Baylor Col. of Med., Hungarian Acad. of Sci., Res. Ctr. for Natural Sci., Dell Med. School, Univ. of Texas at Austin, Seton Brain & Spine Inst., Dell Med. School, Univ. of Texas at Austin, Dell Med. School, Univ. of Texas at Austin.*

2:00 **18.05** Functional connectivity of regions that preferentially respond to coherent optic flow during an egocentric spatial orientation task are related to self-reported spatial navigation ability. L. E. ZAJAC; R. J. KILLIANY*. *Boston Univ. Sch. of Med., Boston Univ. Sch. Of Med.*

2:15 **18.06** Changes in connectivity profiles as a mechanism for age-related decline in navigational learning? N. DIERSCH*; J. P. VALDES-HERRERA; C. TEMPELMANN; T. WOLBERS. *German Ctr. For Neurodegenerative Dis., Otto-von-Guericke Univ. Magdeburg, Otto-von-Guericke Univ. Magdeburg.*

2:30 **18.07** Variability in speed can predict temporal adaptation. E. KNELANGE*; J. LOPEZ-MÓLINER. *Inst. of Neuroscience, Univ. of Barcelona.*

2:45 **18.08** Converging evidence for learning-dependent changes in perceptual representation and decision-making: Combining response frequencies, response latencies, and the timing of the lateralized readiness potential. M. J. WENGER*; S. E. RHOTEN. *The Univ. of Oklahoma.*

3:00 **18.09** A hierarchical model of sequence perception and sequence learning. H. CHIEN*; C. J. HONEY. *Johns Hopkins Univ.*

NANOSYMPOSIUM

019. Learning and Memory in Aging

Theme H: Cognition

Sat. 1:00 PM – *Walter E. Washington Convention Center*, 152A

1:00 **19.01** ▲ Discrimination of highly similar sounds does not differ between young and older adults. N. V. HOANG*; S. BAKER; J. DAOU; M. MOSCOVITCH; R. S. ROSENBAUM. *Rotman Res. Inst., York Univ., Univ. of Toronto.*

1:15 **19.02** Effects of task complexity and age on functional connectivity of attentional networks. M. O'CONNELL; C. BASAK*. *Ctr. For Vital Longevity, Univ. of Texas At Dallas.*

1:30 **19.03** Hippocampal subfields and limbic white matter are associated with verbal learning in older adults. A. R. BENDER*; A. M. BRANDMAIER; S. DÜZEL; A. KERESZTES; O. PASTERNAK; U. LINDENBERGER; S. KÜHN. *Max Planck Inst. for Human Develop., Max Planck–UCL Ctr. for Computat. Psychiatry and Ageing Res., Brigham and Women's Hospital, Harvard Med. School, Boston, European Univ. Inst., Univ. Clin. Hamburg-Eppendorf.*

1:45 **19.04** Neural differentiation during encoding predicts subsequent memory independent of age. J. D. KOEN*; N. HAUCK; M. D. RUGG. *Univ. of Texas at Dallas, Univ. of Texas at Dallas, Univ. of Texas at Dallas Ctr. for Vital Longevity.*

2:00 **19.05** Age-related declines in neural distinctiveness and GABA concentrations in auditory cortex. P. S. LALWANI*; H. C. GAGNON; K. CASSADY; J. CHAMBERLAIN; M. SIMMONITE; B. FOERSTER; M. PETROU; R. SEIDLER; S. F. TAYLOR; D. WEISSMAN; T. A. POLK. *Univ. of Michigan, Univ. of Michigan, Univ. of Michigan.*

2:15 **19.06** Reinforcement learning in heathy aging: Similar behavior to Parkinson's disease, opposite mechanisms? I. LERNER*; R. B. SOJITRA; J. R. PETOK; M. A. GLUCK. *Rutgers Univ., Gluck Lab. (Rutgers University), St. Olaf Col., Rutgers Univ. Newark.*

2:30 **19.07** Age-related deficits in mnemonic discrimination of objects associated with dysfunction of anterolateral entorhinal cortex. Z. REAGH*; J. A. NOCHE; D. DELISLE; E. A. MURRAY; M. A. YASSA. *Univ. of California Irvine Dept. of Neurobio. and Behavior, Ctr. for the Neurobio. of Learning and Memory, Inst. for Memory Impairments and Neurolog. Disorders.*

2:45 **19.08** Age-related delay in visual and auditory evoked responses is mediated by white and gray matter differences. D. PRICE*; L. K. TYLER; R. NETO HENRIQUES; K. L. CAMPBELL; N. WILLIAMS; M. S. TREDER; J. TAYLOR; R. HENSON. *Med. Res. Council, Univ. of Cambridge, Med. Res. Council, Harvard Univ., Univ. of Helsinki, Univ. of Birmingham, Univ. of Manchester.*

3:00 **19.09** Six-year longitudinal change in association white matter tract integrity: Progression from cognitively healthy to dementia. S. L. WILLIS*; K. M. KENNEDY; P. R. ROBINSON; K. M. RODRIGUE; P. RAST; E. ULZIBAATAR; T. J. GRABOWSKI. *Univ. of Washington, Univ. Texas, Dallas, Univ. of California, Davis.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:15 **19.10** Effect of DRD2 C957T polymorphism on modulation of activation to working memory load across the adult lifespan. M. BOYLAN*; K. M. RODRIGUE; K. M. KENNEDY. *Univ. of Texas At Dallas, Univ. Texas, Dallas, Univ. Texas, Dallas.*

3:30 **19.11** Aging in the somatosensory system: Neural distinctiveness, GABA concentration and tactile function. K. E. CASSADY*; H. GAGNON; J. CHAMBERLAIN; P. LALWANI; M. SIMMONITE; B. FOERSTER; M. PETROU; R. D. SEIDLER; S. F. TAYLOR; D. WEISSMAN; T. A. POLK. *Univ. of Michigan - Ann Arbor, Univ. of Michigan, Univ. of Michigan, Univ. of Michigan Dept. of Psychiatry, Univ. of Michigan Dept. of Psychology.*

3:45 **19.12** Age related differences in brain activation during continuous memory updating. S. QIN*; M. O'CONNELL; K. NASHIRO; C. BASAK. *Univ. of Texas At Dallas, The Ctr. For Vital Longevity, USC, Univ. of Texas At Dallas.*

4:00 **19.13** Decoding selective attention during context memory encoding: an aging study. P. S. POWELL*; J. STRUNK, 30332; T. JAMES; S. M. POLYN; A. L. DUARTE. *Georgia Inst. of Technol., Vanderbilt Univ., Georgia Inst. Technol.*

4:15 **19.14** Independent components of neural activation before and after 100 days of cognitive training. M. SIMMONITE*; M. LÖVDÉN; P. S. LALWANI; J. D. CHAMBERLAIN; T. A. POLK. *Univ. of Michigan, Aging Res. Ctr.*

NANOSYMPOSIUM

020. Genetic and Genomic Studies of Schizophrenia

Theme H: Cognition

Sat. 1:00 PM – *Walter E. Washington Convention Center*, 146C

1:00 **20.01** Dysregulated in psychiatric disorders circular RNAs interact with RNA-binding proteins and influence synaptic plasticity. N. MELLIOS*; J. P. WEICK; B. RODRIGUEZ; S. K. AMOAH; M. DELL'ORCO; A. HAFEZ; J. LALONDE; B. J. HARTLEY; K. BRENNAND; S. J. HAGGARTY; N. PERRONE-BIZZOZERO. *Univ. of New Mexico Sch. of Med., Univ. of New Mexico, Univ. of New Mexico, Univ. of New Mexico HSC, Univ. of New Mexico HSC, Univ. of New Mexico, Mass. Gen. Hosp. — Harvard Med. Sch., Icahn Sch. of Med. At Mount Sinai, Icahn Sch. of Med. at Mount Sinai, Massachusetts Gen. Hosp.*

1:15 **20.02** Functional analysis of schizophrenia risk genes using high-content screening. M. ROSATO*; S. STRINGER; T. GEBUIS; M. SASSEN; D. POSTHUMA; A. B. SMIT; R. VAN KESTEREN. *VU Univ. Amsterdam, VU Univ. Amsterdam, VU Univ. Amsterdam, Ctr. For Neurogenomics & Cognitive Research, VU Univ.*

1:30 **20.03▲** Effects of the knockdown of schizophrenia susceptibility gene NT5C2 (CG32549) in *Drosophila melanogaster.* N. D. BACHTEL*; R. R. R. DUARTE; T. R. POWELL; D. F. NIXON; D. P. SRIVASTAVA; I. ELEFTHERIANOS. *George Washington Univ., King's Col. London.*

1:45 **20.04** Dysbindin-1 genetics through cortical D2 trafficking differentiate subjects with better cognitive responses to antipsychotic drugs. F. PAPALEO*; D. SCHEGGIA; R. MASTROGIACOMO; M. MEREU; S. SANNINO; R. E. STRAUB; M. ARMANDO; F. MANAGÒ; F. PIRAS; J. E. KLEINMAN; T. M. HYDE; M. A. DE LUCA; D. R. WEINBERGER; G. SPALLETTA. *Fondazione Inst. Italiano Di Tecnologia, Fondazione Inst. Italiano di Tecnologia, Univ. degli Studi di Padova, Lieber Inst. For Brain Develop., Bambino Gesù Children's Hosp., IRCCS Fondazione Santa Lucia, Univ. di Cagliari.*

2:00 **20.05** Differential effect of estrogen receptor alpha haplotypes on gene expression and memory in men and women with schizophrenia. C. MURPHY*; C. S. WEICKERT; R. LENROOT; T. W. WEICKERT. *Neurosci. Res. Australia, Univ. of New South Wales.*

2:15 **20.06** Mitochondrial defects in stem cell derived neurons from people with 22q11.2 deletion syndrome and schizophrenia. J. LI*; S. RYAN; E. DEBOER; E. PEDROSA; H. LACHMAN; D. WALLACE; S. ANDERSON. *CHOP, Univ. of Pennsylvania, Albert Einstein Col. of Med.*

2:30 **20.07** Splicing between repetitive elements and annotated exons is enriched near genomic regions associated with schizophrenia. S. SABUNCIYAN*; R. H. YOLKEN. *Johns Hopkins Univ.*

2:45 **20.08** Interactions between genetic polymorphisms in the COMT gene and psychiatric disorders. C. R. LAPSLEY; C. DEVINE; S. DOWNES; J. BRADY; A. J. BJOURSON; E. K. MURRAY*. *Ulster Univ., Ulster Univ., Western Hlth. and Social Care Trust, Northern Ireland Ctr. for Straified Med.*

3:00 **20.09▲** Ancestry and population structure in genetic association studies. IL1B gene and schizophrenia in Peruvian population. C. APARICIO*; D. HUERTA; W. LEYVA; E. BRAVO; J. SANDOVAL; R. FUJITA; M. GUEVARA; O. ACOSTA. *UNIVERSIDAD NACIONAL MAYOR DE SAN MARCOS, UNIVERSIDAD NACIONAL MAYOR DE SAN MARCOS, Hosp. Hermilio Valdizan, UNIVERSIDAD NACIONAL MAYOR DE SAN MARCOS, Facultad de Medicina,USMP.*

3:15 **20.10** Polygenic risk profile score increases schizophrenia liability mostly through cognition pathways: Mathematical causation models with latent cognition and polygenic risk. T. TOULOPOULOU*; X. ZHANG; P. SHAM; D. R. WEINBERGER. *Bilkent Univ., Univ. of Hong Kong, Lieber Inst. For Brain Develop.*

THEME J POSTER *Walter E. Washington Convention Center*

021. History of Neuroscience

Theme J posters will be on display from Sat. 1 p.m.-Sun. 5 p.m., with one-hour presentations occurring either Saturday afternoon (presentation numbers ending in SA) or Sunday morning (presentation numbers ending in SU)—Walter E. Washington Convention Center, Halls A-C

1:00 VV14 **21.01SA** Neuroplasticity: Past, present and future. J. E. KOCH. *Univ. WI Oshkosh.*

2:00 VV15 **21.02SA** Circling back to Willis: Stress related neurovascular contributions to PTSD, Alzheimer's, depression, and Lou Gehrig's disease? S. CURTIS. *True North, LLC.*

3:00 VV16 **21.03SA** Novel perceptual effects and stimuli from classic art and music. E. L. ALTSCHULER; D. L. ALTSCHULER. *Metropolitan Hosp., Brooklyn Friends Sch.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

4:00 VV17 **21.04SA** A historical perspective of stem cell clinical trials in spinal cord injury. B. T. DAVID; R. G. FESSLER. *Rush Univ. Med. Ctr.*

1:00 VV18 **21.05SA** Receptor visualization and the atomic bomb. A historical account of the development of the chemical neuroanatomy of receptors for neurotransmitters and drugs during the Cold War. J. M. PALACIOS; G. MENGOD. *FRONTERA BIOTECHNOLOGY, IIBB-CSIC, IDIBAPS, CIBERNED.*

2:00 VV19 **21.06SA** A tribute to James Parkinson. A. PARENT. *Psychiat. & Neurosci. Dept, Univ. Laval.*

3:00 VV20 **21.07SA** The influence of mentorship networks on career trajectories in biomedical research. S. V. DAVID; J. F. LIÉNARD. *Oregon Hlth. & Sci. Univ., Oregon Hlth. and Sci. Univ.*

4:00 VV21 **21.08SA** Historical inconsistency in definitions of cerebellar hemispheric lobules (crus I and crus II of the ansiform lobule) of non-human primates. I. SUGIHARA; Y. LUO; H. FUJITA. *Tokyo Med. & Dent. Univ., Johns Hopkins Univ. Sch. of Med.*

1:00 VV22 **21.09SA** A brain museum tour of Europe. R. E. BROWN. *Dept. of Psychology and Neurosci., Dalhousie Univ.*

2:00 VV23 **21.10SA** Pavlov's 1923 visit to Vasilii Boldyrev at the Battle Creek Physiological Institute. W. J. WILSON; G. A. INIGUEZ. *Albion Col.*

3:00 VV24 **21.11SA** From engrams to multiple interactive memory systems. B. D. DEVAN; K. BERGER; R. J. MCDONALD. *Towson Univ., Towson State Univ., Univ. Lethbridge.*

4:00 VV25 **21.12SA** The oldest mystery in psychology: Overlaps in theories related to most consistent (temperament) traits. I. TROFIMOVA. *McMaster Univ.*

1:00 VV26 **21.13SA** ▲ One hundred years of the classically conditioned blink response. M. RYAN; M. M. CAMPOLATTARO. *Christopher Newport Univ.*

2:00 VV27 **21.14SA** History of neuroscience of self-initiated action and volition: Recent developments and paradigm shift. B. TROVÒ; A. SCHURGER. *INSERM DR, Neurospin/ Cea-Saclay, Univ. Pierre et Marie Curie - Paris VI, École Polytechnique Fédérale de Lausanne.*

3:00 VV28 **21.15SA** ▲ Myrtelle may canavan: Pathologist who discovered a progressive degenerative disorder of the central nervous system " canavan disease". M. F. KIRMANI; A. NAMBOODIRI; R. VENGILOTE; N. PUTHILLATHU. *USUHS.*

4:00 VV29 **21.16SA** Charles Bell: Controversial scientist. B. W. BAKKUM. *Illinois Col. of Optometry.*

THEME J POSTER *Walter E. Washington Convention Center*

022. Teaching of Neuroscience: K-12

Theme J posters will be on display from Sat. 1 p.m.-Sun. 5 p.m., with one-hour presentations occurring either Saturday afternoon (presentation numbers ending in SA) or Sunday morning (presentation numbers ending in SU)—Walter E. Washington Convention Center, Halls A-C

1:00 VV30 **22.01SA** Discovery center project: Learning about the brain and neuroscience at level up village - global doctors anatomy seminars. V. D. SHIELDS; T. HEINBOCKEL; M. C. MAY. *Towson Univ., Howard Univ. Col. of Med., St. Paul's Sch.*

2:00 VV31 **22.02SA** An open online course in neural engineering for high school students. K. CASIMO; D. WOLCZYK. *Univ. of Washington.*

3:00 VV32 **22.03SA** Evaluation of a pull-out neuroscience curriculum for high-school gifted students in science. K. SUEN; M. LIN; W. TANG; W. CHAN; R. C. CHANG. *Po Leung Kuk Laws Fndn. Col., Lab. of Neurodegenerative Diseases, LKS Fac. of Medicine, Univ. of Hong Kong.*

4:00 VV33 **22.04SA** Neuroscience research experiences for public school students: Outcomes from partnerships between schools and the University of Puerto Rico-Rio Piedras. N. D. CRUZ-BERMUDEZ; P. A. LLERANDI-ROMAN; J. S. RAMIREZ-LUGO; M. M. ROMAN-RODRIGUEZ; R. BROWN; C. OJEDA-REYES; S. TORRES-RUIZ; J. APONTE-RAMÍREZ; J. L. AGOSTO. *Univ. of Puerto Rico, Rio Piedras Campus, Univ. of Puerto Rico, Rio Piedras Campus, Univ. of Puerto Rico, Rio Piedras Campus, Univ. of Puerto Rico, Rio Piedras Campus, Alberto Melendez Torres High Sch.*

1:00 VV34 **22.05SA** Brain Discovery: A school-based outreach program to inspire the next generation. C. T. WEICHSELBAUM; B. V. LANANNA; E. D. HERZOG. *Washington Univ. In St. Louis, Washington Univ. In St. Louis.*

2:00 VV35 **22.06SA** Building an in-house independent research program at the high school level using *Caenorhabditis elegans.* E. E. COFFEY; I. RIOS; P. CERNOTA, 10024. *Trinity Sch.*

3:00 VV36 **22.07SA** ▲ Biological research and neuroscience investigations in a high school setting. N. AMIN; M. C. FIELDS; A. SCHIPMA; A. KIM; R. D. FIELDS; R. GUPTA. *Sidwell Friends Sch., NIH.*

4:00 VV37 **22.08SA** NeuroBoricuas: Revolutionizing education by incorporatingneuroscience laboratories in schools of Puerto Rico. D. SIERRA-MERCADO; Y. FERRER-ACOSTA; J. COLÓN-MERCADO; H. BRAVO-RIVERA; L. RAMOS-MEDINA; A. TORRADO-TAPIAS; A. VEGA-MEDINA; Z. QUINTERO-MARTÍNEZ; F. CRUZ-LÓPEZ; A. MERCED; A. ALDARONDO-HERNÁNDEZ; A. LANDIVAR; A. ZAYAS-SANTIAGO; M. DÍAZ-RÍOS; M. A. SOSA-LLORENS; G. J. QUIRK; C. BRAVO-RIVERA. *Univ. Puerto Rico Sch. of Med., Univ. Central Del Caribe, Univ. Puerto Rico Sch. of Med., Estancia Montessori, Univ. Puerto Rico Sch. of Med., Univ. Puerto Rico Sch. of Med., Carlos Albizu Univ., Cold Spring Harbor Lab.*

1:00 VV38 **22.09SA** Attitudes of high school students for healthcare careers using a week-long neuroscience-based immersion experience. A. S. HAFER; A. VENUGOPAL; D. G. YOUNG; G. K. MUELLER; S. S. URBAN; E. S. HALEY; S. P. CREDEN; H. GALADIMA; P. F. ARAVICH. *Eastern Virginia Med. Sch., Eastern Virginia Med. Sch., Eastern Virginia Med. Sch.*

2:00 VV39 **22.10SA** Building neurons and the brain: Explaining the structure and function of nerve cells and the brain to elementary school children at St. Paul's School. T. HEINBOCKEL; V. D. C. SHIELDS; N. DIMITRIADES. *Howard Univ. Col. of Med., Towson Univ., St. Paul's Sch.*

3:00 VV40 **22.11SA** Application of neuroscience to lesson planning. J. M. DUBINSKY; J. M. DUBINSKY; V. HINESLEY; Z. CHANG; M. SCHWARTZ. *Univ. of Minnesota Dept. of Neurosci., Univ. of TX at Arlington.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

4:00 VV41 **22.12SA** The Rex virtual experiment platform: Design, implementation, and effects on situational interest. B. W. YANG; D. V. BLONDEL; J. ROSENBERG; A. SANSONE; L. LINENNBRINK-GARCIA; R. D. SCHWARZ-BLOOM. *Duke Univ., Duke Univ. Med. Ctr., Michigan State Univ.*

1:00 VV42 **22.13SA** Maternal care and stress in childhood: Neuroscience, education and society. L. D. GODOY; P. B. F. DAMAS; L. F. ALVES; L. S. FACCIOLI; R. C. CARDOSO; W. L. LOPES; N. GARCIA CAIRASCO. *Physiol. Department, Univ. of Sao Paulo, Univ. of Sao Paulo.*

THEME J POSTER *Walter E. Washington Convention Center*

023. Teaching Neuroscience in College I

Theme J posters will be on display from Sat. 1 p.m.-Sun. 5 p.m., with one-hour presentations occurring either Saturday afternoon (presentation numbers ending in SA) or Sunday morning (presentation numbers ending in SU)—Walter E. Washington Convention Center, Halls A-C

1:00 VV43 **23.01SA** Clinical neuroscience in practice: An experiential learning course for undergraduates offered by neurosurgeons and neuroscientists. H. SONTHEIMER; E. A. MARVIN; L. S. APFEL; Z. ELIAS; G. A. HOWES; M. R. WITCHER; E. N. WEAVER; J. C. FRASER; J. J. SYNKOWSKI; J. T. PRICKETT; C. M. ROGERS; C. M. BUSCH; M. J. BENKO; N. SOU; M. J. CHURNING; D. C. SUMMERS; G. R. SIMONDS. *Virginia Tech. Sch. of Neurosci., Virginia Tech. Sch. of Neurosci. and Carilion Clin.*

2:00 VV44 **23.02SA** Experiential learning courses: An example of behavioral neuroscience in a course-based undergraduate research experience. J. A. SEGGIO. *Bridgewater State Univ.*

3:00 VV45 **23.03SA** Interdisciplinary neuroscience: Teaching undergraduate neuroscience through varied lenses. A. KAUR. *UNC Asheville.*

4:00 VV46 **23.04SA** Reverse-inclusion courses aimed at adults with intellectual and developmental disabilities. J. T. PIERCE; D. GUZMAN; K. HUCKLEBERRY; G. ORDEMANN; J. SCANLON; S. ROZMIAREK. *Univ. of Texas at Austin.*

1:00 VV47 **23.05SA** Development of an applied surgical neurotechnology course for bioengineering undergraduate students. L. C. BRAY; F. PISCITANI; L. WALKER; J. LEIPHART; M. SHENAI. *George Mason Univ., Inova Hlth. Syst., Inova Hlth. Syst., Inova Hlth. Syst.*

2:00 VV48 **23.06SA** Integrating science and humanities tools to teach “Gender and the Brain”. S. DIETZ. *Cornell Univ.*

3:00 VV49 **23.07SA** Nu Rho Psi, the national honor society in neurocience. M. C. ZEE; L. A. BECKER; S. K. DEBBURMAN; M. T. KERCHNER. *Northeastern Univ., Univ. of Evansville, Lake Forest Col., Washington Col.*

4:00 VV50 **23.08SA** ▲ The IMPULSE neuroscience journal: An educational tool for undergraduates of all disciplines. M. C. ZRULL; M. PAVELKA; S. K. EVERETT; Z. S. KAPLAN; S. J. SNOUSE; C. T. FENNELL; L. JONES. *Appalachian State Univ., Appalachian State Univ., Appalachian State Univ., Appalachian State Univ., Appalachian State Univ.*

1:00 VV51 **23.09SA** Simple experimental teaching tools for TMS-DWI: Water circuits, membranes and coils used to explain the relation between diffusion and conductivity tensors in water potentials during white matter activation. J. F. GOMEZ-MOLINA; U. M. RICOY; F. LOPERA; M. CORREDOR; J. VELEZ. *Intl. Group of Neurosci. (IGN), Northern New Mexico Col., Univ. of Antioquia, Intl. Group of Neurosci. (IGN) -NY member.*

2:00 VV52 **23.10SA** Utilizing quantitative neuroscience methods to illustrate cytoskeletal changes in a lab-based cell biology course. A. L. HAWTHORNE; E. BRADSHAW; S. J. KING. *Univ. of Central Florida.*

3:00 VV53 **23.11SA** An inquiry-driven, cross-disciplinary laboratory experience for undergraduates. K. M. SEIP-CAMMACK; B. C. MOORE. *The Univ. of the South, The Univ. of the South.*

4:00 VV54 **23.12SA** Effects of “integrative body-mind science education” for university students of faculty of engineering analyzed by co-occurrence words network. Y. ATOMI; Y. HIGASHI; M. SHIMIZU; E. FUJITA; T. ATOMI; K. HASEGAWA. *Tokyo Univ. of Agr. and Technol., Teikyo Univ. of Sci., JAXA.*

1:00 VV55 **23.13SA** Accelerating neurophysiology education through an interactive virtual workbench. S. R. BLACK; C. R. BUTSON. *Univ. of Utah, Univ. of Utah, Univ. of Utah.*

2:00 VV56 **23.14SA** Faculty for Undergraduate Neuroscience (FUN): Multiple mechanisms for supporting the development of undergraduate students and faculty in the neurosciences. L. A. CHASE; H. G. MCFARLANE; A. STAVNEZER. *Hope Col., Kenyon Col., Col. of Wooster.*

3:00 VV57 **23.15SA** Advocating to learn. M. L. LINDEN. *Brown Univ.*

4:00 VV58 **23.16SA** Course-based undergraduate research experience (CURE) with online interactions for a neurobiology class in Iraq and in the USA: alterations in synaptic transmission. R. L. COOPER; Z. R. MAJEED; T. HICKEY; C. BALLINGER-BOONE; M. CORNELIUS; T. DONOVAN; H. GARRIGUS; E. HIGGINS; M. LABARRE; A. LARSON; M. MCNABB; N. MONTICELLO; R. SHUMARD; B. STOCKWELL; P. BOACHIE; A. HO; A. COOPER; M. MELODY; B. SLABACH. *Univ. of Kentucky Dept. of Biol., Univ. Salahaddin, Univ. of KY.*

1:00 VV59 **23.17SA** Opinion of biomedical sciences students about an innovative style of teaching advanced medical neuroscience. M. T. CASTANEDA; H. E. RODRIGUEZ. *Univ. of Tamaulipas, Univ. of Texas at Rio Grande Valley.*

2:00 VV60 **23.18SA** The successes and challenges of a multi-institution REU site. A. STAVNEZER; J. R. YATES. *Col. of Wooster, Ohio Wesleyan Univ.*

3:00 VV61 **23.19SA** Teaching neuroscience to undergraduate students through the history of the research. Y. AMITAI. *Ben-Gurion Univ. of the Negev.*

4:00 VV62 **23.20SA** ▲ Teaching quantitative skills via comparative neuroanatomy: Integrating the principles of Vision and Change into pedagogical practice. A. BURRE; S. GRETA; W. TOMITA; D. ROSTAMIAN; N. SCHOTTLER; K. UNO; W. E. GRISHAM. *Claremont McKenna Col., Univ. of Chicago, UCLA, UCLA.*

1:00 VV63 **23.21SA** Development of neuroscience and animal behavior lab exercises on chemoreception using the aquatic snails, Lymnaea stagnalis and Helisoma trivolvis. K. LONG. *California Lutheran Univ.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract’s submitting author

2:00 VV64 **23.22SA** The liberal arts in practice: A new neuroscience research course. R. A. BERGSTROM. *Beloit Col.*

3:00 VV65 **23.23SA** Of roaches and men: A brief affordable demonstration which facilitates undergraduate understanding of the action potential. D. M. CURLIK, II. *York Col. of Pennsylvania.*

4:00 VV66 **23.24SA** Teaching Python and MATLAB for insect behavior: A minimalist neural model with biologically realistic characteristics. U. M. RICOY; J. F. GOMEZ-MOLINA; M. CORREDOR. *Northern New Mexico Col., Intl. Group of Neurosci. (IGN), Univ. of Antioquia.*

1:00 VV67 **23.25SA** ▲ Experiences with course-based undergraduate research experience (CURE) to address authentic research questions for a neurophysiology laboratory class. M. X. MATTINGLY; V. DAYARAM; C. MALLOY; Y. ZHU; R. MCNALL-KRALL; R. COOPER. *Univ. of Kentucky.*

THEME J POSTER *Walter E. Washington Convention Center*

024. Teaching Neuroscience in College II

Theme J posters will be on display from Sat. 1 p.m.-Sun. 5 p.m., with one-hour presentations occurring either Saturday afternoon (presentation numbers ending in SA) or Sunday morning (presentation numbers ending in SU)—Walter E. Washington Convention Center, Halls A-C

1:00 VV68 **24.01SA** Academic workshops: An approach to psychobiology and neurosciences for students at facultad de psicología, universidad nacional autónoma de méxico. O. A. ROJAS RAMOS; P. M. LUNA-DAVILA; M. MORALES-RUVALCABA; M. BALDERAS-PLIEGO; A. ELIZALDE-MARTÍNEZ; J. E. GALLEGO RUDOLF; M. J. RAMÍREZ-FLORES. *Univ. Nacional Autónoma de México.*

2:00 VV69 **24.02SA** Flipping the classroom to address STEM concepts in an introductory neuroscience course. A. C. BASU. *Col. of the Holy Cross.*

3:00 VV70 **24.03SA** Journal of undergraduate neuroscience education: A peer reviewed, open-access and pubmed listed forum for innovative ideas in neuroscience education. B. R. JOHNSON; R. L. RAMOS; E. P. WIERTELAK. *Cornell Univ., NYIT-COM, Macalester Col.*

4:00 VV71 **24.04SA** Lessons Learned: Design, hand-off and launch of a neuroscience major. H. R. SABOLEK; M. BILOZUR; S. THRELKELD. *Regis Col., Regis Col., Regis Col.*

1:00 VV72 **24.05SA** Neuromembrane, web-based simulator for teaching neuroscience. D. W. ALI; G. D. FUNK; K. E. JONES. *Univ. Alberta, Fac. of Med. and Dentistry, Univ. of Alberta, Univ. Alberta.*

2:00 VV73 **24.06SA** From semiotics to synapse: A multidisciplinary approach to addressing the neuroscience of learning. K. S. HOLLOWAY. *Vassar Col.*

3:00 VV74 **24.07SA** Does the blueprint program for enhancing neuroscience diversity through undergraduate education experiences increase diversity in neuroscience? K. VAZQUEZ; V. QUINONES-JENAB; C. AOKI; R. MIRANDA. *Hunter College- CUNY, Hunter College, City Univ. of New York, New York Univ.*

4:00 VV75 **24.08SA** Interdisciplinary neuroscience applications: A capstone course. C. L. FRANSSEN; A. FRANSSEN. *Longwood Univ., Longwood Univ.*

1:00 VV76 **24.09SA** ▲ One brain, many possibilities: Exploring the value of an interdisciplinary neuroscience studies program. A. FRANSSEN; M. M. ZENS; L. SPARROCK; G. S. LOWRY; C. L. FRANSSEN. *Longwood Univ., Longwood Univ., Randolph Macon Col.*

2:00 VV77 **24.10SA** Ethical neglect in undergraduate & graduate neuroscience programs. P. W. TSANG; P. V. CHU; A. LAM; E. L. OHAYON. *Inst. For Green and Open Sci., Neurolinx Res. Inst., Physicians Committee for Responsible Med.*

3:00 VV78 **24.11SA** Pedagogical innovation of Art_X@ Rensselaer to bridge neuroscience and arts education for college students. A. A. WALF; T. HAHN. *Rensselaer Polytechnic Institute, Rensselaer Polytechnic Institute.*

4:00 VV79 **24.12SA** An arts-based critical approach to neurobiology, mental health, and social justice in the undergraduate classroom. A. E. FINK. *UW-Madison.*

1:00 VV80 **24.13SA** Reducing the cost of electrophysiology in the teaching laboratory. R. WYTTENBACH; B. R. JOHNSON; R. R. HOY. *Emory Univ., Cornell Univ., Cornell Univ.*

2:00 VV81 **24.14SA** Transforming connections for success in neuroscience and STEM: A new program for underrepresented and first generation students. N. G. SIMON; V. C. WARE. *Lehigh Univ., Lehigh Univ.*

3:00 VV82 **24.15SA** Programmatic assessment strategies across a major. J. D. OMELIAN; B. O. RYALLS; S. I. SOLLARS. *Univ. of Nebraska at Omaha Dept. of Psychology, Univ. of Nebraska at Omaha, Univ. of Nebraska At Omaha.*

4:00 VV83 **24.16SA** ▲ Characterizing the undergraduate neuroscience major in the U.S.: An examination of course requirements and institution - program associations. A. C. GARRISON; B. S. CARTER; K. M. PINARD-WELYCZKO. *Oberlin Col.*

1:00 VV84 **24.17SA** Effective use of the literature is affected by topic choice in an undergraduate term paper. A. K. PACK. *Utica Col.*

2:00 VV85 **24.18SA** Undergraduate students are able to apply their knowledge of the nervous system by performing mock neruological examinations. P. YURCO. *Le Moyne Col.*

3:00 VV86 **24.19SA** Measuringstudent learning using closed book, timed exams versus open book, take-homeexams. L. L. MCGREW. *Belmont Univ.*

4:00 VV87 **24.20SA** Neural connections: A service-learning undergraduate class. M. R. PENNER; C. L. LEBONVILLE; S. N. BROSSO; E. I. ULRICH; S. POWERS. *Univ. of North Carolina at Chapel Hill.*

1:00 VV88 **24.21SA** Do I belong here? Belongingness, motivation and perceived communicative competence through active learning and author engagement in neuroscience. E. E. JAHNER; K. A. RAZAK. *Univ. of California Riverside, Univ. California, Riverside.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

THEME J POSTER *Walter E. Washington Convention Center*

025. Teaching Neuroscience As A Part of Graduate Education

Theme J posters will be on display from Sat. 1 p.m.-Sun. 5 p.m., with one-hour presentations occurring either Saturday afternoon (presentation numbers ending in SA) or Sunday morning (presentation numbers ending in SU)—Walter E. Washington Convention Center, Halls A-C

1:00 VV89 **25.01SA** Designing multidisciplinary spiritual neuroscience elective course. M. RAZA. *Baqiyatallah Univ. of Med. Sci.*

2:00 VV90 **25.02SA** ▲ Adaptation of virtual environment for training of the wheelchair users with visual impairments supported by eeg. E. S. SOUZA, SR; E. LAMOUNIER. *UNIVERSIDADE FEDERAL DE UBERLÄNDIA.*

3:00 VV91 **25.03SA** ▲ Mranats: Magnetic resonance-based adaptive neuroanatomy teaching software. P. T. FILLMORE; M. PARHAM. *Baylor Univ., Baylor Univ.*

4:00 VV92 **25.04SA** Development and evaluation of a holographic neuroanatomy lecture. P. J. HOLMAN; T. S. BODNAR; S. ALY; K. JACYNA; S. MAO; R. PLANTE; R. RAZAK; S. TOHIDI; C. KREBS. *Univ. of British Columbia, Microsoft Garage Program.*

1:00 WW1 **25.05SA** A survey on methods skills in cognitive neuroscience. O. HAUK. *Med. Res. Council UK.*

2:00 WW2 **25.06SA** Neuro-quiz: Web-based neuroanatomy software. J. L. KUBIE. *SUNY Downstate Med. Ctr.*

3:00 WW3 **25.07SA** PyMUS: A Python based simulation software for virtual experiments of neuromuscular systems. M. KIM; H. KIM. *Daegu Gyeongbuk Inst. of Sci. & Technol.*

4:00 WW4 **25.08SA** MOOCS for medical education: Understanding the learner experience in medical neuroscience. L. E. WHITE; E. VOS-WISSE; N. JANES; S. NAIDOO; K. MANTURUK. *Duke Univ., volunteer mentor, Duke Univ., Duke Univ.*

1:00 WW5 **25.09SA** Neuroengineering program in the Northeast of Brazil: Education and research for social changes. E. MORYA. *Inst. Santos Dumont.*

2:00 WW6 **25.10SA** ▲ Cell culture cross contamination: Causes, prevention and detection. L. R. TOWNLEY; D. P. BALUCH. *Arizona State Univ.*

THEME J POSTER *Walter E. Washington Convention Center*

026. Neuroscience Outreach Activities I

Theme J posters will be on display from Sat. 1 p.m.-Sun. 5 p.m., with one-hour presentations occurring either Saturday afternoon (presentation numbers ending in SA) or Sunday morning (presentation numbers ending in SU)—Walter E. Washington Convention Center, Halls A-C

1:00 WW7 **26.01SA** Network centric science. K. J. MANION; L. V. LONG; J. H. REUSING; S. T. MANION. *Network Centric Sci.*

2:00 WW8 **26.02SA** Northwestern University Brain Awareness Outreach encourages neuroscience education in the Chicagoland area. K. N. WARREN; I. STOJKOVSKA; L. K. SHANAHAN; N. M. FREDERICK; S. R. MCIVER. *Northwestern Univ.*

3:00 WW9 **26.03SA** BrainWorks: A television series about neuroscience for children. E. H. CHUDLER; C. PODENSKI. *Univ. of Washington, Univ. of Washington.*

1:00 DP13/WW10 **26.04SA** (Dynamic Poster) Neurodome: Immersive neuroscience education through exploring 3D brain data in digital domes. J. A. FISHER. *New York Med. Col.*

1:00 WW11 **26.05SA** NOVA: Providing graduate students with outreach opportunities to Baltimore. A. LABUZA; Q. BANKS; K. K. COVER. *Univ. of Maryland Baltimore, Univ. of Maryland, Baltimore, Univ. of Maryland Sch. of Med.*

2:00 WW12 **26.06SA** The international youth neuroscience association. N. R. MYSLINSKI; A. SKVORTSOV; J. UMANS; J. NAIK; K. RYAN; M. SANO; M. PAJJURI; N. CHRAPLIWY; W. ELLSWORTH. *Univ. of Maryland Dent. Sch.*

1:00 DP14/WW13 **26.07SA** (Dynamic Poster) NIH contributions to the BRAIN Initiative. A. ADAMS; K. B. DUPRE; G. FARBER; J. GORDON; W. KOROSHETZ; M. MOTT; K. RAMOS; N. TALLEY; S. L. WHITE. *NIH NINDS, NIH NIMH.*

1:00 DP15/WW14 **26.08SA** (Dynamic Poster) Because it makes me feel important: The power of lab coats and brain dissection in motivating at-risk youth through neuroscience outreach. H. BENJAMIN; M. STABIO; A. RICH. *Univ. of Colorado Sch. of Med., Univ. of Colorado Anschutz Med. Campus, Univ. of Colorado Sch. of Med.*

1:00 WW15 **26.09SA** The 2017 World Brain Bee Championship. D. A. SEMINOWICZ; N. R. MYSLINKSI. *Univ. of Maryland, Baltimore.*

2:00 WW16 **26.10SA** Society for Neuroscience Ottawa chapter: Continued growth and success. K. FARMER; A. EDWARDS; A. PARIC; A. DEDEK; A. THOMPSON; C. PASTRANA; C. NESBITT; E. ALI; G. M. RURAK; J. LANDRIGAN; J. HOWELL; K. GOHEEN; K. V. VENTURA; K. CHANDLER; K. THIRUMAL; K. MALONE; L. THOMPSON HYLAND; M. MILTON; N. PROWSE; P. SHAIL; S. PARK; U. SHANMUGALINGAM; Z. DWYER; A. ABIZAID. *Carleton University, Dept. of Neurosci.*

3:00 WW17 **26.11SA** ▲ Fifteen years celebrating Brain Awareness Week at facultad de psicología, universidad nacional autónoma de méxico. J. E. GALLEGO RUDOLF; C. G. CURIEL-GUERRERO; M. MORALES-RUVALCABA; A. B. ALCÁNTARA-QUINTERO; E. Y. BOTELLO-ESTRADA; P. M. LUNA-DÁVILA; M. J. RAMÍREZ-FLORES; O. A. ROJAS-RAMOS. *Univ. Nacional Autónoma de México.*

4:00 WW18 **26.12SA** Development and testing of an intelligent pain management system on smart phone for chinese patients with cancer: Randomized controlled trial. F. JIANG; Y. SUN; G. DING. *Xinhua Hosp. Chongming Br., Shanghai Jiao Tong Univ., Shanghai Intl. Med. Ctr.*

1:00 WW19 **26.13SA** NW Noggin: Synaptic community connections in the rural pacific northwest. W. S. GRIESAR; J. LEAKE. *NW Noggin (PSU, OHSU...).*

2:00 WW20 **26.14SA** A little town, the second Brain Awareness Week and one objective: Expansion of the Neuroscience knowledge. T. PRIZON; T. BRONHARA; J. L. LIBERATO. *Univ. of São Paulo, Inst. de Neurociência e Comportamento - INeC, Univ. of São Paulo.*

3:00 WW21 **26.15SA** Undergraduate psychology majors provide school outreach program during Brain Awareness Week. J. A. JOHNSON; J. BURKHARDT; T. HOGAN; A. SNYDER. *Bloomsburg Univ., Bloomsburg Univ. of PA.*

4:00 WW22 **26.16SA** A *C. elegans* outreach activity for science festivals and school visits. K. M. WEBSTER; R. C. TAYLOR; D. S. WALKER. *MRC Lab. of Mol. Biol.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

1:00 WW23 **26.17SA** Brain awareness activities as a service learning experience for college students. A. M. HUTTON KEHRBERG; J. BARBA; B. DONATHAN; E. KNAUSS; S. ROBERTS; O. RUDY; L. A. NORMANSELL. *Muskingum Univ., Muskingum Univ., Muskingum Univ.*

2:00 WW24 **26.18SA** ▲ The auditory system knowledge space in public domain internet sources. S. S. MANSHAD; E. E. SERRANO. *New Mexico State Univ.*

3:00 WW25 **26.19SA** The 2017 United States Regional Brain Bee Championship. J. D. GREENSPAN; N. MYSLINSKI. *Univ. Maryland Dent. Sch.*

4:00 WW26 **26.20SA** ▲ Brown Brain Fair: A community-oriented research exhibition. C. PAPENDORP; M. A. WOODBURN. *Brown Univ., Univ. of North Carolina at Chapel Hill.*

1:00 WW27 **26.21SA** Wake Forest University's brain awareness council: Growing science outreach in the NC Piedmont Triad community. B. C. BECKELMAN; S. EWIN; A. DEAL; N. BEAN; D. E. WILLIAMS; M. MAUTERER; D. W. GODWIN. *Wake Forest Sch. of Med., Wake Forest Sch. of Med., Wake Forest Sch. of Med., Wake Forest Sch. of Med.*

2:00 WW28 **26.22SA** 99 Minutes of Neuro!: A neuroscience educational outreach program for health academy high school students. B. A. PUDER. *Samuel Merritt Univ.*

3:00 WW29 **26.23SA** Robo-Brain: An interactive exhibit for Brain Awareness Week and beyond. D. L. ROBINSON; J. BESHEER. *Univ. of North Carolina at Chapel Hill.*

4:00 WW30 **26.24SA** Service learning outcomes for Introduction to Neuroscience Undergraduates. E. RHINEHART; J. BERRY-PROPST; S. CASSELLA. *Susquehanna Univ.*

1:00 WW31 **26.25SA** Engagement of neurosciences and the arts, the Convergence initiative. C. A. ZAELZER; V. HENAULT; A. LESSARD; P. LANGSHAW; K. GLASSMAN; C. SWINTAK; N. KHALILI-MAHANI; A. BRASSARD; K. JUNG-HOO PARK; C. SALMON; B. FORGET; K. TOTH; R. DUCLOS; K. MURAI. *McGill Univ. Hlth. Ctr., Covergence, Perception of Neurosci., Concordia Univ. Fac. of Fine Arts, Brain Repair and Integrative Neurosci. Program of the McGill Univ. Hlth. Ctr., Concordia Univ. Fac. of Fine Arts, Concordia Univ. Fac. of Fine Arts, Concordia Univ., Concordia Univ. Fac. of Fine Arts, Brain Repair and Integrative Neurosci. Program of the McGill Univ. Hlth. Ctr., Concordia Univ. Fac. of Fine Arts, Univ. of Laval, Concordia Univ. Fac. of Fine Arts, McGill Univ.*

POSTER

029. Genetic Mechanisms of Neurogenesis

Theme A: Development

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 A1 **29.01** Loss of Akirin2 in astrocytes results in disrupted neuronal migration and malformation of the cerebral cortex and cerebellum. S. PEEK*; P. J. BOSCH; L. C. FULLER; J. A. WEINER. *Univ. of Iowa.*

2:00 A2 **29.02** HopX highlights heterogeneity between and within postnatal SVZ microdomains. S. ZWEIFEL*. *Stem Cell and Brain Res. Inst.*

3:00 A3 **29.03** Loss of Akirin2 in cortical progenitors disrupts gene expression programs that maintain proliferative state and prevent aberrant early differentiation of neurons. P. J. BOSCH*; L. C. FULLER; S. PEEK; M. PARIDA; J. R. MANAK; J. A. WEINER. *Univ. of Iowa Dept. of Biol., The Univ. of Iowa.*

4:00 A4 **29.04** The role of Sox21 in regulating embryonic neurogenesis in the olfactory placode. N. C. WHITTINGTON*; S. WRAY. *NIH.*

1:00 A5 **29.05** Magnesium signaling activated by GABA facilitates neuronal differentiation in developing neurons. R. YAMANAKA*; Y. SHINDO; K. HOTTA; K. SUZUKI; K. OKA. *KEIO UNIVERSITY, Fac. of Sci. and Technology, KEIO UNIVERSITY, Fac. of Sci. and Technol. Keio Univ.*

2:00 A6 **29.06** Jak3-dependent differentiation in the spinal nestin-positive progenitors. E. J. BAIK*; S. BARUA; J. CHUNG; A. KIM; S. LEE. *Ajou Univ., Ajou Univ.*

3:00 A7 **29.07** An endoplasmic reticulum-associated degradation-related factor SEL1L contribute to neuronal cell fate decision. R. SAITO*; K. KAWADA; Y. OKUMA; N. FUJITA; Y. NOMURA. *Ritsumeikan Univ., Chiba Inst. of Sci., Ritsumeikan Univ., Kurume Univ. Sch. of Med.*

4:00 A8 **29.08** ● CHD7 and RA regulate neuronal differentiation and inner ear development via independent effects on gene expression. H. YAO; J. M. SKIDMORE; S. F. HILL; E. D. SPERRY; D. L. SWIDERSKI; G. J. SANCHEZ; M. BOWEN; T. SWIGUT; D. R. FUENTES; L. D. ATTARDI; S. IWASE; J. WYSOCKA; P. C. SCACHERI; D. M. MARTIN*. *Univ. of Michigan, Univ. of Michigan, Univ. of Michigan, Univ. of Michigan, Stanford Univ., Stanford Univ. Sch. of Med., Univ. of Michigan, Stanford Univ. Sch. of Med. and Howard Hughes Med. Inst., Case Western Reserve Univ., Univ. of Michigan.*

1:00 A9 **29.09** Temporal gene expression changes in neural stem cells during brain maturation and aging. M. YAMADA*; I. IMAYOSHI. *Grad. Sch. of Medicine, Kyoto Univ., Inst. for Frontier Life and Med. Sciences, Kyoto Univ., World Premier Intl. Res. Initiative–Institute for Integrated Cell-Material Sciences, Kyoto Univ., Grad. Sch. of Biostudies, Kyoto Univ., The Hakubi Center, Kyoto Univ., Japan Sci. and Technol. Agency, Precursory Res. for Embryonic Sci. and Technol.*

2:00 A10 **29.10** The histone demethylase Kdm6b is required for induction of a mature gene expression program in differentiating cerebellar granule neurons. U. CHAN; F. LIU; R. WIJAYATUNGE; K. B. SHPARGEL; N. J. WAYNE; T. R. MAGNUSON; A. E. WEST*. *Duke Univ., Univ. of North Carolina at Chapel Hill, Duke Univ. Hosp.*

POSTER

030. Glial Modulation of Neurogenesis

Theme A: Development

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 B1 **30.01** ● Role of neural stem factor sox2 in oligodendrocyte development in the postnatal spinal cord. S. ZHANG*; X. ZHU; X. GUI; P. BANNERMANN; F. GUO. *Inst. For Pediatric Regenerative Medicine, Sh.*

2:00 B2 **30.02** BRN2 is involved in gliogenesis through its tandem amino acid repeats. K. HASHIZUME*; M. NASU; S. UEDA. *The Univ. of Tokyo.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 B3 **30.03** ● Essentiality of arachidonic acid (ARA) and docosahexaenoic acid (DHA) in primary neurons, microglia, astrocytes and oligodendrocytes. C. M. BUTT*; M. J. WEISER; K. M. WYNALDA-CAMOZZI; V. GRIMSHAW; N. SALEM, Jr. *DSM Nutritional Products, DSM Nutritional Products.*

4:00 B4 **30.04** ● A genome editing approach to studying Pmp22 enhancer functionality. H. PANTERA*; J. MORAN; C. LOPEZ-ANIDO; J. P. SVAREN. *Uw-Madison, Waisman Ctr.*

1:00 B5 **30.05** ▲ Pax6 is expressed in the choroid plexus and subcommissural organ (SCO) during brain development of juvenile mouse. S. ARAKI*; S. YAMANAKA; H. INADA; N. OSUMI. *Tohoku Univercity Sch. of Med., Tohoku Univ., Tohoku Univ. Grad Sch. Med.*

1:00 DP01/B6 **30.06** (Dynamic Poster) Advanced CLARITY method for the analysis of the spatial-temporal progression of peripheral nervous system myelination in mice. L. BARTESAGHI*; C. BELLARDITA; O. KIEHN; R. CHRAST. *Karolinska Institutet, Karolinska Institutet, Dept. of Neuroscience, Karolinska, Karolinska Institutet.*

3:00 B7 **30.07** Endothelin-1 signaling in the postnatal subventricular zone regulates oligodendrocyte progenitor cell proliferation and maturation. K. ADAMS*; M. BUGIANI; M. S. VAN DER KNAAP; V. GALLO. *Childrens Natl. Med. Ctr., VU Univ. Med. Ctr.*

4:00 B8 **30.08** Non discriminant approach to generate human central nervous system cell lineages. M. CARNA*; V. POZO DEVOTO; V. LACOVICH; M. FEOLE; K. TEXLOVA; G. STOKIN. *Intl. Clin. Res. Ctr. FNUSA-ICRC.*

1:00 B9 **30.09** Microglia progenitor cells in the mouse brain may express Prominin-1 (CD133). K. E. PRATER*; M. S. ALOI; W. SU; S. DAVIDSON; G. A. GARDEN. *Univ. of Washington, Univ. of Washington.*

2:00 B10 **30.10** Cell autonomous regulation of CNS myelination by the DYT6 dystonia protein, Thap1. D. YELLAJOSHYULA*; C. LIANG; S. PAPPAS; W. DAUER. *Univ. Of Michigan.*

3:00 B11 **30.11** Leucine-rich glioma inactivated 1 promotes oligodendrocyte differentiation and myelination via TSC-mTOR signaling in central nervous system. C. SHAO*; Y. XIE; L. ZHOU; Y. SHEN. *Inst. of Neurosci., Dept. of Neurobio.*

4:00 B12 **30.12** Extracellular environment influences neural stem cell differentiation. K. SHARMA; S. C. PANDANABOINA; R. A. KORE; R. GRIFFIN; M. SRIVATSAN*. *Arkansas State Univ., Univ. of Arkansas for Med. Sci.*

1:00 B13 **30.13** ● Screening drugs promoting remyelination in Xenopus. B. ZALC*; A. MANNIOUI; Q. VAUZANGES; J. FINI; E. HENRIET; S. SEKIZAR; L. AZOYAN; J. THOMAS; D. DUPASQUIER; B. DEMENEIX; C. GIOVANNANGELI. *Sorbonne Universités UPMC; Inserm, CNRS, Sorbonne Universités UPMC Univ. Paris 06, Inserm, CNRS, CNRS UMR 7221, Muséum Natl. d'Histoire Naturelle, Watchfrog, CNRS UMR 7196, Muséum Natl. d'Histoire Naturelle.*

2:00 B14 **30.14** A role for the homeobox transcription factor Gsx1 in oligodendrocyte development. L. A. EHRMAN; V. KOHLI; D. NARDINI; R. R. WACLAW*. *Cincinnati Children's Hosp. Med. Ctr., Cincinnati Childrens Hosp. Med. Ctr., Cincinnati Children's Hosp. Med. Ctr., Cincinnati Children's Hosp. Med. Ctr.*

3:00 B15 **30.15** Identifying the temporal genetic pathways controlling glial differentiation and patterning using transcriptomics and reverse genetics in zebrafish. M. CHARLTON-PERKINS*; X. ALMEIDA; R. MACDONALD; W. A. HARRIS. *Univ. of Cambridge, Univ. of Cambridge, Univ. of Sheffield, Cambridge Univ.*

4:00 B16 **30.16** Sox17 promotes oligodendrocyte regeneration through reciprocal Wnt and Hedgehog pathway regulation. X. MING*; L. CHEW; B. MCELLIN; V. GALLO. *Children Natl. Med. Ctr., Children's Res. Inst., Children's Res. Institute, Children's Natl. Med. Ctr., Children's Natl. Med. Ct.*

1:00 B17 **30.17** Role of astrocytes in zika virus induced complications in proliferation and differentiation of human neural stem cells. R. BHAGAT*, JR; H. ARORA; P. SETH. *Natl. Brain Res. Ctr.*

2:00 B18 **30.18** Sox17 regulates Sox2 and TCF7L2/TCF4 induction and promotes oligodendrocyte progenitor response to demyelination. L. CHEW*; B. MCELLIN; E. HONG; X. MING; M. CATRON; M. FAUVEAU; B. NAIT-OUMESMAR; V. GALLO. *Children's Res. Inst., ICM, Inserm-Upmc UMRS-1127, CNRS UMR 7225.*

3:00 B19 **30.19** Zinc supplementation prevents white matter and neurobehavioral deficits in high-fat diet-induced obese mice. T. CHU; Y. HUANG; G. N. BARNES; J. H. FREEDMAN; L. CAI; J. CAI*. *Univ. of Louisville Sch. of Med., Danyang People's Hosp., Univ. of Louisville Sch. of Med., Univ. of Louisville Sch. of Med., Univ. of Louisville Dept. of Pediatrics.*

4:00 B20 **30.20** ● HMGB1-induced neurite outgrowth in mouse dorsal root ganglion neurons and its inhibition by thrombomodulin. Y. NAKATAKE*; F. SEKIGUCHI; M. TSUBOTA; R. TSUJITA; G. HONDA; A. KAWABATA. *Kindai Univ., Asahi Kasei Pharma.*

1:00 B21 **30.21** BMP-responsive protease HTRA1 identifies astrocyte subpopulations and regulates astrocytic development and injury response. C. PENG*; J. CHEN; S. VAN GULDEN; T. MCGUIRE; C. OKA; J. A. KESSLER. *Northwestern Univ., Nara Inst. of Sci. and Technol.*

POSTER

031. Adult Hippocampal Neurogenesis: Molecular Mechanisms and Behavior

Theme A: Development

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 B22 **31.01** IGF-1 mediated neurogenesis involves a novel RIT1/Akt/Sox2 cascade. D. A. ANDRES*; S. MIR; W. CAI; S. W. CARLSON; K. E. SAATMAN. *Univ. of Kentucky Col. of Med., Joslin Diabetes Center, Harvard Med. Sch., Univ. of Pittsburgh, Univ. Kentucky.*

2:00 B23 **31.02** Exercise-induced apoptotic cell death in the hippocampus. M. E. STEVENSON*; R. A. SWAIN. *Univ. of Wisconsin- Milwaukee.*

3:00 B24 **31.03** Lipocalin-2 regulates adult neurogenesis and contextual discriminative behaviors. A. FERREIRA; J. A. PALHA*; B. MARQUES; A. NOVAIS; S. MESQUITA; P. LUDOVICO; M. CORREIA-NEVES; N. SOUSA; J. SOUSA; F. MARQUES. *Sch. of Medicine, Univ. of Minho.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

4:00 B25 **31.04** Transcriptional Regulation of the RIM1 pomotor by NeuroD1. N. BASHYAL; T. LEE; I. CHO; Y. LEE; S. KIM; H. K. SUH-KIM*. *Ajou Univ, Sch. Med.*

1:00 B26 **31.05** Investigating the role of cyclin G2 and its association with beta-catenin in developing and adult neurons. A. C. HERGARDEN; A. ARACHCHIGE DON; M. LE MAROIS; T. PATRIARCHI; J. W. HELL; M. C. HORNE*. *Univ. of California Davis, Univ. of Iowa.*

2:00 B27 **31.06** Perinatal hyperoxia impairs hippocampal-dependent learning and memory through activation of GSK3-β. J. ABBAH*; C. VACHER; L. CHEW; V. GALLO. *Children's Natl. Med. Ctr., Children's Natl. Med. Ctr.*

3:00 B28 **31.07** The effect of MAPK signaling pathway on the transcription capability of NeuroD1. T. LEE*; N. BASHYAL; I. CHO; J. CHOI; Y. LEE; S. KIM; H. SUH-KIM. *Anatomy/ Ajou Univ., Ajou Univ. Sch. of Med.*

4:00 B29 **31.08** Neonatal CX26 removal leads to elevated anxiety. Y. LIN*; X. SU; J. CHEN; Y. YU. *Inst. of Brain Science, Fudan Univ., State Key Lab. of Med. Neurobio. and Collaborative Innovation Ctr. for Brain Sci.*

1:00 B30 **31.09** Role of Notch 1 signaling in mediating the behavioral effects of adiponectin and chronic stress. Z. ZHANG*; B. LIU; X. LU. *Binzhou Med. Univ., Univ. of Texas Hlth. Sci. Ctr. at San Antonio.*

2:00 B31 **31.10** The induced division of the *in situ* intrinsic mature neuron in the neocortex of the aged animals. S. LIU*; R. LIU; J. MA; N. GUO. *Beijing Inst. of Basic Med. Sci.*

3:00 B32 **31.11** Environmental enrichment impacts proliferation but not integration following neurogenesis in aged mice. H. CHENG*; J. D. LUU; K. D. MURRAY. *UC Davis, Univ. of California, Davis, Univ. California Davis.*

4:00 B33 **31.12** Loss of PINK1 alters adult neural stem cell metabolism and inhibits neurogenesis in the hippocampus of mice. H. BUELER*; S. K. AGNIHOTRI; R. SHEN; J. LI; X. GAO. *Harbin Inst. of Technol., Harbin Med. Univ.*

1:00 B34 **31.13** RIT1 gtpase regulates Sox2 transcription and neural induction. S. MIR*; D. ANDRES; W. CAI. *Univ. of Kentucky, Harvard Med. Sch.*

2:00 B35 **31.14** ▲ mTORC1 activation alters the fate of subventricular zone neural stem cells. H. NEHL*; F. LICAUSI; N. W. HARTMAN. *Stockton Univ., Stockton Univ., Stockton Univ.*

3:00 B36 **31.15** Postnatal neuron increase in the adult human amygdala is more extensive than in other hominids and associated with expression of genes annotated to neurogenesis. N. BARGER*; M. V. VARGAS; T. A. AVINO; K. SEMENDEFERI; C. M. SCHUMANN. *Univ. of California, Davis - MIND Inst., UC Davis MIND Inst., Univ. California San Diego, UC Davis MIND Inst.*

4:00 B37 **31.16** Valine-321-leucine mutation in Neuregulin 1 disrupts adult hippocampal neurogenesis and alters anxiety- & depression-like behavior. A. JONE*; L. W. ROLE; D. A. TALMAGE. *Stony Brook Univ., Stony Brook Univ., Stony Brook Univ., Stony Brook Univ.*

1:00 B38 **31.17** Temporally distinct roles for Cyfip1 at synapses. K. L. SZABLA*; O. BOZDAGI-GUNAL; D. L. BENSON. *Icahn Sch. of Med. At Mount Sinai, Rutgers Univ. Med. Sch.*

2:00 B39 **31.18** Chronic inflammation causes olfactory neural stem cell dysfunction through NF-κB signaling. M. CHEN*; R. R. REED; A. P. LANE. *Johns Hopkins Sch. of Med., Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med.*

3:00 B40 **31.19** Novel function of Tau in regulating the effects of external stimuli on adult hippocampal neurogenesis. N. PALLAS-BAZARRA*; J. JURADO-ARJONA; J. TERREROS-RONCAL; M. NAVARRETE; J. A. ESTEBAN; F. HERNÁNDEZ; J. ÁVILA; M. LLORENS-MARTÍN. *Ctr. De Biologia Mol. Severo Ochoa (CBMSO), Ctr. de Investigación Biomédica en Red sobre Enfermedades Neurodegenerativas (CIBERNED, ISCIII), Dept. of Mol. Biology, Univ. Autónoma de Madrid.*

4:00 B41 **31.20** The immune system and adult neurogenesis in a crustacean brain: Semi-granular hemocytes are neural precursors. J. L. BENTON*; K. M. BANSON; B. S. BELTZ. *Wellesley Col.*

1:00 B42 **31.21** First insights into the genetic network underlying embryonic and adult neurogenesis in procambarid crayfish: Using gene expression studies to document the differentiation of hemocytes into neurons during life-long neurogenesis. G. BRENNEIS; M. SCHWENTNER; J. L. BENTON; B. S. BELTZ*. *Wellesley Col., Harvard Univ., Univ. of Hamburg.*

POSTER

032. iPSCs: Disease Models

Theme A: Development

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 B43 **32.01** UiPSC model of an autistic child with photographic memory. J. SONG*; Y. ZHOU; W. LI. *Shanghai Jiao Tong Univ., Bio-X Institutes,Shanghai Jiao Tong Univ., Shanghai Jiao Tong Univ.*

2:00 B44 **32.02** ● Dysregulation of miRNAs in iPSC-derived neurons from patients with bipolar disorder. M. BAME*; M. MCINNIS; S. O'SHEA. *Univ. of Michigan, Univ. of Michigan, Univ. of Michigan.*

3:00 B45 **32.03** Neural precursor cells from 16p11.2 deletion patients exhibit enhanced proliferation and altered FGF mitogenic activity. R. J. CONNACHER*; M. WILLIAMS; S. PREM; J. H. MILLONIG; E. M. DICICCO-BLOOM. *Rutgers Robert Wood Johnson Med. Sch., Rutgers Univ. Dept. of Cell Biol. and Neurosci., Rutgers Robert Wood Johnson Med. Sch., Rutgers Univ., Rutgers Robert Wood Johnson Med. Sch.*

4:00 B46 **32.04** ▲ Idiopathic and 16p.11.2 deletion autism neural precursor cells exhibit differential neurite outgrowth phenotypes. C. C. PENG*; S. PREM; R. J. CONNACHER; M. HALE; J. H. MILLONIG; E. M. DICICCO-BLOOM. *Rutgers Robert Wood Johnson Med. Sch., Rutgers Robert Wood Johnson Med. Sch., Univ. of Maryland, Baltimore County, Rutgers Univ., Rutgers Robert Wood Johnson Med. Sch.*

1:00 B47 **32.05** Analysis of neuronal development in patients with KCNJ11/Kir6.2 mutations. G. DALGIN*; A. J. GARCIA, III; S. A. W. GREELEY; L. H. PHILIPSON; G. I. BELL. *Univ. of Chicago, Univ. of Chicago, Univ. of Chicago.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

2:00 B48 **32.06** Idiopathic autism neural precursor cells exhibit differential sensitivity to environmental factor treatment. M. WILLIAMS*; C. PINTO; S. PREM; X. ZHOU; P. MATTESON; J. H. MILLONIG; E. M. DICICCO-BLOOM. *Rutgers Univ. Dept. of Cell Biol. and Neurosci., Rutgers Univ., Rutgers Robert Wood Johnson Med. Sch., Rutgers Univ., Rutgers Robert Wood Johnson Med. Sch.*

3:00 B49 **32.07** CRISPR-dCas9-mediated induced neurons for patient-specific disease modeling. J. L. CARTER*; P. DENG; J. HALMAI; J. NOLTA; D. SEGAL; K. FINK. *Univ. of California Davis Hlth. Systems, Univ. of California Davis Hlth. Systems, Univ. of California, Davis.*

4:00 B50 **32.08** *In vitro* disease modeling for sleep bruxism using induced pluripotent stem cells. Y. TOZAWA*; N. KENTO; K. YONEIMA; T. MATSUMOTO; Y. ABE; K. IMAIZUMI; K. MISHIMA; J. TANAKA; W. AKAMATSU; H. OKANO; K. BABA. *Showa Univ., Keio Univ., Showa Univ., Juntendo Univ.*

1:00 B51 **32.09** Epigenetics regulation on Ciliary Epithelium stem cells during retinal degeneration. C. B. DEL DEBBIO*; R. C. T. RODRIGUES. *Univ. of Sao Paulo.*

2:00 B52 **32.10** ● Utilizing CRISPR/Cas9 genome editing in differentiating human induced pluripotent stem cells as a functional genomics approach to study neurodegenerative disease. J. DIZON*; E. WILLEMS; T. GOKIRMAK; R. VEGA; R. LACAMBACAL; X. LIANG; C. REVANKAR; K. KIMLER; D. PIPER. *Thermo Fisher Scientific Inc Carlsbad.*

3:00 B53 **32.11** miR-126 expression at different segments after spinal cord injury. C. WANG*; X. LI; Y. ZHANG; F. TIAN; M. FU; P. LI. *Shanxi Med. Univ.*

4:00 B54 **32.12** Hyperexcitability in stem cell-derived neurons from patients with chromosome 15q-associated neurodevelopmental disorders. J. J. FINK*; J. D. SCHREINER; E. S. LEVINE. *Univ. of Connecticut Hlth. Ctr.*

1:00 B55 **32.13** A novel human iPSC-based 3D culture system for studying APOE isoform-dependent pathways in Alzheimer's disease. J. ZHAO*; M. DAVIS; C. LIU; G. BU. *Mayo Clin.*

2:00 B56 **32.14** Characterization of iPSC-derived skeletal muscle and motor neurons in an *in vitro* model of the neuromuscular junction. B. A. MORRIS*; S. BONANNO; E. KROPF; B. K. JENSEN; L. M. IACOVITTI; D. TROTTI; P. PASINELLI. *Thomas Jefferson Univ., Thomas Jefferson Univ., Thomas Jefferson Univ.*

3:00 B57 **32.15** Astrocytes derived from induced pluripotent cells from bipolar disorder patients. C. DELONG*; A. WILLIAMS; E. MARTINEZ; M. BAME; G. MURPHY; M. MCINNIS; K. O'SHEA. *Univ. of Michigan, Univ. of Michigan, Univ. of Michigan.*

4:00 B58 **32.16** A 3-D human induced pluripotent stem cell model of autistic spectrum disorder as a functional analysis platform. A. W. PHILLIPS*; J. NESTOR; M. NESTOR. *Hussman Inst. for Autism.*

1:00 B59 **32.17** ● Novel tools support the efficient derivation of clonal CRISPR/Cas9 edited human induced pluripotent stem cells to construct models of neurodegenerative diseases. R. E. LACAMBACAL*; E. WILLEMS; T. GOKIRMAK; J. DIZON; C. REVANKAR; R. VEGA; K. KIMLER; X. LIANG; R. NEWMAN; D. KUNINGER; D. PIPER. *Thermo Fisher Scientific, Thermo Fisher Scientific, Thermo Fisher Scientific.*

2:00 B60 **32.18** Gene expression analysis of idiopathic autism iPSCs and NSCs. M. MEHTA*; P. G. MATTESON; E. DICICCO-BLOOM; J. H. MILLONIG. *Rutgers Univ., Ctr. for Advanced Biotech. and Med.*

3:00 B61 **32.19** Generation of isogenic knock-in iPSCs to evaluate cellular mechanisms of SCN1A epilepsies: GEFS+ (R1648H) and DS (R1648C). C. HAWKINS*; O. SAFRINA; N. OSMAN; D. K. O'DOWD. *Univ. of California, Irvine.*

4:00 B62 **32.20** Modelling hereditary spastic paraplegia type 5 using human induced pluripotent stem cells. G. NANDI*; Y. MOU; J. E. NIELSEN; C. CRISCUOLO; M. J. FRAIDAKIS; C. BLACKSTONE; X. LI. *Univ. of Illinois, Col. of Med. At Roc, Univ. of Copenhagen, Univ. of Naples Federico II, Neurorare Ctr. for Rare and Genet. Neurolog. and Neuromuscular Dis. and Neurogenetics, Neurogenetics Branch, Natl. Inst. of Neurolog. Disorders and Stroke, Natl. Inst. of Hlth.*

1:00 B63 **32.21** Patients-specific stem cells for the investigation of psychiatric genetics. M. JUNG*; A. PULS; J. SCHILLER; A. KLEMENZ; C. HARTMANN; T. EHRHARDT; I. GIEGLING; D. RUJESCU. *Martin Luther Univ. Halle-Wittenberg, Martin Luther Univ. Halle-Wittenberg, Martin Luther Univ. Halle-Wittenberg.*

2:00 B64 **32.22** A retinal cell model of juvenile neuronal ceroid lipofuscinosis (JNCL , CLN3) derived from patient-hiPSCs. R. SINGH*; S. DALVI; L. WINSCHEL; L. MACDONALD; C. GALLOWAY. *Univ. of Rochester.*

3:00 B65 **32.23** Spontaneous versus evoked calcium signaling in murine and patient-derived neurons. A. J. WILLIAMS; A. T. SMARSH; K. M. GLANOWSKA; V. A. CAZARES; L. OUILLETTE; C. DELONG; M. BAME; E. C. MARTINEZ; K. LIM; R. PARENT; M. G. MCINNIS; G. G. MURPHY; K. O'SHEA*. *Univ. of Michigan, Univ. of Michigan, Univ. of Michigan, Univ. of Michigan, Univ. of Michigan, Univ. of Michigan, Univ. of Michigan, Univ. of Michigan Med. Sch.*

4:00 C1 **32.24** Neurotrophic skin environment caused by direct reprograming of skin cells to neural cells may rescue against loss of neural fibers caused by diabetic peripheral neuropathy. A. CLARK; R. STEWART; N. HIGUITA-CASTRO; D. GALLEGO-PEREZ; S. ROY; C. SEN; S. KHANNA*. *Ohio State Univ.*

1:00 C2 **32.25** Using primary and stem cell derived sensory neurons in co-culture with airway epithelium to study mechanisms of sensory neuron plasticity in pulmonary disease. J. A. KELLER*; J. E. HUDSON; M. DOTTORI; G. A. MACKAY; A. E. MCGOVERN; S. B. MAZZONE. *Univ. of Melbourne, Sch. of Biomed. Sciences, The Univ. of Queensland, Ctr. for Neural Engin., Dept. of Pharmacol. and Therapeutics, The Univ. of Melbourne, The Univ. of Melbourne, The Univ. of Melbourne.*

2:00 C3 **32.26** Investigating the mechanisms underlying the beneficial effects of estrogens in schizophrenia. P. M. DEANS*; C. SHUM; A. B. PALMOS; F. ERLI; M. CONFORTI; R. R. DUARTE; P. RAVAL; J. A. CROWE; K. J. SELLERS; S. BHATTACHARYYA; T. R. POWELL; J. PRICE; D. P. SRIVASTAVA. *Inst. of Psychology, Psychiatry & Neurosci., Inst. of Psychology, Psychiatry & Neurosci.*

3:00 C4 **32.27** Neurodevelopmental phenotypes in DISC1 disrupted hiPSC lines across multiple differentiation protocols. V. LAGOMARSINO*; P. SRIKANTH; C. R. MURATORE; W. M. TAYLOR; T. L. YOUNG-PEARSE. *Brigham and Women's Hosp., HMS, Ann Romney Ctr. For Neurologic Dis., BWH, BWH/Harvard Med. Sch.*

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

4:00 C5 **32.28** Effect of mutations in the GBA1 gene on the differentiation and maturation of iPSC-derived dopaminergic neurons. C. VICARIO*; E. RODRÍGUEZ-TRAVER; E. DÍAZ-GUERRA; L. SUAREZ; A. HERNANDEZ-VIVANCO; E. MORENO; P. FERNANDEZ; P. GARCIA-SANZ; F. ARENAS; P. VICARIO; M. ORIA; L. ORGAZ; C. CRESPO; C. RODRIGUEZ; M. ORERA; M. ARAUZO-BRAVO; J. KULISEVSKY; R. MORATALLA. *Cajal Institute, CSIC, CIBERNED, ISCIII, Hosp. de Santa Creu i Sant Pau, Facultad de Biologia, Univ. de Valencia, Hosp. Gregorio Maranon, Biodonostia Hlth. Res. Inst.*

1:00 C6 **32.29** Systematic analysis of schizophrenia-associated NRXN1 deletions using human pluripotent stem cell derived induced neurons. C. PAK*; S. GRIEDER; T. DANKO; A. HUANG; M. WERNIG; T. C. SUDHOF. *Stanford Univ.*

POSTER

033. Axon Growth and Guidance: Extrinsic Mechanisms

Theme A: Development

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 C7 **33.01** Molecular controls over corticospinal motor neuron segmental targeting. V. V. SAHNI*; S. SHNIDER; D. JABAUDON; J. SONG; F. DING; J. D. MACKLIS. *Harvard Univ., Univ. of Geneva.*

2:00 C8 **33.02** The role of Fezf2 in the postnatal cortical ventricular zone. A. A. AKHTAR*; G. KIM; N. KOBRITZ; H. PARK; M. CLARKE; R. LEVY; M. DANIELPOUR; J. J. BREUNIG. *Cedars Sinai Med. Ctr.*

3:00 C9 **33.03** Molecular controls over corticospinal motor neuron axonal branching at specific spinal segments. Y. ITOH*; V. SAHNI; S. J. SHNIDER; F. DING; J. D. MACKLIS. *Harvard Univ.*

4:00 C10 **33.04** Analysis of developing axonal projections to and from the mammalian spinal cord using the iDisco tissue clearing protocol. E. MARTINEZ*; G. RALDA; Z. WU; T. S. TRAN. *Rutgers Univ., Rockefeller Univ.*

1:00 C11 **33.05** Roof plate-derived dorsal midline radial glial cells promote spinal cord dorsal column longitudinal axon growth during development. K. KRIDSADA*; J. NIU; Z. WANG; P. HALDIPUR; L. DING; J. J. LI; E. HERRERA; K. J. MILLEN; G. M. THOMAS; W. LUO. *Univ. of Pennsylvania, Shriners Hosp. Pediatric Res. Ctr., Univ. of Pennsylvania, Seattle Children's Hosp. Res. Inst., Univ. of Pennsylvania, Inst. De Neurociencias.*

2:00 C12 **33.06** Ryk regulates Wnt5a repulsion of mouse corticospinal tract through modulating planar cell polarity signaling. Y. LIU*; X. DUAN; Y. GAO. *Inst. of Neuroscience, Soochow Univ.*

3:00 C13 **33.07** Non canonical Wnt signaling pathway modulates tunneling nanotubes formation in neurons and neuron-like cells. J. Y. VARGAS*; G. CÓRDOVA; Y. WU; C. TROLLET; C. ZURZOLO. *Inst. Pasteur, Sorbonne Universités, UPMC Paris 06, Inst. de Myologie.*

4:00 C14 **33.08** Submicron topographic cues on quasi-2D and 3D substrates to enhance directional axon outgrowth. M. FORNARO*; R. GARCIA; C. SIGERSON; S. VEEN; C. LIU; P. NEALEY; H. SHARTHIYA; K. KRISTJANSDOTTIR; J. GASIOROWSKI. *Midwestern Univ., Midwestern Univ., Midwestern Univ., Univ. of Chicago, Midwestern Univ.*

1:00 C15 **33.09** ● Dual effect of nicotine on neurite outgrowth of rat superior cervical ganglia cells and PC12 cells. H. KAWASAKI*; S. TAKATORI; Y. KONDO; H. SAGARA; H. HINO; F. TAKAYAMA; Y. KITAMURA; T. SENDO. *Col. of Pharmaceut. Sciences, Matsuyama Univ., Col. of Pharmaceut. Sciences, Matsuyama Univ., Grad. Sch. of Medicine, Dent. and Pharmaceut. Sciences, Okayama Univ., Okayama Univ. Hosp.*

2:00 C16 **33.10** Characterization of semaphorins in developmental and adult plasticity. H. W. HORCH*; H. P. FISHER; D. ZAMBRANO; S. SPICER; L. SAIDENBERG; M. CHONG; L. LEDWIDGE; S. JIMENEZ; S. KNIGHT; J. MOYNIHAN; M. G. PASCUAL; A. E. CHRISTIE. *Bowdoin Col., Univ. of Hawai'i at Manoa.*

3:00 C17 **33.11** Slit/Robo signals control two guidance steps of oculomotor (III) and trochlear (IV) nerve growth to the eye. C. M. GARCIA-PENA*; G. E. ROBINSON; L. NUNES; B. BJORKE; M. KIM; G. S. MASTICK. *Univ. of Nevada, Reno.*

4:00 C18 **33.12** Is netrin-1 a long-range chemoattractant? C. P. CHEUNG; K. LAI WING SUN; S. HARRIS; T. E. KENNEDY*. *Montreal Neurolog. Instittute.*

1:00 C19 **33.13** The role of microRNAs in the neurotoxic effects of early-life anesthetic exposure. S. S. PHATARPEKAR; J. LIU; J. COTTRELL; I. S. KASS*; D. LIN. *SUNY Downstate Med. Ctr., SUNY Downstate, SUNY Downstate.*

POSTER

034. Autism: Behavioral Analysis

Theme A: Development

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 C20 **34.01** Motor symptoms in autism are associated with abnormal tissue microstructure in the brainstem. O. DADALKO*; K. MCLAUGHLIN; B. TRAVERS. *Waisman Ctr., UW Madison, Univ. of Wisconsin-Madison.*

2:00 C21 **34.02** Enhanced audiovisual integration and perception of social robots for children with autism spectrum disorders (ASDs). D. K. SARKO*; A. PERRY; K. D. SUDHEIMER; B. CAIN; K. WILLS; E. WOLFE; J. WEINBERG; F. SARTORATO. *Southern Illinois Univ. (SIU), Stanford Univ. Dept. of Psychiatry and Behavioral Sci., Southern Illinois University-Edwardsville, Edward Via Col. of Osteo. Med. (VCOM).*

3:00 C22 **34.03** Quantifying and aligning activity profiles between therapists and children with autism spectrum disorder during sensory integration therapy. C. M. HOLLAND*; E. I. BLANCHE; B. L. THOMPSON. *USC.*

4:00 C23 **34.04** Dissociations in the neural substrates of language and social functioning in autism. J. CRUTCHER*; M. A. COLLINS; A. MARTIN; G. L. WALLACE. *Natl. Inst. of Hlth., Natl. Inst. of Mental Hlth., Natl. Inst. of Mental Hlth., George Washington Univ.*

1:00 C24 **34.05** Improvement of reading and writting skills on autistic children through iPad app training. R. AGUILAR*; L. GARCIA; G. CORIA; R. TOLEDO; M. HERNANDEZ; J. MANZO. *Univ. Veracruzana, Ctr. de Atención Múltiple.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

2:00 C25 **34.06** Genotype to phenotype correlations in Autism Spectrum Disorder. M. GOODRICH; A. ARMOUR; X. YOU; K. PANCHAPAKESAN; K. DUDLEY; C. LUONG-TRAN; A. VERBALIS; C. SULLIVAN; J. DEVANEY; S. KNOBLACH; A. GUPTA; L. ANTHONY; J. CORBIN*; C. J. VAIDYA; L. KENWORTHY. *Childrens Natl. Med. Ctr., Georgetown Univ., Yale Univ. Sch. of Med., Georgetown Univ. Dept. of Psychology.*

3:00 C26 **34.07** Nervous systems taxonomy to create new dynamic classification of autism subtypes. E. B. TORRES*. *Rutgers Univ. Dept. of Psychology.*

4:00 C27 **34.08** Computational psychiatry modelling leads to an empirically derived biomarker in an asd clinical trial. D. WU*; E. B. TORRES; J. NGUYEN; S. MISTRY; A. KOLEVZON; J. V. JOSE. *Indiana Univ. Bloomington, Rutgers Univ. Dept. of Psychology, Rutgers Univ., Rutgers Univ., Icahn Sch. of Med. at Mount Sinai, Indiana Univ., Indiana Univ. Sch. of Med., Indiana Univ. Sch. of Med.*

1:00 C28 **34.09** Bridging the gap: An analytical framework for dynamic diagnosis and longitudinal tracking of disorder symptomatology, and intervention outcomes. C. WHYATT*; R. RAI; E. B. TORRES. *Rutgers Univ. - Busch Campus, Rutgers Univ., Rutgers Univ. Dept. of Psychology.*

2:00 C29 **34.10** ● Individualized stochastic characterization of dynamically coupled brain-body biorhythms in ASD vs controls. J. RYU*; E. B. TORRES. *Rutgers The State Univ. of New Jersey, Rutgers Univ. Dept. of Psychology.*

3:00 C30 **34.11** ● Personalized characterization of longitudinal changes towards typical signatures of gait control in SHANK3 IGF1-clinical trial. V. KALAMPRATSIDOU*; S. MISTRY; A. KOLEVZON; E. B. TORRES. *Rutgers Univ., Rutgers Univ., Sch. of Med. at Mount Sinai, Rutgers Univ. Dept. of Psychology.*

4:00 C31 **34.12** Brain-behavior relationships in autism spectrum disorder and typical development during an interactive social paradigm. T. C. DAY*; A. NAPLES; B. LEWIS; K. MCNAUGHTON; S. A. CHANG; M. J. ROLISON; J. A. TRAPANI; K. ELLISON; E. JARZABEK; J. WOLF; S. M. MALAK; K. STINSON; J. H. FOSS-FEIG; J. MCPARTLAND. *Yale Univ., Icahn Sch. of Med. at Mount Sinai.*

1:00 C32 **34.13** Mapping the neural circuitry of restricted repetitive behavior: multimodal neuroimaging in children with autism spectrum disorder. B. WILKES*; H. KORAH; C. BASS; D. E. VAILLANCOURT; M. FEBO; M. H. LEWIS. *Univ. of Florida, Univ. of Florida, UF Col. of Med., Univ. of Florida.*

2:00 C33 **34.14** Co-morbid medical conditions, misrecognized pain and disruptive behaviors in individuals with autism spectrum disorder. E. T. CHOW*; M. R. NATOWICZ; A. G. HERZOG; T. M. BUIE; M. L. BAUMAN. *Tulane Univ. Sch. of Med., Cleveland Clin., Beth Israel Deaconess Med. Ctr., Boston Children's Hosp., Boston Univ. Sch. of Med.*

3:00 C34 **34.15** Narrower attentional filters explain enhanced motion perception in autism spectrum disorder. S. O. MURRAY*; M. SCHALLMO; A. KALE; R. BERNIER. *Univ. Washington, Univ. Washington.*

4:00 C35 **34.16** Reduced sensory habituation in autism. W. JAMAL*; R. CHEUNG; T. VUONG; A. CARDINAUX; L. VOGELSANG; P. SINHA; M. KJELGAARD. *MIT, MGH Inst. of Hlth. Professions.*

1:00 C36 **34.17** ● Neonatal biomarker of healthy growth, neuromotor control and motor coordination. J. VERO*; B. A. SMITH; E. B. TORRES. *Rutgers Univ., USC, Rutgers Univ. Dept. of Psychology.*

2:00 C37 **34.18** Biomarkers of co-morbid anxiety and depression in Autism Spectrum Disorders. H. GARMAN*; P. WHITAKER-AZMITIA; K. GADOW. *Stony Brook Univ., Stony Brook Univ., Stony Brook Univ.*

3:00 C38 **34.19** ▲ Cortical thickness correlates of subclinical autistic traits in young adulthood. E. RICHARD*; C. S. PENG; E. MEHTA; C. YAO; B. TRIVEDI; G. L. WALLACE; A. R. KNODT; A. HARIRI. *The George Washington Univ., Duke Univ.*

POSTER

035. Neurodevelopmental Disorders: Transmitter Systems

Theme A: Development

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 C39 **35.01** Transgenerational transmission of reversal learning deficits in a mouse model of paternal nicotine exposure. D. M. MC CARTHY*; M. J. WILLIAMSON; P. G. BHIDE. *Florida State Univ. Col. of Med.*

2:00 C40 **35.02** Prenatal nicotine exposure may induce immune activation of the kynurenine pathway in the cerebellum. R. B. BASSEY*; H. WANG; M. C. GONDRE-LEWIS. *Howard Univ. Col. of Med.*

3:00 C41 **35.03** Modification of pediatric dysphagia by altering maternal Vitamin A intake. G. BANYAI*; J. SABATINO; A. S. LAMANTIA; T. M. MAYNARD; I. ZOHN. *Children's Res. Inst., The George Washington Univ., George Washington Univ., Children's Res. Inst.*

4:00 C42 **35.04** ▲ The role of brain stem 5HT1A and GABA-A receptors in the thermoregulatory response to hypoxic stress. A. L. SCHMIDT*; J. BROWN; R. POWELL; L. NELSON; S. HETRICK. *James Madison Univ.*

1:00 C43 **35.05** Developmental hyperserotonemia induced purkinje cell loss, implications in autism. L. HOUGH*; A. W. BANDELOW; M. L. BEKAS; K. HILL. *Missouri State Univ., Missouri State Univ., Missouri State Univ.*

2:00 C44 **35.06** Effect of extreme prematurity on brain monoamine metabolism. S. SEO*; S. E. KOHE; E. GOWING; Y. ZHENG; I. KOKAY; D. R. GRATTAN; P. LIU; D. E. OORSCHOT. *Univ. of Otago, Univ. of Otago.*

3:00 C45 **35.07** Effects of sex, age and maternal immune stimulation on dopamine receptors. A. BIEGON*; S. HOROVITZ-PERY; J. DHAWAN; I. WEINER. *Stony Brook Univ., Tel Aviv Univ.*

4:00 C46 **35.08** Characterization and localization of tyrosine hydroxylase-labeled neurons in the ventral midbrain during embryonic development of the gray short-tailed opossum (Monodelphis domestica). A. C. CAMACHO; H. FILIZOLA; M. GIL*; J. L. VANDEBERG; G. A. DE ERAUSQUIN. *The Univ. of Texas Rio Grande Valley, The Univ. of Texas Rio Grande Valley, The Univ. of Texas Rio Grande Valley, The Univ. of Texas Rio Grande Valley, The Univ. of Texas Rio Grande Valley, The Univ. of Texas Rio Grande Valley.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

1:00 C47 **35.09** GABA and Dopamine receptor involvement in sensorimotor gating in the rat model: An autoradiography study. M. FAZAL*; E. T. CHOW; C. R. CLANCY; J. SKEFOS; E. D. LEVIN; M. L. BAUMAN. *Boston Univ. Sch. of Med., Duke Univ. Med. Ctr.*

2:00 C48 **35.10** Cyclosporine exacerbates ketamine toxicity in zebrafish. J. KANUNGO*; M. DUMAS; S. F. ALI; M. G. PAULE; Q. GU; B. ROBINSON. *Natl. Ctr. For Toxicological Research/Food and Drug Admin., Natl. Ctr. for Toxicological Res., Neurochemistry Lab, Div. of Neurotoxicology, Natl. Ctr. Toxicological Res/Fda, FDA's Natl. Ctr. For Toxicological Res., FDA Natl. Ctr. for Toxicological Res., Natl. Ctr. For Toxicological Res.*

3:00 C49 **35.11** ▲ Neuroprotection by periadolescent choline supplementation in a rat model of fetal alcohol spectrum disorder. S. STEIMEL*; J. R. MITCHELL; M. TEDOLDI; A. D'AIELLO; M. GLENN. *Colby Col.*

POSTER

036. Brain Evolution

Theme A: Development

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 C50 **36.01** The molecular mapping and the pioneer axon scaffold in the early developing human forebrain from 6 to 9 postconceptional weeks. J. QIN*; M. WANG; Y. QU; L. ZHOU. *GHMICR.*

2:00 C51 **36.02** Columnar and diffuse connectivity of the marmoset PFC neurons. A. WATAKABE*; J. WANG; M. TAKAJI; H. MIZUKAMI; A. WOODWARD; T. KAWASE; H. SKIBBE; K. NAKAE; Y. YAMAGUCHI; S. ISHII; T. YAMAMORI. *RIKEN, Jichi Med. Univ., RIKEN, Kyoto Univ.*

3:00 C52 **36.03** Oxytocin and arginine-vasopressin innervation of cerebral cortex in human and chimpanzee brains. C. ROGERS*; A. P. ROSS; S. P. SAHU; E. SIEGEL; J. DOOYEMA; M. A. CREE; 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., Brown Univ., Brown Univ., Emory Univ., Emory Univ., Emory Univ. Sch. of Med.*

4:00 C53 **36.04** An interhemispheric analysis of the distribution of neurons across the cerebral cortex surface of New World monkeys. M. GABI*; E. C. TURNER; J. H. KAAS. *Vanderbilt Univ.*

1:00 C54 **36.05** U-shaped distribution of the neuronal density along the anterioposterior axis of the cerebral cortex sheds a new light on cortical expansion in Mammals. S. E. DOS SANTOS*; F. B. DA CUNHA; J. PORFIRIO; D. J. MESSEDER; P. MANGER; W. TAVARES; L. PESSOA; M. RAGHANTI; C. C. SHERWOOD; S. HERCULANO-HOUZEL. *Vanderbilt Univ., Univ. Federal do Rio de Janeiro, Univ. of the Witwatersrand, Univ. Federal do Rio de Janeiro, Kent State Univ., George Washington Univ.*

2:00 C55 **36.06** Cortical folding determines white matter volume and white/gray matter ratio across mammalian species. S. HERCULANO-HOUZEL*; S. DOS SANTOS; D. J. ALVARENGA; K. NEVES; R. KAZU; S. C. NOCTOR; K. G. LAMBERT; C. SHERWOOD; P. R. MANGER; J. H. KAAS; B. MOTA. *Vanderbilt Univ., UFRJ - Univ. Federal Do Rio De Janeiro, Univ. Federal Do Rio De Janeiro, Univ. of Reading, UC Davis, Univ. of Richmond, George Washington Univ., Univ. of the Witwatersrand, Univ. Federal Do Rio De Janeiro.*

3:00 C56 **36.07** Layering of neocortical cell types in the crocodilian cerebral cortex. S. D. BRISCOE*; C. W. RAGSDALE. *Univ. of Chicago.*

4:00 C57 **36.08** fMRI in nile crocodiles (crocodylus niloticus) reveals conserved sensory processing patterns in the vertebrate forebrain. B. K. BILLINGS*; M. BEHROOZI; X. HELLUY; P. MANGER; O. GÜNTÜRKÜN; F. STRÖCKENS. *Wits University, Anatom. Sci., Inst. of Cognitive Neurosci. , Biopsycholog.*

1:00 C58 **36.09** ▲ Zebrin expression in the cerebellum of crocodillians. M. R. DANNISH*; R. M. LONG; C. GUTIERREZ-IBANEZ; T. KOHL; C. E. CARR; R. K. TISDALE; I. CRACIUN; A. N. IWANIUK; D. R. WYLIE. *Univ. of Alberta, Tech. Univ. of Munich, Univ. of Maryland, Max Planck Inst. for Ornithology, Univ. of Lethbridge.*

2:00 C59 **36.10** Wiring heterogeneity in the cerebellar nuclei: A link to the special morphology of the primate dentate/LN. H. MAO*; S. HAMODEH; F. SULTAN. *Hertite Inst., Umeå Universitet.*

3:00 C60 **36.11** Proportion and laminar distribution of calretinin neurons in the monkey prefrontal cortex. D. SEDMAK; J. SCAPULA; D. DZAJA; Z. PETANJEK; M. ESCLAPEZ*. *Univ. of Zagreb Sch. of Med., INSERM UMR 1106 - INS.*

4:00 C61 **36.12** A double claustrum in marsupials? J. I. JOHNSON*; T. T. SHERIDAN. *Michigan State Univ. Dept. of Radiology, Michigan State Univ.*

1:00 C62 **36.13** ▲ Cellular scaling in brain of the nine-banded armadillo (Dasypus novemcinctus). N. E. POLING*; A. SIECZKOWSKI; E. FAGAN; J. PADBERG. *Univ. of Central Arkansas.*

2:00 C63 **36.14** Ecological correlates of mammalian hippocampal subfield neuroanatomy. B. M. SCHILDER*; C. C. SHERWOOD. *George Washington Univ.*

3:00 D1 **36.15** Mesencephalic origin of the preglomerular nucleus and the inferior lobe of the "hypothalamus" in zebrafish. S. BLOCH*; M. THOMAS; I. COLIN; P. AFFATICATI; K. YAMAMOTO. *CNRS, Univ. Paris-Sud, Univ. Paris-Saclay, CNRS, Univ. Paris-Sud, Univ. Paris-Saclay.*

4:00 D2 **36.16** Bats possess the molecular and anatomical substrate for a laryngeal motor cortex. A. NEVUE*; P. LOVELL; C. MELLO; C. V. PORTFORS. *OHSU, Washington State Univ.*

1:00 D3 **36.17** ▲ The development of neural specializations in birds. D. MACLEAN-BLEVINS*. *Salisbury Univ.*

2:00 D4 **36.18** Displaced ganglion cells project to the pretectal nucleus lentiformis mesencephali in zebra finches (taeniopygia guttata) and hummingbirds (calypte anna). D. R. WYLIE*; A. H. GAEDE; C. GUTIERREZ-IBANEZ; D. L. ALTSHULER. *Univ. of Alberta, Univ. of British Columbia.*

3:00 D5 **36.19** Pretectal projections to the oculomotor cerebellum in hummingbirds (C. anna), zebra finches (T. guttata), and pigeons (C. livia). A. H. GAEDE*; C. GUTIERREZ-IBANEZ; M. S. ARMSTRONG; R. M. LONG; D. L. ALTSHULER; D. R. WYLIE. *Univ. of British Columbia, Univ. of Alberta.*

4:00 D6 **36.20** Shades of gray in human white matter. T. GEFEN*; G. KIM; C. GEULA; M. MESULAM. *Feinberg Sch. of Medicine, Northwestern Univ.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

1:00 D7 **36.21** A fetus with craniorachischisis and how anencephaly informs human neurodevelopment. S. N. REID*; F. R. WILKS, Jr.; R. DIOGO; M. C. GONDRE-LEWIS. *Howard Univ. Col. of Med., Howard Univ. Col. of Med.*

2:00 D8 **36.22** Using the isotropic fractionator method to assess the effects of domestication on neuronal and non-neuronal cell numbers in the rat (Rattus norvegicus). L. WILLIAMS*; A. NGWENYA; R. STRYJEK; K. MODLINSKA; W. PISULA; S. M. PELLIS; A. N. IWANIUK. *Univ. of Lethbridge, Rhodes Univ., Inst. of Psychology, Polish Acad. of Sci.*

3:00 D9 **36.23** A comparative analysis of retinal ganglion cell numbers and optic tectum size in birds. A. N. IWANIUK*; R. EL-ANDARI; E. FERNANDEZ-JURICIC; B. A. MOORE; T. J. LISNEY; C. GUTIERREZ-IBANEZ; D. WYLIE. *Univ. of Lethbridge, Purdue Univ., Univ. of Alberta.*

4:00 D10 **36.24** Quantifying hippocampal neuronal morphology in a seasonally reproducing rodent, Richardson's ground squirrel. B. E. BRINKMAN*; A. NQWENYA; B. E. KOLB; A. N. IWANIUK. *Univ. of Lethbridge, Univ. of Rhodes.*

1:00 D11 **36.25** Comparative anatomy of extraocular muscles and orbital neurovascular structures in cetaceans and other marine mammals. K. MESHIDA*; S. LIN; P. WANG; E. H. GILLAND. *Howard Univ. Col. of Med., Howard Univ. Col. of Med.*

2:00 D12 **36.26** Ascending visual pathways and activation of visual centers by light stimulation in teleosts. H. HAGIO; M. SATOU; H. ABE; N. YAMAMOTO*. *Lab. Fish Biol, Grad Sch. Bioagr Sci, Nagoya Univ.*

3:00 D13 **36.27** ▲ Comparison of behavioral tests to assess fear and anxiety in a teleost, Danio rerio, and an amphibian, Xenopus tropicalis. B. HASSMAN; E. DORCHUCK; C. M. PRINCE; K. REIDELBERGER; K. L. KRAMER; L. L. BRUCE*. *Creighton Univ., Creighton Univ.*

4:00 D14 **36.28** On the origin of nervous systems: The versatile gut hypothesis. J. W. GRAHAM*. *Independent Res.*

POSTER

037. Nicotinic Acetylcholine Receptors: Structure and Regulation

Theme B: Neural Excitability, Synapses, and Glia

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 D15 **37.01** ● Proximal residues of the first transmembrane domain of α4 and β2 nicotinic acetylcholine subunits help express extracellular domain receptors. G. B. WELLS*; A. M. PERSON. *Texas A&M Univ. Hlth. Sci. Ctr.*

2:00 D16 **37.02** α4α6β2* and not α4β2* or α6β2* nAChRs are upregulated by nicotine concentrations sufficient for evoking conditioned place preference. B. J. HENDERSON*; A. T. AKERS; Z. J. BAUMGARD; S. MCKINNEY; H. A. LESTER. *Marshall University, Joan C. Edwards Sch. of Med., Caltech.*

3:00 D17 **37.03** Direct measurement of "trapping" of weak base nAChR ligands in a4b2 receptor-containing acidic vesicles. A. P. GOVIND*; Y. VALLEJO; J. R. STOLZ; J. YAN; G. T. SWANSON; W. N. GREEN. *Univ. of Chicago Dept. of Neurobio., NIH, Northwestern University, Feinberg Sch. of Med., Marine Biol. Lab.*

4:00 D18 **37.04** Nicotinic acetylcholine receptor α9, α10 and β4 subunits are coordinately regulated in mouse immune cells and can co-assemble to form functional receptors. V. A. ENGLE*; L. M. LUCERO; A. KARAGIARIDI; R. J. LUKAS; P. WHITEAKER. *Barrow Neurolog. Inst., Grinnell Col.*

1:00 D19 **37.05** ● The quest for selective modulators of α5-containing nicotinic acetylcholine receptors. P. HEUSLER*; J. MARTEL; A. NEMECZ; P. SCHAMBEL; G. FAURE-KUZMINSKA; R. SIMÓ-VICENS; D. CUSSAC; P. CORRINGER; P. SOKOLOFF. *Pierre Fabre Res. Inst., Pasteur Inst., Pierre Fabre Res. Inst., Pierre Fabre Res. Inst.*

2:00 D20 **37.06** Unraveling the evolutionary history of nicotinic acetylcholine receptor subunits. I. MARCOVICH*; M. LIPOVSEK; A. TRIGILA; L. FRANCHINI; P. PLAZAS; A. ELGOYHEN. *INGEBI-CONICET, MRC Ctr. For Developmental Neurobio., Inst. de Farmacología, Facultad de Medicina, UBA.*

3:00 D21 **37.07** Functional isoforms of α9α10 nicotinic acetylcholine receptors (nAChR) suggested by transmembrane domain 2 (TM2) mutant subunits. L. AZAM*; L. M. LUCERO; A. KARAGIARIDI; V. A. ENGLE; R. J. LUKAS; J. M. MCINTOSH; P. WHITEAKER. *Univ. of Utah, The Barrow Neurolog. Inst., Grinnell Col., Univ. of Utah, George E. Whalen Veterans Affairs Med. Ctr.*

4:00 D22 **37.08** Molecular dissection of oxantel specificity for the alpha4beta2 nicotinic acetylcholine receptor. M. M. LEVANDOSKI*; L. A. CHECHIK; M. LOZA; M. KOLANOWSKI; A. KARAGIARIDI; S. S. TARDREW; B. FROLUND. *Grinnell Col., Univ. of Copenhagen.*

1:00 D23 **37.09** Single channel behavior of (α4β2)2α4 Nicotinic Acetylcholine Receptor potentiated by the allosteric modulator NS-9283. S. MAZZAFERRO*; I. BERMUDEZ; S. SINE. *Mayo Clin., Oxford Brookes Univ.*

2:00 D24 **37.10** Identifying drugs that bind to intrasubunit binding sites in the transmembrane domain of an $\alpha_2\beta\gamma\delta$ nicotinic acetylcholine receptor. Z. YU; J. B. COHEN*. *Harvard Med. Sch.*

3:00 D25 **37.11** Intracellular domains of α7 nicotinic acetylcholine receptor regulation by G proteins. E. BAK*; J. R. KING; N. KABBANI. *George Mason Univ., Krasnow Inst.*

POSTER

038. GPCRs: 5-HT, mGlu, and Other Metabotropic Receptors

Theme B: Neural Excitability, Synapses, and Glia

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 D26 **38.01** Maternal influenza viral infection induces schizophrenia-related abnormalities that are modulated by the host microbiome in the adult offspring. J. M. SAUNDERS*; J. L. MORENO; D. KANG; K. HIDESHIMA; A. GARCIA-SASTRE; P. GILLEVET; J. BAJAJ; J. GONZALEZ-MAESO. *Virginia Commonwealth Univ. Hlth. Syst., Virginia Commonwealth Univ. Hlth. Syst., Icahn Sch. of Med. at Mount Sinai, George Mason Univ., Virginia Commonwealth Univ. Hlth. Syst., Virginia Commonwealth Univ. Hlth. Syst.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

2:00 D27 **38.02** Epigenetic role of HDAC2 in the limited therapeutic effect of the mGlu2/3 receptor agonist pomaglumetad after chronic atypical antipsychotic treatment. M. DE LA FUENTE REVENGA*; D. IBI; J. GONZÁLEZ-MAESO. *Sch. of Medicine. Virginia Commonwealth Universi, Meijo Univ.*

3:00 D28 **38.03** Trafficking pathway and mechanism through which 5-HT2A affects subcellular localization of mGlu2 in schizophrenia models. R. TONEATTI*; J. GONZÁLEZ-MAESO; J. F. LOPEZ-GIMENEZ. *VCU, Inst. of Biomedicine and Biotech. of Cantabria.*

4:00 D29 **38.04** ▲ The orphan G protein-coupled receptor, GPR18 is expressed in hippocampal pyramidal cells. J. G. EDWARDS*; J. KRANEWITTER-CALL; B. ANDERSON; T. JARMON; T. CALL; K. HURST. *Brigham Young Univ.*

1:00 D30 **38.05** ● Simultaneous exposure to chronic mild stress and enriched diets elicit differential expressions of dopamine D4 receptor in the hippocampus and prefrontal cortex of mice model. P. D. SHALLIE*; H. B. AKPAN; O. F. SHALLIE; R. O. FOLARIN. *Olabisi Onabanjo Univ., Olabisi Onabanjo Univ.*

2:00 D31 **38.06** ● Ligand screening against novel striatum-specific human orphan GPCRs identified through genome-wide human transcriptome profiling. S. R. RAVAL*; M. JAIN; R. YANG; S. XI; J. A. ALLEN. *Univ. of Texas Med. Br., Pfizer, Inc.*

3:00 D32 **38.07** Functional pre-coupled complexes of adenosine A_{2A} and dopamine D_2 receptor heteromers and adenylyl-cyclase. S. FERRE*; G. NAVARRO; A. CORDOMI; V. CASADÓ-ANGUERA; E. MORENO; N. CAI; A. CORTÉS; E. I. CANELA; C. DESSAUER; V. CASADÓ; C. LLUÍS. *Natl. Inst. on Drug Abuse, Univ. of Barcelona, Autonomous Univ. of Barcelona, Univ. of Texas Hlth. Sci. Ctr. at Houston.*

4:00 D33 **38.08** Serotonergic 5-HT1a receptor binding density in three cortical regions in autism. C. BRANDENBURG*; K. SUBRAMANIAN; G. J. BLATT. *Hussman Inst. For Autism.*

1:00 D34 **38.09** Behavioral profile of a novel serotonin 5-HT_{2C} receptor (5-HT_{2C}R) positive allosteric modulator. J. M. MISZKIEL*; C. T. WILD; C. DING; E. A. WOLD; R. G. FOX; S. J. STUTZ; N. C. ANASTASIO; J. ZHOU; K. A. CUNNINGHAM. *The Univ. of Texas Med. Br., The Univ. of Texas Med. Br.*

2:00 D35 **38.10** Noradrenaline modulates the membrane potential in medial prefrontal cortex pyramidal neurons via β_1-receptors. K. E. GRZELKA*; P. SZULCZYK. *Med. Univ. of Warsaw.*

3:00 D36 **38.11** Neuropeptide release from neurohypophysial terminals is modulated by zinc activation of a GPR39 pathway. S. ORTIZ-MIRANDA, 01605-2324; C. WU; S. MALAVEZ-CAJIGAS; E. CUSTER; B. M. SALZBERG; M. M. FRANCIS*; J. R. LEMOS. *Univ. of Massachusetts Med. Sch., Univ. of Mass Med. Sch., Perelman Sch. of Med. At the Univ. of Pennsylvania.*

4:00 D37 **38.12** Olanzapine prevents the cannabinoid-induced upregulation of serotonin 2A (5-HT_{2A}) and dopamine 2 (D2L) receptors: Role of G-Protein Receptor 5 (GRK5). G. A. CARRASCO*. *Cooper Med. Sch. of Rowan Univ.*

1:00 D38 **38.13** Evaluation of the receptor-mediated function of lactate in neuronal activity. H. D. ABRANTES*; M. BRIQUET; S. OFFERMANNS; J. CHATTON. *Univ. of Lausanne, Univ. of Lausanne, Max-Planck-Institute for Heart and Lung Res., Univ. Lausanne.*

2:00 D39 **38.14** Systemic administration of adenosine A1 receptor agonist induces increased microglia activation and hippocampal-dependent memory deficits: Role of microglia chemokine receptor CXCR2. H. KIM*; R. K. TENEYCKE; F. S. CAYABYAB. *Univ. of Saskatchewan.*

3:00 D40 **38.15** Transient cannabinoid receptor expression in a developing cortical parvalbumin subcircuit. M. D. CAIATI*; T. K. HENSCH. *Harvard Univ.*

4:00 D41 **38.16** The histamine H_3 receptor activates the phospholipase C/Ca^{2+}/protein kinase C pathway in striatal neurons in primary culture. N. RIVERA-RAMÍREZ*; J. ARIAS; U. GARCÍA-HERNÁNDEZ; J. ARIAS-MONTAÑO. *Cinvestav-IPN, UNAM.*

1:00 D42 **38.17** Activation of lactate receptor HCAR1 down-modulates neuronal activity in mouse and human brain tissue. A. ROCHER; C. SCHMUZIGER; J. WELLBOURNE-WOOD; R. DANIEL; S. OFFERMANNS; J. CHATTON*. *Univ. of Lausanne, Univ. Hosp. of Lausanne, Max Planck Inst. for Heart and Lung Res., Univ. Lausanne.*

2:00 D43 **38.18** Distinct signaling cascades underlie 5-HT6 receptor regulation of neuronal morphology. J. F. NEUMAIER*; M. BRODSKY; N. COHENCA; A. CROICU; A. J. LESIAK. *Univ. Washington, Univ. of Washington, Univ. of Washington.*

3:00 D44 **38.19** CRISPR/Cas9-mediated knockout of G-proteins and β-arrestins elucidates their contribution to dopamine D1 receptor signaling. M. JAIN*; B. MONTOYA; A. INOUE; J. A. ALLEN. *Univ. of Texas Med. Br., Tohoku Univ.*

4:00 D45 **38.20** Regulation of S100A5 expression and secretion by seizure associated receptors GPR37L1 and GPR37. T. T. NGUYEN*; M. M. GIDDENS; D. M. DUONG; R. A. HALL. *Emory Univ., Emory Univ.*

1:00 D46 **38.21** Anatomical, biochemical, pharmacological and physiological characterization of functional adenosine A1 and dopamine D1 receptor heteromers in mammalian spinal motoneurons. M. S. RIVERA-OLIVER; E. MORENO; Y. ALVAREZ-BAGNAROL; C. AYALA-SANTIAGO; V. CASADO; S. FERRE; M. E. DIAZ-RIOS*. *Univ. of Puerto Rico-Rio Piedras Campus, Univ. of Barcelona, Univ. of Puerto Rico-School of Med., Univ. of Puerto Rico-Rio Piedras Campus, Univ. of Barcelona, Natl. Inst. of Hlth., Univ. Puerto Rico.*

2:00 D47 **38.22** Gpr110 conformational change upon synaptamide binding probed by in-cell crosslinking and mass spectrometry. B. HUANG; J. LEE; H. KIM*. *NIAAA, NIH, NIH.*

3:00 D48 **38.23** Generation of cell lines with stable expression of the orphan GPCR GPR101: New tools for ligand screening and for the identification of deregulated pathways. G. TRIVELLIN*; M. M. JANJIC; D. O. LARCO; M. TOMIC; A. F. DALY; L. PALMEIRA; F. R. FAUCZ; A. BECKERS; T. J. WU; D. CALEBIRO; S. S. STOJILKOVIC; C. A. STRATAKIS. *Natl. Inst. of Child Hlth. and Human Devel, Natl. Inst. of Child Hlth. and Human Devel, Uniformed Services Univ. of the Hlth. Sci., Univ. of Liège, Univ. of Würzburg.*

4:00 D49 **38.24** Human RGS9-2 protein regulates the cell signaling elicited by the human histamine H_3 receptor expressed in human embryonic kidney HEK-293T cells. G. NIETO-ALAMILLA*, JR; J. ESCAMILLA-SÁNCHEZ; J. ARIAS-MONTAÑO. *Ctr. De Investigación Y De Estudios Avanzados Del IPN, Ctr. de Investigación y de Estudios Avanzados del IPN.*

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* Indicates abstract's submitting author

POSTER

039. Cholinergic Modulation

Theme B: Neural Excitability, Synapses, and Glia

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 D50 **39.01** Alterations to entorhinal cortex cholinergic circuits in cognitive decline. M. ANANTH*; D. A. TALMAGE; L. W. ROLE. *Stony Brook Univ., Stony Brook Univ., Stony Brook Univ.*

2:00 D51 **39.02** Cholinergic modulation of plasticity in the basolateral amygdala. S. C. TRYON*; L. LIU; K. F. KAIGLER; A. J. MCDONALD; M. A. WILSON; D. D. MOTT. *Univ. of South Carolina Sch. of Med., Univ. of South Carolina Sch. of Med.*

3:00 D52 **39.03** Cholinergic modulation of PV interneuron activity in sensory neocortex. S. E. MYAL*; J. URBAN CIECKO; A. L. BARTH. *Carnegie Mellon Univ., Nencki Inst. of Exptl. Biol., Carnegie Mellon U.*

4:00 D53 **39.04** Differentialfeedforward and feedback inhibition recruitment by acetylcholine controls thehippocampal CA1 pyramidal cell's input-output function through endocannabinoid activation. K. PARK*; J. KWAG. *Korea Univ.*

1:00 D54 **39.05** Hippocampus and entorhinal cortex recruit cholinergic- and NMDA receptor- dependent mechanisms separately to generate theta oscillations. Z. GU*; J. L. YAKEL. *NIEHS/NIH.*

2:00 D55 **39.06** Cholinergic-GABAergic interactions in the hippocamposeptal pathway. J. C. DAMBORSKY*; J. L. YAKEL. *NIEHS.*

3:00 D56 **39.07** Quantal analysis of basal forebrain GABAergic synapses of vGAT ChR2-eYFP BAC mice using minimal optogenetic stimulation in a reduced synaptic preparation. K. S. MONTGOMERY*; D. W. DUBOIS; A. S. FINCHER; E. A. BANCROFT; E. A. MIGUT; W. H. GRIFFITH. *Texas A&M Hlth. Sci. Ctr.*

4:00 D57 **39.08** Precisiely-timed presynaptic nicotinic receptors activation drives SST interneurons in neocortical circuits. J. URBAN CIECKO*; J. JOUHANNEAU; J. F. A. POULET; A. L. BARTH. *Nencki Inst. of Exptl. Biol., Carnegie Mellon Univ., Max Delbruck Ctr. for Mol. Med., Cluster of Excellence NeuroCure, Neurosci. Res. Ctr., Carnegie Mellon Univ.*

1:00 D58 **39.09** ● Modulation of synaptic transmission using muscarinic and GABA-A receptor ligands in neuronal cultures using a high capacity assay. J. SVENSSON DALÉN*; C. LINDWALL-BLOM; Å. JÄGERVALL; M. KARLSSON; P. KARILA; S. A. NEALE; T. E. SALT. *Cellectricon AB, Neurexpert Ltd.*

2:00 D59 **39.10** ● Enantiomer specific properties of solifenacin in the central nervous system. J. ARCHBOLD*; R. HARGREAVES; S. PATEL. *Biogen, Celgene, Eisai.*

3:00 D60 **39.11** Behavioral but not neurochemical alterations in the functional assessment of cholinergic parameters of ChAT::CRE rats. J. M. HALL*; L. M. SAVAGE. *Binghamton Univ.*

POSTER

040. LTP: Pre- and Postsynaptic Mechanisms I

Theme B: Neural Excitability, Synapses, and Glia

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 D61 **40.01** Role of the endocannabinoids in amygdala synaptic competition. N. MADEIRA; R. FONSECA*. *CEDOC - NOVA Med. Sch.*

2:00 D62 **40.02** Long-term synaptic plasticity of EPSPs in different pathways of spinal cord motoneurons *in vitro.* M. WANG*; Y. SU; X. JIANG; J. JIN; H. LUO; H. SONG; L. ZHANG; Y. SHI; Y. WANG; B. WANG. *Wannan Med. Col., Wannan Med. Col.*

3:00 D63 **40.03** Molecular mechanisms controlling AMPA receptor anchoring in synaptic transmission and plasticity. J. F. WATSON*; H. HO; I. H. GREGER. *MRC Lab. of Mol. Biol.*

4:00 E1 **40.04** IL-33 enhances the development of hippocampal excitatory synapses. K. HUNG; Y. WANG; F. CHUANG; A. FU; W. FU*; N. IP. *The Hong Kong Univ. of Sci. and Technol., Mol. Neurosci. Ctr., State Key Lab. of Mol. Neurosci., Guangdong Key Lab. of Brain Science, Dis. and Drug Develop.*

1:00 E2 **40.05** ● Roles of Arc/arg3.1 on surface expression dynamics of AMPA receptors during structural plasticity and on cognitive refinement processes. H. OKUNO*; Y. ISHII; T. ENDO; M. UEHARA; Y. SUZUKI; K. MINATOHARA; A. ARAKI; M. ABE; I. IMAYOSHI; M. KAKEYAMA; K. SAKIMURA; H. BITO. *Kyoto Univ. Grad Schl of Med., Univ. of Tokyo Grad Sch. of Med., Brain Res. Inst, Niigata Univ., Waseda Univ.*

2:00 E3 **40.06** ▲ Retrograde signaling depends on electrical activity of target tissue. J. MCCALL*; M. MATTINGLY; C. HERMANNS; C. BALLINGER BOONE; T. DONOVAN; B. SLABACH; K. WEINECK; M. MELODY; N. D; E. SOMASUNDARAM; C. MALLOY; R. COOPER. *Univ. of Kentucky, Inst. for Biochem. and Mol. Biol.*

3:00 E4 **40.07** Structure and plasticity of silent synapses in developing hippocampal neurons visualized quantitatively by super-resolution imaging. C. XU*; H. LIU; L. QI; G. HAO; Z. SHEN; Y. WANG; H. BABCOCK; P. LAU; X. ZHUANG; G. BI. *Univ. of Sci. and Technol. of China, CAS Key Lab. of Brain Function and Disease, and Sch. of Life Sciences, Univ. of Sci. and Technol. of China, Hefei, Anhui 230026, China, Dept. of Chem. and Chem. Biology, Dept. of Physics Harvard University, Cambridge, MA 02138, USA.*

4:00 E5 **40.08** Actions of Rab27B-GTPase on central excitatory synaptic transmission. E. R. ARIAS HERVERT*; M. NJUS; G. G. MURPHY; S. LENTZ; S. ERNST; E. L. STUENKEL. *Univ. of Michigan, Univ. of Michigan, Univ. of Michigan, Univ. of Michigan, Univ. of Michigan.*

1:00 E6 **40.09** The role and regulation of dendritic mitochondrial fission during long-term potentiation. S. DIVAKARUNI*; M. CONTRERAS; H. N. HIGGS; T. A. BLANPIED. *Univ. of Maryland Sch. of Med., Univ. of Maryland Sch. of Med., Univ. of Maryland Sch. of Med., Geisel Sch. of Med. at Dartmouth Col.*

2:00 E7 **40.10** Neuron-targeted caveolin-1 promotes ultrastructural and functional hippocampal synaptic plasticity. B. P. HEAD*; J. EGAWA; S. WANG; A. M. KLESCHEVNIKOV. *VA Med. Ctr., UCSD, Veterans Affairs Hosp. San Diego, Veterans Affairs San Diego, Univ. of California San Diego.*

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

3:00 E8 **40.11** Novel LTP at an opioid-sensitive GABAergic synapse in the VTA. R. ST. LAURENT*; J. A. KAUER. *Brown Univ., Brown Univ., Brown Univ.*

4:00 E9 **40.12** Single mossy fiber synapses control hilar mossy cell firing owing to their previous activity. A. DRAKEW*; U. MAIER; M. FROTSCHER. *Ctr. For Mol. Neurobio. Hamburg (ZMNH).*

1:00 E10 **40.13** Internal calcium stores and calcium regulation in CA1 spines. G. MAHAJAN*; S. NADKARNI. *IISER, Pune.*

2:00 E11 **40.14** Cell firing bidirectionally regulates future long-term potentiation depending on the induction protocol. R. U. HEGEMANN*; W. C. ABRAHAM. *Univ. of Otago, Univ. of Otago, Univ. of Otago.*

3:00 E12 **40.15** Dissociating pre and postsynaptic functions of BDNF and TrkB signaling in synaptic plasticity. P. LIN*; E. KAVALALI; L. MONTEGGIA. *UTSouthwestern Med. Ctr.*

4:00 F1 **40.16** The role of neuroligin 1 in LTP. X. WU*; A. M. RILEY; T. C. SUDHOF; R. C. MALENKA. *Stanford, Stanford.*

POSTER

041. Long-Term Depression

Theme B: Neural Excitability, Synapses, and Glia

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 F2 **41.01** CB1-dependent LTD in ventral tegmental area GABA neurons: A novel target for marijuana. I. OSTLUND*; L. N. FRIEND; J. WEED; P. SANDOVAL; J. G. EDWARDS. *Brigham Young Univ., Brigham Young Univ., Brigham Young Unveristy.*

2:00 F3 **41.02** Paired-associative quadripulse stimulation (PA-QPS) - alterations of QPS effects by electrical stimulation on peripheral nerve. W. WIRATMAN*; T. MURAKAMI; S. KOBAYASHI; H. ENOMOTO; Y. UGAWA. *Fukushima Med. University, Sch. of Med., Universitas Indonesia, Fac. of Med., Fukushima Med. University, Sch. of Med.*

3:00 F4 **41.03** Serotonin induces inhibitory synaptic plasticity in prefrontal cortex. K. MORALES*; P. R. MOYA; M. FUENZALIDA. *Univ. de Valparaíso, Millennium Nucleus in Neuropsychiatric Disorders NU-MIND, Interdisciplinary Ctr. of Neurosciences of Valparaiso CINV.*

4:00 F5 **41.04** D2 receptors on D2 MSNs and cholinergic interneurons modulate striatal endocannabinoid dependent long-term synaptic depression. S. M. AUGUSTIN*; D. LOVINGER. *Natl. Inst. of Hlth. - NIAAA.*

1:00 F6 **41.05** Optogenetically driven LTD of nociceptive inputs to trigeminal nucleus; Implications for migraine. B. PRADIER*; H. B. SHIN; D. LIPSCOMBE; J. A. KAUER. *Brown Univ., Brown Univ.*

2:00 F7 **41.06** BDNF val66met polymorphism impairs hippocampal long-term depression by down-regulation of 5-HT3 receptors. Y. HUANG*; R. HAO; Y. QI; Y. JI; C. ZHENG; W. YUNG; B. LU. *Tongji University, Sch. of Med., Tongji University, Sch. of Med., GlaxoSmithKline (China) R&D, The Chinese Univ. of Hong Kong, Sch. of Pharmaceut. Sciences, Tsinghua Univ.*

3:00 F8 **41.07** Inhomogeneous modulation of cortical excitability by cathodal direct current stimulation in mouse and human cortex. Y. SUN*; S. C. DHAMNE; M. C. GOLDENBERG; J. R. MADSEN; A. ROTENBERG. *Boston Children's Hospital, Harvard Med. Sch., Boston Children's Hosp., Boston Children's Hosp., Beth Israel Deaconess Med. Center, Harvard Med. Sch.*

4:00 F9 **41.08** Caspase-2 deficiency impairs pruning of dendritic spines and elevates anxiety. Z. XU*; J. TAN; H. XU; C. HILL; O. OSTROVSKAYA; K. MARTEMYANOV; B. XU. *The Scripps Res. Inst.*

1:00 F10 **41.09** Long-term depression of excitatory transmission in the lateral septum. J. M. POWER*; M. RADNAN; C. CHAICHIM. *UNSW Australia.*

2:00 F11 **41.10** Phosphoinositide-responsive Phldb2 regulates synaptic plasticity through glutamate receptors. M. XIE*; Y. ISHIKAWA; H. YAGI; H. MATSUZAKI; Y. FUKAZAWA; M. SATO. *Fac. of Med. Sciences, Univ. of Fukui, Univ. of Fukui, Univ. of Fukui, Osaka Univ., Maebashi Inst. of Technol., Hyogo Col. of Med., Fac. of Med. Sciences, Univ. of Fukui, Grad. Sch. of Medicine, Osaka Univ.*

3:00 F12 **41.11** Examining input-specific changes in medial prefrontal cortex plasticity. B. M. OWEN; M. BENVENISTE*. *Morehouse Sch. of Med.*

4:00 G1 **41.12** ▲ Arc regulation and association with endocytic proteins in long-term depression. Y. YU*; B. M. S. S. GOO; B. BARYLKO; B. J. SANSTRUM; J. P. ALBANESI; N. G. JAMES. *Univ. of Hawaii at Manoa, Univ. of Texas Southwestern Med. Ctr.*

1:00 G2 **41.13** Properties of long-term depression upon aging. L. V. LOPES*; M. TEMIDO-FERREIRA; D. G. FERREIRA; J. E. COELHO; T. F. OUTEIRO. *Inst. de Medicina Molecular, Fac Med. Lisbon, Univ. Med. Ctr. Goettingen.*

2:00 G3 **41.14** Drebrin plays a role in mGluR-dependent LTD. T. SHIRAO*; K. HANAMURA; H. YASUDA; Y. SEKINO; N. KOJIMA. *Gunma Univ. Grad Sch. Med., Gunma Univ. Grad Sch. Med., Grad. Sch. of Pharmaceut. Sciences, The Univ. of Tokyo, Toyo Univ.*

3:00 G4 **41.15** Identification of postsynaptic phosphatidylinositol-4,5-bisphosphate (PIP2) roles for synaptic plasticity using chemically induced dimerization. M. JEONG*; H. JO; S. KIM; J. JUNG; J. KIM. *POSTECH.*

4:00 G5 **41.16** The $GABA_B$ agonist baclofen persistently depresses inhibitory synapses in the rostral agranular insular cortex. R. J. STEVENSON*; J. A. KAUER. *Brown Univ., Brown Univ.*

1:00 G6 **41.17** Neuregulin 1/ErbB signalling controls hippocampal mGluRI-dependent synaptic plasticity and related cognitive functions. A. LEDONNE*; D. MANGO; E. C. LATAGLIATA; G. CHIACCHIERINI; A. NOBILI; R. NISTICÒ; M. D'AMELIO; S. PUGLISI-ALLEGRA; N. B. MERCURI. *Santa Lucia Fndn., European Brain Res. Inst., Univ. "La Sapienza", Univ. Campus-Biomedico, Univ. of "Tor Vergata.*

2:00 G7 **41.18** Pin1 regulates PSD-95 ubiquitination and its stability at excitatory synapses. J. Y. DELGADO*; A. MCLEOND; D. L. NALL; P. R. SELVIN; P. F. WORLEY; W. N. GREEN. *Univ. of Chicago, The Univ. of Chicago, The Univ. of Illinois at Urbana-Champaign, Johns Hopkins Sch. Med., Univ. of Chicago Dept. of Neurobio.*

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

POSTER

042. Effects of Neuron and Glia Interaction

Theme B: Neural Excitability, Synapses, and Glia

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 G8 **42.01** Rearing-environment-dependent hippocampal LFP differences in wildtype and IP_3R2-KO mice. X. WANG*; M. TANAKA; K. MIKOSHIBA; H. HIRASE; Y. SHINOHARA. *RIKEN Brain Sci. Inst., Saitama Univ.*

2:00 G9 **42.02** Astrocytic control of neural activity and behavior by optogenetic Gq-coupled receptor activation. Y. IWAI*; K. OZAWA; K. YAHAGI; S. SATO; H. HIRASE. *RIKEN Brain Sci. Inst.*

3:00 G10 **42.03** Hippocampal metabolic and synaptic neuro-glial dysfunction after peripheral trauma. M. GOMEZ-GALAN*; T. FEMENÍA; A. GIMENEZ-CASSINA; S. CODELUPPI; L. ERIKSSON. *Karoliska Inst., Karolinska Institutet.*

4:00 H1 **42.04** Sonic hedgehog signaling in astrocytes is required for organizing cortical microcircuitry. A. S. BLAESER*; S. A. HILL; A. COLEY; W. -. GAO; A. D. R. GARCIA. *Drexel Univ., Drexel Univ. Col. of Med.*

1:00 H2 **42.05** *In vivo* exosome-mediated neuron to glial signaling in the CNS. R. JARVIS*; E. BROWN; S. JIN; M. CHIANG; Y. YANG. *Tufts Univ.*

2:00 H3 **42.06** Notch-independent Delta signaling in glia regulates synaptic function at the *Drosophila* neuromuscular junction. M. R. CALDERON*; G. KAUWE; P. HAGHIGHI. *The Buck Inst. For Res. On Aging, Buck Inst. Res. On Aging, Buck Inst. for Res. on Aging.*

3:00 H4 **42.07** Calcium signals in astrocytes during sleep. L. BOJARSKAITE*; D. M. BJØRNSTAD; R. ENGER; W. TANG; G. MORENO; R. LANTON; K. G. A. VERVAEKE; E. A. NAGELHUS. *Univ. of Oslo, Inst. of Basic Med. Sci.*

4:00 H5 **42.08** Specific GABAergic interneurons evoke unique responses in cortical astrocytes. G. LOSI; L. MARIOTTI; A. CHIAVEGATO; M. ZONTA; A. LIA; L. M. REQUIE; M. GOMEZ-GONZALO; M. MELONE; S. BOVETTI; A. FORLI; M. SESSOLO; I. MARCON; N. BERARDI*; T. FELLIN; F. CONTI; G. CARMIGNOTO. *Neurosci. Institute-CNR and Univ. of Padua, Univ. of Padova, Univ. Politecnica delle Marche, Inst. Italiano di Tecnologia, Inst. Neurosci. CNR, Univ. Politecnica della Marche.*

1:00 H6 **42.09** The astrocytic protein S100ß modulates Nav 1.6-dependent firing in layer 5 pyramidal neurons of the mouse visual cortex. D. RYCZKO*; B. J. BRÉANT; M. HANINI-DAOUD; A. KOLTA. *Univ. de Sherbrooke, Univ. de Montréal, Sorbonne Universités, Univ. Paris 06, Univ. Montreal.*

2:00 H7 **42.10** $G_{i/o}$ protein-coupled receptors inhibit neurons but activate astrocytes and stimulate gliotransmission. C. DURKEE*; A. COVELO; S. JAMISON; A. ARAQUE. *Univ. of Minnesota.*

3:00 H8 **42.11** Microglial clearance of neuronal debris following CNS injury is mediated by complement in an activity-independent manner. G. NORRIS*; A. J. FILIANO; J. KIPNIS. *Univ. of Virginia, Univ. of Virginia.*

4:00 H9 **42.12** Neuronal exosomal miR-124 as a master regulator of astrocytic GLT1 expression. J. M. YELICK*. *Tufts Univ.*

1:00 H10 **42.13** Estimation of effects after two-photon laser ablation on surrounding astrocytes by *in vivo* astrocytic Ca^{2+} imaging. K. YAMAGUCHI*; R. KAWAKAMI; T. NEMOTO. *Res. Inst. for Electronic Sci.*

2:00 H11 **42.14** Astrocyte Ca^{2+} signaling in the barrel cortex during active sensation. G. B. MELLO*; R. A. LANTON; D. M. BJØRNSTAD; W. TANG; E. A. NAGELHUS; K. G. A. VERVAEKE. *Univ. of Olso.*

3:00 H12 **42.15** Deletion of the astrocytic glutamate release mechanism system x_c^- results in pathological synaptic signaling in nucleus accumbens efferents resulting in perseverative drug seeking. E. M. HESS*; S. KASSEL; N. RADDATZ; C. MUELLER; J. TONG; Y. LI; Q. LIU; A. GEURTS; J. R. MANTSCH; S. CHOI; D. A. BAKER. *Marquette Univ., Med. Col. of Wisconsin, Shanxi Med. Unive, Med. Col. of Wisconsin, Med. Col. of Wisconsin, Marquette Univ., Marquette Univ.*

4:00 I1 **42.16** Activity-dependent neuronal Klotho production induces astrocytic lactate release through FGFR1 activation and ERK phosphorylation. C. MAZUCANTI*; E. M. KAWAMOTO; C. SCAVONE; M. P. MATTSON; S. CAMANDOLA. *Univ. of Sao Paulo, Univ. of Sao Paulo, Lab. of Neurosciences, NIA Biomedial Res. Ctr., NIA.*

1:00 I2 **42.17** Pathological and inflammatory small intestine caused by calcineurin B1 deficiency in glial cells. M. TANAKA*; M. FUJITA; T. YAGI; U. OKURA; J. TANAKA; N. HIRASHIMA. *Nagoya City Univ.*

2:00 I3 **42.18** ▲ Central leukotrienes modulate LPS tolerance. B. MAITAN SANTOS*; L. H. ANGENENDT DA COSTA; M. J. ALVES DA ROCHA; L. G. DE SIQUEIRA BRANCO. *Dent. Sch. of Ribeirão Preto, Univ. of São, Dent. Sch. of Ribeirão Preto, Univ. of São Paulo.*

3:00 I4 **42.19** Role of glutathione S-transferase on astrocyte-microglia communiocations in inflammation. E. DOHI*; E. CHOI; I. ROSE; T. IMAI; A. SAWA; S. KANO. *Johns Hopkins Univ. Sch. of Med.*

4:00 I5 **42.20** Systemically applied glutathione or N-acetylcysteine down-regulate endogenous and stimulated kynurenic acid levels in the rat prefrontal cortex. R. SCHWARCZ*; H. WU. *Maryland Psychiatric Res. Ctr., Univ. of Maryland Sch. of Med.*

1:00 I6 **42.21** The role of astrocyte death in vessel patterning. V. M. PUNAL*; F. S. BRECHA; C. YIN; M. LEE; J. N. KAY. *Duke Univ., Duke Univ., North Carolina Sch. of Sci. and Math.*

2:00 I7 **42.22** P2X7 receptor antagonist is effective in the recovery of enteric glial cells following ischemia and reperfusion. P. CASTELUCCI*; C. E. MENDES; K. PALOMBIT. *Univ. of São Paulo, Univ. Federal of Piaui.*

3:00 I8 **42.23** Genetic fate-mapping identifies perineurial glia and endoneurial fibroblasts as hedgehog-responsive cell populations in peripheral nerves. B. ZOTTER*; J. SAMANTA; H. BALOUI; J. L. SALZER. *NYU Sch. of Med., Karolinska Institutet.*

1:00 DP02/I9 **42.24** (Dynamic Poster) Fibroblast growth factor 1 influences GABAergic interneuron-cortical astrocyte communication. D. J. ROGERS*; M. HENDRICK, 70504; M. SIDES; K. M. SMITH. *Univ. of Louisiana at Lafayette, Univ. of Louisiana at Lafayette, Univ. of Louisiana At Lafayette.*

1:00 I10 **42.25** Neuronal hyaluronan mediates the dimensions of brain extracellular space in the naked mole-rat. D. THEVALINGAM*; N. LAMASSA; G. PHILLIPS; D. P. MCCLOSKEY. *Col. of Staten Island, City Univ. of New York.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

2:00 J1 **42.26** Rapid activation of the sensory autonomic nervous system mediated by prostaglandins in acute LPS challange. E. SANTACRUZ*; E. SOTO-TINOCO; R. M. BUIJS. *Univ. Nacional Autónoma De México, Univ. Nacional Autónoma De México.*

3:00 J2 **42.27** L-Lactate and Glycine interact synergistically to potentiate NMDA receptor activity : A form of metapotentiation? P. J. MAGISTRETTI*; P. JOURDAIN; I. ALLAMAN; P. MARQUET; K. ROTHENFUSSER. *Ecole Polytechnique, BESE/KAUST, EPFL, EPFL/Brain Mind Inst., Inst. Universitaire En Santé Mentale De Québec, BMI/EPFL.*

4:00 J3 **42.28** Chemokine CCL2-CCR2 signaling induces neuronal cell death via STAT3 activation and IL-1β production after status epilepticus. J. PENG*; D. TIAN; M. MURUGAN; J. LIU; U. B. EYO; W. WANG; L. WU. *Rutgers Universiey, Mayo Clin., Dept. of Neurology, Tongji Hospital, Tongji M, Rutgers Univ., Rutgers Univ., Rutgers The State Univ. of New Jersey.*

1:00 J4 **42.29** Excitatory amino acid transporters (EAATs) modulate nTS synaptic and neuronal properties; role of metabotropic glutamate receptors (mGluRs). D. MARTINEZ*; D. D. KLINE. *Univ. of Missouri.*

POSTER

043. Role of Glia in Synapse Formation and Function

Theme B: Neural Excitability, Synapses, and Glia

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 J5 **43.01** Astrocytic neuroligins control astrocyte neuropil infiltration and synaptic connectivity. J. A. STOGSDILL*; J. RAMIREZ; Y. KIM; D. LIU; K. T. BALDWIN; E. ENUSTUN; T. EJIKEME; R. JI; C. EROGLU. *Duke Univ., Duke Univ.*

2:00 J6 **43.02** Lactate from astrocytes: A major energy source for the learning-induced translation required for long-term memory formation. G. DESCALZI*; V. GAO; M. Q. STEINMAN; C. M. ALBERINI. *New York Univ.*

3:00 J7 **43.03** The activation of glial cells contributes to HIV-1-gp120- induce synapse degeneration. W. RU*; S. TANG. *The Univ. of Texas Med. Br.*

4:00 J8 **43.04** Local calcium-dependent astrocyte signaling modulates primary olfactory neuron activity. K. UNG*; B. R. ARENKIEL. *Baylor Col. of Med., Baylor Col. of Med.*

1:00 J9 **43.05** Astrocytes are common effectors of corticosterone- and serotonin-mediated alteration of cortical inhibition. C. A. WOTTON*; E. F. QUON; L. K. BEKAR. *Univ. of Saskatchewan.*

2:00 J10 **43.06** Microglial contributions to network remodeling in adult ocular dominance plasticity. M. S. MENDES*; A. K. MAJEWSKA. *Univ. of Rochester, Univ. of Rochester Med. Ctr.*

3:00 J11 **43.07** How do astrocyte-secreted thrombospondins and their neuronal receptor alpha-2-delta-1 shape cortical connectivity? W. C. RISHER*; N. KIM; E. F. SPENCE; P. R. MITEV; L. PILAZ; D. WANG; G. FENG; D. L. SILVER; S. H. SODERLING; H. H. YIN; C. EROGLU. *Duke Univ. Med. Ctr., Duke Univ. Med. Ctr., Duke Univ. Med. Ctr., Duke Univ. Med. Ctr., Duke Univ. Med. Ctr., MIT, Duke Univ. Med. Ctr.*

4:00 J12 **43.08** Activation of neonatal microglia can be influenced by other neural cells. A. TURANO*; J. H. LAWRENCE; J. M. SCHWARZ. *Univ. of Delaware.*

1:00 K1 **43.09** Neuron-glia interactions in the *Drosophila* larval visual system . M. E. GIBBS*; Q. YUAN. *NIH.*

2:00 K2 **43.10** *In vivo* Ca^{2+} signaling in astrocytes in awake behaving mice. P. RAGUNATHAN*; A. DUNAEVSKY. *Munroe-Meyer Institute, Univ. of Nebraska Med. Ctr.*

3:00 K3 **43.11** Mapping synapses and astrocytic processes in the mammalian spinal cord. M. J. BROADHEAD*; F. ZHU; L. ARCINAS; S. G. N. GRANT; G. B. MILES. *Univ. of St Andrews, Heriot Watt Univ., The Univ. of Edinburgh.*

4:00 K4 **43.12** Neuronal plasticity and survival in spinal cord following peripheral axon injury: Role of glia. J. MALONEY*; R. SNYDER; N. D. HENKEL; J. M. HUTCHINSON; L. G. ISAACSON. *Miami Univ.*

1:00 K5 **43.13** Elimination of microglia from mouse spinal cord: A model to examine plasticity following peripheral axon injury. J. HUTCHINSON*; J. MALONEY; N. D. HENKEL; L. G. ISAACSON. *Miami Univ., Miami Univ.*

2:00 K6 **43.14** Glial proliferation in rat and mouse spinal cord in response to peripheral axon injury. L. G. ISAACSON*; N. D. HENKEL; L. J. SCHNEIDER; D. SULLIVAN; A. KOLLIAS; J. MALONEY; J. M. HUTCHINSON. *Miami Univ.*

3:00 K7 **43.15** Microglia trim dentate synapses during development. Y. KASAHARA*; H. UEDA; R. KOYAMA; Y. IKEGAYA. *The Univ. of Tokyo.*

4:00 K8 **43.16** Astrocyte-modulated synaptic plasticity in sensory cortex in health and pathology: A computational study. A. SAUDARGIENE; T. MANNINEN; R. HAVELA; M. LINNE*. *Lithuanian Univ. of Hlth. Sci., Tampere Univ. Technol.*

1:00 K9 **43.17** Microglia process convergence in swell-like conditions is modulated by neuronal activity and purinergic signaling. M. MURUGAN*; L. WU. *Mayo Clin., Rutgers Univ.*

2:00 K10 **43.18** Loss of the neurodegenerative-disease associated microglial receptor, Trem2, extends the period of complement-mediated synaptic pruning in development. T. R. JAY*; V. VON SAUCKEN; M. M. KITT; B. T. LAMB; G. E. LANDRETH. *Case Western Reserve Univ., Case Western Reserve Sch. of Med., Stark Neurosciences Res. Inst., Indiana Univ. Sch. of Med.*

3:00 K11 **43.19** Müller glia-secreted thrombospondin family proteins regulate retinal synapse development. S. KOH*; J. KAY; C. EROGLU. *Duke Univ., Duke Univ., Duke Univ., Duke Univ.*

4:00 K12 **43.20** ▲ Aging exacerbates immune challenge triggered activation of hippocampal microglia in a rodent model of delirium. A. S. ARNOLD*; C. R. FITZGERALD; N. SALLA; N. TANAKA; S. L. PATTERSON. *Temple Univ.*

1:00 L1 **43.21** Store-operated calcium channels in astrocytes play a key role in regulating thrombin-induced excitability of hippocampal CA1 neurons. K. HORI*; A. B. TOTH; M. PRAKRIYA. *Northwestern Univ. Feinberg Sch. of Med.*

2:00 L2 **43.22** Withdrawn

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 L3 **43.23** ● Antibodies in the brain of people with schizophrenia and controls. L. J. GLASS*; D. SINCLAIR, 2204; D. BOERRIGTER; K. NAUDE; S. J. FUNG; D. BROWN; V. S. CATTS; P. TOONEY; M. O'DONNELL; R. LENROOT; C. GALLETLY; D. LIU; T. W. WEICKERT; C. S. WEICKERT. *Neurosci. Res. Australia, Neurosci. Res. Australia, Neurosci. Res. Australia, Neurosci. Res. Australia, St Vincent's Ctr. for Applied Med. Res., Neurosci. Res. Australia, Univ. of Newcastle, Univ. of New South Wales, Adelaide Univ., Univ. of New South Wales.*

4:00 L4 **43.24** Impact of immune function on mouse brain morphology. S. SPRING*; C. CORRE; A. TU; L. R. QIU; D. A. VOUSDEN; J. A. FOSTER; M. R. PALMERT; J. P. LERCH. *The Hosp. For Sick Children, McMaster Univ.*

1:00 L5 **43.25** The effect of LPS and minocycline administration on small-molecule plasma and brain metabolites. S. CHAN*; F. PROBERT; J. SWANN; D. C. ANTHONY; P. W. J. BURNET. *Univ. of Oxford, Univ. of Oxford, Imperial Col. London.*

2:00 L6 **43.26** Neuronal basis of the adrenergic receptor OCTR-1 in regulating the innate immune response of *Caenorhabditis elegans.* X. CAO*; A. ABALLAY. *Duke Univ. Med. Ctr.*

3:00 L7 **43.27** Beta1 adrenergic receptors modulate systemic and central inflammation in an acute *in vivo* model of lipopolysaccharide challenge. A. K. EVANS*; B. YI; J. ERNEST; M. SHAMLOO. *Stanford Sch. of Med., Stanford Univ. Sch. of Med.*

POSTER

044. APP: Animal and Cellular Models

Theme C: Neurodegenerative Disorders and Injury

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 L8 **44.01** ● Implication of lipid related risk factor for preclinical stage Alzheimer's disease: Phospholipid transfer protein (PLTP) deficiency accelerates memory dysfunction. D. CHUI*; Y. TONG; L. ZHAO; Y. JIN; D. FAN; X. GUO; H. HAN. *Peking University,Hsc, Peking Univ. Third Hospital.*

2:00 L9 **44.02** ● Aqua-soluble ddq reduces the levels of drp1 and aβ and inhibits abnormal interactions between aβ and drp1 and protects Alzheimer's disease neurons from aβ- and drp1-induced mitochondrial and synaptic toxicities. C. KURUVA*; M. MANCZAK; X. YIN; P. REDDY. *Texas Tech. Univ. Hlth. Sci. Ctr.*

3:00 L10 **44.03** Beneficial effect of treadmill exercise in a rat model of sporadic Alzheimer's disease. Y. LU*. *Augusta Univ.*

4:00 M1 **44.04** Critical changes in neurovascular coupling in hippocampal and cortical microvessels in a mouse model of Alzheimer's disease. F. GALEFFI*; D. W. KIMANI; C. A. COLTON; D. A. TURNER. *Duke Univ. Med. Ctr., Durham VA Med. Ctr., Duke Univ. Med. Ctr., Duke Univ. Hosp.*

1:00 M2 **44.05** Recently discovered alpha-7/beta-2 nicotinic acetylcholine receptor may have role in amyloid-beta pathology in Alzheimer's disease. G. WILLIAMS*; T. A. MURRAY. *Louisiana Tech. Univ.*

2:00 M3 **44.06** Hyperactivity of hippocampal Parvalbumin interneurons causes memory deficits and network imbalance in an AD mouse model. S. HIJAZI*; T. S. HEISTEK; H. D. MANSVELDER; A. B. SMIT; R. E. VAN KESTEREN. *CNCR (VU University), CNCR (VU University).*

3:00 M4 **44.07** Phosphorylated amyloid-β deposition in the brains of Non-Human Primates and Canines. S. H. KUMAR*; J. L. FROST; C. W. COTMAN; E. HEAD; R. PALMOUR; C. A. LEMERE; J. WALTER. *Univ. of Bonn, Ann Romney Ctr. for Neurologic Diseases, Brigham and Women's Hospital, Harvard Med. Sch., Univ. of Massachusetts Med. Sch., UC Irvine, Univ. of Kentucky, McGill Univ. Sch. of Med., Brigham & Women's Hosp; Harvard Med. Sch.*

4:00 M5 **44.08** Role of APP axonal transport in Alzheimer's disease and chronic traumatic encephalopaty. V. LACOVICH*; V. M. POZO DEVOTO; M. CARNA; K. TEXLOVA; M. FEOLE; G. STOKIN. *Intl. Clin. Res. Ctr. FNUSA-ICRC.*

1:00 M6 **44.09** Central inhibition of amylin receptors blocks beneficial effects of peripherally administered amylin in Alzheimer's disease. R. R. CORRIGAN*; J. GRIZZANTI; M. PALLAS; A. CAMINS; G. CASADESUS. *Kent State Univ., Univ. de Barcelona, Kent State Univ.*

2:00 M7 **44.10** Consequences of noradrenergic depletion on endogenous amyloid beta$_{42}$ levels in the medial prefrontal cortex. J. A. ROSS*; B. A. S. REYES; S. A. THOMAS; E. J. VAN BOCKSTAELE. *Drexel Univ. Col. of Med., Univ. of Pennsylvania, Perelman Sch. of Med.*

3:00 M8 **44.11** Programs of neuronal function regulated by ΔFosB are shifted and expanded in an Alzheimer's disease mouse model. G. S. STEPHENS*; J. C. YOU; K. ANISHCHENKO; C. FU; X. ZHANG; Y. LIU; J. CHIN. *Baylor Col. of Med., Thomas Jefferson Univ., Univ. of Texas Med. Sch.*

4:00 M9 **44.12** ▲ Quantitative study of white matter neurons in the corpus callosum, cingulum bundle, and anterior commissure in wildtype and APP.PS1 mice. M. A. MASSET*; C. M. TOGNONI; A. S. CHANG; J. K. BLUSZTAJN; K. S. ROCKLAND. *Boston Univ., Boston Univ., Boston Univ.*

1:00 M10 **44.13** ● Reduced dynamin-related protein 1 mitigates mitochondrial fragmentation, elevates spatial learning and memory functions and elevates dendritic spines in app transgenic mice. M. MANCZAK*; R. KANDIMALLA; M. VIJAYAN; X. YIN; C. KURUVA; S. KUMAR; P. REDDY. *Texas Tech. Univ. Hlth. Sci. Ctr.*

2:00 N1 **44.14** Dynein dysfunction impedes retromer trafficking and concomitant disruption of retrograde trafficking is required for the alteration in APP metabolism. N. KIMURA*; E. SAMURA; K. SUZUKI; S. OKABAYASHI; N. SHIMOZAWA; Y. YASUTOMI. *Natl. Ctr. For Geriatrics and Gerontology, Univ. of Tokyo, Natl. Ctr. for Geriatrics and Gerontology, The Corp. for Production and Res. of Lab. Primates, Natl. Inst. of Biomed. Innovation, Hlth. and Nutr.*

3:00 N2 **44.15** Workflow for automated quantification and spatial analysis of Alzheimer's plaque labeling in microscopic rodent brain sections. S. C. YATES*; M. PUCHADES; C. COELLO; A. KRESHUK; T. B. LEERGAARD; J. G. BJAALIE. *Univ. of Oslo, Univ. of Heidelberg, Univ. of Oslo.*

4:00 N3 **44.16** Changes in the pathogenesis of Alzheimer's disease in clusterin-deficient 5xFAD transgenic mice. J. LEE*; S. OH; T. KIM; M. KIM; D. KIM. *Asan Inst. For Life Sci., Asan Inst. for Life Sci.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

1:00 N4 **44.17** Defining the temporal progression of Alzheimer's disease in the brain vs. intestine. G. D. MANOCHA*; A. M. FLODEN; N. M. MILLER; A. SMITH; K. NAGAMOTO-COMBS; T. SAITO; T. C. SAIDO; C. K. COMBS. *Univ. of North Dakota, Univ. of North Dakota, Univ. of North Dakota, Brain Sci. Inst, RIKEN, RIKEN Brain Sci. Inst.*

2:00 N5 **44.18** Multiple mechanisms of dimethylfumarate in amyloidβ -induced neurotoxicity in an *in vitro* and *in vivo* models of Alzheimer's disease. M. CAMPOLO*; G. CASILI; M. LANZA; A. FILIPPONE; I. PATERNITI; S. CUZZOCREA; E. ESPOSITO. *Univ. of Messina, Univ. of Messina.*

3:00 N6 **44.19** Disorganized steady state visually evoked potentials in amyloid beta overproducing mice. B. D. HARVEY*; E. MOROZOVA; M. HAJOS. *Biogen, Yale Univ.*

4:00 N7 **44.20** Murine 3K3A-activated protein C has anti-amyloidogenic effect in the 5xFAD mouse model of Alzheimer's disease. A. P. SAGARE*; D. LAZIC; E. LAWSON; A. GO; J. A. FERNANDEZ; J. H. GRIFFIN; B. V. ZLOKOVIC. *USC, Dept. of Mol. and Exptl. Medicine, The Scripps Res. Inst.*

1:00 N8 **44.21** Targeting 5-LOX in Alzheimer's disease: Potential serum marker and *in vitro* evidences for rescue of neurotoxicity by its peptide inhibitor. S. SHEKHAR*; N. RAI; Y. YADAV; A. B. DEY; S. DEY. *AIIMS.*

2:00 N9 **44.22** Social deficits in the 5xFAD mouse model of Alzheimer's disease. F. KOSEL*; P. TORRES MUNOZ; T. B. FRANKLIN. *Dalhousie Univ.*

3:00 N10 **44.23** *In vitro* prion-like seeding of intracellular beta-amyloid in an APP expressing cell line. T. T. OLSSON; O. KLEMENTIEVA; G. K. GOURAS*. *Lund Univ.*

4:00 N11 **44.24** The impact of phospholipase D functional ablation in an Alzheimer's disease *Caenorhabditis elegans* model. A. F. BRAVO*; J. D. SILVA; R. B. CHAN; G. D. PAOLO; A. T. CASTRO; T. G. OLIVEIRA. *Life and Hlth. Sci. Res. Inst. (ICVS), Taub Inst. for Res. on Alzheimer's Dis. and the Aging Brain, Columbia Univ. Med. Ctr.*

1:00 N12 **44.25** Effects of hyperglycemia in the APP/PS1 mouse model of Alzheimers disease. J. W. KINNEY*; A. MURTISHAW; A. SALAZAR; M. BOLTON; A. BOREN. *Univ. of Nevada Las Vegas.*

2:00 O1 **44.26** GABA specific changes in a mouse model of Alzheimer's disease. A. J. BOREN*; A. M. SALAZAR; A. M. MURTISHAW; M. M. BOLTON; J. W. KINNEY. *Univ. of Nevada Las Vegas.*

3:00 O2 **44.27** Neurodegenerative disease related neuropathology in the retina and olfactory bulb of transgenic rodent models. B. HUTTER-PAIER*; A. LOPEZ; V. NIEDERKOFLER; S. FLUNKERT; E. AUER; J. NEDDENS. *QPS Austria GmbH.*

4:00 O3 **44.28** Sleep and EEG power spectral analysis in three transgenic mouse models of AD: APP/PS1, 3xTgAD, and Tg2576. B. A. KENT*; S. M. STRITTMATTER; H. B. NYGAARD. *Univ. of British Columbia, Yale Univ., Univ. of British Columbia.*

1:00 O4 **44.29** Effects of prostacyclin signaling on Alzheimer's disease associated-pathologies. T. WOMACK*; C. VOLLERT; T. BECKETT; D. MAYERICH; M. P. MURPHY; J. L. ERIKSEN. *Univ. of Houston, Univ. of Kentucky, Univ. of Houston, Univ. Kentucky.*

2:00 O5 **44.30** Vascular amyloidosis, astrocytic endfeet, and blood brain barrier disruption. W. A. MILLS*, III; I. F. KIMBROUGH; H. W. SONTHEIMER. *Virginia Tech. Carilion Res. Inst., Virginia Tech.*

POSTER

045. Amyloid-Beta as a Therapeutic Target

Theme C: Neurodegenerative Disorders and Injury

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 O6 **45.01** Confronting Alzheimer´s disease by targeting hypometabolism, insulin resistance and oxidative stress. D. PAPADIA*; A. I. IVANOV; M. Y. ZILBERTER; Y. ZILBERTER; A. FISAHN. *Karolinska Institutet, Aix Marseille Univ. - INSERM.*

2:00 O7 **45.02** Interference with amyloid-beta aggregation rescues degraded neuronal and synaptic parameters as well as network gamma oscillations in mouse hippocampus *in vitro.* Y. ANDRADE-TALAVERA*, SR; G. CHEN; J. JOHANSSON; A. FISAHN. *Karolinska Institutet.*

3:00 O8 **45.03** Novel Indol derivatives as small molecule inhibitors of Amyloid aggregation. P. LLANES FERNANDEZ*; D. DOENS; M. CARREIRA; M. VALDÉS TRESANCO; O. LARIONOV; R. LLEONART; P. VALIENTE. *INDICASAT, INDICASAT, Univ. de la Habana, Univ. of Texas at San Antonio.*

4:00 O9 **45.04** C3H/10T1/2 cell-derived pericytes eliminate brain amyloid-β in an LRP1-dependent manner. M. TACHIBANA*; C. LIU; Y. YAMAZAKI; G. BU; T. KANEKIYO. *Osaka Univ. Grad Sch. of Med., Mayo Clin., Mayo Clin.*

1:00 O10 **45.05** ● ▲ The novel vaccine targeting oligomeric amyloid beta with immunomodulatory effects. P. PHAM; X. LIN; Y. HONG; B. BROWN; J. CAI; C. CAO*. *Univ. Of South Florida, USF Hlth. Byrd Alzheimer's Inst., Univ. of South Florida, Univ. of South Florida, Col. of Pharm. Univ. of South Florida.*

2:00 P1 **45.06** ● Effect of tocotrienols on GluA1 and amyloid beta protein: mevalonate pathway and beyond. A. M. MABB; H. MO; W. XIA*. *Georgia State Univ., Boston Univ. Sch. of Med., ENR Mem. Veterans Hosp.*

3:00 P2 **45.07** High-throughput screening (HTS) of an FDA drug library for PDE inhibition: PKC-mediated effects of PDE-inhibiting drugs on lysosomal dysfunctions in *in vitro* models of Alzheimer's disease. H. KIM*; B. SEO; H. PARK; J. KOH. *Asan Inst. For Life Sci., Asan Med. Ctr.*

4:00 P3 **45.08** The effects of Azuki extract on anti-Alzheimer's disease. H. MIYAZAKI*; Y. OKAMOTO; S. KATAYAMA; S. NAKAMURA; S. YONEKURA. *Shinshu Univ.*

1:00 P4 **45.09** ● The mixed-lineage kinase 3 inhibitor URMC-099 facilitates amyloid-β clearance in a mouse model of Alzheimer's disease. T. KIYOTA*; Y. LU; B. DYAVARSHETTY; M. NEMATI; G. ZHANG; H. A. GELBARD; H. E. GENDELMAN. *Univ. of Nebraska Med. Ctr., Univ. of Nebraska Med. Ctr., Univ. of California San Diego, Univ. of Rochester Med. Ctr., Univ. of Nebraska Med. Ctr.*

2:00 P5 **45.10** Trpv1 receptor activation rescues hippocampal neuron function and network gamma oscillations from amyloid-beta-induced impairment. H. BALLEZA-TAPIA*; S. CRUX; Y. ANDRADE-TALAVERA; P. DOLZ-GAITON; D. PAPADIA; A. FISAHN. *Karolinska Institutet, DZNE E.V.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 P6 **45.11** Effect of paroxetine on established amyloid pathology in the APPswe/PS1dE9 mouse model of Alzheimer's disease. B. FINSEN*; M. SIVASARAVANAPARAN; M. SEVERINO; L. Ø. OLESEN; A. METAXAS; E. BOUZINOVA; A. A. BABCOCK; J. B. HASSELSTRØM; J. B. GRAMSBERGEN; O. WIBORG. *Univ. of Southern Denmark, Aarhus Univ. Hosp., Aarhus Univ.*

POSTER

046. Tau: Animal and Cellular Models

Theme C: Neurodegenerative Disorders and Injury

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 P7 **46.01** The role of TREM2 in regulating neurogenesis in a mouse model of tauopathy. V. JADHAV*; T. MCCRAY; G. XU; G. HENDRIK; C. SWINFORD; G. E. LANDRETH; B. T. LAMB; S. M. BEMILLER. *Indiana Univ. Sch. of Med., Indiana Univ. Sch. of Med., Stark Neurosciences Res. Inst., IU Sch. of Med. Stark Neurosciences Res.*

2:00 P8 **46.02** TREM2 deficiency results in exacerbated traumatic brain injury induced tau pathology in a mouse model of tauopathy. N. CHOPRA*; S. M. BEMILLER; N. KOKIKO-COCHRAN; K. ATSUKO; T. J. MCCRAY; G. XU; B. T. LAMB. *Indiana Univ. Sch. of Med., Ohio State Univ.*

3:00 P9 **46.03** ▲ Morphological changes in prefrontal cortex, dentate gyrus and hippocampus CA3 in 3RTAU13 transgenic mice model. M. G. CANO RUIZ*; R. A. VAZQUEZ-ROQUE; J. C. PENAGOS-CORZO; G. FLORES; E. MASLIAH. *Univ. De Las Américas Puebla, Benemerita Univ. Autonoma de Puebla, Univ. de las Americas Puebla, Univ. of California San Diego.*

4:00 P10 **46.04** FKBP52 promotes tau aggregation. M. CRIADO MARRERO*; R. BLACKBURN; X. WANG; J. BAKER; J. KOREN, III; C. A. DICKEY; L. J. BLAIR. *Univ. of South Florida, Univ. of South Florida, Univ. of South Florida, Univ. of South Florida.*

1:00 Q1 **46.05** Tau, a new regulator of brain insulin signalling. D. BLUM*; A. LEBOUCHER; E. MARCINIAK; E. CARON; T. AHMED; A. TAILLEUX; J. DUMONT; T. ISSAD; E. GERHARDT; P. PAGESY; M. VILENO; C. BOURNONVILLE; M. HAMDANE; K. BANTUBUNGI; S. LANCEL; D. DEMEYER; E. VALLEZ; S. EDDARKAOUI; D. VIEAU; S. HUMEZ; E. FAIVRE; B. GRENIER-BOLEY; T. F. OUTEIRO; B. STAELS; P. AMOUYEL; D. BALSCHUN; L. BUÉE. *Inserm UMR_S1172, KU Leuven, Neurolog. Disorders Res. Center, QBRI-HBKU, Inserm UMR 1011, Inserm UMR_S1167, Inserm U1016, CNRS UMR8104, Univ. Paris Descartes Sorbonne Paris Cité, Inst. Cochin, Dept. of Neurodegeneration and Restorative Research, Ctr. for Nanoscale Microscopy and Mol. Physiol. of the Brain, Univ. Med. Ctr. Goettingen.*

2:00 Q2 **46.06** The tyrosine phosphatase PTPN13/FAP-1 links calpain-2, TBI and tau phosphorylation. Y. WANG*; R. A. HALL; M. LEE; X. BI; M. BAUDRY. *Western Univ. of Hlth. Sci., Emory Univ. Sch. Med.*

3:00 Q3 **46.07** Neuroprotective effects of cembranoids in *Caenorhabditis elegans.* K. A. BASKERVILLE*; K. JACKSON. *Lincoln Univ.*

4:00 Q4 **46.08** Characterization of tau expressing P301S mouse model for tauopathy - Longitudinal Brain Structural and Metabolic Profile. A. J. NURMI*; J. T. PUOLIVALI; K. LEHTIMÄKI; T. HUHTALA; J. RYTKÖNEN. *Charles River Discovery.*

1:00 Q5 **46.09** Alterations of dendritic morphology in tau transgenic mice. D. BORGMANN*; K. MORCINEK; B. DENGLER; L. MÜLLER THOMSEN; J. GOETZ; H. SCHRÖDER; S. HUGGENBERGER. *Univ. Hosp. Cologne, The Univ. of Queensland.*

2:00 Q6 **46.10** ● ▲ Biochemical and histological characterization of a transgenic rat that expresses a dimerization-prone construct of human tau. T. W. ROSAHL*; M. K. SCHULTZ, JR; X. TIAN; M. COSDEN; J. MAJERCAK; J. SCHACHTER. *Merck Res. Labs., Merck & Co., Merck & Co.*

3:00 Q7 **46.11** Investigating the role of TREM2 in microglial motility, tau pathology, and tau-associated deficits. F. SAYED*; D. LE; Y. ZHOU; Y. LI; A. HAUDUC; F. GAO; B. DJUKIC; V. RAFALSKI; D. DAVALOS; K. AKASSOGLOU; G. COPPOLA; L. GAN. *Gladstone Inst. of Neurolog. Dis., Univ. of California San Francisco, Gladstone Inst., Univ. of California Berkeley, Univ. of California Los Angeles.*

4:00 Q8 **46.12** ▲ Expression of human tau protein in *Caenorhabditis elegans* as a model for neurodegeneration in Alzheimer's disease. K. B. MORALES*; M. BIRRER; T. C. GAMBLIN; B. D. ACKLEY. *Univ. of Kansas, Univ. of Kansas.*

1:00 Q9 **46.13** ● A partial loss of dynamin-related protein 1 enhances dendritic spines, reduces fragmented mitochondria and increases hippocampal based cognitive function in mutant Tau mice. R. KANDIMALLA*; M. MANCZAK; X. YIN; C. KURUVA; M. VIJAYAN; S. KUMAR; P. REDDY. *Texas Tech. Univ., Texas Tech. Univ. Hlth. Sci. Ctr.*

2:00 Q10 **46.14** Development of AAV-based model of tauopathy to study the propagation of pathological forms of Tau. A. BEMELMANS*; A. VAUTHENY; L. STIMMER; G. AUREGAN; C. JOSÉPHINE; M. GAILLARD; P. HANTRAYE; K. CAMBON. *CEA.*

3:00 Q11 **46.15** Reelin reduces Tau phosphorylation and reverts phospho-Tau somatodendritic missorting in mouse models of Tauopathy. D. ROSSI*; A. GRUART; J. AVILA; J. DELGADO-GARCIA; E. SORIANO; L. PUJADAS. *Vall D'Hebron Inst. De Recerca (VHIR), Univ. of Barcelona, CIBERNED, Pablo de Olavide Univ., Ctr. de Biología Mol. Severo Ochoa.*

4:00 Q12 **46.16** The PI3K signaling regulates tau phosphorylation and neuron survival. G. CHEN*; C. XU; J. HOU; L. WANG; S. CHENG. *Nanjing Univ.*

POSTER

047. Dopamine and Non-Dopamine Pathways in Parkinson's Disease Models

Theme C: Neurodegenerative Disorders and Injury

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 R1 **47.01** Enhancement of dorsolateral prefrontal cortical neuronal firing in monkeys performing a working memory task by a novel non-catechol dopamine D1 receptor agonist. M. WANG*; V. C. GALVIN; S. YANG; R. KOZAK; D. GRAY; K. FONSECA; A. F. ARNSTEN. *Yale Univ. Sch. of Med., Yale Univ., Yale Univ., Pfizer, Pfizer, Pfizer, Yale Univ. Sch. Med.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

2:00 R2 **47.02** ● D1-selective partial agonist PF-9571 has robust and sustained efficacy, and did not induce dyskinesias, in the MPTP nonhuman primate model of Parkinson's motor symptoms after repeat dosing. D. GRAY*; R. KOZAK; W. LIU; K. FONSECA; E. BEZARD. *Pfizer, Pfizer, Inst. of Neurodegenerative Dis.*

3:00 R3 **47.03** ● Evaluation of the novel non-catecholamine D1 agonist, PF-142, against traditional D1 agonists in D1 receptor knockout and wild-type mice. K. M. DLUGOLENSKI*; R. GORCZYCA; D. GRAY; R. KOZAK. *Pfizer Global Res., Pfizer, Pfizer.*

4:00 R4 **47.04** Effects of a dopamine partial agonist on working memory in the aged rhesus monkey. T. L. MOORE*; R. L. SMITH; B. G. E. BOWLEY; R. J. KILLIANY; D. VOLFSON; D. L. GRAY; R. KOZAK. *Boston Univ. Sch. Med., Boston Univ. Sch. of Med., Pfizer, Pfizer.*

1:00 R5 **47.05** ● Impaired beta-arrestin recruitment and reduced desensitization by non-catechol agonism of the D1 dopamine receptor. J. A. ALLEN*; D. GRAY; S. MENTE; E. GUILMETTE; M. SALAFIA; R. E. O'CONNOR; D. VOLFSON; J. DAVOREN; R. KOZAK; M. D. EHLERS. *Univ. of Texas Med. Br., Pfizer, Inc., Pfizer, Inc., Pfizer, Inc., Biogen, Inc.*

2:00 R6 **47.06** ● Effects of a novel non-catechol D1 dopamine receptor class of agonists on working memory in rats. D. YOUNG*; D. MCGINNIS; D. S. CHAPIN; A. ROSSI; W. M. HOWE; D. VOLFSON; P. A. SEYMOUR; D. GRAY; R. KOZAK. *Pfizer Inc, Pfizer Inc, Icahn Sch. of Med. at Mt Sinai.*

3:00 R7 **47.07** ● Novel non-catechol dopamine D1 receptor agonist pretreatment protects against the cognitive impairment induced by increased memory load in non-human primates. G. V. WILLIAMS*; R. KOZAK; A. ABBOTT; K. R. FONSECA; C. J. SCHMIDT; D. L. GRAY; S. CASTNER. *Yale Univ. Sch. of Med., Pfizer Inc.*

4:00 R8 **47.08** ● Effects of pretreatment with novel non-catechol full D1 agonist on working memory in the nonhuman primate acute ketamine model. R. KOZAK*; G. V. WILLIAMS; P. A. SEYMOUR; K. FONSECA; P. TRAPA; W. LIU; C. J. SCHMIDT; A. L. ABBOTT; D. L. GRAY; S. CASTNER. *Pfizer, Yale Univ. Sch. Med.*

1:00 R9 **47.09** ● D1-selective partial agonist PF-9571 alters qEEG signals in a dose-dependent manner. D. L. BUHL*; G. J. DEMARCO; T. KISS; D. VOLFSON; K. R. FONSECA; P. TRAPA; D. L. GRAY; R. KOZAK. *Pfizer Inc., World Res. and Develop., Pfizer Inc.*

2:00 R10 **47.10** ● Novel non-catechol D1 receptor agonist exhibits sustained *in vivo* pharmacological activity. P. L. TIERNEY*; S. M. LOTARSKI; A. M. ROSSI; D. VOLFSON; K. FONSECA; P. TRAPA; G. J. DEMARCO; X. CHEN; D. GRAY; R. KOZAK. *Pfizer, Pfizer.*

3:00 S1 **47.11** ● ▲Impact of the aplha4Beta2 partial agonist Varenicline on gait and motor coordination alterations in a rat model of Parkinson's disease. A. M. ROSSI*; M. MARSHALL; W. M. HOWE; R. KOZAK. *Pfizer, Pfizer, Icahn Sch. of Med. at Mt Sinai, Pfizer.*

4:00 S2 **47.12** Relation of motor and non-motor symptoms with density of metabotropic glutamate receptors subtype 1 measured with ^{11}C-ITMM PET in *de novo* Parkinson's disease. M. MISHINA*; M. SUZUKI; K. ISHII; K. ISHIBASHI; M. SAKATA; K. WAGATSUMA; J. TOYOHARA; M. ZHANG; K. KIMURA; K. ISHIWATA. *Nippon Med. Sch., Tokyo Metropolitan Inst. of Gerontolog, Nippon Med. Sch., Katsushika Med. Center, The Jikei Univ. Sch. of Med., Natl. Inst. of Radiological Sci., Southern TOHOKU Res. Inst. for Neurosci., Fukushima Med. Univ.*

1:00 S3 **47.13** Gad1 is dysregulated in the substantia nigra and locus coeruleus in early-stage PD. C. A. KELM-NELSON*; M. R. CIUCCI. *Univ. of Wisconsin Madison Dept. of Surgery, Univ. of Wisconsin Madison.*

2:00 S4 **47.14** Single nucleotide polymorphisms in tyrosine hydroxylase and dopamine beta hydroxylase: association with altered non-motor symptoms in Parkinson's disease. E. GONZALEZ-LOPEZ*; I. TEKIN; M. M. LEWIS; X. HUANG; K. E. VRANA. *Penn State Univ. Col. of Med., Pennsylvania State Univ., Pennsylvania State Univ. Dept. of Neurol., Pennsylvania State Univ. Col. of Med., Dept of Pharmacol. H078.*

3:00 T1 **47.15** Electrochemical recording of pharmacologically modulated dopamine from sensors chronically implanted in striatum of awake non-human primates. H. N. SCHWERDT*; H. SHIMAZU; K. AMEMORI; S. AMEMORI; S. HONG; T. YOSHIDA; R. LANGER; M. J. CIMA; A. M. GRAYBIEL. *MIT, MIT.*

4:00 T2 **47.16** The D1PAM DETQ reverses hypo-locomotion induced by reserpine in hD1KI mice a preclinical model for motor symptoms in Parkinson's disease. J. FALCONE*; L. THOMPSON; B. L. ADAMS; J. HAO; K. KNOPP; D. L. MCKINZIE; R. F. BRUNS; K. A. SVENSSON. *Eli Lilly and Co.*

1:00 T3 **47.17** ▲Striatal and extrastriatal D_2-like receptor expression in Parkinson's disease patients with compulsive reward-driven behaviors. A. STARK*; K. PETERSEN; P. TRUJILLO; R. KESSLER; D. H. ZALD; D. CLAASSEN. *Vanderbilt Univ. Med. Ctr., Univ. of Alabama Sch. of Med., Vanderbilt Univ.*

2:00 T4 **47.18** The effects of N-acetylcysteine on survival of MN9D cells in an *in vitro* model of Parkinson's disease. M. J. ZIGMOND*; K. A. MEEHAN; J. D. JAUMOTTE. *Univ. of Pittsburgh.*

3:00 T5 **47.19** ▲The effect of enriched environment on motor function in unilateral lesioned rats implanted with dopamine matrix. M. PIZARRO-RODAS*; P. VERGARA-ARAGON; G. VALVERDE-AGUILAR; N. H. MONTES-CRUZ; B. I. K. MEZA-AUPART; L. E. DOMINGUEZ-MARRUFO. *Univ. Nacional Autonoma De Mexico, CICATA Unidad Legaría, Inst. Politécnico Nacional.*

4:00 T6 **47.20** Altered striatal amino acid levels in parkinsonian and dyskinetic mouse models. O. SOLÍS CASTREJÓN*; A. S. HERRANZ; P. GARCÍA-SANZ; R. MORATALLA. *Cajal Inst., CIBERNED, ISCIII, Hosp. Universitario Ramón y Cajal, IRYCIS.*

1:00 T7 **47.21** Neurite arborization deficits in dopamine neurons in the MitoPark mouse model of Parkinson's disease. W. B. LYNCH*; A. L. SHARPE; S. Y. BRANCH; S. DOMINGUEZ-LOPEZ; S. LI; M. J. BECKSTEAD. *UT Hlth. San Antonio, Univ. of the Incarnate Word, UT Hlth. San Antonio.*

2:00 T8 **47.22** Mesolimbic D_2-like receptor expression in patients with Parkinson's disease. P. TRUJILLO*; A. J. STARK; K. PETERSEN; R. KESSLER; D. H. ZALD; D. O. CLAASSEN. *Vanderbilt Univ. Med. Ctr., Univ. of Alabama Sch. of Med., Vanderbilt Univ.*

3:00 T9 **47.23** ▲Evaluation of the histological effects caused by a TiO2DA complex in rats whit dopamine depletion model. B. I. MEZA AUPART*; P. VERGARA ARAGÓN; G. VALVERDE AGUILAR; A. SANCHEZ GARCÍA; M. PIZARRO RODAS; M. GUTIERREZ; N. MONTES CRUZ. *Univ. Nacional Autónoma De México, Univ. Nacional Autónoma de México, Inst. Politécnico Nacional, Natl. Inst. of Neurol. and Neurosurg.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

4:00 T10 **47.24** ● Withdrawn

POSTER

048. Alpha-Synuclein Disease Models and Therapeutic Approaches

Theme C: Neurodegenerative Disorders and Injury

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 T11 **48.01** Microglial activation and markers of neuroinflammation in a transgenic mouse model of multiple system atrophy: insights into the pathogenesis of selective striatonigral degeneration. V. REFOLO*; S. VENEZIA; G. K. WENNING; M. ROMERO-RAMOS; N. STEFANOVA. *Med. Univ. of Innsbruck, Aarhus Univ.*

2:00 T12 **48.02** CNS resident macrophage activation and peripheral immune cell infiltration in an AAV2 α-syn model of Parkinson disease. A. M. SCHONHOFF*; G. P. WILLIAMS; D. G. STANDAERT; A. N. HARMS. *Univ. of Alabama At Birmingham.*

3:00 U1 **48.03** Chronic gut inflammation hastens the onset of motor dysfunction and neuropathology in a mouse model of Parkinson's disease. Y. KISHIMOTO*; W. ZHU; B. DE SOUSA SILVA; J. SEN; M. P. MATTSON. *NIH.*

4:00 U2 **48.04** Induction of activated T cells in brain and peripheral lymph nodes in an AAV synuclein model of Parkinson disease. G. WILLIAMS*; A. SCHONHOFF; A. HARMS; D. STANDAERT. *Univ. of Alabama At Birmingham.*

1:00 DP03/U3 **48.05** (Dynamic Poster) The eye as a window to the brain: *In vivo* imaging of Parkinson's disease processes in the retina. L. DE GROEF*; L. VEYS; L. ANDRIES; E. LEFEVERE; C. VAN DEN HAUTE; V. BAEKELANDT; L. MOONS. *Catholic Univ. of Leuven, Catholic Univ. of Leuven.*

2:00 U4 **48.06** JZ101 deficiency exhibits behavioral & cognitive impairments & α-synucleinopathy. J. YANG*; F. GAO; C. LI; H. WANG; H. CHEN; Y. HU; J. ZHANG. *Peking Union Med. Col.*

3:00 U5 **48.07** Influence of aging and gender in a mouse model of limbic alpha-synucleinopathy in Lewy body disorders. D. MASON*; K. M. MINER; T. N. BHATIA; M. A. CARCELLA; R. K. LEAK; K. C. LUK. *Duquesne Univ., Duquesne Univ., Duquesne Univ., Univ. Pennsylvania.*

4:00 U6 **48.08** TUDCA inhibits autophagy via LAMP-1 in a chronic mouse model of Parkinson's disease. E. CUEVAS*; N. P. GÓMEZ-CRISÓSTOMO; C. ESCUDERO-LOURDES; H. ROSAS-HERNANDEZ; S. LANTZ; J. RAYMICK; M. G. PAULE; S. SARKAR. *NCTR-FDA, Univ. Autonoma Juarez de Tabasco, Facultad de Ciencias Químicas, UASLP.*

1:00 U7 **48.09** Axonopathy, autophagy and mitochondrial abnormalities in a mouse model of human wild type alpha synuclein overexpression. A. P. TAGLIAFERRO*; T. KAREVA; N. KHOLODILOV; R. E. BURKE. *Columbia Univ.*

2:00 U8 **48.10** Short- and long-term memory impairment in mice overexpressing alpha- and gamma-synuclein in the dopamine neurons. Implication in Parkinson' disease. R. PAVIA-COLLADO; D. ALARCÓN-ARÍS; E. RUIZ-BRONCHAL; F. ARTIGAS; A. BORTOLOZZI*. *IDIBAPS-IIBB(CSIC), IIBB(CSIC)-IDIBAPS-CIBERSAM, IIBB-CSIC, IDIBAPS-CIBERSAM.*

3:00 U9 **48.11** Alpha-synuclein induces modulation of mitogen activated protein kinase p38 gamma. M. IBA*; C. KIM; E. MASLIAH. *Natl. Inst. on Aging, NIH.*

4:00 U10 **48.12** Sirtuin3 regulates mitochondrial dynamics in α-synuclein-induced loss of mitochondrial function. J. PARK*; M. DELENCLOS; A. FAROQI; N. DEMEO; P. J. MCLEAN. *Mayo Clin.*

1:00 U11 **48.13** Testing the effect of retention in endoplasmic reticulum (RER1) on synucleinopathy in a mouse model of Parkinsonism. M. S. PARMAR*; H. PARK; D. RYU; K. N. MCFARLAND; J. JOSEPH; R. FOELS; L. POWELL; S. ANAGNOSTIS; N. R. MCFARLAND. *Univ. of Florida, Univ. of Florida.*

2:00 U12 **48.14** Alpha-synuclein interferes GSK3β/β-catenin signaling pathway through proteinphosphatase 2A inactivation. J. LIM*; S. KIM; H. CHOI. *CHA Univ., CHA Univ.*

3:00 V1 **48.15** Elevated levels of the dopamine metabolite 3,4-dihydroxyphenylacetaldehyde exacerbates motor deficits in an alpha-synuclein mouse model of Parkinson's disease. P. A. MARTINEZ*; V. MARTINEZ; E. FERNANDEZ; R. STRONG. *Univ. of Texas Hlth. Sci. Ctr. at San Antonio, Barshop Inst. for Longevity and Aging Studies, Univ. of Texas Hlth. Sci. Ctr., Univ. of Texas Hlth. Sci. Ctr., Geriatric Research, Educ. and Clin. Center, South Texas Veterans Hlth. Care Network, Geriatric Research, Educ. and Clin. Center, South Texas Veterans Helath Care Network.*

4:00 V2 **48.16** The SUMO conjugase Ubc9 regulates the stability of alpha-synuclein in Parkinson's disease models. Y. KIM*; E. CARTIER; J. VIANA; D. WILLIAMS. *Delaware State Univ.*

1:00 V3 **48.17** Characterization of alpha-synuclein and neurotransmitters during the sleep wake cycle of a Parkinson's disease model expressing human wild-type alpha-synuclein. H. B. JANSSENS*; L. YU; T. CREMERS; A. RASSOULPOUR. *Brains On-Line.*

2:00 V4 **48.18** Administration of aav alpha-synuclein to c57 and g2019s mice. R. HODGSON; T. HEIKKINEN*; J. KURKIPURO; T. PARKKARI; T. N. MARTINEZ; M. J. FELL; L. A. HYDE; A. J. NURMI; T. A. LANZ; A. STEPAN; M. A. BAPTISTA. *Charles River Discovery, Michael J. Fox Fndn., Merck & Co. Inc., Pfizer Inc.*

3:00 V5 **48.19** Administration of AAV alpha synuclein in SD and G2019S-LRRK2 rats. J. KURKIPURO*; R. HODGSON; T. PARKKARI; T. N. MARTINEZ; M. J. FELL; L. KOISTINEN; T. HUHTALA; J. RYTKÖNEN; P. POUTIAINEN; L. A. HYDE; A. J. NURMI; T. A. LANZ; A. STEPAN; M. A. BAPTISTA. *Charles River Discovery, Michael J Fox Fndn., Merck & Co. Inc., A.I. Virtanen Inst. for Mol. Medicine, Univ. of Eastern Finland, Kuopio Univ. Hosp., Pfizer Inc.*

4:00 V6 **48.20** Behavioral consequences of administration of aav alpha-synuclein to rat. T. PARKKARI*; R. HODGSON; T. N. MARTINEZ; M. J. FELL; L. KOISTINEN; T. BRAGGE; L. HYDE; A. J. NURMI; T. A. LANZ; A. STEPAN; M. A. BAPTISTA. *Charles River Discovery, Michael J Fox Fndn., Merck & Co. Inc., Pfizer Inc.*

1:00 V7 **48.21** Disease-modifying drugs inhibiting alpha-synuclein aggregation. K. FUKUNAGA*; Y. YABUKI; K. MATSUO; Y. SHINODA, 980-8578. *Tohoku Univ. Grad Sch. Pharm Sci.*

2:00 V8 **48.22** ● Rab8a expression mitigates alpha-synuclein toxicity in a rat model of Parkinsonism. N. R. MCFARLAND*; M. S. PARMAR; H. PARK; D. RYU; L. POWELL; R. FOELS; S. ANAGNOSTIS; M. HERRING. *Univ. of Florida, Univ. of Florida, Univ. of Florida, Univ. of Florida, Broad Inst.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 V9 **48.23** Prolyl oligopeptidase and alpha-synuclein viral vector co-injection increases alpha-synuclein mediated neurotoxicity in prolyl oligopeptidase knock-out animals. R. SVARCBAHS*; U. JULKU; M. H. SAVOLAINEN; T. T. MYÖHÄNEN. *Univ. of Helsinki.*

4:00 V10 **48.24** Modification of USP13 expression in substantia nigra facilitates clearance of alpha-synuclein and improves motor behavior in wild type and parkin-deficient mice. X. LIU*; M. HEBRON; M. TANG; D. BOWMAN; C. E. MOUSSA. *Georgetown Univ. Med. Ctr.*

1:00 V11 **48.25** Anti-aging treatments slow propagation of synucleinopathy by restoring lysosomal function. D. KIM*; H. LIM; I. KAWASAKI; Y. SHIM; N. N. VAIKATH; O. EL-AGNAF; H. LEE; S. LEE. *Seoul Natl. Univ. Col. of Med., Konkuk Univ., Konkuk Univ., United Arab Univ., Hamad Bin Khalifa Univ. (HBKU), Konkuk Univ. Sch. of Med.*

2:00 V12 **48.26** Olfactory dysfunction and oxidative stress are ameliorated by enriched environment in Parkinson's disease with α-synucleinopathy. S. WI*; M. KIM; J. SEO; J. LEE; S. CHO. *Yonsei Univ. Col. of Med., Yonsei Univ. Col. of Med., Yonsei Univ. Grad. Sch. of Med., Natl. Hlth. Insurance Service Ilsan Hosp., Yonsei Univ. Col. of Med., Yonsei Stem Cell Res. Cente.*

3:00 V13 **48.27** Gut microbiota influence pathophysiology in a mouse model of Parkinson's disease. T. SAMPSON*; S. K. MAZMANIAN. *Caltech.*

4:00 V14 **48.28** ● Complementary phenotypic characterization of a genetically modified animal model of Parkinson's disease: Line 61. S. RAMBOZ; K. CIRILLO; R. SPRINGER; M. MAZZELLA; D. HAVAS; K. WALKER; J. SANCHEZ-PADILA; G. TOMBAUGH; A. GHAVAMI*. *Psychogenics, PsychoGenics.*

1:00 V15 **48.29** Synergistic protective effect of sub-therapeutic doses of eicosanoyl-5-hydroxytryptamide and caffeine in α-synuclein transgenic mice. R. YAN*; C. BAUTISTA; J. ZHANG; E. PARK; H. PARK; S. OH; J. B. STOCK; M. M. MOURADIAN. *Rutgers Univ., Princeton Univ.*

2:00 V16 **48.30** Chronic caffeine treatment exerts cognitive improvement and neuroprotective effects in a mouse model of α-synucleinopathy. L. YANAN; G. YINGZI; Z. WU; G. WEI; C. JIANG-FAN; R. XIANGPENG*. *The Eye Hosp. of Wenzhou Med. Univ., Boston Univ. Sch. of Med.*

POSTER

049. Neuromuscular Diseases

Theme C: Neurodegenerative Disorders and Injury

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 V17 **49.01** ● Pathophysiological analysis of skeletal muscles in spinal bulbar muscular atrophy by genome editing of CAG repeats. S. TANAKA*; T. ITO; A. OTA; T. SONE; D. SHIMOJO; S. IMAGAMA; Y. HOSOKAWA; M. DOYU; H. OKANO; Y. OKADA. *Aichi Med. Univ. Sch. of Med., Nagoya Univ. Grad. Sch. of Med., Aichi Med. Univ., Keio Univ. Sch. of Med.*

2:00 V18 **49.02** ● Expanding the gene therapy approach for treating CMT1X inherited neuropathy. A. KAGIAVA*; C. KARAISKOS; J. RICHTER; C. TRYFONOS; G. LAPATHITIS; I. SARGIANNIDOU; C. CHRISTODOULOU; K. KLEOPA. *The Cyprus Inst. of Neurol. and Genet., The Cyprus Inst. of Neurol. and Genet.*

3:00 V19 **49.03** GNB4 mutations lead to dominant intermediate F type of Charcot-Marie-Tooth disease. T. CHANG*; M. FANN. *Natl. Yang-Ming Univ.*

4:00 V20 **49.04** Molecular biomarkers for early diagnostic of cerebral palsy. B. ARMISTEAD*; J. SLAUGHTER; M. LENSKI; S. OTIENO; N. PANETH; S. KHOO. *Grand Valley State Univ., Drexel Univ., Michigan State Univ., Grand Valley State Univ., Michigan State Univ.*

1:00 V21 **49.05** Charcot-Marie-Tooth disease type 2E mutant neurofilament subunit proteins assemble into neurofilaments. E. STONE*; A. UCHIDA; A. BROWN. *The Ohio State Univ., The Ohio State Univ.*

2:00 V22 **49.06** Pathogenic effects of the agrin V1727F mutation are neural agrin specific and decrease its expression and affinity for LRP4. J. RUDELL; R. MASELLI; M. J. FERNS*. *Univ. of California Davis, Univ. of California Davis, Univ. of California Davis.*

3:00 V23 **49.07** Overexpression of MuSK protects dystrophic mdx mouse muscles against stretch-induced loss of force. J. BAN; S. TRAJANOVSKA; W. D. PHILLIPS*. *The Univ. of Sydney.*

4:00 V24 **49.08** ▲ Identifying the metal that activates the prenyltransferase that catalyzes formation of geranyl diphosphate in the diatom pseudo-nitzschia multiseries. H. TRAN*. *California State University, Sacramento.*

1:00 V25 **49.09** Effects of aging on the jaw-opening produced by cholinergic motor neurons concerning feeding behaviors of *Aplysia kurodai.* T. NAGAHAMA*; A. KASHIMA. *Toho Univ. Fac Phar.*

2:00 V26 **49.10** CNS targeted AAV mediated gene therapy alleviates pathological and clinical progression of Krabbe disease in twitcher mice. C. W. LEE*; A. R. HERDT; D. W. DICKSON; T. E. GOLDE; C. B. ECKMAN. *Biomed. Res. Inst. of New Jersey, Mayo Clin. Jacksonville, Col. of Medicine, Univ. of Florida.*

3:00 W1 **49.11** Blood brain barrier dysfunction following inactivation of Hh signaling in adult mouse spinal cord astrocytes. H. WANG*; M. RALLO; M. MATISE. *Rutgers Robert Wood Johnson Med. Sch., Rutgers-RWJMS.*

4:00 W2 **49.12** Peripheral neuropathy-associated mutations in tRNA synthetase genes are pathogenic in mouse models. I. BAGASRAWALA; M. G. STUM; K. H. MORELLI; E. L. SPAULDING; K. L. SEBURN; R. W. BURGESS*. *Jackson Lab., The Univ. of Maine, The Jackson Lab.*

POSTER

050. Neuroinflammation

Theme C: Neurodegenerative Disorders and Injury

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 W3 **50.01** Sensory impairment and related neuropathology in a mouse model of Christianson syndrome: Evidence of endosomal-lysosomal disruption. S. U. WALKLEY*; M. KERNER-ROSSI; K. DOBRENIS; M. GULINELLO. *Albert Einstein Col. Med., Albert Einstein Col. of Med., Albert Einstein Col. of Med., Albert Einstein Col. of Med.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

2:00 W4 **50.02** Neuronal spatiotemporal alterations in the cuprizone model of general de- and remyelination. M. CERINA*; V. NARAYANAN; A. DELANK; P. MEUTH; S. GRAEBENITZ; K. GOEBEL; A. HERRMANN; S. ALBRECHT; T. DALDRUP; T. SEIDENBECHER; A. GORJI; H. WIENDL; C. KLEINSCHNITZ; E. SPECKMANN; H. PAPE; S. MEUTH; T. BUDDE. *Muenster Univ., Inst. of Physiol. I, Muenster Univ., Inst. of Neuropathology, Muenster Univ., Epilepsy Res. Center, Muenster Univ., Dept. of Neurology, Essen Univ.*

3:00 W5 **50.03** The effect of anti-Axl and anti-Mertk antibodies on the CNS during experimental autoimmune encephalomyelitis (EAE). J. C. DUBOIS*; A. RAY; B. SHAFIT-ZAGARDO. *Albert Einstein Col. of Med., Albert Einstein Col. of Med., Albert Einstein Col. Med.*

4:00 W6 **50.04** Protein and mRNA expression of membrane-bound cytokine receptors in the teenage suicide brain. X. REN*. *Univ. of Illinois at Chicago.*

1:00 W7 **50.05** Effect of the cytokine interleukin 6 on acid sensing ion channel (ASIC1) distribution in hippocampal neurons. C. WEISSMANN*; L. C. SALINAS; C. GONZÁLEZ INCHAUSPE; P. PERISSINOTTI; O. D. UCHITEL. *IFIBYNE-CONICET.*

2:00 W8 **50.06** 7,8-Dihydroxyflavone decreases the inflammation and clinical severity of optic neuritis in experimental autoimmune encephalomyelitis. M. I. ARVAS; T. K. MAKAR*; P. R. GUDA; D. TRISLER; C. BEVER, Jr. *Univ. of Maryland, Univ. of Maryland Baltimore, VA medical center, VA Multiple Sclerosis of Excellence.*

3:00 W9 **50.07** Alcohol drinking enhances methamphetamine-induced toxicity through inflammation. A. L. BLAKER*; B. K. YAMAMOTO. *Indiana Univ. Sch. of Med., Univ. of Toledo.*

4:00 W10 **50.08** The neuroinflammation-induced by the administration amyloid-β (25-35) in hippocampus of rats induce expression of galectin-1 and galectin-3. E. RAMIREZ*; C. SANCHEZ-MALDONADO; I. D. LIMON. *Benemérita Univ. Autónoma De Puebla, Benemerita Univ. Autonoma de Puebla.*

1:00 W11 **50.09** ▲ Increased serum levels of TNF in R6/1 mice and diminished inflammatory mediator secretion in Huntingtin-defective mast cells. M. J. PÉREZ RODRÍGUEZ*; P. MARTINEZ GOPAR; A. IBARRA SANCHÉZ; C. GONZÁLEZ ESPINOSA; F. PÉREZ SEVERIANO. *Cinvestav, Sede Sur, Inst. Nacional de Neorología y Neurocirugía Manuel Velasco Suarez.*

2:00 W12 **50.10** Effect of glucose availability on cognitive performance and neurodegeneration process after status epilepticus. I. S. MELO*; A. L. D. PACHECO; Y. M. O. SANTOS; M. A. COSTA; V. O. SILVA; C. M. B. CAVALCANTE; J. FREITAS-SANTOS; M. DUZZIONI; R. SABINO-SILVA; A. U. BORBELY; O. W. CASTRO. *Federal Univ. of Alagoas, Federal Univ. of Uberlândia.*

3:00 W13 **50.11** Microglial activation and vascular responses that are associated with thalamic neurodegeneration due to thiamine deficiency. J. F. BOWYER*; K. M. TRANTER; S. SARKAR; L. C. SCHMUED; J. P. HANIG. *Natl. Ctr. for Toxicological Res. Div. of Neurotoxicology, CDER/ FDA.*

4:00 W14 **50.12** The effect of Nrf2 transcription factor knock-out on glaucoma. A. JASSIM-JABOORI*; D. M. INMAN. *Northeast Ohio Med. Univ.*

1:00 W15 **50.13** Monomethylarsonous acid (MMAIII) increases rat brain microvascular endothelial cells (rBMEC) monolayers permeability by decreasing the tight junction proteins claudin-5 and occludin. C. ESCUDERO-LOURDES*; H. ROSAS-HERNÁNDEZ; E. Y. CUEVAS; S. F. ALI. *Facultad de Ciencias Químicas, UASLP, Neurochemistry Lab, Div. of Neurotoxicology,Nat Ctr. for Toxicological Research/FDA.*

2:00 W16 **50.14** 7,8-Dihydroxyflavone treatment shifts M1,M2 polarization and reduces the inflammation in experimental autoimmune encephalomyelitis. P. R. GUDA; M. I. ARVAS; T. K. MAKAR; D. TRISLER*; C. BEVER, Jr. *Univ. of Maryland, Univ. Maryland Sch. Med., VA medical center, VA Multiple Sclerosis of Excellence.*

3:00 W17 **50.15** ▲ Early effects of SIV on neural markers of the prefrontal cortex in female macaques. A. DIAZ ROSADO*; A. MENDEZ; A. C. SEGARRA. *Univ. Of Puerto Rico, Univ. of Puerto Rico, Univ. of Puerto Rico.*

4:00 W18 **50.16** The role of IL-1 signaling in neuroinflammation after soman-induced convulsions and anakinra treatment in mice. T. M. FERRARA-BOWENS*; J. K. CHANDLER; J. F. IRWIN; K. LAITIPAYA; A. V. MORAN; D. D. PALMER; M. D. WEGNER; E. A. JOHNSON. *USAMRICD, AFRIMS.*

1:00 W19 **50.17** ▲ Copaxone decreases the inflammation and endoplasmic reticulum stress in experimental autoimmune encephalomyelitis. K. SAWHNEY*; M. I. ARVAS; P. R. GUDA; V. SHUKLA; D. TRISLER; C. BEVER, Jr; T. MAKAR. *Univ. of Maryland, VA medical center, VA Multiple Sclerosis of Excellence.*

2:00 W20 **50.18** Human and mouse endothelium have different lipid metabolism consequences after silencing of ABCD1. A. BERENSON*; N. SASIDHARAN; M. VISSERS; A. MOSER; P. L. MUSOLINO; F. EICHLER. *Massachusetts Gen. Hosp., Kennedy Krieger Inst.*

3:00 W21 **50.19** Restraint stress augmented the MPTP-induced Parkinson's disease like syndrome in mice via provoking inflammatory and apoptotic pathway: A TrκB agonist neuroprotective mechanism. M. KWATRA*; S. AHMED; V. NAIDU; M. LAHKAR. *Natl. Inst. of Pharmaceut. Educ. and, Natl. Inst. of Pharmaceut. Educ. and Res.*

4:00 W22 **50.20** ▲ AdipoR agonist, AdipoRon, suppresses myelin lipid accumulation and ameliorates macrophage infiltration after spinal cord injury. K. XIANG*; A. LI; C. QIN; Y. REN; X. SUN. *GHM Inst. of CNS Regeneration (GHMICR), GHM Inst. of CNS Regeneration (GHMICR), Guangdong, Dept. of Biomed. Sciences, Florida State Univ. Col. of Med.*

1:00 W23 **50.21** Comparison between sciatic nerve transection and sciatic nerve crush: Differences in regenerative outcomes peripherally, graded central neuroinmmune response and differences in spinal circuit plasticity following injury. T. M. ROTTERMAN*; K. P. MACPHERSON; T. CHOPRA; S. FISHER; M. G. TANSEY; F. J. ALVAREZ. *Emory Univ., Emory Univ., Emory Univ., Emory Univ. Sch. of Med.*

2:00 W24 **50.22** Bacterial lipopeptides disrupt neural activity and synaptic network by damaging presynapses in rodent models. K. KIM*; Y. LEE; H. LEE; A. I. ZAMALEEVA; M. INAYATHULLAH; T. D. PALMER; H. LEE; J. RAJADAS. *Stanford Univ., Seoul Natl. Univ. Bundang Hosp., Stanford Univ.*

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* Indicates abstract's submitting author

3:00 W25 **50.23** ▲ Determination the viability of a islets of langerhans hepatic portal graft in a murine model of type 1 diabetes mellitus. B. UGALDE VILLANUEVA*; I. IBARRA VALDOVINOS; R. RESENDIZ GUTIERREZ; M. SALGADO SALGADO; E. LÓPEZ ARVIZU; M. ABURTO FERNÁNDEZ; N. G. HERNÁNDEZ CHAN; H. L. HERNÁNDEZ MONTIEL. *Univ. Autónoma De Querétaro.*

4:00 W26 **50.24** Neonatal inflammation increases excitability in the pyramidal cells of mouse CA1 hippocampus in a sex and age dependent manner. C. D. GÓMEZ MARTÍNEZ*; S. ACHARJEE; Q. J. PITTMAN. *Hotchkiss Brain Institute, Univ. of Calgary.*

POSTER

051. Stroke: Role of Non-Neuronal Cells and Other Factors in Pathogenesis

Theme C: Neurodegenerative Disorders and Injury

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 W27 **51.01** Stem cells target stroke vasculome to confer vascular anti-inflammatory response. S. A. ACOSTA*; V. DE A. GUEDES; J. LEE; Y. KANEKO; C. V. BORLONGAN. *Universty of South Florida, Univ. of South Florida.*

2:00 W28 **51.02** Pericyte response during stroke recovery. T. PHAM*; S. CARMICHAEL. *Univ. of California Los Angeles.*

3:00 W29 **51.03** Intravenous infusion of mesenchymal stem cells inhibits intracranial hemorrhage after recombinant tissue plasminogen activator therapy for transient middle cerebral artery occlusion in rats . M. NAKAZAKI*; M. SASAKI; Y. K. SASAKI; S. OKA; T. NAMIOKA; A. NAMIOKA; R. ONODERA; O. HONMOU. *Sapporo Med. Univ. Sch. of Med.*

4:00 W30 **51.04** Efficacy of biomaterials augmentation of iPS immature glial cell transplantation after stroke. G. N. PRASHANT*; I. L. LLORENTE; E. SIDERIS; J. CINKORNPUMIN; T. SEGURA; W. E. LOWRY; S. T. CARMICHAEL. *UCLA, UCLA, UCLA, UCLA.*

1:00 W31 **51.05** Microglia and macrophages differ in their inflammatory profile after permanent brain ischemia. J. G. ZARRUK*; A. D. GREENHALGH; S. DAVID. *McGill Univ. Hlth. Ctr.*

2:00 W32 **51.06** Humanized sickle mice are sensitive to hypoxia/ischemia-induced stoke, but respond to tissue plasminogen activator treatment. Y. SUN*; J. LEE; H. HUANG; M. B. WAGNER; C. H. JOINER; D. R. ARCHER; C. KUAN. *Emory Univ. Sch. of Med., Emory Univ. Sch. of Med.*

3:00 W33 **51.07** Probiotic treatment after transient cerebral ischemia ameliorates long-term cognitive deficits in mice. C. POON*; M. MURPHY; C. IADECOLA; J. ANRATHER. *Weill Cornell Med. Col.*

4:00 W34 **51.08** ▲ Brain metastasis and stroke repair: analogous cellular interactions and events. N. S. THAREJA*; R. LEE; R. PRAKASH; I. WITZ; S. CARMICHAEL. *UCLA, Tel Aviv Univ., UCLA Sch. Med.*

1:00 W35 **51.09** Stroke induces central nervous system specific T cell responses. U. SELVARAJ*; P. PANDIYAN; X. KONG; F. MIRÓ; X. URRA; S. B. ORTEGA; E. J. PLAUTZ; A. M. PLANAS; A. M. STOWE. *UTSW Med. Ctr., UTSW medical center, August Pi i Sunyer Biomed. Res. InsVtute, UT Southwestern Med. Ctr., UT Southwestern Med. Ctr., IIBB-CSIC IDIBAPS, UT Southwestern Med. Ctr.*

2:00 W36 **51.10** Autologous bone marrow stromal cell transplantation against stroke; rainbow trials. H. SHICHINOHE*; M. KAWABORI; K. HOUKIN. *Hokkaido Univ. Hosp.*

3:00 X1 **51.11** The predictors of mortality from acute stroke in patients admitted to a hospital: The clinical, laboratory and imaging profile analysis. Y. D. GELAN*; A. A. WELDEAB. *Addis Ababa University, Col. of Hlth. Sci.*

POSTER

052. Stroke: Automated Assessment, Treatment, and Rehabilitation Tools

Theme C: Neurodegenerative Disorders and Injury

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 X2 **52.01** Initial kinematic evaluation of a spring powered arm exoskeleton for stroke rehabilitation. J. CHEN*; P. LUM. *Natl. Inst. of Hlth. Office of Intramural, The Catholic Univ. of America.*

2:00 X3 **52.02** A standardized robot-assisted mechanical therapy (RAMT) approach to stroke rehabilitation. M. BALCH*; S. KHANNA; H. HARRIS; S. GNYAWALI; C. K. SEN; C. RINK. *The Ohio State Univ. Wexner Med. Ctr., The Ohio State Univ. Col. of Med.*

3:00 X4 **52.03** Effects of non-invasive brain stimulation on motor learning, motor recovery and long term performance after rodent stroke. B. FRITSCH*; F. ROTH; J. REIS. *Univ. of Freiburg/ Neurocenter.*

4:00 X5 **52.04** The relationship between motor unit firing rates and the hyperemic response to exercise post stroke. S. A. MURPHY*; M. DURAND; F. NEGRO; B. D. SCHMIT; A. S. HYNGSTROM. *Marquette Univ., Med. Col. of Wisconsin, Dept. of Clin. and Exptl. Sci., Marquette Univ. Dept. of Biomed. Engin., Marquette Univ.*

1:00 X6 **52.05** Altered effective EEG connectivity between sensorimotor cortices following an EMG-driven FES-assisted task-specific arm/hand intervention in moderate to severe chronic stroke. K. B. WILKINS*; J. P. DEWALD; J. YAO. *Northwestern Univ., Northwestern Univ., Northwestern Univ.*

2:00 X7 **52.06** A computational model of exercise-based recovery from unilateral spatial neglect. G. SEDDA; M. OTTONELLO; E. FIABANE; A. SEDDA; C. PISTARINI; V. SANGUINETI*. *Univ. of Genoa, ICS Maugeri SpA SB, Heriot-Watt Univ.*

3:00 X8 **52.07** The time required to plan ballistic elbow movements is unaffected by stroke. R. L. HECKMAN*; E. J. PERREAULT. *Northwestern Univ., Northwestern Univ.*

4:00 X9 **52.08** Intensive non-paretic arm training in chronic stroke patients with severe paresis improves functional independence without compromising paretic arm function. C. MAENZA*; R. VARGHESE; D. C. GOOD; C. J. WINSTEIN; D. A. WAGSTAFF; R. SAINBURG. *Penn State Col. of Med., Pennsylvania State Univ., USC, Penn State Milton S. Hershey Med. Ctr., Pennsylvania State Univ.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
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* Indicates abstract's submitting author

1:00 X10 **52.09** Effect of early and late treadmill exercise on motor functional recovery and cerebral cortex after hemorrhage in rats. K. TAMAKOSHI*; K. ISHIDA; K. HAYAO; H. TAKAHASHI; H. TAMAKI. *Niigata Univ. of Hlth. and Welfare, Nagoya Univ. Grad. Sch. of Med.*

2:00 X11 **52.10** Deficits in proprioception differentially impair arm stabilization and movement after stroke. M. BENGTSON*; L. A. MROTEK; T. STOECKMANN; C. P. GHEZ; R. A. SCHEIDT. *Marquette Univ., Marquette Univ., UW Oshkosh, Marquette Univ., Columbia Univ., Northwestern Univ.*

3:00 X12 **52.11** Withdrawn

4:00 X13 **52.12** Electroencephalogram phase synchrony reflects the clinical status of the post stroke aphasia. T. KAWANO*; N. HATTORI; Y. UNO; M. HATAKENAKA; H. YAGURA; H. FUJIMOTO; T. YOSHIOKA; M. NAGASAKO; H. OTOMUNE; K. KITAJO; I. MIYAI. *Morinomiya Hosp., Osaka Univ. Grad. Sch. of Med., Osaka Univ., RIKEN Brain Sci. Inst.*

1:00 X14 **52.13** Early virtual reality based hand training post stroke elicits better than expected outcomes. J. PATEL*; M. YAROSSI; Q. QIU; S. V. ADAMOVICH; E. TUNIK; A. S. MERIANS; G. G. FLUET. *Rutgers Univ. - Sch. of Hlth. Professions, Rutgers Biomed. and Hlth. Sci., New Jersey Inst. of Technol., Northeastern Univ.*

2:00 X15 **52.14** ● Persistent motor behaviour impairment after transient ischemic attack. L. E. SIMMATIS*; S. H. SCOTT; A. Y. JIN. *Queen's Univ., Queen's Univ., Queen's Univ.*

3:00 X16 **52.15** Effects of various exercises on motor recovery through gating and neuro/gliogenesis in motor cortex infarction in rats. T. KUMADA*; S. MORISHITA; K. HOKAMURA; A. YOSHIKAWA; N. AGATA; Y. TSUTSUI; K. UMEMURA. *Tokoha Univ., Hamamatsu Univ. Sch. Med., Showa Univ.*

4:00 X17 **52.16** ▲ Effects of dominant hand paralysis on performing cognitive tests in stroke patients. S. JEE*. *Chungnam Natl. Univ. Hosp.*

1:00 X18 **52.17** Evidence for the potential of improving hand function in severely impaired chronic stroke individuals using a device-assisted task specific training: A case series. C. CARMONA; K. B. WILKINS; J. SULLIVAN; J. DROGOS; J. P. DEWALD; J. YAO*. *Northwestern Univ.*

2:00 X19 **52.18** Hypoxic postconditioning improves functional and histological outcomes following endothelin-1 induced stroke in conscious rats. N. M. JONES*; T. FATH; H. L. NGUYEN. *Univ. of New South Wales, Univ. of New South Wales, Univ. of New South Wales.*

3:00 X20 **52.19** Constant cognitive stimulation over a 6-month period improves cognitive function in a vascular dementia-afflicted elder. J. G. MARTÍNEZ-GALINDO*; R. PEDROZA-LLINAS. *Univ. Iberoamericana, Facultad de Psicologia UNAM.*

4:00 X21 **52.20** The PREP algorithm predicts upper limb functional outcomes at 3 months and 2 years post-stroke. C. M. STINEAR*; M. SMITH; A. BARBER; S. J. ACKERLEY; W. D. BYBLOW. *Univ. of Auckland.*

1:00 X22 **52.21** Power dynamics underlie pathological spatial synchrony in a rodent model of ischemic stroke. R. D. FROSTIG*; E. G. WANN. *UCI.*

1:00 DP04/X23 **52.22** ● (Dynamic Poster) Dynamic functional positron emission tomography (fPET) imaging of glucose metabolism during a human ambulation task. C. BAUER; A. STOLIN; M. MANDICH; B. KUNDU; M. MUZI; P. E. KINAHAN; N. SIVA; R. HARRISON; J. QI; S. DOLINSKY; S. MAJEWSKI; J. A. BREFCZYNSKI-LEWIS*. *West Virginia Univ., West Virginia Univ., West Virginia Univ., Univ. of Virginia, Univ. of Washington, Univ. of Washington, UC Davis, Gen. Electric.*

3:00 X24 **52.23** Voluntary drive of paretic elbow muscles in individuals with chronic hemiparetic stroke: Preliminary findings. L. GARMIRIAN*; J. DEWALD; A. ACOSTA. *Northwestern Univ.*

4:00 X25 **52.24** ● Size of acute lesion and white matter hyperintensities impact different aspects of sensory, motor, and cognitive recovery post-stroke as measured by robotic tasks. R. L. HAWE*; S. E. FINDLATER; J. M. KENZIE; M. D. HILL; S. H. SCOTT; S. P. DUKELOW. *Univ. of Calgary, Queen's Univ.*

1:00 X26 **52.25** The impact of stroke on lingual muscle force and fiber type in a rat model. M. J. CULLINS*; N. P. CONNOR. *UW Madison, Univ. Wisconsin Med. Ch.*

2:00 X27 **52.26** Increased levels of fatigue are associated with deficits in skilled object manipulation following stroke. K. A. FERCHO; L. A. BAUGH*. *Univ. of South Dakota.*

3:00 X28 **52.27** The progression of post-stroke brain damage as function of stages of chronic kidney disease. B. CHELLUBOINA*; K. NALAMOLU; J. D. KLOPFENSTEIN; D. Z. WANG; D. M. PINSON; K. VEERAVALLI. *Univ. of Illinois Col. of Med. At Peor, Univ. of Illinois Col. of Med. At Peor, Univ. of Illinois Col. of Med. At Peor, Univ. of Illinois Col. of Med. At Peor.*

4:00 X29 **52.28** Reactive species levels in circulating extracellular vesicles following ischemic stroke - the role on cognitive function. I. R. SIQUEIRA*; L. CECCHINEL; K. BERTOLDI; E. DA SILVA; A. MAGALHÃES; M. F. CHAVES. *Univ. Federal Do Rio Grande Do Sul.*

POSTER

053. Spinal Cord Injury: Recovery and Repair

Theme C: Neurodegenerative Disorders and Injury

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 X30 **53.01** Voluntary exercise accelerates functional recovery and improves spinal cord plasticity following injury in mice. K. LOY*; A. SCHMALZ; T. HOCHE; A. JACOBI; M. KREUTZFELDT; D. MERKLER; F. M. BAREYRE. *Inst. of Clin. Neuroimmunology LMU, Dept. of Pathology and Immunol., Div. of Clin. Pathology, Munich Cluster of Systems Neurol. (SyNergy).*

2:00 X31 **53.02** ▲ Lateral olfactory tract usher substance (LOTUS) promoted axonal regeneration and functional recovery after spinal cord injury in adult mice. S. ITO*; N. NAGOSHI; O. TSUJI; K. KOJIMA; S. SHIBATA; M. SHINOZAKI; M. MATSUMOTO; K. TAKEI; M. NAKAMURA; H. OKANO. *Keio Univ., Keio Univ. Sch. of Med., Yokohama City Univ. Grad Sch. of Med. Life Sci.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 X32 **53.03** Nucleus accumbens plays an essential role for recovery of finger dexterity after spinal cord injury. M. SUZUKI*; K. ONOE; M. SAWADA; N. TAKAHASHI; N. HIGO; Y. MURATA; H. TSUKADA; T. ISA; H. ONOE; Y. NISHIMURA. *Tokyo Metropolitan Inst. of Med. Sci., Grad. Sch. of Medicine, Kyoto Univ., SOKENDAI, Natl. Inst. for Physiological Sci., JSPS Res. Fellow, RIKEN Ctr. for Life Sci. Technologies, Grad. Sch. of Medicine, Kyoto Univ., Syst. Neurosci. group, AIST, Hamamatsu Photonics K.K.*

4:00 X33 **53.04** Unilateral brain injury induced spinal plasticity: side-specific opioid mechanism. G. Y. BAKALKIN*; H. WATANABE; O. KONONENKO; D. SARKISYAN; T. IAKOVLEVA; N. MARKLUND. *Dept. of Pharmaceut. Biosciences, Uppsala Univ., Brain Injury laboratory for Neurosurgical research.*

1:00 Y1 **53.05** Lateral olfactory tract usher substance (LOTUS) suppresses astroglial differentiation of neural stem/progenitor cells. Y. HOSHINO*; J. KOHYAMA; N. NAGOSHI; O. TSUJI; S. ITO; K. NISHIDE; M. MATSUMOTO; M. NAKAMURA; K. TAKEI; H. OKANO. *Keio Univ. Sch. of Med., Keio Univ. Sch. of Med., Yokohama City Univ. Grad. Sch. of Med. Life Sci.*

2:00 Y2 **53.06** Pharmacologically inhibiting tumor necrosis factor α signaling diminishes the development of autonomic dysreflexia and ensuing cardiovascular and peripheral immune dysfunction after complete high thoracic spinal cord injury. E. MIRONETS*; V. BRACCHI-RICCARD; P. OSEI-OWUSU; R. FISCHER; J. R. BETHEA; T. SALTOS; V. J. TOM. *Drexel Univ. Col. of Med., Drexel Univ., Drexel Univ. Col. of Med., Drexel Univ. Col. of Med.*

3:00 Y3 **53.07** Green tea extract-rich diet restores hepatic iron regulation but has no effect on hepatic and spinal cord pathology after spinal cord injury in rats. M. T. GOODUS*; A. D. SAUERBECK; C. CHITCHUMROONCHOKCHAI; R. S. BRUNO; P. G. POPOVICH; D. M. MCTIGUE. *Ohio State Univ., Ohio State Univ.*

4:00 Y4 **53.08** Impact of strength training on neuropathic pain and afferent sprouting after cervical spinal cord injury. M. R. DETLOFF*; A. D. TAMASHIRO-ORREGO; A. ONG; S. J. CHHAYA; L. KRISA; J. D. HOULE. *Drexel Univ. Col. of Med., Thomas Jefferson Univ.*

1:00 Y5 **53.09** ● Therapeutic impact of grafted oligogenic-directly reprogrammed neural precursor cells and chondroitinase ABC for chronic spinal cord injury. S. NORI*; J. AHLFORS; M. KHAZAEI; Y. LIU; J. WANG; T. FUEHRMANN; M. M. PAKULSKA; M. HETTIARATCHI; P. POON; M. S. SHOICHET; M. G. FEHLINGS. *Krembil Res. Inst., New World Labs., Univ. of Toronto, Univ. of Toronto.*

2:00 Y6 **53.10** Online learning of stimuli parameters for standing in spinally stimulated paraplegia. Y. SUI*; J. W. BURDICK. *CALIFORNIA INSTITUTE OF TECHNOLOGY, Caltech.*

3:00 Y7 **53.11** Recovery of diaphragm motor units activities after cervical hemisection of the spinal cord. Y. OKUNO; R. SHOJI; S. SASAKI*; K. SASAKI; K. KAWAMURA; K. TOMITA. *Dept. of Physical Therapy, Ibaraki Prefectural Univ. of Hlth. Sci., Grad. Sch. of Hlth. Sciences, Ibaraki Prefectural Univ. of Hlth. Sci., Toyo Col., Dept. of Anatomy, Toho Univ.*

4:00 Y8 **53.12** Investigating functional aspects of optogenetically mediated cortical neuromodulation in T9/T10 complete transected adult rats. K. A. SCHMIDT*; S. F. GISZTER. *Drexel Univ., Drexel Univ. Col. of Med.*

1:00 Y9 **53.13** The anatomical plasticity after spinal lesion in common marmosets. K. S. YOSHINO*; T. KONDO; M. NAKAMURA; H. OKANO. *Keio Univ., Keio Univ., Keio Univ., Keio Univ. Sch. of Med.*

2:00 Y10 **53.14** Promotion of nerve regeneration and functional recovery after spinal cord injury by an endogenous Nogo receptor antagonist LOTUS. T. HIROKAWA*; Y. KURIHARA; K. TAKEI. *Grad. Sch. of Med. Life Sci., Yokohama City Univ.*

3:00 Y11 **53.15** The use of hydrogel seeded with iPS-derived neural progenitors in the treatment of chronic spinal cord injury. P. JENDELOVA*; J. RUZICKA; N. ROMANYUK; K. JIRAKOVA; A. HEJCL; O. JANOUSKOVA; M. BOCHIN; M. PRADNY; L. VARGOVA. *Inst. of Exptl. Medicine, ASCR, 2nd Fac. of Medicine, Charles Univ., Inst. of Macromolecular Chem. ASCR.*

4:00 Y12 **53.16** Protective effects of estradiol and dihydrotestosterone following spinal cord injury. M. A. MACZUGA*; S. VALENCIA; N. LIU; Q. HAN; X. XU; D. R. SENGELAUB. *Indiana Univ., Indiana Univ.*

1:00 Y13 **53.17** ● Spatiotemporal neuromodulation of the spinal cord combined with robot-assisted training in humans with spinal cord injury (STIMO): Technological and conceptual framework. C. G. LE GOFF*; F. B. WAGNER; J. MIGNARDOT; M. CAPOGROSSO; I. SEÁÑEZ-GONZÁLEZ; M. CABAN; R. HEIMGARTNER; N. FUMEAUX; F. RASCHELLA; A. WATRIN; M. VAT; M. AVANTHAY; I. FODOR; K. VAN DEN KEYBUS; G. EBERLE; B. SCHURCH; S. CARDA; E. PRALONG; M. BOLLIGER; J. VON ZITZEWITZ; R. BUSCHMAN; N. BUSE; V. DELATTRE; S. MICERA; T. DENISON; H. LAMBERT; A. CURT; K. MINASSIAN; J. BLOCH; G. COURTINE. *EPFL, CHUV, Univ. of Fribourg, G-Therapeutics, EPFL, CHUV, CHUV, Balgrist Univ. Hosp., Medtronic, Scuola Superiore Sant'Anna, Med. Univ. of Vienna.*

2:00 Y14 **53.18** Hybrid peripheral-spinal neuromodulation therapies enable refined locomotion after paralysis by combining global and local control of leg movements. S. M. WURTH*; J. GANDAR; M. CAPOGROSSO; A. CUTRONE; S. RASPOPOVIC; N. PAVLOVA; P. SHKORBATOVA; L. BAUD; E. D'ANNA; Q. BARRAUD; K. MINASSIAN; F. WAGNER; S. MICERA; G. COURTINE. *EPFL - Campus Biotech B3.04, EPFL Ctr. for Neuroprosthetics and Brain Mind Inst., Fribourg Univ., The Biorobotics Institute, Scuola Superiore Sant'Anna, Pavlov Inst. of Physiol.*

3:00 Y15 **53.19** ● Withdrawn

4:00 Y16 **53.20** Withdrawn

1:00 Y17 **53.21** Cortico-reticulo-spinal circuit reorganization reverses paralysis after severe spinal cord contusion. C. KATHE; L. ASBOTH; L. FRIEDLI; J. BEAUPARLANT; C. MARTINEZ-GONZALEZ; S. ANIL; E. REY; L. BAUD; G. PIDPRUZHNYKOVA; M. A. ANDERSON; P. SHKORBATOVA; J. KREIDER; B. SCHNEIDER; Q. BARRAUD*; G. COURTINE. *EPFL - Ctr. For Neuroprosthetics, EPFL - BMI - LEN.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

2:00 Y18 **53.22** ● Dimensions matter: Why do the spinal cords of humans and rodents respond differently to epidural electrical stimulation. E. FORMENTO*; M. CAPOGROSSO; K. MINASSIAN; F. B. WAGNER; J. MIGNARDOT; C. G. M. LE GOFF; T. MILEKOVIC; E. BEZARD; J. BLOCH; S. MICERA; G. COURTINE. *École Polytechnique Fédérale De Lausanne, Univ. of Fribourg, Univ. of Geneva, Inst. des Maladies Neurodégénératives, CNRS, Inst. des Maladies Neurodégénératives, Univ. of Bordeaux, Inst. of Lab. Animal Sciences, China Acad. of Med. Sci., Ctr. Hospitalier Universitaire Vaudois (CHUV).*

3:00 Z1 **53.23** Spinal cord epidural stimulation effects on urogenital and bowel outcomes. A. N. HERRITY*; C. A. ANGELI; E. REJC; S. J. HARKEMA; C. H. HUBSCHER. *Univ. of Louisville, Frazier Rehab Inst., Univ. of Louisville, Univ. of Louisville.*

4:00 Z2 **53.24** Improved respiratory motor control and pulmonary function outcomes after epidural stimulation. B. DITTERLINE*; S. C. ASLAN; C. A. ANGELI; S. J. HARKEMA; A. V. OVECHKIN. *Univ. of Louisville, Univ. of Louisville, Frazier Rehab Inst.*

1:00 Z3 **53.25** Task specific spinal cord epidural stimulation enables independent step cycles during BWST stepping in motor complete humans. C. A. ANGELI*; Y. GERASIMENKO; V. EDGERTON; S. J. HARKEMA. *Frazier Rehab Inst., Univ. of Louisville, Univ. of California Los Angeles, Pavloc Inst., Univ. of Louisville.*

2:00 Z4 **53.26** Interleaving stand-step training with spinal cord epidural stimulation effectively improved standing in individuals with chronic complete spinal cord injury. E. REJC*; C. ANGELI; S. HARKEMA. *Univ. of Louisville.*

3:00 Z5 **53.27** Effects of non-task-specific spinal cord epidural stimulation parameters on modulation of leg muscle activity during stepping. S. SUN*; S. J. HARKEMA; C. A. ANGELI. *Univ. of Louisville, Univ. Louisville, Frazier Rehab Inst, KSCIRC, Frazier Rehab Inst.*

POSTER

054. Trigeminal Processing

Theme D: Sensory Systems

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 Z6 **54.01** Quantitative analysis of axons expressing parvalbumin, calbindin, calretinin, stage-specific embryonic antigen-4 and RT97 in the sensory root of the rat trigeminal ganglion. J. BAE; H. HAN; Y. KIM; J. KIM; Y. CHO*; Y. BAE. *Sch. of Dentistry, Kyungpook Natl. Univ.*

2:00 Z7 **54.02** Surgically induced pain increases orofacial sensorimotor excitability during sleep. K. ADACHI*; R. ODAI-IDE; G. J. LAVIGNE; B. J. SESSLE. *Meikai Univ. Sch. of Dent., Meikai Univ. Sch. of Dent., Faculté de médecine dentaire, Univ. de Montréal, Univ. Toronto.*

3:00 Z8 **54.03** Functional regeneration of the afferent axons following inferior alveolar nerve transection. T. SUZUKI*; M. KONDO; A. KATAGIRI; H. NAGASHIMA; N. SUGANO; S. SATO; K. IWATA. *Nihon Univ. Sch. of Dent., Nihon Univ. Grad Sch. of Dent., Nihon Univ. Sch. of Dent.*

4:00 Z9 **54.04** DREADD-induced pain responding and functional connectivity changes in a rat model of trigeminal pain. L. M. COLON-PEREZ; Y. LEVITES; R. M. CAUDLE; E. L. ROHRS; T. E. GOLDE; M. FEBO; J. K. NEUBERT*. *Univ. of Florida, Univ. of Florida, UFCD, Univ. of Florida, Col. of Medicine, Univ. of Florida, Univ. of Florida, Univ. Florida.*

1:00 Z10 **54.05** Macrophage in trigeminal ganglion contribute to ectopic orofacial pain following inferior alveolar nerve injury. D. BATBOLD*; M. SHINODA; Y. SATOSHI; K. IWATA. *Tokyo Med. and Dent. Univ., Nihon Univ. Sch. of Dent.*

2:00 Z11 **54.06** Functional properties and somatotopical organization of rat trigeminal neurons innervating ocular and periocular tissues. B. SANTIAGO; A. DIAZ-TAHOCES; J. GALLAR; C. BELMONTE*; M. ACOSTA. *Inst. De Neurociencias De Alicante UMH-CSIC.*

3:00 Z12 **54.07** Structural characteristics of glial cells in the orofacial sensorimotor cortex of BXA24 mice: gender differences and effects of molar tooth extraction injury. T. WATASE; D. TANG; M. ZANJIR; I. YONA; P. CHERKAS; D. K. LAM; M. W. SALTER; Z. SELTZER; K. TAKAHASHI; B. J. SESSLE; L. AVIVI-ARBER*. *Nihon Univ., Univ. of Toronto, Univ. of Toronto, Hosp. For Sick Children, Univ. of Chicago, Univ. Toronto, Univ. of Toronto Dent.*

4:00 Z13 **54.08** Oral somatosensory tuning in multimodal taste-active parabrachial neurons associates with receipt of input from trigeminal fibers of the transient receptor potential vanilloid 1 lineage. J. LI*; C. LEMON. *Univ. of Oklahoma.*

1:00 Z14 **54.09** An intracortical connection among somatosensory areas makes higher complemental processing for orofacial sensation in rat. N. MIZOGUCHI*; A. MINODA; N. SUDA; K. MURAMOTO. *Meikai Univ. Sch. of Dent.*

2:00 Z15 **54.10** Viral induced pain not due to damage peripherally. L. L. BELLINGER; P. KRAMER; P. R. KINCHINGTON; M. B. YEE. *Texas A&M Univ. Col. of Dent., Univ. of Pittsburg.*

3:00 Z16 **54.11** The role of oxytocin receptors modulating nociception at the level of the trigeminocervical complex. J. E. GARCIA-BOLL*; G. MARTÍNEZ-LORENZANA; M. CONDÉS-LARA; A. GONZÁLEZ-HERNÁNDEZ. *Inst. of Neurobio.*

4:00 Z17 **54.12** Glial activation in trigeminal ganglia after masseter muscle acid exposure. J. MORRIS-WIMAN*; C. G. WIDMER. *West Virginia Sch. of Osteo. Med., Univ. of Florida.*

1:00 Z18 **54.13** Neuroinflammation in posterior insula is correlated with disease duration in trigeminal neuralgia: A free-water diffusion imaging analysis. Q. ZHAO*; C. SPECTOR; J. K. NEUBERT; M. DING. *Univ. of Florida, Univ. of Florida, Univ. Florida, Univ. Florida.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
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* Indicates abstract's submitting author

POSTER

055. Olfactory Processing I

Theme D: Sensory Systems

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 Z19 **55.01** ▲ Putative pheromone activated brain activity between male and female young adults. L. K. HOBBS*; N. M. STEVENS; K. RICHTER; M. ANDERSON; P. JOHNSON; N. MUNCY; C. R. DOXEY; H. WANG; R. HARTLEY; K. DAVIS; T. OTTESEN; C. B. KIRWAN; J. WISCO. *Brigham Young Univ., Brigham Young Univ., Brigham Young Univ., Brigham Young Univ., Brigham Young Univ., Brigham Young Univ., Univ. of Utah Sch. of Med.*

2:00 Z20 **55.02** Understanding the relationship between olfactory perceptual discriminability and glomerular response features. W. G. BAST*; P. GUPTA; D. ALBEANU. *Cold Spring Harbor Lab.*

3:00 Z21 **55.03** Perception and representation of temporally patterned odour stimuli in the mouse olfactory bulb. A. ERSKINE*; T. ACKELS; D. DASGUPTA; I. FUKUNAGA; A. T. SCHAEFER. *Francis Crick Inst., Univ. Col. London, Okinawa Inst. of Sci. and Technol.*

4:00 Z22 **55.04** Odor mixture representation in the olfactory cortex of awake, behaving mice. E. SHTRAHMAN*; J. GRIMAUD; V. N. MURTHY. *Harvard.*

1:00 Z23 **55.05** Perception of odor mixture is influenced by the molecular complexity of the odor components. M. HAMAKAWA*; K. TAMURA; T. OKAMOTO. *Kyushu Univ., Juntendo Univ.*

2:00 Z24 **55.06** Automated operant olfactory conditioning of group-housed mice. J. REINERT*; A. T. SCHAEFER; T. KUNER. *Inst. For Anat. and Cell Biol., Francis Crick Inst., Univ. Col. London.*

3:00 Z25 **55.07** Constructing an olfactory perceptual space and predicting olfactory percepts from molecular structure. D. R. KEPPLE*; A. KOULAKOV. *Cold Spring Harbor Lab. Watson Sch. of Bio, Cold Spring Harbor Lab.*

4:00 Z26 **55.08** Information-theoretic analysis of natural olfactory landscapes. S. D. BOIE*; E. CONNOR; M. MCHUGH; J. P. CRIMALDI; K. NAGEL; B. ERMENTROUT; J. D. VICTOR. *Weill Cornell Med. Col., Univ. of Colorado, NYU Langone Med. Sch., Univ. of Pittsburgh.*

1:00 Z27 **55.09** Diverse navigational strategies used to explore odor landscapes. A. LIU*; J. HENGENIUS; M. MARX; K. PATEL; C. CHENNUBHOTLA; B. ERMENTROUT; N. N. URBAN. *Univ. of Pittsburgh, Univ. of Pittsburgh, Ctr. for the Neural Basis of Cognition, Univ. of Pittsburgh, Univ. of Pittsburgh.*

2:00 Z28 **55.10** Assessment of mouse navigation in a virtual reality odor environment. K. L. BAKER*; G. CORONAS-SAMANO; M. MCHUGH; J. CRIMALDI; J. V. VERHAGEN. *John B Pierce Lab., Yale Sch. of Med., Univ. of Colorado.*

3:00 Z29 **55.11** Mouse navigation to ethologically relevant odors in a complex odor environment. A. GUMASTE*; K. L. BAKER; G. CORONAS-SAMANO; M. MCHUGH; J. CRIMALDI; J. V. VERHAGEN. *John B Pierce Lab., Yale Univ., Univ. of Colorado.*

4:00 Z30 **55.12** Computational models of mouse olfactory trail-following: A comparison with behavioral data. J. HENGENIUS*; A. LIU; M. MARX; C. S. CHENNUBHOTLA; N. N. URBAN; B. ERMENTROUT. *Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh.*

1:00 Z31 **55.13** Spontaneous rapid odor source localization behavior requires interhemispheric communication. J. E. RABELL*; K. MUTLU; J. NOUTEL; P. MARTIN DEL OLMO; S. HAESLER. *NERF/ IMEC/ KU Leuven.*

2:00 Z32 **55.14** Search strategy determines the impact of sensory cues during odor-guided foraging. B. J. JACKSON*; G. L. FATIMA; S. OH; D. H. GIRE. *Univ. of Washington.*

3:00 AA1 **55.15** Spatiotemporal dynamics of human olfactory attention during an odor search task. G. ARABKHERADMAND*; G. ZHOU; H. JIANG; J. GOTTFRIED; S. SCHUELE; C. ZELANO. *Northwestern Univ.*

4:00 AA2 **55.16** Sound induced olfactory predictive coding in human piriform cortex. G. ZHOU*; N. ARORA; H. JIANG; S. SCHUELE; J. A. GOTTFRIED; C. ZELANO. *Northwestern Univ.*

1:00 AA3 **55.17** Chlorine induced olfactory hyperhedonia. R. SOOD*; F. KHUMALO; A. R. HIRSCH. *Caribbean Med. Univ. Sch. of Med., Lake Forest Col., Smell & Taste Treatment and Res. Fndn.*

2:00 AA4 **55.18** Human repeated pregnancy loss is associated with altered olfaction. L. ROZENKRANTZ*; I. FRUMIN; N. RESHEF; Y. HOLZMAN; R. WEISSGROSS; N. SARID; H. CARP; N. SOBEL. *Weizmann Inst. of Sci., Sheba Tel Hashomer Med. Ctr.*

3:00 AA5 **55.19** Pathological cranial nerve I adaptation demonstrated on olfactory testing. K. A. JANJUA*; A. R. HIRSCH. *Atlantic Univ. Sch. of Med., Smell & Taste Treatment and Res. Fndn.*

POSTER

056. Neuronal Cell Types: Classification

Theme D: Sensory Systems

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 AA6 **56.01** The transcriptional signature of von Economo neurons in human frontoinsular cortex. R. D. HODGE*; J. L. CLOSE; T. E. BAKKEN; J. T. TING; J. A. MILLER; B. D. AEVERMANN; M. NOVOTNY; S. I. SHEHATA; P. VENEPALLY; K. A. SMITH; D. N. TRAN; J. MCCORRISON; F. DIEZ FUERTES; S. M. SUNKIN; R. H. SCHEUERMANN; R. S. LASKEN; E. S. LEIN. *Allen Inst. For Brain Sci., J. Craig Venter Inst.*

2:00 AA7 **56.02** Characterization of human cortical neurons using an *in vitro* single cell characterization platform. J. BERG*; S. A. SORENSEN; J. T. TING; C. A. ANASTASSIOU; C. COBBS; N. DEE; S. DING; N. W. GOUWENS; R. P. GWINN; C. D. KEENE; A. L. KO; C. LEE; M. MCGRAW; P. R. NICOVICH; J. G. OJEMANN; L. POTEKHINA; S. M. SUNKIN; A. SZAFER; Z. ZHOU; C. KOCH; H. ZENG; E. LEIN. *Allen Inst. For Brain Sci., Swedish Neurosci. Inst., Swedish Neurosci. Inst., Univ. of Washington Sch. of Med., Univ. of Washington.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 AA8 **56.03** Single nucleus and single cell RNA-sequencing identify equivalent neuronal types in mouse visual cortex. J. A. MILLER*; T. BAKKEN; R. D. HODGE; Z. YAO; D. BERTAGNOLLI; T. CASPER; N. DEE; J. GOLDY; L. T. GRAY; K. LATHIA; S. PARRY; C. RIMORIN; S. SHEHATA; M. TIEU; K. SMITH; B. TASIC; H. ZENG; E. LEIN. *Allen Inst. for Brain Sci.*

4:00 AA9 **56.04** Divergent electrophysiological properties of supragranular pyramidal neurons in the human vs. mouse cerebral cortex. B. E. KALMBACH*; R. DE FRATES; P. N. CHONG; C. COBBS; R. P. GWINN; A. L. KO; J. G. OJEMANN; E. S. LEIN; J. T. TING. *Allen Inst. For Brain Sci., Allen Inst. for Brain Sci., Swedish Neurosci. Inst., Swedish Neurosci. Inst., Univ. of Washington, Regional Epilepsy Ctr. at Harborview Med. Ctr.*

1:00 AA10 **56.05** Single cell transcriptomics reveals pan-cortical GABAergic and region-specific glutamatergic cell types in adult primary visual cortex and anterior lateral motor cortex. L. T. GRAY*; Z. YAO; K. SMITH; T. NGUYEN; E. GARREN; D. BERTAGNOLLI; J. GOLDY; S. VISWANATHAN; M. ECONOMO; C. RIMORIN; K. LATHIA; N. SHAPOVALOVA; D. HIRSCHSTEIN; O. FONG; V. MENON; J. MILLER; T. BAKKEN; M. TIEU; J. GRAY; A. WILLIFORD; R. LARSEN; P. GROBLEWSKI; A. SZAFER; N. DEE; L. LOOGER; K. SVOBODA; C. KOCH; H. ZENG; B. TASIC. *Allen Inst. For Brain Sci., Allen Inst. For Brain Sci., Allen Inst. For Brain Sci., Howard Hughes Med. Inst., Allen Inst. For Brain Sci., Allen Inst. For Brain Sci., Allen Inst. For Brain Sci., Allen Inst. For Brain Sci., Allen Inst. For Brain Sci., Allen Inst. For Brain Sci.*

2:00 AA11 **56.06** Verification of transcriptomic cell type markers and cell type location in mouse visual cortex and anterior lateral motor cortex by RNA *in situ* hybridization. E. J. GARREN*; T. NGUYEN; K. BICKLEY; L. T. GRAY; Z. YAO; T. T. DAIGLE; H. ZENG; B. TASIC. *Allen Inst. For Brain Sci.*

3:00 AA12 **56.07** Comprehensive census of human cortical cell types defined by single nucleus RNA-sequencing. T. BAKKEN*; R. D. HODGE; J. A. MILLER; J. L. CLOSE; Z. YAO; L. T. GRAY; S. I. SHEHATA; T. NGUYEN; J. GOLDY; D. BERTAGNOLLI; C. RIMORIN; K. LATHIA; M. TIEU; J. GRAY; T. CASPER; E. BARKAN; M. KROLL; N. DEE; K. A. SMITH; B. TASIC; H. ZENG; S. M. SUNKIN; C. KOCH; E. S. LEIN. *Allen Inst. For Brain Sci.*

4:00 AA13 **56.08** Taxonomy of morpho-electric cell types in adult mouse Primary Visual Cortex. S. A. SORENSEN*; J. BERG; N. W. GOUWENS; C. LEE; K. GODFREY, 98105; N. DEE; M. MCGRAW; P. R. NINCOVICH; L. POTEKHINA; Z. ZHOU; C. ANASTASSIOU; J. TING; A. SZAFER; S. SUNKIN; C. KOCH; E. LEIN; H. ZENG. *Allen Inst. for Brain Sci., Allen Inst. For Brain Sci., Allen Inst. For Brain Sci., Allen Inst. for Brain Sci., Allen Inst. for Brain Sci.*

1:00 AA14 **56.09** Towards a viral reporter toolbox for prospective marking of transcriptomic cell classes/types in human and mouse neocortex. J. MICH; B. P. LEVI; J. T. TING; A. CETIN; B. E. KALMBACH; B. M. FALL; Z. YAO; J. A. MILLER; T. E. BAKKEN; S. YAO; M. T. MORTRUD; B. OUELLETTE; L. T. GRAY; T. N. NGUYEN; R. P. GWINN; C. COBBS; A. L. KO; B. TASIC; H. ZENG; E. S. LEIN. *Allen Inst. For Brain Sci., Swedish Neurosci. Institute, Seattle, WA, Swedish Neurosci. Inst., Univ. of Washington Sch. of Med., Harborview Med. Ctr.*

2:00 AA15 **56.10** Human Brainbow: Multi-color neuronal labeling in human *ex vivo* brain slices for high-throughput morphological analysis in health and disease. S. SHEU*; P. ADSTAMONGKONKUL; J. T. TING; L. HOYO; I. BOOTHBY; E. LEIN; J. W. LICHTMAN; D. E. CLAPHAM. *Boston Children's Hosp., Harvard Univ., Allen Inst. For Brain Sci., Harvard Univ., Allen Inst. for Brain Sci., Harvard Med. Sch. Dept. of Neurobio.*

3:00 AA16 **56.11** Retinal ganglion cell types differ dramatically in survival and responsiveness to neuroprotective interventions following optic nerve crush. N. M. TRAN*; I. E. WHITNEY; K. SHEKHAR; Z. HE; J. R. SANES. *Harvard Univ., Broad Inst. of MIT and Harvard, Children's Hosp Boston, Harvard Univ.*

1:00 DP05/AA17 **56.12** (Dynamic Poster) A cell atlas of the retina. K. SHEKHAR*; I. WHITNEY; Y. PENG; N. TRAN; I. BENHAR; D. HERMANN; E. MARTERSTECK; A. R. REGEV, 02142; J. SANES. *Broad Inst. of MIT and Harvard, Harvard Univ.*

1:00 AA18 **56.13** Single-nucleus RNA and methylation sequencing reveals genetic and epigenetic differences between neurons in mouse visual cortex that project to different visual areas. E. J. KIM*; Z. ZHANG; T. ITO-COLE; J. R. NERY; J. R. ECKER; E. M. CALLAWAY. *The Salk Inst. For Biol. Studies.*

2:00 AA19 **56.14** Using high density extracellular recordings to classify spike waveforms in the mouse brain. X. JIA*; J. SIEGLE; C. BENNETT; S. GALE; D. DENMAN; C. KOCH; S. OLSEN. *Allen Inst., Univ. of Washington.*

POSTER

057. Cortical Coding and Oscillations

Theme D: Sensory Systems

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 AA20 **57.01** Representation of sensory uncertainty in Macaque visual cortex. R. L. GORIS*; K. MEDING; O. J. HÉNAFF. *Univ. of Texas At Austin, New York Univ.*

2:00 AA21 **57.02** Dynamics of orientation selectivity and its laminar dependence in macaque V1. T. WANG*; G. YANG; Y. YANG; Y. LI; W. DAI; D. XING. *Beijing Normal Univ.*

3:00 AA22 **57.03** Black-dominant response in primary visual cortex of awake monkeys. Y. YANG*; T. WANG; G. YANG; Y. LI; W. DAI; D. XING; C. YEH. *Natl. Key Lab. of Cognitive Neurosci., Natl. Taiwan Univ.*

4:00 AA23 **57.04** Internal global gain modulations but not contrast changes preserve the neural code for direction. S. LEE*; J. PARK; S. M. SMIRNAKIS. *Brigham & Women's Hospital/ Harvard Med. Sch., Baylor Col. of Med., Brigham and Women's H., Harvard Med. Sch., Jamaica Plain Veterans Admin. Hosp.*

1:00 AA24 **57.05** The geometry of encoding Cartesian vs non-Cartesian stimuli in primary visual cortex. S. J. KUHLMAN*; F. BAQAI; J. KAUTTONEN; B. JEON; T. LEE. *Carnegie Mellon Univ., Carnegie Mellon Univ., Carnegie Mellon Univ.*

2:00 AA25 **57.06** Stability of orientation and spatial frequency tuning in mouse primary visual cortex. B. JEON*; K. QUICK; S. CHASE; S. J. KUHLMAN. *Carnegie Mellon Univ., Carnegie Mellon Univ., Carnegie Mellon Univ.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 AA26 **57.07** Primary visual cortex encodes orientation-invariant attributes of complex images. P. L. STAN*; J. KAUTTONEN; B. JEON; T. PRIGG; J. BREZINSKY; T. LEE; S. J. KUHLMAN. *Carnegie Mellon Univ.*

4:00 AA27 **57.08** Synaptic mechanisms of feature coding in the visual cortex of awake mice. H. ADESNIK*. *Univ. of California, Berkeley.*

1:00 AA28 **57.09** Testing a sensory neural basis for perceptual learning and discrimination in the tree shrew visual cortex. J. W. SCHUMACHER*; M. MCCANN; V. K. HOKE; S. FRELING; D. FITZPATRICK. *Max Planck Florida Inst.*

2:00 AA29 **57.10** Experience dependent plasticity of cortical attention states. P. RIYAHI*; M. T. COLONNESE. *The George Washington Univ., The George Washington Univ. Sch. of Med.*

3:00 AA30 **57.11** Laminar functional connectivity in mouse V1 is tuned to stimulus size at early latencies. G. PLOMP*; I. LARDERET; M. FIORINI; L. BUSSE. *Univ. of Fribourg, LMU Munich.*

4:00 AA31 **57.12** The turtle visual system mediates a complex spatiotemporal transformation of visual stimuli into cortical activity. M. HOSEINI*; J. POBST; N. WRIGHT; W. CLAWSON; W. L. SHEW; R. WESSEL. *Univ. of California In San Francisco, Washington Univ. in St. Louis, Univ. of Arkansas Fayetteville.*

1:00 AA32 **57.13** Possible contribution of retinotopic-scale luminance signals in primate V1 to visual pattern discrimination. G. BENVENUTI*; Y. CHEN; W. S. GEISLER; E. SEIDEMANN. *The Univ. of Texas At Austin.*

2:00 AA33 **57.14** Binocular integration and disparity sensitivity in mouse visual cortex. A. LA CHIOMA*; T. BONHOEFFER; M. HÜBENER. *Max Planck Inst. of Neurobio.*

3:00 AA34 **57.15** ▲ Temporal frequency invariance of receptive field width in primate V1 neurons. F. E. ROUMIER*; M. SEMAMI; J. DURAND; N. PICARD; P. GIRARD; L. NOWAK. *CNRS.*

4:00 AA35 **57.16** The effects of cortical depth on response properties in mouse V1. P. J. O'HERRON*; J. WOODWARD; P. KARA. *Med. Univ. of South Carolina.*

1:00 AA36 **57.17** Probing binocular computation using nonlinear models of v1 recordings. F. BARTSCH*; S. HENRIKSEN; B. G. CUMMING; D. A. BUTTS. *Univ. of Maryland, Program in Neurosci. and Cognitive Sci., Natl. Eye Institute, NIH, Inst. of Neuroscience, Newcastle Univ.*

2:00 BB1 **57.18** Spatial receptive fields of color-responsive neurons in macaque V1. C. YEH*; W. HUANG; H. WU; Y. PEI. *Natl. Taiwan Univ., Chang Gung Mem. Hosp. at Linkou.*

3:00 BB2 **57.19** V1 neurons respond to second order grating: Evidence from two-photon imaging. S. GUAN*; N. JU; Y. SHAO; C. YU; S. TANG; L. TAO. *Peking Univ., Peking Univ., Peking Univ., Peking Univ.*

4:00 BB3 **57.20** Tuning of MT neurons depends on stimulus contrast in accord with canonical computation. A. S. PAWAR*; S. GEPSHTEIN; S. E. SAVEL'EV; T. D. ALBRIGHT. *Salk Inst. for Biol. Studies, Loughborough Univ.*

1:00 BB4 **57.21** Orientation-selective population responses in ferret visual cortex. L. M. F. KLAVER*; A. G. WILLIAMS; L. CASADO-ROMÁN; T. SIKKENS; L. VAN MOURIK-DONGA; C. M. A. PENNARTZ; C. A. BOSMAN. *Univ. of Amsterdam.*

2:00 BB5 **57.22** Cortical magnification factors within 0.5 degree eccentricity in rhesus monkeys. A. G. XU*; A. ZHAO; A. W. ROE. *Zhejiang Univ.*

3:00 BB6 **57.23** Gamma oscillations in the retinogeniculate system of the cat do not play a role in natural vision. S. NEUENSCHWANDER*; G. ROSSO; F. FREITAG; J. DE SAINT AUBERT; E. J. TEHOVNIK; K. E. SCHMIDT; J. BARON. *Brain Inst. - UFRN, École Polytechnique, Univ. Paris-Saclay, Univ. Federal De Minas Gerais.*

4:00 BB7 **57.24** Do grating stimuli bias our concepts on cortical gamma coherence? A study in capuchin monkey V1. S. NEUENSCHWANDER; K. ROCHA; L. DANTAS; R. FAUSTINO; K. E. SCHMIDT*; J. BARON. *Brain Institute, UFRN, Univ. Federal De Minas Gerais.*

1:00 BB8 **57.25** Stimulus-locked gamma oscillations in V1 carry learned spatiotemporal information. E. A. DE LAITTRE; R. W. SCHECTER; B. H. PRICE; J. P. GAVORNIK*. *Boston Univ., Boston Univ.*

2:00 BB9 **57.26** Enhanced gamma oscillations drive perineuronal net instability and cortical plasticity. H. H. LEE*; A. E. TAKESIAN; Z. YE; N. W. HODGSON; T. K. HENSCH. *Boston Children's Hosp., Harvard Univ.*

3:00 BB10 **57.27** Gamma oscillations of sensory cortex in genetic and pharmacological models of schizophrenia. C. G. WELLE*; D. CONTRERAS. *Univ. of Colorado, Univ. Pennsylvania Sch. of Med.*

4:00 BB11 **57.28** Delta oscillations in schizophrenia: Insights from biophysically detailed modeling of networks of layer V pyramidal cells. T. MÄKI-MARTTUNEN*; F. KRULL; F. BETTELLA; T. MOBERGET; T. ELVSÅSHAGEN; C. METZNER; A. DEVOR; S. DJUROVIC; A. M. DALE; O. A. ANDREASSEN; G. T. EINEVOLL. *Simula Res. Lab., Univ. of Oslo, Oslo Univ. Hosp., Univ. of Hertfordshire, UCSD, Norwegian Univ. Life Sci.*

POSTER

058. Visual Cognition: Decision Making

Theme D: Sensory Systems

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 BB12 **58.01** ▲ Testing fly visual behavior with a true 2-alternative forced-choice task. M. LOUKA; A. R. GRASSI; E. J. BEEBE; P. E. WILLIAMS*. *Muhlenberg Col.*

2:00 BB13 **58.02** Diverse responses of neurons in mouse superficial superior colliculus during a visual decision task. S. SCHRÖDER*; M. ALLEMAN; K. D. HARRIS; M. CARANDINI. *Univ. Col. London.*

3:00 BB14 **58.03** Effects of bilateral spontaneous activity on mouse visual cortex during a visual detection task. D. SHIMAOKA*; K. D. HARRIS; M. CARANDINI. *Univ. Col. London.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

4:00 BB15 **58.04** Mouse frontal cortex combines perceptual signals and recent outcomes to compute the expected return of actions. A. LAK*; M. OKUN; A. B. SALEEM; C. HASTINGS; N. A. STEINMETZ; P. ZATKA-HAAS; K. D. HARRIS; M. CARANDINI. *Univ. Col. London.*

1:00 BB16 **58.05** Mapping perceptual decisions to cortical regions. P. ZATKA-HAAS*; N. A. STEINMETZ; M. CARANDINI; K. D. HARRIS. *Univ. Col. London.*

1:00 DP06/BB17 **58.06** (Dynamic Poster) Neuronal populations supporting vision, action, and reward across the mouse brain. N. A. STEINMETZ*; M. CARANDINI; K. D. HARRIS. *Univ. Col. London.*

3:00 BB18 **58.07** Information flow across long-range cortical and subcortical circuits coordinates sensorimotor behavior. R. HUDA*; G. N. PHO; L. GUNTER; G. SIPE; M. SUR. *Picower Inst. for Learning and Memory, MIT.*

4:00 BB19 **58.08** Probing V1 responses in freely moving rats performing a visual discrimination task. A. ZHANG*; A. M. ZADOR. *Watson Sch. of Biol. Sci., Cold Spring Harbor Lab.*

1:00 BB20 **58.09** Layer dependence of decision-related activity in the macaque visual cortex. H. NIENBORG*; K. QUINN; L. SEILLIER; S. CLERY; P. POURRIAHI. *Ctr. For Integrative Neurosci.*

2:00 BB21 **58.10** Evaluating perceptual strategy using decision confidence inferred from pupil size in macaques. K. KAWAGUCHI*; S. CLERY; P. POURRIAHI; L. SEILLIER; R. M. HAEFNER; H. NIENBORG. *Ctr. For Integrative Neurosci., Univ. of Rochester.*

3:00 BB22 **58.11** ▲ Decision signals in local field potentials recorded from early and mid-level visual cortical areas. A. KRISHNA*; S. TANABE; A. KOHN. *Albert Einstein Col. of Med., SASTRA Univ.*

4:00 BB23 **58.12** Time course of noise correlations is much slower than stimulus selectivity for macaque MT neurons presented with bistable stimuli. I. KANG; B. G. CUMMING*. *NIH, Natl. Eye Institute, NIH.*

1:00 BB24 **58.13** Neural mechanisms of perceptual learning in frontal eye fields neural population. L. SHA*; R. KIANI. *New York Univ. Sch. of Arts and Sci., New York Univ.*

2:00 BB25 **58.14** Predicting belief from accuracy in perceptual decisions. K. KHALVATI*; R. KIANI; R. P. RAO. *Univ. of Washington, Univ. of Washington, New York Univ.*

3:00 BB26 **58.15** Frontal and parietal areas represent distinct processes supporting hierarchical decisions over different timescales. B. PURCELL*; R. KIANI. *New York Univ.*

4:00 BB27 **58.16** Extending models of latent dynamics in area LIP during perceptual decision-making. D. M. ZOLTOWSKI; K. L. LATIMER; A. C. HUK; J. W. PILLOW*. *Princeton Univ., Univ. of Washington, Univ. of Texas at Austin, Princeton Neurosci. Inst.*

1:00 CC1 **58.17** LIP neurons encode cognitive effort associated with resolving conflict and obtaining information. M. HORAN*; N. DADDAOUA; J. GOTTLIEB. *Columbia Univ., Columbia Univ.*

2:00 CC2 **58.18** ● Frequency shifts and depth dependence of pre-stimulus beta band activity in rhesus premotor cortex during perceptual decision-making. I. E. BRAY*; C. CHANDRASEKARAN; K. V. SHENOY. *Stanford Univ., Howard Hughes Med. Institute, Stanford Univ.*

3:00 CC3 **58.19** ● Using action potential width and cortical depth to characterize laminar microcircuit organization in macaque dorsal premotor cortex during perceptual decisions. C. CHANDRASEKARAN*; K. V. SHENOY. *Stanford Univ., Stanford Univ., Stanford Univ., Stanford Univ., HHMI/Stanford Univ.*

4:00 CC4 **58.20** Multiplexing of arousal-linked top-down signals in early visual cortex. T. H. DONNER*; T. KNAPEN; J. W. DE GEE. *Univ. Med. Ctr. Hamburg-Eppendorf, VU Amsterdam.*

1:00 CC5 **58.21** Neural correlates for judgment of visual pattern randomness: An event-related potential study. T. MIYAGI*; H. FUJIMURA; T. KURODA; Y. YAMADA; K. KANNAGA; S. TAKEUCHI; M. MIYAZAKI. *Shizuoka Univ., Shizuoka Univ., Kyushu Univ., Jobu Univ.*

2:00 CC6 **58.22** Differing timescales of interneuronal correlations contribute to differences in decision signals in area V5/MT; comparing a stereo-motion task with random motion stimulation. D. F. WASMUHT*; A. J. PARKER; K. KRUG. *Oxford Univ.*

3:00 CC7 **58.23** Behavioural and neural signatures of decision making vary with pupil diameter and clonidine administration. J. VAN KEMPEN*; D. P. NEWMAN; G. LOUGHNANE; S. KELLY; A. THIELE; R. O'CONNELL; M. A. BELLGROVE. *Newcastle Univ., Monash Univ., Trinity Col., Univ. Col. Dublin, Monash Univ.*

4:00 CC8 **58.24** Effects of attention and expectation on perceptual decision making after medial temporal lobe lesions. N. RUNGRATSAMEETAWEEMANA*; L. R. SQUIRE; J. T. SERENCES. *UCSD, UCSD, UCSD, Veterans Affairs San Diego Healthcare Syst.*

1:00 CC9 **58.25** Evaluating the impact of expertise on intuitive decision-making: A neurocognitive study. L. C. LUCIA*; J. M. BEAUBIEN; E. W. STACY. *Aptima, Inc.*

2:00 CC10 **58.26** Confidence amplifies serial dependence in perceptual decisions. J. SAMAHA*; M. SWITZKY; B. R. POSTLE. *UW Madison.*

3:00 CC11 **58.27** From perception to action in an uncertain world: Decisions all the way with beta desynchronization. A. TOMASSINI*; D. PRICE; J. ZHANG; J. B. ROWE. *Univ. of Cambridge, Univ. of Cambridge, Univ. of Cardiff, Univ. of Cambridge.*

4:00 CC12 **58.28** Not all observed actions are perceived equally. A. PLATONOV*; G. A. ORBAN. *Univ. of Parma, Univ. of Parma.*

1:00 CC13 **58.29** Exploration of different processes in synesthetic bidirectionality. J. F. AWAD*; B. C. HACKNEY; R. MORALES; T. DOTY; R. L. MOSHER; S. A. DREW. *California State University, Northridge, California State University, Northridge, California State University, Northridge, California State Univ. Northridge, California State University, Northridge.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

POSTER

059. Eye Movements: Smooth Pursuit

Theme E: Motor Systems

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 CC14 **59.01** Cerebellar control of the ability to track a moving target: Role of the fastigial oculomotor region. C. BOURRELLY*; J. QUINET; P. CAVANAGH; L. GOFFART. *CNRS Inst. Des Neurosciences De La Timone, Lab. Psychologie de la perception, Dartmouth Col., CNRS.*

2:00 CC15 **59.02** Trial-by-trial correlations between multivariate EEG activity and smooth pursuit eye movements. W. JEONG*; S. KIM; Y. KIM; J. LEE. *Sungkyunkwan Univ., Inst. For Basic Sci.*

3:00 CC16 **59.03** Visual transient onsets decrease initial smooth pursuit velocity and reset the temporal dynamics of catch-up saccades. A. BUONOCORE*; Z. HAFED. *Univ. of Tübingen.*

4:00 CC17 **59.04** Smooth pursuit adaptation affects the latency of catch-up saccades. S. ONO*; M. J. MUSTARI. *Univ. of Tsukuba, Univ. Washington.*

1:00 CC18 **59.05** Microsaccades as fixational eye movements? On the influence of smooth pursuit eye movements and retinal input on microsaccades. B. F. HANDEL*; L. CAO; P. FRIES. *Univ. of Würzburg, Univ. Wuerzburg, Ernst Struengmann Inst. (ESI).*

2:00 CC19 **59.06** A Bayes optimal decision model of the saccade trigger mechanism during smooth pursuit. J. COUTINHO*; P. LEFÈVRE; G. BLOHM. *Queen's Univ., Univ. Catholique de Louvain.*

3:00 CC20 **59.07** Updating of a Bayesian-like prior for visual motion speed in the smooth eye movement region of the frontal eye fields. T. DARLINGTON*; S. G. LISBERGER. *Duke Univ.*

4:00 CC21 **59.08** Time course of multiple components of directional motor learning in smooth pursuit eye movements. N. J. HALL*; S. G. LISBERGER. *Duke Univ., Duke Univ.*

1:00 CC22 **59.09** Neural latency co-variation in primate frontal cortex predicts correlations with variation of behavioral reaction time. J. LEE*; S. G. LISBERGER. *Sungkyunkwan Univ., Inst. for Basic Sci., Duke Univ.*

2:00 CC23 **59.10** Illusory motion reveals smooth pursuit of large objects is driven by motion, not position. S. J. HEINEN*; S. N. WATAMANIUK; Z. MA. *Smith-Kettlewell Eye Res. Inst., Wright State Univ.*

3:00 CC24 **59.11** Perceived location of a pre-pursuit target when pursuit movement direction is predictable versus unpredictable and the target location varies. J. POLA*; H. J. WYATT. *SUNY Col. Optometry.*

POSTER

060. Eye Movements: Saccades

Theme E: Motor Systems

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 CC25 **60.01** Primary but not secondary visual rewards influence saccade adaptation. A. MEERMEIER; S. E. GREMMLER; K. RICHERT; M. LAPPE*. *Univ. of Muenster, Inst. for Psychology.*

2:00 CC26 **60.02** Saccadic reactions and visual ERP potentials at the experimental scheme with distracters under stimulation of dominant and subdominant eye. V. MOISEEVA*; M. SLAVUTSKAYA; N. FONSOVA; V. SHULGOVSKIY. *HSE, Lomonosov MSU.*

3:00 CC27 **60.03** Modulation of error-sensitivity during sensorimotor learning. E. SEDAGHAT NEJAD*; R. SHADMEHR. *Johns Hopkins Univ.*

4:00 CC28 **60.04** Evidence of slow and fast learning processes in early and late halves respectively of saccades during cross-axis saccade adaptation. S. P. OROZCO*; D. J. HERZFELD; R. SHADMEHR. *Johns Hopkins Univ., Johns Hopkins Univ., Johns Hopkins Univ. Dept. of Biomed. Engin.*

1:00 CC29 **60.05** Activity of visually-responsive superior colliculus neurons in a visual search task using naturalistic object categories. B. M. COOPER*; H. ADELI; G. ZELINSKY; R. MCPEEK. *State Univ. of New York Col. of Optometry, Stony Brook Univ., Stony Brook Univ.*

2:00 CC30 **60.06** Cerebellar control of saccades by the size of the active population in the caudal fastigial nucleus. L. GOFFART*; J. QUINET; C. BOURRELLY. *CNRS, INT.*

3:00 CC31 **60.07** Correlations between control of saccadic eye movements and performance in other cognitive tasks in younger adults, older adults and patients with Parkinson's disease. J. OUERFELLI-ÉTHIER*; B. ELSAEID; J. DESGROSEILLIERS; D. P. MUNOZ; G. BLOHM; A. Z. KHAN. *Univ. De Montréal, Queen's Univ., Univ. de Sherbrooke, Queen's Univ.*

4:00 CC32 **60.08** Memory-guided microsaccades: Behavior and physiology. K. F. WILLEKE*; X. TIAN; J. BELLET; A. RAMÍREZ-CÁRDENAS; Z. M. HAFED. *Werner Reichardt Ctr. For Integrative Neuroscien, Ctr. for Integrative Neurosci., Univ. of Iowa Hosp. and Clinics.*

1:00 CC33 **60.09** Modulation effects and time course of target-distractor similarity on saccade curvatures. D. H. KEHOE*; M. FALLAH. *York Univ., York Univ.*

2:00 DD1 **60.10** Comparison of visual-motor transformations of unit activity between the frontal eye fields and supplementary eye fields during head-unrestrained gaze shifts. V. BHARMAURIA*; A. SAJAD; H. ARORA; X. YAN; H. WANG; J. D. CRAWFORD. *York Univ., Vanderbilt Univ.*

3:00 DD2 **60.11** Brain response components elicited by saccadic eye movements across natural images of faces. Y. JIA*; C. W. TYLER. *The Smith-Kettlewell Eye Res. Inst.*

4:00 DD3 **60.12** Foveation engages the saccadic system with or without a stimulus. S. N. WATAMANIUK*; J. BADLER; S. J. HEINEN. *Wright State Univ., The Smith-Kettlewell Eye Res. Inst.*

1:00 DD4 **60.13** Main sequence characteristics of 3D head saccades in owls. M. D. BORGES*; D. DUARTE; C. AMARAL; J. BARON. *Univ. Federal De Minas Gerais, Univ. Federal De Minas Gerais, Univ. Federal De Minas Gerais.*

2:00 DD5 **60.14** Task and layer specific responses during automatic and controlled saccades in marmoset prefrontal and posterior parietal cortex. K. D. JOHNSTON*; S. EVERLING. *Univ. of Western Ontario, Univ. Western Ontario.*

3:00 DD6 **60.15** Modulation of human saccade behavior using low-intensity focused ultrasound. H. KIM*; K. PAHK; S. YEO. *Korea Inst. of Sci. and Technol., Univ. of Birmingham.*

4:00 DD7 **60.16** Spatial cueing and planned saccade tasks in the marmoset. S. H. COOP*; G. W. BUNCE; J. F. MITCHELL. *Univ. of Rochester - River Campus.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

1:00 DD8 **60.17** Population activity in the superior colliculus for saccades to moving targets. K. J. MOHSENIAN*; A. L. CECALA; N. J. GANDHI. *Univ. of Pittsburgh, Elizabethtown Col., Univ. of Pittsburgh.*

2:00 DD9 **60.18** Local and global spatial references for guiding saccades to remembered locations in crowded visual scenes. J. A. EDELMAN*; S. MOHAMMAD. *City Col. of New York, The City Col. of New York.*

3:00 DD10 **60.19** Metaclustering: A novel method for identifying robust classes of neuronal responses in frontal eye field. K. A. LOWE*; J. D. SCHALL. *Vanderbilt Univ., Vanderbilt Univ.*

4:00 DD11 **60.20** Neural correlates of speed-accuracy tradeoff: Superior colliculus and frontal eye field. T. REPPERT*; M. SERVANT; R. P. HEITZ; J. D. SCHALL. *Vanderbilt Univ.*

1:00 DD12 **60.21** Functional architecture of frontal eye field: Spatial clustering of functional properties. J. G. ELSEY*; K. LOWE; P. MIDDLEBROOKS; J. D. COSMAN; J. D. SCHALL. *Vanderbilt Univ.*

2:00 DD13 **60.22** Dissociable effects of superior colliculus imbalance on microsaccade direction and frequency. G. YU*; P. BAO; Q. TIAN; M. YANG; M. C. DORRIS. *Inst. of Neuroscience, Shanghai, Inst. of Neurosci.*

3:00 DD14 **60.23** ▲ Central and peripheral correlates of eye movement planning. S. P. RUNGTA; A. N. MURTHY*. *Indian Inst. of Sci.*

4:00 DD15 **60.24** ▲ Sensorimotor transformations in monkeys under scotopic and photopic conditions. O. SPIVAK*; P. THIER; S. BARASH. *Hertie Inst. For Clin. Brain Res., Weizmann Inst. of Sci.*

1:00 DD16 **60.25** Sensory cue processing time modulates LIP neuronal activity in parallel with urgent choice accuracy. J. SEIDEMAN*; E. SALINAS; T. R. STANFORD. *Wake Forest Sch. of Med.*

POSTER

061. Cortical Planning and Execution: Human Neurophysiology

Theme E: Motor Systems

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 DD17 **61.01** Forward estimation of movement state in the human posterior parietal cortex: A single neuron recording study with a tetraplegic participant. V. N. CHRISTOPOULOS*; S. SAKELLARIDI; T. AFLALO; K. PEJSA; E. ROSARIO; D. OUELLETTE; N. POURATIAN; R. ANDERSEN. *Caltech, Casa Colina Hosp. and Centers For Healthcare, university of california los angeles.*

2:00 DD18 **61.02** Gating of somatosensory evoked potentials during precision and power grip in humans. R. A. OZDEMIR*; M. A. PEREZ. *Univ. of Miami, Bruce W. Carter Dept. of Veterans Affairs Med. Ctr.*

3:00 DD19 **61.03** Altered sensory gating during voluntary activity in humans with spinal cord injury. Y. LEI*; M. A. PEREZ. *Univ. of Miami, Bruce W. Carter Dept. of Veterans Affairs Med. Ctr.*

4:00 DD20 **61.04** Motor engram as dynamic change of the cortical network during early sequence learning: An fMRI study. Y. H. HAMANO*; S. K. SUGAWARA; N. SADATO. *Natl. Inst. For Physiological Sci., Japan Society for the Promotion of Sci.*

1:00 DD21 **61.05** Supplementary motor area activity at rest and during finger tapping in young adults with developmental dyslexia. A. L. SMILEY-OYEN*; E. VANSICKLE; E. PETRAN; E. STEGEMOLLER. *Iowa State Univ.*

2:00 DD22 **61.06** Cerebral hemodynamic responses during the alternating lower limb movement with robot suit hybrid assistive limb (HAL). S. URAKAWA*; Y. OTA; K. TAKAMOTO; T. ONO; H. NISHIJO. *Hiroshima Univ., Univ. of Toyama, Univ. of Toyama.*

3:00 DD23 **61.07** ● Active engagement of higher-order motor cortices in motor inhibition: Evidence from direct neural recording and stimulation during Go/No-Go paradigm. H. TAKEYAMA*; R. MATSUMOTO; K. USAMI; A. SHIMOTAKE; T. KIKUCHI; K. YOSHIDA; T. KUNIEDA; S. MIYAMOTO; R. TAKAHASHI; A. IKEDA. *Kyoto Univ., Kyoto Univ. Grad. Sch. of Med., Johns Hopkins Univ., Kyoto Univ. Grad. Sch. of Med., Kyoto Univ. Grad. Sch. of Med., Ehime Univ. Grad. Sch. of Med., Kyoto Univ., Kyoto Univ. Grad. Sch. of Med., Kyoto Univ. Grad. Sch. of Med.*

4:00 DD24 **61.08** The effects of coordinated vs. uncoordinated whole arm movement on brain-muscle coupling. L. P. SIMPSON; H. NGUYEN; S. LEE; S. N. KUKKE*. *the Catholic Univ. of America, Catholic Univ. of America, Biomed. Eng., The Catholic Univ. of America.*

1:00 DD25 **61.09** Short-lasting modulation in corticomotor excitability in response to thermal stimulation of a single digit. Y. ANSARI; A. REMAUD; F. TREMBLAY*. *Univ. of Ottawa, Bruyere Res. Inst.*

2:00 DD26 **61.10** Correcting Penfield's Motor Homunculus. E. L. ALTSCHULER*; N. FERRO; S. F. KHAN; K. SURAPANENI. *Metropolitan Hosp., Temple Sch. of Med., Temple Sch. of Med., Temple Sch. of Med.*

3:00 DD27 **61.11** The gain of visual feedback influences force variability but not corticomuscular coherence during plantarflexion isometric contractions. L. A. ELIAS*; D. TOLEDO; F. LIMA; A. KOHN. *Univ. of Campinas - UNICAMP, Univ. of Sao Paulo - USP.*

4:00 DD28 **61.12** ● Magnitude scaling & context-dependency in a rapid visual motor response. K. P. CROSS*; T. CLUFF; T. TAKEI; S. H. SCOTT. *Queen's Univ., Univ. of Calgary, Queen's Univ., Queen's Univ.*

1:00 DD29 **61.13** The contribution of central mechanisms to motor slowing in humans. R. LEHNER*; M. BÄCHINGER; S. HANIMANN; C. RYF; F. THOMAS; C. GHIDONI; J. H. BALSTERS; N. WENDEROTH. *Neural Control of Movement Lab, ETHZ.*

2:00 DD30 **61.14** Dynamic motor encoding of targets in multiple object tracking. D. GALE*; M. J. CARTER; D. M. WOLPERT; J. P. GALLIVAN; R. J. FLANAGAN. *Queen's Univ., Univ. of Cambridge.*

3:00 DD31 **61.15** Failure to enhance post practice consolidation during motor sequence learning using anodal tDCS. J. CHEN; H. KIM; T. KIM; I. PARK; A. T. MCCULLOCH; J. J. BUCHANAN; D. L. WRIGHT*. *Texas A&M Univ., Texas A&M Univ., Texas A&M Univ., Texas A&M Univ.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

4:00 DD32 **61.16** Dexterity modulates ipsilateral motor corticospinal excitability in post-stroke individuals. S. S. KANTAK*; D. LUCHMEE. *Moss Rehabil. Hosp., Moss Rehabil. Res. Inst.*

1:00 DD33 **61.17** Short-interval intracortical inhibition: The influence of interstimulus interval and current direction. J. CIRILLO; J. G. SEMMLER*; R. A. MOONEY; W. D. BYBLOW. *Univ. of Auckland, Univ. of Adelaide, Univ. of Auckland, Univ. of Auckland.*

2:00 DD34 **61.18** Threshold tracking interhemispheric inhibition in healthy adults. R. A. MOONEY*; J. CIRILLO; W. D. BYBLOW. *Univ. of Auckland, Univ. of Auckland.*

3:00 DD35 **61.19** Chronic stroke differentially alters distinct sensorimotor integration pathways. K. E. BROWN*; J. L. NEVA; S. J. FELDMAN; W. R. STAINES; L. A. BOYD. *Univ. of British Columbia, Univ. of British Columbia, Univ. of British Columbia, Univ. Waterloo, Univ. British Columbia.*

4:00 DD36 **61.20** Neural correlates of sensory and motor delays explain temporal variance in simple reaction time experiments. S. E. PARASKEVOPOULOU*; W. G. COON; P. BRUNNER; K. J. MILLER; G. SCHALK. *Wadsworth Ctr., Massachusetts Gen. Hospital, Harvard Med. Sch., Stanford.*

1:00 EE1 **61.21** Changes in cortical excitability after a BMI intervention using FES in a coordinated functional task. J. L. PONS*; A. MARTINEZ-EXPOSITO; I. DE ORBE; F. RESQUIN; L. J. BARRIOS; J. IBAÑEZ. *Cajal Institute, Spanish Res. Council.*

2:00 EE2 **61.22** Corticospinal inhibition during response preparation is abnormal in Parkinson's disease. I. GREENHOUSE*; R. B. IVRY. *Univ. of California Berkeley.*

3:00 EE3 **61.23** Performance-driven modulations of beta cortical oscillations during sustained visuo-motor tracking. M. PEREIRA*; C. HOY; A. SOBOLEWSKI; J. LIN; R. T. KNIGHT; J. D. R. MILLÁN. *Ecole Polytechnique Fédérale de Lausanne (EPFL), Univ. of California, The Wyss Ctr. for Bio and Neuroengineering, Univ. of California.*

4:00 EE4 **61.24** The anticipation of reward and punishment differentially modulates oscillatory brain activity during reach planning: An electroencephalogram study. F. SAVOIE*; R. HAMEL; A. LACROIX; F. THENAULT; K. WHITTINGSTALL; P. BERNIER. *Univ. De Sherbrooke, Univ. De Sherbrooke.*

1:00 EE5 **61.25** Motor cortical inhibitory and facilitatory circuit interactions in older adults. J. SARAVANAMUTTU*; N. RADHU; K. UDUPA; C. GUNRAJ; R. CHEN. *Toronto Western Hosp., Inst. of Med. Science, Univ. of Toronto, Krembil Res. Inst., Div. of Neurology, Fac. of Medicine, Univ. of Toronto.*

POSTER

062. Motor Planning in Humans

Theme E: Motor Systems

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 EE6 **62.01** Cortical damage and disconnection independently contribute to stroke-induced deficits in limb-motor control and motor-task performance. S. YAZDANI*; G. YOURGANOV; J. FRIDRIKSSON; S. FRITZ; J. C. STEWART; T. M. HERTER. *Univ. of South Carolina, Univ. of South Carolina, Univ. of South Carolina, Univ. of South Carolina.*

2:00 EE7 **62.02** Decoupling the eyes and arm: The neural correlates of looking and reaching in different spatial planes. D. J. GORBET*; L. E. SERGIO. *York Univ., York Univ.*

3:00 EE8 **62.03** Investigating the corticomotor control of ankle plantarflexion in traumatic brain injury. D. ALLEXANDRE*; A. HOXHA; D. A. CUNNINGHAM; S. H. SALEH; E. SELVAN; G. H. YUE. *Kessler Fndn.*

4:00 EE9 **62.04** Cortical functional connectivity relates to changes in lower extremity mechanics due to increased cognitive load. W. E. HUDDLESTON*; T. G. ALMONROEDER. *Univ. of Wisconsin - Milwaukee.*

1:00 EE10 **62.05** Brain activation during hand opening and closing tasks in able-bodied humans. H. KARBASFOROUSHAN*; J. P. A. DEWALD. *Northwestern Univ., Northwestern Univ.*

2:00 EE11 **62.06** Investigating shared representations of observed and executed actions using cross-modal fMRI decoding in rhesus monkeys. P. A. FIAVE; J. JASTORFF; K. NELISSEN*. *KU Leuven.*

3:00 EE12 **62.07** ▲ Functional neural correlates of hand motor function differ based on level of motor severity in individuals post-stroke. E. J. RIZOR*; J. FRIDRIKSSON; C. RORDEN; L. BONILHA; G. YOURGANOV; D. M. PETERS; S. L. FRITZ; J. C. STEWART. *Univ. of South Carolina, Univ. of South Carolina, Univ. of South Carolina, Med. Univ. of South Carolina.*

4:00 EE13 **62.08** Coupling between parietal and motor cortex during motor imagery and execution tasks in post-chemotherapy cancer survivors. A. HOXHA; D. ALLEXANDRE; S. H. SALEH; E. SELAVAN; C. LEBOVIC; G. H. YUE*. *Kessler Fndn., Kessler Fndn., Kessler Fndn. Res. Ctr.*

1:00 EE14 **62.09** EEG potential related to decision-making in direction-cue task by finger movements and saccadic eye movements. A. FUNASE*; Y. FUKUSHIMA; I. TAKUMI. *Nagoya Inst. of Technol.*

2:00 EE15 **62.10** Spontaneous action initiation with temporal constraints on the response time: An MEEG study. B. TROVÒ*; Z. ISCAN; A. SCHURGER. *INSERM DR, INSERM U992/neurospin/cea-Saclay, Univ. Pierre et Marie Curie - Paris VI, École Polytechnique Féderale de Lausanne.*

3:00 EE16 **62.11** Demand on accuracy of hand movements is associated with distinct neural activity in primary motor cortex. D. A. BARANY*; K. P. REVILL; A. CALIBAN; K. SATHIAN; C. M. BUETEFISCH. *Emory Univ., Emory Univ., Emory Univ., Atlanta VAMC.*

4:00 EE17 **62.12** Association of aerobic fitness, physical activity and motor skills with basal ganglia volume in adolescents' brain. I. RUOTSALAINEN*; V. RENVALL; R. PASANEN; H. J. SYVÄOJA; T. TAMMELIN; T. PARVIAINEN. *Univ. of Jyväskylä, Aalto Univ. Sch. of Sci., Aalto Univ. Sch. of Sci., LIKES Res. Ctr. for Physical Activity and Hlth.*

1:00 EE18 **62.13** Mapping the human homunculus with receptive field analysis. W. SCHELLEKENS*; N. PETRIDOU; N. F. RAMSEY. *UMC Utrecht, Brain Ctr. Rudolf Magnus, Univ. of Utrecht.*

2:00 EE19 **62.14** ● Focal source localization of movement-related potentials with tripolar electroencephalography in realistic head models. C. TOOLE*; R. BARTELS; P. STEELE; J. DICECCO; W. G. BESIO. *Univ. of Rhode Island, CREmedical, Univ. of Rhode Island.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 EE20 **62.15** Integration of force and movement representation in proprioceptive area 2 of primary somatosensory cortex. R. H. CHOWDHURY*; B. M. LONDON; J. SOMBECK; C. VERSTEEG; T. TOMLINSON; L. E. MILLER. *Northwestern Univ., Northwestern Univ., Northwestern Univ., Shirley Ryan AbilityLab.*

4:00 EE21 **62.16** ● Next-generation volumetric musculoskeletal model for motor neuroscience. M. HIRASHIMA*. *Natl. Inst. of Information and Communications Tech.*

1:00 EE22 **62.17** Age effects on smooth pursuit arm movement. H. YOSHIDA*; T. HONDA; A. YOZU; J. LEE; S. KAKEI; K. TOSHIYUKI. *Tokyo Univ. of Agr. and Technol., Tokyo Metropolitan Inst. of Med. Sci., The Univ. of Tokyo Hosp., Ibaraki Prefectural Univ. of Hlth. Sci.*

POSTER

063. Posture and Gait: Injury and Disease

Theme E: Motor Systems

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 EE23 **63.01** Applying abrupt versus gradual pelvic assistance force to improve gait in individuals with post-stroke hemiparesis. C. HSU; W. DEE; M. WU*. *Shirly Ryan Abilitylab, Shirley Ryan Ability Lab., Northwestern Univ. - Chicago.*

2:00 EE24 **63.02** Dual-task gait speed while performing a visuospatial cognitive task is strongly related to gaze behavior during an obstacle crossing task for community-living individuals post-stroke. L. A. ZUKOWSKI*; J. A. FELD; A. DREWS; P. PLUMMER. *Univ. of North Carolina at Chapel Hill, Univ. of North Carolina at Chapel Hill.*

3:00 EE25 **63.03** The capacity to voluntarily modify asymmetry and reduce metabolic cost in people post-stroke depends on the direction of baseline asymmetry. J. M. FINLEY*; L. TREJO; N. SANCHEZ. *USC.*

4:00 EE26 **63.04** The effects of a 12-week exercise and cognitive intervention on gait, posture and Transcranial Magnetic Stimulation plasticity measures in individuals post stroke - an ongoing study. J. GOMES-OSMAN*; K. CAI; N. CASSIDY; J. RICE; D. CABRAL; S. ALDRAIWIESH; K. SARHADI. *Univ. of Miami, Univ. of Miami, Univ. of Miami Miller Sch. of Med., Univ. Estadual de Ciencia da Saude de Alagoas.*

1:00 EE27 **63.05** Stand-alone application of transcranial direct current stimulation: Does it speed up gait initiation in people after stroke? M. J. COPPENS*; P. HERMANS; J. NONNEKES; A. C. H. GEURTS; V. WEERDESTEYN. *Radboud Univ. Med. Ctr., Donders Inst. for Brain, Cognition and Behaviour.*

2:00 EE28 **63.06** Do physical performance measures of posture and gait predict quality of life and community reintegration after stroke? S. GARLAND*; T. D. IVANOVA; D. BRYANT; B. BROUWER. *Univ. of Western Ontario, Western Univ., Queens Univ.*

3:00 EE29 **63.07** Immediate effect of mental singing while walking on gait disturbance in hemiplegic stroke patients. S. LEE*; H. SEOK; J. KIM. *Soonchunhyang Univ. Hosp.*

4:00 FF1 **63.08** Influences of a single session task-specific perturbation-based training on compensatory stepping response can contribute to reduced risk of falling in stroke survivors. M. NEVISIPOUR*; M. GRABINER; C. HONEYCUTT. *Arizona State Univ., Univ. of Illinois at Chicago.*

1:00 FF2 **63.09** Locomotor adaptation in individuals with stroke using body weight support on a treadmill versus over the ground. A. M. BARELA*; G. L. GAMA; D. V. RUSSO, Júnior; D. S. SANTANA; M. L. CELESTINO; J. A. BARELA. *Univ. Cruzeiro Do Sul, Univ. Estadual Paulista.*

2:00 FF3 **63.10** Corticospinal efficacy to the medial gastrocnemius predicts gait function following stroke. C. PATTEN*; V. L. LITTLE; C. L. BANKS; T. E. MCGUIRK. *Univ. of Florida, Malcom Randall VAMC, Univ. of Florida.*

3:00 FF4 **63.11** Beta frequency corticomuscular coherence is reduced during walking in people with Parkinson's disease. L. ROEDER*; T. W. BOONSTRA; S. S. SMITH; I. B. STEWART; G. K. KERR. *Queensland Univ. of Technol., Univ. of New South Wales, Univ. of Queensland.*

4:00 FF5 **63.12** ● Cortical contributions to gait in people with Parkinson's disease and Frontal Gait Disorder. P. CARLSON-KUHTA*; M. L. SINGER; O. MIRANDA DOMINGUEZ; I. ARPAN; M. N. AHMED; D. A. FAIR; F. B. HORAK; L. A. KING. *Oregon Hlth. & Sci. Univ., Oregon Hlth. & Sci. Univ., VA Portland Hlth. Care Syst.*

1:00 FF6 **63.13** Evaluating postural instability using treadmill perturbation in Parkinson's disease. C. LU*; E. L. TWEDELL; K. H. LOUIE; S. L. AMUNDSEN HUFFMASTER; M. N. PETRUCCI; C. D. MACKINNON; S. E. COOPER. *Univ. of Minnesota, Univ. of Minnesota.*

2:00 FF7 **63.14** Cortical correlates of sensory augmentation to alleviate freezing of gait. M. MANCINI*; G. BOOTH; L. A. KING; J. QUINN. *Oregon Hlth. and Sci. Univ., Oregon Hlth. and Sci. Univ.*

3:00 FF8 **63.15** Frequency-dependent lower-limb coordination during standing is altered in Parkinson's disease. W. BOEHM*; K. GRUBEN, 53706; K. DOYLE-GREENE; L. WINTER. *Univ. of Wisconsin Madison, Univ. of Wisconsin-Madison, Justus-Liebig-University.*

4:00 FF9 **63.16** Postural control deficits in aging Fragile X mental retardation 1 (FMR1) gene premutation carriers. Z. WANG*; P. KHEMANI; M. W. MOSCONI. *Univ. of Kansas, Univ. of Kansas, Univ. of Kansas Med. Sch., Univ. of Texas Southwestern Med. Ctr.*

1:00 FF10 **63.17** Relation between cognitive function, walking ability and strength for adults with autism spectrum disorder. C. N. ARMITANO*; T. KOZIKOWSKI; S. I. DEUTSCH; M. R. URBANO; S. NEUMANN; H. CARACCI; S. MORRISON. *Old Dominion Univ., Eastern Virginia Med. Sch., Children's Hosp. of the King's Daughters.*

2:00 FF11 **63.18** Postural strategies utilized by lower limb prosthesis users and controls while dual-tasking. C. L. HOWARD*; B. PERRY; J. W. CHOW; C. WALLACE; D. S. STOKIC. *Methodist Rehabil. Ctr., Methodist Rehabil. Ctr.*

3:00 FF12 **63.19** Segmental stabilizing strategies used by cerebral palsy with and without visual dependence during upright stance. Y. YU*; R. T. LAUER; C. A. TUCKER; E. A. KESHNER. *Temple Univ., Shriners Hosp. for Children.*

4:00 FF13 **63.20** Older adults with Type 2 Diabetes classified as fallers have slower reactions, decreased strength, and impaired postural stability compared to non-fallers. R. SIMMONS*; S. COLBERG; S. MORRISON. *Old Dominion Univ., Old Dominion Univ., Old Dominion Univ.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

1:00 FF14 **63.21** Acute anxiety may alter dynamic stability in healthy, young adults during dual-task conditions. A. N. BICKNELL*; A. C. LAING; J. S. FRANK. *Univ. of Waterloo.*

2:00 FF15 **63.22** The effect of music on movement and anxiety. M. DUNN; J. L. JENSEN; D. GUPTA; J. BARTHOLOMEW; L. MAGUIRE; L. D. ABRAHAM*. *Univ. of Texas at Austin, George Mason Univ.*

POSTER

064. Posture and Gait: Healthy Development and Aging

Theme E: Motor Systems

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 FF16 **64.01** The Association of white matter integrity and gait speed during dual-tasking among community-dwelling elderly adults. S. A. CASTRO-CHAVIRA*; T. R. VANGBERG; M. M. GORECKA; O. VASYLENKO; K. WATERLOO; C. RODRÍGUEZ-ARANDA. *Univ. of Tromsø, Univ. Hosp. North Norway.*

2:00 FF17 **64.02** Frequency-dependent lower-limb coordination during standing is altered with age. K. G. GRUBEN*; A. DUTT-MAZUMDER. *Univ. Wisconsin, Med. Univ. of South Carolina.*

3:00 FF18 **64.03** Novel divided-attention stepping intervention improves gait and modulates motion perception during fMRI in balance-impaired older adults. S. J. LEACH*; A. J. COLLEGIO; E. COSTELLO; S. SHOMSTEIN. *George Washington Univ., George Washington Univ.*

4:00 FF19 **64.04** Correspondence of physical activity between wrist and ankle accelerometers: associations with age and BMI. V. RAMIREZ*; E. SHOKRI-KOJORI; E. A. CABRERA; C. E. WIERS; D. TOMASI; G. WANG; N. D. VOLKOW. *NIH, NIH/NIDA.*

1:00 FF20 **64.05** Effect of visual dependence and task loads on the Timed Up and Go test. R. ALMAJID*; E. A. KESHNER; E. V. VASUDEVAN; W. WRIGHT; C. TUCKER. *Temple Univ., Temple Univ., Stony Brook Univ.*

2:00 FF21 **64.06** Motor prediction modulates protective balance and startle responses to sudden drop perturbations in older adults. O. P. SANDERS*, III; H. HSIAO; H. SINGH; D. N. SAVIN JR; R. A. CREATH; M. W. ROGERS. *Univ. of Maryland Baltimore.*

3:00 FF22 **64.07** Can you walk and chew gum? The effect of chewing gum on gait dynamics in young and older adults. B. S. SAMULSKI*; S. MORRISON; J. PREBOR. *Old Dominion Univ.*

4:00 GG1 **64.08** The effects of internal versus external rhythmic cueing on gait performance in healthy adults. E. C. HARRISON*; M. E. MCNEELY; A. P. HORIN; G. M. EARHART. *Washington Univ. In St. Louis, Washington Univ. in St. Louis, Washington Univ. in St. Louis, Washington Univ. Sch. of Med.*

1:00 GG2 **64.09** Transcranial direct current stimulation (tDCS) modulates hip abductor maximal isometric performance. M. INACIO*; R. CREATH; G. WITTENBERG; M. W. ROGERS. *Univ. of Maryland Sch. of Med.*

2:00 GG3 **64.10** Is functional organization of the motor cortex associated with timing of anticipatory postural adjustments in healthy young and older adults? J. ARMOUR SMITH*; A. ALBISHI; N. AHMED; B. E. FISHER. *Chapman Univ., USC, Chapman Univ.*

3:00 GG4 **64.11** The characteristic of gait in children during dual-task conditions. C. W. CHAU*; L. BRICK; J. CRUMLISH; C. DELANEY; D. SANCILIO. *Nazareth Col. of Rochester.*

4:00 GG5 **64.12** Characterization of sensory function associated with idiopathic toe walking in children. V. W. CHU*. *Virginia Commonwealth Univ.*

POSTER

065. CPGs: Neuromodulation, Sensory Input, and Descending Control

Theme E: Motor Systems

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 GG6 **65.01** A neural substrate involved in stopping locomotion. S. GRÄTSCH*; O. DEMERS; F. AUCLAIR; D. VEILLEUX; A. BÜSCHGES; R. DUBUC. *Univ. De Montreal, Univ. du Québec à Montréal, Univ. zu Köln.*

2:00 GG7 **65.02** Dopaminergic modulation of odor-evoked motor commands in lampreys. P. BEAUSEJOUR*; C. NGOVANDAN; F. AUCLAIR; D. VEILLEUX; G. DAGHFOUS; B. ZIELINSKI; R. DUBUC. *Univ. de Montréal, Univ. du Québec à Montréal, Univ. Windsor.*

3:00 GG8 **65.03** Voltage-sensitive dye (VSD) recordings provide insights into the differential modification of spike frequency and burst timing that underlies L-DOPA mediated motor pattern selection in the feeding circuit of *Aplysia*. R. M. COSTA*; C. L. NEVEU; R. HOMMA; S. NAGAYAMA; D. A. BAXTER; J. H. BYRNE. *The Univ. of Texas Hlth. Sci. Ctr. At H.*

4:00 GG9 **65.04** Interneuronal control of extrinsic modulation in the feeding system of Lymnaea. D. PRICE*; M. CROSSLEY; G. KEMENES; P. BENJAMIN; T. NOWOTNY; I. KEMENES. *Univ. of Sussex.*

1:00 GG10 **65.05** Modulation of the pyrokinin-elicited gastric mill rhythm by an endogenous peptide hormone and a proprioceptive neuron. D. J. POWELL*; E. MARDER; M. P. NUSBAUM. *Brandeis Univ., Univ. of Pennsylvania Perelman Sch. of Med.*

2:00 GG11 **65.06** The same microcircuit responds differently to the same circulating hormones when generating two different motor patterns. M. P. NUSBAUM*; A. P. COOK. *Univ. of Pennsylvania Perelman Sch. of Med.*

3:00 GG12 **65.07** State-dependent sensory actions on network inputs. D. M. BLITZ*. *Miami Univ.*

4:00 GG13 **65.08** Locomotor speed control circuits in the caudal brainstem. P. CAPELLI; C. PIVETTA; M. ESPOSITO; S. ARBER*. *Biozentrum, Univ. Basel, Friedrich Miescher Inst. for Biomed. Res.*

1:00 GG14 **65.09** Spinal neurons mediating effect of epidural stimulation of the spinal cord on locomotor network. T. DELIAGINA; P. E. MUSIENKO; O. V. GORSKII; V. F. LYALKA; N. MERKULYEVA; Y. P. GERASIMENKO; P. V. ZELENIN*. *Karolinska Inst., Pavlov Inst. of Physiol., St Petersburg State Univ.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
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* Indicates abstract's submitting author

2:00 GG15 **65.10** Spinal cholinergic interneurons differentially control motoneuron excitability and alter the locomotor network operational range. M. BERTUZZI*; K. AMPATZIS. *Karolinska Institutet.*

3:00 GG16 **65.11** Ih current in excitatory descending interneurons of the Xenopus tadpole spinal swim network. L. D. PICTON; H. ZHANG*; K. T. SILLAR. *Univ. of St Andrews, Univ. of Edinburgh, Univ. St Andrews.*

4:00 GG17 **65.12** Altering swimming speed by the spinal motor circuit of Xenopus larvae. F. JACQUOT*; H. ZHANG. *Ctr. For Neuroregeneration, Univ. of Edinburgh.*

1:00 GG18 **65.13** Cholinergic modulation of spinal motoneurons and locomotor control networks in mice. F. NASCIMENTO; L. R. B. SPINDLER; G. B. MILES*. *Univ. St Andrews.*

2:00 GG19 **65.14** Differential role of cerebral higher-order interneurons in the removal of default state inhibition and the generation of ingestive motor programs in *Aplysia.* C. G. EVANS*; J. JING; K. R. WEISS; E. CROPPER. *Icahn Sch. of Med. At Mount Sinai, Nanjing Univ.*

3:00 GG20 **65.15** ● Chemogenetic activation of parapyramidal brainstem neurons to evaluate motor consequences. K. E. ARMSTRONG*; M. NAZZAL; X. CHEN; K. STECINA; L. M. JORDAN. *Univ. of Manitoba, Univ. of Manitoba, Univ. of Manitoba, Univ. Manitoba.*

4:00 GG21 **65.16** Excitatory signal from brainstem neurons that initiates locomotion. L. HSU*; O. KIEHN. *Karolinska Inst.*

1:00 GG22 **65.17** Frequency dependent modulation of stimulus encoding by antidromic action potentials. M. DEMAEGD*; W. STEIN. *Illinois State Univ.*

POSTER

066. Vocal Learning Across Avian Models

Theme F: Integrative Physiology and Behavior

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 GG23 **66.01** Characterization of neuronal dynamics in a variability generating circuit. G. F. LYNCH*; H. S. SOHAL; E. S. BOYDEN; M. S. FEE. *MIT, Feinstein Inst. for Med. Res., MIT, Massachusetts Inst. Tech.*

2:00 GG24 **66.02** Quantification of single unit activity related to head and body movements in the intermediate arcopallium of the zebra finch. M. E. STETNER*; M. S. FEE. *MIT, Massachusetts Inst. Tech.*

3:00 GG25 **66.03** Neural sequences underlying the rapid learning of new syllables in juvenile zebra finches. E. L. MACKEVICIUS*; N. DENISSENKO; M. S. FEE. *MIT, Massachusetts Inst. Technol., Massachusetts Inst. Tech.*

4:00 GG26 **66.04** Auditory experience changes neuronal intrinsic physiology. M. T. ROSS*; D. FLORES; R. BERTRAM; F. JOHNSON; R. L. HYSON. *Florida State Univ., Florida State Univ.*

1:00 GG27 **66.05** Syllable sequence variability in a distributed network model for the control of singing in songbirds. D. GALVIS*; W. WU; R. L. HYSON; F. JOHNSON; R. BERTRAM. *Florida State Univ. Dept. of Mathematics, Florida State Univ., Florida State Univ., Florida State Univ.*

2:00 GG28 **66.06** Graceful degradation of song following progressive ablation of songbird vocal-premotor cortex. D. W. SHAUGHNESSY*; R. BERTRAM; W. WU; R. L. HYSON; F. JOHNSON. *Florida State Univ., Florida State Univ., Florida State Univ.*

3:00 GG29 **66.07** ▲ Left-lateralized brain activity is necessary for vocal learning in zebra finches. A. H. PAGLIARO; H. C. PIRISTINE; J. S. LORD; S. M. H. GOBES*. *Wellesley Col.*

4:00 GG30 **66.08** Early auditory experience modifies neuronal firing properties in zebra finch auditory cortex. T. KUDO*; Y. YAZAKI-SUGIYAMA. *OIST.*

1:00 GG31 **66.09** Representation of self-generated vocalizations and vocal models in the songbird brain. M. BEN-TOV*; M. G. KEARNEY; S. PETERS; S. NOWICKI; R. D. MOONEY. *Duke Univ.*

2:00 GG32 **66.10** The effects of phasic excitability on neural selectivity and tolerance for zebra finch song. M. BJORING*; C. D. MELIZA. *Univ. of Virginia Dept. of Psychology.*

3:00 GG33 **66.11** Spontaneously firing neurons in hummingbird vocal control nucleus VA, analogous to songbird RA. D. J. PERKEL*; C. A. WILLIAMS; K. E. MILLER; P. V. LOVELL; C. V. MELLO. *Univ. of Washington, Univ. of Washington, Univ. of Washington, Oregon Hlth. and Sci. Univ. Sch. of Med.*

4:00 HH1 **66.12** Population activity in the song premotor nucleus RA exerts bidirectional control on pitch and amplitude of learned song syllables. C. J. CHEUNG*; M. N. MILLER; M. S. BRAINARD. *Please Select A Prefix, UCSF, UCSF Ctr. For Integrative Neurosci.*

1:00 HH2 **66.13** Regularities in zebra finch song beyond the repeated motif. J. HYLAND BRUNO*; O. TCHERNICHOVSKI. *Hunter Col., Hunter Col.*

2:00 HH3 **66.14** HVC damage reduces song stereotypy in adult male Bengalese finch song. C. M. URBANO*; C. FAVALORO; J. DUBOIS; M. WHITTINGTON; J. O. TAYLOR; B. G. COOPER. *Texas Christian Univ.*

3:00 HH4 **66.15** Delayed auditory feedback in zebra finches rapidly induces changes in macro-scale song features. G. FETTERMAN*; D. MARGOLIASH. *Univ. of Chicago, Univ. of Chicago, Univ. of Chicago.*

1:00 DP07/HH5 **66.16** (Dynamic Poster) Population calcium imaging of vocal-motor HVC neurons in singing birds. V. K. DALIPARTHI*; T. F. ROBERTS. *Univ. of Texas Southwestern Med. Ctr.*

1:00 HH6 **66.17** Calcium signals of order, syntax, and action in canary (serinus canaria) HVC. Y. COHEN*; J. SHEN; D. SEMU; D. P. LEMAN; W. A. LIBERTI; N. L. PERKINS; T. J. GARDNER. *Boston Univ.*

POSTER

067. Neural Control of Social Interactions: Sexual Behavior

Theme F: Integrative Physiology and Behavior

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 HH7 **67.01** ▲ Mating-induced c-fos in infralimbic prefrontal cortex is higher in sexually experienced than naive female rats. S. H. MEERTS*; M. R. ARNOLD, 55057; G. BIERLEIN-DE LA ROSA. *Carleton Col., Carleton Col.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

2:00 HH8 **67.02** Cohabitation under enhanced D2-type activity with receptive females sensitizes olfactory-induced Fos-IR in intact, but not in early-gonadectomized male rats. M. BARRADAS*; M. B. TECAMACHALTZI-SILVARÁN; V. X. DÍAZ-ESTRADA; D. HERRERA-COVARRUBIAS; L. I. GARCIA; P. CARRILLO; J. MANZO; G. A. CORIA-AVILA. *Univ. Veracruzana, Ctr. De Investigaciones, Univ. Veracruzana, Univ. Veracruzana, Univ. Veracruzana, Ctr. de Investigaciones Cerebrales, Univ. Veracruzana, Univ. Veracruzana, Univ. Veracruzana.*

3:00 HH9 **67.03** Sexual experience induces spine-specific changes in pyramidal neurons of medial posterodorsal amygdala and CA2 hippocampal area of male mice. M. GIOVENARDI*; V. LAZZARI; R. BECKER; A. RASIA FILHO. *UFCSPA.*

4:00 HH10 **67.04** Rapid changes in preoptic estradiol concentration during male sexual behavior. M. DE BOURNONVILLE; C. DE BOURNONVILLE; G. F. BALL; J. BALTHAZART; C. A. CORNIL*. *Univ. of Liege, Univ. of Massachusetts Amherst, Univ. of Maryland.*

1:00 HH11 **67.05** Preference for the same receptive female shown by a group of male rats in a multiple partner paradigm. J. OLAYO-LORTIA*; A. CRUZ-BENITES; A. MORALES-OTAL; A. FERREIRA-NUÑO. *Univ. Autonoma Metropolitana - Iztapalapa.*

2:00 HH12 **67.06** ▲ Effects of developmental aromatase inhibition, metabolism suppression, and endocrine disruption on parturition and early postnatal neuromuscular function in the Norway rat (Rattus norvegicus). G. M. LANGE*; O. BISHOP; J. HACKER; M. WINDY; S. HOLIHAN. *Saginaw Valley State Univ.*

3:00 HH13 **67.07** The expression of mu opioid receptor 1 (OPRm1) in different brain areas of male rats varies depending on the time of sacrifice after they copulated. M. BEDOS; A. ANTARAMIAN; A. GONZALEZ-GALLARDO; R. G. PAREDES*. *Inst. De Neurobiologia UNAM.*

4:00 HH14 **67.08** Exploring the rewarding effect of sexual contacts in the partner preference of the rat. A. MORALES-OTAL*; J. OLAYO-LORTIA; A. CRUZ-BENITES; A. FERREIRA-NUÑO. *Univ. Autonoma Metropolitana, Univ. Autonoma Metropolitana, Univ. Autonoma Metropolitana.*

1:00 HH15 **67.09** ▲ Effects of a bee mixture on sexual behavior and testosterone levels in rabbits. J. L. MENDOZA-ESCALONA*; P. VERGARA-ARAGON; M. PIZARRO-RODAS; B. I. MEZA AUPART; T. NERI-GOMEZ; R. B. GARCIA. *Univ. Nacional Autónoma De México, Facultad De Medicina, Univ. Nacional Autonoma De Mexico, Univ. Nacional Autónoma De México, UNAM, UNAM, Fac Quimica.*

2:00 HH16 **67.10** Chronic intermittent hypoxia advances hormonal aging and induces sexual dysfunction in male rats: Implications for Parkinson's related non-motor symptoms. R. L. CUNNINGHAM*; D. A. SCHRIEHOFER; M. ANDERSON. *Univ. North Texas Hlth. Sci. Ctr., Univ. North Texas Hlth. Sci. Ctr.*

3:00 HH17 **67.11** Involvement of glutamatergic medial amygdala neurons in ejaculation in male rats. P. T. HUIJGENS*; R. HEIJKOOP; E. M. S. SNOEREN. *UiT The Arctic Univ. of Norway.*

4:00 HH18 **67.12** Investigation of glutamatergic circuitry underlying copulatory reward of sexual behavior in female Syrian hamsters. K. M. MOORE*; R. L. MEISEL. *Univ. of Minnesota.*

1:00 HH19 **67.13** Effect of acute LPS treatment on juvenile play behavior and adult sexual behavior. Y. Z. LEÓN-AHUMADA; V. X. DÍAZ-ESTRADA; M. BARRADAS; D. HERRERA-COVARRUBIAS*; P. CARRILLO; L. I. GARCIA; J. MANZO; G. A. CORIA-AVILA. *Univ. Veracruzana, Univ. Veracruzana, Univ. Veracruzana, Univ. Veracruzana, Univ. Veracruzana, Univ. Veracruzana.*

2:00 HH20 **67.14** Identifying neural bases of social behavior with CRISPR/Cas9 and transgenesis in the cichlid Astatotilapia burtoni. S. A. JUNTTI*; P. MOURRAIN; R. D. FERNALD. *Univ. of Maryland, Stanford Univ., Stanford Univ.*

3:00 HH21 **67.15** ▲ Dopamine receptor D1 is in close proximity with progesterone receptor and Src kinase complex to mediate progesterone signaling in the arcuate nucleus of the hypothalamus. M. FERI*; R. TOMINNA; K. SINCHAK. *California State Univ. Long Beach, California State University, Long Beach, California State University, Long Beach.*

4:00 HH22 **67.16** ▲ Subsets of arcuate nucleus β-endorphin neurons co-express progesterone receptor, dopamine receptor D1, and Src family kinase. M. ESKANDER*; N. KHAN; J. RAZON; T. CHUON; K. SINCHAK. *California State Univ. Long Beach.*

1:00 HH23 **67.17** ▲ Membrane impermeable estradiol (E-Biotin) rapidly facilitates lordosis through G protein-coupled estrogen receptor-1 (GPER). S. M. CHOKR*; R. TOMINNA; K. SINCHAK. *California State Univ. Long Beach.*

2:00 HH24 **67.18** Arcuate nucleus-specific chemogenetic activation of the lordosis-regulating circuit. L. M. RUDOLPH*; T. M. CARDINAL; P. E. MICEVYCH. *Univ. of California Los Angeles.*

3:00 HH25 **67.19** ▲ Comparision of female´s sexual behavior in the paced and non-paced mating paradigms using two different rat models of diabetes. A. K. HERNÁNDEZ*; D. REBOLLEDO SOLLERIO; A. FERNÁNDEZ-GUASTI. *Ctr. De Investigación Y Estudios Avanzados.*

4:00 HH26 **67.20** Conditioned sexual arousal towards infants in adult male rats: A model of learned pedophilia? R. RAMIREZ-RODRIGUEZ; D. PERUSQUÍA-CABRERA; V. X. DÍAZ-ESTRADA; D. HERRERA-COVARRUBIAS; P. CARRILLO; L. I. GARCIA; J. MANZO; G. A. CORIA-AVILA*. *Univ. Veracruzana, Univ. Veracruzana, Univ. Veracruzana, Univ. Veracruzana, Univ. Veracruzana, Univ. Veracruzana.*

1:00 HH27 **67.21** Cortisol, DHEA-S and eyeblink as measures of shock-induced anxiety during neutral and sexual stimuli. L. D. HAMILTON*; K. R. PETERS; A. M. RUSSELL. *Mount Allison Univ.*

POSTER

068. Stress-Modulated Pathways: Cortex to Brainstem

Theme F: Integrative Physiology and Behavior

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 HH28 **68.01** Personality traits, fitness, and sex impact on psychobiological response to exhaustive acute exercise in adults. K. NOWAK*; K. E. CHAPPELLE; A. NEFF; P. R. BURGHARDT. *Wayne State Univ., Wayne State Univ.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

2:00 HH29 **68.02** Anterior cingulate cortex glutamate response to emotional stimuli is influence by aerobic fitness. P. R. BURGHARDT*; K. E. CHAPPELLE; K. NOWAK; A. NEFF; D. KHATIB; J. A. STANLEY. *Wayne State Univ., Wayne State Univ., Wayne State Univ. Sch. Med.*

3:00 HH30 **68.03** Neuroanatomical correlates of socioeconomic status in young adults: Findings from the Human Connectome Project. B. S. LAST*; S. T. JENSEN; M. J. FARAH. *Univ. of Pennsylvania, The Univ. of Pennsylvania.*

4:00 HH31 **68.04** Neurophysiology of aggression in PTSD. S. E. SMERIN*; H. LI. *F. Edward Hébert Sch. of Medicine, USU.*

1:00 HH32 **68.05** Gut colonization augments the sympathoadrenal capacity to respond to stress. B. B. NANKOVA*; P. GIRI; F. HU; E. F. LA GAMMA. *New York Med. College, BCHP, Maria Fareri Children's Hosp. at Westchester Med. Center, NYMC, Valhalla, NY, New York Med. College, Boston Children's Hlth. Physicians, Maria Fareri Children's Hosp.*

2:00 HH33 **68.06** Zona incerta bi-directionally modulates defense behaviors. X. CHOU*; X. WANG; Z. ZHANG; B. ZINGG; J. HUANG; L. MESIK; W. ZHONG; H. W. TAO; L. I. ZHANG. *Zilkha Neurogenetic Inst., USC, Southern Med. Univ., USC, USC.*

3:00 HH34 **68.07** Ultrastructural analysis of estrogen receptor alpha, corticotropin-releasing factor type 1 receptor and norepinephrine in female locus coeruleus. B. A. REYES*; M. URQUHART; J. ZHANG; T. A. MILNER; E. J. VAN BOCKSTAELE. *Drexel Univ., Weill Cornell Med.*

4:00 HH35 **68.08** HPA axis and serotonin (5-HT) 1A receptor responses to repeated restraint stress in male and female rats. T. J. PHILIPPE*; A. FERLAND; J. CHANG; Y. YANG; V. VIAU. *Univ. of British Columbia.*

1:00 HH36 **68.09** Kappa opioid receptors in dorsal raphe increase aggression in California mice. E. C. WRIGHT*; I. E. DOIG; C. JAMARILLO; A. LAMAN-MAHARG; B. C. TRAINOR. *UC Davis, Dept. of Psychology, UC Davis.*

2:00 II1 **68.10** ▲ Diurnal variation of the effect of an acute stressor on an anxiety-like behavior. J. R. RAVENEL*; R. A. DAUT; L. K. FONKEN; L. R. WATKINS; S. F. MAIER. *Univ. of Colorado.*

3:00 II2 **68.11** Neurosteroid-producing inputs to estrogen receptor-bearing lateral habenular neurons. L. E. EIDEN*; V. S. HERNANDEZ; L. ZHANG. *NIH, NIMH-IRP, Natl. Autonomous Univ. of Mexico.*

4:00 II3 **68.12** Circadian expression of tryptophan hydroxylase 2 in the dorsal raphe nuleus and the median raphe nucleus is altered by dysregulated glucocorticoid rhythms. N. M. REYES PRIETO*; Y. KERSHAW; B. BENNET-LLOYD; J. E. HASSELL, Jr; T. GRACIE; C. A. LOWRY; B. L. CONWAY-CAMPBELL; S. L. LIGHTMAN. *Univ. of Bristol, Univ. of Colorado Boulder.*

1:00 II4 **68.13** A role for galanin transmission in central respiratory chemoreception following acute and chronic respiratory challenge. N. N. KUMAR*; A. S. DERELI; D. A. BAYLISS; N. M. JONES. *Univ. of New South Wales, Univ. of Virginia.*

POSTER

069. Stress-Modulated Pathways: Behavior and Cognition

Theme F: Integrative Physiology and Behavior

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 II5 **69.01** Examination of cortisol receptor and endogenous opioid expression in a primate model of self injurious behavior. M. JACKSON*; B. FORET; K. M. SMITH; J. A. FONTENOT; E. C. ROMERO; J. A. SMITH; D. L. HASSELSCHWARTZ. *Univ. of Louisiana At Lafayette, UL at Lafayette, Univ. of Louisiana At Lafayette, New Iberia Res. Ctr.*

2:00 II6 **69.02** Multimodal characterization of the stria terminalis and its bed nucleus: Childhood maltreatment-related phenotypes of mood and anxiety vulnerability. L. BANIHASHEMI*; C. W. PENG; T. D. VERSTYNEN; M. L. WALLACE; H. AIZENSTEIN; A. GERMAIN. *Univ. of Pittsburgh, Univ. of Pittsburgh Med. Ctr., Carnegie Mellon Univ., Univ. of Pittsburgh.*

3:00 II7 **69.03** Sex- and age-dependent effects of orexin 1 receptor blockade on open field behavior and neuronal activity. S. R. BLUME*; H. NAM; S. LUZ; S. BHATNAGAR. *Children's Hosp. of Philadelphia Res. Insti, Univ. Pennsylvania, Children's Hosp Philadelphia.*

4:00 II8 **69.04** Orexins and sex differences in stress-induced cognitive and sleep deficits. L. GRAFE*; S. LUZ; S. BHATNAGAR. *Children's Hosp. of Philadelphia, Univ. Pennsylvania, Children's Hosp Philadelphia.*

1:00 II9 **69.05** Uncoupling the sensory and affective components of chronic neuropathic pain. T. PARETKAR*; E. DIMITROV. *Rosalind Franklin Univ. of Med. and Scien, Rosalind Franklin Univ. of Med. and Scien.*

2:00 II10 **69.06** The pituitary adenylate cyclase-activated polypeptide (PACAP)/PAC1 receptor system of the central amygdala mediates the behavioral outcomes of chronic social defeat stress in rats. M. SEIGLIE*; C. VELAZQUEZ-SANCHEZ; P. COTTONE; V. SABINO. *Boston Univ. Sch. of Med.*

3:00 II11 **69.07** Chemogenetic silencing of crf neurons in paraventricular nucleus partially restores homeostatic responses to chronic sleep restriction. S. KUMAR*; K. HSIEH; D. MCGINTY; R. SZYMUSIAK. *Veteran Affairs Med. Ctr., UCLA, UCLA, UCLA.*

4:00 II12 **69.08** 5-HT neurons regulate fear learning by modulating basolateral amygdala circuits. A. SENGUPTA*; M. BOCCHIO; Z. A. MCELLIGOTT; T. KASH; M. CAPOGNA; D. M. BANNERMAN; T. SHARP; A. HOLMES. *Natl. Inst. on Alcohol Abuse and Alcoholism, Univ. of Oxford, Inst. Natl. de la Santé et de la Recherche Médicale, Univ. of North Carolina, Chapel Hill, Univ. of Aarhus.*

1:00 II13 **69.09** Anxiolytic actions of glucocorticoid receptor knockdown in bed nucleus of the stria terminalis projecting neurons in the rat. R. D. MOLONEY*; J. R. SCHEIMANN; P. MAHBOD; B. A. PACKARD; R. L. MORANO; Y. HU; J. P. HERMAN. *Univ. of Cincinnati, Cincinnati Children's Hosp. Med. Ctr.*

2:00 II14 **69.10** Anxiolytic effects of orexin 2 receptors during stressful social interaction. C. D. STATON; J. D. YAEGER; F. HAROUN; D. D. KHALID; T. C. SEIDEL; T. R. SUMMERS; P. J. RONAN; C. H. SUMMERS*. *Univ. of South Dakota, VA Research/USD Sanford Sch. of Med., Univ. of South Dakota.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 II15 **69.11** ▲ Effects of social dominance on defeat-induced neural activity in a ventral hippocampus-to-basolateral amygdala circuit. K. S. BRESS*; B. N. DULKA; M. A. COOPER. *Univ. of Tennessee.*

4:00 II16 **69.12** Short-term alcohol consumption alters stress susceptibility and BDNF activity in in a stressor-dependent and brain region-specific manner. A. GRIZZELL; J. LINDSAY; B. N. DULKA; R. A. PROSSER*; M. A. COOPER. *Univ. of Tennessee, Univ. of Tennessee, Univ. of Tennessee.*

1:00 II17 **69.13** Dominance relationships in Syrian hamsters modulate defeat-induced neural activity in an infralimbic cortex-to-basolateral amygdala circuit. B. N. DULKA*; K. S. BRESS; M. A. COOPER. *Univ. of Tennessee.*

2:00 II18 **69.14** Cotinine confers a proactive coping strategy during and normalizes anxiety following acute social defeat. A. GRIZZELL*; J. H. LINDSAY; H. JANG; R. A. PROSSER; V. ECHEVERRIA; M. A. COOPER. *Univ. of Tennessee, Univ. of Tennessee, Univ. San Sebastián, Bay Pines VA Healthcare S.*

3:00 II19 **69.15** ▲ Sex differences in the effects of social status on defeat-induced social avoidance in Syrian hamsters. A. L. LOEWEN; A. V. CAMPBELL; B. N. DULKA; J. A. GRIZZELL; M. A. COOPER*. *Univ. of Tennessee.*

1:00 DP08/II20 **69.16** (Dynamic Poster) Encoding the relationship between anxiety-related behaviors and nociceptin neurons of the bed nucleus of the stria terminalis. R. L. UNG*; J. RODRIGUEZ-ROMAGUERA; H. NOMURA; V. M. K. NAMBOODIRI; J. M. OTIS; J. ROBINSON; S. L. RESENDEZ; J. A. MCHENRY; L. E. H. ECKMAN; O. KOSYK; H. E. VAN DEN MUNKHOF; P. ZHOU; L. PANINSKI; T. KASH; M. R. BRUCHAS; G. D. STUBER. *Univ. of North Carolina at Chapel Hill, Columbia Univ., Univ. of North Carolina at Chapel Hill, Washington Univ.*

1:00 II21 **69.17** ▲ Persistent pain intensifies the recall of consolidated fear memories. E. DIMITROV*. *RFUMS.*

2:00 II22 **69.18** High-fat diet effects on behavioral, neuronal activity, central inflammation and cutaneous temperature in male Wistar rats subjected to behavioral paradigms. S. I. NORONHA*; G. S. V. CAMPOS; P. M. A. LIMA; A. B. FIGUEIREDO; L. C. C. AFONSO; D. A. CHIANCA-JR; R. C. A. MENEZES. *Federal Univ. Of Ouro Preto.*

POSTER

070. Stress-Modulated Pathways: Molecular, Endocrine, and Electrophysiological Outcomes

Theme F: Integrative Physiology and Behavior

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 II23 **70.01** Differential gene expression induced by intranasal and subcutaneous routes of oxytocin administration in rats. T. CHAKRABORTY*; J. SCHULKIN; J. B. ROSEN. *Univ. of Delaware, ACOG, Univ. Delaware.*

2:00 II24 **70.02** Uncovering the excitatory roles of postsynaptic alpha$_{2A}$-adrenergic receptors within the bed nucleus of the stria terminalis. N. A. HARRIS*; A. T. ISAAC; M. A. XU; S. A. FLAVIN; R. GILSBACH; L. HEIN; D. G. WINDER. *Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ., Univ. of Freiburg.*

3:00 II25 **70.03** Estrogen influences hypothalamic-pituitary-axis activation in female rats following acute restraint in the presence of sodium deficiency. C. RAYMOND*; K. S. CURTIS. *Oklahoma State Univ. Ctr. For Hlth. Scienc.*

4:00 II26 **70.04** Loss of cAMP-dependent synaptic potentiation during habituation to repeated stress. J. K. SUNSTRUM*; E. W. SALTER; W. INOUE. *Univ. of Western Ontario, Univ. of Western Ontario.*

1:00 II27 **70.05** Corticotropin releasing hormone neurons in the paraventricular nucleus of the hypothalamus decrease intrinsic excitability during habituation to repeated stress. W. INOUE*; S. MATOVIC; E. W. SALTER. *Univ. of Western Ontario, Univ. of Western Ontario.*

2:00 JJ1 **70.06** Gender differences in basolateral amygdala excitability following single-prolonged stress. N. B. KEELE*; L. C. ORNELAS; M. L. MCREYNOLDS. *Baylor Univ. Dept. of Psychology and Neurosci.*

3:00 JJ2 **70.07** Single prolonged stress and ethanol contribute to basolateral amygdala excitability differently in males and females. L. C. ORNELAS*; M. L. MCREYNOLDS; N. B. KEELE. *Baylor Univ.*

4:00 JJ3 **70.08** Adult and early life stress impair extinction learning and memory, and change GluA1 and PSD-95 expression in the infralimbic cortex but not the prelimbic cortex or amygdala. M. L. MCREYNOLDS*; L. C. ORNELAS; N. B. KEELE. *Baylor Univ.*

1:00 JJ4 **70.09** Identification of biological pathways associated with response to psychosocial stress in the bed nucleus of the stria terminalis in mice. Z. MISIEWICZ*; L. SALMINEN; L. RODRIGUES; G. MACCARRONE; C. REWERTS; E. SOKOLOWSKA; I. BALCELLS; K. TRONTTI; S. SAARNIO; N. KULESSKAYA; M. LAINE; S. CALLAN; D. GRECO; C. TURCK; I. HOVATTA. *Univ. of Helsinki, Max Planck Inst. of Psychiatry.*

2:00 JJ5 **70.10** Role of the endocannabinoid system in the vmPFC-BLA circuit in fear extinction. E. T. BROCKWAY*; O. GUNDUZ CINAR; O. BUKALO; A. LIMOGES; E. DELPIRE; A. HOLMES. *Natl. Inst. On Alcohol Abuse and Alcoholism, Vanderbilt Univ. Med. Sch.*

3:00 JJ6 **70.11** ● Effects of Neurexan® on the stress-induced activity of the anterior cingulate cortex. I. IZYUROV*; A. KÜHNEL; F. YAN; L. FENSKY; V. TECKENTRUP; M. SCHULTZ; M. WALTER. *Universitätsklinikum Tübingen, Clin. Affective Neurosci. Lab., CBF, Charité, Leibniz Inst. for Neurobio., Biologische Heilmittel Heel GmbH.*

4:00 JJ7 **70.12** ▲ Extraction of cortisol from marmoset (Callithrix jacchus) and capuchin (Cebus apella) hair as a biomarker of long-term hypothalamic-pituitary-adrenal axis activity. A. TUKAN*; K. A. PHILLIPS. *Trinity Univ.*

1:00 JJ8 **70.13** Homeostatic synaptic plasticity in stress circuits. N. RASIAH*; N. DAVIU; T. STERLEY; T. FUZESI; D. G. ROSENEGGER; J. S. BAINS. *Hotchkiss Brain Inst. - Univ. of Calgary, Univ. of Calgary, Univ. of Calgary, Hotchkiss Brain Inst.*

2:00 JJ9 **70.14** Measuring the activity of hypothalamus CRH neurons during stress. T. FUZESI*; D. G. ROSENEGGER; N. RASIAH; N. DAVIU; J. S. BAINS. *Hotchkiss Brain Inst., Univ. of Calgary, Hotchkiss Brain Inst. - Univ. of Calgary, Univ. of Calgary.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 JJ10 **70.15** Effect of stress controllability on PVN CRH neurons. N. DAVIU*; T. STERLEY; N. RASIAH; T. FUZESI; D. G. ROSENEGGER; J. S. BAINS. *Univ. of Calgary, Univ. of Calgary, Hotchkiss Brain Inst. - Univ. of Calgary, Hotchkiss Brain Inst.*

4:00 JJ11 **70.16** A unique population of stress sensitive neurons in the female bed nucleus of the stria terminalis. T. L. FETTERLY*; E. K. AWAD; Y. SILBERMAN; D. G. WINDER. *Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ., Penn State Col. of Med.*

1:00 JJ12 **70.17** ▲ Chronic unpredictable stress enhances 2-4 Hz oscillations in the rat basolateral amygdala during fear behavior. C. PÉREZ*; M. ARRIAGADA; A. DAGNINO-SUBIABRE. *Univ. De Valparaíso.*

2:00 JJ13 **70.18** Glucocorticoid and nitric oxide regulation of membrane trafficking of the alpha-1 adrenergic receptor in hypothalamic neurons. G. L. WEISS*; V. J. DANIEL; J. G. TASKER. *Tulane Univ., Tulane Univ.*

3:00 JJ14 **70.19** Norepinephrine stimulates dendritic vasopressin release from CRH neurons to activate a retrograde neuronal-glial circuit. C. CHEN*; Z. JIANG; J. G. TASKER. *Tulane Univ., Tulane Univ., Tulane Univ.*

4:00 JJ15 **70.20** Chronic unpredictable stress modulates neuronal activity of AgRP and POMC neurons in hypothalamic arcuate nucleus. X. FANG*; J. WANG; Z. ZHANG; Y. LEI; X. LU. *Univ. of Texas Hlth. Sci. Ctr. at San Antonio.*

1:00 JJ16 **70.21** ▲ Epigenetic pathways of stress sensitivity and resilience. V. KREOUZIS*; G. M. MILLER. *Northeastern Univ., Northeastern Univ.*

POSTER

071. Gulf War Illness: Mechanisms, Diagnostics, and Potential Treatments

Theme F: Integrative Physiology and Behavior

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 JJ17 **71.01** Molecular maladaptations to vascular nociceptor $Na_v1.9$ covaries with exposure to pyridostigmine bromide in a rat model of gulf war illness pain. B. Y. COOPER*; T. J. NUTTER; L. K. FLUNKER; R. D. JOHNSON. *Univ. of Florida, Univ. of Florida, Univ. of Florida Col. of Dent., Univ. of Florida.*

2:00 JJ18 **71.02** Long-term increases in hindlimb vasodilatation following exposure to Gulf War Illness (GWI) chemical prophylactic agents is independent of cardiovascular parameters and suggests involvement of CGRP release from vascular nociceptor endings in a rat model of GWI pain. C. M. TOURNADE; H. D. NGUYEN; B. Y. COOPER; R. D. JOHNSON*. *Univ. of Florida, Univ. of Florida, Univ. of Florida.*

3:00 JJ19 **71.03** Effect of Gulf War “Desert-Dust” compounds on the viability and permeability of the blood-brain barrier in a 3D model. J. F. HOFFMAN*; C. E. KASPER; J. F. KALINICH. *Uniformed Services Univ., Uniformed Services Univ.*

4:00 JJ20 **71.04** Microglia play a crucial role in the neuroinflammation underlying Gulf War Illness. L. T. MICHALOVICZ*; K. A. KELLY; J. V. MILLER; D. B. MILLER; J. P. O’CALLAGHAN. *CDC-NIOSH.*

1:00 JJ21 **71.05** Altered Von Frey pain thresholds in a model of gulf war illness is restored by vagus nerve stimulation. L. A. SHAPIRO*; J. W. GRAU; D. NIZAMUTDINOV. *Texas A&M Hlth. Sci. Ctr., Texas A&M Univ., Texas A&M Univ.*

2:00 JJ22 **71.06** Sub-threshold exposure to sarin negatively affects neuronal microtubules in a manner exacerbated by stress: Implications for Gulf War Illness. A. PATIL*; A. N. RAO; Z. D. BRODNIK; L. QIANG; R. A. ESPAÑA; K. A. SULLIVAN; M. M. BLACK; P. W. BAAS. *Drexel Univ. Col. of Med., Boston Univ. Sch. of Publ. Hlth., Temple Univ. Lewis Katz Sch. of Med.*

3:00 JJ23 **71.07** Effects of stress and pyridostigmine bromide on acetylcholine and glutamate in the rat prefrontal cortex and hippocampus. V. A. MACHT*; J. L. WOODRUFF; E. S. MAISSY; C. A. GRILLO; M. A. WILSON; J. R. FADEL; L. P. REAGAN. *Univ. of South Carolina, WJB Dorn VA Med. Ctr., Univ. of South Carolina Sch. of Med.*

4:00 JJ24 **71.08** Cardiovascular changes elicited by stress and pyridostigmine bromide in a rat model of gulf war illness. L. P. REAGAN*; J. WOODRUFF; V. A. MACHT; J. RIVERS; C. A. GRILLO; B. MUNIZ; C. M. LOMBARD; S. K. WOOD. *Univ. of South Carolina Sch. of Med., Univ. of South Carolina Sch. of Med., Univ. of South Carolina, Univ. of South Carolina Sch. of Med., Univ. of South Carolina Sch. of Med.*

1:00 JJ25 **71.09** A tobacco cembranoid has neuroprotective effect against neurotoxicants involved in the Gulf War Illness. H. FONSECA; D. PEREZ; P. A. FERCHMIN; N. SABEVA*. *Univ. Central Del Caribe, Univ. Central Del Caribe.*

2:00 JJ26 **71.10** Subcortical brain volume reduction in Gulf war illness. P. S. CHRISTOVA*; L. M. JAMES; B. E. ENGDAHL; S. M. LEWIS; A. F. CARPENTER; A. P. GEORGOPOULOS. *Univ. of Minnesota Dept. of Neurosci., Brain Sci. Center, VAHCS, Univ. of Minnesota Dept. Neurosci., Univ. of Minnesota Dept. Psychiatry, Univ. of Minnesota Dept. Psychology, Univ. of Minnesota Dept. Neurol.*

3:00 JJ27 **71.11** Exposure to pyridostigmine bromide, DEET, and chlorpyrifos in a mouse model of Gulf War Illness. B. A. CITRON*; D. C. DRISCOLL; W. A. RATLIFF. *Bay Pines VA Healthcare Syst., Univ. of South Florida Morsani Col. of Med.*

4:00 JJ28 **71.12** Brain immune interactions in Gulf War Illness: Cytokines and cognition in US military veterans. P. A. JANULEWICZ LLOYD*; T. HEEREN; E. SISSON; J. CIRILLO; M. KRENGEL; F. COLLADO; Z. BARNES; R. TOOMEY; R. J. KILLIANY; C. CHAISSON; L. STEELE; N. KLIMAS; K. AENNLE; M. ABREU; K. SULLIVAN. *Boston Univ. Sch. of Publ. Hlth., Boston Univ. Sch. of Publ. Hlth., Boston Univ. Sch. of Publ. Hlth., Boston Univ., Miami VA Hosp., Nova Southeastern Med. Campus, Boston Univ., Boston Univ. Sch. Of Med., Baylor Col. of Med., Col. of Osteo. Med.*

1:00 JJ29 **71.13** Investigating increased glutamate transporter EAAT2 function as a potential therapeutic approach for Gulf War illness. X. WANG*; J. B. FOSTER; S. XU; K. HODGETTS; C. G. LIN. *The Ohio State Univ., Brigham and Women’s Hosp.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract’s submitting author

2:00 JJ30 **71.14** Monosodium luminol improves cognitive, memory and mood function through modulation of oxidative stress, inflammation and neurogenesis in a model of gulf war illness. A. K. SHETTY*; B. SHUAI; S. ATTALURI; M. KODALI; G. SHETTY; B. HATTIANGADY; D. UPADHYA; A. BATES; X. RAO. *Inst. For Regen Med, Texas A&M Univ. Coll Med., Olin E. Teague Veterans' Med. Ctr.*

3:00 KK1 **71.15** Two distinct compensatory activations underlying neuroplasticity for working memory deficits in veterans with Gulf War Illness and Chronic Fatigue Syndrome. R. U. RAYHAN*. *Howard Univ. Col. of Med.*

4:00 KK2 **71.16** Brain function in Gulf War Illness (GWI) and associated mental health comorbidities. R. JOHNSON*; L. JAMES; B. E. ENGDAHL; A. C. LEUTHOLD; A. P. GEORGOPOULOS. *Univ. of Minnesota, Univ. of Minnesota/ Minneapolis VAHCS, VA Med. Ctr., Univ. Minnesota.*

1:00 KK3 **71.17** A neuroimmune basis of chronic pain in a rat model of gulf war illness. M. J. LACAGNINA; T. FABISIAK; K. SULLIVAN; J. P. O'CALLAGHAN; L. R. WATKINS; P. M. GRACE*. *Univ. of Texas MD Anderson Cancer Ctr., Boston Univ. Sch. of Publ. Hlth., Centers For Dis. Control and Prevention, Univ. of Colorado Boulder Dept. of Psychology and Neurosci.*

2:00 KK4 **71.18** Glial activation in Gulf War Illness: Preliminary investigation. D. S. ALBRECHT*; C. A. BERGAN; O. AKEJU; D. CLAUW; L. CONBOY; R. R. EDWARDS; M. KIM; Y. C. LEE; V. NAPADOW; E. PROTSENKO; K. SULLIVAN; M. L. LOGGIA. *Martinos Center, MGH, Harvard Med. Sch., Massachusetts Gen. Hosp., Univ. of Michigan Med. Sch., Beth Israel Deaconess Med. Ctr., Brigham and Women's Hosp., Martinos Center, MGH, Harvard Med. Sch., Brigham and Women's Hosp., Boston Univ. Sch. of Publ. Hlth.*

POSTER

072. Sleep: Molecular Mechanisms

Theme F: Integrative Physiology and Behavior

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 KK5 **72.01** Regulatory microRNAs associated with the *Drosophila* foraging gene at the intersection of sleep, stress and cognitive function. S. D. BIERGANS*; M. D. WARREN; Z. XIAO; H. E. SOREQ; M. B. SOKOLOWSKI. *Univ. Of Toronto, Univ. of Toronto Inst. for Aerospace Studies (UTIAS), The Hebrew Univ. of Jerusalem, Canadian Inst. of Advanced Res. (CIFAR).*

2:00 KK6 **72.02** Increased expression of brain-enriched microRNA in sleep deprived mice hippocampus after treatment with melatonin. A. HINOJOSA GODINEZ*; M. QUIROGA ESPARZA; M. RUIZ MACIAS; A. GÁLVEZ CONTRERAS; M. FLORES SOTO; M. LUQUIN DE ANDA; R. E. GONZALEZ-CASTAÑEDA. *Ctr. De Investigación Biomédica De Occidente, Univ. de Guadalajara, Ctr. de Investigacion Biomedica de Occidente, UNIVERSIDAD DE GUADALAJARA.*

3:00 KK7 **72.03** Effects of network oscillations on mRNA translation in the hippocampus. J. DELORME*; V. KODOTH; S. ATON. *Univ. of Michigan, Univ. of Michigan.*

4:00 KK8 **72.04** ● A fate-mapping approach to trace the developmental origin of forebrain GABAergic neurons controlling sleep and wakefulness. R. E. BROWN*; C. YANG; J. T. MCKENNA; J. M. MCNALLY; M. ANDERSON-CHERNISOFF; S. WINSTON. *VA BHS & Harvard Med. Sch., VA Boston Healthcare System/Harvard Med. Sch.*

1:00 KK9 **72.05** Mch neurons are neither gabaergic nor glutamatergic in lateral hypothalamus of mice. C. BLANCO-CENTURION; E. BENDELL; B. ZOU; A. VIDAL-ORTIZ; P. J. SHIROMANI; M. LIU*. *Med. Univ. of SC, Ralph H. Johnson VA Med. Ctr.*

2:00 KK10 **72.06** Orexin mediates feed-forward inhibition of VLPO sleep-active neurons - a mechanism for controlling arousal. R. DE LUCA*; D. PARK; S. BANDARU; E. ARRIGONI. *Beth Israel Deaconess Med. Ctr. - Harvard Med.*

3:00 KK11 **72.07** Cortical circuit activity underlying slow oscillations and spindles. N. NIETHARD*; H. V. NGO; T. R. SATO; J. BORN. *Univ. of Tuebingen, Univ. of Birmingham, Univ. of Tuebingen, Japan Sci. and Technol.*

4:00 KK12 **72.08** Noradrenergic transmission in the ventral periaqueductal gray modulates arousal. K. A. PORTER-STRANSKY*; D. A. MITRANO; S. CENTANNI; C. JEROME; S. L. KARNE; D. G. WINDER; D. WEINSHENKER. *Emory Univ., Christopher Newport Univ., Vanderbilt Univ., Vanderbilt Univ. Sch. Med., Emory Univ. Sch. Med.*

1:00 KK13 **72.09** Increased sleep and spindle activity in mGluR5 knockout mice. D. D. AGUILAR*; S. THANKACHAN; R. E. STRECKER; R. BASHEER; R. W. MCCARLEY; R. E. BROWN; J. M. MCNALLY. *Boston VA Med. Ctr- W Roxbury, Boston VA Med. Ctr- W Roxbury.*

2:00 KK14 **72.10** The effects of BDNF on local EEG patterns and behavioral testing. P. A. GEIST*; A. BARNES; B. N. DULKA; M. TOTTY; S. DATTA. *Univ. of Tennesee, Univ. of Tennessee Hlth. Sci. Ctr., Univ. of Tennessee, Univ. of Tennessee.*

3:00 KK15 **72.11** The role of sleep-dependent neuronal network synchronization in fear memory consolidation. M. TOTTY*; L. CHESNEY; P. A. GEIST; S. DATTA. *Univ. of Tennessee, Univ. of Tennessee.*

4:00 KK16 **72.12** A novel role of BDNF in the regulation of REM sleep. J. M. GARNER*; A. BARNES; J. LITTLE; S. DATTA. *Univ. of Tennessee-Knoxville, Univ. of Tennessee, Univ. of Tennessee.*

1:00 KK17 **72.13** Cellular and molecular mechanisms of REM sleep homeostatic drive: Links to neuronal and behavioral plasticity. A. BARNES*; J. M. GARNER; J. CHAMBERS; S. DATTA. *Univ. of Tennessee Hlth. Sci. Ctr., Univ. of Tennessee.*

2:00 KK18 **72.14** ● Enhancement of synaptic plasticity by NYX-2925: Sleep cycle EEG studies in rats. J. S. BURGDORF*; K. LEADERBRAND; E. M. COLECHIO; C. J. OLKER; E. J. SONG; N. GHOREISHI-HAACK; A. L. GROSS; M. H. VITATERNA; F. W. TUREK; X. -. ZHANG; P. K. STANTON; T. M. MADSEN; M. A. KHAN; R. A. KROES; J. R. MOSKAL. *Northwestern Univ., Aptinyx Inc., Northwestern Univ., New York Med. Col.*

3:00 KK19 **72.15** Myelin modifications after chronic sleep loss in adolescent mice. J. HASWELL*; M. BELLESI; L. DE VIVO; W. MARSHALL; G. TONONI; C. CIRELLI. *Univ. of Wisconsin-Madison, Univ. of Wisconsin-Madison.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

4:00 KK20 **72.16** ● Dimethyl sulfoxide (DMSO) concentration affects the impact of dronabinol on sleep apneas in rats. M. W. CALIK*; D. W. CARLEY. *Univ. of Illinois at Chicago.*

1:00 KK21 **72.17** Awakening actions of norepinephrine probed with cell type-specific CRISPR gene editing in locus coeruleus. H. YAMAGUCHI*; L. DE LECEA. *Stanford Univ.*

2:00 KK22 **72.18** ▲ AA-5-HT Blocks the wake-inducing properties of cannabidiol or modafinil during the lights-on period in rats. M. SALAS-CRISOSTOMO*; N. BARBOSA-ROCHA; H. BUDDE; S. MACHADO; E. MURILLO-RODRIGUEZ. *Univ. Anahuac Mayab, Polytechnic Inst. of Porto, Med. Sch. Hamburg, Federal Univ. of Rio de Janeiro, Univ. Anahuac Mayab.*

3:00 KK23 **72.19** Allosteric modulation of adenosine A_{2A} receptors in mice induces slow-wave-sleep without cardiovascular effects. M. KORKUTATA*; T. SAITOH; D. FENG; N. MURAKOSHI; F. SUGIYAMA; Y. CHERASSE; H. NAGASE; M. LAZARUS. *Univ. of Tsukuba, Intl. Inst. for Integrative Sleep Medicine, Univ. of Tsukuba, Fac. of Medicine, Grad. Sch. of Comprehensive Human Sciences, Univ. of Tsukuba, Fac. of Medicine, Univ. of Tsukuba.*

4:00 KK24 **72.20** Glutamate and adenosine, basal forebrain and cortex: Cross-talk during prolonged wakefulness. A. V. KALINCHUK*; A. A. LARIN; S. A. KARPOVA; R. W. MCCARLEY; R. BASHEER. *VA Boston Healthcare System-Harvard Med. Sch.*

1:00 KK25 **72.21** ● A novel method for sleep disruption in rodents using home-cage based, automated sleep fragmentation. J. H. HARKNESS*; R. P. TODD; W. CLEGERN; J. P. WISOR; B. A. SORG. *Washington State University, Vancouver, Rewire Neurosci., Washington State University, Spokane, Washington State Univ., Washington State Univ.*

2:00 KK26 **72.22** An *in vivo* assay method for natural sleep-promoting substances. Y. OGAWA*; A. MINAMIZAWA; S. TADA; T. KONISHI. *Natl. Cerebral and Cardiovasc. Ctr., Doshisha Women's Col. of Liberal Arts.*

3:00 KK27 **72.23** Acute kynurenine challenge disrupts sleep-wake architecture and impairs contextual memory in adult rats. A. POCIVAVSEK*; A. M. BARATTA; J. A. MONG; S. S. VIECHWEG. *Univ. of Maryland Sch. of Med., Univ. of Maryland Sch. of Med.*

4:00 KK28 **72.24** Microbiota-derived biosignatures for acute sleep deprivation. M. KIMURA*; F. VARGAS; P. DORRESTEIN; C. W. TURCK. *Max Planck Inst. of Psychiatry, UCSD.*

1:00 KK29 **72.25** ● Neural correlates of the homeostatic sleep response in mouse basal forebrain. H. BOUAOUDA; C. SHUKLA; J. T. MCKENNA; J. MCNALLY; S. WINSTON; A. V. KALINCHUK; S. THANKACHAN; R. E. STRECKER; K. DEISSEROTH; R. W. MCCARLEY; R. E. BROWN; R. BASHEER*. *VA Boston Healthcare System-Harvard Med. Sch., Stanford Univ.*

2:00 KK30 **72.26** Normal sleep requires the astrocyte brain-type fatty acid binding protein FABP7. J. R. GERSTNER*; I. J. PERRON; S. M. RIEDY; T. YOSHIKAWA; H. KADOTANI; Y. OWADA; H. P. A. VAN DONGEN; R. GALANTE; K. DICKINSON; J. C. YIN; A. I. PACK; M. G. FRANK. *Washington State Univ., Univ. of Pennsylvania, Washington State Univ., RIKEN, Shiga Univ. of Med. Sci., Dept. of Organ Anat., Univ. of Wisconsin- Madison.*

3:00 KK31 **72.27** ● The effects of sleep deprivation on microglial moprhology and functional state. H. M. WIGREN*; S. PIIRAINEN; M. TIBEYKINA; E. PRYAZHNIKOV; L. KHIROUG; L. TIAN; T. PORKKA-HEISKANEN. *Univ. of Helsinki, Univ. Helsinki.*

POSTER

073. Human Studies of Stress, PTSD, and Anxiety

Theme G: Motivation and Emotion

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 KK32 **73.01** Socially anxious tendencies affect impression of the other's happy and disgusting gazes. Y. TSUJI*; S. SHIMADA. *Meiji Univ., Meiji Univ.*

2:00 KK33 **73.02** An fMRI investigation of active avoidance behaviour in major depression. T. WISE*; L. MARWOOD; S. C. R. WILLIAMS; A. J. CLEARE; A. PERKINS. *King's Col. London.*

3:00 KK34 **73.03** Type D personality enhances eyeblink conditioning in a partial reinforcement schedule. T. ALLEN*; R. J. SERVATIUS. *Univ. of Northern Colorado, Stress and Motivated Behavior Inst., Dept. of Veterans Affairs, Veterans Affairs Med. Ctr.*

4:00 KK35 **73.04** Behaviorally inhibited organisms are less negatively affected by partial reinforcement in signaled lever press avoidance: Further support for the WKY strain as a model for anxiety disorders. D. P. MILLER*; D. R. COOK-SNYDER; B. L. GLAESER; K. L. NILLES; T. K. REGETZ; R. J. SERVATIUS. *Carthage Col., Stress and Motivated Behavior Inst.*

1:00 KK36 **73.05** Anxiety mediates human respiratory dynamics following fearful stimuli. T. J. NOTO*; N. ARORA; M. SOLTANI; C. ZELANO. *Northwestern Univ., Northwestern, UC San Diego, Northwestern Univ.*

2:00 LL1 **73.06** Enhanced resistance to extinction of cued versus spatial fear memory. G. KASTRATI*; M. HELOU; J. ROSEN; F. AHS. *Uppsala Univ.*

3:00 LL2 **73.07** Prediction error representation in individuals with generalized anxiety disorder during passive avoidance. J. LESHIN*; S. WHITE; M. GERACI; E. LEWIS; C. TENG; B. AVERBECK; H. MEFFERT; M. ERNST; J. BLAIR; C. GRILLON; K. BLAIR. *UNC Chapel Hill, Boys Town Natl. Res. Hosp., Natl. Inst. of Mental Hlth., Yale Univ., Univ. of Pittsburgh.*

4:00 LL3 **73.08** Influence of nicotine on doxorubicin and cyclophosphamide-induced spatial cognitive impairment and anxiety-like behavior in rats. Y. KITAMURA*; M. SUGIMOTO; E. KANEMOTO; A. MACHIDA; Y. NAKAMURA; N. NAITO; I. MIYAZAKI; M. ASANUMA; T. SENDO. *Okayama Univ. Hosp., Okayama Univ., Okayama Univ.*

1:00 LL4 **73.09** Effects of mirtazapine on doxorubicin and cyclophosphamide-induced spatial cognitive impairment and anxiety-like behavior in rats. Y. NAKAMURA*; Y. KITAMURA; N. NAITO; Y. SUMIYOSHI; I. MIYAZAKI; M. ASANUMA; T. SENDO. *Okayama Univ., Okayama Univ. Hosp., Okayama Univ.*

2:00 LL5 **73.10** ▲ Cognitive bias: It may not be all about stress. O. SOUDER*; S. KINNEY; K. R. BAILEY. *Susquehanna Univ., Susquehanna Univ., Susquehanna Univ.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 LL6 **73.11** Effect of predator odor stress on locus coeruleus discharge and synaptic transmission. O. BORODOVITSYNA*; M. FLAMINI; F. BUTT; K. MILLAR; D. J. CHANDLER. *Rowan Univ. GSBS, Rowan Univ. Sch. of Osteo. Med.*

4:00 LL7 **73.12** Development and characterization of a preclinical model recapitulating battlefield stress. N. SOSANYA*; T. GARZA; R. CHRISTY; B. CHEPPUDIRA. *Inst. of Surgical Res.*

1:00 LL8 **73.13** ● P300 amplitude and latency as neural markers for tracking changes of mental health in military service members after combat deployment. C. WANG*; P. RAPP; D. DARMON; A. TRONGNETRPUNYA; M. COSTANZO; D. NATHAN; M. ROY; D. KEYSER. *Henry M. Jackson Fndn., Uniformed Services Univ. of the Hlth. Sci.*

2:00 LL9 **73.14** Stress evaluation using voice in dental identification work of dead body. Y. OMIYA*; S. SHINOHARA; M. HIGUCHI; M. NAKAMURA; S. MITSUYOSHI; I. YAMAMOTO; S. TOKUNO. *PST Corporation, Inc., The Univ. of Tokyo, Kanagawa Dent. Univ.*

3:00 LL10 **73.15** Pre-existing reduced functional connectivity between cognitive control network and salience network enhances PTSD symptoms after a disaster: Evidence from a longitudinal resting state fMRI study. A. SEKIGUCHI*; Y. KOTOZAKI; M. SUGIURA; S. NAKAGAWA; R. NOUCHI; H. TAKEUCHI; C. MIYAUCHI; Y. TAKI; R. KAWASHIMA. *Natl. Inst. of Mental Health, Natl. Cent, Fukushima Med. Univ. Sch. of Med., IDAC, Tohoku Univ., Tohoku Med. and Pharmaceut. Univ., Frontier Res. Inst. for Interdisciplinary Science, Tohoku Univ., Tohoku Univ, IDAC, Grad. Sch. of Humanities, Tokyo Metropolitan Univ., Dept. of Nuclear Med. & Radiology, Inst. of Development, Aging, and Cancer, Tohoku Univ.*

4:00 LL11 **73.16** Estimation of neuron and glial numbers in the pulvinar nucleus of the thalamus in PTSD. K. A. YOUNG*; W. L. BONKALE; C. CHEN; G. MILLER; S. SACHSENMAIER; J. BROWNING; D. A. CRUZ; D. E. WILLIAMSON. *TAMHSC/CTVHCS, Duke Univ.*

1:00 LL12 **73.17** Dissecting posttraumatic stress disorder complexity: A gene expression study . H. L. RUSCH*; C. G. MARTIN; S. YUN; J. ROBINSON; N. OSIER; J. M. GILL. *NIH, NIH, Yotta Biomed, LLC.*

2:00 LL13 **73.18** Influence of family history of alcohol use disorder on cognitive performance and risk for post traumatic stress in trauma-exposed adolescents and young adults. S. SUBBIE; A. PANDEY; C. KAMARAJAN; C. COGA; B. PORJESZ; J. L. MEYERS*. *SUNY Downstate Med. Ctr., SUNY Downstate Med. Ctr., SUNY Downstate Med. Ctr. Col. of Med., State Univ. of New York Downstate Med. Cen.*

3:00 LL14 **73.19** Trial-to-trial P300 latency jittering explains changes of averaged P300 amplitude over time in soldiers returning from combat: A longitudinal study. A. TRONGNETRPUNYA*; P. RAPP; D. DARMON; C. WANG; M. COSTANZO; D. E. NATHAN; M. J. ROY; D. KEYSER. *Uniformed Services Univ. of Hlth. Sci., Henry M. Jackson Fndn., Uniformed Services Univ. of the Hlth. Sci., Natl. Intrepid Ctr. of Excellence, Walter Reed Natl. Military Med. Ctr.*

4:00 LL15 **73.20** Disrupted resting-state functional connectivity in adolescents with PTSD symptoms. J. SHEYNIN*; E. R. DUVAL; J. C. SCOTT; M. ANGSTADT; L. ZHANG; Y. LOKSHINA; D. MURRA; R. C. GUR; R. E. GUR; I. LIBERZON. *Veterans Affairs Ann Arbor Healthcare Syst., Univ. of Michigan, Univ. of Pennsylvania, Philadelphia VA Med. Ctr., Univ. of Michigan, The Second Xiangya Hosp. of Central South Univ., Tilburg Univ., Univ. of Michigan.*

1:00 LL16 **73.21** ● Symptoms of trauma, depression, anxiety, rumination and autobiographical memory are related in women with sexual violence history. H. M. CHANG*; E. M. MILLON; A. L. HARRIMAN; T. J. SHORS. *Rutgers Univ.*

2:00 LL17 **73.22** A pilot study on the effects of electroconvulsive therapy over the reconsolidation of traumatic memories. F. CORCHS*; Á. C. ARAÚJO; N. DEL REAL; A. MARUM; N. CARUI; G. MIGLIORANZA; E. ARATANGY; C. GORENSTEIN; F. LOTUFO NETO, MD. *Univ. of São Paulo, Fac. of Med., Univ. of São Paulo, Neurosci. and Behavior Program, Univ. of São Paulo, Inst. of Biosciences, Dept. of Pharmacol.*

3:00 LL18 **73.23** Reduced frontal cortical responses associated with cognitive changes in individuals with mtbi or ptsd during working memory. B. WAGNER*; W. HIGH; S. L. MCILWRATH; M. STOUT; L. S. BROSTER; R. H. LIPSKY; F. LEONESSA; J. B. GRIMES; G. S. LING; J. ECKLUND; Y. JIANG. *Univ. of Kentucky Col. of Med., Lexington Veterans Affairs Med. Ctr., Inova Hlth. Syst., George Mason Univ., USUHS.*

POSTER

074. Molecules and Circuits in Preclinical Models of Anxiety

Theme G: Motivation and Emotion

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 LL19 **74.01** Anxiety-like behavior is enhanced by selective knockdown of GAD67 in Neuropeptide Y interneurons in adolescent mice. K. M. CORDER*; M. A. CORTES; A. F. BARTLEY; S. A. LEAR; F. D. LUBIN; L. E. DOBRUNZ. *Univ. of Alabama At Birmingham.*

2:00 LL20 **74.02** Prefrontal circuits involved in observational fear learning. S. E. SILVERSTEIN*; M. NONAKA; O. BUKALO; A. W. LIMOGES; A. HOLMES. *NIH.*

3:00 LL21 **74.03** Amygdala CRF circuits for fear and anxiety. M. B. POMRENZE*; J. TOVAR-DÍAZ; A. BLASIO; R. MAIYA; K. LEI; H. MORIKAWA; F. W. HOPF; R. O. MESSING. *Univ. of Texas at Austin, Univ. of Texas at Austin, Univ. of Texas at Austin, Univ. of California San Francisco.*

4:00 LL22 **74.04** Identifying a role for glial cells in the development of affective disorders: Early-life differences in hippocampal gene expression in selectively bred rats. P. M. MARAS*; P. BLANDINO, Jr.; E. HEBDA-BAUER; S. WATSON; H. AKIL. *Univ. of Michigan, Univ. of Michigan.*

1:00 LL23 **74.05** Circuit analysis involves the medial habenula-interpeduncular nucleus axis in anxiety-associated behavior. I. MCLAUGHLIN; E. E. PEREZ; M. DE BIASI*. *Univ. of Pennsylvania, Univ. of Pennsylvania Perelman Sch. of Medi.*

2:00 LL24 **74.06** Peripheral inflammation promotes anxiety through a CRF-R1 mediated suppression of central anandamide signaling. H. A. VECCHIARELLI*; K. TAN; M. MORENA; C. M. KEENAN; M. STICHT; K. LEITL; W. HO; M. QIAO; K. A. SHARKEY; M. N. HILL. *Univ. of Calgary.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 LL25 **74.07** ● Ultra-high field fMRI activation correlates with c-Fos cell density in the amygdala of 5-HTT knockout mice after negative stimuli. J. F. KOLTER*; M. F. HILDENBRAND; S. NAUROTH; J. BANKMANN; P. M. JAKOB; K. LESCH; A. G. SCHMITT-BÖHRER. *Univ. Hosp., Univ. Hosp., Fraunhofer Inst. for Integrated Circuits IIS, Univ. of Wuerzburg.*

4:00 LL26 **74.08** Resting-state fMRI reveals dopamine receptor D2 polymorphism influence on cognitive function in older healthy adults. H. ZHENG*; K. ONODA; Y. WADA; S. MITAKI; T. NABIKA; S. YAMAGUCHI. *Fac. of Medicine, Shimane Univ., Fac. of Medicine, Shimane Univ.*

1:00 LL27 **74.09** Dynamic changes in neuronal chromatin organization across the estrous cycle are linked to anxiety-related phenotypes. I. JARIC; D. ROCKS; J. M. GREALLY; M. SUZUKI; M. KUNDAKOVIC*. *Dept. of Biol. Sciences, Fordham Univ., Ctr. for Epigenomics, Dept. of Genetics, Albert Einstein Col. of Med.*

2:00 LL28 **74.10** ▲ Examining the role of microbiota in emotional behavior: antibiotic treatment exacerbates anxiety in high anxiety-prone rats. H. MOORE*; J. COHEN; J. SINGER; M. E. GLOVER; S. M. CLINTON. *Virginia Tech., Univ. of Alabama at Birmingham, Univ. of Alabama at Birmingham.*

3:00 LL29 **74.11** The functional role of post-translational modification in ASIC4. Y. CHIEN*; S. LIN; C. CHEN. *Inst. of Biomed. Sciences, Academia Sinica, Program in Mol. Medicine, Natl. Yang-Ming Univ. and Academia Sinica, Dana-Farber Cancer Inst. and Dept. of Neurobio., Taiwan Mouse Clinic, Natl. Comprehensive Mouse Phenotyping and Drug Testing Center, Academia Sinica.*

4:00 LL30 **74.12** Oxytocin neural circuits mediate stress induced deficits in female social behavior. N. DUQUE-WILCKENS*; M. Q. STEINMAN; M. BUSNELLI; S. YOKOYAMA; M. PHAM; B. CHINI; B. C. TRAINOR. *Univ. of California, Davis, The Scripps Res. Inst., CNR, Univ. of California, Davis, Univ. of California -Davis.*

1:00 LL31 **74.13** Brain-wide viral genetic mapping of CRH+ neuronal inputs to the nucleus accumbens. C. A. ITOGA*; S. BADHON; C. FATERI; J. DELGADO; Y. CHEN; T. Z. BARAM; X. XU. *UCI, UCI, Univ. of California Irvine, Univ. of California Irvine, Univ. California, Irvine.*

POSTER

075. Addiction Genetics

Theme G: Motivation and Emotion

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 LL32 **75.01** ▲ Genome-wide mapping of ethanol sensitivity in the diversity outbred population. E. MASIAS*; D. GATTI; T. WILCOX; E. BUSCH; S. KASPAREK; D. KREUZMAN; B. MANSKY; S. MANSEUF; E. SAGALYN; K. SHARIF; D. TATERRA; W. TAYLOR; M. THOMAS; A. HOLMES; E. J. CHESLER; C. PARKER. *Middlebury Col., The Jackson Lab., NIAAA, Middlebury Col., NIAAA.*

2:00 LL33 **75.02** ● High throughput phenotyping of addiction related traits in genetically diverse mouse populations. S. J. SUKOFF RIZZO*; L. GAGNON; A. OLSEN; M. LEONARDO; R. DODD; T. WILCOX; T. ROY; P. DICKSON; M. BOGUE; L. REINHOLDT; V. M. PHILIP; C. H. PRATT; C. A. MCCLUNG; R. W. LOGAN; L. M. TARANTINO; J. D. JENTSCH; E. J. CHESLER. *The Jackson Lab., Univ. of Pittsburgh Med. Sch., Univ. North Carolina, Binghamton Univ.*

3:00 MM1 **75.03** ● Detecting genetic variation in morphine LD_{50} in founder strains of the Collaborative Cross and Diversity Outbred mouse populations. J. A. BUBIER*; K. D. DONOHUE; B. F. O'HARA; E. J. CHESLER. *The Jackson Lab., Univ. of Kentucky, Univ. of Kentucky.*

4:00 MM2 **75.04** Genetic and phenotypic characterization of cocaine locomotor sensitivity using the Collaborative Cross. S. SCHOENROCK*; P. KUMAR; J. FARRINGTON; F. PARDO-MANUEL DE VILLENA; W. VALDAR; L. M. TARANTINO. *Univ. of North Carolina At Chapel Hill, Univ. of North Carolina at Chapel Hill, Univ. of North Carolina at Chapel Hill, Univ. North Carolina.*

1:00 MM3 **75.05** Research reproducibility and replicability in the Mouse Phenome Database. M. BOGUE*; E. J. CHESLER. *The Jackson Lab.*

2:00 MM4 **75.06** Reference trait analysis facilitates the correlation of incompatible phenotypic measurements. E. J. CHESLER*; V. PHILIP; D. A. SKELLY. *The Jackson Lab.*

3:00 MM5 **75.07** Identification and validation of novel addiction mutants using addiction predictive phenotypes. V. M. PHILIP*; T. WILCOX; T. A. ROY; P. E. DICKSON; J. A. BUBIER; E. J. CHESLER. *The Jackson Lab., The Jackson Lab.*

4:00 MM6 **75.08** SYN3, encoding synapsin III, regulates reversal learning in mice. J. D. JENTSCH*; J. LINDEN; A. S. JAMES. *Binghamton Univ.*

1:00 MM7 **75.09** A common SNP in Chrna5 attenuates dopamine release from the nucleus accumbens in response to morphine. J. K. BRYNILDSEN*; E. PEREZ; M. DE BIASI; J. A. BLENDY. *Univ. of Pennsylvania, Univ. of Pennsylvania.*

2:00 MM8 **75.10** Association analysis between genetic variation in the FKBP5 gene and cortisol levels in alcohol dependence. K. MAURO*; C. MUENCH; J. LEE; M. SCHWANDT; A. ROSEN; J. SORCHER; D. ROSOFF; F. LOHOFF. *NIAAA-NIH.*

3:00 MM9 **75.11** OPRM1 and CHRNA5 genotypes interact with an adolescent substance use prevention intervention to reduce smoking during high school. D. J. VANDENBERGH*; G. L. SCHLOMER; H. H. CLEVELAND; A. M. GRIFFIN; M. E. FEINBERG; M. T. GREENBERG; R. L. SPOTH; C. REDMOND. *Penn State Univ., Penn State Univ., Penn State Univ., Univ. at Albany, Penn State Univ., Penn State Univ., Iowa State Univ.*

4:00 MM10 **75.12** ▲ Empirical validation of cocaine targets in the striatum identified using big data. R. J. ELLIS*; J. L. GOMEZ; L. A. RODRIGUEZ; M. MICHAELIDES. *Natl. Inst. On Drug Abuse.*

1:00 MM11 **75.13** Diurnal pattern of locomotor activity after selective breeding for cocaine self-administration in rats. K. W. GRASING*; H. XU. *Kansas City Veterans Affairs Med. Ctr., Florida State Univ.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

2:00 MM12 **75.14** Adolescent cocaine experience differentially augments psychomotor sensitization in adulthood and alters epigenetic profiles in the striatum and prefrontal cortex 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.*

3:00 MM13 **75.15** A transgenic mouse overexpressing a circadian clock-related gene showed decreased locomotor sensitization and conditioned place preference toward methamphetamine. M. KIM*; J. DE LA PEÑA; I. DELA PEÑA; C. BOTANAS; R. CUSTODIO; K. YOU; T. WOO; J. CHEONG; H. KIM. *Uimyung Reasearch Inst. For Neurosci.*

4:00 MM14 **75.16** Alcohol cue-activated neurons in the nucleus accumbens core mediate the "incubation" of alcohol seeking: Neuronal ensemble-specific gene expression profiling via FACS and RNA-seq. G. DE NESS*; A. LAQUE; V. REPUNTE-CANONIGO; G. E. WAGNER; T. KERR; D. WATRY; M. R. MAYFORD; B. T. HOPE; P. P. SANNA; F. WEISS; N. SUTO. *The Scripps Res. Inst., Univ. of California San Diego, NIH/NIDA.*

1:00 MM15 **75.17** Identification and manipulation of dopamine-mediated transcriptional and epigenetic dynamics in rat striatal cultures. K. E. SAVELL*; F. SULTAN; J. S. REVANNA; J. J. DAY. *Univ. of Alabama at Birmingham.*

2:00 MM16 **75.18** Gene network of dopamine receptor type 2 (Drd2) in addiction. L. GUERRI*; L. DOBBS; A. BADILLO MARTINEZ; V. ALVAREZ; D. GOLDMAN. *Natl. Inst. of Hlth. - NIAAA, Natl. Inst. of Hlth. - NIAAA.*

3:00 MM17 **75.19** Comparison of microRNAs expression between ethanol and methamphetamine dependence. K. MIZUO*; S. WATANABE. *Sapporo Med. Univ.*

4:00 MM18 **75.20** Repetitive morphine administration induces sex-dependent transcriptomic changes in the adult rat nucleus accumbens. M. S. GADES*; K. JEONG; A. C. HARRIS; P. V. TRAN; J. C. GEWIRTZ. *Univ. of Minnesota, Univ. of Minnesota.*

POSTER

076. Alcohol-Related Behavior

Theme G: Motivation and Emotion

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 MM19 **76.01** Chemogenetic activation of ventral tegmental area GABA neurons disrupts the timing of responding during ethanol self-administration. A. K. SHIELDS*; K. T. WAKABAYASHI; K. A. HAUSKNECHT; R. SHEN; S. HAJ-DAHMANE; A. VENNER; P. M. FULLER; C. E. BASS. *Univ. At Buffalo, Res. Inst. On Addictions / Univ. At Buffalo, Univ. Buffalo, SUNY, Univ. at Buffalo, Univ. at Buffalo - The State Univ. of New York, Harvard Med. Sch., Harvard Med. Sch., Univ. At Buffalo SUNY.*

2:00 MM20 **76.02** Ventral tegmental area GABA neurons influence motivation and effort to obtain sugar and ethanol mixtures. K. T. WAKABAYASHI*; A. SHIELDS; R. BHIMANI; J. PARK; K. A. HAUSKNECHT; R. SHEN; S. HAJ-DAHMANE; A. VENNER; P. M. FULLER; C. E. BASS. *Res. Inst. On Addictions / Univ. At Buffalo, Univ. At Buffalo, Univ. at Buffalo, Univ. At Buffalo, Univ. Buffalo, SUNY, Univ. at Buffalo, Univ. at Buffalo - The State Univ. of New York, Harvard Med. Sch., Harvard Med. Sch., Univ. At Buffalo SUNY.*

3:00 MM21 **76.03** Neuronal numbers in the ventral tegmental area and the nucleus accumbens in alcohol preferring and non-preferring rats. S. O. AHMAD*; G. CAPONERA. *St. Louis Univ., St. Louis Univ.*

4:00 MM22 **76.04** The role of ghrelin signaling in modulating behavioral and neural correlates of alcohol use disorder: A human laboratory study with exogenous ghrelin. M. FAROKHNIA*; E. N. GRODIN; M. R. LEE; E. N. OOT; A. N. BLACKBURN; B. L. STANGL; M. L. SCHWANDT; L. A. FARINELLI; R. MOMENAN; V. RAMCHANDANI; L. LEGGIO. *NIH, Brown Univ.*

1:00 NN1 **76.05** Selective effects of chemogenetic inhibition of orbitofrontal cortex on operant ethanol seeking. J. HERNANDEZ*; A. BINETTE; D. E. MOORMAN. *Univ. of Massachusetts - Amherst, Univ. of Massachusetts Amherst.*

2:00 NN2 **76.06** Receptor protein tyrosine phosphatase β/ζ modulates alcohol-induced behavioral responses. R. FERNÁNDEZ-CALLE; E. GRAMAGE*; M. VICENTE-RODRÍGUEZ; C. PÉREZ-GARCÍA; J. M. ZAPICO; C. CODERCH; M. PASTOR; B. DI GERONIMO; B. DE PASCUAL-TERESA; A. RAMOS; A. W. LASEK; G. HERRADÓN. *Univ. San Pablo CEU, Univ. of Illinois At Chicago.*

3:00 NN3 **76.07** Hedonic and aversive taste reactions to ethanol vary between differentially reared rats as a function of ethanol concentration. T. J. WUKITSCH*; E. C. BRASE; M. S. BLOEDEL; M. E. CAIN. *Kansas State Univ.*

4:00 NN4 **76.08** ▲ Accumbal ghrelin and glucagon-like peptide 1 modulation of ethanol reward and ingestive behavior in female rats. S. ABTAHI; E. HOWELL; P. J. CURRIE*. *Dept. of Psychology, Reed Col., Dept. Psychology, Reed Col.*

1:00 NN5 **76.09** Stimuli conditioned to EtOH availability during withdrawal produce compulsive-like behavior in tests of EtOH seeking as measured by resistance to punishment and tolerance of increased workload. O. O. KOZANIAN*; F. WEISS. *The Scripps Res. Inst., The Scripps Res. Inst.*

2:00 NN6 **76.10** Using taste reactivity to study neural systems underlying alcohol preference in behaving rats. S. M. RIOS; B. KAMINSKA; D. E. MOORMAN*. *Univ. of Massachusetts Amherst, Univ. of Massachusetts Amherst.*

3:00 NN7 **76.11** Caffeine place conditioning in male dba/2j mice. A. ZUNIGA*; C. L. CUNNINGHAM. *Oregon Hlth. & Sci. Univ.*

4:00 NN8 **76.12** The Role of Synaptotagmin 1 in alcohol-related behaviors. E. D. BARBIER*; E. AUGIER; E. DOMI; R. BARCHIESI; G. AUGIER; C. R. WAHLESTEDT; M. HEILIG. *Dept. of Clin. and Exptl. Medicine, Univ. of Miami Dept. of Psychiatry and Behavioral Sci.*

1:00 NN9 **76.13** The effects of combined alcohol and nicotine in a multi-bottle choice paradigm in C57BL/6J mice. J. N. BERRY*; O. I. AKINBO; B. W. L. DUKE. *Butler Univ.*

2:00 NN10 **76.14** Co-administration of caffeine and taurine increases ethanol-induced locomotor activity in mice. L. ULENIUS*; S. LARSSON; L. ADERMARK; B. SÖDERPALM; M. ERICSON. *Univ. of Gothenburg, Sahlgrenska Univ. Hosp.*

3:00 NN11 **76.15** ▲ Sensitization and tolerance to various doses of ethanol in adolescent and adult DBA/2J mice. S. D. DICKINSON*; A. E. FREDRICKSON; S. H. LONGENBACH; B. L. WENANDE; K. ZIEGLER-GRAHAM. *St. Olaf Col., St. Olaf Col., St. Olaf Col.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

4:00 NN12 **76.16** Partner's drinking status influences the maintenance of monogamous pair bonds in male prairie voles. A. T. WALCOTT*; A. RYABININ. *Oregon Hlth. and Sci. Univ.*

1:00 NN13 **76.17** The relative reward effect: Instrumental and consummatory contrast for sucrose in Sprague-Dawley and alcohol-preferring (P) rats. J. J. MCGRAW*; R. S. GOLDSMITH; K. A. SMITH; M. FILIPOVIC; M. C. MILLER; H. C. CROMWELL. *Bowling Green State Univ.*

POSTER

077. Neural Effects of Ethanol Use

Theme G: Motivation and Emotion

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 NN14 **77.01** Repeated cycles of chronic intermittent ethanol exposure alters neuronal activation in the ventral hippocampus and nucleus accumbens. W. C. GRIFFIN*, III; H. L. HAUN; A. K. OLSEN; R. L. SMITH; R. I. ANDERSON; H. A. BOGER; H. C. BECKER. *Med. Univ. South Carolina, Med. Univ. South Carolina, Texas A&M Univ.*

2:00 NN15 **77.02** Modulation of the anterior paraventricular thalamus influences ethanol consumption and the acquisition of conditioned taste aversion in C57BL/6J mice. H. HAUN*; H. C. BECKER; W. C. GRIFFIN, III. *Med. Univ. of South Carolina, Ralph H. Johnson VA Med. Ctr.*

3:00 NN16 **77.03** Pituitary adenylate cyclase-activating polypeptide in the thalamic paraventricular nucleus: Characterization and response to ethanol intake. A. T. GARGIULO*; A. GUPTA; G. R. CURTIS; P. BADVE; S. PANDEY; J. R. BARSON. *Drexel Univ. Col. of Med., Drexel Univ.*

4:00 NN17 **77.04** ▲ Effects of chronic binge-like alcohol drinking on Pde4 gene expression in the nucleus accumbens. K. G. TOWNSLEY*; T. BATISH; S. KANADIBHOTLA; A. T. D. TRAN; E. FIRSICK; W. HACK; J. C. CRABBE; A. OZBURN. *Portland State Univ., Oregon Hlth. & Sci. Univ., VA Portland Hlth. Care Syst.*

1:00 NN18 **77.05** Interactions between ethanol and stress exposure on long-lasting negative affect-like behaviors and alterations in nucleus accumbens dopamine dynamics. K. M. HOLLERAN*; A. N. KARKHANIS; S. E. ALBERTSON; S. R. JONES. *Wake Forest Sch. of Med.*

2:00 NN19 **77.06** EtOH-evoked enhancement of the H-current significantly amplifies DA neuron responses to synaptic inputs. E. MOROZOVA*; B. S. GUTKIN; C. C. LAPISH; A. S. KUZNETSOV. *Indiana Univ., Group For Neural Theory, LNC INSERM U960, Ecole Normale Superieure, IUPUI, IUPUI.*

3:00 NN20 **77.07** Ethanol, calcium and growth cone dynamics in immature GABAergic cortical interneurons. S. M. LEE*; F. L. ANDERSON; P. W. L. YEH; H. H. YEH. *Geisel Sch. of Med. at Dartmouth Col.*

4:00 NN21 **77.08** Uncovering the roles of ion channel activity and cytoskeletal remodeling using RNA-seq in rat hippocampus following adolescent ethanol exposure. M. RISHER*; Q. LI; C. EROGLU; S. D. MOORE. *Duke Univ. Med. Ctr., Duke Univ. Med. Ctr., Duke Univ, DUMC, Duke Univ.*

1:00 NN22 **77.09** Chronic binge-like alcohol consumption alters the excitatory/inhibitory balance of 5-HT neuron connectivity in the mouse brain. A. BELMER*; S. E. BARTLETT. *QUT-IHBI-TRI.*

2:00 NN23 **77.10** Alpha 6-containing nicotinic acetylcholine receptor is a sensitive target for low-dose alcohol. S. C. STEFFENSEN*; F. GAO; D. CHEN; X. MA; M. GAO; D. H. TAYLOR; B. EATON; S. N. SUDWEEKS; P. WHITEAKER; J. WU. *Brigham Young Univ., Barrow Neurolog. Inst., NRC 445room, Barrow Neurolog. Inst., The Univ. of Arizona Col. of Med., Barrow Neurolog. Institute, St. Joseph's Hosp. and Med. Ctr., Brigham Young Univ., Barrow Neurolog. Inst., Brigham Young Univ., Barrow Neurolog. Inst., Barrow Neurolog Inst.*

3:00 NN24 **77.11** Alcohol consumption alters calcium signal dynamics in the medial prefrontal cortex. J. A. RINKER*; W. C. GRIFFN, 3rd; L. PASSARELLA; P. J. MUHOLLAND. *Med. Univ. of South Carolina, Med. Univ. of South Carolina, Col. of Charleston.*

4:00 NN25 **77.12** ▲ Brain corticosterone levels are altered in amygdala following chronic intermittent ethanol exposure and withdrawal in C57BL/6J mice. A. M. HILL*; A. KAMPOV-POLEVOI; A. MORROW; A. M. MALDONADO-DEVINCCI. *North Carolina Agr. & Tech. State Univ., Univ. of North Carolina at Chapel Hill, UNC Sch. of Med., North Carolina A&T State Univ.*

1:00 NN26 **77.13** Acute dopamine depletion alters functional connectivity of the vta and prefrontal cortex in male social drinkers. M. FAULKNER*; A. PAULSON; L. HARVEY; D. L. ROBINSON; C. A. BOETTIGER. *Univ. of North Carolina, Chapel Hill, Univ. of North Carolina, Chapel Hill, Univ. of North Carolina, Chapel Hill.*

2:00 NN27 **77.14** Persisting damage to thalamic nucleus reuniens following PD4-9 alcohol exposure suggests alterations to prefrontal-thalamo-hippocampal circuitry in rodent model of fetal alcohol spectrum disorders. Z. GURSKY*; A. Y. KLINTSOVA. *Univ. of Delaware.*

3:00 NN28 **77.15** Resting state functional connectivity of the amygdala in alcohol consumers. S. HU*; S. ZHANG; K. A. FISCHER; C. R. LI. *SUNY Oswego, Yale Univ.*

4:00 NN29 **77.16** Ethanol modulation of the synaptic properties of mouse agranular insular cortex pyramidal neurons. J. E. SHILLINGLAW*; H. C. RADFORD; R. A. MORRISETT. *Univ. of Texas At Austin, The Univ. of Texas at Austin.*

1:00 NN30 **77.17** Chronic intermittent alcohol drinking recruits the pituitary adenylate cyclase-activating polypeptide (PACAP) system in the bed nucleus stria terminalis (BNST) of mice. S. G. QUADIR*; A. FERRAGUD; R. M. LEAVITT; V. SABINO; P. COTTONE. *Boston Univ. Sch. of Med.*

1:00 DP10/NN31 **77.18** (Dynamic Poster) Alcohol consumption related decision-making encoding is altered in the prefrontal cortex of alcohol preferring rats. N. TIMME*; D. N. LINSENBARDT; C. C. LAPISH. *IUPUI, Indiana Univ. - Purdue Univ. Indianapolis.*

3:00 NN32 **77.19** The effects of prenatal ethanol exposure on radial migration and the development of pyramidal neurons in the somatosensory cortex. L. C. DELATOUR*; H. H. YEH. *The Geisel Sch. of Med. At Dartmouth.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

4:00 NN33 **77.20** Alcohol regulates activity of large conductance, Ca^{2+} activated K^+ (BK) single channels in the central nuclei of amygdala in mice. Q. LI; C. CONTET; S. N. TREISTMAN; S. D. MOORE*. *Duke Univ. Med. Ctr., Scripps Res. Inst., Inst. of Neurobiology-UPR, MSC, Duke Univ.*

1:00 OO1 **77.21** D2 dopamine autoreceptor sensitivity is increased in the dorsolateral striatum of C57BL6J mice following chronic ethanol consumption. A. G. SALINAS*; Y. MATEO; D. M. LOVINGER. *Natl. Inst. On Alcohol Abuse and Alcoholism, George Mason Univ.*

2:00 OO2 **77.22** Acute ethanol activates microglia and affects the excitability of ventral tegmental area neurons. S. B. WILLIAMS*; S. S. PISTORIUS; E. Q. ANDERSON; D. R. CLARKE; T. J. CLARK; S. HOPE; S. C. STEFFENSEN. *Brigham Young Univ., Univ. of Michigan.*

3:00 OO3 **77.23** Chemogenetic stimulation of connexin-36 expressing VTA GABA neurons is rewarding. S. S. PISTORIUS*; J. D. OBRAY; S. B. WILLIAMS; C. L. CARR; D. R. CLARKE; E. Q. ANDERSON; N. D. FLINT; S. C. STEFFENSEN. *Brigham Young Univ.*

4:00 OO4 **77.24** Ethanol enhancement of dopamine release in the nucleus accumbens and ethanol reward are mediated by peripheral neuroimmune interactions. J. D. OBRAY*; T. CLARKE; E. Y. JANG; B. GARCIA; A. KLOMP; A. RICHARDSON; A. PAYNE; S. HOPE; C. H. YANG; J. T. YORGASON; S. C. STEFFENSEN. *Brigham Young Univ., Brigham Young Univ., Daegu Haany Univ., Brigham Young Univ.*

1:00 OO5 **77.25** Striatal dopamine receptors play a role in the stimulatory and depressive effects of alcohol. M. BOCARSLY*; D. DA SILVA E SILVA; A. A. ALVAREZ. *NIH, Natl. Inst. on Alcohol Abuse and Alcoholism.*

2:00 OO6 **77.26** ▲ Event-related potential correlates of attentional capture and response inhibition to alcohol images in social drinkers. A. ZBOROWSKI*; N. A. CEBALLOS; R. GRAHAM. *Texas State Univ. San Marcos, Texas State Univ.*

3:00 OO7 **77.27** Prolonged alcohol and nicotine exposure suppresses inflammatory markers and stress hormone levels. B. CRUZ*; R. J. FLORES; D. MARTINEZ; A. LOPEZ; E. ESPINOZA; C. HINOJOSA; C. T. SPENCER; L. E. O'DELL. *Univ. of Texas At El Paso, Univ. of Texas At El Paso, Univ. of Texas At El Paso.*

POSTER

078. Cannabinoids and Marijuana

Theme G: Motivation and Emotion

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 OO8 **78.01** Differences in age-related desegregation of sensory systems between long-term marijuana users and controls. M. Y. CHAN*; N. K. SAVALIA; F. FILBEY; G. S. WIG. *Univ. of Texas at Dallas, Univ. of Texas at Dallas, Univ. of Texas Southwestern Med. Ctr.*

2:00 OO9 **78.02** Behavioral modifications following deletion of type 2 cannabinoid receptors in dopamine neurons. E. S. ONAIVI*; A. CANSECO-ALBA; H. ZHANG; M. A. CHUNG; E. K. DENNIS; B. SANABRIA; N. SCHANZ; H. ISHIGURO; Z. LIN; S. SGRO; C. M. LEONARD; E. L. GARDNER; J. M. EGAN; Z. XI; Q. LIU. *William Paterson Univ., NIDA-IRP/NIH, Univ. of Yamanashi, Harvard Med. Sch., NIA-NIH.*

3:00 OO10 **78.03** Effects of chronic CB1 agonist administration on coping with multiple reward devaluations. S. E. CONRAD*; D. DAVIS; J. B. THOMPSON; S. PAPINI; M. R. PAPINI. *Texas Christian Univ., Univ. of Texas Austin.*

4:00 OO11 **78.04** Acute drug consumption and motor vehicle collision: A systematic review of 96 cases in Japan 2012-2014. S. KANEKO*. *Kyoto Univ.*

1:00 OO12 **78.05** Effects of adolescent cannabinoid administration on anxiety-like behaviors in adult rats. A. D. HARDIN; V. GOMEZ; M. J. STONE; D. O. SANCHEZ; C. A. CRAWFORD*. *California State Univ., California State Univ.*

2:00 OO13 **78.06** Delta-9-Tetrahydrocannabinol vapor inhalation attenuates oxycodone self-administration. J. D. NGUYEN*; Y. GRANT; K. M. CREEHAN; M. A. TAFFE. *The Scripps Res. Inst.*

3:00 OO14 **78.07** ▲ An apparatus for cannabis smoke self-administration procedures in rats. D. T. GUENTHER*; J. KENNEDY; I. VELTCHEV; A. W. BRUIJNZEEL; M. FEBO; B. SETLOW; A. P. MAURER. *Univ. of Florida, Univ. of Florida, TAMIC Instruments LLC, Univ. of Florida, Univ. of Florida, Univ. of Florida, Univ. of Florida.*

4:00 OO15 **78.08** Lasting effects of adolescent exposure to cannabis smoke on measures of affect and cognition in rats. A. W. BRUIJNZEEL*; P. KNIGHT; S. PANUNZIO; S. XUE; M. M. BRUNER; S. WALL; M. FEBO; B. SETLOW. *Univ. of Florida, Univ. of Florida.*

1:00 OO16 **78.09** Lesion of the rostromedial tegmental nucleus facilitates acquisition of delta-9-tetrahydrocannabinol self-administration. S. M. SPENCER*; H. LI; D. SCHWARTZ; T. C. JHOU; P. W. KALIVAS. *Med. Univ. of South Carolina, Med. Univ. of South Carolina, Med. Univ. S Carolina.*

2:00 OO17 **78.10** Regulation of cue-induced THC seeking in the nucleus accumbens. V. CHIOMA*; P. KALIVAS. *Med. Univ. of South Carolina.*

3:00 OO18 **78.11** Changes in synaptic metaplasticity after extinction from drug self-administration and cue induced relapse - A comparison between THC, cocaine and heroin. D. NEUHOFER*; S. M. SPENCER; V. CHIOMA; D. SCHWARTZ; P. W. KALIVAS. *MUSC, Med. Univ. of South Carolina, Med. Univ. of South Carolina, Med. Univ. S Carolina.*

4:00 OO19 **78.12** Pathway-specific synaptic plasticity of glutamatergic transmission in the nucleus accumbens caused by the psychoactive marijuana constituent, delta-9-tetrahydrocannabinol. E. HWANG*; C. R. LUPICA. *NIDA IRP, NIH.*

1:00 OO20 **78.13** Role of cannabinoid type 2 receptors in brain dopamine neurons in the rewarding effects of psychostimulants, alcohol and cannabinoids in DAT-Cnr2 conditional knockout mice. A. CANSECO-ALBA*; E. DENNIS; M. CHUNG; B. SANABRIA; N. SCHANZ; H. ISHIGURO; Q. LIU; E. S. ONAIVI. *CINVESTAV-IPN, William Paterson Univ., Univ. of Yamanashi, NIA-NIH.*

2:00 OO21 **78.14** Chronic passive exposure to cannabis smoke leads to affective withdrawal signs and dependence in rats. A. RAVULA*; H. CHANDASANA; S. WALL; B. SETLOW; M. FEBO; A. BRUIJNZEEL; H. DERENDORF. *Univ. of Florida, Univ. of Florida.*

3:00 OO22 **78.15** Subcortical functional hyperconnectivity in cannabis dependence. P. MANZA*; D. TOMASI; N. D. VOLKOW. *NIH, NIH/NIDA.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

4:00 OO23 **78.16** Effects of adolescent cannabinoid exposure on young adult nicotine reward. J. L. RAZO*; A. E. MORAN; V. GOMEZ; D. O. SANCHEZ; C. A. CRAWFORD. *California State Univ.*

1:00 OO24 **78.17** ▲ Endocannabinoid regulation of operant responding to predictive incentive cues for a sucrose reward. A. N. BAINDUR*; K. T. WAKABAYASHI; M. FEJA; K. CHEN; A. K. SHIELDS; M. J. NIPHAKIS; B. CRAVATT; C. E. BASS. *Univ. At Buffalo, Res. Inst. on Addictions, Univ. at Buffalo, The Skaggs Inst. for Chem. Biology, The Scripps Res. Inst.*

POSTER

079. Nicotine: Reinforcement, Seeking, and Reinstatement

Theme G: Motivation and Emotion

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 OO25 **79.01** Nicotine effects on conditioning, extinction, and reinstatement in humans using virtual reality. A. PALMISANO*. *Univ. of Connecticut.*

2:00 OO26 **79.02** 20 Hz repetitive magnetic stimulation (rTMS) greatly improved smoking cessation and reduced brain entropy: A pilot study. W. PENG*; D. CHANG; J. ZHANG; Q. GE; Z. SHEN; X. GAO; J. YING; Y. DU; Z. ZHAO; A. R. CHILDRESS; Z. WANG. *Ctr. of Cognition & Brain Disorders, Hangzhou Normal Univ., Hangzhou Normal Univ., Univ. of Pennsylvania, Temple Univ.*

3:00 OO27 **79.03** ▲ Positive modulation of adenosine A_{2A} receptors reduces nicotine self-administration in rats. S. G. MALONE; J. M. GOLSON; C. A. BRADLEY; R. W. BROWN; C. S. BAILEY; M. I. PALMATIER*. *East Tennessee State Univ., East Tennessee State Univ., East Tennessee State Univ. Dept. of Biomed. Sci.*

4:00 OO28 **79.04** ● Efficacy of a novel selective oral orexin 1 receptor antagonist in rat models of nicotine self administration and reinstatement. C. MURRAY*; G. A. HIGGINS; B. P. MARTIN; T. NOWAK; J. C. FOX. *C4X Discovery, Intervivo Solutions Inc.*

1:00 OO29 **79.05** Extinguishing a compound nicotine+alcohol drug cue and the relative contribution of its individual components. 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.*

2:00 OO30 **79.06** The effect of flavor conditioned reinforcers and nicotine on extracellular dopamine levels in the nucleus accumbens following nicotine self-administration. G. A. DEEHAN*, JR; A. K. PATTERSON; A. SMITH; C. A. BRADLEY; S. MALONE; R. W. BROWN; M. I. PALMATIER. *East Tennessee State Univ., East Tennessee State Univ., East Tennessee State Univ. Dept. of Biomed. Sci.*

3:00 OO31 **79.07** Blood glucose normalization reduces the enhanced rewarding effects of nicotine in diabetic rats. J. IBIAS MARTIN*; L. E. O'DELL; A. NAZARIAN. *Western Univ. of Hlth. and Sci., Univ. Texas at El Paso.*

4:00 OO32 **79.08** Age-related changes in nicotine consumption and social interactions in adolescent mice. J. KO; R. L. MURPHY; B. N. MARTIN; K. J. FRYXELL*. *George Mason Univ.*

1:00 OO33 **79.09** Analysis of economic demand for nicotine using an abbreviated behavioral economics protocol in rats. J. A. MARUSICH*; G. L. POWELL; J. S. BECKMANN; J. L. NEISEWANDER; A. P. DEL FRANCO; J. GOENAGA; C. D. GIPSON. *RTI Intl., Arizona State Univ., Univ. of Kentucky, Arizona State Univ.*

2:00 OO34 **79.10** Sex differences and the role of ovarian hormones in nicotine withdrawal in rats. R. J. FLORES GARCIA*; K. P. URIBE; B. CRUZ; V. CORREA; L. M. CARCOBA; A. LOPEZ; L. E. O'DELL. *Univ. of Texas at El Paso.*

3:00 OO35 **79.11** Effect of menthol additive on nicotine intake and relapse vulnerability in a rat model of adolescent-onset nicotine addiction. T. NESIL*; S. NARMEEN; W. J. LYNCH. *Univ. of Virginia.*

4:00 OO36 **79.12** Flavor conditioned reinforcers promote dependence-like behavior in rats self-administering nicotine. A. SMITH*; C. A. BRADLEY; A. K. PATTERSON; E. SANDERS; J. M. GOLSON; C. S. BAILEY; S. G. MALONE; M. I. PALMATIER. *East Tennessee State Univ., East Tennessee State Univ., East Tennessee State Univ.*

1:00 PP1 **79.13** ● Oleoyl glycine produced by brain trauma reduces nicotine reward and withdrawal in mice. G. DONVITO*; F. PISCITELLI; P. P. MULDOON; A. JACKSON; R. VITALE; E. D'ANIELLO; C. GIORDANO; B. IGNATOWSKA-JANKOWSKA; M. A. MUSTAFA; G. N. PETRIE; L. PARKER; R. SMOUM; S. MAIONE; A. H. LICHTMAN; M. DAMAJ; V. DI MARZO; R. MECHOULAM. *Virginia Commonwealth Univ. Hlth. Syst., Endocannabinoid Res. Group, Inst. of Biomolecular Chemistry, Consiglio Nazionale delle Ricerche, Virginia Commonwealth Univ. Hlth. Syst., Endocannabinoid Res. Group, Dept. of Exptl. Medicine, Section of Pharmacology, Second Univ. of Naples, Univ. of Guelph, Inst. for Drug Research, Med. Faculty, Hebrew University, Jerusalem.*

2:00 PP2 **79.14** Beta-2 nAChRs on DA and GABA VTA neurons respectively signal the aversive and rewarding conditioned motivational effects of acute nicotine. T. E. GRIEDER*; M. BESSON; U. MASKOS; D. VAN DER KOOY. *Univ. Toronto, The Scripps Res. Inst., Pasteur Inst., Inst. Pasteur, Univ. of Toronto.*

POSTER

080. Working Memory: How Memory Works

Theme H: Cognition

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 PP3 **80.01** Brain aging is associated with regional and isoform-specific reductions to glutamic acid decarboxylase. J. M. MOATS; J. A. MCQUAIL; M. M. BRUNER; C. BANUELOS; D. A. SCHEUER; J. L. BIZON*. *Florida Intl. Univ., Univ. of Florida McKnight Brain Inst., NIH-NIA, Univ. of Florida.*

2:00 PP4 **80.02** Connectivity changes after cognitive training in young and aged rats. L. M. COLON-PEREZ*; S. M. TURNER; K. N. LUBKE; S. N. BURKE; M. FEBO. *Univ. of Florida, Univ. of Florida, Univ. of Florida, Univ. of Florida.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 PP5 **80.03** Age-related changes in the perirhinal-hippocampal-prefrontal cortical circuit: evidence for neural compensation in aged rats. A. HERNANDEZ*; L. M. TRUCKENBROD; J. E. REASOR; K. E. FERTAL; S. A. JOHNSON; B. J. CLARK; A. P. MAURER; S. N. BURKE. *McKnight Brain Institute, Univ. of Florida, Univ. of Florida, Univ. of Florida, Univ. of New Mexico, Univ. of Florida, Univ. of Florida.*

4:00 PP6 **80.04** Optogenetic inactivation of basolateral amygdala in young rats recapitulates aged rats' ability to delay gratification in an intertemporal choice task. C. M. HERNANDEZ*, III; C. A. ORSINI; C. LABISTE; S. M. SINGHAL; S. N. BURKE; C. J. FRAZIER; B. SETLOW; J. L. BIZON. *Univ. of Florida, McKnight Brain Inst., Univ. of Florida, Univ. of Florida.*

1:00 PP7 **80.05** A wave-turbulence description of activity flow in the hippocampus. A. SHEREMET*; A. P. MAURER. *Univ. of Florida, Univ. of Florida.*

2:00 PP8 **80.06** Impact of age- and stress-related neuroendocrine dysfunction on working memory and GABAergic synaptic markers in prefrontal cortex. J. A. MCQUAIL*; S. GHAY; M. M. BRUNER; E. G. KRAUSE; B. SETLOW; D. A. SCHEUER; J. L. BIZON. *Univ. of Florida, Univ. of Florida, Univ. of Florida, Univ. of Florida.*

3:00 PP9 **80.07** Spectral evolution of the medial entorhinal local-field potential across behavior. J. KENNEDY*; Y. QIN; J. MIZELL; C. ELVIRA MARTIN; D. T. GUENTHER; C. HERDEGEN; S. N. BURKE; A. SHEREMET; A. P. MAURER. *Univ. of Florida, Univ. of Florida, Univ. of Florida, Univ. of Florida, Univ. of Florida, Univ. of Florida.*

4:00 PP10 **80.08** Untangling the cortical-hippocampal circuitry of spatial delay discounting. J. MIZELL*; D. K. CHETRAM; M. A. KREHER; H. WASANWALA; S. GARCIA-SOSA; S. A. JOHNSON; B. SETLOW; J. BIZON; S. N. BURKE; A. P. MAURER. *Univ. of Florida, Univ. of Florida.*

1:00 PP11 **80.09** ▲ Network metrics identify critical role of interneurons in neural circuits and bilateral synchronization of CA1. C. HERDEGEN*; N. DELROCCO; J. MIZELL; K. DIBA; R. VACCA; A. P. MAURER. *Univ. of Florida, Univ. of Wisconsin-Milwaukee Dept. of Psychology, Univ. of Florida.*

2:00 PP12 **80.10** Propagation and spectrum evolution of local-field potential within single lamina of neurons. Y. QIN*; A. SHEREMET; A. P. MAURER. *Univ. of Florida, Univ. of Florida.*

3:00 PP13 **80.11** Role of CA3 and dentate gyrus in the discrimination of perceptually similar objects depends on novelty of stimuli. S. A. JOHNSON*; S. M. TURNER; K. E. FERTAL; L. A. SANTACROCE; J. L. BIZON; A. P. MAURER; S. N. BURKE. *Univ. of Florida.*

4:00 PP14 **80.12** Beyond orienting: A role for mouse superior colliculus in memory-guided directional licking. C. A. DUAN*; S. K. FRUEKILDE; Y. PAN; T. ZHOU; N. XU. *Chinese Acad. of Sci.*

1:00 PP15 **80.13** Economic choices reveal risk aversion and probability distortion in rats. C. M. CONSTANTINOPLE*; C. D. BRODY. *Princeton Univ., HHMI / Princeton Univ.*

2:00 PP16 **80.14** Rats can optimally accumulate and discount evidence for decision-making in a dynamic environment. A. PIET*; A. EL HADY; C. D. BRODY. *Princeton Univ.*

3:00 PP17 **80.15** Dorsal hippocampal responses to gradual accumulation of evidence. J. T. BOYD-MEREDITH*; A. EL HADY; D. W. TANK; C. D. BRODY. *Princeton Neurosci. Inst., Princeton Univ., HHMI / Princeton Univ.*

4:00 PP18 **80.16** Widespread cortical involvement in virtual evidence-based navigation. L. PINTO*; S. KOAY; S. Y. THIBERGE; D. W. TANK; C. D. BRODY. *Princeton Univ., Princeton Univ., Princeton Univ., HHMI / Princeton Univ.*

1:00 PP19 **80.17** The influence of mediodorsal thalamus on the development of prefrontal neuronal responses in rats learning the DNMTP task. M. J. FRANCOEUR*; E. K. BRASLEY; C. L. HOLLER; E. K. WARREN; N. MONTERIO; L. M. CALDERAZZO; K. HOWARD; B. M. GIBSON; R. G. MAIR. *Univ. of New Hampshire, Univ. of New Hampshire.*

2:00 PP20 **80.18** Inactivation of primate dorsolateral prefrontal cortex during auditory and visual working memory. S. SHAH*; B. PLAKKE; T. LINCOLN; K. KEVELSON; J. BIGELOW; L. M. ROMANSKI. *Univ. of Rochester Sch. of Med. and Dent., UCSF.*

3:00 PP21 **80.19** Activity-based and synaptic-based memories in prefrontal cortex during spatial working memory. J. BARBOSA*; C. CONSTANTINIDIS; A. COMPTE. *IDIBAPS, Wake Forest Univ. Sch. of Med.*

4:00 PP22 **80.20** Inactivation of the rat parietal cortex impairs performance of a visuospatial, but not olfactory, working memory task. G. A. SCOTT*; N. K. ZABDER; A. J. ROEBUCK; Q. GREBA; J. G. HOWLAND. *Univ. of Saskatchewan.*

1:00 PP23 **80.21** The contribution of muscarinic M1 receptors to working memory related neuronal activity in dorsolateral prefrontal cortex. V. C. GALVIN*; S. YANG; T. C. LIGHTBOURNE; A. S. LOWET; A. F. ARNSTEN; M. WANG. *Yale Univ., Yale Univ., Yale Univ., Yale Univ. Sch. Med., Yale Univ. Sch. of Med.*

2:00 PP24 **80.22** ● Cognitive impairment: Evaluation of spatial working memory in the rat model for Neurocysticercosis. L. E. BAQUEDANO*; D. CARRION; R. GILMAN; A. DELGADO; E. BERNAL; D. G. DÁVILA VILLACORTA; R. P. CARMEN; C. GAVIDIA; L. AGUILAR; M. R. VERASTEGUI. *Univ. Peruana Cayetano Heredia, Univ. Peruana Cayetano Heredia, Johns Hopkins Univ., Univ. Peruana Cayetano Heredia, Univ. Peruana Cayetano Heredia, Univ. Nacional Mayor de San Marcos, Univ. Peruana Cayetano Heredia.*

3:00 PP25 **80.23** Adolescent social defeat disrupts working memory in adulthood: Consequences of reduced prefrontal cortex dopamine. M. A. WEBER*; S. R. DAVIES; M. J. WATT. *Univ. of South Dakota.*

4:00 PP26 **80.24** Intra-PFC infusion of cannabidiol induces impairments in cognitive flexibility measured in a set-shifting task through serotonergic 5-HT1a receptor transmission. H. J. SZKUDLAREK*; S. J. DESAI; J. RENARD; N. RAJAKUMAR; B. L. ALLMAN; S. R. LAVIOLETTE. *Univ. of Western Ontario, Univ. of Western Ontario.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

POSTER

081. Learning and Memory: Physiology

Theme H: Cognition

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 PP27 **81.01** Nature of memory engrams: Conserved wiring and computational logic of cell assemblies. G. FOX*; K. XIE; J. LIU; J. Z. TSIEN. *Med. Col. of Georgia, Augusta Univ., Banna Biomed. Res. Inst.*

2:00 PP28 **81.02** MCH neurons impair memory during sleep. S. IZAWA*; R. INOUE; S. CHOWDHURY; Y. MUKAI; A. YAMANAKA. *Res. Inst. of Envrn. Med. Nag, Res. Inst. of Envrn. Med. Nagoya Univ., Nagoya Univ., Res. Inst. of Envrn. Medicine, Nagoya Univ.*

3:00 PP29 **81.03** K_{ATP} gain-of-function mutations alter hippocampal neuronal excitability and severely impair spatial learning and memory in a mouse model of human DEND. S. V. YAHIL*; A. BENZ; H. CONWAY; J. GUNN; D. F. WOZNIAK; S. J. MENNERICK; M. S. REMEDI. *Washington Univ. In St. Louis Sch. of Med., Washington Univ. In St. Louis Sch. of Med., Washington Univ. In St. Louis Sch. of Med., Washington Univ. In St. Louis Sch. of Med.*

4:00 QQ1 **81.04** Physical properties of dietary lipids in early life contribute to growth rate and neurodevelopment in individually and socially housed mice. L. SCHIPPER; S. VAN HEIJNINGEN; E. M. VAN DER BEEK; L. M. BROERSEN*; G. VAN DIJK. *Nutricia Res. Ctr., Univ. of Groningen, Univ. of Groningen.*

1:00 QQ2 **81.05** Differential effects of continuous versus intermittent exercise on memory in C57BL/6J mice. M. E. GIEDRAITIS*; M. N. COX; O. V. POTTER; C. D. JOHNSON; M. G. CONNOLLY; S. R. BRUCE; R. A. KOHMAN. *Univ. of North Carolina Wilmington.*

2:00 QQ3 **81.06** Negative regulation of dopamine D_3 receptor on hyperdopaminergia-mediated cognitive deficit. P. CHANG*; H. LI; J. CHEN. *Chang-Gung University/ Grad. Insititute of Biomed. Sci., Oregon Tech.*

3:00 QQ4 **81.07** ● Neuronal activity in monkey prefrontal and posterior parietal cortex during foraging for object targets. M. KADOHISA*; K. WATANABE; M. KUSUNOKI; M. J. BUCKLEY; J. DUNCAN. *Univ. of Oxford, Med. Res. Council, Japan Society for the Promotion of Sci.*

4:00 QQ5 **81.08** Milk composition regulated by L-amino acid oxidase enzyme affect infant's brain development and function. K. USUDA*; Y. SHIGENO; G. WATANABE; S. TOMONAGA; K. NAGAOKA. *Tokyo Univ. of Agr. and Technol., RIKEN Innovation Ctr., Kyoto Univ.*

1:00 QQ6 **81.09** Associative memory extinction is accompanied by decays of associative memory cells and their plasticity at motor cortex but not sensory cortex. J. H. WANG*. *The Inst. of Biophysics, CAS.*

2:00 QQ7 **81.10** Optogenetic inactivation reveals multiple distinct roles for BLA in regulating risky decision making. C. A. ORSINI*; C. M. HERNANDEZ, III; S. M. SINGHAL; K. B. KELLY; C. J. FRAZIER; J. L. BIZON; B. SETLOW. *UNIVERSITY OF FLORIDA, Univ. of Florida, Univ. of Florida, Univ. of Florida, Univ. of Florida, Univ. of Florida McKnight Brain Inst., Univ. of Florida.*

3:00 QQ8 **81.11** Regulation of risky decision making by gonadal hormones. S. L. BLAES*; C. A. ORSINI; J. L. BIZON; B. SETLOW. *Univ. of Florida, UNIVERSITY OF FLORIDA, Univ. of Florida McKnight Brain Inst., Univ. of Florida.*

POSTER

082. Learning and Memory: Aging, Circuits, and Molecules

Theme H: Cognition

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 QQ9 **82.01** Altered synaptic localization of C terminal splice variants of GluN1 subunits of NMDA receptors in the hippocampus of old mice with impaired spatial memory. K. R. MAGNUSSON*; D. R. ZAMZOW; V. ELIAS; V. ACOSTA; E. ESCOBEDO. *Oregon State Univ.*

2:00 QQ10 **82.02** Elevated systemic expression of interleukin-6 modulates resting state functional connectivity in hippocampal and cortical areas. M. FEBO*; L. M. COLON-PEREZ; J. D. BARTER; B. YEGULA; P. CHAKRABARTY; A. KUMAR; T. C. FOSTER. *Univ. of Florida, Univ. of Florida.*

3:00 QQ11 **82.03** Influence of systemic inflammation on the transcriptional profile in the hippocampus. J. D. BARTER*; A. RANI; A. KUMAR; T. C. FOSTER. *Univ. of Florida, Univ. of Florida Med. Col., Univ. of Florida, Evelyn F. and William L. McKnight Brain Inst. Univ. Florida.*

4:00 QQ12 **82.04** Peripheral inflammation induces age-dependent attentional impairments in rats. B. YEGLA*; S. EIKENBERRY; T. C. FOSTER. *Evelyn F. and William L. McKnight Brain Inst.*

1:00 QQ13 **82.05** Patch-clamp study of the mechanism for NMDA receptor hypofunction in CA1 hippocampal pyramidal neurons during aging. A. KUMAR*; J. S. THINSCHMIDT; T. C. FOSTER. *Univ. of Florida, Univ. of Florida, Evelyn F. and William L. McKnight Brain Inst. Univ. Florida.*

2:00 QQ14 **82.06** Bump attractor network model predicts that age-related physiological changes contribute to spatial working memory impairments in the rhesus monkey. S. IBAÑEZ*; J. I. LUEBKE; P. R. HOF; C. M. WEAVER. *Franklin & Marshall Col., Boston Univ. Sch. of Med., Icahn Sch. of Med. At Mount Sinai.*

3:00 QQ15 **82.07** Functional remodelling of hippocampal VIP disinhibitory circuits during aging. R. FRANCAVILLA*; L. TOPOLNIK. *CHUQ.*

4:00 QQ16 **82.08** The role of peroxiredoxin 6 in pathogenesis of Alzheimer's disease. T. PAIROJANA*; S. PHASUK; P. SURESH; P. SHARMA; S. P. HUANG; N. PAKAPROT; S. CHOMPOOPONG; I. Y. C. LIU. *Tzu Chi Univ., Mahidol Univ., Tzu Chi Univ., Mahidol Univ.*

1:00 QQ17 **82.09** Impact of cognitive performance and normal aging on transcriptomic changes in the prefrontal cortex of rats. M. R. DUGGAN*; S. JOSHI; Y. TAN; M. SLIFKER; M. WIMMER; V. PARIKH. *Temple Univ., Temple Univ. Hosp.*

2:00 QQ18 **82.10** Hippocampal neural mechanisms underlying age-associated impairments in the memory for sequences of events. J. S. ASEM*; M. F. ALDOGHMI; M. H. KASSIR; N. B. T. MIRZA; N. N. CHMIELEWSKI; G. A. ELIAS; C. NG; J. M. LONG; P. R. RAPP; N. J. FORTIN. *Univ. of California (Irvine), Natl. Inst. on Aging.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 QQ19 **82.11** Disrupted network functional connectivity in aged rhesus monkeys with cognitive impairment. S. L. ROSSI; A. BAKKER; J. E. YOUNG; C. HEROLD; H. GU; H. LU; Y. YANG; E. A. STEIN; P. R. RAPP*. *NIH, Natl. Inst. on Aging, Johns Hopkins Univ., NIH, Natl. Inst. of Drug Abuse.*

4:00 QQ20 **82.12** Altered Arc and hippocalcin expression reflect activity-dependent and intrinsic excitability mechanisms in hippocampal-dependent spatial memory in an aging model. R. M. WILHELM*; L. T. THOMPSON. *Univ. of Texas At Dallas.*

1:00 QQ21 **82.13** The effects of aging on spine type and density on layer III pyramidal cells in area 7a of the intraparietal sulcus of behaviorally characterized primates. S. E. MOTLEY*; D. DUMITRIU; W. G. M. JANSSEN; P. R. RAPP; J. H. MORRISON. *Icahn Sch. of Med. at Mount Sinai, Icahn Sch. of Med. at Mount Sinai, Icahn Sch. of Med. at Mount Sinai, Californai Natl. Primate Res. Ctr., Natl. Inst. on Aging, Univ. of California Davis.*

2:00 QQ22 **82.14** Activation of $G_{\alpha q}$ signaling prevents age-related cognitive decline. R. AREY*; G. STEIN; R. KALETSKY; C. T. MURPHY. *Princeton Univ., Princeton Univ., Princeton Univ.*

3:00 RR1 **82.15** Sustained ERK1/2 activation in oligodendrocytes of the developing CNS enhances hippocampal-mediated contextual fear memory in aged mice. M. A. JEFFRIES*; C. S. WARD; S. SORIANO; S. VEERARAGAVAN; A. J. LIANG; T. L. WOOD; S. L. FYFFE-MARICICH; R. C. SAMACO. *Rutgers Univ., Univ. of Pittsburgh, Baylor Col. of Medicine/Jan and Dan Duncan Neurolog. Res. Inst., New Jersey Med. Sch, Rutgers Univ., Univ. of Pittsburgh.*

4:00 RR2 **82.16** Physical exercise elicits hippocampal structural and functional changes in the aged murine brain. X. ZHOU*; D. G. BLACKMORE; P. F. BARTLETT. *The Univ. of Queensland.*

1:00 RR3 **82.17** GABAergic basal forebrain integrity is compromised in aged monkeys with cognitive impairment. C. BANUELOS*; K. H. SCHULZE; J. R. KITTLESON; J. M. LONG; E. J. PEREZ; S. FONG; M. T. ROBERTS; P. R. RAPP. *NIH-NIA, Natl. Inst. on Aging, Natl. Inst. on Aging, NIH, UC Davis, NIH, Natl. Inst. on Aging.*

2:00 RR4 **82.18** Exercise has a persistent effect on learning and memory throughout the lifespan: The role of new neurons, inflammation and the cognitive reserve hypothesis. B. C. MOTA*; R. HENNESSY; Á. KELLY. *Trinity Col. Dublin.*

3:00 RR5 **82.19** ● ▲ Elevated inhibitory control is associated with intact cognition in aging across a hippocampal-cortical network. A. BHAMMAR*; R. P. HABERMAN; A. E. BRANCH; G. BLAIR; M. GALLAGHER. *The Johns Hopkins Univ.*

4:00 RR6 **82.20** Enhanced inhibitory engagement with hippocampal activation by aged rats with preserved memory function. R. P. HABERMAN*; A. MONASTERIO; A. E. BRANCH; G. BLAIR; G. RAO; J. J. KNIERIM; M. GALLAGHER. *Johns Hopkins Univ., Johns Hopkins Univ.*

1:00 RR7 **82.21** Increased control of inhibitory/excitatory balance in aged rats with preserved memory function. M. BRIDI*; T. TRAN; M. KOH; M. GALLAGHER; A. KIRKWOOD. *Johns Hopkins Univ., Johns Hopkins Univ.*

2:00 RR8 **82.22** Hippocampal CA3 miRNA and mRNA transcriptomes distinguish aged rats with impaired and preserved memory. A. E. BRANCH*; G. BLAIR; X. FU; M. GALLAGHER; J. M. BARABAN; R. P. HABERMAN. *Johns Hopkins Univ., Johns Hopkins Univ., Johns Hopkins Univ., Johns Hopkins Univ., Johns Hopkins Univ.*

POSTER

083. Hippocampal Circuits and Oscillations in Learning and Memory

Theme H: Cognition

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 RR9 **83.01** Ventro-dorsal hippocampal interaccion controls context memory formation. F. FREDES*; A. SILVA SIFUENTES; R. SHIGEMOTO. *IST Inst. of Sci. and Technol. Austria.*

2:00 RR10 **83.02** Reactivation of neuronal subpopulation in the dentate gyrus during memory recalls with long intervals. A. ARAKI*; K. MINATOHARA; M. AKIYOSHI; I. IMAYOSHI; R. KIM; T. KAWASHIMA; H. BITO; R. KAGEYAMA; H. OKUNO. *Ctr. of Med. Inv., Grad. Sch. of Med., Kyoto Univ., Inst. for Frontier Life and Med. Sciences, Kyoto Univ., Grad. Sch. of Medicine, Kyoto Univ., Grad. Sch. of Biostudies, Kyoto Univ., Dept. of Neurochem., Grad. Sch. of Med., Univ. of Tokyo, WPI-iCeMS, Kyoto Univ.*

3:00 RR11 **83.03** Exploration of noisy synaptic dynamics as a potential mechanism for temporal pattern separation in the dentate gyrus. A. MADAR; L. A. EWELL; J. A. PFAMMATTER; M. V. JONES*. *Univ. of Wisconsin-Madison, Univ. Bonn, Univ. of Wisconsin Madison, Univ. of Wisconsin Madison.*

4:00 RR12 **83.04** High ω3-polyunsaturated fatty acids in fat-1 mice prevent scopolamine-induced granular cell degeneration through BDNF signaling. H. TAE WOONG*; D. GWON; S. SHIN; J. SHIN; J. HONG; K. LIM; M. MOON; J. RO; J. KIM; D. KIM. *Chungnam Natl. Univ., Konyang Univ., LES Coration Inc.*

1:00 RR13 **83.05** Contribution of the ventral dentate gyrus to learned approach avoidance conflict processing. D. C. M. YEATES; A. C. H. LEE; R. ITO*. *Univ. of Toronto.*

2:00 RR14 **83.06** Activation of the supramammillary nucleus-dentate gyrus pathway by optogenetic induces an increase in theta and gamma power. P. LUPPI*; F. BILLWILLER; M. ESCLAPEZ. *CNRS UMR 5292/INSERM U1028, INSERM UMR 1106 - INS.*

3:00 RR15 **83.07** Increased theta gamma coupling within dentate networks during the planning stage of spatial navigation. V. DOUCHAMPS*; D. KERSPERN; C. MATHIS; R. GOUTAGNY. *Univ. of Strasbourg, LNCA - CNRS UMR 7364, LNCA UMR 7364 Unistra CNRS, CNRS UMR7364.*

4:00 RR16 **83.08** Stimulation of c-fos activity by IEG-promoting phenolic metabolites modulates optogenetic recapitulation of learned behavior. C. SMITH*; J. BRATHWAITE; T. FROLINGER; J. WANG; G. M. PASINETTI. *Icahn Sch. of Med. At Mount Sinai, James J. Peters Veterans Affairs Med. Ctr.*

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* Indicates abstract's submitting author

1:00 RR17 **83.09** Dentate gyrus contributes to retrieval as well as encoding: Evidence from context fear conditioning, recall and extinction. B. E. BERNIER*; A. F. LACAGNINA; A. AYOUB; F. SHUE; B. V. ZEMELMAN; F. B. KRASNE; M. R. DREW. *Univ. of Texas at Austin, The Univ. of Texas at Austin, Univ. Texas At Austin, UCLA, Univ. of Texas At Austin.*

2:00 RR18 **83.10** Identification and manipulation of fear extinction engrams in the hippocampus. A. F. LACAGNINA*; M. J. MCCARTY; C. R. CROVETTI; C. A. DENNY; M. R. DREW. *Univ. of Texas at Austin, Columbia Univ., Res. Fndn. for Mental Hyg.*

3:00 RR19 **83.11** Correlation between neurogenesis in the hippocampus and behavior test in Wistar Kyoto rat. M. UMAKOSHI*; T. YASUHARA; M. KAMEDA; T. SASAKI; J. MORIMOTO; M. OKAZAKI; K. KIN; K. KUWAHARA; I. KIN; Y. TOMITA; N. TAJIRI; I. DATE. *Okayama Univercity, Kibi Intl. Univ. Grad. Sch. of Psychology.*

4:00 RR20 **83.12** Interneuronal postinhibitory rebound can mediate gamma oscillations in pyramidal-interneuronal network. R. A. TIKIDJI-HAMBURYAN*; C. C. CANAVIER. *Louisiana State Univ. Hlth. Sci. Ctr.*

1:00 RR21 **83.13** Hippocampal oscillatory networks and chemogenetic manipulation of area CA2. L. Y. BROWN*; G. M. ALEXANDER; S. M. DUDEK. *UNC-Chapel Hill, Natl. Inst. of Envrn. Hlth. Sci.*

2:00 RR22 **83.14** Impaired *in vivo* gamma oscillations in the medial entorhinal cortex of knock-in Alzheimer model. T. NAKAZONO*; T. N. LAM; A. Y. PATEL; M. KITAZAWA; T. SAITO; T. C. SAIDO; K. M. IGARASHI. *Univ. of California, Irvine, Univ. of California, Irvine, Univ. of California, Irvine, RIKEN Brain Sci. Inst., Japan Sci. and Technol. Agency.*

3:00 RR23 **83.15** Modulation of hippocampal-prefrontal oscillations in Shank3 rats through fimbria-fornix stimulation. V. LUO*; M. L. SHAPIRO. *Icahn Sch. of Med. At Mount Sinai.*

4:00 RR24 **83.16** Decoding subsequent behavioral response to tone stimulus from rat hippocampal local field potential recordings using deep learning. K. TOKUDA*; M. HONMA; S. KAWAHARA; H. SUZUKI. *The Univ. of Tokyo, Univ. of Toyama.*

1:00 RR25 **83.17** In the medial prefrontal cortex gamma couples to respiration, not theta. A. B. TORT*; J. BRANKAčK; A. DRAGUHN. *Brain Institute, UFRN, Heidelberg Univ.*

2:00 RR26 **83.18** Coding for interactive behaviors of medial prefrontal areas during joint operant conditioning in male rats. A. GRUART*; A. R. CONDE-MORO; F. DA ROCHA-ALMEIDA; R. SANCHEZ-CAMPUSANO; J. DELGADO-GARCIA. *Pablo de Olavide Univ., Biophysic and Med. Physic Center. Univ. de Oriente, Pablo Olavide Univ.*

3:00 RR27 **83.19** Differences in eeg power and coherence between young and elderly healthy adults during an incidental/ intentional learning/memory visuospatial task. M. JUNCO; O. MEJÍA-RODRÍGUEZ; M. CERVANTES; M. A. LÓPEZ-VÁZQUEZ; M. OLVERA-CORTES*. *Univ. Michoacana De San Nicolás De Hidalgo, Ctr. de investigación Biomédica de Michoacán, Inst. Mexicano Del Seguro So, Fac. C. Medicas y Biologicas.*

4:00 RR28 **83.20** Oscillatory states in human parietal cortex predict subsequent memory performance: Evidence from ECoG recordings. A. GONZALEZ*; J. B. HUTCHINSON; M. R. UNCAPHER; J. PARVIZI; A. D. WAGNER. *Stanford Univ., Northeastern Univ., Univ. of California San Francisco, Stanford Univ., Stanford Univ.*

1:00 RR29 **83.21** Differential structural maturation of neurons in distinct layers and subdivisions of the monkey entorhinal cortex during postnatal development. O. PIGUET*; L. J. CHAREYRON; P. BANTA LAVENEX; D. G. AMARAL; P. LAVENEX. *Univ. of Lausanne, Univ. of Fribourg, Univ. of California Davis.*

2:00 RR30 **83.22** ▲ Role of the medial entorhinal cortex in temporal aspects of memory processing in rats. T. A. FISHER*; A. E. MORSE; A. C. CAMACHO; J. B. HALES. *Univ. of San Diego.*

3:00 RR31 **83.23** Fast gamma rhythms predominate over slow gamma rhythms in superficial layers of medial entorhinal cortex. J. B. TRIMPER*; S. G. TRETTEL; E. HWAUN; L. L. COLGIN. *The Univ. of Texas At Austin, Univ. of Texas at Austin, Univ. of Texas At Austin.*

4:00 RR32 **83.24** Intrinsic projection of entorhinal layer Vb neurons of the rat. M. ONODERA*; S. OHARA; T. IIJIMA; M. P. WITTER; K. TSUTSUI. *Tohoku Univ. Grad. Sch. of Life Sci., Kavli Inst. Systems Neuroscience, Norw. Univ. Sci. & Tech.*

1:00 RR33 **83.25** Object and visual contextual information processing in the perirhinal cortex and postrhinal cortex. J. AHN*; I. LEE. *Seoul Natl. Univ.*

2:00 RR34 **83.26** Cholinergic modulation of interneurons in the medial entorhinal cortex. K. A. YOUNG*; M. C. BROWN; C. `. KELLEY; M. E. HASSELMO. *Boston Univ., Boston Univ.*

3:00 RR35 **83.27** Differential effects of diazepam on exploration are modulated differently by ventral and dorsal hippocampal theta activity. Y. ZHAN*; B. SI; Y. HAN; A. L. VYSSOTSKI. *Shenzhen Inst. of Advanced Technology, CAS, Shenyang Inst. of Automation, Chinese Acad. of Sci., Inst. of Neuroinformatics, Univ. of Zurich and ETH Zurich.*

POSTER

084. Cortical and Hippocampal Circuits: Spatial Navigation

Theme H: Cognition

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 RR36 **84.01** Global remapping in the hippocampus and entorhinal cortex during spatial navigation and its relationship to choice accuracy in a novel two-platform water task in rats. J. Q. LEE*; R. J. MCDONALD; R. J. SUTHERLAND. *Univ. of Lethbridge, Univ. Lethbridge, Univ. Lethbridge.*

2:00 SS1 **84.02** Spatial representations of the other and self in the hippocampus. T. DANJO*; S. FUJISAWA. *Riken Brain Sci. Inst.*

3:00 SS2 **84.03** Spatial representation and firing periodicity of hippocampal CA1 pyramidal neurons in the freely behaving monkey. Y. HAZAMA*; R. TAMURA. *Univ. of Toyama.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

4:00 SS3 **84.04** Bilateral lesions of the lateral mammillary nucleus impair spatial learning in rats. D. M. SKINNER*; S. C. WAYE; R. L. BUNGAY; G. M. MARTIN. *Mem. Univ. of Newfoundland.*

1:00 SS4 **84.05** An advanced data software architecture for neurodata without borders (NWB) to enable efficient management, use and sharing of neurophysiology data. O. RUEBEL*; A. TRITT; D. CAMP; E. F. CHANG; D. DONOFRIO; L. M. FRANK; F. T. SOMMER; K. BOUCHARD. *Lawrence Berkeley Natl. Lab., UCSF, UC San Francisco, Helen Wills Neurosci. Inst., Lawrence Berkeley Natl. Lab.*

2:00 SS5 **84.06** ● Modular polymer probe-based system enables long-lasting, high-quality recordings from distributed circuits in freely behaving animals. J. E. CHUNG*; J. L. FAN; H. R. JOO; D. F. LIU; C. R. GEAGHAN-BREINER; S. CHEN; J. PEBBLES; A. TOOKER; K. Y. LEE; J. F. MAGLAND; A. H. BARNETT; L. F. GREENGARD; V. TOLOSA; L. M. FRANK. *Univ. of California, San Francisco, Univ. of California, San Francisco, Univ. of California, San Francisco, Lawrence Livermore Natl. Lab., Flatiron Inst., Dartmouth Col., UC San Francisco, Howard Hughes Med. Inst., Kavli Inst. for Fundamental Neurosci.*

3:00 SS6 **84.07** Reactivation of nucleus accumbens neurons during awake dorsal and ventral hippocampal sharp-wave ripples. M. SOSA*; H. R. JOO; L. M. FRANK. *Univ. of California, San Francisco, Univ. of California, San Francisco, Univ. of California, San Francisco.*

4:00 SS7 **84.08** Continuous rhythmic alternation between divergent spatial codes in the hippocampus. K. KAY*; J. E. CHUNG; M. SOSA; J. S. SCHOR; M. P. KARLSSON; M. C. LARKIN; L. M. FRANK. *UCSF, UCSF, UCSF, UCSF.*

1:00 SS8 **84.09** Unique and general representations of experience are linked in hippocampal-cortical networks. J. Y. YU*; D. F. LIU; A. LOBACK; I. GROSSRUBATSCHER; L. M. FRANK. *UCSF, Princeton Univ., UC Berkeley, UC San Francisco.*

2:00 SS9 **84.10** ● Apolipoprotein E4-induced hippocampal network activity deficits reflect cell-type-specific gains of toxic function. E. A. JONES*; A. K. GILLESPIE; Y. LIN; S. YOON; L. M. FRANK; Y. HUANG. *Gladstone Inst., Univ. of California, Univ. of California, Univ. of California, Univ. of California, Univ. of California, Univ. of California.*

3:00 SS10 **84.11** MountainSort: A fully automated approach to spike sorting. J. MAGLAND*; J. E. CHUNG; A. BARNETT; V. M. TOLOSA; A. C. TOOKER; K. Y. LEE; K. G. SHAH; S. H. FELIX; L. M. FRANK; L. F. GREENGARD. *Flatiron Inst., Univ. of California, San Francisco, Dartmouth Col., Lawrence Livermore Natl. Lab., UC San Francisco.*

4:00 SS11 **84.12** How is a place field generated? Developing a method for the functional identification of inputs to a single hippocampal neuron. R. JACOBSEN*; F. DONATO; R. R. NAIR; C. KENTROS; M. MOSER; E. I. MOSER. *The Norwegian Univ. of Sci. and Technol.*

1:00 SS12 **84.13** Impaired grid coding in old mice. Q. CAO*; C. MIAO; E. I. MOSER; M. MOSER. *FMI, Norwegian Univ. of Sci. and Technol.*

2:00 SS13 **84.14** A brainstem/basal forebrain/cortical circuit for the neuronal coding of locomotion speed. N. TANKE*; M. M. CARVALHO; E. KROPFF CAUSA; M. P. WITTER; M. MOSER; E. I. MOSER. *Norwegian Univ. of Sci. and Technol., Leloir Inst. - IIBBA - CONICET.*

3:00 SS14 **84.15** Precise control of theta frequency by acceleration during spatial navigation. E. KROPFF CAUSA*; J. E. CARMICHAEL; E. I. MOSER; M. MOSER. *Leloir Inst. - IIBBA - CONICET, Kavli Inst. Systems Neurosci, Dartmouth Col.*

4:00 SS15 **84.16** Environmental influences on the grid pattern. M. HAGGLUND*; M. MØRREAUNET; M. MOSER; E. I. MOSER. *Kavli Inst. for Systems Neuroscience,CNC,NTNU.*

1:00 SS16 **84.17** Object-vector cells in the medial entorhinal cortex. Ø. A. HØYDAL*; E. R. SKYTØEN; M. MOSER; E. I. MOSER. *NTNU.*

2:00 SS17 **84.18** Parvalbumin and somatostatin expressing interneurons contribute differentially to spatial coding in the medial entorhinal cortex. C. MIAO*; Q. CAO; E. I. MOSER; M. MOSER. *FMI, Norwegian Univ. of Sci. and Technol.*

3:00 SS18 **84.19** Functional characterization of layer Va cells in the medial entorhinal cortex. D. C. ROWLAND*; H. A. OBENHAUS; R. R. NAIR; E. I. MOSER; M. MOSER. *NTNU, Kavli Inst. Systems Neurosci.*

4:00 SS19 **84.20** Patterned activity in the developing medial entorhinal cortex. F. DONATO*; H. OBENHAUS; R. I. JACOBSEN; M. MOSER; E. I. MOSER. *Kavli Inst. For Systems Neurosci.*

1:00 SS20 **84.21** Integrating time in lateral entorhinal cortex. A. TSAO*; J. SUGAR; L. LU; C. WANG; J. J. KNIERIM; M. MOSER; E. I. MOSER. *CNC/KAVLI, NTNU, Johns Hopkins Univ.*

2:00 SS21 **84.22** Mixed selectivity in subiculum. D. LEDERGERBER*; R. GARDNER; H. T. ITO; E. I. MOSER; M. MOSER. *Kavli Inst. For Systems Neuroscience, NTNU, Kavli Inst. Systems Neurosci., Max Planck Inst. for Brain Res., Kavli Inst. Systems Neurosci.*

3:00 SS22 **84.23** Spatial learning controls instinctive defensive behaviors in mice. R. VALE*; D. A. EVANS; T. BRANCO. *UCL Sainsbury Wellcome Ctr., MRC Lab. of Mol. Biol.*

4:00 SS23 **84.24** Subicular neurons carry spatial information in high-frequency spikes. J. SIMONNET*; M. BRECHT. *Humboldt Univ. zu Berlin.*

1:00 SS24 **84.25** Impaired spatial memory and enhanced habit memory in an animal model of post-traumatic stress disorder. J. GOODMAN*; C. MCINTYRE. *Univ. of Texas at Dallas.*

2:00 SS25 **84.26** Retrosplenial ensembles encode spatial and temporal context. A. M. MILLER*; A. C. SERRICHIO; A. L. TSE; C. SHI; D. M. SMITH. *Cornell Univ.*

3:00 SS26 **84.27** Retrosplenial cortex integrates long-range inhibitory CA1 inputs and excitatory thalamic inputs at layer 1 apical dendrites of layer 5 pyramidal neurons. N. YAMAWAKI*; J. RADULOVIC; G. M. G. SHEPHERD. *Northwestern Univ., Northwestern Univ.*

4:00 SS27 **84.28** Maturation of excitatory synapses in the juvenile rodent hippocampus supports spatial navigation ability in the Barnes maze. C. KIMBALL*; J. CHEN; A. AGYEMAN-ANDOH; N. VALIBEIGI; D. G. MCHAIL; N. COSTELLO; T. C. DUMAS. *George Mason Univ., George Mason Univ., George Mason Univ.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

1:00 SS28 **84.29** Complex rodent spatial navigation optimization in a large-scale environment. B. HARLAND*; M. CONTRERAS; P. SCLEIDOROVICH; M. LLOFRIU; N. CAZIN; A. WEITZENFELD; P. DOMINEY; J. FELLOUS. *Univ. of Arizona, Univ. of South Florida, Inserm U1208, SBRI.*

POSTER

085. Perception and Imagery

Theme H: Cognition

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 SS29 **85.01** A variation of the method of constant stimuli: A new psychophysical method and its numerical and experimental evaluation. K. SAWAI*; Y. SATO; K. AIHARA; Y. NAKAJIMA. *The Univ. of Tokyo, Kyushu Univ.*

2:00 SS30 **85.02** ▲ Tracking the relationship between eye movements and surveys. J. BUENROSTRO*; M. F. AWAD; D. L. LARRANAGA; J. F. AWAD; T. GORJI; R. MORALES; S. A. DREW. *California State Univ. Northridge, California State University, Northridge, VISN Lab. At California State University, Northridg, California State University, Northridge, California State University, Northridge.*

3:00 SS31 **85.03** Effect of predictability on the reconstruction of dynamic visual objects in early visual cortex. S. PARK*; H. SONG; W. M. SHIM. *Ctr. for Neurosci. Imaging Research, IBS, Sungkyunkwan Univ.*

4:00 SS32 **85.04** The effects of tDCS on orientation discrimination task performance. A. BIN DAWOOD; M. JONES*; A. DICKINSON; A. AYTEMUR; C. HOWARTH; E. MILNE. *Univ. Sheffield, UCLA.*

1:00 SS33 **85.05** Malformations of the human corpus callosum compromise low-level visual perception. A. S. MAALLO*; R. J. DEAN; L. J. RICHARDS; M. BARTH; J. B. MATTINGLEY; G. J. GOODHILL. *Univ. of Queensland, Univ. of Queensland, Univ. of Queensland, Univ. of Queensland, Univ. of Queensland.*

2:00 SS34 **85.06** Attention-controlled temporal frequency sensitivities in human striate and extrastriate visual cortex. I. KIM*; D. KIM; W. SHIM. *Ctr. For Neurosci. Imaging Research, IBS, Sungkyunkwan Univ.*

3:00 SS35 **85.07** Frontopolar transcranial direct current stimulation changes intrinsic functional connectivity networks during resting-state fMRI. J. HAN; M. KANG; S. HAN. *Yonsei Univ., Yonsei Univ., Yonsei Univ., Yonsei Univ.*

4:00 SS36 **85.08** Systems-level network integration predicts trialwise TMS effects on temporal perception. R. WURZMAN*; M. WIENER; R. H. HAMILTON; H. B. COSLETT; J. D. MEDAGLIA. *Univ. of Pennsylvania, George Mason Univ., Univ. of Pennsylvania.*

1:00 SS37 **85.09** The spatial and spectral distribution of visual information: An unbiased exploration using electrocorticographic recordings in the human brain. Z. SABRA*; L. BONILHA; T. NASELARIS. *Med. Univ. of South Carolina, Med. Univ. of South Carolina.*

2:00 SS38 **85.10** Differences between onset and sustained rivalry bias are explained by the canonical cortical circuit model. C. HOUGHTON; C. C. CHOW*; S. VATTIKUTI. *NIH, NIH/NIDDK.*

3:00 SS39 **85.11** Frontal neural oscillatory activity modulates bistable perception switch. C. QIN*; Y. PAN; Z. TAN; W. ZHOU; L. REN; L. WANG. *Inst. of Psychology, Univ. of Chinese Acad. of Sci., Epilepsy Ctr. of Yuquan Hospital, Tsinghua Univ., Beijing Inst. of Functional Neurosurgery, Xuanwu Hospital, Capital Med. Univ.*

4:00 SS40 **85.12** Evidence for face selectivity in early vision. F. CAMPANA*; J. MARTIN; L. BOKERIA; S. THORPE; M. RIESENHUBER. *Johns Hopkins Univ., Univ. Paul Sabatier, Georgetown Univ.*

1:00 SS41 **85.13** Visual scanpaths during the visualization of self and other faces. I. B. GREBOT*; W. C. DE SOUZA; M. A. G. FEITOSA. *Univ. of Brasilia - UnB.*

2:00 SS42 **85.14** Visual imagery of objects of expertise in face-selective visual areas. M. A. SUNDAY*; R. W. MCGUGIN; B. J. TAMBER-ROSENAU; I. GAUTHIER. *Vanderbilt Univ., Univ. of Houston.*

3:00 SS43 **85.15** Representations of emotional scenes during perception and memory retrieval. D. PARK*; S. LEE. *Korea Advanced Inst. of Sci. and Technol., Korea Advanced Inst. of Sci. and Technol.*

4:00 SS44 **85.16** Neural habituation, novelty detection, and the visual perception of words: An ERP study. H. PIRES DE LIMA JACOB*; D. E. HUBER. *Univ. of Massachusetts Amherst.*

1:00 SS45 **85.17** Probing the electrophysiology of visual word form processing and connections to language areas using intracranial recordings in humans. N. REN*; A. RAUSCHECKER; O. RACCAH; J. PARVIZI; B. A. WANDELL. *Dept. of Psychology, Peking Univ., Lab. of Behavioral & Cognitive Neurosci. (LBCN), Stanford Human Intracranial Cognitive Electrophysiology Program (SHICEP), Dept. of Neurol. & Neurolog. Sciences, Stanford Univ., Dept. of Radiology, Hosp. of the Univ. of Pennsylvania, Stanford Univ.*

2:00 SS46 **85.18** Competition for event formation in auditory scene analysis. H. TANG; E. S. SUSSMAN*. *Albert Einstein Col. of Med., Albert Einstein Col. of Med.*

3:00 SS47 **85.19** Synesthetic perception of speech: Why Hungarians like Spanish and Chinese marvel at French. I. GRANTYN*. *Humboldt-Universität zu Berlin.*

4:00 SS48 **85.20** Differing neural strategies in left and right-handed individuals during motor imagery. T. T. WHITTIER; J. MIZELLE; N. MURRAY*. *East Carolina Univ., East Carolina Univ.*

1:00 SS49 **85.21** Role of the precentral cortex for kinesthetic motor imagery: fMRI multivariate decoding of finger movements. K. OGAWA*; F. IMAI; J. SHINOZAKI; H. SAITO; H. NAGAHAMA; Y. SAKURAI; T. NAGAMINE. *Hokkaido Univ., Sapporo Med. Univ., Sapporo Med. Univ. Sch. of Hlth. Sci., Sapporo Med. Univ. Hosp.*

2:00 SS50 **85.22** Combining computational modeling and brain imaging reveals distinct processing of different movement qualities. M. VAESSEN; E. ABASSI; A. CAMURRI; B. DE GELDER*. *Maastricht Univ., Univ. degli Studi di Genova.*

3:00 SS51 **85.23** Sensing the world through a hand-held tool. L. E. MILLER*; L. MONTRONI; R. SALEMME; V. HAYWARD; A. FARNÈ. *Lyon Neurosci. Res. Ctr., Univ. Pierre et Marie Curie.*

4:00 SS52 **85.24** Leveraging a motor task to reveal intermediate cognitive states. S. D. MCDOUGLE*; J. A. TAYLOR. *Princeton Univ.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

1:00 SS53 **85.25** Connectivity analysis during self-contemplating image formation. D. GUPTA*; Q. MENG; E. HONG; F. CHOA. *Univ. of Maryland Baltimore County, Univ. of Maryland Baltimore County, Maryland Psychiatric Res. Ctr., UMBC.*

2:00 SS54 **85.26** Electro-neurophysiological change in traditional buddhist meditation. S. TONG*; X. GUO; X. WANG; M. WANG; Z. WANG; T. XUE; H. LI; T. XU; B. HE; D. CUI. *Shanghai Jiao Tong Univ., Shanghai Key Lab. of Psychotic Disorders, Univ. of Minnesota.*

3:00 SS55 **85.27** Detecting meditative states through meta-state matching with time-varying functional connectivity matrices. S. HIWA*; T. HIROYASU. *Doshisha Univ.*

4:00 SS56 **85.28** ▲ Network analysis of brain activity during breath-counting meditation by fNIRS. S. YAMAMOTO*; S. HIWA; T. HIROYASU. *Doshisha Univ. Kyoutanabe Campus, Doshisha Univ., Doshisha Univ.*

1:00 SS57 **85.29** Precuneus Delta Power as a potential marker of unconsciousness under anesthesia. R. D. SANDERS*; M. DARRACQ; M. BANKS; V. BONHOMME; S. LAUREYS; M. BOLY. *Univ. of Wisconsin, Madison, UW, Coma Sci. Group.*

2:00 SS58 **85.30** ● Neural correlates of ambient thermal discomfort: An fMRI study. K. D. SANTOS KAWATA*; S. YAMAZAKI; K. HIRANO; Y. HAMAMOTO; H. OI; A. KANNO; R. KAWASHIMA; M. SUGIURA. *Tohoku Univ., Nissan Motor Co. Ltd, Tohoku Univ., Tohoku Univ., Tohoku Univ.*

3:00 SS59 **85.31** Alpha power response-relevant and response-irrelevant distractors with clear and vocoded speech in a delayed match-to-sample task. E. AUER*, JR; S. P. EBERHARDT; L. E. BERNSTEIN. *George Washington Univ.*

POSTER

086. Human Long-Term Memory in Children and in the Elderly

Theme H: Cognition

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 SS60 **86.01** The effects of brain volume on the learning and forgetting of the serial position components of a multi-trial word list in mild cognitive impairment and Alzheimer's disease. J. W. GRIFFIN*; S. E. JOHN; B. E. GAVETT. *Univ. of Colorado Colorado Springs, Emory Brain Hlth. Ctr.*

2:00 SS61 **86.02** Object and scene memory are differentially associated with CSF markers of Alzheimer's disease and MRI volumetry. D. BERRON*; H. SCHUETZE; A. CARDENAS-BLANCO; K. FLIESSBACH; M. WAGNER; A. SPOTTKE; M. REUTER; S. TEIPEL; K. BÜRGER; A. SCHNEIDER; O. H. PETERS; P. NESTOR; J. PRILLER; J. WILTFANG; C. LASKE; F. JESSEN; E. DÜZEL. *Otto-von-Guericke Univ., German Ctr. for Neurodegenerative Dis., Univ. Hosp. Bonn, German Ctr. for Neurodegenerative Dis., Harvard Med. Sch., MIT, Univ. Med. Rostock, German Ctr. for Neurodegenerative Dis., Ludwig-Maximilians-Universität, German Ctr. for Neurodegenerative Dis., Charité-Univ Med. Berlin, CBF, German Ctr. for Neurodegenerative Dis., Charite-Universitaetsmedizin Berlin, Univ. Med. Ctr. Göttingen, German Ctr. for Neurodegenerative Dis., Eberhard Karls Univ., German Ctr. for Neurodegenerative Dis., Univ. of Cologne, Univ. Col. London.*

3:00 SS62 **86.03** Atrophy of specific hippocampal subfields in mild cognitive impairment is associated with impaired verbal and visual-spatial memory. D. SODUMS*; C. WORKMAN; J. JOO; N. NASSERY; G. S. SMITH. *Johns Hopkins Univ., Johns Hopkins Univ.*

4:00 SS63 **86.04** Patterns of hippocampal long axis dynamics change across the lifespan. I. BRUNEC*; B. BELLANA; M. BARENSE; M. MOSCOVITCH. *Univ. of Toronto, Rotman Res. Institute, Baycrest.*

1:00 SS64 **86.05** Recognition memory paradoxically shielded from semantic but not perceptual interference in natural aging: A representational-hierarchical account. D. WILSON*; K. POTTER; R. A. COWELL. *Univ. of Massachusetts, Amherst.*

2:00 SS65 **86.06** ▲ Configuration of stimuli modifies the age-related associative memory deficit. J. M. SALERNO*; K. E. MCGRAW; M. ROWLEY; A. P. GIGLIO; J. M. HUHN, III; N. A. DENNIS; A. A. OVERMAN. *Elon Univ., Elon Univ., Elon Univ., The Pennsylvania State Univ.*

3:00 SS66 **86.07** ● ▲ Testing the negative repetition effect in older adults. B. D. WILLIAMS*; M. E. STOCKER; J. D. W. STEPHENS; A. A. OVERMAN. *Elon Univ., North Carolina A&T State Univ.*

4:00 TT1 **86.08** ▲ Effects of expectation on working memory performance in cognitive aging. V. JOHNSON*; T. ZANTO; N. PADGAONKAR; A. GAZZALEY. *Univ. of California, San Francisco.*

1:00 TT2 **86.09** Impact of semantic relatedness and frequency of the association on the age-related associative deficit. E. DELHAYE*; C. BASTIN. *Univ. of Liege, GIGA-CRC In Vivo Imaging, Univ. of Liege.*

2:00 TT3 **86.10** Sleep restriction impairs knowledge formation in adolescents. J. N. COUSINS*; K. WONG; M. W. L. CHEE. *Duke-Nus Med. Sch.*

3:00 TT4 **86.11** Neural and behavioral correlates of negative overgeneralization. A. MATTFELD*; J. W. PETTIT; A. VAZQUEZ; A. KIMBLER; C. YEGUEZ; D. L. MCMAKIN. *Florida Intl. Univ.*

4:00 TT5 **86.12** Relational memory is positively associated with academic achievement among preadolescent children. K. M. HASSEVOORT*; C. H. HILLMAN; N. A. KHAN; N. J. COHEN. *The Beckman Inst. of Sci. and Technol., Univ. of Illinois at Urbana-Champaign, Northeastern Univ.*

1:00 TT6 **86.13** Context reinstatement in developmental amnesia. R. ELWARD*; M. D. RUGG; M. MISHKIN; F. VARGHA-KHADEM. *Univ. Col. London, Univ. of Texas at Dallas Ctr. for Vital Longevity, NIMH, UCL Inst. of Child Hlth.*

2:00 TT7 **86.14** Reduced hippocampal volumes and novelty preference in infants with corrected cardiac defects. M. MARTINOU*; R. ELWARD; M. K. SAINI; D. GADIAN; M. DE HAAN; M. MISHKIN; D. CARMICHAEL; T. BALDEWEG; F. VARGHA-KHADEM. *Ucl/Institute of Child Hlth., Ucl/Institute of Child Hlth., Univ. Col. London, UCL Inst. of Child Hlth., UCL Inst. of Child Hlth., NIMH.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

POSTER

087. Understanding and Producing Language in Health and Disease

Theme H: Cognition

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 TT8 **87.01** The neural basis of sign language processing: Evidence from hearing bimodal bilinguals. B. COSTELLO*; P. PAZ-ALONSO; M. CARREIRAS. *BCBL, Ikerbasque, Basque Fndn. for Sci., Univ. of the Basque Country.*

2:00 TT9 **87.02** Prepared to read. Mind wandering during oral reading correlated with resting state fMRI: A lagged analysis. E. E. JAHNER*; X. F. YANG; M. IMMORDINO-YANG. *Univ. of California Riverside, USC.*

3:00 TT10 **87.03** EEG MVPA provides evidence for short latency semantic representations in temporal and parietal areas compatible with a feedforward simple-to-complex hierarchy. S. R. DAMERA*; P. S. MALONE; C. SCHOLL; J. S. KIM; M. RIESENHUBER. *Georgetown Univ.*

4:00 TT11 **87.04** Brain bases of acquired reading impairments in stroke. W. W. GRAVES*; O. BOUKRINA; A. BARRETT. *Rutgers Univ. Dept. of Psychology, Kessler Fndn., Kessler Fndn.*

1:00 TT12 **87.05** Neuronal activity in the human subthalamic nucleus during speech production. A. RAMÍREZ-CÁRDENAS*; K. TJADEN; L. KOPF; H. CHEN; K. BRYANT; D. CORCOS; J. D. GREENLEE. *Univ. of Iowa Hosp. and Clinics, Univ. of Buffalo, Univ. of Iowa, Northwestern Univ.*

2:00 TT13 **87.06** The importance of “motherese”: Early drivers of successful communication. E. A. PIAZZA*; M. C. IORDAN; U. HASSON; C. LEW-WILLIAMS. *Princeton Univ.*

3:00 TT14 **87.07** Multivariate pattern analysis reveals semantic information in brain areas activated for nonwords. H. J. LEVINSON*; S. MATTHEISS; W. W. GRAVES. *Rutgers Univ., Rutgers Univ. Dept. of Psychology.*

4:00 TT15 **87.08** Indexing the semantic processing of natural speech with EEG. E. C. LALOR*; M. P. BRODERICK; G. M. DI LIBERTO; A. ANDERSON. *Univ. of Rochester, Trinity Col. Dublin, Trinity Col. Dublin, Univ. of Rochester.*

1:00 TT16 **87.09** Intrinsic Cerebro-Cerebellar Functional Connectivity reveals the function of cerebellum VI in reading. C. ANG*; X. FENG; H. LI; M. ZHANG; X. YANG; M. TIAN; Y. GAO; X. MENG; G. DING. *Beijing Normal Univ., Peking Univ., Inst. of psychology, Chinese Acad. of Sci.*

2:00 TT17 **87.10** Cerebro-cerebellar network plasticity in chronic left-hemisphere stroke revealed by resting state functional connectivity. A. T. DEMARCO*; P. TURKELTAUB; C. J. STOODLEY. *Georgetown Univ., American Univ.*

3:00 TT18 **87.11** EEG-based time-frequency analysis for case marker violation task in verb-final language. J. LEE*; D. YEO; S. OH; Y. LEE; K. KIM; J. SUNG; S. JUN. *Ewha Womans Univ., Ewha Womans Univ., Yonsei Univ., Ewha Womans Univ., Ewha Womans Univ.*

4:00 TT19 **87.12** Elementary composition in language processing: An EEG study. E. FLÓ*; Á. CABANA; J. C. VALLE LISBOA. *CIBPsi, Facultad de Psicología, UdelaR.*

1:00 TT20 **87.13** Using Indian orthographic stimuli-evoked ERPs to evaluate language acquisition in early primary schoolchildren. A. PREMCHANDRA*; S. ANAND; A. P. MENON; K. K. V. SANKAR; S. BORO; M. JAYACHANDRA. *ST.JOHN’S RESEARCH INSTITUTE, Indian Inst. of Sci., Chhattisgarh Infotech Promotion Society, ST.JOHN’S RESEARCH INSTITUTE, District Collectorate, NDRF.*

2:00 TT21 **87.14** Longitudinal decline in the production of concrete nouns in svPPA. K. A. COUSINS*; S. ASH; M. GROSSMAN. *Univ. of Pennsylvania, Univ. Pennsylvania Sch. Med., Univ. of Pennsylvania.*

3:00 TT22 **87.15** Analyzing functional connectivity network dynamics from ECoG data, using non-parametric graph theoretic tools in an object naming task. S. YELLAPANTULA*; N. TANDON; B. AAZHANG. *Rice Univ., Univ. of Texas Med. Sch. at Houston, Rice Univ.*

1:00 DP11/TT23 **87.16** (Dynamic Poster) Spatiotemporal activation patterns associated with self-paced verbal fluency utterances. S. T. WILLIAMS*; P. SHAH; H. GATENS; V. PIAI; A. KRIEGER; T. H. LUCAS, II; B. LITT. *Univ. of Pennsylvania, Univ. of Pennsylvania, Radboud Univ. Med. Ctr., Univ. of Pennsylvania, Univ. of Pennsylvania.*

1:00 TT24 **87.17** Episodic and semantic components of lexical knowledge: A computational model. Á. CABANA*; E. FLÓ; C. ZUGARRAMURDI; J. C. VALLE-LISBOA. *Univ. De La Republica.*

2:00 TT25 **87.18** Neural source dynamics of brain responses to continuous speech: From acoustics to comprehension. C. BRODBECK*; A. PRESACCO; J. Z. SIMON. *Univ. of Maryland, Univ. of California, Irvine, Univ. of Maryland.*

POSTER

088. Computational Models of Decision Making

Theme H: Cognition

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 TT26 **88.01** A neurally-informed model of sensory- and motor-level biases in rapid sensorimotor decision making. K. AFACAN*; S. KELLY. *City Col. of New York, Univ. Col. Dublin.*

2:00 TT27 **88.02** Control mechanisms for flexibility in a changing world. B. A. EBITZ*; J. D. COHEN; T. BUSCHMAN. *Princeton Univ., Princeton Univ.*

3:00 TT28 **88.03** Changing maladaptive decision making through behavioral intervention: Implications for eating disorders. E. HARTNETT*; A. BAKKOUR; T. SCHONBERG; B. WALSH; K. E. FOERDE; J. STEINGLASS; D. SHOHAMY. *Columbia Univ., Tel Aviv Unviersity, Columbia Univ. Med. Ctr.*

4:00 TT29 **88.04** The double subject fallacy: Neuroscience, closet dualism, and defendant culpability. K. SITA*; U. MAOZ; L. MUDRIK; J. J. A. VAN BOXTEL; G. YAFFE. *UCLA, UCLA, Tel Aviv Univ., Monash Univ., Yale Univ.*

1:00 TT30 **88.05** Optimal prediction strategies in noisy and changing environments. G. TAVONI*; T. DOI; C. PIZZICA; V. BALASUBRAMANIAN; J. I. GOLD. *Univ. of Pennsylvania.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract’s submitting author

2:00 TT31 **88.06** Behavioral and EEG signatures of hierarchical evidence accumulation. M. R. NASSAR*; J. S. KIM; M. J. FRANK. *Brown Univ., Brown Univ., Brown Inst. for Brain Sci.*

3:00 TT32 **88.07** Effort-reward decision-making in math anxious individuals. K. CHOE*; C. S. ROZEK; J. BRAXTON; M. G. BERMAN; S. L. BEILOCK. *Univ. of Chicago.*

4:00 TT33 **88.08** A Bayesian psychophysics model of a hierarchical sense of agency. R. LEGASPI*; T. TOYOIZUMI. *RIKEN Brain Sci. Inst.*

1:00 DP12/TT34 **88.09** (Dynamic Poster) Dopamine, prefrontal cortex, and strategic reasoning. Z. ZHANG*; I. SAEZ; M. HSU; A. KAYSER. *Univ. of California, Berkeley, Univ. of California, San Francisco, Univ. of California, Berkeley, VA Northern California Hlth. Care Syst.*

2:00 TT35 **88.10** Dopamine modulates both option generation and creativity in behaviour. Y. ANG*; S. MANOHAR; O. PLANT; C. LE HERON; M. HUSAIN. *Univ. of Oxford.*

3:00 TT36 **88.11** Dorsal anterior cingulate-midbrain ensemble as a reinforcement meta-learner. M. SILVETTI*; E. VASSENA; T. VERGUTS. *Ghent Univ., Donders Inst. for Brain Cognition and Behaviour.*

4:00 TT37 **88.12** Non-normative information sampling in humans. K. KOBAYASHI*; Y. JEON; A. BARANÈS; S. RAVAIOLI; M. WOODFORD; J. GOTTLIEB. *Columbia Univ.*

1:00 TT38 **88.13** Time preferences are reliable across time-horizons and verbal vs. experiential tasks. Y. WANG; E. LUKINOVA; J. MOLLER-MARA; S. F. LEHRER; J. C. ERLICH*. *NYU Shanghai, New York Univ., Queen's Univ., Natl. Bureau of Econ. Res., NYU-ECNU Inst. for Brain and Cognitive Sci.*

2:00 TT39 **88.14** The computational role of executive control in economic decisions. A. WIEHLER*; I. T. KURNIAWAN; J. DAUNIZEAU; M. PESSIGLIONE. *ICM - Hôpital Pitié Salpêtrière.*

3:00 TT40 **88.15** Local and global effects of irrelevant options on decision making. B. K. CHAU*; C. LAW; M. F. RUSHWORTH. *The Hong Kong Polytechnic Univ., Univ. of Oxford, Univ. of Oxford.*

4:00 TT41 **88.16** Context effects on subjective probability and choice under risk. W. SHIH*; S. WU. *Natl. Yang-Ming Univ.*

1:00 TT42 **88.17** Endowment effect on risk? Testing the stochasticity of reference point in decision under risk. S. CHANG*; C. YEH; S. WU. *Natl. Taiwan Univ., Natl. Taiwan Univ., Natl. Yang-Ming Univ.*

2:00 TT43 **88.18** Modifying the magnitude of stimulus noise can distinguish between neural mechanisms of evidence integration. G. PRAT ORTEGA*; K. WIMMER; N. WILMING; T. H. DONNER; A. C. ROXIN; J. DE LA ROCHA. *IDIBAPS Q5856414G, Ctr. de Recerca Matemàtica, Univ. Pompeu Fabra, Ctr. de Recerca Matemàtica, Dept. of Neurophysiol. and Pathophysiology, Univ. Med. Ctr. Hamburg-Eppendorf, Univ. Med. Ctr. Hamburg-Eppendorf, Ctr. De Recerca Matemàtica, IDIBAPS.*

3:00 TT44 **88.19** ▲ Musical Trailers: How do we sample and remember music? S. J. PHILIBOTTE*; S. SPIVACK; N. H. SPILKA; I. J. PASSMAN; P. WALLISCH. *New York Univ., New York Univ.*

4:00 TT45 **88.20** High refresh rate allows early decision making. M. POUJADE*; F. GALLUPPI; Q. SABATIER; M. A. KHOEI; R. BENOSMAN. *Inst. De La Vision, Gensight Biologics.*

1:00 TT46 **88.21** Testing optimal evidence accumulation and time preferences in value-based decision making. C. K. STEVERSON*; H. CHUNG; J. ZIMMERMANN; K. LOUIE; P. GLIMCHER. *NYU.*

2:00 TT47 **88.22** A model combining reinforcement learning and self-evaluations explains how humans learn about character traits. C. W. KORN*; G. ROSENBLAU; J. GLÄSCHER. *Univ. Med. Ctr. Hamburg-Eppendorf, George Washington Univ.*

3:00 TT48 **88.23** Neural mechanism underlying risk attitude and probability distortion: One two-stage model of valuation and choice. D. WANG*. *Sch. of Systems Science,Beijing Normal Universit.*

4:00 TT49 **88.24** ▲ Forcing speeded responses inflates RT variance: A speed-stability tradeoff. J. TEMAN*; R. B. IVRY; I. GREENHOUSE. *Univ. of California Berkeley, Univ. of California Berkeley.*

1:00 TT50 **88.25** Pattern of response time reveals the construction of reward value during adaptive learning and choice. S. FARASHAHI*; K. ROWE; Z. ASLAMI; M. GOBBINI; A. SOLTANI. *Dartmouth Col.*

2:00 TT51 **88.26** Dependence of reward-based learning and decision-making on environmental statistics such as reward abundance and variance. D. GUO*; A. J. YU. *UCSD, UCSD.*

POSTER

089. Individual Differences

Theme H: Cognition

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 TT52 **89.01** ▲ Psychopath aesthetics: Musical preference as an indicator of psychopathy scores. N. A. LEAL*; P. WALLISCH. *New York Univ., New York Univ.*

2:00 TT53 **89.02** Trait impulsiveness is related to smaller ventral putamen volumes in males but not females. F. CARAVAGGIO*; E. PLITMAN; J. K. CHUNG; P. GERRETSEN; J. KIM; Y. IWATA; M. CHAKRAVARTY; G. REMINGTON; A. GRAFF-GUERRERO. *Univ. of Toronto, Ctr. for Addiction and Mental Hlth., Douglas Mental Hlth. Inst.*

3:00 TT54 **89.03** ● The use of defined inclusion criteria to establish cognitive deficits in clinical trials of interventions on cognition performance. J. L. EVENDEN*; K. GRANGER. *Cambridge Cognition LLC, Cambridge Cognition Ltd.*

4:00 TT55 **89.04** Relationship between autism spectrum disorder tendencies and selective inhibition of irrelevant information in sensory-motor response. M. KAWASAKI*; E. MIYAUCHI. *Univ. of Tsukuba, Univ. of Tsukuba.*

1:00 TT56 **89.05** Brain state perturbation improves connectome-based predictive modeling of related behaviors. A. S. GREENE*; S. GAO; R. T. CONSTABLE; D. SCHEINOST. *Interdept. Neurosci. Program, Yale Univ., Yale Sch. of Engin. & Applied Sci., Yale Univ.*

2:00 TT57 **89.06** Dissecting the link between cortical brain morphology and human intelligence. S. TADAYON*; A. PASCUAL-LEONE; E. SANTARNECCHI. *Beth Israel Deaconess Med. Center, Harvard Med.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

3:00 TT58 **89.07** The critical role of cognitive-based trait differences in transcranial direct current stimulation suppression of food craving and eating in frank obesity. M. RAY*; M. D. SYLVESTER; L. OSBORN; J. HELMS; B. TURAN; M. M. BOGGIANO. *Univ. of Alabama At Birmingham.*

4:00 TT59 **89.08** EEG metastable states and individual differences for the resting human brain. T. SASE*; K. KITAJO. *RIKEN Brain Sci. Inst.*

1:00 TT60 **89.09** Using data-driven models of brain network dynamics to predict individual performance in cognitively demanding tasks. K. BANSAL; J. D. MEDAGLIA; D. S. BASSETT; J. M. VETTEL; S. E. MULDOON*. *Univ. at Buffalo, SUNY, Univ. of Pennsylvania, Army Res. Lab., Univ. of California, Santa Barbara, Univ. At Buffalo, SUNY.*

2:00 TT61 **89.10** Head displacement has predictable temporally extended effects on the BOLD signal that persist after preprocessing and influence functional connectivity estimates. L. BYRGE*; D. P. KENNEDY. *Indiana Univ. Bloomington.*

3:00 TT62 **89.11** The site bias estimated from traveling-subject-data can improve a resting-state connectivity-based prediction model. A. YAMASHITA*; T. YAMADA; N. ICHIKAWA; M. TAKAMURA; Y. YOSHIHARA; T. ITAHASHI; G. OKADA; H. MANO; Y. SAKAI; J. MORIMOTO; N. YAHATA; R. HASHIMOTO; H. TAKAHASHI; Y. OKAMOTO; M. KAWATO; H. IMAMIZU. *Advanced Telecommunications Res. Inst., Advanced Telecommunications Res. Inst., Deparetement of Psychiatry, Hiroshima Univ., Kyoto Univ., Showa Univ., Ctr. for Information and Neural Networks, Advanced Telecommunications Res. Inst., Kyoto prefectural university of medicine, Natl. Inst. of Radiological Sci., Grad. Sch. of Medicine, The Univ. of Tokyo, The Univ. of Tokyo.*

4:00 TT63 **89.12** Large-scale network associated with creative insight: Data-driven approach by using VBM-constrained resting-state functional connectivity analysis. T. OGAWA*; T. AIHARA; T. SHIMOKAWA; O. YAMASHITA. *ATR, ATR.*

1:00 TT64 **89.13** Functional connectivity MRI biomarkers may serve as biological dimensions of multiple psychiatric disorders. G. LISI; Y. YOSHIHARA; N. YAHATA; R. HASHIMOTO; T. YAMADA; K. KASAI; N. KATO; H. TAKAHASHI; J. MORIMOTO; M. KAWATO*. *ATR, Kyoto Univ. Grad. Sch. of Med., Natl. Inst. of Radiological Sci., Showa Univ. Karasuyama Hosp., ATR, Grad. Sch. of Medicine, The Univ. of Tokyo, Showa Univ., ATR BICR.*

2:00 TT65 **89.14** Within-participant bidirectional confidence changes induced by multivoxel patterns manipulation. A. CORTESE*; K. AMANO; A. KOIZUMI; H. LAU; M. KAWATO. *ATR Inst. Intl., Ctr. for Information and Neural Networks (CiNet), Ctr. For Information and Neural Networks (cinet), UCLA, ATR BICR.*

3:00 TT66 **89.15** A stably appeared latent neural representation across states is predictive of intelligence. Y. TAKAGI*; J. HIRAYAMA; S. C. TANAKA. *Nara Inst. of Sci. and Technol., RIKEN Ctr. for Advanced Intelligence Project, Advanced Telecommunication Res. Inst. Intl.*

4:00 UU1 **89.16** Ethnic differences in spatial ability: The influence of environment and culture. L. YUAN*; S. WAN; M. MA; X. ZHOU. *Beijing Normal Univ.*

1:00 UU2 **89.17** ▲ Characterizing white matter tracts in 8-year-old children born preterm and full term using diffusion and quantitative magnetic resonance imaging. M. R. CASTRO*; K. E. TRAVIS; S. BERMAN; A. MEZER; M. BEN-SHACHAR; H. M. FELDMAN. *Stanford Univ., Stanford Sch. of Med., Hebrew Univ., The Hebrew Univ. of Jerusalem, Bar Ilan Univ., Stanford Univ.*

2:00 UU3 **89.18** ▲ Beyond the big 5: Enjoyment of horror movies, personality and sensation seeking. A. D. TRAKHTORCHUK*; P. WALLISCH. *New York Univ., New York Univ.*

3:00 UU4 **89.19** ▲ Clinical perfectionism and electrophysiology of error processing: associations with depression, anxiety, and fear of failure. A. M. YONKER; D. S. LELAND*; S. J. BECKER; S. M. MOE; L. J. BRANDT; S. T. LOEW; R. J. LOCKINGTON; K. A. ROLEFSON. *Univ. of Wisconsin-Eau Claire.*

4:00 UU5 **89.20** Taq1A genotype predicts dopamine's effects on amygdala-PFC functional connectivity. J. R. NASKOLNAKORN*; D. J. FURMAN; R. L. WHITE; M. D'ESPOSITO. *Univ. of California Berkeley.*

1:00 UU6 **89.21** An expanded set of regions of interest for functional network analysis: Improved representation of the subcortex and cerebellum. B. A. SEITZMAN*; C. GRATTON; B. L. SCHLAGGAR; S. E. PETERSEN; D. J. GREENE. *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., Washington Univ. in St. Louis.*

2:00 UU7 **89.22** Oscillatory correlates of drug-induced cognitive impairment. C. BARKLEY*; Z. HU; M. DING; S. E. MARINO. *Univ. of Minnesota, Univ. of Florida, Univ. Florida, Univ. of Minnesota Syst.*

3:00 UU8 **89.23** Switching frequency of bistable perception reveals temporal integration of sensory information. W. CHOI*; S. PAIK. *KAIST, KAIST.*

POSTER

090. Electrode Arrays

Theme I: Techniques

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 UU9 **90.01** Carbon nanotube based flexible and transparent neural electrode arrays. J. S. YAN*; F. VITALE; D. G. VERCOSA; K. N. BADHIWALA; R. HEADRICK; J. T. ROBINSON; M. PASQUALI. *Rice Univ., Univ. of Pennsylvania, Rice Univ., Rice Univ., Rice Univ., Rice Univ.*

2:00 UU10 **90.02** Microdevices for Scalable Neuroscience with 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., Rice Univ.*

3:00 UU11 **90.03** Altered ensemble dynamics in the CA1 region of the hippocampus in a murine model of CNS lupus. T. S. HUERTA; E. NASIRI; J. J. STROHL; P. T. HUERTA*. *Feinstein Inst. For Med. Res., Feinstein Inst. for Med. Res., The Feinstein Inst. For Med. Res., Northwell Hlth.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

4:00 UU12 **90.04** Decoding glucose levels from the cervical vagus nerve. E. A. BATTINELLI*; T. P. ZANOS; T. LEVY; C. BOUTON; S. CHAVAN; K. J. TRACEY. *Feinstein Inst. at Northwell Hlth., Hofstra Northwell Sch. of Med. at Hofstra Univ., Feinstein Inst. For Med. Res., Feinstein Inst. For Med. Res.*

1:00 UU13 **90.05** A novel signal processing framework for decoding systemic blood glucose levels from vagus nerve recordings. T. LEVY*; E. BATTINELLI; H. SILVERMAN; S. CHAVAN; K. TRACEY; C. BOUTON; T. ZANOS. *Feinstein Inst. For Med. Res., Feinstein Inst. for Med. Res., Feinstein Inst. for Med. Res.*

2:00 UU14 **90.06** Vagus nerve activity: Methodology of recording in mice. H. A. SILVERMAN*; A. STIEGLER; T. TSAAVA; J. NEWMAN; B. E. STEINBERG; E. BATTINELLI; S. ROBBIATI; C. BOUTON; P. T. HUERTA; S. S. CHAVAN; K. J. TRACEY. *Feinstein Inst. at Northwell Hlth., Hofstra Northwell Hlth. Sch. of Med., Circulatory Technologies, Inc., Univ. of Toronto, Feinstein Inst. for Med. Res., Feinstein Inst. for Med. Res.*

3:00 UU15 **90.07** Dysfunctional ensemble dynamics in the CA1 region of the hippocampus in long-term sepsis survivors. J. J. STROHL*; T. S. HUERTA; P. T. HUERTA. *The Feinstein Inst. For Med. Res., Feinstein Inst. For Med. Res., Northwell Hlth.*

4:00 UU16 **90.08** ● Galantamine alleviates the inflammatory state and insulin resistance in patients with the metabolic syndrome. V. A. PAVLOV*; F. M. CONSOLIM-COLOMBO; C. T. SANGALETI; J. M. MOTTA; F. O. COSTA; T. L. MORAIS; M. C. IRIGOYEN; L. A. BORTOLOTO; C. EDUARDO ROCHITTE; H. F. LOPES; Y. TOBI HARRIS; S. K. SATAPATHY; P. S. OLOFSSON; M. AKERMAN; S. S. CHAVAN; M. MACKAY; D. BARNABY; M. L. LESSER; J. ROTH; K. J. TRACEY. *The Feinstein Inst. For Med. Res., Univ. of Sao Paulo, Nove de Julho Univ. (UNINOVE), Midwestern State Univ. (UNICENTRO), Hofstra Northwell Sch. of Med. at Hofstra Univ., Methodist Univ. Hospital, Univ. of Tennessee Hlth. Sci. Ctr., Karolinska Institutet, Karolinska Univ. Hosp., The Feinstein Inst. for Med. Res., Albert Einstein Col. of Med., The Feinstein Inst. for Med. Res.*

1:00 UU17 **90.09** Selective electrical stimulation of vagus nerve induces specific cytokine response. T. TSAAVA*; M. E. ADDORISIO; J. E. NEWMAN; C. BOUTON; K. J. TRACEY; S. S. CHAVAN. *Feinstein Inst. at Northwell Hlth., Feinstein Inst. at Northwell Hlth.*

2:00 UU18 **90.10** ● A novel high-density flexible peripheral electrode for acute and chronic neural interfacing for real time diagnostics. M. STRAKA*; L. GOLDMAN; T. TSAAVA; H. A. SILVERMAN; T. P. ZANOS; S. S. CHAVAN; K. J. TRACEY; C. LI; L. RIETH; C. BOUTON; H. SOHAL. *Feinstein Inst., Northwell/Feinstein Inst. For Med. Res., Feinstein Inst. at Northwell Hlth., Feinstein Inst. at Northwell Hlth., Feinstein Inst. For Med. Res., Feinstein Inst. For Med. Res., Feinstein Inst. For Med. Res., Feinstein Inst. For Med. Res., Feinstein Inst. For Med. Res., Univ. of Utah, The Feinstein Inst. For Med. Res., MIT.*

3:00 UU19 **90.11** Chronic evaluation of a novel flexible cuff like electrode for peripheral nerve interfacing in the mouse. T. TSAAVA; M. STRAKA; A. S. CARAVACA; L. GOLDMAN; G. RIGGOTT; S. S. CHAVAN; K. J. TRACEY; C. BOUTON; P. S. OLOFSSON; E. S. BOYDEN; H. SOHAL*. *Feinstein Inst. For Med. Res., Feinstein Inst. For Med. Res., Karolinska Institutet, MIT, Feinstein Inst. For Med. Res., Ctr. For Mol. Medicine, L8:03.*

4:00 UU20 **90.12** Decoding mouse vagus nerve activity for cytokine discrimination. T. P. ZANOS*; H. A. SILVERMAN; T. LEVY; E. A. BATTINELLI; S. S. CHAVAN; K. J. TRACEY; C. BOUTON. *Feinstein Inst. For Med. Res., Feinstein Inst. at Northwell Hlth., Feinstein Inst. For Med. Res., Feinstein Inst. For Med. Res., The Feinstein Inst. For Med. Res.*

1:00 UU21 **90.13** Nerve cuff electrodes for electrically interfacing with the peripheral nervous system. M. SCHUETTLER*; C. BIERBRAUER; R. PFEIFER; M. ULLOA; C. HENLE; J. RICKERT. *Cortec Gmbh, BrainLinks-BrainTools, Univ. of Freiburg.*

2:00 UU22 **90.14** Transparent electrode materials for multimodal stimulation and measurement techniques. L. ASPLUND*; C. BOEHLER; F. OBERUEBER. *Univ. of Freiburg, Albert-Ludwigs-University.*

3:00 UU23 **90.15** Long-term stability of implanted high density polyimide ECoG arrays. R. LILJEMALM*; P. FRIES; C. M. LEWIS; A. K. ENGEL; F. PIEPER; G. ENGLER; E. FIEDLER; T. STIEGLITZ. *Univ. of Freiburg, Ernst Struengmann Inst. (ESI), Ernst Strüngmann Inst. (ESI), Dept. of Neurophysiol. and Pathophysiology, Univ. Med. Ctr. Hamburg-Eppendorf.*

4:00 UU24 **90.16** Optical tools with integrated light sources for optogenetics - An analysis of different system approaches. M. SCHWAERZLE*; S. AYUB; O. PAUL; P. RUTHER. *IMTEK-Materials Univ. of Freiburg, BrainLinks-BrainTools Cluster of Excellence, Univ. of Freiburg.*

1:00 UU25 **90.17** ● Laser-induced carbon microelectrode arrays for chronic neural applications. T. STIEGLITZ*; A. OLIVEIRA; D. ASHOURI; M. VOMERO; M. EICKENSCHEIDT. *Univ. of Freiburg.*

2:00 UU26 **90.18** Restoring natural sensory feedback in amputees via electrical stimulation after targeted muscle reinnervation. C. F. PASLUOSTA*; P. KIELE; A. RESCH; T. STIEGLITZ. *Univ. of Freiburg.*

3:00 UU27 **90.19** Alterations in ion channel expression surrounding implanted microelectrode arrays. J. W. SALATINO*; M. H. DRAZIN; E. K. PURCELL. *Michigan State Univ.*

4:00 UU28 **90.20** Enhanced glass pipette micro-electrodes for multi-modal electrophysiology. D. L. HUNT*; M. BARBIC. *Janelia Res. Campus.*

1:00 UU29 **90.21** Robust, highly customizable, and economical multi-channel electrode for chronic multi-unit recording in behaving animals. M. SHIRAISHI*; Y. TATEYAMA; K. OYAMA; M. OHI; T. IIJIMA; K. TSUTSUI. *Lab. of Systems Neuroscience, Tohoku Univ.*

2:00 UU30 **90.22** Concurrent optical imaging and extracellular recording for longitudinal studies of behaving brain. L. LUAN*; C. SULLENDER; Z. ZHAO; X. LI; H. ZHU; X. WEI; J. J. SIEGEL; R. CHITWOOD; A. DUNN; C. XIE. *The Univ. of Texas At Austin, the Univ. of Texas at Austin, the Univ. of Texas at Austin.*

3:00 UU31 **90.23** ▲ Affordable open-source micro-drive array for chronic *in vivo* recording of rodent neural systems. J. H. WHEAR*; G. M. MUIR. *St. Olaf Col.*

4:00 UU32 **90.24** 3D printing and modelling of customized implants and surgical guides for non-human primates. X. CHEN*; J. K. POSSEL; C. WACONGNE; A. VAN HAM; P. C. KLINK; P. R. ROELFSEMA. *Netherlands Inst. For Neurosci., Netherlands Inst. for Neurosci., Netherlands Inst. For Neurosci., Netherlands Inst. for Neurosci.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

1:00 UU33 **90.25** ● Neural implant insertion system using ultrasonic vibration to reduce tissue dimpling and improve insertion control and placement of penetrating microelectrode arrays. R. S. CLEMENT*; N. N. TIRKO; E. D. ASHUCKIAN; J. K. GREASER; T. J. HIGGINS; O. M. OCON-GROVE; K. N. ERDLEY; R. B. BAGWELL. *Actuated Med. Inc.*

2:00 UU34 **90.26** ● Integration of large-scale, semi-chronic recordings of hippocampal neuronal activity in non-human primates with a wireless data acquisition system. A. B. GOODELL*; C. M. GRAY; A. LEAR; C. STENGEL; J. W. RUECKEMANN; Y. BROWNING; M. J. JUTRAS; E. A. BUFFALO. *Gray Matter Res., Neuralynx, Univ. of Washington.*

3:00 UU35 **90.27** Investigation of role of NMDA receptor in LTP and synaptic transmission using the MED64-Quad II system on acute mouse hippocampal slices. G. CHENG*; S. YASUOKA; R. ARANT. *Alpha Med. Scientific Inc./ Automate Scientific Inc, Alpha MED Scientific Inc, Alpha MED Scientific Inc. / AutoMate Scientific Inc.*

4:00 UU36 **90.28** ● Characterization of a robotic micro-surgical system for small-animal neurosurgery. N. A. NADEAU; A. CIOBANU; F. LAMER; M. COURSOLLE; S. MCBRIDE; S. FREY*; R. COMEAU. *Rogue Res. Inc.*

1:00 UU37 **90.29** Implantation analysis of a 16-channel carbon fiber microelectrode. C. M. CALDWELL*; D. ROOSSIEN; P. R. PATEL; P. POPOV; E. J. WELLE; D. EGERT; J. D. BERKE; D. CAI; C. A. CHESTEK. *Biomed. Engin., Univ. of Michigan, Univ. of Michigan, Univ. of Michigan, Univ. of Michigan, Univ. of Michigan, UCSF.*

POSTER

091. Modeling

Theme I: Techniques

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 UU38 **91.01** Finite element model of the transmembrane voltage of axon during kilohertz frequency alternating current stimulation for nerve conduction blockage. A. GHAZAVI*; S. COGAN. *Univ. of Texas At Dallas.*

2:00 UU39 **91.02** Reduction of the dynamics of a stochastic neuronal model by using non-negative matrix factorization. T. YAMANOBE*. *Hokkaido University, Sch. of Med.*

3:00 UU40 **91.03** In-silico sythesis of structural perivascular astrocytic endfeet. E. ZISIS; D. KELLER*; H. MARKRAM. *Blue Brain Project, Brain Mind Institute, EPFL.*

4:00 UU41 **91.04** A NetLogo model of the Notch regulatory network in the determination of neural patterning. E. R. REYNOLDS*; A. LUTZ; J. PFAFFMANN. *Lafayette Col., Lafayette Col.*

1:00 UU42 **91.05** Implementing a dynamic observer strategy to rapidly fit single-cell models to live neurons. F. B. KERN*; T. NOWOTNY; G. KEMENES. *Univ. of Sussex.*

2:00 UU43 **91.06** Meta-analysis of biophysical models of synaptic plasticity and the overlap of modelled elements with the synaptic proteome. K. F. HEIL*; E. WYSOCKA; O. SOROKINA; T. I. SIMPSON; J. D. ARMSTRONG; D. C. STERRATT. *Univ. of Edinburgh, Sch. of Informatics.*

3:00 UU44 **91.07** A Hodgkin-Huxley type model of subfornical organ neurons. L. MEDLOCK*; W. M. FRY; D. STANDAGE; A. V. FERGUSON. *Queen's Univ., Univ. of Manitoba.*

4:00 UU45 **91.08** The role of calcium microdomains in modifying synaptic efficacy via gain control of electrical propagation through MSN spines and dendrites. T. M. HOANG TRONG*; T. H. RUMBELL; J. KOZLOSKI. *IBM Res.*

1:00 UU46 **91.09** Whole cell 3D stochastic molecular simulation with STEPS. E. DE SCHUTTER*; I. HEPBURN; W. CHEN; F. CASALEGNO; A. DEVRESSE; F. PEREIRA; F. DELALONDRE. *Okinawa Inst. of Sci. and Technol., Ecole Federale Polytechnique de Lausanne.*

2:00 UU47 **91.10** Data-driven spiking models for computations of first-order tactile neurons in human fingertips. E. HAY*; A. PRUSZYNSKI. *The Brain and Mind Institute, Western Univ.*

3:00 UU48 **91.11** Identifying functional regulatory units controlling dopamine neuron subthreshold oscillation properties using a population-based approach to parameter optimization. T. RUMBELL*; J. KOZLOSKI. *IBM Res., IBM Res.*

4:00 UU49 **91.12** ▲ A computational model of electrical synapse function within the thalamocortical relay circuit. T. PHAM*; J. S. HAAS. *Lehigh Univ.*

1:00 UU50 **91.13** Direct current stimulation and synaptic plasticity: The role of endogenous synaptic activity and membrane polarization. G. KRONBERG*; A. RAHMAN; M. BIKSON; L. C. PARRA. *The City Col. of New York.*

POSTER

092. Spiking and Oscillation Models

Theme I: Techniques

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 UU51 **92.01** Multiscale modelling of spiking activity via split-step methods. P. BAUER*; S. MIKULOVIC; A. SENEK; S. ENGBLOM. *Uppsala Univ., Uppsala University, Neurosci. Dept., Uppsala Univ.*

2:00 UU52 **92.02** Gamma rhythms depend upon, and influence, firing rates and spike-timing in a computational model of cerebral cortex. C. L. CHARIKER*; R. M. SHAPLEY; L. YOUNG. *New York Univ., Ctr. for Neural Sci., New York Univ.*

3:00 UU53 **92.03** Heterogeneous layers stabilize propagation of a spike signal in a feedforward network. S. HONG*; D. HAN; E. DE SCHUTTER. *Okinawa Inst. of Sci. and Technol., Okinawa Inst. of Sci. and Technol., Okinawa Inst. of Sci. and Technol.*

4:00 UU54 **92.04** Macroscopic phase resetting-curve for spiking neural netwoks: Theory and application. G. D. DUMONT*, ESQ; B. GUTKIN. *Ecole Normale Superieure.*

1:00 UU55 **92.05** Using a non-linear interdependence approach to detect directional coupling from spike trains. I. MALVESTIO*; T. KREUZ; F. MORMANN; R. G. ANDRZEJAK. *Univ. Pompeu Fabra, Universitá degli Studi di Firenze, Inst. For Complex Systems, Univ. of Bonn.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

2:00 UU56 **92.06** Computing with rates vs spikes: Fundamental differences in the dynamics of two different solutions to an integrator network. J. A. MENENDEZ*; P. E. LATHAM. *Gatsby Computat. Neurosci. Unit, Sainsbury Wellcome Ctr. for Neural Circuits and Behaviour, Ctr. for Computation, Mathematics and Physics in the Life Sci. and Exptl. Biol.*

3:00 UU57 **92.07** A spiking model reveals mechanisms underlying dynamics of neuronal responses to optogenetic stimulation. R. SHEWCRAFT*; B. PESARAN. *New York Univ., New York Univ. Ctr. for Neural Sci.*

4:00 UU58 **92.08** Modeling distinct inhibitory cell circuits that orchestrate cortical theta, beta and gamma band oscillations. X. ZHAO*; G. CHEN; X. ZHANG; M. J. RASCH. *Beijing Normal Univ., Inst. of Neuroscience,Chinese Acad. Of Scien, State Key Lab. of Cognitive Neurosci. & Learning, IBM TJ Watson Res. Ctr.*

1:00 UU59 **92.09** Self-generated up and down states in a spatially extended cortical network. T. ARAKAKI*; Y. AHMADIAN. *Univ. of Oregon, Univ. of Oregon.*

2:00 UU60 **92.10** Heterogeneous inter- and intra-connectivity within E-I networks influences the effects of cholinergic modulation on synchronous oscillatory behavior of excitatory cells. S. RICH*; V. BOOTH; M. ZOCHOWSKI. *Univ. of Michigan, Univ. of Michigan, Univ. of Michigan.*

3:00 UU61 **92.11** An oscillatory neural network model with winner-take-all dynamics explains reaction times in visual search experiments. R. BORISYUK*; Y. KAZANOVICH; O. BURYLKO. *Plymouth Univ., Inst. of Mathematical Problems of Biology, the Br. of Keldysh Inst. of Applied Mathematics of Russian Acad. of Sci., Inst. of Mathematics, Natl. Acad. of Sci. of Ukraine.*

4:00 UU62 **92.12** The tradeoff between oscillatory communication and neural computation. E. PETERSON*; B. VOYTEK. *U.C. San Diego, Univ. of California San Diego Dept. of Cognitive Sci.*

1:00 UU63 **92.13** ▲ Development of a computational model of mitochondria and its integration in a CA1 pyramidal neuron. J. SHANG; J. C. BOUTEILLER*; G. J. YU; A. MERGENTHAL; E. Y. HU; T. W. BERGER. *Northwestern Univ., USC.*

2:00 UU64 **92.14** Cellular and network contributions to place field formation and place encoding in the entorhinal-dentate system: A large-scale, computational, spiking neural network study. G. J. YU*; D. SONG; T. W. BERGER. *USC.*

3:00 UU65 **92.15** Modulation of CA1 region via muscarinic acetylcholine receptor activation - A computational study. A. MERGENTHAL*; J. C. BOUTEILLER; T. W. BERGER. *USC, USC.*

4:00 UU66 **92.16** Mechanistic and input-output models of calcium dynamics at the postsynaptic spine to enable cross-scale investigations of their effects. E. Y. HU*; J. C. BOUTEILLER; A. MERGENTHAL; D. SONG; T. W. BERGER. *USC, USC.*

1:00 UU67 **92.17** ▲ A generalized phase response curve method for predicting the phase-locked mode of neural networks. D. AUSTIN*; S. OPRISAN. *Col. of Charleston, Col. of Charleston.*

2:00 UU68 **92.18** Phase space reconstruction of optogenetic data using delay embedding. S. OPRISAN*; J. IMPERATORE; J. HELMS; T. TOMPA; A. LAVIN. *Col. of Charleston, Col. of Charleston, Med. Univ. of South Carolina, Med. Univ. South Carolina.*

3:00 UU69 **92.19** ● ▲ Scalar timing in memory: A temporal map in the hippocampus? T. J. AFT*; S. A. OPRISAN; C. V. BUHUSI; M. BUHUSI. *Col. of Charleston, Utah State Univ., Utah State Univ.*

4:00 UU70 **92.20** Cross-area phase-amplitude coupling (CAPAC) as a measure of synaptic transmission. B. NANDI*; B. KOCSIS; M. DING. *Univ. of Florida, Gainesville, Harvard Med. Sch., Univ. Florida.*

1:00 UU71 **92.21** Emergence of nonlinear. A. SANZENI; M. H. HISTED*; N. BRUNEL. *NIH, Univ. of Chicago.*

2:00 UU72 **92.22** Making accessible the transistor channel approach for studying conductance-based models: The dynamics of a silicon neuron analog of the Hodgkin-Huxley equations. S. M. BAER*; J. O. HASLER. *Arizona State Univ., Georgia Tech. Univ.*

3:00 UU73 **92.23** An empirical analysis of phase amplitude coupling. M. CAIOLA*; T. WICHMANN. *Emory Univ., Udall Ctr. of Excellence in Parkinson's Dis. Res. at Emory Univ., Emory Univ.*

4:00 UU74 **92.24** Information jitter derivative method: A novel approach to the analysis of multiplexed neural codes. M. MOLANO-MAZON*; A. ONKEN; J. K. LIU; T. GOLLISCH; H. SAFAAI; S. PANZERI. *Inst. Italiano Di Tecnologia, Fondazione Inst. Italiano Di Tecnologia, Univ. Med. Ctr. Goettingen, Bernstein Ctr. for Computat. Neurosci. Goettingen, Graz Univ. of Technol., Harvard Med. Sch.*

POSTER

093. Functional Monitoring and Stimulation

Theme I: Techniques

Sat. 1:00 PM – *Walter E. Washington Convention Center*, Halls A-C

1:00 UU75 **93.01** Functionalization of anatomical human models with electrophysiological neuronal models for neurostimulation related mechanisms and safety investigations, device development, personalized treatment planning, and in silico trials. A. M. CASSARA*; E. NEUFELD; H. MONTANARO; N. KUSTER. *IT'IS Fndn., Swiss Federal Inst. of Technol. (ETHZ).*

2:00 UU76 **93.02** ▲ Human activity recognition based on features extraction analysis. I. EL MOUDDEN*; M. OUZIR; A. BAJJOU; S. AMZAZI; S. EL BERNOUSSI. *Fac. of Sci. Mohammed V Univ. In Rabat, Fac. of Sciences, Mohammed V Univ. In Rabat, Fac. of Sci. Mohammed, V Univ. In Rabat, Fac. of Sci. Mohammed V Univ. In Rabat.*

3:00 UU77 **93.03** A network mechanism for hysteresis in human brain networks during loss and recovery of consciousness. H. KIM*; J. MOON; G. A. MASHOUR; U. LEE. *Univ. of Michigan.*

4:00 UU78 **93.04** A Gaussian process model of human ECoG data. L. L. OWEN*; J. R. MANNING. *Dartmouth Col.*

1:00 UU79 **93.05** Validation of a murine seizure detection algorithm on human intracranial EEG. R. A. BERGSTROM*; J. CHEONG; B. A. DAHLBERG; E. W. BAXTER; C. J. FISHER; N. FORREY; N. D. FROIKIN; J. GARCIA; J. HUNHOFF; J. SANTOS-AREVALO; D. STOCKTON; X. XIE; Y. XUE. *Beloit Col.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

2:00 UU80 **93.06** A computational model of epidural electrical stimulation of the cervical spinal cord in non-human primates. N. GREINER*; B. BARRA; S. BORGOGNON; G. SCHIAVONE; S. LACOUR; J. BLOCH; E. M. ROUILLER; G. COURTINE; M. CAPOGROSSO. *EPFL, Univ. of Fribourg, Ctr. Hospitalier Universitaire Vaudois (CHUV).*

3:00 UU81 **93.07** Ultra-resolution subdermal eeg: Long-term minimally-invasive brain monitoring. P. VENKATESH*; A. KRISHNAN; J. WELDON; S. KELLY; P. GROVER. *Carnegie Mellon Univ.*

4:00 UU82 **93.08** Decomposing phase synchronization measures of scalp EEG. C. I. O'MALLEY*; M. VINDIOLA; J. M. VETTEL; S. M. GORDON. *DCS Corp., US Army Res. Lab., Univ. of Pennsylvania, Univ. of California, Santa Barbara.*

1:00 UU83 **93.09** Multi-scale model for HD-tDCS and conventional tDCS - Targeting primary motor cortex. H. SEO*; S. C. JUN. *Gwangju Inst. of Sci. and Technol.*

2:00 VV1 **93.10** Prometheus: Computational optogenetics using cloud computing. K. NIKOLIC*; B. D. EVANS. *Imperial Col. London, Imperial Col. London.*

3:00 VV2 **93.11** Spatiotemporal modeling of resting state neuronal activity in the awake mouse brain. S. H. KIM*; M. A. SHAIK; Y. MA; H. T. ZHAO; D. N. THIBODEAUX; M. KHABBAZIAN; T. ZHENG; E. M. HILLMAN. *Columbia Univ. Lab. For Functional Optical Imaging, Columbia Univ., Columbia Univ.*

4:00 VV3 **93.12** Computing brain signals (CBra): Concurrent simulation of network activity, extracellular electric potentials and magnetic fields. E. HAGEN*; S. NÆSS; T. V. NESS; G. T. EINEVOLL. *Univ. of Oslo, Univ. of Oslo, Norwegian Univ. of Life Sci.*

1:00 VV4 **93.13** Brain vessels segmentation for light-sheet microscopy image using convolutional neural networks. H. HUI; X. YANG*; C. HU; S. WANG; J. TIAN. *Inst. of Automation, Chinese Acad. of Scienc, Key Lab. of Mol. Imaging, CAS.*

2:00 VV5 **93.14** A two-photon microscopy simulation framework for optimizing optics and benchmarking cell-finding algorithms. A. SONG*; A. S. CHARLES; D. W. TANK; J. W. PILLOW. *Princeton Univ., Princeton Univ., Princeton Univ., Princeton Univ., Princeton Univ.*

3:00 VV6 **93.15** Inference of *C. elegans* whole brain interaction with a minimal pairwise probability model. X. CHEN*; A. N. LINDER; J. P. NGUYEN; A. M. LEIFER; W. BIALEK. *Princeton Univ., Princeton Univ., Princeton Univ.*

4:00 VV7 **93.16** Measuring learning-induced changes in neural networks using functional network stability under changing network topology and excitatory/inhibitory balance. Q. SKILLING*; D. MARUYAMA; N. OGNJANOVSKI; S. J. ATON; M. R. ZOCHOWSKI. *Univ. of Michigan, Univ. of Michigan, Univ. of Michigan Aton Lab., Univ. of Michigan, Univ. of Michigan.*

1:00 VV8 **93.17** Characterization of 'Intensity of Detection' isocontours in a single photon fiber photometry system. I. S. BADRELDIN*; M. MANSY; K. G. OWEISS. *Univ. of Florida, Univ. of Florida, Univ. of Florida.*

2:00 VV9 **93.18** Towards a large-scale simulation of blood flow in brain microcirculation. M. PEYROUNETTE; Y. DAVIT; M. QUINTARD; S. LORTHOIS*. *Ctr. Natl. De La Recherche Scientifique.*

3:00 VV10 **93.19** Predicting brain functional maps from genetic information. W. E. HAUBENSAK*; F. GANGLBERGER; J. KACZANOWSKA; J. M. PENNINGER; A. HESS; K. BÜHLER. *Res. Inst. of Mol. Pathology (IMP), VRVis Res. Ctr., Inst. of Mol. Biotech. of the Austrian Acad. of Sci. (IMBA), Vienna Biocenter (VBC), Friedrich-Alexander Univ. Erlangen-Nuremberg.*

4:00 VV11 **93.20** Improving the accuracy of neural decoding of choice behavior with response time data and cognitive modeling. B. BARIBAULT*; J. VANDEKERCKHOVE. *Univ. of California, Irvine.*

1:00 VV12 **93.21** Superpixels based landmarks tracking for biomechanics applications. O. HAJI MAGHSOUDI*; A. VAHEDIPOUR; B. D. ROBERTSON; A. SPENCE. *Temple Univ., Temple Univ.*

1:00 DP09/VV13 **93.22** (Dynamic Poster) A 3D visualization tool for invasive electrodes spatial-temporal localization using fMRI, EEG and MEG. N. PELED*; O. FELSENSTEIN; R. LAPLANTE; T. SITNIKOVA; S. ZOROWITZ; A. AFZAL; A. GILMOUR; K. ELLARD; A. PAULK; K. FARNES; T. DECKERSBACH; A. S. WIDGE; S. S. CASH; D. DOUGHERTY; E. ESKANDAR; M. HAMALAINEN; S. STUFFLEBEAM. *MGH/HST Martinos Ctr. For Biomed. Imaging, Harvard Med. Sch., Bar-Ilan, Massachusetts Gen. Hosp., MGH/HST Martinos Ctr. For Biomed. Imaging.*

• Indicated a real or perceived conflict of interest, see page 73 for details.
▲ Indicates a high school or undergraduate student presenter.
* Indicates abstract's submitting author

Conflict of Interest Statements

The following presenters, signified by a dot (•) in the program, indicated a real or perceived conflict of interest. Presenters listed without a dot in the program had no financial relationships to disclose.

PRESENTATION NUMBER	STATEMENT
10.03	**Z. Pappalardo:** A. Employment/Salary (full or part-time); Xcell Biosciences Inc. **L. Cassereau:** A. Employment/Salary (full or part-time); Xcell Biosciences Inc. **B.A. Adams:** A. Employment/Salary (full or part-time); Xcell Biosciences Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Xcell Biosciences Inc. **B. Downey:** A. Employment/Salary (full or part-time); Xcell Biosciences Inc. **J. Lim:** A. Employment/Salary (full or part-time); Xcell Biosciences Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Xcell Biosciences Inc.
11.07	**A. Suntharalingam:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Patent Holder. **B.S.J. Blagg:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Patent Holder.
13.01	**P. Kallunki:** A. Employment/Salary (full or part-time); H. Lundbeck A/S. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); H. Lundbeck A/S. **A. Bergstrom:** A. Employment/Salary (full or part-time); H. Lundbeck A/S. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); H. Lundbeck A/S. **I.J. Malik:** A. Employment/Salary (full or part-time); H. Lundbeck A/S. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); H. Lundbeck A/S. **F. Sotty:** A. Employment/Salary (full or part-time); H. Lundbeck A/S. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); H. Lundbeck A/S. **L.B. Vesterager:** A. Employment/Salary (full or part-time); H. Lundbeck A/S. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); H. Lundbeck A/S. **K. Just Andersen:** A. Employment/Salary (full or part-time); H. Lundbeck A/S. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); H. Lundbeck A/S. **L. Østergaard Pedersen:** A. Employment/Salary (full or part-time); H. Lundbeck A/S. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); H. Lundbeck A/S. **J.B. Stavenhagen:** A. Employment/Salary (full or part-time); H. Lundbeck A/S. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); H. Lundbeck A/S. **P. Parren:** A. Employment/Salary (full or part-time); Genmab B.V. **R. Rademaker:** A. Employment/Salary (full or part-time); Genmab B.V. **E. Van Den Brink:** A. Employment/Salary (full or part-time); Genmab B.V. **T. Vink:** A. Employment/Salary (full or part-time); Genmab B.V. **D. Satijn:** A. Employment/Salary (full or part-time); Genmab B.V. **J. Egebjerg:** A. Employment/Salary (full or part-time); H. Lundbeck A/S. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); H. Lundbeck A/S. **K. Fog:** A. Employment/Salary (full or part-time); H. Lundbeck A/S. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); H. Lundbeck A/S.
13.08	**M. Ingelsson:** F. Consulting Fees (e.g., advisory boards); BioArctic AB.
13.11	**C. Volbracht:** A. Employment/Salary (full or part-time); H.Lundbeck A/S. **L. Helboe:** A. Employment/Salary (full or part-time); H. Lundbeck A/S. **L. Østergaard Pedersen:** A. Employment/Salary (full or part-time); H. Lundbeck A/S. **J. Falsig Pedersen:** A. Employment/Salary (full or part-time); H. Lundbeck A/S. **N. Rosenqvist:** A. Employment/Salary (full or part-time); H. Lundbeck A/S. **J. Torleif Pedersen:** A. Employment/Salary (full or part-time); H. Lundbeck A/S.
13.12	**M. Windisch:** A. Employment/Salary (full or part-time); NeurosScios.
13.13	**S. DeVos:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Sangamo Therapeutics, Inc. **B. Zeitler:** A. Employment/Salary (full or part-time); Sangamo Therapeutics, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Sangamo Therapeutics, Inc. **S. Wegmann:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Sangamo Therapeutics, Inc. **K. Marlen:** A. Employment/Salary (full or part-time); Sangamo Therapeutics, Inc. **H. Nguyen:** A. Employment/Salary (full or part-time); Sangamo Therapeutics, Inc. **Q. Yu:** A. Employment/Salary (full or part-time); Sangamo Therapeutics, Inc. **M.C. Holmes:** A. Employment/Salary (full or part-time); Sangamo Therapeutics, Inc. **B. Riley:** A. Employment/Salary (full or part-time); Sangamo Therapeutics, Inc. **S. Zhang:** A. Employment/Salary (full or part-time); Sangamo Therapeutics, Inc. **B.T. Hyman:** 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.; Sangamo Therapeutics, Inc. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Sangamo Therapeutics, Inc.
25.04SA	**P.J. Holman:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Microsoft. **T.S. Bodnar:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Microsoft. **S. Aly:** A. Employment/Salary (full or part-time); Microsoft. **K. Jacyna:** A. Employment/Salary (full or part-time); Microsoft. **S. Mao:** A. Employment/Salary (full or part-time); Microsoft. **R. Plante:** A. Employment/Salary (full or part-time); Microsoft. **R. Razak:** A. Employment/Salary (full or part-time); Microsoft. **S. Tohidi:** A. Employment/Salary (full or part-time); Microsoft. **C. Krebs:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Microsoft.
26.07SA	**A. Adams:** A. Employment/Salary (full or part-time); National Institutes of Health. **K.B. Dupre:** A. Employment/Salary (full or part-time); National Institutes of Health. **G. Farber:** A. Employment/Salary (full or part-time); National Institutes of Health. **J. Gordon:** A. Employment/Salary (full or part-time); National Institutes of Health. **W. Koroshetz:** A. Employment/Salary (full or part-time); National Institutes of Health. **M. Mott:** A. Employment/Salary (full or part-time); National Institutes of Health. **K. Ramos:** A. Employment/Salary (full or part-time); National Institutes of Health. **N. Talley:** A. Employment/Salary (full or part-time); National Institutes of Health. **S.L. White:** A. Employment/Salary (full or part-time); National Institutes of Health.
27.03SU	**J.D. Carter:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Camp Carter International Karate Association.

PRESENTATION NUMBER	STATEMENT
28.11SU	**J.M. Kuhn:** A. Employment/Salary (full or part-time); Marshall & Melhorn, LLC.
29.08	**D.M. Martin:** F. Consulting Fees (e.g., advisory boards); CHARGE Syndrome Foundation.
30.01	**S. Zhang:** A. Employment/Salary (full or part-time); sheng zhang, Institute for Pediatric Regenerative Medicine, Shriners Hospitals for Children, Sacramento, California 95817, Department of Neurology,School of Medicine, University of California, Davis, Sacramento, California, 95817.
30.03	**C.M. Butt:** A. Employment/Salary (full or part-time); DSM Nutritional Products. **M.J. Weiser:** A. Employment/Salary (full or part-time); DSM Nutritional Products. **K.M. Wynalda-Camozzi:** A. Employment/Salary (full or part-time); DSM Nutritional Products. **V. Grimshaw:** A. Employment/Salary (full or part-time); DSM Nutritional Products. **N. Salem:** A. Employment/Salary (full or part-time); DSM Nutritional Products.
30.04	**J.P. Svaren:** 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.; Charcot Marie Tooth Association.
30.13	**B. Zalc:** 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.; Novartis. **A. Mannioui:** 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.; novartis. **D. DuPasquier:** A. Employment/Salary (full or part-time); WatchFrog.
30.20	**R. Tsujita:** A. Employment/Salary (full or part-time); Asahi Kasei Pharma. **G. Honda:** A. Employment/Salary (full or part-time); Asahi Kasei Pharma. **A. Kawabata:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Asahi Kasei Pharma.
32.02	**S. O'Shea:** F. Consulting Fees (e.g., advisory boards); Genentech, Inc.
32.10	**J. Dizon:** A. Employment/Salary (full or part-time); Thermo Fisher Scientific. **E. Willems:** A. Employment/Salary (full or part-time); Thermo Fisher Scientific. **T. Gokirmak:** A. Employment/Salary (full or part-time); Thermo Fisher Scientific. **R. Vega:** A. Employment/Salary (full or part-time); Thermo Fisher Scientific. **R. Lacambacal:** A. Employment/Salary (full or part-time); Thermo Fisher Scientific. **X. Liang:** A. Employment/Salary (full or part-time); Thermo Fisher Scientific. **C. Revankar:** A. Employment/Salary (full or part-time); Thermo Fisher Scientific. **K. Kimler:** A. Employment/Salary (full or part-time); Thermo Fisher Scientific. **D. Piper:** A. Employment/Salary (full or part-time); Thermo Fisher Scientific.
32.17	**R.E. Lacambacal:** A. Employment/Salary (full or part-time); Thermo Fisher Scientific. **E. Willems:** A. Employment/Salary (full or part-time); Thermo Fisher Scientific. **T. Gokirmak:** A. Employment/Salary (full or part-time); Thermo Fisher Scientific. **J. Dizon:** A. Employment/Salary (full or part-time); Thermo Fisher Scientific. **C. Revankar:** A. Employment/Salary (full or part-time); Thermo Fisher Scientific. **R. Vega:** A. Employment/Salary (full or part-time); Thermo Fisher Scientific. **K. Kimler:** A. Employment/Salary (full or part-time); Thermo Fisher Scientific. **X. Liang:** A. Employment/Salary (full or part-time); Thermo Fisher Scientific. **R. Newman:** A. Employment/Salary (full or part-time); Thermo Fisher Scientific. **D. Kuninger:** A. Employment/Salary (full or part-time); Thermo Fisher Scientific. **D. Piper:** A. Employment/Salary (full or part-time); Thermo Fisher Scientific.
33.09	**H. Kawasaki:** 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.; Smoking Research Foundation.
34.10	**J. Ryu:** 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.; Nancy Lurie Marks Family Foundation, NJ Governor's Council for Autism Research and Treatments. **E.B. Torres:** 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.; NJ Governor's Council for Autism Research and Treatments, Nancy Lurie Marks Family Foundation.
34.11	**V. Kalampratsidou:** 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.; ancy Lurie Marks Family Foundation, NJ Governor's Council for Autism Research and Treatments. **S. Mistry:** 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.; Nancy Lurie Marks Family Foundation, NJ Governor's Council for Autism Research and Treatments. **E.B. Torres:** 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.; NJ Governor's Council for Autism Research and Treatments, Nancy Lurie Marks Family Foundation.
34.17	**J. Vero:** Other; Rutgers Biomedical Engineering Department, Rutgers Psychology and Cognitive Science Department, University of South California. **E.B. Torres:** A. Employment/Salary (full or part-time); Rutgers University Psychology and Cognitive Science Departments.
37.01	**G.B. Wells:** A. Employment/Salary (full or part-time); Texas A&M University. **A.M. Person:** A. Employment/Salary (full or part-time); Texas A&M University.
37.05	**P. Heusler:** A. Employment/Salary (full or part-time); Pierre Fabre Research Institute. **J. Martel:** A. Employment/Salary (full or part-time); Pierre Fabre Research Institute. **P. Schambel:** A. Employment/Salary (full or part-time); Pierre Fabre Research Institute. **D. Cussac:** A. Employment/Salary (full or part-time); Pierre Fabre Research Institute. **P. Corringer:** 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.; Pierre Fabre Research Institute. **P. Sokoloff:** A. Employment/Salary (full or part-time); Pierre Fabre Research Institute.
38.05	**P.D. Shallie:** A. Employment/Salary (full or part-time); Olabisi Onabanjo University, Ago-Iwoye. OgunState. Nigeria.
38.06	**R. Yang:** A. Employment/Salary (full or part-time); Pfizer, Inc. **S. Xi:** A. Employment/Salary (full or part-time); Pfizer, Inc.
39.09	**J. Svensson Dalén:** A. Employment/Salary (full or part-time); Cellectricon AB. **C. Lindwall-Blom:** A. Employment/Salary (full or part-time); Cellectricon AB. **Å. Jägervall:** A. Employment/Salary (full or part-time); Cellectricon AB. **M. Karlsson:** A. Employment/Salary (full or part-time); Cellectricon AB. **P. Karila:** A. Employment/Salary (full or part-time); Cellectricon AB. **S.A. Neale:** A. Employment/Salary (full or part-time); Neurexpert Ltd. **T.E. Salt:** A. Employment/Salary (full or part-time); Neurexpert Ltd.
39.10	**J. Archbold:** A. Employment/Salary (full or part-time); Biogen.

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40.05	**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. **Y. Suzuki:** 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. **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. **I. Imayoshi:** 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.
43.23	**C.S. Weickert:** F. Consulting Fees (e.g., advisory boards); Advisory Board for Lundbeck Australia Pty Ltd.
44.01	**D. Chui:** A. Employment/Salary (full or part-time); 3Peking Univ. Third Hospital, Beijing.
44.02	**C. Kuruva:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); abSynapTex LLC. **P. Reddy:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); abSynapTex LLC.
44.13	**M. Manczak:** A. Employment/Salary (full or part-time); full, Garrison Institute on Aging Texas Tech Univesity. **R. Kandimalla:** A. Employment/Salary (full or part-time); Full, Texas Tech University Health Sciences Center. **M. Vijayan:** A. Employment/Salary (full or part-time); Full, Texas Tech University Health Sciences Center. **X. Yin:** A. Employment/Salary (full or part-time); Full, Texas Tech University Health Sciences Center. **C. Kuruva:** A. Employment/Salary (full or part-time); Full, Texas Tech University Health Sciences Center. **S. Kumar:** A. Employment/Salary (full or part-time); Full, Texas Tech University Health Sciences Center. **P. Reddy:** A. Employment/Salary (full or part-time); Full, Texas Tech University Health Sciences Center.
45.05	**C. Cao:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); The patent of this work has been licensed by Alzamend Neuro Inc.
45.06	**H. Mo:** 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.; American Nutrition Inc,. **W. Xia:** 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.; American Nutrition Inc.
45.09	**H.A. Gelbard:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); URMC-099 is the proprietary asset of the University of Rochester Medical Center (US Patents: 8,846,909, 8,877,772, and 9,181,247, and international patents/applications).
46.10	**T.W. Rosahl:** A. Employment/Salary (full or part-time); Merck & Co. **M.K. Schultz:** A. Employment/Salary (full or part-time); Merck & Co. **X. Tian:** A. Employment/Salary (full or part-time); Merck & co. **M. Cosden:** A. Employment/Salary (full or part-time); Merck & Co. **J. Majercak:** A. Employment/Salary (full or part-time); Boehringer Ingelheim. **J. Schachter:** A. Employment/Salary (full or part-time); Merck & Co.
46.13	**R. Kandimalla:** A. Employment/Salary (full or part-time); Full, Garrison Institute on Aging & Pharmacology-Neuroscience, Texas Tech University health Sciences Center. **M. Manczak:** A. Employment/Salary (full or part-time); Full, Texas Tech University Health Sciences Center. **X. Yin:** A. Employment/Salary (full or part-time); Full, Texas Tech University Health Sciences Center. **C. Kuruva:** A. Employment/Salary (full or part-time); Full, Texas Tech University Health Sciences Center. **M. Vijayan:** A. Employment/Salary (full or part-time); Full, Texas Tech University Health Sciences Center. **S. Kumar:** A. Employment/Salary (full or part-time); Full, Texas Tech University Health Sciences Center. **P. Reddy:** A. Employment/Salary (full or part-time); Full, Texas Tech University Health Sciences Center.
47.02	**D. Gray:** A. Employment/Salary (full or part-time); Pfizer, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Pfizer, Inc. **R. Kozak:** A. Employment/Salary (full or part-time); Pfizer, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Pfizer, Inc. **K. Fonseca:** A. Employment/Salary (full or part-time); Pfizer, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Pfizer, Inc. **E. Bezard:** A. Employment/Salary (full or part-time); MOTAC, Inc.
47.03	**K.M. Dlugolenski:** A. Employment/Salary (full or part-time); Pfizer. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Pfizer. **R. Gorczyca:** A. Employment/Salary (full or part-time); Pfizer. **D. Gray:** A. Employment/Salary (full or part-time); Pfizer. **R. Kozak:** A. Employment/Salary (full or part-time); Pfizer.
47.05	**J.A. Allen:** A. Employment/Salary (full or part-time); Pfizer, Inc. **D. Gray:** A. Employment/Salary (full or part-time); Pfizer, Inc. **S. Mente:** A. Employment/Salary (full or part-time); Pfizer, Inc. **E. Guilmette:** A. Employment/Salary (full or part-time); Pfizer, Inc. **M. Salafia:** A. Employment/Salary (full or part-time); Pfizer, Inc. **R.E. O'Connor:** A. Employment/Salary (full or part-time); Pfizer, Inc. **D. Volfson:** A. Employment/Salary (full or part-time); Pfizer, Inc. **J. Davoren:** A. Employment/Salary (full or part-time); Pfizer, Inc. **R. Kozak:** A. Employment/Salary (full or part-time); Pfizer, Inc. **M.D. Ehlers:** A. Employment/Salary (full or part-time); Pfizer, Inc.; Biogen Inc.
47.06	**D. Young:** A. Employment/Salary (full or part-time); Pfizer Inc. **D. McGinnis:** A. Employment/Salary (full or part-time); Pfizer Inc. **D.S. Chapin:** A. Employment/Salary (full or part-time); Pfizer Inc. **A. Rossi:** A. Employment/Salary (full or part-time); Pfizer Inc. **W.M. Howe:** A. Employment/Salary (full or part-time); Pfizer Inc. **D. Volfson:** A. Employment/Salary (full or part-time); Pfizer Inc. **P.A. Seymour:** A. Employment/Salary (full or part-time); Pfizer Inc. **D. Gray:** A. Employment/Salary (full or part-time); Pfizer Inc. **R. Kozak:** A. Employment/Salary (full or part-time); Pfizer Inc.
47.07	**G.V. 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.; Pfizer Inc. **R. Kozak:** A. Employment/Salary (full or part-time); Pfizer Inc. **A. Abbott:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Pfizer Inc. **K.R. Fonseca:** A. Employment/Salary (full or part-time); Pfizer Inc. **C.J. Schmidt:** A. Employment/Salary (full or part-time); Pfizer Inc. **D.L. Gray:** A. Employment/Salary (full or part-time); Pfizer Inc. **S. Castner:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Pfizer Inc.
47.08	**R. Kozak:** A. Employment/Salary (full or part-time); Pfizer Inc. **G.V. Williams:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a

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	PI for a drug study, report that research relationship even if those funds come to an institution.; Pfizer Inc. **K. Fonseca:** A. Employment/Salary (full or part-time); Pfizer Inc. **P. Trapa:** A. Employment/Salary (full or part-time); Pfizer Inc. **C.J. Schmidt:** A. Employment/Salary (full or part-time); Pfizer Inc. **A.L. Abbott:** 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.com. **D.L. Gray:** A. Employment/Salary (full or part-time); Pfizer Inc. **S. Castner:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Pfizer Inc.
47.09	**D.L. Buhl:** A. Employment/Salary (full or part-time); Pfizer, Inc. **G.J. DeMarco:** A. Employment/Salary (full or part-time); Pfizer, Inc. **T. Kiss:** A. Employment/Salary (full or part-time); Pfizer, Inc. **D. Volfson:** A. Employment/Salary (full or part-time); Pfizer, Inc. **K.R. Fonseca:** A. Employment/Salary (full or part-time); Pfizer, Inc. **P. Trapa:** A. Employment/Salary (full or part-time); Pfizer, Inc. **D.L. Gray:** A. Employment/Salary (full or part-time); Pfizer, Inc. **R. Kozak:** A. Employment/Salary (full or part-time); Pfizer, Inc.
47.10	**P.L. Tierney:** A. Employment/Salary (full or part-time); Pfizer, Inc. **S.M. Lotarski:** A. Employment/Salary (full or part-time); Pfizer, Inc. **A.M. Rossi:** A. Employment/Salary (full or part-time); Pfizer, Inc. **D. Volfson:** A. Employment/Salary (full or part-time); Pfizer, Inc. **K. Fonseca:** A. Employment/Salary (full or part-time); Pfizer, Inc. **P. Trapa:** A. Employment/Salary (full or part-time); Pfizer, Inc. **G.J. DeMarco:** A. Employment/Salary (full or part-time); Pfizer, Inc. **X. Chen:** A. Employment/Salary (full or part-time); Pfizer, Inc. **D. Gray:** A. Employment/Salary (full or part-time); Pfizer, Inc. **R. Kozak:** A. Employment/Salary (full or part-time); Pfizer, Inc.
47.11	**A.M. Rossi:** A. Employment/Salary (full or part-time); Pfizer Inc.
48.22	**N.R. McFarland:** F. Consulting Fees (e.g., advisory boards); Novartis.
48.28	**S. Ramboz:** A. Employment/Salary (full or part-time); PsychoGenics. **K. Cirillo:** A. Employment/Salary (full or part-time); PsychoGenics. **R. Springer:** A. Employment/Salary (full or part-time); PsychoGenics. **M. Mazzella:** A. Employment/Salary (full or part-time); PsychoGenics. **D. Havas:** A. Employment/Salary (full or part-time); PsychoGenics. **K. Walker:** 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.
49.01	**Y. Okada:** 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.; AMED 16ek0109025h0003, AMED 16ek0109165h0102, AMED 17ek0109243h0001.
49.02	**A. Kagiava:** 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.; Muscular Dystrophy Association and Charcot-Marie-Tooth Association (Grant MDA 480030 to KAK), Muscular Dystrophy Association (Grant MDA 277250 to KAK), Cyprus Research Promotion Foundation (ΚΟΥΛΤΟΥΡΑ/ΒΡ-ΝΕ/0416/06 to AK). **K. Kleopa:** 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.; Muscular Dystrophy Association and Charcot-Marie-Tooth Association (Grant MDA 480030 to KAK), Muscular Dystrophy Association (Grant MDA 277250 to KAK).
52.14	**S.H. Scott:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); SHS is cofounder and Chief Scientific Officer of BKIN Technologies, the company that commercializes the robotic technology used in this study.
52.22	**S. Dolinsky:** A. Employment/Salary (full or part-time); General Electric (Full Time).
52.24	**S.H. Scott:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Dr. Scott is cofounder and chief scientific officer of BKIN Technologies, the company that commercializes the KINARM robotic device.
53.09	**J. Ahlfors:** A. Employment/Salary (full or part-time); New World Laboratories, Fortuna Fix. **M.G. Fehlings:** 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.; New World Laboratories.
53.17	**M. Caban:** A. Employment/Salary (full or part-time); G-Therapeutics. **A. Watrin:** A. Employment/Salary (full or part-time); G-Therapeutics. **M. Vat:** A. Employment/Salary (full or part-time); G-Therapeutics. **J. Von Zitzewitz:** A. Employment/Salary (full or part-time); G-Therapeutics. **R. Buschman:** A. Employment/Salary (full or part-time); Medtronic. **N. Buse:** A. Employment/Salary (full or part-time); Medtronic. **V. Delattre:** A. Employment/Salary (full or part-time); G-Therapeutics. **T. Denison:** A. Employment/Salary (full or part-time); Medtronic. **H. Lambert:** A. Employment/Salary (full or part-time); G-Therapeutics. **J. Bloch:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); G-Therapeutics. **G. Courtine:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); G-Therapeutics.
53.22	**J. Bloch:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); founder and shareholder of G-Therapeutics SA. **S. Micera:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); founder and shareholder of G-Therapeutics SA. **G. Courtine:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); founder and shareholder of G-Therapeutics SA.
58.18	**I.E. Bray:** A. Employment/Salary (full or part-time); Stanford Electrical Engineering REU Program-VPUE. **C. Chandrasekaran:** 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/NINDS K99/R00 grant NS092972. **K.V. Shenoy:** Other; Neuralink Inc., consultant, Cognescent, Scientific Advisory Board, Heal, Scientific Advisory Board.
58.19	**K.V. Shenoy:** F. Consulting Fees (e.g., advisory boards); Cognescent, Scientific Advisory Board, Heal, Scientific Advisory Board. Other; Neuralink Inc., Consultant.
61.07	**R. Matsumoto:** Other; Endowed department by UCB, GSK, NihonKoden, Otsuka. A. **A. Shimotake:** Other; Endowed department by UCB, GSK, NihonKoden, 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.,

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	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.
61.12	**S.H. Scott:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); BKIN Technologies.
62.14	**R. Bartels:** A. Employment/Salary (full or part-time); CREmedical. **P. Steele:** A. Employment/Salary (full or part-time); CREmedical.
62.16	**M. Hirashima:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); 3D Incorporated.
63.12	**F.B. Horak:** A. Employment/Salary (full or part-time); APDM. 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.; APDM. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); APDM.
65.15	**K.E. Armstrong:** A. Employment/Salary (full or part-time); University of Manitoba. **M. Nazzal:** A. Employment/Salary (full or part-time); University of Manitoba. **X. Chen:** A. Employment/Salary (full or part-time); University of Manitoba. **K. Stecina:** A. Employment/Salary (full or part-time); University of Manitoba. **L.M. Jordan:** A. Employment/Salary (full or part-time); University of Manitoba.
70.11	**M. walter:** 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.; Biologische Heilmittel Heel GmbH.
72.04	**J.T. McKenna:** 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.
72.14	**J.S. Burgdorf:** A. Employment/Salary (full or part-time); Aptinyx Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Aptinyx Inc. **K. Leaderbrand:** A. Employment/Salary (full or part-time); Aptinyx Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Aptinyx Inc. **E.M. Colechio:** A. Employment/Salary (full or part-time); Aptinyx Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Aptinyx Inc. **N. Ghoreishi-haack:** A. Employment/Salary (full or part-time); Aptinyx Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Aptinyx Inc. **A.L. Gross:** A. Employment/Salary (full or part-time); Aptinyx Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Aptinyx Inc. **X.-. Zhang:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Aptinyx Inc. **P.K. Stanton:** 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.; Aptinyx Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Aptinyx Inc. F. Consulting Fees (e.g., advisory boards); Aptinyx Inc. **T.M. Madsen:** A. Employment/Salary (full or part-time); Aptinyx Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Aptinyx Inc. **M.A. Khan:** A. Employment/Salary (full or part-time); Aptinyx Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Aptinyx Inc. **R.A. Kroes:** A. Employment/Salary (full or part-time); Aptinyx Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Aptinyx Inc. **J.R. Moskal:** A. Employment/Salary (full or part-time); Aptinyx Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Aptinyx Inc.
72.16	**D.W. Carley:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cortex Pharmaceuticals.
72.21	**J.H. Harkness:** 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.; WSU Commercialization Gap Fund. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cofounder, Rewire Neuroscience. LLC. **R.P. Todd:** 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.; WSU Commercialization Gap Fund. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cofounder, Rewire Neuroscience. LLC. **B.A. Sorg:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Ownership interest in device.
72.25	**J.T. McKenna:** D. Fees for Non-CME Services Received Directly from Commercial Interest or their Agents (e.g., speakers' bureaus); Merck MISP.
72.27	**E. Pryazhnikov:** A. Employment/Salary (full or part-time); Neurotar Ltd, Helsinki, Finland. **L. Khiroug:** A. Employment/Salary (full or part-time); Neurotar Ltd, Helsinki, Finland.
73.13	**C. Wang:** A. Employment/Salary (full or part-time); HJF.
73.21	**H.M. Chang:** A. Employment/Salary (full or part-time); Rutgers University.
74.07	**J.F. Kolter:** A. Employment/Salary (full or part-time); Deutsche Forschungsgemeinschaft (SFB TRR 58/A01).
75.02	**S.J. Sukoff Rizzo:** A. Employment/Salary (full or part-time); The Jackson Laboratory Center for Biometric Analysis, The Jackson Laboratory Mouse Neurobehavioral Phenotyping Facility.
75.03	**K.D. Donohue:** A. Employment/Salary (full or part-time); Signal Solutions LLC. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); subcontracts to collaborative UK laboratories that interact with our own UK laboratories. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); both founders and owners of Signal Solutions LLC, and have patents and other IP at various stages of development. **B.F. O'Hara:** A. Employment/Salary (full or part-time); part time, Signal Solutions LLC. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); subcontracts to collaborative UK laboratories that interact with our own UK laboratories. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property

PRESENTATION NUMBER	STATEMENT
	rights/patent holder, excluding diversified mutual funds); we are both founders and owners of Signal Solutions LLC, and have patents and other IP at various stages of development. F. Consulting Fees (e.g., advisory boards); Consultant for GISMO Therapeutics and on their SAB.
79.04	**C. Murray:** A. Employment/Salary (full or part-time); C4X Discovery. **B.P. Martin:** A. Employment/Salary (full or part-time); C4X Discovery. **T. Nowak:** A. Employment/Salary (full or part-time); C4X Discovery. **J.C. Fox:** A. Employment/Salary (full or part-time); C4X Discovery.
79.13	**G. Donvito:** 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 grants P01DA009789, R01DA039942, P30DA033934 (AHL); R01 DA032246, P50DA039841 (MID), T32DA007027 (AJ)., Startup funds from the VCU School of Pharmacy, NSERC (92056) and CIHR (137122) grants to LAP. **A. Jackson:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; NIH grant T32DA007027. **A.H. Lichtman:** 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 grants P01DA009789, R01DA039942, P30DA033934, Startup funds from the VCU School of Pharmacy. **M. Damaj:** 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.; R01 DA032246 and P50DA039841.
80.22	**L.E. Baquedano:** A. Employment/Salary (full or part-time); UNIVERSIDAD PERUANA CAYETANO HEREDIA.
81.07	**M. Kadohisa:** A. Employment/Salary (full or part-time); full, Medical research Council. **M. Kusunoki:** A. Employment/Salary (full or part-time); full, Medical research Council. **M.J. Buckley:** A. Employment/Salary (full or part-time); full, University of Oxford. **J. Duncan:** A. Employment/Salary (full or part-time); full, Medical research Council.
82.19	**M. Gallagher:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); AgeneBio, Inc.
84.06	**V. Tolosa:** A. Employment/Salary (full or part-time); Neuralink Corp.
84.10	**Y. Huang:** F. Consulting Fees (e.g., advisory boards); Yadong Huang is a cofounder and a scientific advisory board member of E-Scape Bio, Inc.
85.30	**M. Sugiura:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); supported by Nissan Motor Co., Ltd.
86.07	**A.A. Overman:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; NIH Grant R15AG052903.
89.03	**J.L. Evenden:** A. Employment/Salary (full or part-time); Cambridge Cognition. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); WiltonLogic. **K. Granger:** A. Employment/Salary (full or part-time); Cambridge Cognition.
90.08	**V.A. Pavlov:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); patents broadly related to the topic of the abstract with rights assigned to the Feinstein Institute for Medical Research. **K.J. Tracey:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); patents broadly related to the topic of this work with rights assigned to the Feinstein Institute for Medical Research.
90.10	**M. Straka:** A. Employment/Salary (full or part-time); Feinstein Institute. **L. Goldman:** A. Employment/Salary (full or part-time); Feinstein Institute. **T. Tsaava:** A. Employment/Salary (full or part-time); Feinstein Institute. **T.P. Zanos:** A. Employment/Salary (full or part-time); Feinstein Institute. **S.S. Chavan:** A. Employment/Salary (full or part-time); Feinstein Institute. **K.J. Tracey:** A. Employment/Salary (full or part-time); Feinstein Institute. **C. Li:** A. Employment/Salary (full or part-time); Feinstein Institute. **L. Rieth:** A. Employment/Salary (full or part-time); Feinstein Institute. **C. Bouton:** A. Employment/Salary (full or part-time); Feinstein Institute. **H. Sohal:** A. Employment/Salary (full or part-time); Feinstein Institute.
90.17	**T. Stieglitz:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); CorTec GmbH, Neuroloop GmbH. F. Consulting Fees (e.g., advisory boards); CorTec GmbH, Neuroloop GmbH.
90.25	**R.S. Clement:** A. Employment/Salary (full or part-time); Actuated Medical, Inc. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); The Pennsylvania State University. **N.N. Tirko:** A. Employment/Salary (full or part-time); Actuated Medical, Inc. **E.D. Ashuckian:** A. Employment/Salary (full or part-time); Actuated Medical, Inc. **J.K. Greaser:** A. Employment/Salary (full or part-time); Actuated Medical, Inc. **T.J. Higgins:** A. Employment/Salary (full or part-time); Actuated Medical, Inc. **O.M. Ocon-Grove:** A. Employment/Salary (full or part-time); Actuated Medical, Inc. **K.N. Erdley:** A. Employment/Salary (full or part-time); Actuated Medical, Inc. **R.B. Bagwell:** A. Employment/Salary (full or part-time); Actuated Medical, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Actuated Medical, Inc.
90.26	**A.B. Goodell:** A. Employment/Salary (full or part-time); Gray Matter Research. **C.M. Gray:** A. Employment/Salary (full or part-time); Gray Matter Research. **A. Lear:** A. Employment/Salary (full or part-time); Neuralynx. **C. Stengel:** A. Employment/Salary (full or part-time); Neuralynx.
90.28	**N.A. Nadeau:** A. Employment/Salary (full or part-time); Rogue Research Inc. **A. Ciobanu:** A. Employment/Salary (full or part-time); Rogue Research Inc. **F. Lamer:** A. Employment/Salary (full or part-time); Rogue Research Inc. **M. Coursolle:** A. Employment/Salary (full or part-time); Rogue Research Inc. **S. McBride:** A. Employment/Salary (full or part-time); Rogue Research Inc. **S. Frey:** A. Employment/Salary (full or part-time); Rogue Research Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Rogue Research Inc. **R. Comeau:** A. Employment/Salary (full or part-time); Rogue Research Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Rogue Research Inc.
92.19	**T.J. Aft:** 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 research was supported by NSF CAREER IOS-1054914 grant to S.A.O. This project was also supported by grants from the National Center for Research Resources (5 P20 RR016461) and the National Instit.

NEUROSCIENCE 2017 — EXHIBITS AND POSTER SESSIONS

Walter E. Washington Convention Center: Halls A–C

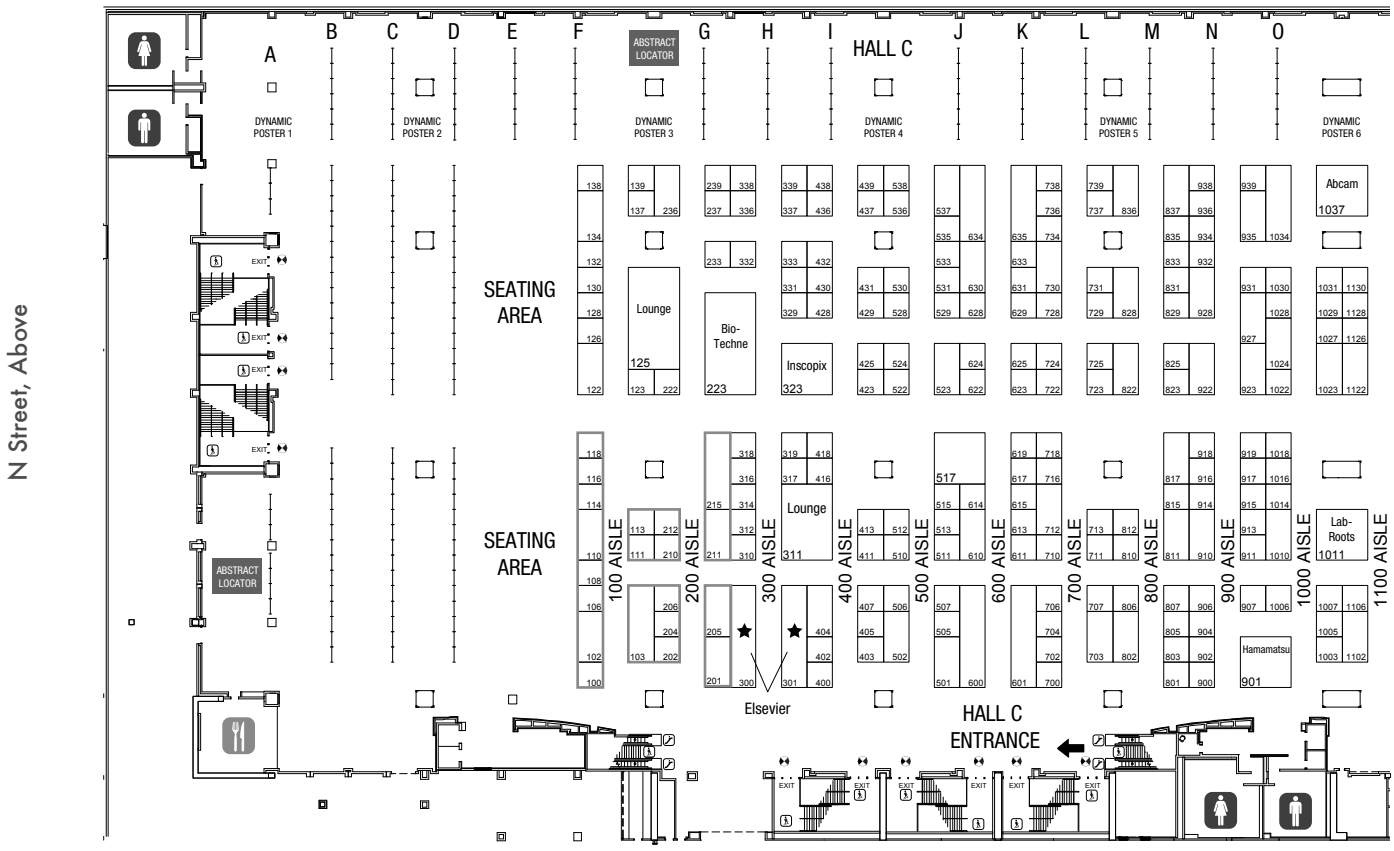
Meeting Dates: Nov. 11–15
Exhibit Dates: Nov. 12–15

Entrances will open at noon on Saturday and at 7 a.m. Sunday through Wednesday for poster presenter setup only. Poster sessions are open for all attendees at 1 p.m. on Saturday and 8 a.m. Sunday through Wednesday.

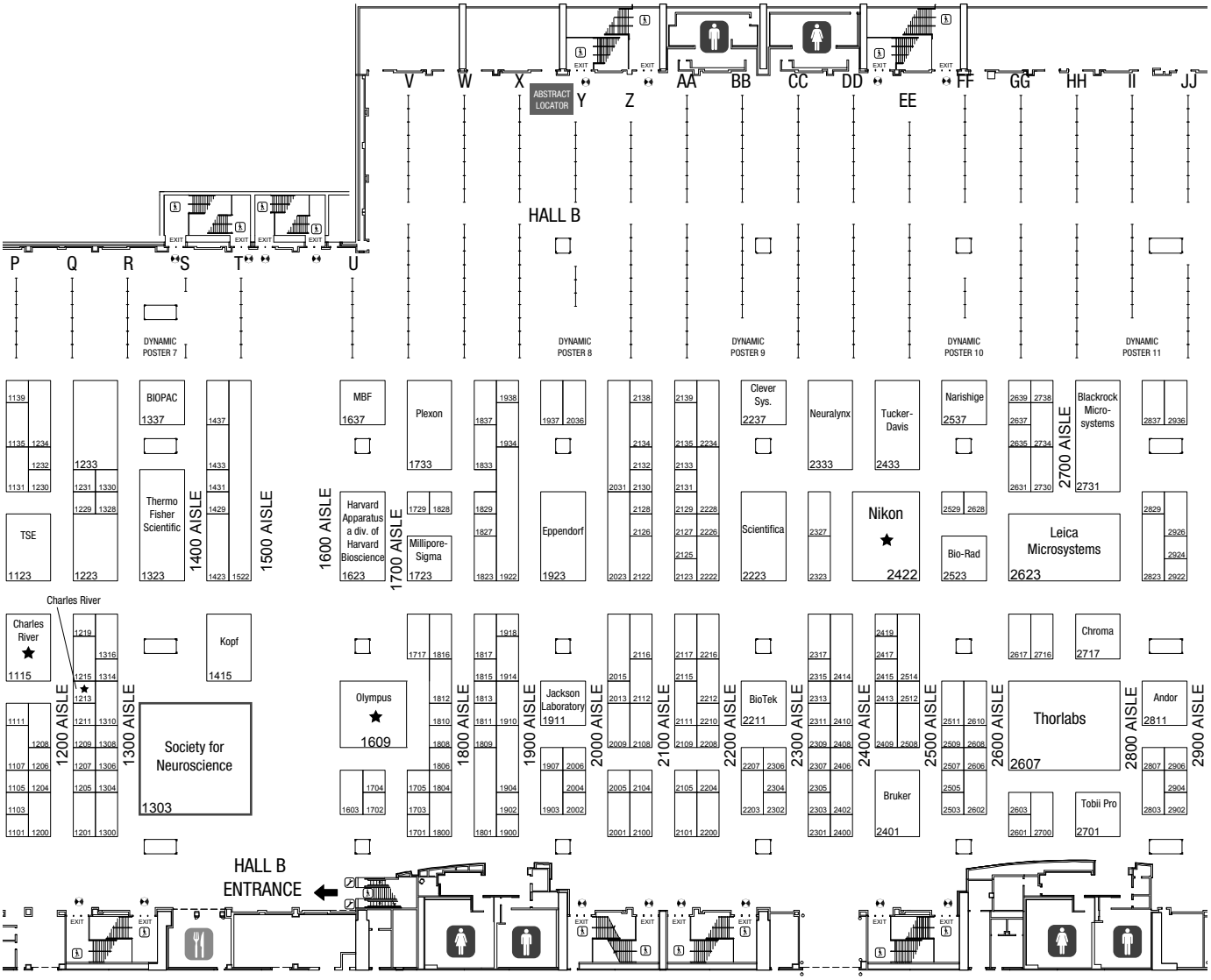
Floor plans subject to change. For current floor plan, visit **SfN.org/exhibits.**

KEY

- ☐ Institutions / Nonprofits
- ■ Abstract Locators
- ■ Concession Areas
- ☐ Publishers Row
- ☐ SfN Booth
- ■ Restrooms
- ★ Sustaining Associate Members
- \+ First Aid Station
- Emergency Exit



7TH ST., Above



9TH ST., Above

KEY

- ☐ Institutions / Nonprofits
- ☐ Publishers Row
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- ■ Abstract Locators
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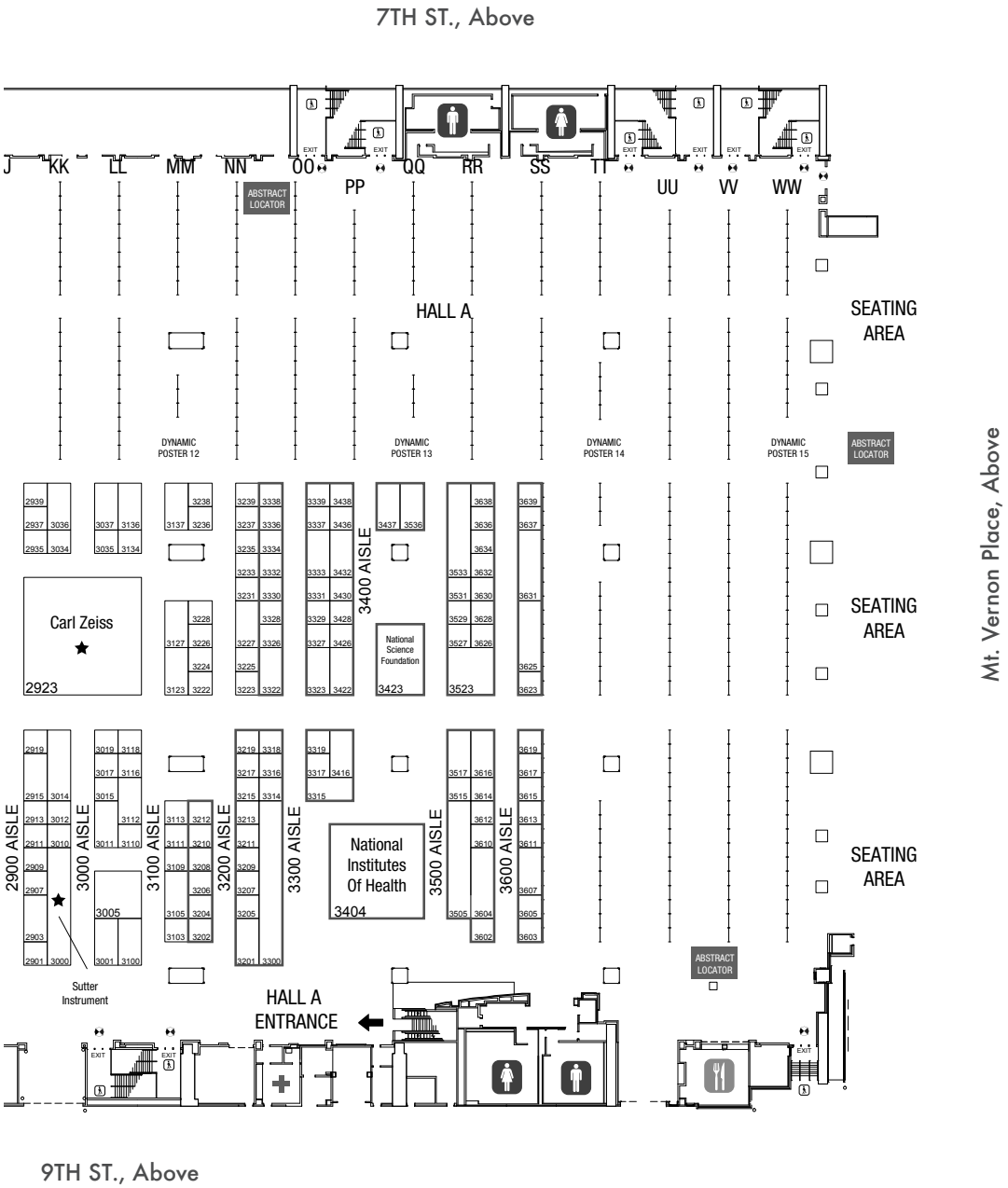


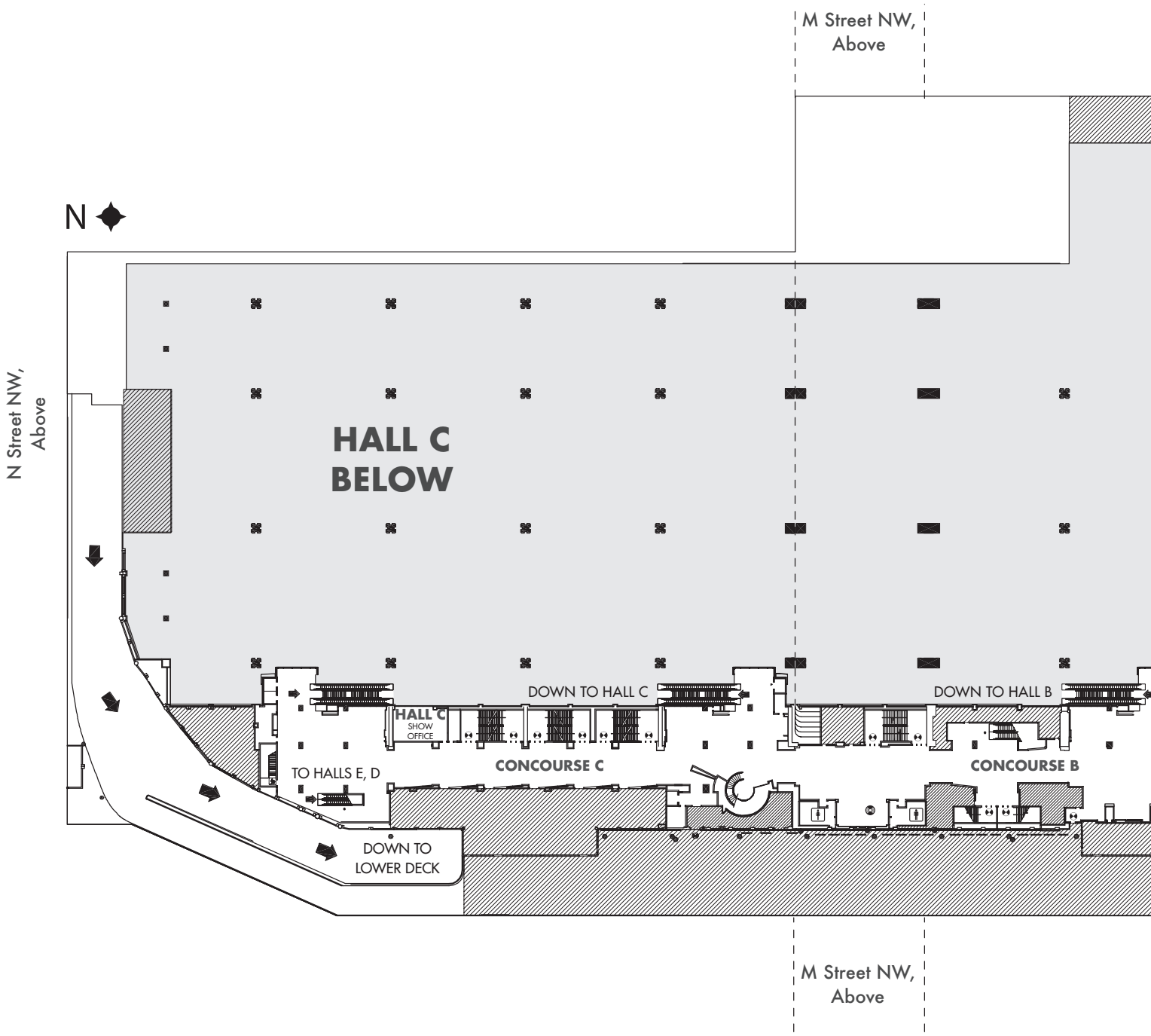
NOTE: Floor plans subject to change. For current floor plan, visit SfN.org/exhibits

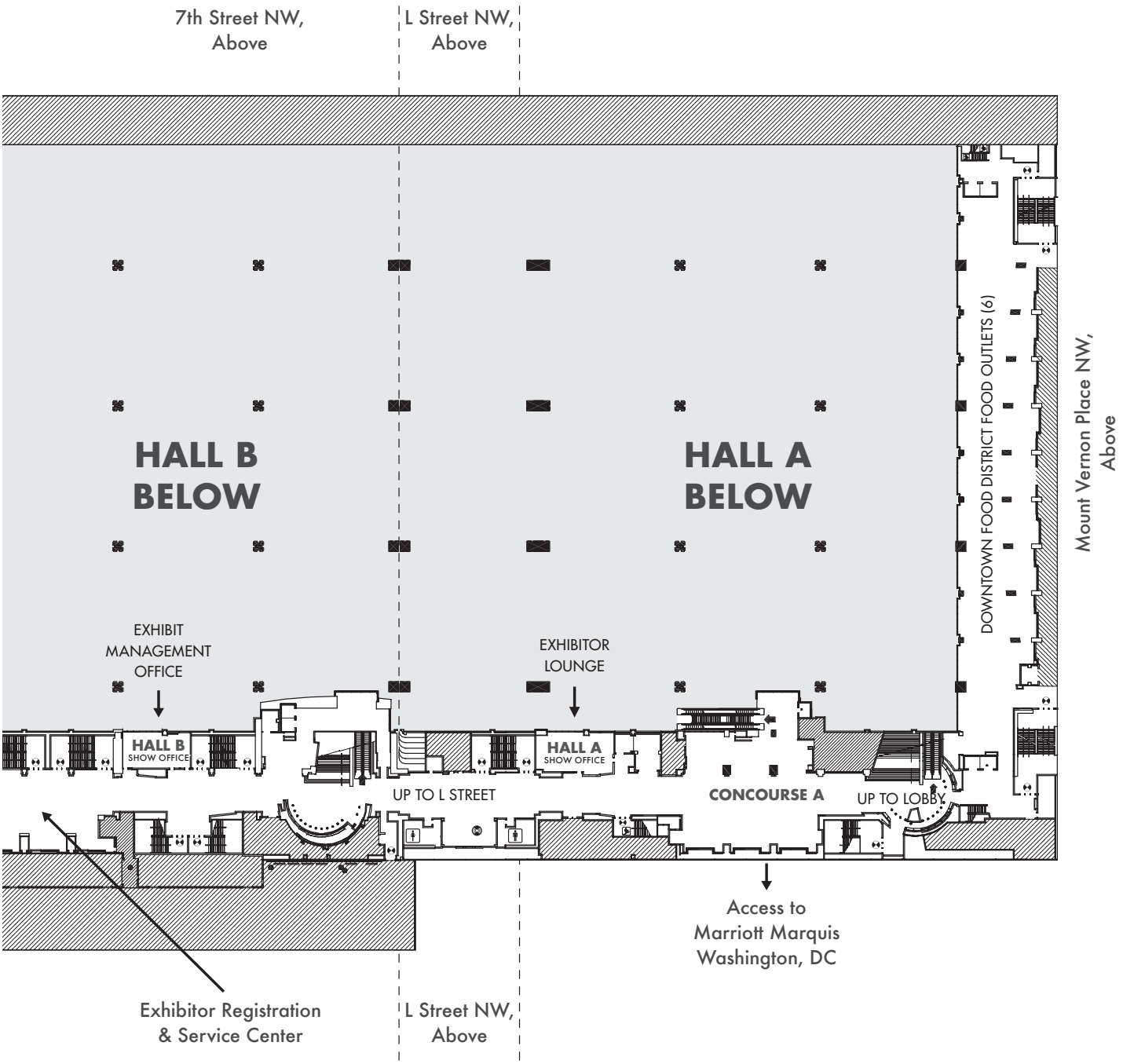
CONVENTION CENTER FLOOR PLANS

Concourse Level

Access to Exhibit Halls A–C

Show Offices A–C

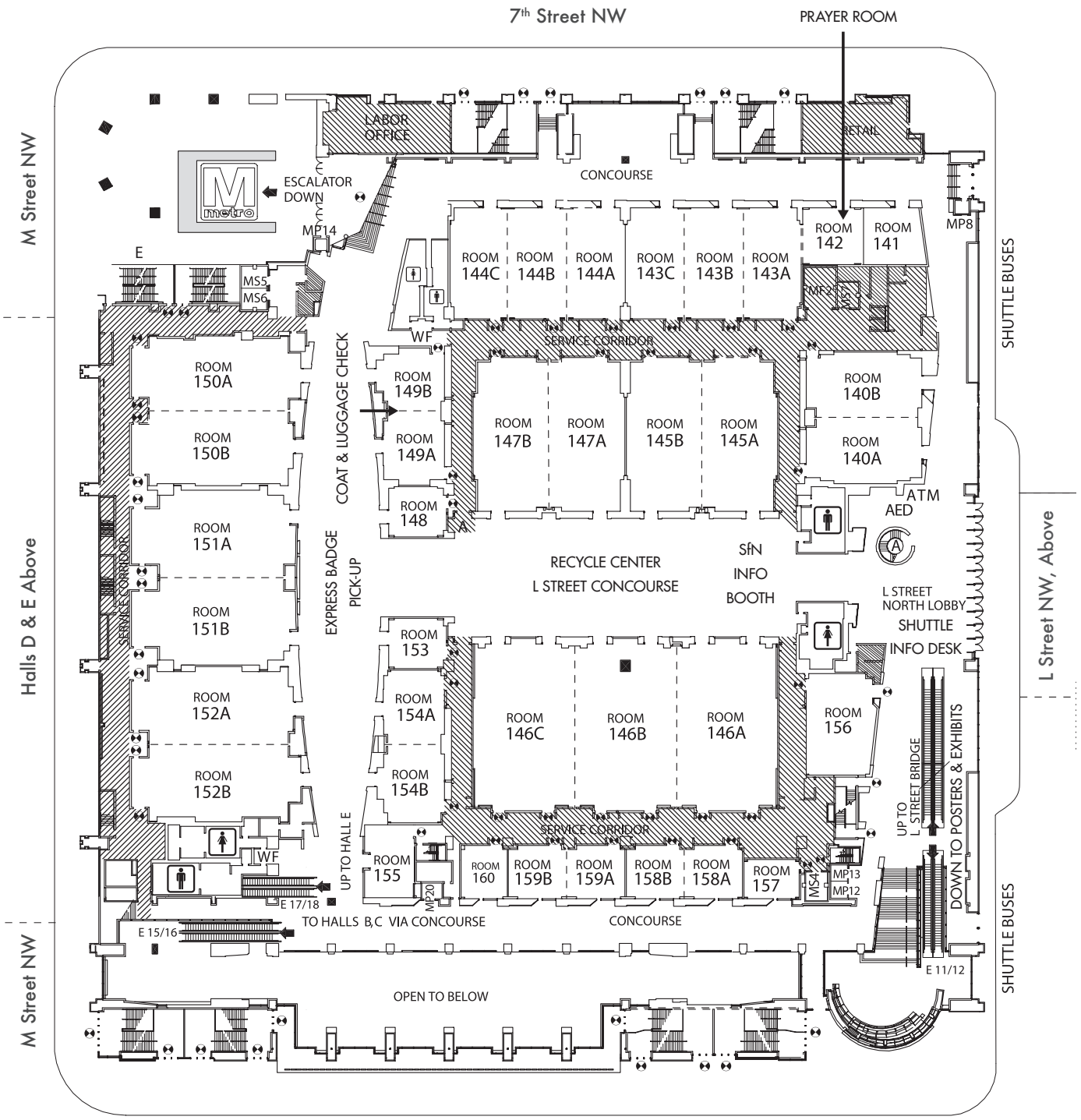


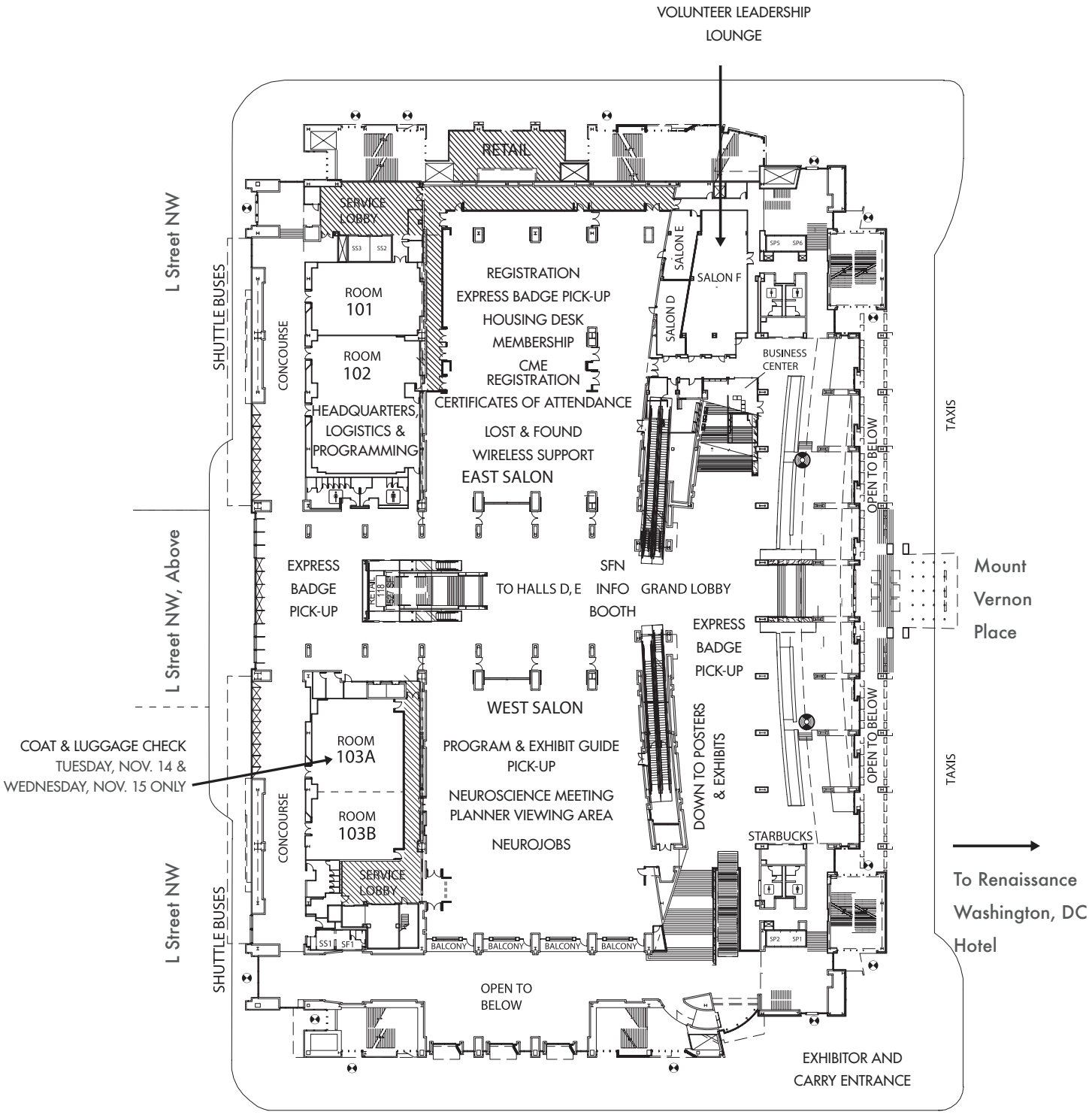

7th Street NW,
Above
L Street NW,
Above
HALL B
BELOW
HALL A
BELOW
DOWNTOWN FOOD DISTRICT FOOD OUTLETS (6)
Mount Vernon Place NW,
Above
EXHIBIT
MANAGEMENT
OFFICE
EXHIBITOR
LOUNGE
HALL B
SHOW OFFICE
HALL A
SHOW OFFICE
UP TO L STREET
CONCOURSE A
UP TO LOBBY
Access to
Marriott Marquis
Washington, DC
Exhibitor Registration
& Service Center
L Street NW,
Above

CONVENTION CENTER FLOOR PLANS

Lobby Level/Level 1

Meeting Rooms 101–103 & 140–160



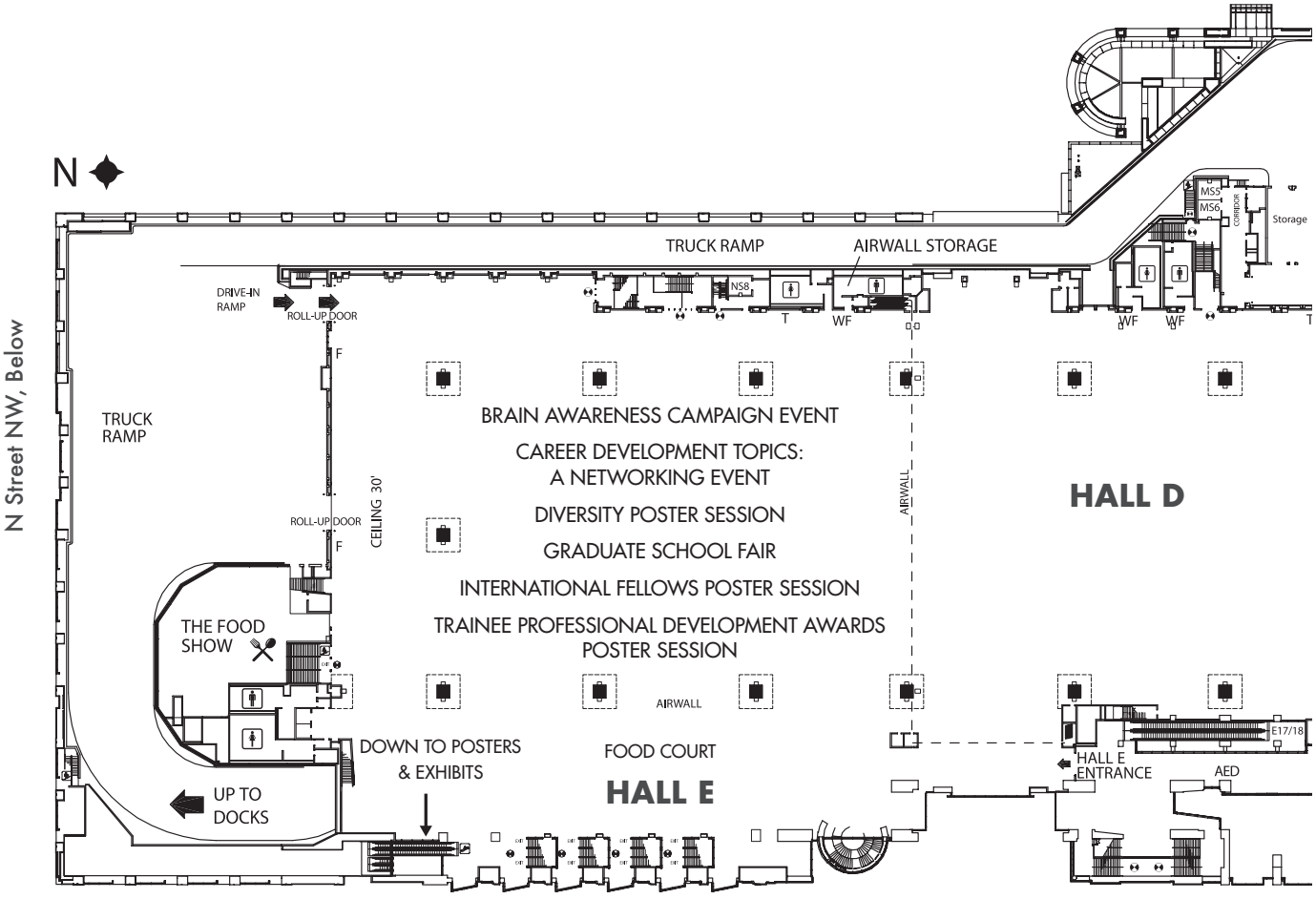

VOLUNTEER LEADERSHIP LOUNGE
RETAIL
SERVICE LOBBY
SS3
SS2
ROOM 101
ROOM 102
HEADQUARTERS, LOGISTICS & PROGRAMMING
REGISTRATION
EXPRESS BADGE PICK-UP
HOUSING DESK
MEMBERSHIP
CME REGISTRATION
CERTIFICATES OF ATTENDANCE
LOST & FOUND
WIRELESS SUPPORT
EAST SALON
SALON E
SALON F
SALON D
SP5
SP6
BUSINESS CENTER
L Street NW
SHUTTLE BUSES
CONCOURSE
L Street NW, Above
EXPRESS BADGE PICK-UP
RETAIL
T18
T17
TO HALLS D, E
SFN INFO BOOTH
GRAND LOBBY
OPEN TO BELOW
TAXIS
Mount Vernon Place
WEST SALON
EXPRESS BADGE PICK-UP
COAT & LUGGAGE CHECK
TUESDAY, NOV. 14 &
WEDNESDAY, NOV. 15 ONLY
ROOM 103A
ROOM 103B
PROGRAM & EXHIBIT GUIDE PICK-UP
NEUROSCIENCE MEETING PLANNER VIEWING AREA
NEUROJOBS
DOWN TO POSTERS & EXHIBITS
STARBUCKS
SERVICE LOBBY
SS1
SF1
BALCONY
BALCONY
BALCONY
BALCONY
SP2
SP1
OPEN TO BELOW
To Renaissance Washington, DC Hotel
EXHIBITOR AND CARRY ENTRANCE

CONVENTION CENTER FLOOR PLANS

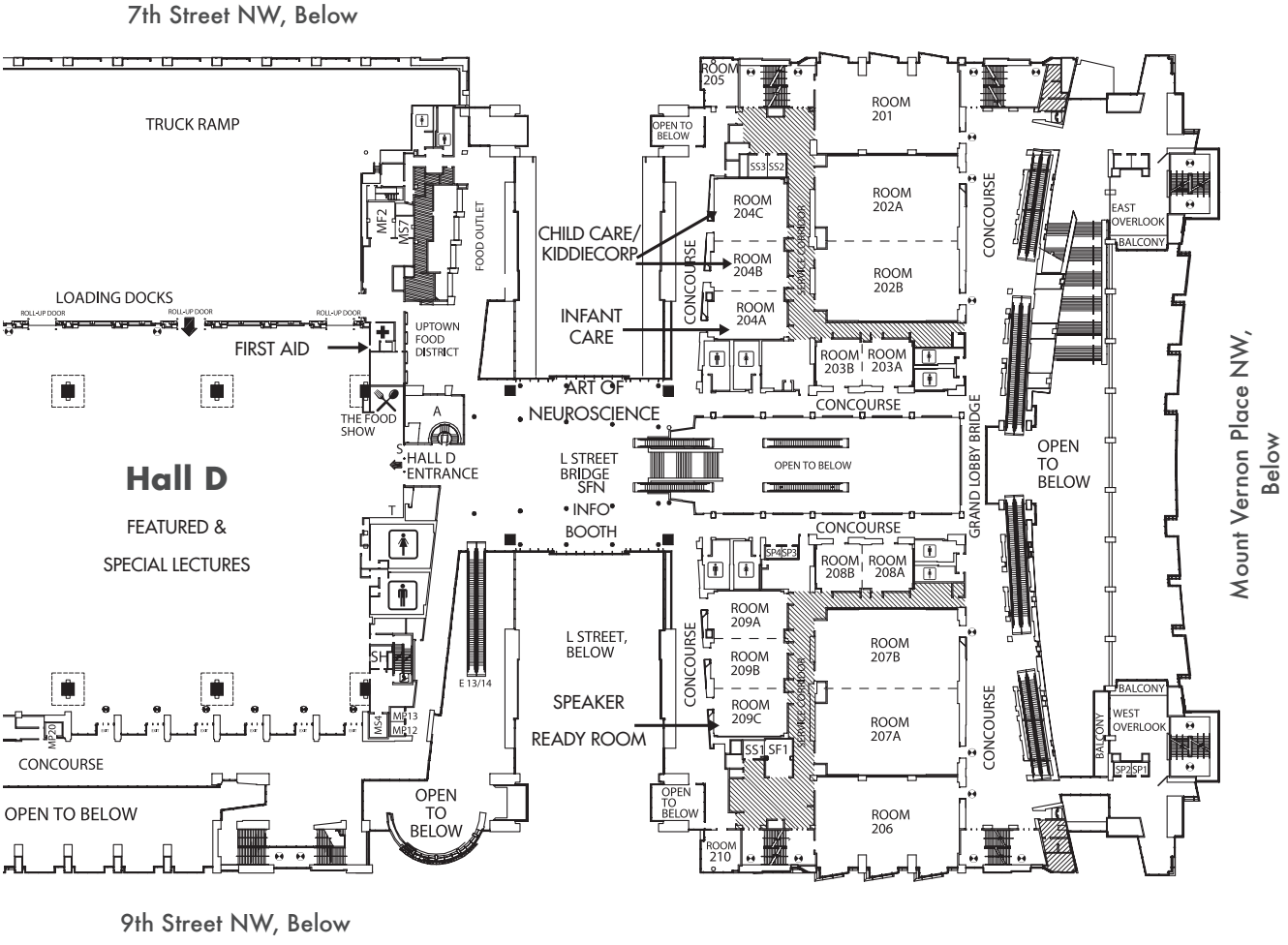
Level 2

Halls D & E

Meeting Rooms 201–210



NORTH BUILDING

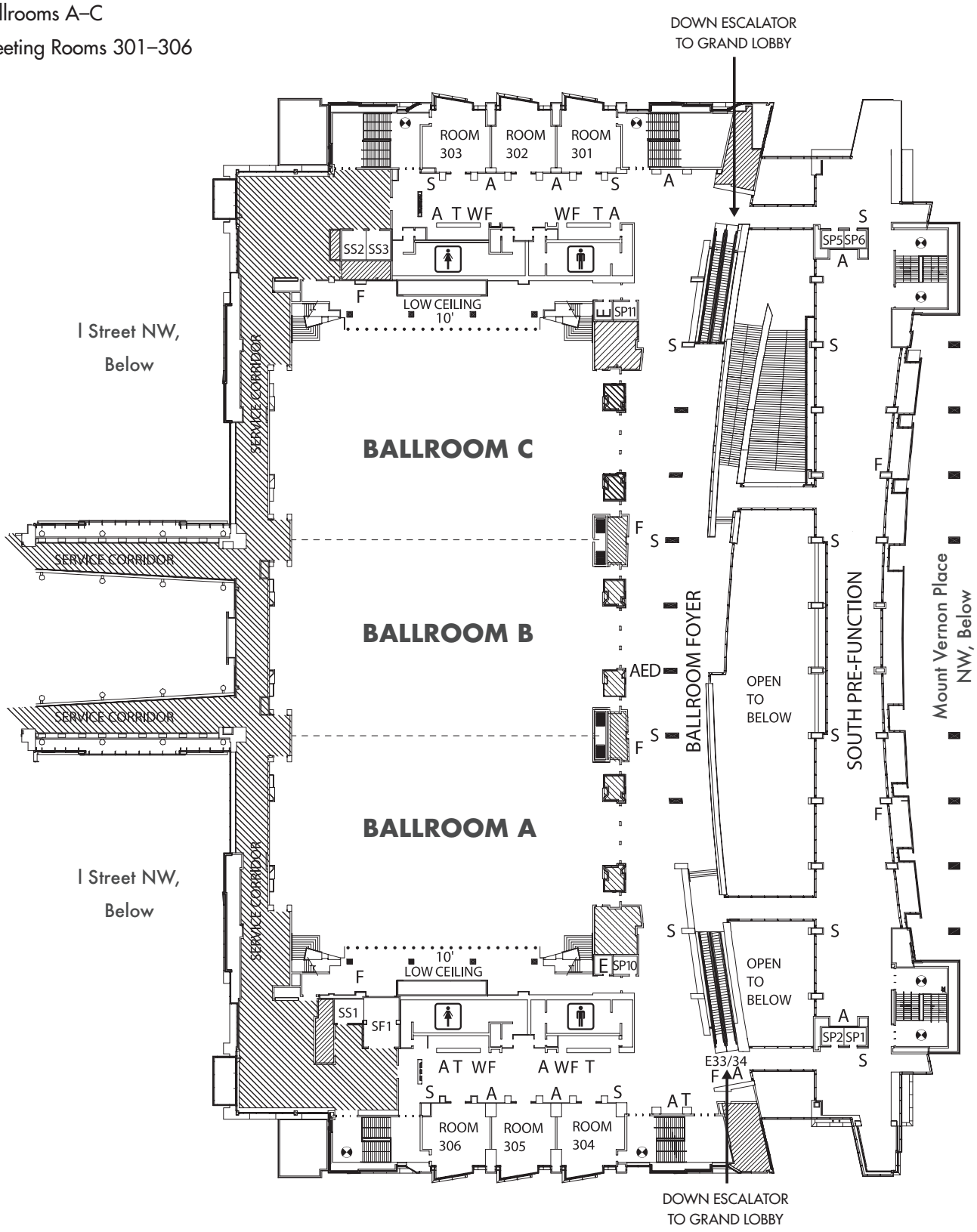

7th Street NW, Below
TRUCK RAMP
LOADING DOCKS
ROLL-UP DOOR
ROLL-UP DOOR
ROLL-UP DOOR
FIRST AID
UPTOWN FOOD DISTRICT
FOOD OUTLET
MF2
MS7
THE FOOD SHOW
A
S
HALL D ENTRANCE
Hall D
FEATURED & SPECIAL LECTURES
T
SH
MP20
MS4
MP13
MP12
E 13/14
CONCOURSE
OPEN TO BELOW
OPEN TO BELOW
CHILD CARE/ KIDDIECORP
INFANT CARE
ART OF NEUROSCIENCE
L STREET BRIDGE SFN
INFO BOOTH
L STREET, BELOW
SPEAKER READY ROOM
ROOM 205
OPEN TO BELOW
ROOM 201
SS3
SS2
ROOM 204C
ROOM 204B
ROOM 204A
CONCOURSE
SERVICE CORRIDOR
ROOM 202A
ROOM 202B
CONCOURSE
EAST OVERLOOK
BALCONY
ROOM 203B
ROOM 203A
CONCOURSE
GRAND LOBBY BRIDGE
OPEN TO BELOW
OPEN TO BELOW
SP4
SP3
ROOM 208B
ROOM 208A
CONCOURSE
ROOM 209A
ROOM 209B
ROOM 209C
SERVICE CORRIDOR
ROOM 207B
ROOM 207A
CONCOURSE
BALCONY
WEST OVERLOOK
BALCONY
SP2
SP1
SS1
SF1
OPEN TO BELOW
ROOM 210
ROOM 206
Mount Vernon Place NW, Below
9th Street NW, Below
MIDDLE BUILDING
SOUTH BUILDING

CONVENTION CENTER FLOOR PLANS

Level 3

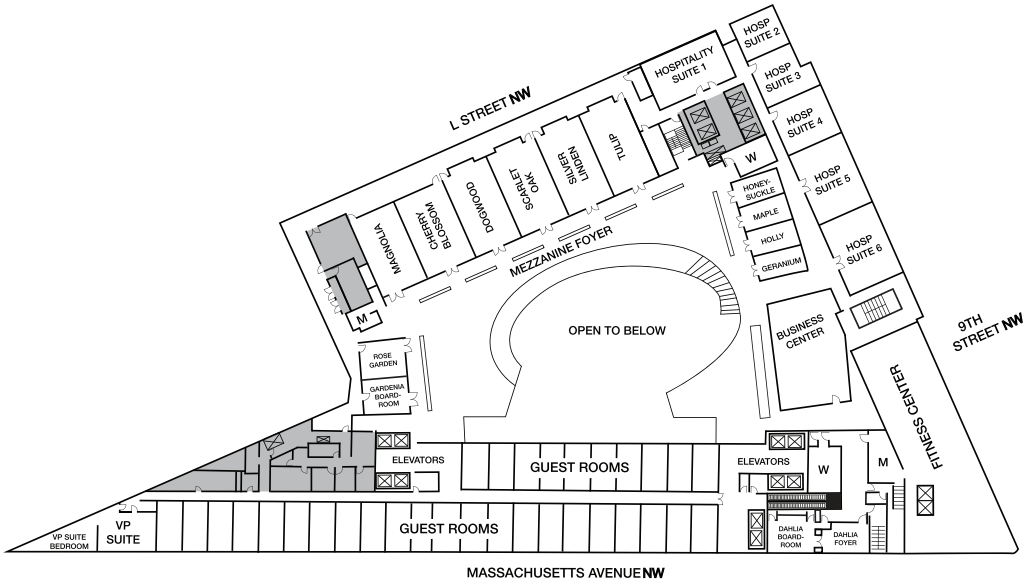
Ballrooms A–C

Meeting Rooms 301–306

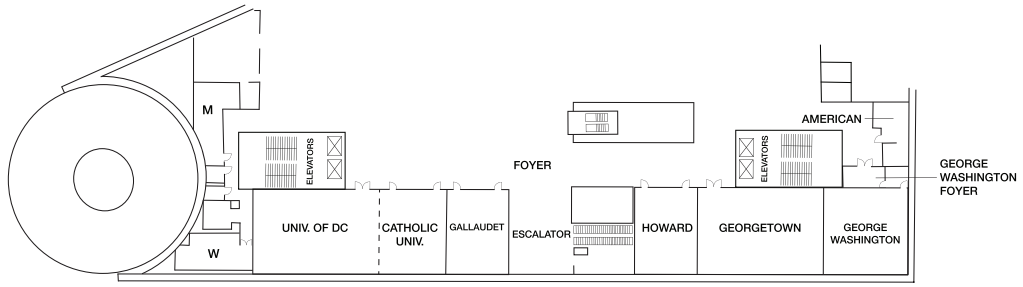


HOTEL FLOOR PLANS

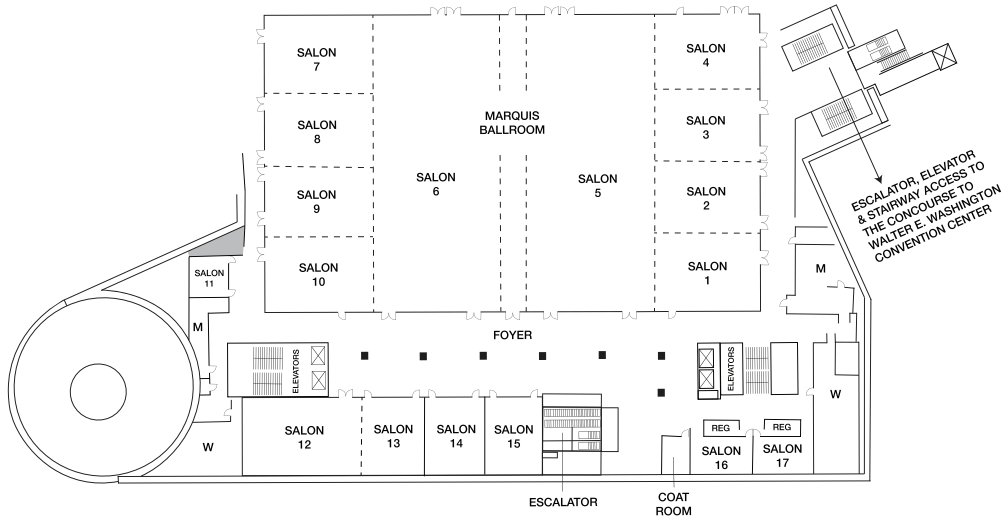
Marriott Marquis Washington, DC



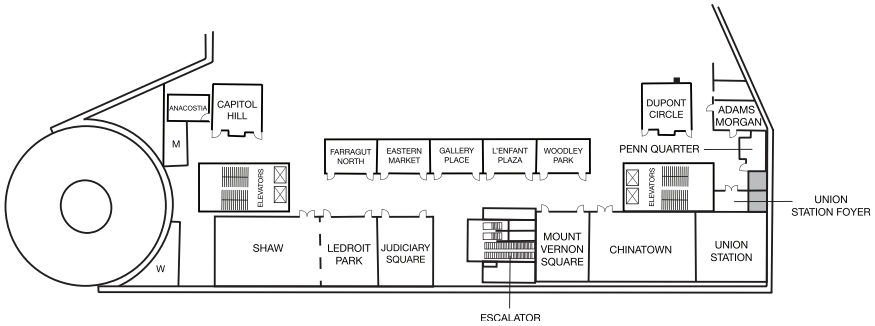
MEZZANINE LEVEL



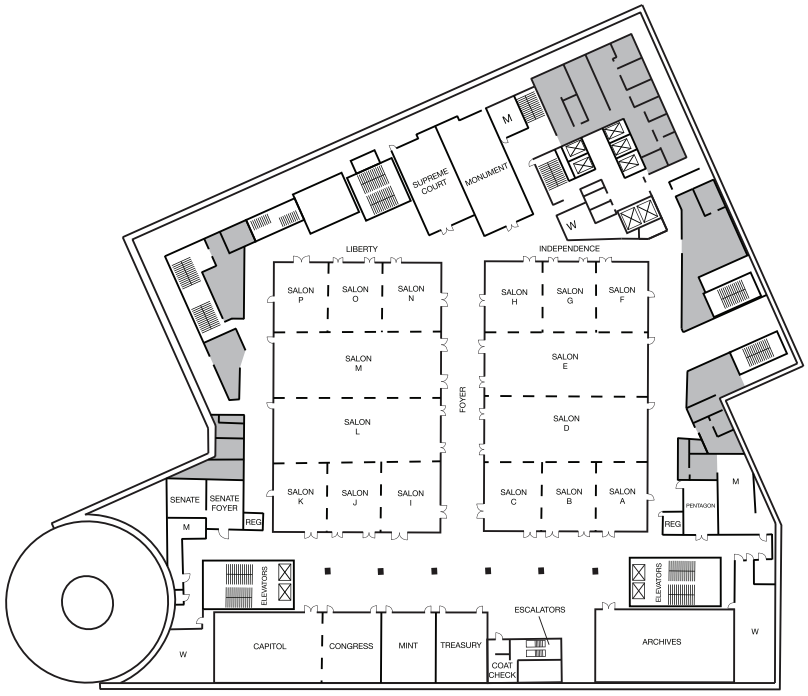
MEETING LEVEL 1



MEETING LEVEL 2

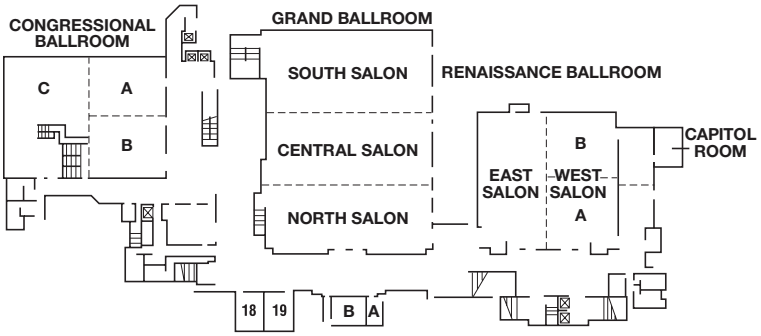


MEETING LEVEL 3

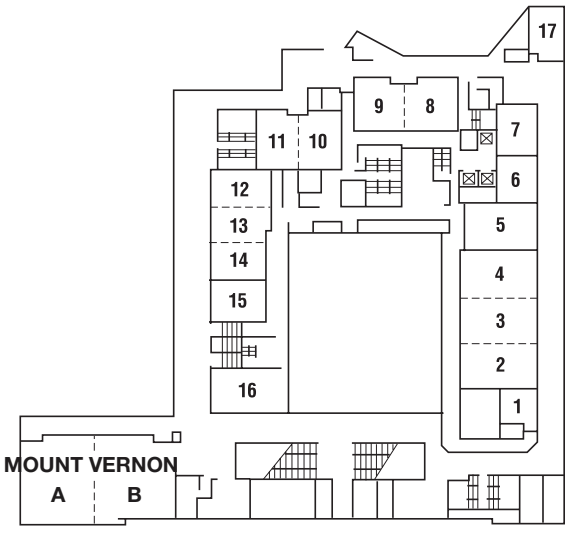


MEETING LEVEL 4

Renaissance Washington, DC Downtown



BALLROOM LEVEL



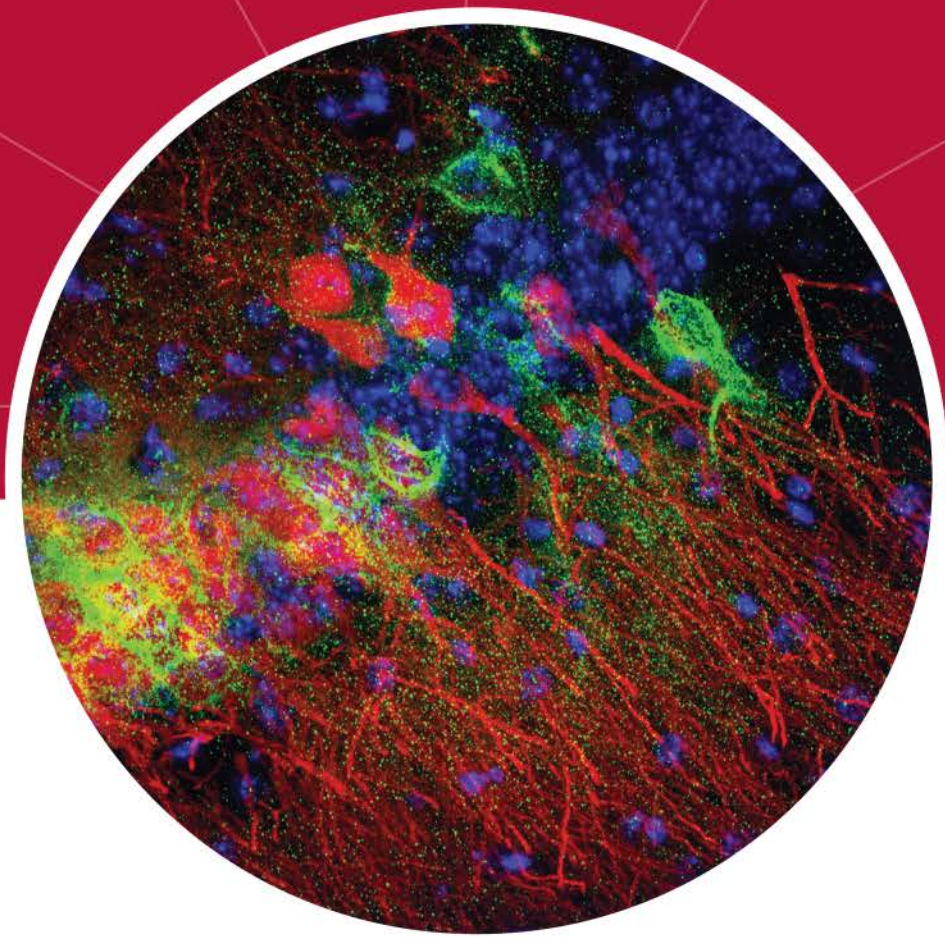
MEETING ROOM LEVEL

NEUROSCIENCE 2018

SEE YOU IN SAN DIEGO

NOVEMBER 3–7

SfN Society for Neuroscience



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Washington, DC 20005