

SATURDAY



SESSION LISTING 001-092

1969–2019



Information at a Glance

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Neuroscience 2019 is in the North and South Buildings of McCormick Place.

Session information listed here is current as of August 26, 2019. See SfN.org for the most up-to-date annual meeting information.

IMPORTANT PHONE NUMBERS

Annual Meeting Headquarters Office

Logistics & Programming

McCormick Place: Hall A

Logistics: (312) 791-6800

Programming: (312) 791-6805

Donor and Volunteer Leadership Lounge

McCormick Place: Level 2.5 Lounge

Annual Meeting Information Booths

McCormick Place

Gate 3 Lobby

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(312) 791-6820

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McCormick Place: Hall A

(312) 791-6824

First Aid and Hospital Numbers

First Aid Station

McCormick Place: Level 2.5S

(312) 791-6060

Mercy Hospital

2525 S. Michigan Ave.

Chicago, IL 60616

(312) 567-2000

South Loop Immediate Care

1430 S. Michigan Ave.

Chicago, IL 60605

(312) 663-3522

Cover Image:

This image shows expression of an optimized hybrid voltage sensor (hVOS) probe in the dentate gyrus of an Ai35 hVOS:: FOS mouse, viewed with 2-photon microscopy. Neurons expressing the voltage probe were activated by exposing the mouse to a novel environment. The hVOS probe enabled fluorescence imaging of voltage changes in these neurons. *Journal of Neuroscience* 20 September 2017, 37 (38) 9305-9319.

Courtesy with permission:

Peter O. Bayguinov, Yihe Ma, Yu Gao, Xinyu Zhao and Meyer B. Jackson.

KEY TO POSTER FLOOR BY THEMES

The poster floor is 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, Education, and Society

Note:

Theme J Posters will be on display in Hall A beginning at 1 p.m. on Saturday, Oct. 19, and will remain posted until 5 p.m., Sunday, Oct. 20. 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.

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For more information on SfN's policy, visit: www.sfn.org/codeofconduct.

Complete Session Listing

Saturday PM

LECTURE McCormick Place

001. Dialogues Between Neuroscience and Society

Sat. 11:00 AM - 1:00 PM — Hall B

Speaker: F. LI, Stanford Human -Centered AI Inst.

Fei-Fei Li is professor of computer science and co-director of the Stanford University Human-Centered AI Institute (HAI). A pioneering expert in AI, inventor of ImageNet, and thought leader, Dr. Li challenges us to be the stewards of technology to serve humanity at its broadest and most diverse extent. Dr. Li has also been recognized as a 2016 Global Thinker by Foreign Policy and formerly served as the vice president of AI and machine learning at Google Cloud. In this session, Dr. Li will discuss the transformative potential that AI and machine learning pose for society from her unique perspective as a scientist and an ethical leader who advocates for future technologies to incorporate an understanding of how to augment, not replace, elements of the human experience.

SYMPORIUM McCormick Place

002. Epigenetic Mechanisms: Shared Pathology Across Brain Disorders — CME

Sat. 1:30 PM - 4:00 PM — Room: S100A

*Chair: E. J. NESTLER, Icahn Sch Med at Mount Sinai
Co-Chair: Z. YAN. The State Univ. of New York, Univ. at Buffalo*

The pathogenesis of many brain disorders converges on epigenetic changes, leading to lasting transcriptional dysregulation and synaptic dysfunction. This symposium will discuss recent findings on the key role of epigenetic mechanisms in stress-induced depression, autism-like social deficits, drug addiction, and age-related memory loss. It will also discuss the therapeutic potential of targeting epigenetic enzymes, such as chromatin remodelers and histone modifiers, for complex brain disorders.

1:30 **002.01** Introduction.

1:35 **002.02** Epigenetic Mechanisms of Depression. E. J. NESTLER. *Icahn Sch Med at Mount Sinai*.

2:10 **002.03** Epigenetic Rescue of Social Deficits in Autism Models. Z. YAN. *Univ. at Buffalo - The State Univ. of New York*.

2:45 **002.04** Epigenetic mechanisms underlying cell-type specific neuronal plasticity in addiction. A. E. WEST. *Duke Univ.*

3:20 **002.05** Epigenetic Mechanisms Underlying Age-Related Memory and Synaptic Plasticity Impairments. M. A. WOOD. *Univ. of California Irvine*.

3:55 **002.06** Closing Remarks.

MINISYMPOSIUM McCormick Place

003. New Insights in Understanding Fragile X Syndrome (FXS): Focus on Neural Development in Human Models and Non-Neuron Glial Cells — CME

Sat. 1:30 PM - 4:00 PM — Room: S100BC

*Chair: Y. YANG, Tufts University School of Medicine
Co-Chair: G. J. BASSELL. Emory Univ.*

Recent development to establish stem cell or iPSC-derived human models of FXS has begun to provide new insight about the molecular and synaptic alterations in human neurons. This minisymposium will describe recent progress on utilizing human cell models to not only understand the roles of FMRP in human neuron development, but also test reactivation of the fmr1 gene as a potential therapeutic strategy. In addition, new knowledge about how non-neuronal glial cells are involved in the pathogenic process of FXS will be presented.

1:30 **003.01** Introduction.

1:35 **003.02** Cell type specific profiling of molecular defects in a human iPSC model of FXS. N. RAJ. *Emory Univ.*

1:55 **003.03** Interrogating the role of FMRP in human neurodevelopment. X. ZHAO. *Univ. of Wisconsin-Madison*.

2:15 **003.04** Multidisciplinary human stem cell-based system for fragile X research and preclinical studies. D. BEN-YOSEF. *Tel-Aviv Med. Ctr.*

2:35 **003.05** Retinoic acid signaling, homeostatic synaptic plasticity and FXS. L. CHEN. *Stanford Univ.*

2:55 **003.06** Astroglial miRNA and protein translational dysregulation in FXS models. Y. YANG. *Tufts Univ. Sch. of Med.*

3:15 **003.07** Epigenetic regulation in development and disease. R. JAENISCH. *Massachusetts Institute of Technology*.

3:35 **003.08** Closing Remarks.

MINISYMPOSIUM McCormick Place

004. Gain Control in the Sensorimotor System: From Neural Circuit Organization to Behavioral Function — CME

Sat. 1:30 PM - 4:00 PM — Room: S406B

*Chair: K. SEKI, National Institute of Neuroscience
Co-Chair: E. AZIM. Salk Inst. for Biol. Studies*

Coordinated movement depends on communication between neural circuits that produce motor output and those that report sensory consequences. Fundamental to this interaction are mechanisms for controlling the influence that feedback signals have on motor pathways—for example, reducing feedback gains when disruptive and increasing gains when advantageous. This minisymposium will discuss the organization and function of diverse forms of sensory gain control across species at multiple levels of the nervous system.

1:30 **004.01** Introduction.

* Indicated a real or perceived conflict of interest, see page 72 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

- 1:35 **004.02** Local spinal circuits for sensory-selective modulation during movement in mice. S. KOCH. *University College London*.
- 1:55 **004.03** Modulation of sensory feedback gains during forelimb movement in mice. E. AZIM. *Salk Institute for Biological Studies*.
- 2:15 **004.04** Top-down sensory modulation during active whisking in rats. S. CHAKRABARTI. *University of Tübingen*.
- 2:35 **004.05** Nerve-Specific Input modulation to spinal and cortical Neurons during voluntary movement in monkeys. K. SEKI. *Natl. Inst. Neurosci.*
- 2:55 **004.06** Spinal and cortical regulation of somatosensory inputs for reaching and grasping in human subjects. A. PRUSZYNSKI. *Western University*.
- 3:15 **004.07** Motor cortical contributions to hearing during movement in mice. J. SUNDARARAJAN. *Duke University*.
- 3:35 **004.08** Closing Remarks.

MINISYMPOSIUM McCormick Place

005. Sex Differences in Drug Craving and Addiction-Like Behaviors in Rodent Models — CME

Sat. 1:30 PM - 4:00 PM — Room: S102

Chair: M. E. WIMMER, *Temple University*
Co-Chair: J. A. LOWETH, *Rowan Univ. Sch. of Osteo. Med.*

Women tend to have greater vulnerability than men to developing symptoms that define Substance Use Disorder, including escalation of drug taking and withdrawal symptoms. Moreover, the limited treatment options for addiction are less effective in women compared to men. This minisymposium highlights recent advances in rodent models of addiction that dissect the molecular, hormonal, and neuronal circuits underlying sex differences in addiction-like behaviors and craving and relapse vulnerability.

- 1:30 **005.01** Introduction.
- 1:35 **005.02** The effects of metformin on cocaine craving: targeting AMP-activated protein kinase (AMPK) pathway and beyond. S. M. SPENCER. *Univ. of Minnesota*.
- 1:55 **005.03** Role of orbitofrontal cortex in incubation of oxycodone seeking in both male and female rats. X. LI. *Univ. of Maryland*.
- 2:15 **005.04** Transcriptomics of opioid craving in the nucleus accumbens of male and female rats. M. E. WIMMER. *Temple Univ.*
- 2:35 **005.05** Incubation of cocaine craving after intermittent access cocaine self-administration: sex differences and estrous cycle. C. NICOLAS. *Natl. Inst. On Drug Abuse-Irp.*
- 2:55 **005.06** Sex differences in stress- and cue-induced cocaine seeking in the incubation model. J. A. LOWETH. *Rowan Univ. Sch. of Osteo. Med.*
- 3:15 **005.07** Effects of ovarian hormones on cue-triggered motivation and excitability in the nucleus accumbens. C. FERRARIO. *Michigan Univ.*
- 3:35 **005.08** Closing Remarks.

MINISYMPOSIUM McCormick Place

006. Brain Mechanisms of Concept Learning — CME

Sat. 1:30 PM - 4:00 PM — Room: S105

Chair: D. ZEITHAMOVA, *University of Oregon*
Co-Chair: M. L. MACK. *Univ. of Toronto*

Concept learning, the ability to extract commonalities and highlight distinctions across related experiences to build organized knowledge, is uniquely supported by interacting neural systems related to memory, attention, and executive control. This minisymposium will highlight research that directly assesses the multiple neural mechanisms of concept learning with innovative approaches that bridge computational modeling and neural measures.

- 1:30 **006.01** Introduction.
- 1:35 **006.02** The hippocampal-cortical circuits underlying new concept formation. M. L. MACK. *Univ. of Toronto*.
- 1:55 **006.03** Specific and generalized representations supporting categorization. D. ZEITHAMOVA. *Univ. of Oregon*.
- 2:15 **006.04** Concept learning through inference: How congruency and reactivation aid memory integration. M. VAN KESTEREN. *Vrije Univ. Amsterdam*.
- 2:35 **006.05** Combining representations and rewards in categorical decision making. C. A. SEGER. *Colorado State Univ.*
- 2:55 **006.06** The role of the rostral-lateral prefrontal cortex in generalizing category rules. T. DAVIS. *Texas Tech. Univ.*
- 3:15 **006.07** Different prefrontal cortex dynamics for learning at different levels of abstraction. A. WUTZ. *Univ. of Salzburg*.
- 3:35 **006.08** Closing Remarks.

MINISYMPOSIUM McCormick Place

007. BRAIN Initiative: Cutting-Edge Tools and Resources for the Community — CME

Sat. 1:30 PM - 4:00 PM — Room: S406A

Chair: W. J. KOROSHETZ, *National Institute of Health*

A core principle of the BRAIN Initiative is to develop and share novel technologies, tools, methods, and resources to advance understanding of healthy and disease brain states. This minisymposium features BRAIN-funded investigators who are driving forward toward this goal; it will inform and educate the community about opportunities and applications of their advances and encourage broader understanding of the methodological and technological advances developed as a part of the BRAIN Initiative.

- 1:30 **007.01** Introduction.
- 1:35 **007.02** The facility to generate connectomic information. J. W. LICHTMAN. *Harvard Univ.*
- 1:55 **007.03** High-throughput, quantitative connectomics using fluorescence microscopy. A. L. BARTH. *Carnegie Mellon Univ.*
- 2:15 **007.04** New tools for understanding distributed patterns of brain activity. L. M. FRANK. *Kavli Inst. for Fundamental Neuroscience, HHMI and UC San Francisco*.
- 2:35 **007.05** Enhanced resolution for 3DEM analysis of synapses. K. HARRIS. *Univ. of Texas at Austin*.

* Indicated a real or perceived conflict of interest, see page 72 for details.

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* Indicates abstract's submitting author

- 2:55 **007.06** Introducing an unsupervised classification tool for separating individuals based on within- or between-network functional brain connectivity. K. GATES. *Univ. of North Carolina Chapel Hill.*
- 3:15 **007.07** Renewable recombinant immunolabels developed and validated for BRAIN research. J. TRIMMER. *Univ. of California, Davis.*
- 3:35 **007.08** Closing Remarks.

LECTURE McCormick Place

- 008. SPECIAL LECTURE- Neuronal Activity-Dependent Myelination: A Mechanism for Learning and Repair? — CME**
- Sat. 2:00 PM - 3:10 PM — Hall B
Speaker: R. T. KARADOTTIR, Univ. of Cambridge.
 Myelin is essential for normal brain function, and alterations in myelin are increasingly implicated as a mechanism for learning. The importance of myelin is evident in diseases where damage to myelin leads to physical and cognitive disabilities. Uniquely within the central nervous system, myelin can regenerate; but this often fails, causing sustained clinical deficits. This lecture will cover the progress made in understanding myelination, with a focus on activity-dependent myelination, and explore how the underlying mechanisms of myelin plasticity may underpin myelin regeneration.

LECTURE McCormick Place

- 009. PRESIDENTIAL SPECIAL LECTURE- From Base Pairs to Bedside: Antisense Modulators of RNA Splicing to Treat Neurological Diseases — CME**
- Sat. 5:15 PM - 6:30 PM — Hall B
Speaker: A. R. KRAINER, Cold Spring Harbor Lab.
 Nusinersen, the first FDA-approved drug for spinal muscular atrophy (SMA), exemplifies a successful path from basic studies to an effective therapy. It is an antisense oligonucleotide (ASO) that modulates alternative splicing of SMN2, increasing functional SMN protein in motor neurons. After clinical trials in SMA infants and children, nusinersen was approved in 2016. This lecture will describe the development of this drug and its clinical impact. Using a similar approach, an ASO was developed to correct defective RNA splicing of IKBKAP, which causes familial dysautonomia.

NANOSYMPOSIUM

010. *In Vivo Studies of Stem Cell Fate*

Theme A – Development

- Sat. 1:00 PM – McCormick Place, S404
- 1:00 **010.01** Fezf1 determines the fate of ON versus OFF starburst amacrine cells. R. E. J. JAMES-ESPOSITO*, Y. PENG; W. YAN; J. N. KAY; J. R. SANES; A. L. KOLODKIN. *Johns Hopkins Univ. Sch. of Med., Harvard Univ., Duke Univ. Sch. of Med., Harvard Univ.*

- 1:15 **010.02** Trans-differentiation of cochlear outer hair cells into inner hair cells in the absence of INSM1. J. GARCIA-ANOVEROS*, T. WIWATPANIT; S. M. LORENZEN; J. A. CANTU; C. Z. FOO; J. C. CLANCY; M. CHEATHAM; A. DUGGAN. *Northwestern Univ., Northwestern Univ., Northwestern Univ., Northwestern Univ.*
- 1:30 **010.03** Maintenance of neural stem cell positional identity by mixed-lineage leukemia 1. R. N. DELGADO*, B. MANKSY; C. LU; R. ANDERSEN; S. HAMID; Y. DOU; A. ALVAREZ-BUYLLA; D. LIM. *UCSF, Univ. of California San Francisco, Univ. of Michigan, Univ. of California San Francisco, Univ. of California, San Francisco.*
- 1:45 **010.04** Single-cell transcriptomic analysis of human cortical development throughout the prenatal and postnatal life. D. VELMESHEV*, D. JUNG; A. BHADURI; M. HAEUSSLER; L. SCHIRMER; S. WANG; Y. PEREZ; N. GOYAL; M. PAREDES; E. HUANG; A. KRIEGSTEIN. *UCSF, Univ. of California, Santa Cruz, Univ. Med. Ctr. Mannheim, Univ. of California, Berkeley.*
- 2:00 **010.05** Human embryonic OPCs and white matter expansion. W. HUANG*; A. BHADURI; D. VELMESHEV; A. R. KRIEGSTEIN. *Univ. of California San Francisco, UCSF, Univ. of California San Francisco.*
- 2:15 **010.06** A gene therapy approach to directly convert striatal astrocytes into GABAergic neurons in a mouse model of Huntington's disease. Z. WU*; M. PARRY; X. HOU; H. WANG; R. CAIN; Z. PEI; Z. GUO; G. CHEN. *Penn State Univ.*
- 2:30 **010.07** Assessing *in vivo* neuronal reprogramming by automated, resonance-scanned confocal virtual tissue image acquisition and artificial intelligence-assisted stereology. D. A. PETERSON*; R. A. MARR; M. THAQI. *Rosalind Franklin Univ. Med. Sci., NeuroRenew, Inc., Rosalind Franklin Univ. of Med. and Sci.*

NANOSYMPOSIUM

011. Effects of Parenting and Disease on Human and Non-Human Primate Brain Development

Theme A – Development

Sat. 1:00 PM – McCormick Place, N427

- 1:00 **011.01** Postnatal zika virus infection causes long-term neurodevelopmental consequences in infant rhesus macaques. J. RAPER*, Z. KOVACS-BALINT; M. MAVIGNER; S. GUMBER; M. SANCHEZ; M. ALVARADO; A. CHAHROUDI. *Yerkes Natl. Primate Res. Ctr., Emory Univ. Sch. of Med., Emory Univ. Sch. of Med., Childrens Healthcare of Atlanta.*
- 1:15 **011.02** Social and cognitive development in a nonhuman primate model of maternal immune activation. A. M. RYAN; A. IOSIF; T. MURAI; C. E. HOGREFE; J. VAN DE WATER; A. K. MCALLISTER; C. S. CARTER; M. D. BAUMAN*. *Univ. of California Davis, UC Davis, Sumitomo Dainippon Pharma Co., Ltd., UC Davis, UC Davis, Univ. of California Davis, Univ. California, Davis.*
- 1:30 **011.03** Social behaviors and cognitive function in non-human primates 2 years after infant isoflurane exposure. V. NEUDECKER*, J. F. PEREZ-ZOGHBI; K. COLEMAN; M. NEURINGER; N. ROBERTSON; A. BEMIS; B. GLICKMAN; L. MARTIN; G. A. DISSEN; A. BRAMBRINK. *Columbia Univ. Med. Ctr., ONPRC, Oregon Hlth. & Sci. Univ.*

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* Indicates abstract's submitting author

- 1:45 **011.04** Psychophysiological encoding of value signals in children exposed to abuse. K. E. SMITH*; S. D. POLLAK. *The Univ. of Wisconsin - Madison, Waisman Ctr.*
- 2:00 **011.05** Cortisol in mother's milk predicts head growth and neurological development in the neonatal period in rhesus monkeys. A. M. DETTMER*; J. S. MEYER; K. HINDE. *Yale Child Study Ctr., Univ. of Massachusetts Amherst, Arizona State Univ.*
- 2:15 **011.06** Synaptic ultrastructure in adolescent rhesus monkeys exposed to sevoflurane in infancy. T. FEHR*; W. G. M. JANSSEN; M. G. BAXTER. *Icahn Sch. of Med. At Mount Sinai.*
- 2:30 **011.07** Maternal nutrition during pregnancy is associated with neonatal functional brain organization and subsequent cognitive skills. A. GRAHAM*; E. SCHIFSKY; K. LINDSAY; D. STURGEON; J. RASMUSSEN; E. J. FECZKO; S. ENTRINGER; P. WADHWA; D. A. FAIR; C. BUSS. *Oregon Hlth. & Sci. Univ., Univ. of California, Irvine, Univ. of California, Irvine, Oregon Hlth. Sci. Univ., Charite, Oregon Hlth. Sci. Univ., Charité Univ. Med. Berlin.*
- 2:45 **011.08** Impact of maternal diet and stressor exposure on lactational programming of infant brain growth: A rhesus macaque study. K. ETHUN*; M. H. KYLE; M. PINCUS; J. GODFREY; Z. KOVACS-BALINT; L. LI; M. A. STYNER; M. E. WILSON; M. SANCHEZ. *Yerkes Natl. Primate Res. Ctr., Emory Univ., Marcus Autism Ctr., Univ. of North Carolina At Chapel Hill.*
- 3:00 **011.09** Unique neurobehavioral signature of infant trauma with a caregiver. M. OPENDAK; D. A. WILSON; R. M. SULLIVAN*. *New York Univ., New York Univ. Sch. of Med., NKI & NYU Sch. of Med.*
- 3:15 **011.10** Intrusive parenting in infancy predicts alterations in error-related theta oscillations seven years later. M. BOWERS*; G. A. BUZZELL; S. MORALES; A. HANE; H. HENDERSON; N. FOX. *Univ. of Maryland, Col. Park, Univ. of Maryland, Col. Park, Pennsylvania State Univ., Williams Col., Univ. of Waterloo.*
- 3:30 **011.11** Developmental sex heterogeneity of emotion-related brain circuitry in young children. J. XU*; L. HAO; J. GAO; S. TAN; Y. HE; Q. DONG; S. TAO; S. QIN. *Beijing Normal Univ., Beijing Normal Univ., Peking Univ., Peking Univ., Beijing Huilongguan Hosp.*
- 3:45 **011.12** The effect of prenatal alcohol exposure on offspring brain morphology in childhood and adolescence: A population-based MRI study. T. H. SHARP*; C. RELTON; E. WALTON; H. EL MARROUN; T. PAUS; L. ZUCCOLO. *Univ. of Bristol, The Dept. of Child and Adolescent Psychiatry, Erasmus MC, Rotman Res. Institute, Univ. of Toronto.*
- 4:00 **011.13** Cortical gliosis in juvenile non-human primates exposed to general anesthesia during infancy. J. F. PEREZ-ZOGHBI*; V. NEUDECKER; M. R. GRAFE; A. M. BRAMBRINK. *Columbia Univ. Med. Ctr., Oregon Hlth. & Sci. Univ.*

NANOSYMPSIUM

- 012. Neural Excitability: Regulating Synaptic Properties and Plasticity**
- Theme B – Neural Excitability/ Synapses/ and Glia**
- Sat. 1:00 PM – McCormick Place, N426
- 1:00 **012.01** c-Abl tyrosine kinase modulates the transcription of immediate early genes in synaptic plasticity. D. A. GUTIERREZ*; D. GONZALEZ; A. GONZALEZ; P. PICÓN; A. CÁCERES; F. MUÑOZ; A. R. ALVAREZ*. *P. Univ. Católica Chile, Pontificia Univ. Católica de Chile, Univ. Pompeu Fabra, Pontificia Univ. Católica de Chile, Pontificia Univ. Católica de Chile.*
- 1:15 **012.02** True prophylactic treatment effect in a rat PTSD model on synaptic plasticity in ventral hippocampal and lateral amygdala along with potential molecular targets. J. G. EDWARDS*; R. M. MILLER; E. T. WINZENRIED; E. SAITO; T. JOHNSON; Z. BOYCE; A. MARTIN. *Brigham Young Univ.*
- 1:30 **012.03** Electron microscopy visualization of individual CaMKII molecules at dendritic spines. X. CHEN*; C. WINTERS; H. L. PUHL, III; V. CROCKER; M. ARONOVA; R. D. LEAPMAN; S. S. VOGEL; R. S. THOMAS. *NINDS-NIH, Natl. Inst. on Alcohol Abuse and Alcoholism, Natl. Inst. of Neurolog. Dis. and Stroke, Natl. Inst. of Biomed. Imaging and Bioengineering.*
- 1:45 **012.04** The role of AMPA receptor C-tails in long-term potentiation. J. DÍAZ-ALONSO*; S. INCONTRO; R. A. NICOLL. *UCSF.*
- 2:00 **012.05** Rab27b regulates frequency facilitation and is essential for long-term potentiation in hippocampal mossy fiber synapses. E. R. ARIAS-HERVERT*; N. XU; E. L. STUENKEL. *Univ. of Michigan, Univ. of Michigan.*
- 2:15 **012.06** Alternative splicing of presynaptic neurexins differentially controls postsynaptic NMDA and AMPA receptor responses. J. DAI*; J. N. AOTO; T. C. SUDHOFF. *Stanford Univ., Univ. of Colorado, Denver.*
- 2:30 **012.07** From presynaptic terminal to postsynaptic spine: Trans-synaptic bridges within hippocampal synapses revealed by EM tomography. A. A. COLE*; X. CHEN; T. S. REESE. *NIH.*
- 2:45 **012.08** *In vivo* genetic analysis of dendritic spine morphogenesis and postsynaptic assembly. D. OLIVER*; A. PHILBROOK; S. RAMACHANDRAN; K. C. Q. NGUYEN; D. H. HALL; M. DOITSIDOU; C. BÉNARD; M. M. FRANCIS. *Univ. of Massachusetts Med. Sch., Albert Einstein Col. Med., The Univ. of Edinburgh, Univ. du Québec à Montréal.*
- 3:00 **012.09** Activity labeling reveals electrophysiological differences between L4 pyramidal neurons with high and low *in vivo* firing rate set points. N. TROJANOWSKI*; G. TURRIGIANO. *Brandeis Univ.*
- 3:15 **012.10** Effects of inhibitory synapses on dendritic spine clustering in rat hippocampus. K. M. HARRIS*; M. M. HOOPER; D. D. HUBBARD; Z. A. LUNA; J. M. MENDENHALL; P. H. PARKER; J. N. BOURNE; M. A. CHIRILLO. *Univ. of Texas at Austin.*
- 3:30 **012.11** Spine dynamics in parvalbumin-positive interneurons of the dentate gyrus upon environmental changes. D. KAUFHOLD; E. MARISTANY; M. STRÜBER; J. SAUER; M. BARTOS*. *Univ. Freiburg.*

- 3:45 **012.12** Toward the identification of a mechanism that controls GABAergic synapse density. R. KOHEN*; K. T. BALDWIN; P. M. GARAY; A. CHEN; C. G. FLYNN; M. A. SUTTON; S. IWASE; R. J. GIGER. *Univ. of Michigan, Univ. of Michigan*.
- 4:00 **012.13** Plasticity of dopamine and PKA dynamics in the striatum during reward based learning. S. LEE*; Y. CHEN; T. PATRIARCHI; L. TIAN; B. SABATINI. *Howard Hughes Med. Inst. - Harvard Med., Univ. of California Davis*.
- 4:15 **012.14** Can protein kinase inhibitor peptide (PKI) act as a switch between kinases? Y. CHEN*; B. L. SABATINI. *Washington Univ., Howard Hughes Med. Institute, Harvard Med. Sch. Dept. of Neurobio*.
- 4:30 **012.15** Stress hormone induces synaptic plasticity of the ventral tegmental area dopamine neurons via D2 receptor signaling. B. PENG; S. GUO; S. L. BORGLAND; S. LIU*. *East China Normal Univ., Univ. of Calgary*.
- 4:45 **012.16** Acute & chronic cocaine exposure occludes long-term depression in ventral tegmental area GABA neurons. L. N. FRIEND; B. WU*; J. G. EDWARDS. *NIH, Brigham Young Univ.*
- NANOSYMPOSIUM**
- 013. Microglial Control of Brain Development and Function**
- Theme B – Neural Excitability/ Synapses/ and Glia**
- Sat. 1:00 PM – McCormick Place, S106
- 1:00 **013.01** Topological classification of microglia. G. COLOMBO; A. VENTURINO*; R. SCHULZ; L. KANARI; K. HESS; S. SIEGERT. *IST Austria, EPFL, Blue Brain Project, EPFL*.
- 1:15 **013.02** Uncovering functional roles for unique microglia subpopulations in development and disease. T. R. HAMMOND*; C. DUFORT; A. YOUNG; E. DEERHAKE; M. SHINOHARA; B. A. STEVENS. *Boston Children's Hosp., Boston Children's Hosp., Cambridge Univ., Duke Univ., Boston Children's Hosp.*
- 1:30 **013.03** Microglia support developmental cell genesis and myelination. L. H. NELSON*; P. PEKETI; S. WARDEN; B. VEROSKY; H. HICKEY; K. M. LENZ. *Ohio State Univ., Ohio State Univ., Ohio State Univ., Ohio State Univ.*
- 1:45 **013.04** Microglia mediate restructuring of spinal somatosensory circuits during normal development and after injury. Y. XU*; D. MOULDING; O. GIBBS; S. BEGGS. *Univ. Col. London, Univ. Col. London, Univ. Col. London*.
- 2:00 **013.05** Bcl-xL gene imprinting regulates neuron-specific microglia crosstalk and cortical plasticity. M. D. CAIATI*, O. HO-SHING; C. G. DULAC; T. K. HENSCH. *Harvard Univ.*
- 2:15 **013.06** Enhanced parvalbumin neuron-microglia crosstalk during critical period plasticity. H. H. LEE*; K. B. QUAST; M. D. CAIATI; R. K. REH; N. W. HODGSON; M. NAKAMURA; J. SPATAZZA; A. PROCHIANTZ; T. K. HENSCH. *Boston Children's Hosp., Harvard Univ., Col. De France, Univ. of Tokyo*.
- 2:30 **013.07** • Functional and molecular characterization of a human iPSC-derived microglial model. T. A. LANZ*; M. SHEEHAN; Q. XIAO; M. ZAVODSKY; R. CHALLA; H. MCLAUGHLIN; C. SUN; C. ROBERTS; H. TSAO; S. ENGLE; R. KLEIMAN. *Biogen, Biogen*.
- 2:45 **013.08** CO₂-sensitive microglia in mouse brainstem. J. E. EUGENIN*; E. IRRIBARRA; S. BELTRÁN-CASTILLO; C. DANIELA; A. FLORES; R. VON BERNHARDI. *Univ. de Santiago, USACH, Pontificia U Catolica De Chile, Fac Med.*
- 3:00 **013.09** *In vivo* imaging of microglial self-renewal and maturation in the adult mouse brain. M. S. MENDES*; J. ATLAS; Z. BREHM; M. MCCALL; A. K. MAJEWSKA. *Univ. of Rochester Med. Ctr., Univ. of Rochester*.
- NANOSYMPOSIUM**
- 014. Proteome Dysfunction in Aging, Neurodegenerative Disorders, and Alzheimer's Disease**
- Theme C – Neurodegenerative Disorders and Injury**
- Sat. 1:00 PM – McCormick Place, S104
- 1:00 **014.01** Brain proteome changes associated with aging, cognitive decline, and cognitive superaging. C. B. SPÄNI*; M. M. OH; A. DISTAULO; M. MCCARTHY; N. KHALATYAN; J. N. SAVAS; J. F. DISTERHOFT. *Northwestern Univ.*
- 1:15 **014.02** Detection of aberrant protein folding in neurodegenerative diseases with covalent protein painting. T. C. BAMBERGER*; J. DIEDRICH; J. R. YATES, III. *The Scripps Res. Inst.*
- 1:30 **014.03** Single-cell transcriptome identifies conserved transcriptomic alterations in Alzheimer's disease. S. J. MORABITO; E. MIYOSHI; N. MICHAEL; V. SWARUP*. *Univ. of California Irvine, Univ. of California Irvine, Univ. of California Irvine*.
- 1:45 **014.04** Multi-omic analysis identifies transcriptional networks and drivers associated with cognitive aging and Alzheimer's disease. S. E. HEUER*; S. M. NEUNER; C. GAITERI; C. C. KACZOROWSKI. *The Jackson Lab., Tufts Univ., Univ. of Tennessee Hlth. Sci. Ctr., Rush Univ. Med. Ctr., The Jackson Lab.*
- 2:00 **014.05** Transcriptomic analysis of the brain endothelium in an experimental model of Alzheimer's disease. A. JANA*; A. JAMBUSARIA; H. B. DODIYA; J. LEASURE; S. SISODIA; J. REHMAN. *Univ. of Illinois at Chicago, Univ. of Illinois at Chicago, Univ. of Chicago, Univ. of Illinois at Chicago, Univ. of Illinois at Chicago*.
- 2:15 **014.06** Insight into alpha1ACT transcription factor interactome in cerebellar development and degeneration. C. WEI; D. P. H. PASTOR; J. GODFREY; E. RAO; C. GOMEZ; X. DU*. *Univ. of Chicago*.
- 2:30 **014.07** Determining and characterizing substrates of impaired protein degradation in models of Alzheimer's disease. T. J. HARK*; E. BOMBA; S. N. SMUKOWSKI; L. ALI; J. N. SAVAS. *Northwestern Univ.*
- 2:45 **014.08** Cellular mechanisms in memory retrieval and its impairment in amyloid precursor protein transgenic mice, as revealed by synapse proteomics. V. BEGLOPOULOS*; A. J. RHODES; D. BECIC; A. C. ASHTON. *Univ. of Central Lancashire*.
- 3:00 **014.09** Dissimilar expression of Alzheimer's disease risk factors in separate cell types of the adult human brain. D. M. COELHO; L. IOHAN; J. LAMBERT; M. R. COSTA*. *Federal Univ. of Rio Grande do Norte, Inst. Pasteur de Lille, Inst. Pasteur De Lille*.
- 3:15 **014.10** • Deep proteomic profiling of CSF from subjects with Alzheimer's disease using DIA mass spectrometry. N. DUPUIS*; R. BRUDERER; Y. FENG; D. HEINZMANN; L. REITER. *Biognosys AG*.

* Indicated a real or perceived conflict of interest, see page 72 for details.

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* Indicates abstract's submitting author

- 3:30 014.11** Integrative proteomics links CSF biomarkers to pathological brain networks in Alzheimer's disease. L. PING; L. HIGGINBOTHAM; E. DAMMER; D. M. DUONG; M. ZHOU; T. WINGO; E. C. B. JOHNSON; J. J. LAH; A. I. LEVEY; N. T. SEYFRIED*. *Emory Univ., Emory Univ. Sch. of Med.*
- 3:45 014.12** Glial fibrillary acidic protein: A biomarker and drug target for Alzheimer's and other neurodegenerative diseases. R. J. SHMOOKLER REIS*; A. GANNE; R. D. HENDRIX; M. BALASUBRAMANIAM; S. T. GRIFFIN; S. W. BARGER; S. AYYADEVARA. *Univ. of Arkansas for Med. Sci., Central Arkansas Veterans Healthcare Syst., Univ. of Arkansas at Little Rock, Washington Univ. Sch. of Med.*
- NANOSYMPOSIUM**
- 015. Neurodegeneration and Injury I**
- Theme C – Neurodegenerative Disorders and Injury**
- Sat. 1:00 PM – McCormick Place, S401
- 1:00 015.01** Functional integrity of synapses is associated with absence of synaptic tau oligomers in the CNS of cognitively-intact individuals with high Alzheimer's neuropathology. B. TUMURBAATAR; A. SINGH; B. KRISHNAN; C. NATARAJAN; A. LIMON; P. SCADUTO; R. WOLTJER; R. KAYED; G. TAGLIALATELA*. *Univ. of Texas Med. Br., Oregon Hlth. & Sci. Univ.*
- 1:15 015.02** Bacterial DNA promote tau aggregation. G. TETZ*; M. PINHO; S. PRITZKOW; N. MENDEZ; C. A. SOTO; V. TETZ. *Human Microbiology Inst., Mitchell Ctr. for Alzheimer's Dis. and Related Brain Disorders, UHealth Sci. Ctr. at Houston, The Univ. of Texas Hlth. Sci. Center-Houston Med. Sch.*
- 1:30 015.03** Association of herpesviruses with Alzheimer's disease and vascular contributions to cognitive impairment and dementia in human brain. C. E. SEAKS*, IV; C. M. KLOSKE; A. WOOLUMS; S. ANDERSON; E. PATEL; E. M. WEEKMAN; T. L. SUDDUTH; E. L. ABNER; P. T. NELSON; R. DUTCH; D. M. WILCOCK. *Univ. of Kentucky, Univ. of Kentucky, Univ. of Kentucky Chandler Med. Ctr., Univ. of Kentucky Chandler Med. Ctr., Univ. of Kentucky.*
- 1:45 015.04** VCID brains show significant gene expression alterations in myelin-associated and microglial function genes within the frontal cortex relative to low pathology cognitively normal brains. K. E. SALMERON*; T. L. SUDDUTH; D. HAWTHORNE; B. R. PRICE; E. M. WEEKMAN; P. T. NELSON; S. ANDERSON; E. PATEL; G. JICHA; D. M. WILCOCK. *Univ. of Kentucky, Univ. of Kentucky Chandler Med. Ctr., Univ. of Kentucky, Univ. of Kentucky, Univ. of Kentucky, Univ. of Kentucky, Univ. of Kentucky.*
- 2:00 015.05** Status of prefrontal cortex synaptic proteins in frontotemporal lobar degeneration with TDP-43 pathology. I. A. AYALA*; Y. PAN; A. BAHRAMI; S. LAMERAND; R. SHAHIDEHPOUR; T. GEFEN; E. BIGIO; M. MESULAM; C. GEULA*. *Northwestern Univ. Med. Sch.*
- 2:15 015.06** Regulation of C9orf72 proteins in neuronal cells and their function in autophagy and ubiquitin proteasome system. S. LESKELÄ*; N. HUBER; H. ROSTALSKI; J. LIST; M. CARTRÓ FONT; A. M. REMES; M. TAKALO; M. HILTUNEN; A. HAAPASALO. *Univ. of Eastern Finland, Neurology, Univ. of Oulu, Oulu Univ. Hosp., Univ. of Eastern Finland.*
- 2:30 015.07** Neuronal number and size display concordance with disease phenotype in primary progressive aphasia with TDP-43 pathology. G. KIM; I. A. AYALA; S. LAMERAND; R. SHAHIDEHPOUR; T. GEFEN; S. WEINTRAUB*; E. BIGIO; M. MESULAM; C. GEULA. *Stanford Univ., Northwestern Univ. Feinberg Sch. of Med., Cognitive Neurol. and Alzheimer's Dis. Ctr., Northwestern Univ., Feinberg Sch. of Medicine, Northwestern Univ., Northwestern University, Feinberg Sch. of Medici, Mesulam Ctr. For Cognitive Neurology and Alzheimer, Northwestern Univ. Med. Sch.*
- 2:45 015.08** Sur deficiency increases vulnerability to age-related neurodegeneration in *Drosophila*. X. QUAN*; M. SEKIYA; Y. SAKAKIBARA; K. M. IIJIMA. *Natl. Ctr. For Geriatrics and Gerontology, Natl. Ctr. for Geriatrics and Gerontology.*
- 3:00 015.09** Mitochondrial impairment in FUS proteinopathy. M. TAKACS*; W. A. MCGEE; X. CHEN; K. FUSHIMI; J. WU. *Ctr. for Genet. Medicine, Lurie Cancer Center, Northwestern Univ. Feinberg Sch. of Med.*
- 3:15 015.10** Mitochondrial unfolded protein response and mitochondrion-mediated protein degradation. F. H. ZHOU*; M. TAKACS; W. MCGEE; X. CHEN; K. FUSHIMI; J. Y. WU. *Northwestern Univ.*
- 3:30 015.11** Altered signatures in skin fibroblasts derived from patients with multiple sclerosis. J. M. WILKINS*; O. GAKH; P. KABIRAJ; C. MCCARTHY; O. TOBIN; C. HOWE; C. LUCCHINETTI. *Mayo Clin.*
- NANOSYMPOSIUM**
- 016. Emerging Insights in Huntington's Disease Research: Pathological Mechanisms and Therapeutic Approaches**
- Theme C – Neurodegenerative Disorders and Injury**
- Sat. 1:00 PM – McCormick Place, S405
- 1:00 016.01** Striatal projection neurons require Huntingtin for synaptic connectivity and longevity. C. BURRUS*; S. U. MCKINSTRY; N. KIM; F. Y. FANG; A. SANTOKI; H. H. YIN; C. EROGLU. *Duke Univ., Duke Univ., Duke Univ., Duke Univ., DUMC.*
- 1:15 016.02** Small molecule perturbation of Huntingtin conformations to disrupt toxic aggregate formation in cells. C. H. LO*; N. K. PANDEY; C. K. W. LIM; Z. DING; M. TAO; D. D. THOMAS; R. LANGEN; J. N. SACHS. *Univ. of Minnesota, USC.*
- 1:30 016.03** Therapy-mediated reduction of cerebrospinal fluid mutant Huntingtin protein: What does it mean? N. S. CARON; E. D. SMITH; C. YANICK; S. E. SMITH; J. SONG; I. SEONG; B. R. LEAVITT; M. R. HAYDEN; A. L. SOUTHWELL*. *Ctr. for Mol. Med. and Therapeut., Univ. of Central Florida, Seattle Childrens Res. Inst., Korea Advanced Inst. of Sci. and Technol., Massachusetts Gen Hosp, Ctr. For Mol. Med. & Therapeut., Univ. of British Columbia.*
- 1:45 016.04** Investigating and intervening in the transcriptional coordination of autophagy and inflammation in multiple neurodegenerative diseases. A. S. DICKEY*; B. CHA; A. R. LA SPADA. *Duke Univ.*
- 2:00 016.05** Huntingtin facilitates the retrograde movement of a Rab7-containing late endosomal cargo in axons. T. J. KRZYSTEK*; J. A. WHITE, II; L. THURSTON; H. HOFFMAR-GLENNON; Y. LI; S. GUNAWARDENA. *Univ. at Buffalo.*

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2:15 **016.06** The use of DNA-binding domains to selectively alter Huntington expression in human cells and transgenic mouse models of HD. K. D. FINK*; P. DENG; J. A. HALMAI; J. WALDO; D. CAMERON; J. L. CARTER; S. DEL CAMPO; K. THONGPHANH; C. GONZALEZ; F. BUCHANAN; I. M. SANDOVAL; F. P. MANFREDSSON; J. A. NOLTA; D. SEGAL. *UC Davis Med. Ctr., UC Davis, Univ. of California, Davis, Univ. of California Davis, Michigan State Univ., Michigan State Univ., Univ. of California, Davis.*

2:30 **016.07** Probing the pathological chromatin and transcriptional networks in the striatum of Huntington's disease knock-in mice. N. WANG*; Y. QIN; L. YANG; P. LANGFELDER; M. STRICOS; J. B. RICHMAN; F. GAO; X. GU; T. VOGT; J. AARONSON; J. ROSINSKI; G. COPPOLA; S. HORVATH; X. YANG. *UCLA, UCLA, CHDI Foundation/CHDI Mgmt. Inc.*

NANOSYMPOSIUM

017. Activity Correlations and Coding

Theme D – Sensory Systems

Sat. 1:00 PM – McCormick Place, S402

1:00 **017.01** ● Correlated neuronal activity in populations of visual cortical neurons potentially limits the encoding and behavioural discrimination of binocular stereoscopic depth. A. J. PARKER*; J. E. SMITH. *Univ. of Oxford, Univ. of Oxford.*

1:15 **017.02** ▲ Population activity in the primary visual cortex is organized into well-defined clusters. Q. A. LI; O. HERNANDEZ; M. J. SCHNITZER; M. J. BERRY*, II. *Princeton Univ., Stanford Univ., Stanford Univ. Dept. of Biol.*

1:30 **017.03** Rapid noise correlations that potentially impair sensory decisions about stereoscopic depth are attenuated by V1/V4 interactions. J. E. T. SMITH*; A. J. PARKER. *Univ. of Oxford.*

1:45 **017.04** The structure of the population code in V4 microcircuits shapes pair-wise interactions on different time scales. V. KOREN*; A. R. ANDREI; M. HU; K. H. OBERMAYER; V. DRAGOI. *Technische Univ. Berlin, Univ. of Texas Med. Sch., MIT, Technische Univ. Berlin, Univ. of Texas at Houston Dept. of Neurobio. and Anat.*

2:00 **017.05** Multichannel recordings in neuroscience: New computational methods for spatiotemporal patterns during fluctuating neural dynamics. L. E. MULLER*; Z. W. DAVIS; J. H. REYNOLDS; T. J. SEJNOWSKI. *Salk Inst., Salk Inst.*

2:15 **017.06** Spontaneous traveling cortical waves predict perceptual sensitivity in awake, behaving marmosets. Z. W. DAVIS*; L. MULLER; J. MARTINEZ-TRUJILLO; T. J. SEJNOWSKI; J. REYNOLDS. *Salk Inst., Western Univ., Robarts Res. Inst. and Brain and Mind Inst.*

2:30 **017.07** Tracking noise correlation with human fMRI. M. MUR*; K. KAY; T. W. SCHMITZ. *Western Univ., Western Univ., Univ. of Minnesota, Univ. of Minnesota, Western Univ.*

2:45 **017.08** Trial-by-trial voxelwise noise correlations may enhance the fidelity of population codes in functional magnetic resonance imaging. R. ZHANG*; X. WEI; K. KAY. *Univ. of Minnesota, Columbia Univ.*

NANOSYMPOSIUM

018. Neural Circuits, Memory, and Emotion

Theme G – Motivation and Emotion

Sat. 1:00 PM – McCormick Place, S403

1:00 **018.01** How do we feel stressed? A hippocampal connectome-based predictive modeling approach. E. V. GOLDFARB*; M. D. ROSENBERG; D. SEO; R. T. CONSTABLE; R. SINHA. *Yale Univ. Sch. of Med., Yale Univ.*

1:15 **018.02** The effect of rewarded extinction on implicit and explicit threat memory. J. E. DUNSMOOR*; N. E. KELLER. *UT-Austin.*

1:30 **018.03** Ventral hippocampal neurons show prefrontal target specificity to mediate the active inhibition of threat responding. H. C. MEYER*; F. S. LEE. *Weill Cornell Med.*

1:45 **018.04** The affective benefit of experiential diversity and its neural mechanisms. A. S. HELLER*; T. C. SHI; C. EZIE; T. R. RENEAU; N. M. SARAGOSA-HARRIS; C. J. GIBBONS; C. A. HARTLEY. *Univ. of Miami, Columbia Univ., New York Univ., New York Univ.*

2:00 **018.05** Enhancing extinction with a cognitively demanding task. L. D. DE VOOGD*; B. LLOYD; E. A. PHELPS. *New York Univ., Harvard Univ.*

2:15 **018.06** Hippocampus guides adaptive choice following single-shot learning. V. P. MURTY*; D. F. MONTEZ; E. A. PHELPS; L. DAVACHI; O. FELDMANHALL. *Temple Univ., Univ. of Pittsburgh, Harvard Univ., Columbia, Brown Univ.*

2:30 **018.07** The role of inflammatory processes in the ventral hippocampus in mediating stress vulnerability. J. PEARSON-LEARY*; S. BHATNAGAR. *Children's Hosp. Of Philadelphia, Children's Hosp. of Philadelphia.*

2:45 **018.08** Role of the ventral hippocampal circuit in generating and regulating cognitive responses to stress and a novel antidepressant. C. NASCA*; J. DOBBIN; B. BIGIO; D. MILLER; A. A. MATHE; R. HEN; N. L. RASCON; B. S. MCEWEN. *The Rockefeller Univ., Rockefeller Univ., Yeshiva Univ., Karolinska Institutet, Columbia Univ., Stanford Univ. Sch. of Med.*

3:00 **018.09** The dynamic interplay between episodic memory and reward signals during reinforcement learning. N. ROUHANI*; Y. NIV. *Princeton Univ.*

3:15 **018.10** Modular segregation and integration of functional brain networks of emotion. R. DAN*; M. WEINSTOCK; G. GOELMAN. *The Hebrew Univ. of Jerusalem, Hadassah Hebrew Univ. Med. Ctr., The Hebrew Univ. of Jerusalem.*

3:30 **018.11** Endocannabinoid signaling modulates hippocampal-evoked feed-forward inhibition in the prefrontal cortex. X. LIU*; J. DIMIDSCHSTEIN; G. J. FISHELL; A. G. CARTER. *New York Univ., Broad Inst., Harvard Med. Sch., New York Univ.*

3:45 **018.12** Anticipation, imagination and information seeking via mid-brain, hippocampal, and prefrontal interactions. P. DAYAN*; K. IIGAYA; T. HAUSER; Z. KURTH-NELSON; J. O'DOHERTY; R. DOLAN. *Max Planck Institute for Biol. Cybernetics, Caltech, Univ. Col. London, Univ. Col. London.*

4:00 **018.13** Task-dependent changes in the large-scale dynamics and necessity of cortical regions. L. PINTO*; K. RAJAN; B. DEPASQUALE; S. THIBERGE; D. W. TANK; C. D. BRODY. *Princeton Univ., Icahn Sch. of Med. at Mount Sinai, Princeton Univ., Princeton Univ., Princeton Univ.*

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- 4:15 **018.14** Impact of reward access instability on psychopathology and reward circuit neurodevelopment in children. J. HOGEVEEN*. *The Univ. of New Mexico.*

NANOSYMPOSIUM

019. Social Cognition: Behavior and Neural Mechanisms I

Theme H – Cognition

Sat. 1:00 PM – McCormick Place, S505

- 1:00 **019.01** The explicit and implicit in visual judgment. K. MOGI*. *Sony Comp Sci. Lab.*
- 1:15 **019.02** Mere presence of co-forager automatically shifts human foraging tactics toward “fast and easy” food. Y. OGURA*, T. MASAMOTO; T. KAMEDA. *Univ. of Tokyo.*
- 1:30 **019.03** Supramodal cortical representation of identity. V. S. CHAUHAN*; S. A. NASTASE; A. DASH; Y. HALCHENKO; M. I. GOBBINI. *Dartmouth Col., Princeton Univ., Dartmouth Col.*
- 1:45 **019.04** A two-person neural mechanism for sharing social cues during real eye contact. J. HIRSCH*; J. A. NOAH; X. ZHANG; S. DRAVIDA; M. KELLEY. *Yale Sch. of Med., Yale Sch. of Med., Yale Sch. of Med., Univ. Col. London, WC1E 6BT, UK, Yale Sch. of Med., Yale Sch. of Med.*
- 2:00 **019.05** Dissociating neural representations of own and other cognitive mental states in human medial prefrontal cortex. S. JIANG*; S. WANG; X. WAN. *Beijing Normal Univ., IDG/McGovern Inst. for Brain Res.*
- 2:15 **019.06** Decoding social interaction of other people in the human brain. Q. LIANG*; J. LI; Y. LIANG; Z. NIE; S. KUAI. *East China Normal Univ., New York Univ. Shanghai.*
- 2:30 **019.07** Oxytocin enhances mentalizing by vicariously sharing metacognitive experience. F. SUN*; S. WANG; T. YANG; N. LIU; X. WAN. *State Key Lab. of Cognitive Neurosci. and Learning and IDG/McGovern Inst. for Brain Res., State Key Lab. of Brain and Cognitive Science, Inst. of Biophysics.*

NANOSYMPOSIUM

020. High Density Neural Recordings

Theme I – Techniques

Sat. 1:00 PM – McCormick Place, S103

- 1:00 **020.01** An ultrathin flexible CMOS neural microelectrode array. R. HUQ*; D. TSAI; K. L. SHEPARD. *Columbia Univ., UNSW.*
- 1:15 **020.02** High-density recording using a new concept of silicon neural probes. A. NOVAIS*, J. FERNANDES; H. FONSECA; C. CALAZA; J. GASPAR. *INL - Intl. Nanotechnology Lab.*
- 1:30 **020.03** Multi shaft and single shaft active high density neural probes based on SiNAPS technology. G. N. ANGOTZI; F. BOI; A. LECOMTE; L. BERDONINI*. *Fondazione Inst. Italiano di Tecnologia, Fondazione Inst. Italiano di Tecnologia.*
- 1:45 **020.04** Bridging large-scale neural recordings and nearly-cortex-wide optical acquisitions. X. LI*; Z. ZHAO; H. ZHU; F. HE; L. LUAN; C. XIE. *Univ. of Texas at Austin.*

- 2:00 **020.05** High density three dimensional ultraflexible electrode array towards stable recording of thousands. Z. ZHAO*; X. LI; H. ZHU; L. SUN; L. LUAN; C. XIE. *Univ. of Texas at Austin.*

- 2:15 **020.06** Statistical field theory of nerve impulse generation and propagation. G. ZANGARI DEL BALZO*. *European Physical Society and Sapienza Univ.*

- 2:30 **020.07** EEG and neurodevelopment in children under one year of age with perinatal risk. T. I. HERNANDEZ COLOA*; D. E. GRANADOS RAMOS; L. M. PÉREZ FIGUEROA; M. M. ÁLVAREZ RAMÍREZ. *Univ. Veracruzana, Univ. Veracruzana, Univ. Veracruzana, Univ. Veracruzana.*

- 2:45 **020.08** Resting state networks on electrocorticograms reveal global and local cortical functional structures. M. KOMATSU*; T. YAMADA; T. KANEKO; H. OKANO; T. YAMAMORI; N. ICHINOHE; Y. YAMASHITA. *RIKEN Ctr. for Brain Sci., Natl. Inst. of Neuroscience, Natl. Ctr. of Neurol. and Psychiatry, Kyushu Inst. of Technol., Keio Univ. Sch. of Med.*

- 3:00 **020.09** *In vivo* imaging of neural activity during hippocampal epileptiform discharges with high spatiotemporal resolution using electrical impedance tomography. S. HANNAN*; M. FAULKNER; K. ARISTOVICH; J. AVERY; D. HOLDER. *Univ. Col. London, Univ. Col. London, Imperial Col. London.*

- 3:15 **020.10** CMU array: A fully-customizable, ultra-high density invasive electrode for large-scale recording and optical stimulation enabled through nanoparticle 3D printing. R. PANAT; M. S. SALEH; S. RITCHIE; M. A. NICHOLAS; R. BEZBARUAH; E. A. YTTRI*. *Carnegie Mellon Univ., Carnegie Mellon Univ., Carnegie Mellon Univ.*

THEME J POSTER McCormick Place

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)—McCormick Place, Hall A

- 1:00 CC14 **021.01SA** Building a philosophical framework for the neuroscience of emotions. H. STORL. *Augustana Col.*

- 2:00 CC15 **021.02SA** ▲ History of Canavan disease: Progress in research over 80 years. A. NAMBOODIRI; M. F. KIRMANI; M. F. KIRMANI; R. VENGILOTE; N. PUTHILLATHU. *USUHS, Uniformed Services Univ. of Hlth. Sci.*

- 3:00 CC16 **021.03SA** Little, Osler, Freud, and beyond: Cerebral palsy throughout history. K. STANG; N. KING. *Tulane Univ. Sch. of Med., Univ. of Texas McGovern Med. Sch.*

- 4:00 CC17 **021.04SA** Pioneering studies of spatial behavior in animals: Beritashvili and Tolman. M. G. TSAGARELI. *Ivane Beritashvili Exptl. Biomedicine Ctr.*

- 1:00 CC18 **021.05SA** ▲ A new comprehensive view of the role of glia after an ischemic stroke: An integrative model of systematic review. J. M. GASPAR-TORO; A. S. PEREZ-RUIZ; S. J. FLOREZ-ROJAS; Z. DUENAS. *Univ. Nacional de Colombia, Univ. Nacional de Colombia.*

- 2:00 CC19 **021.06SA** Budge, Waller, and Bernard: Sympathetic control of head structures. B. W. BAKKUM. *Illinois Col. of Optometry.*

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- 3:00 CC20 **021.07SA** A historical perspective of urinary bladder dysfunction following spinal cord injury. B. T. DAVID; G. LIU; R. G. FESSLER. *Rush Univ. Med. Ctr.*
- 4:00 CC21 **021.08SA** This history and significance of the golgi stain and those it impacted. M. S. KASSEM. *Neurosci. Res. Australia.*
- 1:00 CC22 **021.09SA** Neurons in context: Neuronal regeneration and disciplinary struggles in the first half of the XX Century. F. DE SIO. *Heinrich Heine Univ.*
- 2:00 CC23 **021.10SA** Tissue regeneration: Cephalopod contribution over more than a century. P. IMPERADORE; G. FIORITO. *Assn. for Cephalopod Res. - CephRes, Stazione Zoologica Anton Dohrn.*
- 3:00 CC24 **021.11SA** Experimental organisms, neuron regeneration, and the curious case of the lamprey in the history of the neurosciences, 1960-present. K. G. MAXSON JONES; J. R. MORGAN. *Princeton Univ., Marine Biol. Lab.*
- 4:00 CC25 **021.12SA** The primate's place in our understanding of hippocampal function. R. A. GULLI. *Columbia Univ.*
- 1:00 CC26 **021.13SA** History of psychedelics in neuroscience - From 19th century to modern medicine. M. A. BOEHM; D. P. EFFINGER. *Natl. Inst. on Drug Abuse, Brown Univ.*
- 2:00 CC27 **021.14SA** DW Woolley, LSD, and the birth of psychopharmacology. G. C. MCCARTER. *Touro Univ. California.*
- 3:00 CC28 **021.15SA** Social neuroscience: A new approach to the study of the consequences of violence. X. CORTIJO-PALACIOS; O. LOPEZ-SANCHEZ. *Univ. Veracruzana, Univ. Autonoma de Mexico.*
- 4:00 CC29 **021.16SA** The long historic road to consensus on biomarkers for psych-psych taxonomies: Convergence of multi-disciplinary insights. I. TROFIMOVA. *McMaster Univ.*
- 1:00 CC30 **021.17SA** Rufus of Ephesus - The precious historical insight into neuroscience. G. SENGUL; E. CANDAR. *Ege Univ. Sch. of Med., Ege Univ. Inst. of Hlth. Sci.*
- 2:00 CC31 **021.18SA** Mazhar Osman: A distinguished scientist who sheded light on the history and future of neuropsychiatry in Turkey. E. ULUPINAR; B. ERCELEN. *Eskisehir Osmangazi Univ.*
- 3:00 CC32 **021.19SA** The music of JS Bach: Useful data sets to study perception and movement and using modern neuroscience methods to test historical theories. E. L. ALTSCHULER. *Metropolitan Hosp.*
- 4:00 CC33 **021.20SA** ▲ Tumor necrosis factor alpha and depression. F. SANCHEZ-LADRON DE GUEVARA; D. HERNANDEZ-BALTAZAR; X. CORTIJO-PALACIOS; M. MELGAREJO-GUTIERREZ; T. CIBRIAN-LLANDERAL. *Facultad de Medicina, Univ. Veracruzana, CONACYT-Inst. de Neuroetologia-Universidad Veracruzana, Inst. de Neuroetologia-Universidad Veracruzana.*

THEME J POSTER McCormick Place**022. Exercises and Courses**

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)—McCormick Place, Hall A

- 1:00 CC34 **022.01SA** Development of a novel science curriculum about neural stem cells for high-school students in Hong Kong. K. SUEN; M. LI; M. LIN; W. TANG; H. CHEUNG; W. CHAN; R. C. CHANG. *Po Leung Kuk Laws Fndn. Col., Po Leung Kuk Laws Fndn. Col., Lab. of Neurodegenerative Diseases, LKS Fac. of Medicine, Univ. of Hong Kong.*
- 2:00 CC35 **022.02SA** ▲ Student communication of science is an effective method for peer based learning. S. GUARIGLIA; A. MARINO; M. PATINELLA. *New York State Inst. for Basic Res., St. Joseph by the Sea HS.*
- 3:00 CC36 **022.03SA** Training the next generation of jedi scientists. J. A. GEORGE; C. R. BUTSON. *Univ. of Utah, Univ. of Utah, Univ. of Utah.*
- 4:00 CC37 **022.04SA** A practical demonstration of pharmacological principles: Modulation of skin melanophore properties in xenopus frog tadpoles by serotonin and nitric oxide. K. T. SILLAR; F. SORRELL; L. HACHOUMI. *Univ. St Andrews.*
- 1:00 CC38 **022.05SA** ▲ Efficient visual neural coding tutorial for grayscale, color, binocular, and video to produce primary visual cortex neural receptive fields. A. G. GEORGARAS; N. URS; P. NOLAN; H. SINGH; M. V. ALBERT. *Loyola Univ. Chicago, Univ. of North Texas.*
- 2:00 CC39 **022.06SA** Using *C. elegans* based lab activities to connect environment, genes, and behavior. A. J. KALLARACKAL. *Mount St. Mary's Univ.*
- 3:00 CC40 **022.07SA** NeuroCaseNet - Support for teaching neuroscience with cases. L. A. ROESCH; P. MARSTELLER; K. E. FRENZEL. *Emory Univ., Emory Univ.*
- 4:00 CC41 **022.08SA** Integrating service learning into a neuropsychopharmacology course. K. M. SEIP-CAMMACK. *The Univ. of the South.*
- 1:00 CC42 **022.09SA** War and the brain: An exemplar of a liberal arts approach to neuroscience. K. F. PHILLIPS. *Virginia Tech.*
- 2:00 CC43 **022.10SA** Sherlock Holmes and the neurophysiologists- The case of the four toxins continues. M. M. STAUFFER; M. SALAZAR R.; L. B. FRENCH. *Allegheny Col.*
- 3:00 CC44 **022.11SA** Kinesthetic illusions of limb position and posture. B. SCHILLER; W. COLGAN, III; B. CALDERON; B. R. JOHNSON. *Cornell Univ., Northern New Mexico Col., ADInstruments. Inc, Cornell Univ.*
- 4:00 CC45 **022.12SA** Bridging dimensions in neuroanatomy teaching using plasticine modelling. C. KIECKER; R. J. WINGATE. *King's Col., King's Col. London.*
- 1:00 CC46 **022.13SA** Addition of a central handbook on neuroscience, biology, and psychology to college level neurobiology lab. D. XIAO; A. B. BRADFORD. *Regis Col., Regis Col.*

* Indicated a real or perceived conflict of interest, see page 72 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

2:00	CC47	022.14SA Three laboratory exercises utilizing <i>Drosophila melanogaster</i> : Amphetamine-induced larval locomotion, amphetamine-induced conditioned place preference and optogenetic stimulation of behavioral assays. A. J. BETZ; R. BEER; A. SPRINGER; Z. CULVER; J. FELICIANO; L. RUSH; K. HIBBARD. <i>Quinnipiac Univ.</i> , <i>Quinnipiac Univ., Janelia Res. Campus.</i>	9:00	CC58	023.02SU Prevention of abuse and addiction to alcohol and other drugs to adolescents: Diffusion of knowledge through interactive methodologies. G. MORAIS-SILVA; C. F. LAVERDE; C. DE OLIVEIRA, Jr; C. S. XAVIER; C. T. DEPENTOR; D. M. OGUIURA; G. C. DE SOUZA; L. L. S. MARTINS; L. O. GIATTI; L. T. DE SANTANA; M. G. SANSÃO; J. A. CAMARGO; M. T. MARIN. <i>Sao Paulo State Univ.</i>
3:00	CC48	022.15SA Use of a practical 3D model for learning sensory-motor tracts in neuroanatomy. V. AKLE; M. C. CHAPARRO; M. A. BLANCO; J. A. GUTIERREZ. <i>Univ. de los Andes, Univ. de los Andes.</i>	10:00	CC59	023.03SU BrainWaves: An EEG-based neuroscience program. I. DAVIDESCO; E. LAURENT; S. AZEKA; H. VALK; S. DIKKER; W. SUZUKI. <i>New York Univ.</i>
4:00	CC49	022.16SA Accessible, low cost experiential teaching laboratory techniques to reveal the exquisite properties of the muscle spindle. J. L. RICKERT; B. L. TRACY. <i>Colorado State Univ.</i>	11:00	CC60	023.04SU Research experience in autism for college and high school students, a pipeline program for underrepresented students in medicine and neuroscience . R. CESAR; J. ALARCON; M. VALMONT; A. DANIELS-OSAZE; J. LIBIEN. <i>SUNY Downstate Med. Ctr.</i> , <i>SUNY Downstate Med. Ctr.</i> , <i>SUNY Downstate Med. Ctr.</i> , <i>SUNY Downstate Med. Ctr.</i>
1:00	CC50	022.17SA Reproducible quantitative stimulation allows new analysis of crayfish muscle receptor organ responses. A. E. AMBROSINI; A. GELPERIN. <i>Princeton Univ.</i>	8:00	CC61	023.05SU Behavioral neuroscience: An open access approach to education. S. C. SPANSWICK; J. MONCREIFF; M. C. ANTLE. <i>Univ. of Calgary.</i>
2:00	CC51	022.18SA The neuromembrane simulator: A format for teaching neuroscience. D. W. ALI; G. D. FUNK; K. E. JONES. <i>Univ. Alberta, Fac. of Med. and Dentistry, Univ. of Alberta, Univ. Alberta.</i>	9:00	CC62	023.06SU ▲ The weight among us: Teaching about obesity from a neuroscience perspective. G. C. HERRON; A. S. CLARK. <i>Dartmouth Col.</i>
3:00	CC52	022.19SA Brothers in arms: Case study to teach PTSD in introductory neuroscience course. K. M. WIENS. <i>Bay Path Univ.</i>	10:00	CC63	023.07SU Get to know your brain days: Agency through neuroscience learning. C. CAMMARATA; K. RATNER; A. BURROW; A. K. ANDERSON; E. D. DE ROSA. <i>Cornell Univ.</i>
4:00	CC53	022.20SA Intersex phenotype and genital-normalizing surgery: Case-based instruction of sexual development and differentiation. K. L. BLACK. <i>Tulane Univ.</i>	11:00	CC64	023.08SU BrainStation: Elementary school neuroscience. A. I. MORE; J. J. STEIN; N. A. STRADA; B. A. PALLANT; A. C. TSUDA; J. L. BASSELL; S. T. MERNOFF. <i>Brown Univ.</i> , <i>Alpert Med. Sch.</i> , <i>Providence VA Med. Ctr.</i>
1:00	CC54	022.21SA A flexible interpretation of variance, fuzzy p-values and non-parametric statistics using psychophysical data. J. F. GOMEZ-MOLINA; U. M. RICOY; A. L. GOMEZ-MOLINA; E. VELÁSQUEZ; G. PERRY. <i>Intl. Group of Neurosci. (IGN), Northern New Mexico Col., Univ. of Antioquia (Hosp San Vicente de Paúl), Univ. of Texas at San Antonio.</i>	8:00	CC65	023.09SU K12 students want to learn about neuroscience. A. M. EISEN; C. M. GRANT-HOWARD; J. BENEFIEL; J. SCHMIDT; M. CHAPEK; M. LERNER; R. GARDUNO; J. URIARTE-LOPEZ; H. HAMILTON; A. KIERSARSKY; L. SUMRALL. <i>Portland State Univ.</i>
2:00	CC55	022.22SA Effects of ankle tendon vibration on lean aftereffect. C. S. LAYNE. <i>Univ. of Houston.</i>	9:00	CC66	023.10SU Trainingspace neuroeducation without borders. M. B. ABRAMS; M. SANDSTRÖM; L. JOHANSSON; P. GEORGE. <i>INCF.</i>
3:00	CC56	022.23SA Hands-on, minds-on: A state of the art undergraduate neuroscience laboratory experience. I. F. KIMBROUGH. <i>Virginia Tech.</i>	10:00	CC67	023.11SU Brain discovery: Impacts of a school-based neuroscience outreach program. C. T. WEICHSELBAUM; B. V. LANANNA; E. D. HERZOG. <i>Washington Univ. in St. Louis.</i>

THEME J POSTER McCormick Place

023. Outreach and Curricula

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)—McCormick Place, Hall A

8:00	CC57	023.01SU Application of bioluminescence and neuroscience concepts for AP biology curriculum development. E. L. CRESPO; J. J. ALLEN; K. R. LITERMAN; N. C. SHANER; D. LIPSCOMBE; U. HOCHGESCHWENDER; C. I. MOORE. <i>Central Michigan Univ.</i> , <i>Brown Univ.</i> , <i>UCSD</i> , <i>Brown Univ.</i> , <i>Central Michigan Univ.</i>
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1:00	CC58	023.02SU Prevention of abuse and addiction to alcohol and other drugs to adolescents: Diffusion of knowledge through interactive methodologies. G. MORAIS-SILVA; C. F. LAVERDE; C. DE OLIVEIRA, Jr; C. S. XAVIER; C. T. DEPENTOR; D. M. OGUIURA; G. C. DE SOUZA; L. L. S. MARTINS; L. O. GIATTI; L. T. DE SANTANA; M. G. SANSÃO; J. A. CAMARGO; M. T. MARIN. <i>Sao Paulo State Univ.</i>
2:00	CC59	023.03SU BrainWaves: An EEG-based neuroscience program. I. DAVIDESCO; E. LAURENT; S. AZEKA; H. VALK; S. DIKKER; W. SUZUKI. <i>New York Univ.</i>
3:00	CC60	023.04SU Research experience in autism for college and high school students, a pipeline program for underrepresented students in medicine and neuroscience . R. CESAR; J. ALARCON; M. VALMONT; A. DANIELS-OSAZE; J. LIBIEN. <i>SUNY Downstate Med. Ctr.</i> , <i>SUNY Downstate Med. Ctr.</i> , <i>SUNY Downstate Med. Ctr.</i> , <i>SUNY Downstate Med. Ctr.</i>
4:00	CC61	023.05SU Behavioral neuroscience: An open access approach to education. S. C. SPANSWICK; J. MONCREIFF; M. C. ANTLE. <i>Univ. of Calgary.</i>
5:00	CC62	023.06SU ▲ The weight among us: Teaching about obesity from a neuroscience perspective. G. C. HERRON; A. S. CLARK. <i>Dartmouth Col.</i>
6:00	CC63	023.07SU Get to know your brain days: Agency through neuroscience learning. C. CAMMARATA; K. RATNER; A. BURROW; A. K. ANDERSON; E. D. DE ROSA. <i>Cornell Univ.</i>
7:00	CC64	023.08SU BrainStation: Elementary school neuroscience. A. I. MORE; J. J. STEIN; N. A. STRADA; B. A. PALLANT; A. C. TSUDA; J. L. BASSELL; S. T. MERNOFF. <i>Brown Univ.</i> , <i>Alpert Med. Sch.</i> , <i>Providence VA Med. Ctr.</i>
8:00	CC65	023.09SU K12 students want to learn about neuroscience. A. M. EISEN; C. M. GRANT-HOWARD; J. BENEFIEL; J. SCHMIDT; M. CHAPEK; M. LERNER; R. GARDUNO; J. URIARTE-LOPEZ; H. HAMILTON; A. KIERSARSKY; L. SUMRALL. <i>Portland State Univ.</i>
9:00	CC66	023.10SU Trainingspace neuroeducation without borders. M. B. ABRAMS; M. SANDSTRÖM; L. JOHANSSON; P. GEORGE. <i>INCF.</i>
10:00	CC67	023.11SU Brain discovery: Impacts of a school-based neuroscience outreach program. C. T. WEICHSELBAUM; B. V. LANANNA; E. D. HERZOG. <i>Washington Univ. in St. Louis.</i>
11:00	CC68	023.12SU Brain outreach day as a form of project based learning in an upper level neuroscience elective course. D. M. CURLIK, II. <i>York Col. of Pennsylvania.</i>
12:00	CC69	023.13SU Perspectives in mental illness: A course to help freshman engage with complexity. L. E. STEPANEK. <i>American Univ.</i>
1:00	CC70	023.14SU ▲ Neuroscience at Lake Forest College: A model for student organizations' contributions to academic experience. E. MRACKOVA; Y. GANEV; D. SYCHOWSKI; D. BERNINZONI; A. BALARAM; M. KELLEY; S. DEBBURMAN. <i>Lake Forest Col.</i>
2:00	CC71	023.15SU An undergraduate minor in neuroethics: Innovation in neuroscience education. G. E. HUE; P. R. LENNARD. <i>Emory Univ.</i>
3:00	CC72	023.16SU A paradigm for integrating neuroscience into small liberal arts colleges. Q. WANG. <i>John Brown Univ.</i>

* Indicated a real or perceived conflict of interest, see page 72 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

8:00	CC73	023.17SU Design of a project-based course that integrates neuroethology with physics of the natural world. A. C. BASU; T. NARITA. <i>Col. of the Holy Cross</i> .	10:00	DD7	024.11SU Effective participatory science education in a diverse Latin American population. M. A. MOSTAJO-RADJI; L. M. R. FERREIRA; G. A. CAROSSO; B. LOPEZ-VIDELA; N. MONTELLANO DURAN; S. BOHORQUEZ-MASSUD; G. VACA DIEZ; L. RIVERA-BETANCOURT; Y. RODRIGUEZ; D. G. ORDONEZ; D. K. ALATRISTE-GONZALEZ; A. VACAFLORES; L. GONZALEZ AUZA; C. SCHUETZ; L. E. ALVARADO-ARNEZ; C. V. ALEXANDER-SAVINO; O. GANDARILLA CUELLAR. <i>Clubes de Ciencia Bolivia Fndn.</i>
9:00	CC74	023.18SU On teaching environmental neuroscience and protection from "dual-use" technology: Toward an inclusive and ethical curriculum. P. W. TSANG; A. LAM; E. L. OHAYON. <i>Univ. of Toronto, Neurolinx Res. Inst.</i>	11:00	DD8	024.12SU A cohort-based integrated research community for undergraduate leadership, innovation and trailblazing. M. CERVANTES; M. VILLAFAÑE-DELGADO; E. C. JOHNSON; M. HUGHES; K. GRAY-RONCAL; M. ENCARNACIÓN; W. R. GRAY-RONCAL. <i>Johns Hopkins Univ.</i>
THEME J POSTER McCormick Place					
024. Teaching, Learning, and Assessments					
<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)—McCormick Place, Hall A</i>					
8:00	CC75	024.01SU Student led recaps and retrieval practice presented as a simple classroom activity emphasizing effective learning strategies. A. STAVNEZER; B. LOM. <i>Col. of Wooster, Davidson Col.</i>	8:00	DD9	024.13SU Teaching to the outliers in biopsychology: Remediation techniques when a class fails. S. C. PENLEY. <i>Bridgewater State Univ.</i>
9:00	CC76	024.02SU Backward design of a writing-intensive and primary literature-based neurotechniques course at the undergraduate/master's level. G. S. VIDAL. <i>James Madison Univ.</i>	9:00	DD10	024.14SU Neuroscience major development at a primarily undergraduate institution. P. M. SIMONE; C. SABATIER. <i>Santa Clara Univ.</i>
10:00	CC77	024.03SU Curricular service learning in neuroscience produces positive outcomes for students and community members. H. J. RHODES. <i>Denison Univ.</i>	10:00	DD11	024.15SU Educating about neurodiversity: Incorporating autistic perspectives into the classroom. A. J. LAMPI; L. SHAH; V. K. JASWAL; T. M. EVANS. <i>Univ. of Virginia.</i>
11:00	CC78	024.04SU ▲ Impulse allows undergraduates to experience neuroscience publishing from submission through manuscript publication. C. T. FENNELL; E. B. TURNER; C. H. GODFREY; A. N. TOLLEFSRUD; L. S. JONES; M. C. ZRULL. <i>Appalachian State Univ.</i>	11:00	DD12	024.16SU An interdisciplinary approach to assessment: Evaluating student learning across the neuroscience major. J. OMELIAN; S. I. SOLLARS. <i>Univ. of Nebraska at Omaha.</i>
8:00	DD1	024.05SU Benefits of collaborative learning in undergraduate neuroscience education. T. NEWPHER; M. NG. <i>Duke Univ.</i>	8:00	DD13	024.17SU Development and implementation of a new high-impact mixed-mode professionalism course for biomedical sciences majors at a large university: Biomedical sciences careers. A. L. HAWTHORNE. <i>Univ. of Central Florida.</i>
9:00	DD2	024.06SU The Human Biology Program's 'Lab Bootcamp': An experiential learning program for independent undergraduate research at the University of Toronto. J. SINGH; A. H. M. WONG; K. SHAHABI; L. F. ZHAO; M. A. WOODIN; C. DOCKSTADER. <i>Univ. of Toronto, Univ. of Toronto.</i>	9:00	DD14	024.18SU Exploring the effectiveness of removing textbooks from a junior-level neuroscience I course at a primarily undergraduate institution (PUI) with a high percentage of first-generation low-income (FGLI) students in an effort to decrease course-associated costs. N. T. FRIED. <i>Rutgers Univ. Camden.</i>
10:00	DD3	024.07SU Audience response systems and other modern teaching methods to improve student learning and perception. T. SCHMIDT; K. SCHNABEL; U. MAU-HOLZMANN. <i>Med. Genetics, Univ. of Tuebingen, Dept. for Educ. and Media (AUM), Univ. of Bern.</i>	10:00	DD15	024.19SU Student lectures improve performance even in unrelated writing assignments. A. K. PACK. <i>Utica Col.</i>
11:00	DD4	024.08SU Students' perception about their teaching-learning process in neurophysiology after the use of a game as a ludic practice. L. P. GUTIERREZ; A. F. GUIMARÃES; C. S. MARTINS; A. G. P. NUNES; M. PORAWSKI. <i>Univ. Federal De Ciências Da Saúde De Porto Alegre, Univ. Federal De Ciências Da Saúde De Porto Alegre, UFCSPA.</i>	11:00	DD16	024.20SU ▲ Identification with minority status influences student performance in undergraduate neuroscience courses. A. C. NICHOLAS; Y. YADOLLAHI; N. S. DY. <i>Univ. of California At Irvine, UCI.</i>
8:00	DD5	024.09SU Active learning adoption in a traditional lecture-based motor control course. M. WILSON; Z. A. RILEY. <i>Indiana Univ. Purdue Univ. Indianapolis, Indiana Univ. Purdue Univ. at Indianapolis.</i>	8:00	DD17	024.21SU The effect of social reinforcement on student academic achievement. J. C. NEILL; A. NUZZO; L. TEPPER. <i>Long Island Univ.</i>
9:00	DD6	024.10SU N.E.U.R.O. test v. 2.0: Assessing an entire neuroscience curriculum for learning gains. W. E. GRISHAM; H. WHANG; W. E. BABIEC; N. SCHOTTLER; M. LEVIS-FITZGERALD. <i>UCLA, UCLA, UCLA.</i>			

* Indicated a real or perceived conflict of interest, see page 72 for details.

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* Indicates abstract's submitting author

THEME J POSTER McCormick Place**025. Higher 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)—McCormick Place, Hall A

- 1:00 DD18 **025.01SA** Providing chiropractic college students with National Institutes of Health-funded basic neuroscience research opportunities. M. C. JORDAN; A. G. VANDE HEI; C. J. ARENDSD; R. S. SOZIO; R. D. VINVING; K. HOYT; C. R. LONG; W. JONES; B. K. TAYLOR; S. M. ONIFER. *Palmer Col. of Chiropractic, Palmer Col. of Chiropractic, Univ. of Pittsburgh.*
- 2:00 DD19 **025.02SA** Impact of neuroanatomy lab practical exam format on medical students' preference and performance. R. R. KIMPO; B. A. PUDER. *Samuel Merritt Univ.*
- 3:00 DD20 **025.03SA** Evaluation of medical, basic science, and engineering knowledge following completion of the first engineering-integrated pre-clerkship clinical neuroscience medical course. R. GALVEZ; J. AMOS; E. T. HSIAO-WECKSLER; G. HUESMANN; D. LLANO; A. MIRANPURI; B. SUTTON; Y. VLASOV; J. L. ROWEN. *Univ. of Illinois, Univ. of Illinois, Univ. of Illinois, Carle Fndn. Hosp., Univ. of Illinois.*
- 4:00 DD21 **025.04SA** ▲ An interactive Python notebook as an educational tool for neuromuscular control. R. G. MOLINARI; L. A. ELIAS. *Univ. of Campinas, Univ. of Campinas.*
- 1:00 DD22 **025.05SA** Master of science in surgical neurophysiology: An innovative collaboration between academia and industry. R. FILIPOVIC; P. ANDALIB; J. LO TURCO. *Univ. of Connecticut, Univ. of Connecticut, Univ. Connecticut.*
- 2:00 DD23 **025.06SA** Using CLIL for neuropharmacology teaching in Brazil. H. M. BARROS; F. B. ALMEIDA; R. GOMEZ. *UFCSPA, UFCSPA, UFRGS.*
- 3:00 DD24 **025.07SA** A preliminary strategy to provide further education to physicians and caregivers on the dietary approaches to the treatment of autism spectrum disorders. D. S. PATEL; R. E. HARTMAN. *Loma Linda Univ.*
- 4:00 DD25 **025.08SA** Short course in adaptive neurotechnologies. J. S. CARP; J. R. WOLPAW; G. SCHALK. *Wadsworth Center, NY State Dept. of Hlth., Stratton VA Med. Ctr., Albany Med. Ctr.*
- 1:00 DD26 **025.09SA** A parallel between Gulliver's Travels and the educational journey through the neuroscience course. C. STEFAN. *New York Univ. Col. of Dent.*
- 2:00 DD27 **025.10SA** Traumatic brain injury: A case report. L. C. BENJAMIN; G. C. BENJAMIN. *Ross Univ. Sch. of Med., Princess Margaret Hosp., Family Med. Clin.*
- 3:00 DD28 **025.11SA** Sociocultural barriers in stem: A graduate course addressing systemic inequity in higher education. S. M. MEADOWS; M. LAMBERT. *Weill Cornell Grad. Sch., Weill Cornell Grad. Sch.*
- 4:00 DD29 **025.12SA** Establishing a comprehensive typology of retinal ganglion cells using FuncSeq. J. GOETZ; D. GREER; G. W. SCHWARTZ. *Northwestern, Northwestern Univ.*

1:00 DD30 **025.13SA** Faculty for undergraduate neuroscience (FUN): Supporting undergraduate neuroscience education and research since 1992. R. J. BAYLINE; M. E. MORRISON; H. G. MCFARLANE. *Washington and Jefferson Coll, Lycoming Col., Kenyon Col.*

- 2:00 DD31 **025.14SA** Journal of Undergraduate Neuroscience Education (JUNE): A peer-reviewed, open-access and PubMed-listed forum for innovation in neuroscience education. R. L. RAMOS; B. R. JOHNSON; I. A. HARRINGTON. *NYIT-COM, Cornell Univ., Augustana Col.*
- 3:00 DD32 **025.15SA** Nu Rho Psi the National Honor Society in Neuroscience. M. J. GILL; S. K. DEBBURMAN; M. T. KERCHNER. *North Central Col., Lake Forest Col., Washington Col.*

THEME J POSTER McCormick Place**026. Outreach Activities**

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)—McCormick Place, Hall A

- 8:00 DD33 **026.01SU** Young scholars program-REACH: A neural engineering summer camp for high school students. E. H. CHUDLER; J. M. WIGNALL. *Univ. of Washington, Univ. of Washington.*
- 9:00 DD34 **026.02SU** Feeding our brains in West Virginia—Coupling neuroscience education with strategic philanthropy as a novel approach to engaging in brain awareness outreach and promoting social embeddedness in the local community. T. J. PETRISKO; R. J. NELSON; B. A. WHITE; M. A. PRUNTY; E. L. STEWART; E. B. ENGLER-CHIURAZZI. *West Virginia Univ. Sch. of Med., West Virginia Univ.*
- 10:00 DD35 **026.03SU** A bilingual interactive exhibition for Brain Awareness Week & the University of North Carolina Science Expo: Opening doors for the Latinx community. A. GOMEZ-A; J. BESHEER; D. L. ROBINSON. *Univ. of North Carolina at Chapel Hill, Univ. of North Carolina at Chapel Hill.*
- 11:00 DD36 **026.04SU** The 32nd northeast undergraduate and graduate research organization for neuroscience (NEURON) conference held at Quinnipiac University's Frank H. Netter M.D. School of Medicine in North Haven, CT. R. A. ROTOLI; G. R. TANNER; N. L. TOTTENHAM; V. FRANCONE; C. A. FRYE; A. C. BASU; J. G. TRAPANI; M. L. LINDEN; T. H. AHERN; A. J. BETZ. *Univ. of Connecticut, Univ. of Connecticut, Columbia Univ., Quinnipiac Univ., Univ. Albany, Col. of the Holy Cross, Amherst Col., Brown Univ., Quinnipiac Univ., Quinnipiac Univ.*
- 8:00 DD37 **026.05SU** Engaging researchers and trainees in science advocacy. A. H. TUTTLE. *UNC Sch. of Med.*
- 9:00 DD38 **026.06SU** ▲ Grey Matters Journal: Content diversity and engagement. S. RAINA; J. BERGQUIST; C. FISHER; T. GUO; S. FISHER; R. RANDLES; F. MIRALLES; G. WANG; A. AHMED; K. SLOCUM; E. STEFANOU. *Univ. of Washington.*
- 10:00 DD39 **026.07SU** Reaching young minds in Morgantown, West Virginia. B. A. WHITE; T. J. PETRISKO; E. B. ENGLER-CHIURAZZI; V. GRITSENKO. *West Virginia Univ.*

* Indicated a real or perceived conflict of interest, see page 72 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

11:00	DD40	026.08SU A very close stranger: Knowing the brain. C. J. JUÁREZ-PORTILLA; T. MOLINA-JIMÉNEZ; M. ALVARADO; T. CIBRIAN-LLANDERAL; J. CUETO-ESCOBEDO; G. GUILLÉN-RUIZ; A. A. CORONA-MORALES; A. CORTÉS-SOL; A. MARTÍNEZ-CHACÓN; M. J. ROVIROSA; F. GARCÍA-ORDUÑA; E. MEZA; B. BERNAL-MORALES; J. E. MORALES-MÁVIL; J. F. RODRÍGUEZ-LANDA; D. HERNANDEZ-BALTAZAR; F. A. GARCÍA-GARCÍA; F. NACHÓN; E. TAMARIZ; D. I. DEL MORAL; G. R. ROLDAN; R. C. ZEPEDA. <i>Univ. Veracruzana, Facultad de Química Farmacobiología, Neurootology Inst., Univ. Veracruzana, Inst. de Ciencias de la Salud, Inst. de Neurootología, Facultad de Biología, Inst. Neurothology UV, Univ. Veracr, CONACYT-Instituto de Neurootología., Univ. Veracruzana / Inst. De Ciencias De La Salud, Ctr. De Investigaciones Biomédicas, Natl. Autonomous Univ. of Mexico.</i>	10:00	DD51	026.19SU Building a bioluminescent and optogenetic learning community through immersive outreach experiences. K. R. LITERMAN; J. J. ALLEN; D. LIPSCOMBE; U. HOCHGESCHWENDER; N. C. SHANER; C. I. MOORE. <i>Brown Univ., Brown Univ., Central Michigan Univ., Univ. of California.</i>
8:00	DD41	026.09SU Your brain is a superhero: Increasing neuroscience knowledge through education outreach by FSU neuroscience. A. C. STIMMELL; K. WALL; K. DAY; S. D. BENTHEM; J. BROWN; C. SIMMONS; J. ZHANG; C. EDWARDS; N. ABRAMS; L. SAILER; C. STRONG; R. AIKEN. <i>Florida State Univ.</i>	8:00	DP15/DD52	026.20SU (Dynamic Poster) The OpenBehavior project. M. LAUBACH; L. M. AMARANTE; M. W. PRESTON, JR; S. R. WHITE; A. V. KRAVITZ. <i>American Univ., NIH NINDS, Washington Univ.</i>
9:00	DD42	026.10SU NW Noggin: Corrections, bias and brains. W. S. GRIESAR; J. J. LEAKE. <i>Portland State Univ., Oregon Hlth. & Sci. Univ., NW Noggin, Portland State Univ.</i>	8:00	DD53	026.21SU Most recent iteration of an open source extruder for bioprinting. D. FOSTER; J. KOO; R. LEE; B. TENG; T. MANZO; S. FISHMAN; D. WAHLQUIST; T. VEGVARI. <i>TheLab Inc, California State University, Northridge, PVNet.</i>
9:00	DD43	026.11SU (Dynamic Poster) Memory games - An interactive exhibit for Brain Awareness Week. D. L. ROBINSON; A. GOMÉZ-A; M. M. MACHADO; M. H. MCFARLAND; J. BESHEER. <i>Univ. of North Carolina at Chapel Hill.</i>	9:00	DD54	026.22SU From cells to circuits toward cures: Updating NIH contributions to the BRAIN Initiative. A. B. ADAMS; K. B. DUPRE; G. FARBER; J. A. GORDON; N. S. HSU; W. J. KOROSHETZ; K. M. RAMOS; E. M. TALLEY; S. R. WEISS; S. L. WHITE. <i>NIH.</i>
10:00	DD44	026.12SU The 2019 world brain bee championship. N. R. MYSLINSKI. <i>Univ. of Maryland Dent. Sch.</i>	10:00	DD55	026.23SU University and nonprofit partnership: How science education benefits from pairing a large university and a small nonprofit. P. L. CROXSON; L. WRIGHT; C. PAIGE; L. DINH; F. ANSELMI; R. J. FRAWLEY, III; B. J. DUBIN-THALER; K. E. REMOLE. <i>Columbia Univ., BioBus, Inc.</i>
8:00	DD45	026.13SU The 10 th Annual Kingston Brain Bee: Best practices from a small Canadian city. C. A. LOWRY; K. A. TRESIDDER. <i>Queen's Univ.</i>	11:00	DD56	026.24SU The HEAL (helping to addiction long-term) objectives to advance pain research. M. MATTHEWS; D. HANEY; L. PORTER. <i>Natl. Inst. of Neurolog. Disorders and S.</i>
9:00	DD46	026.14SU The 2019 United States Brain Bee Championship. K. VENKITESWARAN; S. RAVI; K. LE; E. BLANKE; M. SUBRAMANIAN; C. WHITE; B. CAMERON; A. KONDROMASHIN; Y. KIM; A. BARBER; T. SUBRAMANIAN; N. R. MYSLINSKI. <i>Penn State Col. of Med., Univ. of Maryland Dent. Sch.</i>	8:00	DD57	026.25SU Emotional intelligence and executive functions in children in conflict with law. B. VIJAY; R. P. REDDY. <i>NIMHANS, NIMHANS.</i>
10:00	DD47	026.15SU Columbia University neuroscience outreach: Publicly available curriculum to share science with our local community. L. J. SIBENER; R. VAADIA; M. STACKMANN; M. TSITSIKLIS; L. LONG; A. KAUFMAN; G. M. PIERCE; L. A. COIE; K. M. MARTYNIUK; J. L. SCRIBNER; S. BITTNER; A. VILLEGRAS; Y. JEON; G. H. PETTY; A. A. MORGAN; A. BURGOS. <i>Columbia Univ.</i>	9:00	DD58	026.26SU Studying blood vessel architecture at capillary level in mouse brain. S. GUM; M. HWANG; J. WON; E. LEE; Y. PARK. <i>Binaree.</i>
11:00	DD48	026.16SU The trans-disciplinary convergence course curriculum: Neuroscience, arts, and society. C. A. ZAELZER; B. FORGET. <i>Convergence Initiative, Concordia Univ.</i>	10:00	DD59	026.27SU ▲ Mental landscapes: Accessible virtual reality for neuroscience outreach. D. BAYLY; J. LEVINE; J. FELLOUS. <i>Univ. of Arizona, Univ. of Arizona, Univ. of Arizona.</i>
8:00	DD49	026.17SU Showcasing controls systems engineering in neurological disorders. A. DUTTA. <i>Univ. of Connecticut.</i>			
9:00	DD50	026.18SU My so-called lab: Boosting the visibility of women in science. K. L. BRYANT; J. PARGETER; H. DINGWALL; M. YOUNG; E. JAGODA; A. C. KRUGER; L. A. LEMING; E. E. HECHT. <i>Radboud Univ., Emory Univ., Harvard Univ., Georgia State Univ., WebMD.</i>			

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| 4:00 | DD63 027.04SA Neuroethics: An essential partner to enhance the NIH brain initiative. K. M. RAMOS; J. D. CHURCHILL; S. HENDRIKS; K. B. DUPRE; N. S. HSU; S. L. WHITE; A. ADAMS; J. A. GORDON; W. J. KOROSHETZ. <i>NIH NINDS, NIH NIMH, NIH.</i> | 3:00 | A7 028.07 Genetic ablation of formin protein accelerates axon regeneration via modulation of microtubule dynamics. N. P. B. AU*; G. KUMAR; X. WANG; C. H. E. MA. <i>City Univ. of Hong Kong.</i> |
| 1:00 | DD64 027.05SA Is there an ethical duty to report the socioeconomic status of research participants in human neuroscience research? F. X. SHEN. <i>Univ. of Minnesota, Massachusetts Gen. Hosp.</i> | 4:00 | A8 028.08 Overexpression of basic helix-loop-helix protein promotes axon regeneration after nervous system injuries. G. KUMAR*; N. P. B. AU; S. K. CHIU; D. H. GESCHWIND; G. COPPOLA; C. H. E. MA. <i>City Univ. of Hong Kong, UCLA, UCLA.</i> |
| 2:00 | DD65 027.06SA Device removal following brain implant research. D. SIERRA-MERCADO; P. ZUK; A. MCGUIRE; W. K. GOODMAN; G. LÁZARO-MUÑOZ. <i>Univ. Puerto Rico Sch. of Med., Baylor Col. of Med., Rice Univ., Baylor Col. of Med.</i> | 1:00 | A9 028.09 Human bone marrow-derived Schwann cells seeded and nanofiber-packed conduit for peripheral nerve regeneration. D. K. SHUM*; S. CAI; W. WONG; Y. WONG; K. TAM; L. KWOK; G. SHEA; Y. CHAN. <i>The Univ. of Hong Kong, The Univ. of Hong Kong.</i> |
| 3:00 | DD66 027.07SA Research misconduct investigations oversight at two federal science agencies. E. A. RUNKO; R. AMBALAVANAR; A. P. RUNKO. <i>Natl. Sci. Fndn., U.S. Dept. of Hlth. and Human Services.</i> | 2:00 | A10 028.10 Critical role of monocarboxylate transporter MCT1 in macrophage immunometabolism for recovery from peripheral nerve injury. M. K. JHA*; Y. LEE; F. YANG; A. HOKE; J. D. ROTHSTEIN; B. M. MORRISON. <i>Johns Hopkins Univ.</i> |
| 4:00 | DD67 027.08SA Empirically gauging how sensitive the public views their brain data. W. L. KRENZER; N. A. FARAHANY. <i>Duke Univ., Duke Univ.</i> | 3:00 | A11 028.11 Clustered protocadherins restrict neurite |

POSTER

028. Peripheral Nerve Regeneration

Theme A – Development

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

- 1:00 A1 **028.01** Increased ER-mitochondria tethering promotes axon regeneration. S. LEE*; W. WANG; J. HWANG; U. NAMGUNG; K. MIN. *Ulsan Natl. Inst. of Sci. and Technol., Natl. Creative Res. Initiative Ctr. for Proteostasis, Ulsan Natl. Inst. of Sci. and Technol., Wenzhou Med. Univ., Daejeon Univ.*

2:00 A2 **028.02** Adipose-derived mesenchymal stem cells and magnetic nanoparticles: Different tools combined to promote sciatic nerve regeneration after injury. P. A. SOTO*; G. M. PIÑERO; V. USACH; M. B. FERNÁNDEZ VAN RAAP; C. P. SETTON-AVRUJ. *Inst. de Química y Fisicoquímica Biológica Alejandro Paladini. CONICET-UBA, Inst. de Física de La Plata. Facultad de Ciencias Exactas. CONICET-UNLP.*

1:00 DP01/A3 **028.03** (Dynamic Poster) Regeneration in octopus vulgaris: Imaging tools for healing and re-wiring. P. IMPERADORE*; O. UCKERMANN; R. GALLI; M. KIRSCH; G. FIORITO. *Assn. for Cephalopod Res. - CephRes, Stazione Zoologica Anton Dohrn, Univ. Hosp. Carl Gustav Carus and Fac. of Medicine, TU Dresden, Clin. Sensing and Monitoring, Fac. of Medicine, TU Dresden, CRTD/DFG-Center for Regenerative Therapies Dresden – Cluster of Excellence, TU Dresden.*

4:00 A4 **028.04** Differential changes to mRNA localization in central sensory axons after peripheral nerve injury. T. P. SMITH*; J. E. MARRYAT; J. L. TWISS. *Univ. of South Carolina.*

1:00 A5 **028.05** Simultaneous downregulation of Sprouty2 and pten promotes axon growth of adult sensory neurons. S. JAMSUWAN; L. KLIMASCHEWSKI; B. HAUSOTT*. *Med. Univ. Innsbruck.*

2:00 A6 **028.06** ● Molecular pathways of facial nerve regeneration following injury. C. FANIKU*, M. ZHANG; J. YUAN; W. KONG; J. PEPPER. *Stanford Sch. of Med., Stanford Univ.*

- 3:00 A7 **028.07** Genetic ablation of formin protein accelerates axon regeneration via modulation of microtubule dynamics. N. P. B. AU*; G. KUMAR; X. WANG; C. H. E. MA. *City Univ. of Hong Kong.*

4:00 A8 **028.08** Overexpression of basic helix-loop-helix protein promotes axon regeneration after nervous system injuries. G. KUMAR*; N. P. B. AU; S. K. CHIU; D. H. GESCHWIND; G. COPPOLA; C. H. E. MA. *City Univ. of Hong Kong, UCLA, UCLA.*

1:00 A9 **028.09** Human bone marrow-derived Schwann cells seeded and nanofiber-packed conduit for peripheral nerve regeneration. D. K. SHUM*; S. CAI; W. WONG; Y. WONG; K. TAM; L. KWOK; G. SHEA; Y. CHAN. *The Univ. of Hong Kong, The Univ. of Hong Kong.*

2:00 A10 **028.10** Critical role of monocarboxylate transporter MCT1 in macrophage immunometabolism for recovery from peripheral nerve injury. M. K. JHA*; Y. LEE; F. YANG; A. HOKE; J. D. ROTHSTEIN; B. M. MORRISON. *Johns Hopkins Univ.*

3:00 A11 **028.11** Clustered protocadherins restrict neurite outgrowth during peripheral nerve regeneration. R. M. LONG*; A. CHANDRASEKHAR; D. W. ZOCHODNE. *Univ. of Alberta, Univ. of Alberta, Univ. of Alberta.*

4:00 A12 **028.12** Increased neurite outgrowth in iPSC-derived neurons carrying the met allele of the Val66Met BDNF polymorphism. C. MCGREGOR*; J. PHILLIPS; J. D. FINAN; C. K. FRANZ. *Shirley Ryan Abilitylab, Northwestern Univ., Northshore Univ. Healthsystem, Northwestern Univ.*

1:00 A13 **028.13** Electrical stimulation as a conditioning strategy for promoting peripheral nerve regeneration in a distal nerve transfer. J. SENGER*; K. CHAN; K. RABEY; M. MORHART; C. A. WEBBER. *Univ. of Alberta, Univ. Alberta, Univ. of Alberta.*

2:00 A14 **028.14** Phenotypic characterization of human iPSC-derived motor neurons that carry the common val66met single nucleotide polymorphism of brain derived neurotrophic factor gene using multielectrode array and an *in vitro* stretch injury system. M. QUEZADA*; K. COTTON; J. K. PHILLIPS; J. D. FINAN; C. K. FRANZ. *Northwestern Univ., Northshore Univ. Healthsystem, Shirley Ryan Abilitylab.*

3:00 A15 **028.15** Establishing a co-culture model of human induced pluripotent stem cell-derived motor neurons and primary stem cell-derived myotubes from patients with cerebral palsy. L. A. SIBLEY; C. K. FRANZ; A. A. DOMENIGHETTI. *Shirley Ryan AbilityLab, Shirley Ryan Abilitylab, Northwestern Univ., Northwestern Univ.*

4:00 A16 **028.16** Improving function after nerve injury via tailored growth factor delivery from mineral coated microparticle. D. J. HELLENBRAND*; C. HALDEMAN; K. MILLER; M. LOH; N. NOWAK; L. WHEELER; J. GOTCHY; A. DOUCAS; J. FIXEL; C. MOREHOUSE; A. S. HANNA. *Univ. of Wisconsin.*

POSTER

029. Molecular Mechanisms of Axon and Dendrite Development

Theme A – Development

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

- 1:00 A17 **029.01** Upregulation of antioxidant protein thioredoxin during neuronal differentiation. M. A. LLANES-CUESTA; J. WANG*. *Univ. of Manitoba.*

- Indicated a real or perceived conflict of interest, see page 72 for details.

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- 2:00 A18 **029.02** Microtubule-associated proteins promote cell protrusion by bundling of actin filaments and microtubules. C. DOKI*; M. KURAGANO; K. NISIDA; S. SAITO; S. KOTANI; K. TOKURAKU. *Muroran Inst. of Technol., Muroran Inst. of Technol., Kanagawa Univ., Muroran Inst. of Technol.*
- 3:00 A19 **029.03** Nicotine inhibits neurite outgrowth via α_7 and/or $\alpha_3\beta_4$ nicotinic acetylcholine receptors in PC₁₂ cells. H. KAWASAKI*; S. TAKATORI; Y. KONDO; Y. YURITA; H. SAGARA; H. HINO; F. TAKAYAMA. *Dept. of Clin. Pharmacy, Col. of Pharmaceut. Sciences, Matsuyama Univ., Grad. Sch. of Medicine, Dent. and Pharmaceut. Sciences, Okayama Univ.*
- 4:00 A20 **029.04** Promotion of axon and dendrite formation by serotonin 4 receptor through collapsing response mediator protein-2. L. AGRAWAL; T. SHIGA*. *Univ. of Tsukuba.*
- 1:00 A21 **029.05** Integrin beta 3 regulates a tangential, orderly gradient of dendritic arborization in layer II/III pyramidal neurons. Z. L. HOLLEY; K. M. BLAND; A. J. LOPUCH; M. I. SONG; B. D. SWINEHART; E. L. WIDENER; Z. O. CASEY; C. J. HANDWERK; G. S. VIDAL*. *James Madison Univ.*
- 2:00 A22 **029.06** Csmnd2 is required in neuronal maturation and Reelin-mediated structural plasticity. M. A. GUTIERREZ*; B. E. DWYER; S. J. FRANCO. *Univ. of Colorado Denver, Anschutz Med.*
- 3:00 A23 **029.07** Stress-induced dendrite arborization in *C. elegans*. R. ANDROWSKI*; J. GOELZER; A. HOFER; C. SMITH; N. SCHROEDER. *The Univ. of Illinois.*
- 4:00 A24 **029.08** Semaphorin 1a and deafferentation influence the structure and function of the auditory system of the cricket *Gryllus bimaculatus*. H. W. HORCH*; J. D. MOYNIHAN; S. G. BRILL-WEIL; P. S. DICKINSON. *Bowdoin Col., Bowdoin Coll.*
- 1:00 A25 **029.09** LAMTOR1/p18 controls dendritic trafficking and positioning of lysosomes by regulating TRPML1-mediated lysosomal calcium release. J. SUN*; Y. LIU; X. HAO; W. LIN; E. CHIANG; B. DIEP; M. BAUDRY; X. BI. *Western Univ. of Hlth. Sci.*
- 2:00 A26 **029.10** Celsr2 regulates the development of mouse retinal horizontal cells via Wnt5b mediated Wnt PCP signaling. J. ZHANG*; Y. QU. *Jinan Univ.*
- 3:00 A27 **029.11** Deciphering ste20-like kinase signaling in neurons. A. QUATRACCIONI*; B. ROBENS; S. AHMADI; D. WINTER; M. GRAHAM; A. WAARDENBERG; A. J. BECKER; S. SCHOCH. *Univ. of Bonn Med. Ctr., Univ. of Bonn, Children's Med. Res. Inst., Children's Med. Res. Inst.*
- 4:00 A28 **029.12** Control of dendritic arborization in *Drosophila* by an intellectual disability-associated RNA-binding protein and planar cell polarity components. E. B. CORGIAT*, III; J. C. ROUNDS; S. M. LIST; P. CHEN; A. H. CORBETT; K. H. MOBERG. *Emory Univ., Emory Univ., Emory Univ.*
- 1:00 A29 **029.13** Developmental changes in the intrinsic excitability and morphology of ventral hippocampal CA1 neurons. V. L. EHLERS*; H. YOUSUF; M. D. LINSKE; J. R. MOYER, Jr. *Univ. of Wisconsin Milwaukee Dept. of Psychology, Univ. of Wisconsin Milwaukee Dept. of Biol. Sciences, Milwaukee, WI, United States.*
- 2:00 A30 **029.14** The function of a glycosylation enzyme (AMAN-2/Man2a) in somatosensory dendrite patterning. M. RAHMAN*; C. A. DIAZ-BALZAC; H. E. BÜLOW. *Albert Einstein Col. of Med.*
- 3:00 A31 **029.15** Bmp signaling via LIMK regulates developmental remodeling of mitral cells dendrites. S. AIHARA*; T. IMAI. *Kyushu Univ.*
- 4:00 A32 **029.16** Unravelling the role of Cdk7 in postmitotic cortical neurons. S. VERTENEUIL*; Q. MARLIER; D. SANTAMARÍA; M. BARBACID; L. NGUYEN; R. VANDENBOSCH; B. MALGRANGE. *GIGA-Neurosciences/GIGA-Stem Cells, ULiège, Inst. Européen de Chimie et Biologie (IECB), Univ. de Bordeaux, Ctr. Nacional de Investigaciones Oncológicas (CNIO), GIGA-Neurosciences/GIGA-Stem Cells, ULiège.*
- 1:00 A33 **029.17** Localization of prenylated and palmitoylated Cdc42 in neuroblastoma cells. K. P. B. KNOWLES*; N. G. R. R.; D. HYNDS. *Texas Woman's Univ.*
- 2:00 A34 **029.18** Identification of distinct effects of the G protein-coupled estrogen receptor in embryonic rat hippocampal and cortical cells. K. PEMBERTON*; F. XU. *St. Louis Univ.*
- 3:00 A35 **029.19** The roles of Calneuron I in the neurite outgrowth and synaptic transmission in primary cultured rat embryonic cortical neurons. H. WU*; C. PAN. *Natl. Taiwan Univ.*
- 4:00 A36 **029.20** Cortactin deacetylation by HDAC6 and SIRT2 regulates dendritic Golgi polarization and neuronal cell migration during brain development. J. KIM*; H. HWANG; H. JEON; J. LEE; M. KIM; J. KIM. *Chungnam Natl. Univ.*
- 1:00 A37 **029.21** Retinal determinant of prefrontal cortex function and integrity. J. ZHAN*. *Natl. Inst. of Hlth. and Johns Hopkins Univ.*
- 2:00 A38 **029.22** Dendrite self-avoidance is mediated by transient neurite bridges. S. ING-ESTEVES*; R. FARHOUDI; K. P. KORDING; J. L. LEFEBVRE. *The Hosp. For Sick Children, Univ. of Toronto, Univ. of Pennsylvania, Univ. of Pennsylvania.*
- 3:00 A39 **029.23** Characterizing novel pathways of dendritic tiling in *C. elegans*. M. TRIVEDI*; L. A. HERNANDEZ; H. E. BUELOW. *Albert Einstein Col. of Med.*
- 4:00 A40 **029.24** Cap1 structure regulates dendritic complexity through post transcriptional gene regulation. Y. HUANG*; L. LEE; P. CHENG. *Academia Sinica/Institute of Biomed. Sci., Academia Sinica/Inst. of Mol. Biol.*
- 1:00 A41 **029.25** Slit2 is preferentially expressed in the higher-order association area of primate cortex. T. SASAKI*; Y. KOMATSU; T. YAMAMORI. *Univ. of Tsukuba, Natl. Inst. Basic Biol, RIKEN.*
- 2:00 A42 **029.26** Characterizing the role of Arl4c during dendrite morphogenesis in hippocampal pyramidal neurons and its regulation by CRL5. J. S. HAN*; S. SIMO. *Univ. of California Davis.*

POSTER

030. Autism: Synaptic and Cellular Mechanisms I

Theme A – Development

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

- 1:00 A43 **030.01** Unstable stalled polysomes underlie dysregulated protein synthesis in human IPSC-derived fragile X neurons. J. J. LANGILLE*; G. MAUSSION; C. ROCHA; T. DURCAN; W. SOSSIN. *McGill Univ.*

* Indicated a real or perceived conflict of interest, see page 72 for details.

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* Indicates abstract's submitting author

2:00	A44	030.02	The expression pattern and neurobiological functions of chinese autism spectrum disorder risk genes. K. YANG*; J. WANG; Y. ZHANG; Z. QIU. <i>Inst. of Neuroscience, Chinese Acad. of Scie.</i>	3:00	A57	030.15	Novel phenotypic modifiers cause homeostatic plasticity to fail in five independent <i>Drosophila</i> autism models. G. W. DAVIS*; O. GENC; J. Y. AN; R. D. FETTER; Y. KULIK; S. J. SANDERS. <i>Univ. California-SF, UCSF, Univ. of California San Francisco, Univ. of California, San Francisco, Univ. of California, San Francisco.</i>
3:00	A45	030.03	Chemogenetic activation of prefrontal cortex in Shank3-deficient mice ameliorates social deficits, NMDAR hypofunction and SGK2 downregulation. L. QIN*, K. MA; Z. YAN. <i>State Univ. of New York (SUNY) at Buffalo.</i>	4:00	A58	030.16	A GluN2B mutation identified in autism prevents NMDA receptor trafficking and leads to abnormal dendrite growth. J. BAHRY; K. FEDDER; Q. WANG; M. P. SCENIAK; S. L. SABO*. <i>Central Michigan Univ., Case Western Reserve Univ., Central Michigan Univ.</i>
4:00	A46	030.04	Autism-associated δ-catenin G34S mutation promotes GSK3β-mediated premature δ-catenin degradation inducing neuronal dysfunction. S. KIM*; K. A. NIP; M. SATHLER; J. SHOU. <i>Colorado State Univ., Colorado State Univ.</i>	1:00	A59	030.17	Investigating synaptic organization using PRobe-based Imaging for Sequential Multiplexing (PRISM). E. W. DANIELSON*; K. PEREZ DE ARCE; E. WAMHOFF; J. R. COTTRELL; B. CIMINI; A. CARPENTER; M. BATHE. <i>MIT, Broad Inst., Broad Inst. of MIT and Harvard.</i>
1:00	A47	030.05	Depressed dopamine D1 receptor expression in Broca's area in autism. J. SOGHOMONIAN*; K. ZHANG; M. KATCHADOURIAN; N. KHANNA; C. BRANDENBURG; G. J. BLATT. <i>Boston Univ. Sch. of Med., Boston Univ., Hussman Inst. For Autism.</i>	2:00	A60	030.18	Secreted proteins as modulators of synaptic connectivity and function: A link to autism? F. MCLEOD*; G. CLOWRY; A. JACKSON; A. TREVELYAN. <i>Newcastle Univ.</i>
2:00	A48	030.06	Role of matrix metalloproteinase-9 (MMP9) in pathophysiology of neurodevelopmental disorders in <i>Xenopus laevis</i> tadpoles. S. GORE*; A. DELGADO CARRION; L. HUANG; E. JAMES; A. BERGHELLA; H. CLINE; C. AIZENMAN. <i>Brown Univ., The Scripps Res. Inst.</i>	3:00	A61	030.19	Isoform-specific roles of ankyrin-B in axonal development and cortical connectivity. B. A. CREIGHTON; S. AFRIYIE; D. N. LORENZO*. <i>UNC-Chapel Hill.</i>
3:00	A49	030.07	● Investigating how the chromatin remodeling CHD protein, Kismet, affects BMP signaling and synaptic function. R. A. SMITH*; F. L. LIEBL. <i>Southern Illinois Univ. Edwardsville, Southern Illinois Univ. Edwardsville.</i>	4:00	A62	030.20	Thalamic physiology in the fragile X mouse model of autism. P. LYUBOSLAVSKY; A. C. BRUMBACK*. <i>Univ. of Texas at Austin.</i>
4:00	A50	030.08	Microbiome derived metabolites associated with autism spectrum disorder negatively impact multiple aspects of neuronal development and functionality. K. W. TANG*; R. GRAF; D. DONABEDIAN; S. RAO; N. CALLIZOT; M. COMBES; A. HENRIQUES; S. CAMPBELL. <i>Axial Biotherapeutics, Neuro/Sys.</i>	1:00	A63	030.21	Synaptic Kalirin-7 and Trio interactomes reveal a GEF protein-dependent Neuroligin-1 mechanism of action. J. PASKUS*; C. TIAN; E. FINGLETON; S. MYERS; Y. LI; B. HERRING; K. ROCHE. <i>Natl. Inst. of Hlth., USC, NIH, The Broad Inst. of MIT and Harvard, NINDS.</i>
1:00	A51	030.09	Increasing UBE3A in substance P (Tac1) or progesterone receptor (Pgr) expressing neurons of VMHvl heightens aggression. Y. NONG*; D. STOPPEL; M. JOHNSON; M. BOILLOT; J. TODOROVIC; X. ZHOU; M. NADLER; I. NAGAKURA; K. EKKEHARD; M. ANDERSON. <i>Beth Israel Deaconess Med. Ctr.</i>	2:00	A64	030.22	Functional deficit in NLGN-4Y may contribute to sex bias in NLGN-4X associated autism. T. A. NGUYEN*; M. JAIN; A. THURM; K. W. ROCHE. <i>NINDS, Kennedy Krieger Inst., Natl. Inst. of Mental Hlth., NIH.</i>
2:00	A52	030.10	Altered histone deacetylase 4 localization in the maternal immune activation mouse model. L. BERGDOLT*; P. COIRO; Y. JUNG; A. DUNAEVSKY. <i>Univ. of Nebraska Med. Ctr., Univ. of Nebraska Med. Ctr.</i>	3:00	A65	030.23	Investigation of rare SHANK1 variants found in autistic patients. J. JEONG*; J. S. COHEN; C. L. SMITH-HICKS; K. W. ROCHE. <i>NINDS, Building 35, Kennedy Krieger Inst.</i>
3:00	A53	030.11	A novel autism-associated mutation in UBLCP1 leads to perturbed proteostasis. J. SOUEID*; Z. HAMZE; D. DAOU; R. BOUSTANY. <i>American Univ. of Beirut.</i>	4:00	A66	030.24	Glycine transporter type 1 (GlyT1) inhibition improves conspecific-provoked immobility of BALB/c mice: Analysis of corticosterone response and glucocorticoid expression in cortex and hippocampus. J. A. BURKET*; J. C. PICKLE; A. M. RUSK; B. A. HAYNES; J. A. SHARP; S. I. DEUTSCH. <i>Eastern Virginia Med. Sch., Eastern Virginia Med. Sch., Eastern Virginia Med. Sch.</i>
4:00	A54	030.12	Altered synaptic development in a heterozygous Chd8 mouse model of autism spectrum disorder. R. A. ELLINGFORD*; E. RABESHALA DE MERITENS; R. SHAUNAK; L. NAYBOUR; M. BASSON; L. C. ANDRAE. <i>King's Col. London, King's Col. London.</i>	1:00	A67	030.25	Foxp1 regulates dopamine-receptor 2 striatal neuron excitability through changes in subthreshold potassium currents. N. KHANDELWAL*, V. RYBALCHENKO; S. CAVALIER; A. G. ANDERSON; G. KONOPKA; J. R. GIBSON. <i>Univ. of Texas Southwestern Med. Ctr.</i>
1:00	A55	030.13	Electrophysiological properties of neurons in the primary auditory cortex of the Cntrnap2 KO rat model for autism. R. S. MANN*; K. SCOTT; S. SCHMID. <i>Western Univ., Univ. of Western Ontario, Univ. of Western Ontario.</i>	3:00	A68	030.26	Hippocampal network dysfunction and interneuron-based cell therapy in null Cntrnap2 mouse model of autism spectrum disorder. R. PATERNO*; J. R. MARAFIGA; S. C. BARABAN. <i>Epilepsy Res. Lab. and Weill Inst., Grad. Program in Biol. Sciences: Biochemistry, Dept. of Biochemistry, ICBS, Univ. Federal do Rio Grande do Sul, Univ. California San Francisco.</i>
2:00	A56	030.14	The contribution of SST-expressing interneurons to the PTEN model of autism spectrum disorder. T. W. HOLFORD*; M. BOLTON. <i>Max Planck Florida Inst., Florida Atlantic Univ.</i>	2:00	A69	030.27	● Striatal transcriptomic analysis reveals the role of gene x in synaptic and behavioral deficits of ASD mouse model. H. KIM*; H. KIM. <i>Seoul Natl. Univ. Col. Med.</i>

POSTER**031. Adolescent Development: Mechanisms of Vulnerability****Theme A – Development**

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

- 1:00 A70 **031.01** Social isolation induced deficits of neuronal plasticity: Reversal by social housing. M. C. MOSTALLINO*; F. BIGGIO; G. TALANI; V. LOCCI; R. MOSTALLINO; E. SANNA; G. BIGGIO. *Natl. Res. Council, CNR, Univ. of Cagliari, Univ. of Illinois.*
- 2:00 A71 **031.02** Perinatal dietary omega-3 fatty acid deficiency reduces maternal nurturing and adversely impacts postnatal brain development in rats. R. H. ASCH*; J. D. SCHURDAK; R. K. MCNAMARA. *Univ. of Cincinnati.*
- 3:00 A72 **031.03** Smartphone abstinence increases students' daily physical activity and sleep: A controlled interventional trial. M. SPITZER*; S. LORENZ; K. WIEDENHORN-MÜLLER; A. BERGER; T. KAMMER. *Dept. of Psychiatry, Univ. of Ulm, Dept. of Psychiatry, Ulm Univ.*
- 4:00 A73 **031.04** Adolescent obesity specifically alters stress coping in adulthood without changes to working memory or anxiety. K. R. LLOYD*; T. M. REYES. *Univ. of Cincinnati.*
- 1:00 A74 **031.05** Racial and sex disparities in newborn telomere length are predicted by maternal early life adversity exposure. L. W. Y. MCLESTER-DAVIS*; C. W. JONES; K. C. ESTEVES; S. S. DRURY. *Tulane Univ.*
- 2:00 A75 **031.06** ▲ CB2R regulate self-control in adolescents, adults and aged Wistar rats. D. A. RANGEL RANGEL*; Y. A. ALVARADO RAMÍREZ; L. A. BECERRIL MELENDEZ; A. E. RUIZ-CONTRERAS; O. PROSPERO-GARCIA; M. MENDEZ DIAZ. *UNAM, Univ. Nacional Autonoma De Mexico, UNAM, Lab. Neurogenomica Cognitiva, Fac. Psicologia, UNAM, UNAM, Univ. Nacional Autonoma De Mexico.*
- 3:00 A76 **031.07** Behavioral and neural predictors of vulnerability for risky behaviors in childhood. K. M. RAPUANO*; M. D. ROSENBERG; C. HORIEN; A. S. GREENE; D. SCHEINOST; R. T. CONSTABLE; B. J. CASEY. *Yale Univ., Yale Univ., Yale Univ.*
- 4:00 A77 **031.08** Role of GluN2B function in extinction and reinstatement of methamphetamine self-administration in adolescent and adult rats of both sexes. S. R. WESTBROOK*; E. R. CARLSON; J. P. O'RUSSA; K. A. HAMBLEN; J. M. GULLEY. *Univ. of Illinois Urbana-Champaign, Univ. of Illinois Urbana-Champaign.*
- 1:00 A78 **031.09** ▲ Maternal deprivation as a model of early-life stress alters maternal behavior, olfactory learning and neural development. D. CZARNABAY; J. DALMAGO; A. S. MARTINS; A. QUEIROZ; L. SPERLING; K. REIS; P. PRANKE; F. BENETTI*. *Univ. Federal do Rio Grande do Sul, Basic Physiol. and Cognition Lab., Hematology and Stem Cell Lab., Univ. Federal Do Rio Grande Do Sul.*
- 2:00 A79 **031.10** ▲ Increasing dopaminergic activity improves synaptic plasticity and memory performance in cognitively impaired animals due to chronic exposure to a high-sugar diet. E. S. GUTIERREZ-LOPEZ*; L. F. RODRÍGUEZ; S. HERNÁNDEZ; D. OSORIO-GÓMEZ; P. SALCEDO-TELLO; M. VELASCO; M. HIRIART; F. BERMÚDEZ-RATTONI; K. GUZMAN-RAMOS. *Inst. De Fisiología Celular, Doctorado en Ciencias Biológicas y de la Salud, UAM, Univ. Autonoma Metropolitana.*

POSTER**032. Glutamate Transport and Signaling****Theme B – Neural Excitability/ Synapses/ and Glia**

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

- 1:00 A80 **032.01** Functional remodeling of excitatory synapses in the hippocampus induced by astrocyte glutamate transporters dysfunction. E. VAZQUEZ-JUAREZ*; M. LINDSKOG. *Karolinska Institutet.*
- 2:00 A81 **032.02** Increased astrocytic membrane depolarization at reduced glutamate uptake is mediated by NMDA receptor activation. I. SRIVASTAVA*, M. LINDSKOG. *Karolinska Institutet.*
- 3:00 A82 **032.03** Upregulation of astrocytic GLT-1, ischemic stroke and sex as a variable. F. A. TEJEDA BAYRON*; D. E. RIVERA-APONTE; C. J. MALPICA NIEVES; G. MALDONADO-MARTÍNEZ; Y. HERNANDEZ; S. N. SKATCHKOV; M. J. EATON. *Univ. Central Del Caribe, Univ. Central Del Caribe, Univ. Central Del Caribe, Univ. Central Del Caribe.*
- 4:00 A83 **032.04** Conditional inactivation of the glutamate transporter GLT-1 in neurons produces an age-dependent defect in synaptic transmission in the acute hippocampal slice. T. S. RIMMELE*; S. LI; D. J. SELKOE; C. J. AOKI; C. G. DULLA; P. A. ROSENBERG. *Boston Children's Hosp., Brigham and Women's Hosp., Brigham & Women's Hosp., New York Univ., NYU Langone Med. Ctr., Tufts Univ. Sch. of Med., Harvard Med. Sch.*
- 1:00 A84 **032.05** Distinct roles of GLT-1 and EAAC1 in regulation of excitatory tonic current in MCH neurons. S. C. BOWES; C. BRIGGS; K. SEMBA; M. HIRASAWA*. *Mem. Univ., Dalhousie Univ., Dalhousie Univ.*
- 2:00 A85 **032.06** Investigating the mechanism underlying glutamate transporter EAAT2 localization to the plasma membrane triggered by pyridazine-derivatives. Z. XU*; X. WANG; J. B. FOSTER; K. HODGETTS; C. G. LIN. *The Ohio State Univ., Ohio State Univ., Harvard Med. Sch., Ohio State Univ.*
- 3:00 A86 **032.07** Development of broad activity positive allosteric modulator of glial glutamate transporters EAAT1 and EAAT2. J. L. GREEN; A. KHATIWADA; P. A. N. REDDY; J. M. SALVINO; Y. FORSTER; L. BIGLER; W. F. SANTOS; A. C. K. FONTANA*. *Drexel Univ., Wistar Inst., Univ. of Zurich, Univ. of São Paulo.*
- 4:00 B1 **032.08** Amphetamine-induced internalization of the glutamate transporter, EAAT3, regulates the behavioral actions of amphetamines. S. M. UNDERHILL*; T. WIGSTROM; S. H. MILLAN; P. D. HULLIHEN; C. T. RICHIE; B. K. HARVEY; S. G. AMARA. *Natl. Inst. of Mental Hlth., NIH.*
- 1:00 B2 **032.09** ● GABA and glutamate re-uptake transporters GAT1 and EAAT3 functionally investigated using a high throughput system. M. BARTHMES; R. RIZZETTO; A. BAZZONE; A. ROSSIGNOLI; J. ROLLAND; J. L. COSTANTIN*; N. FERTIG. *Nanion Technologies, Axxam SpA, Nanion Technologies.*
- 2:00 B3 **032.10** Genetically encoded voltage indicators reveal large, fast voltage fluctuations in cortical astrocyte processes that modulate excitatory neurotransmission. M. ARMBRUSTER; Y. ADAM; A. E. COHEN; C. G. DULLA*. *Tufts Univ., Harvard Univ., Harvard Univ., Tufts Univ. Sch. of Med.*

* Indicated a real or perceived conflict of interest, see page 72 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

3:00	B4	032.11 The correlation of parvalbumin expression, neuronal morphology, and synaptic activity. R. F. NIESCIER*, M. KILANDER; Y. LIN. <i>Hussman Inst. For Autism.</i>
4:00	B5	032.12 The effects of sevoflurane or desflurane general anesthesia on markers of neurotoxicity in the adult female monkey. E. CUEVAS*, S. M. BURKS; C. FOGLE; F. LIU; J. TALPOS. <i>NCTR-FDA.</i>
1:00	B6	032.13 ▲ Localization of glutamate-like immunoreactivity in the nervous system of Biomphalaria glabrata: An intermediate host for schistosomiasis. K. NIEVES*, P. MÉNDEZ; A. OPPENHEIMER; M. W. MILLER. <i>Inst. of Neurobio., Univ. of the Sacred Heart, Dept. of Anat. & Neurobiology, Univ. of Puerto Rico, Med. Sci. Campus.</i>
2:00	B7	032.14 Propagation of synaptic temperature fluctuations by glutamateelectro-diffusion. M. SOLTANPOUR*, H. NOORI. <i>Max-Planck Inst. For Biol. Cybernetics, Max Planck Inst. For Biol. Cybernetics.</i>
3:00	B8	032.15 Lactate enhances NMDA receptor responses via two distinct mechanisms. F. LEMTIRI-CHLIEH; G. HERRERA-LÓPEZ; L. MOTTIER; H. MAHMOOD; H. FIUMELLI*; P. J. MAGISTRETTI. <i>UConn Hlth., CINVESTAV Sur IPN, King Abdullah Univ. of Sci. and Technol.</i>
4:00	B9	032.16 Changes in synaptic NMDAR evoked currents reveal modifications in D-serine levels after inhibition of ASC-1 transporter. P. SHIH*, F. SEIBT; H. LAVREYSEN; J. D. PITA ALMENAR. <i>Janssen Pharmaceutica R&D Neurosci.</i>
1:00	B10	032.17 Non-invasive brain stimulation affects rat hippocampal protein expression in an intensity and dose-dependent manner. C. N. HATCHER-SOLIS*, S. H. JUNG; R. MOORE; N. BECHMANN; S. HARSHMAN; J. MARTIN; R. JANKORD. <i>Air Force Res. Lab., Adyptation.</i>
2:00	B11	032.18 ● System χ_c^- -deficiency prevents age-related hippocampal dysfunction in mice. L. VERBRUGGEN*; E. BENTEA; A. VILLERS; O. LARA; G. ATES; D. DE BUNDEL; H. SATO; L. RIS; A. MASSIE. <i>Vrije Univ. Brussel, Univ. of Mons, Salk Inst. For Biol. Studies, Niigata Univ.</i>
3:00	B12	032.19 ● System χ_c^- - deficiency extends life-span and modulates aging of the immune system in mice. A. MASSIE*; L. VERBRUGGEN; O. LARA; J. DE MUNCK; P. JANSEN; L. DE PAUW; H. SATO; G. ATES; R. NJEMINI; S. KOBAYASHI; J. L. AERTS; E. BENTEA. <i>Vrije Univ. Brussel, Niigata Univ., Salk Inst. For Biol. Studies, Yamagata Univ.</i>
4:00	B13	032.20 Link extracellular glutamate signaling to the neuro-glio-vascular dynamic interaction with multi-modal fMRI. Y. JIANG*; X. CHEN; P. PAIS; X. YU. <i>Max Planck Inst. for Biol. Cybernetics.</i>

POSTER

033. Opiates, Cytokines, and Other Neuropeptides

Theme B – Neural Excitability/ Synapses/ and Glia

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

1:00	B14	033.01 ▲ Stimulation of polyphosphoinositide hydrolysis by the oxytocin receptor agonist, carbetocin, in brain tissue. V. M. BUSÀ; L. DI MENNA; J. MAIRESSE; S. NOTARTOMASO; M. ZINNI; A. TRAFICANTE; G. BATTAGLIA; O. BAUD; S. MACCARI; B. CHINI; F. NICOLETTI*. <i>Univ. Sapienza, I.R.C.C.S. Neuromed, INSERM UMR1141 NeuroDiderot, Univ. of Paris Diderot, Children's Univ. Hosp. of Geneva, Univ. of Geneva, Univ. Sapienza, University of Lille, Institute of Neurosciences, CNR.</i>
2:00	B15	033.02 Signaling and ionic mechanisms by which activation of oxytocin receptors increases neuronal excitability in the central amygdala. S. LEI*; B. HU; C. A. BOYLE. <i>Univ. of North Dakota.</i>
3:00	B16	033.03 Excitatory effect of bradykinin on intrinsic neurons of the rat heart. S. ARICHI; S. SASAKI-HAMADA; Y. KADOYA; M. OGATA; H. ISHIBASHI*. <i>Kitasato Univ. Grad. Sch. of Med. Sci., Kitasato Univ, Sch. Allied Hlth. Sci., Kitasato Univ.</i>
4:00	B17	033.04 ▲ A novel cell-penetrating peptide protects against neuron apoptosis after cerebral ischemia by inhibiting the nuclear translocation of annexin A1. M. MENG*. <i>Tongji Med. Col.</i>
1:00	B18	033.05 ▲ A comparison of unbiased and biased neuropeptide S receptor agonists in rats. A. M. WOJCIECHOWSKI*; R. J. ETTARO; K. M. VERO; S. D. CLARK. <i>Univ. At Buffalo - Suny.</i>
2:00	B19	033.06 Peptide neurotransmitter biosynthesis utilizes cysteine and serine protease pathways possessing distinct peptide dibasic cleavage specificities revealed by global substrate profiling by mass spectrometry. M. C. YOON*; A. O'DONOOGHUE; V. HOOK. <i>UCSD.</i>
3:00	B20	033.07 An optimised method to quantify target engagement of Orexin-1 receptors and correlation with biophase free concentration of a selective OX1 receptor antagonist in the rat brain. R. CARLETTI; A. POFFE; G. AMBROSI; V. MAMMOLI; V. PAVONI; L. PICCOLI; P. CAVALLINI; L. CABERLOTTO*; P. A. GERRARD. <i>Aptuit, an Evotec Co.</i>
4:00	B21	033.08 Evaluation of novel dual-activity opioid-NPFF ligands for receptor affinity, antinociception and tolerance liabilities. J. P. MC LAUGHLIN*; K. L. MCPHERSON; M. MOTTINELLI; W. SHENG; S. O. EANS; V. B. JOURNIGAN; C. MESANGEAU; C. R. MCCURDY. <i>Univ. of Florida, Univ. of Florida, Univ. of Mississippi, Marshall Univ.</i>
1:00	B22	033.09 Distribution and expression of the FMRFa-gated sodium channel in the CNS of Biomphalaria glabrata, an intermediate host of Schistosoma mansoni. L. C. VICENTE-RODRÍGUEZ*; S. ROLÓN-MARTÍNEZ; P. MÉNDEZ-DEJESÚS; M. ROSA-CASILLAS; A. HERNÁNDEZ-VÁZQUEZ; C. RAMÍREZ-SANTIAGO; J. ROSENTHAL; M. W. MILLER. <i>Univ. of Puerto Rico, Med. Sci. Campus, Inst. of Neurobio., Univ. of Puerto Rico, Río Piedras Campus, Marine Biol. Lab.</i>
2:00	B23	033.10 Chemoarchitecture of the human brainstem. G. SENGUL*; U. TURE; G. PAXINOS. <i>Ege Univ. Sch. Med., Yeditepe University, Sch. of Med., Neurosci. Res. Australia.</i>

* Indicated a real or perceived conflict of interest, see page 72 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

3:00	B24	033.11 Novel treatments to opiate dependence - A review. S. S. VENKATARAMAN; N. DAFNY*. <i>The Univ. of Texas McGovern Med. Sch. at Houston.</i>	
4:00	B25	033.12 ▲ Localization of adipokinetic-like immunoreactivity in the central nervous system of Biomphalaria spp., intermediate hosts for schistosomiasis. M. ROSA CASILLAS*, P. MÉNDEZ DE JESÚS; M. R. HABIB; R. P. CROLL; M. W. MILLER. <i>Univ. of Puerto Rico, Rio Piedras, Inst. of Neurobio., Theodor Bilharz Res. Inst., Dalhousie Univ.</i>	
1:00	B26	033.13 Beta-catenin negatively regulates IL-6 and IL-8 expression at the transcriptional level and induces reactivity in human astrocytes. K. ROBINSON*, S. NARASIPURA; L. AL-HARTHI. <i>Rush Univ. Med. Ctr.</i>	
2:00	B27	033.14 Elucidation of the regulatory mechanisms of peripheral axon outgrowth by Wnt5a, released from mechanically stimulated rat periodontal ligament cells. K. TAKAHASHI*, T. YOSHIDA; M. WAKAMORI. <i>Tohoku University, Grad. Sch. of Dent.</i>	
3:00	B28	033.15 Investigation of area CA2 for mechanisms of social memory in adulthood affected by juvenile stress. R. RAGHURAMAN*, S. SAJIKUMAR. <i>Natl. Univ. of Singapore, Natl. Univ. of Singapore.</i>	

POSTER**034. Ionotropic Glutamate Receptors: Physiology****Theme B – Neural Excitability/ Synapses/ and Glia**

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

1:00	B29	034.01 Electrophysiological characterization of recombinant NMDA (GluN1/2A, GluN1/2B, GluN1/2C and GluN1/2D) and AMPA (GluA2) cell lines using an automated HTS electrophysiology platform. P. MADAU; L. HUTCHISON; A. DICKSON; C. KADI; L. MCCRACKEN; H. TRACEY; D. SMITH; C. BROWN; L. GERRARD; D. DALRYMPLE*; I. MCPHEE; D. PAU. <i>SB Drug Discovery.</i>	
2:00	B30	034.02 ▲ Ultrastructural localization of glutamate receptor delta-1 subunit in the mouse striatum. A. HOOVER; R. M. VILLALBA; J. PARE*; J. LIU; P. J. GANDHI; G. P. SHELKAR; D. M. SHASHANK; Y. SMITH. <i>Yerkes Natl. Primate Res. Ctr., Udall Ctr. of Excellence for Parkinson's Dis., Creighton Univ. Sch. of Med., Emory Univ.</i>	
3:00	B31	034.03 Differential role of GluD1 in synapse maintenance. P. J. GANDHI*, J. LIU; G. SHELKAR; R. PAVULURI; S. M. DRAVID. <i>Creighton Univ. Sch. Of Med.</i>	
4:00	B32	034.04 Effect of region specific deletion of glutamate delta 1 receptors on cognitive flexibility in mice. D. Y. GAWANDE; G. P. SHELKAR; R. PAVULURI; S. M. DRAVID*. <i>Creighton Univ.</i>	
1:00	B33	034.05 Regulation of AMPAR membrane insertion by beta2-adrenergic receptor-Cav1.2 interaction. K. KIM*; D. GHOSH; B. LEE; M. NAVEDO; J. HELL. <i>Univ. of California Davis.</i>	
2:00	B34	034.06 SynDIG4/Prrt1 establishes a reserve pool of GluA1-containing AMPARs required for LTP. K. E. PLAMBECK; E. DIAZ*. <i>Univ. of California Davis, UC Davis Sch. of Med.</i>	
3:00	B35	034.07 Differential regulation of apical and basal synapses by serine racemase. S. A. JAMI*; J. M. WONG; D. K. PARK; E. V. BARRAGAN; K. ZITO; J. A. GRAY. <i>Univ. of California, Davis, Univ. of California, Davis, Univ. of California, Davis.</i>	
4:00	B36	034.08 A mouse model of a neurodevelopmental disorder of a gain-of-function mutation in the GRIK2 kainate receptor gene. T. NOMURA*; E. BINELLI; K. WATRAL; S. TANIGUCHI; J. R. STOLZ; G. T. SWANSON; A. CONTRACTOR. <i>Northwestern Univ., Northwestern Univ., Northwestern Univ. Dept. of Physiol.</i>	
1:00	B37	034.09 Hotspot variants in the GRIK2 kainate receptor gene are causative for neurodevelopmental disorders with diverse phenotypes. J. R. STOLZ; G. L. CARVILL; B. KEREN; E. KIRK; P. R. MARK; C. MIGNOT; L. ROHT; Z. STARK; G. T. SWANSON*. <i>Northwestern Univ. Feinberg Sch. of Med., Northwestern Univ. Feinberg Sch. of Med., Hôpital de la Pitié-Salpêtrière, Prince of Wales Hosp., Spectrum Hlth. Med. Genet., Tartu Univ. Hosp., Murdoch Children's Res. Inst.</i>	
2:00	B38	034.10 Protein interactions of schizophrenia risk genes: Arc-NMDAR complex formation. I. M. GONZALEZ*; L. YANG; W. ZHANG; P. WORLEY. <i>Johns Hopkins Med. Univ.</i>	
3:00	B39	034.11 Defects in NMDA trafficking and stabilization associated with autism and intellectual disability-associated variants of the GluN2B subunit. E. BAGATELAS*; M. VIEIRA; K. ROCHE. <i>Natl. Inst. of Hlth.</i>	
4:00	B40	034.12 Effects of patient-derived pathogenic anti-NMDA receptor antibodies on synaptic function and network activity. E. ANDRZEJAK*; F. ACKERMANN; C. ROSENmund; N. ZIV; H. PRÜB; C. C. GARNER. <i>German Ctr. For Neurodegenerative Dis., Inst. for Neurophysiology, Charité Med. Univ., Technion Fac. of Medicine, Technion City.</i>	
1:00	B41	034.13 Lupus autoantibodies selectively target GluN2A-containing NMDA receptors to induce chronic spatial memory defects. K. CHAN*; J. NESTOR; T. S. HUERTA; G. MOODY; N. CERTAIN; C. KOWAL; P. T. HUERTA; B. T. VOLPE; B. DIAMOND; L. P. WOLLMUTH. <i>Stony Brook Univ., Feinstein Inst. For Med. Res., Stony Brook Univ.</i>	
2:00	B42	034.14 ▲ Role of physiological breaks and ionizing radiation in expression of immediate early genes. R. KAUR; B. LAUBE*. <i>TU Darmstadt.</i>	

POSTER**035. Sodium Channels in Health and Disease****Theme B – Neural Excitability/ Synapses/ and Glia**

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

1:00	B43	035.01 A novel formalism to replace the Hodgkin Huxley model for sodium current simulations. C. FRENCH*; J. N. WINDERLICH. <i>Univ. of Melbourne.</i>	
2:00	B44	035.02 Identification and functional validation of allosteric modulators of Nav 1.1 channels. A. K. SINGH*; J. WONG; S. ALI; P. WADSWORTH; O. FOLORUNSO; F. LAEZZA. <i>The Univ. of Texas Med. Br. (UTMB), Combined MD/PhD Program.</i>	
3:00	B45	035.03 Use of reference human induced pluripotent stem cell (iPSC) models to study SCN2A variants associated with epilepsy and autism spectrum disorders. Z. QUE*; M. OLIVERO-ACOSTA; J. ZHANG; Y. LIU; W. SKARNES; Y. YANG. <i>Purdue Univ., The Jackson Lab.</i>	
4:00	B46	035.04 Neuronal properties and neural network excitabilities in a mouse model with substantial reduction of Scn2a expression. J. ZHANG*; M. EATON; Z. QUE; Z. MA; C. ZHANG; A. PARK; C. ROMERO; Y. YANG. <i>Purdue Univ.</i>	

* Indicated a real or perceived conflict of interest, see page 72 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

1:00	B47	035.05 Molecular characterization and seizure susceptibility analysis of a mouse model with substantial reduction in Scn2a expression levels. Z. MA*; A. PARK; M. EATON; J. ZHANG; C. ZHANG; E. LIETZKE; N. LANMAN; W. SKARNES; Z. HUANG; Y. YANG. <i>Dept. of Medicinal Chem. and Mol. Pharmac., Peking Univ. Hlth. Sci. Ctr., Dept. of Comparative Pathobiology, The Jackson Lab. for Genomic Med.</i>	1:00	DP02/B57	035.15 (Dynamic Poster) Real-time imaging of Na _v 1.7 and Na _v 1.8 subcellular distribution, trafficking, and membrane dynamics in sensory neurons. G. HIGERD*; E. J. AKIN; M. ALSALOUM; F. DIB-HAJJ; S. LIU; S. G. WAXMAN; S. D. DIB-HAJJ. <i>Yale Univ. Sch. of Med., Ctr. For Neurosci. and Regeneration Research, Yale Univ. Sch. of Med., Rehabil. Res. Center, Veterans Affairs Connecticut Healthcare Syst.</i>
2:00	B48	035.06 ● Substantial reduction of Scn2a expression renders behavioral abnormalities in mice indicative of autism spectrum disorder. M. EATON*; J. ZHANG; Z. MA; C. ZHANG; A. PARK; E. LIETZKE; Y. YANG. <i>Purdue Univ.</i>	4:00	B58	035.16 Profiling of subtype and state-dependent inhibitory effects of several analgesics and compounds under development on voltage-gated sodium channels. T. OCHIAI*; T. TABATA; S. KOYAMA; S. MIHARA; M. MICHISHITA; S. YOSHIKAWA. <i>Asahi Kasei Pharma, Asahi Kasei Pharma Corp.</i>
3:00	B49	035.07 Palmitoylation distinctively modulates Nav1.6 and Nav1.2. Y. PAN*; T. R. CUMMINS. <i>Indiana Univ. Sch. of Med., Indiana University-Purdue Univ. Indianapolis.</i>	1:00	B59	035.17 Sodium channels play an important role in vincristine-induced painful neuropathy. L. CHEN*; J. HUANG; C. GOMIS-PEREZ; C. BENSON; P. EFFRAIM; S. D. DIB-HAJJ; S. G. WAXMAN. <i>Yale Univ.</i>
4:00	B50	035.08 CaMKII modulates hNav1.6 sodium currents at multiple phosphorylation sites. A. ZYBURA*; A. J. BAUCUM II; T. R. CUMMINS; A. HUDMON. <i>Indiana Univ. Sch. of Med., Indiana University-Purdue Univ. Indianapolis, Indiana University-Purdue Univ. Indianapolis, Purdue Univ. Col. of Pharm.</i>	2:00	B60	035.18 Early-life exposure to a pyrethroid insecticide results in electrophysiological and behavioral aberrations. C. M. TAPIA*; K. E. MCDONOUGH; L. M. HALLBERG; B. T. AMEREDES; T. A. GREEN; F. LAEZZA. <i>Univ. of Texas Med. Br., Univ. of Texas Med. Br., Univ. of Texas Med. Br., Univ. of Texas Med. Br.</i>
1:00	B51	035.09 Anti-sense oligonucleotide therapy delays seizure onset and extends survival in a mouse model of SCN8A encephalopathy. G. M. LENK; P. JAFAR-NEJAD; L. D. HUFFMAN; C. SMOLEN; J. L. WAGNON; H. PETIT; R. J. GIGER; F. RIGO; M. H. MEISLER*. <i>Univ. of Michigan, Ionis Pharmaceuticals, Univ. of Michigan, Univ. of Michigan.</i>	3:00	B61	035.19 Preclinical candidate DWP17061, a novel Nav1.7 blocker, suppresses nocifensive behavior in pain animal models. S. KIM*, J. KANG. <i>Daewoong.</i>
2:00	B52	035.10 Discovery of FGF14:Nav1.6 complex modulators by high-throughput screening against protein:protein interactions. P. A. WADSWORTH*; A. K. SINGH; O. FOLORUNSO; N. D. NGUYEN; D. BRUNELL; C. C. STEPHAN; F. LAEZZA. <i>Univ. of Texas Med. Br. at Galveston, McLean Hospital/Harvard Med. Sch., Texas A&M Hlth. Sci. Center: Inst. of Biosci. and Technol.</i>	4:00	B62	035.20 A mouse model of schizophrenia risk gene SETD1A displays neuronal hyper-excitability attributable to enhanced persistent sodium current. G. W. CRABTREE*; J. A. GOGOS. <i>Columbia Univ., Zuckerman Mind Brain Behavior Inst.</i>
3:00	B53	035.11 ● Selective pharmacological inhibition of sodium channel isoforms Na _v 1.6 and Na _v 1.2/1.6 attenuates action potential firing in mouse cortical pyramidal neurons while sparing firing in inhibitory interneurons. A. D. WILLIAMS*; S. J. GOODCHILD; N. SHUART; K. KHAKH; W. GONG; A. HASAN; T. FOCKEN; C. COHEN; J. EMPFIELD; J. P. JOHNSON. <i>Xenon Pharmaceuticals.</i>			
4:00	B54	035.12 Pharmacogenomic analysis of effect of lacosamide on hNav1.7 variants from responsive and non-responsive small fiber neuropathy patients. M. R. ESTACION*; J. LABAU; B. TANAKA; B. T. A. DE GREEF; J. G. J. HOEIJKERS; M. GEERTS; M. GERRITS; H. J. M. SMEETS; C. G. FABER; I. S. J. MERKIES; S. G. WAXMAN; S. D. DIBB-HAJJ. <i>Yale Univ. Sch. of Med., DVA, Maastricht Univ., Maastricht Univ., Maastricht Univ., Maastricht Univ., St. Elisabeth Hosp.</i>			
1:00	B55	035.13 Nav1.8 gain-of-function mutation in a patient with familial trigeminal neuralgia. J. YUAN*; G. DI STEFANO; F. DIB-HAJJ; G. CRUCCU; S. G. WAXMAN; A. TRUINI; S. D. DIB-HAJJ. <i>Yale Sch. of Med., Sapienza Univ.</i>	1:00	B63	036.01 Sex-related effects of perinatal stress on the glutamatergic synapse and related behaviors in aged rats. R. VERHAEGHE; S. MORLEY FLETCHER*; H. BOUWALERH; G. VAN CAMP; F. NICOLETTI; S. MACCARI. <i>Univ.Lille, CNRS, UMR 8576, UGSF, Unité de Glycobiologie Structurale et Fonctionnelle, Univ. Sapienza of Rome, Dept. Physiol. and Pharmacol. "V. Ersparmer", Intl. Associated Lab. (LIA), France/Italy "Perinatal Stress and Neurodegenerative Diseases". Univ. Lille - CNRS, UMR 8576, and Sapienza Univ. of Rome - IRCCS Neuromed., Univ. Sapienza of Rome-Dept. Physiol. and Pharmacol. "V. Ersparmer", IRCCS Neuromed, Univ. Sapienza of Rome, Dept. of Sci. and Med. - Surgical Biotech.</i>
2:00	B56	035.14 A 49 amino acid stretch governs functional expression of sodium channel 1.9 (Nav1.9) in HEK-293 cells. D. V. SIZOVA*; J. HUANG; E. J. AKIN; S. G. WAXMAN; S. D. DIB-HAJJ. <i>Yale Univ. Sch. of Med., Ctr. for Neurosci. and Regeneration Res.</i>			

• Indicated a real or perceived conflict of interest, see page 72 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

- 2:00 B64 **036.02** Early life stress causes a long-lasting dopaminergic synaptopathy in the nigro-striatal system and related behavioral dysfunction. S. MACCARI*; S. MORLEY FLETCHER; J. MARROCCO; R. VERHAEGHE; G. VAN CAMP; H. BOUWALERH; D. BUCCI; M. CANNELLA; A. PITTALUGA; G. BATTAGLIA; F. NICOLETTI. *Univ. Lille, CNRS, UMR 8576, UGSF, Unité de Glycobiologie Structurale et Fonctionnelle, Dept. of Sci. and Med. - Surgical Biotechnology, Univ. Sapienza of Rome, Univ. Lille -UMR8576 UGSF CNRS, Intl. Associated Lab. (LIA), France/Italy "Perinatal Stress and Neurodegenerative Diseases". Univ. Lille - CNRS, UMR 8576, and Sapienza Univ. of Rome - IRCCS Neuromed., Harold and Margaret Milliken Hatch Lab. of Neuroendocrinology The Rockefeller Univ., Dept. of Physiol. and Pharmacol. "V. Ersperer", Univ. Sapienza of Rome, IRCCS Neuromed, Dept. of Pharmacology, Pharmacol. and Toxicology Section, Univ. of Genova.*
- 3:00 B65 **036.03** Dysfunctional synaptic transmission mediated by parvalbumin (PV) cortical interneurons in hyperactive PV^{cre}conditional CSPalpha/DNAJC5 KO mice. M. VALENZUELA-VILLATORO; P. GARCIA-JUNCO-CLEMENTE; J. L. NIETO-GONZALEZ; S. LOPEZ-BEGINES; M. C. RIVERO; F. MAVILLARD; R. FERNANDEZ-CHACON*. *IBiS, Inst. de Biomedicina de Sevilla (HUVR/CSIC/Universidad de Sevilla) & Med. Physiol. and Biophysics & Cibernet.*
- 4:00 B66 **036.04** A role for synaptotagmin-7 in plasticity of the sympathetic-adrenal synapse. R. N. CABALLERO; J. PHILIPPE; M. BENDAHMANE; A. CHAPMAN-MORALES; A. ANANTHARAM; P. M. JENKINS*. *Univ. of Michigan Med. Sch., Univ. of Michigan Med. Sch., Univ. of Michigan, Univ. of Michigan.*
- 1:00 B67 **036.05** Modulation of neurotransmitter release via KCTDs at the medial habenula to interpeduncular nucleus pathway. P. BHANDARI; D. VANDAEL; T. FRITZIUS; D. KLEINDIENST; M. GASSMANN; A. KULIK; P. JONAS; B. BETTLER; R. SHIGEMOTO; P. KOPPENSTEINER*. *IST Austria, Univ. of Basel, Inst. of Physiol. II.*
- 2:00 B68 **036.06** Quantitative studies of autonomic nervous system activities in urinary bladder smooth muscle cells towards bladder overactivities. C. MAHAPATRA*; R. MANCHANDA. *Indian Inst. of Technol. Bombay.*
- 3:00 B69 **036.07** Regulation of brain synapses and behaviour by miR-138. R. R. DASWANI*; G. SCHRATT. *ETH.*
- 4:00 B70 **036.08** Lattice light sheet microscopy reveals presynaptic Ca²⁺ transients highly variant in amplitude and Ca²⁺ channel subtype. S. RODRIGUEZ*; M. POTCOAVA; S. RAMACHANDRAN; S. T. ALFORD. *Univ. of Illinois At Chicago, Univ. of Illinois at Chicago, Univ. Illinois, Chicago, Univ. of Illinois at Chicago.*
- 1:00 B71 **036.09** Morphological and molecular characteristics of renal sympathetic nerve endings attached to multi-effector modules. S. MAEDA*; M. FUJIHIRA; H. HORI; Y. MINATO; S. KUWAHARA-OTANI; H. YAGI. *Hyogo Col. of Medicine, Kwansei Gakuin Univ.*
- 2:00 B72 **036.10** Logic of the locus coeruleus-norepinephrine system in anatomical and functional organization. C. ZHANG*; Y. YANG; F. LI; J. DU. *Inst. of Neuroscience, State Key Lab. of Neuroscience, CAS Ctr. for Excellence in Brain Sci. and Intelligence Technology, Chinese Acad. of Sci.*
- 3:00 B73 **036.11** Role of agmatine in the modulation of dopamine output in the rat ventral hippocampus. L. BETANCOURT; J. URBANAVICIUS; S. FABIUS; M. RAMIREZ; P. RADA; C. SCORZA; L. HERNANDEZ*. *Univ. de Los Andes, IIBCE, Univ. of Miami.*
- POSTER**
037. **Synaptogenesis and Activity-Dependent Development I**
Theme B – Neural Excitability/ Synapses/ and Glia
- Sat. 1:00 PM – McCormick Place, Hall A
- 1:00 B74 **037.01** Ultrastructural heterogeneity of human layer 4 excitatory synaptic boutons in the adult temporal lobe neocortex. R. YAKOUBI*; A. ROLLENHAGEN; M. VON LEHE; D. MILLER; B. WALKENFORT; M. HASENBERG; K. SÄTZLER; J. LÜBKE. *Res. Ctr. Jülich GmbH, Brandenburg Med. Sch., Univ. Hospital/Knappschaftskrankenhaus Bochum, Univ. Hosp. Essen, Univ. of Ulster, Med. Faculty/RWTH Univ. Hosp. Aachen, JARA Translational Brain Med.*
- 2:00 B75 **037.02** Physiological roles of trans-synaptic LGI1-ADAM22-MAGUK complex. Y. FUKATA*; Y. HIRANO; H. INAHASHI; Y. MIYAZAKI; N. YOKOI; M. SANBO; T. GOTO; M. HIRABAYASHI; M. FUKATA. *Natl. Inst. for Physiological Sciences, , Natl. Inst. of Natural Sci., SOKENDAI (The Grad. Univ. for Advanced Studies), The Univ. of Tokyo, Natl. Inst. for Physiological Sciences, , Natl. Inst. of Natural Sci.*
- 3:00 B76 **037.03** ErbB4 promotes inhibitory synapse formation in a manner independent of its kinase activity. B. LUO*; H. WANG; Z. DONG; H. L. ROBINSON; L. MEI. *Nan Chang Univ., Case Western Reserve Univ., Case Western Reserve Univ., Case Western Reserve Med. Sch., Case Western Reserve Univ.*
- 4:00 B77 **037.04** Glycinergic input to non-cholinergic neurons of the mouse basal forebrain. I. KALLO*; L. ZABORSZKY; M. WATANABE; B. PAL; Z. BARDÓCZI. *Inst. Exptl. Med. - HAS, Fac. of Information Technology, PPCU, Rutgers The State Univ. of New Jersey, Hokkaido Univ. Sch. Med., Univ. of Debrecen, Fac. of Med., Inst. Exptl. Med. - HAS.*
- 1:00 B78 **037.05** Unrevealing the role of CA10 in synapses. L. MONTOLIU-GAYA*; D. KAMINSKI; F. H. STERKY. *Gothenburg Univ.*
- 2:00 B79 **037.06** Trans-synaptic association between Ca²⁺-channels and AMPA receptors. M. M. BROCKMANN*; T. TRIMBUCH; T. C. SUDHOFF; C. ROSENmund. *Charité-Universitätsmedizin Berlin, Stanford Univ.*
- 3:00 B80 **037.07** Rapid modulation of transsynaptically aligned glutamate receptor nanocluster rings during homeostatic plasticity. P. MUTTATHUKUNNEL*, P. FREI; M. MUELLER. *Univ. of Zurich, Neurosci. Ctr. Zurich.*
- 4:00 B81 **037.08** Shift in synapse structure and location advances the onset age of late-phase LTP. H. SMITH*; C. HAINES; G. CAO; S. L. VENTURA; M. H. DRAKE; M. KUWAJIMA; K. M. HARRIS. *Univ. of Chicago, Univ. of Texas at Austin.*
- 1:00 B82 **037.09** The CHD protein, Kismet, is required in postsynaptic cells for presynaptic endocytosis. B. G. HARSIN; F. L. LIEBL*. *Southern Illinois Univ. Edwardsville.*

* Indicated a real or perceived conflict of interest, see page 72 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

2:00	B83	037.10	Morphological alteration after long-term potentiation detected at the active zone of adult rat hippocampal synapses. J. JUNG*, J. N. BOURNE; L. M. KIRK; R. M. MARSHALL; K. M. HARRIS. <i>Texas A&M Univ., Univ. of Colorado Anschutz Med. Campus, Univ. of Texas at Austin.</i>	4:00	B95	038.08	Viral expression of a MIRO-binding domain peptide depletes mitochondria from the calyx of Held presynaptic terminal. M. SINGH; H. DENNY; R. B. RENDEN*. <i>Univ. of Nevada, Univ. of Nevada Sch. of Med., Univ. of Nevada Sch. of Med.</i>
3:00	B84	037.11	Alternative splicing choices for synaptic function. A. M. GOMEZ*; L. TRAUNMÜLLER; P. SCHEIFFELE. <i>Univ. of Basel, Biozentrum Univ. Basel.</i>	1:00	B96	038.09	Removal of calcium dependent regulation of ATP binding of Syn I has distinct effects at excitatory and inhibitory synapses. M. MOSCHETTA*; A. DE FUSCO; S. SACCHETTI; G. LIGNANI; M. ORLANDO; P. BALDELLI; F. BENFENATI. <i>Fondazione Inst. Italiano Di Tecnologia, Inst. Italiano Di Tecnologia, Inst. Italiano di Tecnologia, UCL Inst. of Neurology, Charité Universitätsmedizin, IIT - Inst. Italiano di Tecnologia, Fondazione Inst. Italiano di Tecnologia.</i>
4:00	B85	037.12	Interactions between the prefrontal cortex and multiple thalamic nuclei. D. P. COLLINS*; A. G. CARTER. <i>New York Univ., New York Univ.</i>	2:00	B97	038.10	Synapsin null alters multiple neurotransmitter release functions at <i>Drosophila</i> NMJ. A. GONZÁLEZ RUIZ*; R. A. JORQUERA; P. FELICIANO; J. GUZMAN-GUTIÉRREZ. <i>Univ. Central del Caribe, Univ. Central Del Caribe, Sch. of Med., MIT, Univ. Central del Caribe.</i>
1:00	B86	037.13	Synaptic neurexin-1 assembles into dynamically regulated active zone nanoclusters. J. H. TROTTER*; J. HAO; S. MAXEINER; T. TSETSENIS; Z. LIU; X. ZHUANG; T. C. SUDHOF. <i>Stanford Univ., Harvard Univ., Univ. des Saarlandes, Univ. of Pennsylvania, Stanford Univ., Stanford Univ.</i>	3:00	B98	038.11	Group II and III metabotropic glutamate receptors signal via the G $\beta\gamma$ -SNARE pathway. C. E. DELBOVE*; Z. ZURAWSKI; R. M. LAZARENKO; H. E. HAMM; S. T. ALFORD. <i>Univ. of Illinois at Chicago, Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ. Sch. of Med., Univ. of Illinois at Chicago.</i>
2:00	B87	037.14	The role of brain FNDC5/irisin in synaptic plasticity and memory in mice. R. A. S. LIMA-FILHO*; M. V. LOURENCO; O. ARANCIO; S. T. FERREIRA; F. G. DE FELICE. <i>Federal Univ. of Rio De Janeiro, Fed. Univ. of Rio De Janeiro, Columbia Univ., Fed. Univ. Rio de Janeiro, Fed. Univ. Rio De Janeiro.</i>	4:00	B99	038.12	G $\beta\gamma$ exhibits isoform-dependent ability to inhibit the activity of fusogenic C2AB-domain containing calcium sensors. Z. ZURAWSKI; C. DELBOVE; S. T. ALFORD*. <i>Univ. of Illinois at Chicago, Univ. of Illinois at Chicago.</i>

POSTER

038. Short-Term Plasticity

Theme B – Neural Excitability/ Synapses/ and Glia

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

1:00	B88	038.01	ER stress represses neural activity and seizures through Mdm2-p53 signaling-mediated protein translation. D. LIU*; D. EAGLEMAN; N. TSAI. <i>Univ. of Illinois Urbana-Champaign.</i>
2:00	B89	038.02	Excitatory single-unit responses to intracortical microstimulation in primate motor cortex suggest changes in cortico-cortical synaptic strength. R. J. YUN*; J. H. MISHLER; S. I. PERLMUTTER; R. P. RAO; E. E. FETZ. <i>Univ. of Washington, Univ. of Washington, Univ. of Washington, Univ. of Washington, Univ. of Washington.</i>
3:00	B90	038.03	Kinetics of short term plasticity differ between GABAergic and glutamatergic systems in layer II/III of the mouse barrel cortex. A. LOMBARDI*; H. J. LUHMANN; W. KILB. <i>Johannes Gutenberg Univ. Mainz.</i>
4:00	B91	038.04	Processing of spatial information enhanced by non spatial information in hippocampal granule cells. N. NAKAJIMA*; G. TASAKA; H. HAYAKAWA; T. AIHARA. <i>Tamagawa Univ.</i>
1:00	B92	038.05	Balancing information transmission and energy use at unreliable hippocampal synapses. G. MAHAJAN*; S. NADKARNI. <i>Indian Inst. of Sci. Educ. and Res.</i>
2:00	B93	038.06	Roles of synaptic plasticity in a reduced CA1 model. D. POLL*; D. A. DOMBECK; W. L. KATH. <i>Northwestern Univ., Northwestern Univ.</i>
3:00	B94	038.07	● Fasting effects in synaptic transmission depend on the basal feeding. G. MACIAS-MENDEZ*; R. A. JORQUERA. <i>Univ. Central Del Caribe, Univ. Central del Caribe, Univ. Central Del Caribe, Sch. of Med., UNAB.</i>

POSTER

039. Structural Plasticity and Circuit Remodeling I

Theme B – Neural Excitability/ Synapses/ and Glia

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

1:00	B100	039.01	From gut to brain function: Gain in gut bifidobacteria alters GABA _A subunits expression and enhances hippocampal plasticity in adult male rats. F. BIGGIO*; M. C. MOSTALLINO; G. TALANI; V. LOCCI; L. BOI; R. MOSTALLINO; C. PORCEDDA; E. SANNA; G. BIGGIO. <i>Univ. of Cagliari, Inst. of Neuroscience, Natl. Res. Council, Univ. of Illinois.</i>
2:00	B101	039.02	Physical exercise modulates cortical neural plasticity to enhance learning and memory functions. L. ZHANG*; K. CHEN; J. WEI; K. SO. <i>Jinan Univ.</i>
3:00	B102	039.03	Estrogen signaling is required for treadmill exercise mediated effects on synaptic plasticity around axotomized spinal motoneurons. J. C. WILHELM*; A. A. BRUCE; G. DICKINSON; V. L. KENNEDY; S. T. WILSON. <i>Col. of Charleston.</i>
4:00	C1	039.04	Circuit remodeling in the motor cortex during motor learning. J. SOHN*; Y. KUBOTA; Y. KAWAGUCHI. <i>Natl. Inst. Physiol Sci. (NIPS), Japan Society for the Promotion of Sci. (JSPS), The Grad. Univ. for Advanced Studies (SOKENDAI).</i>
1:00	C2	039.05	Increased learning-induced spine stability predicts motor skill performance. E. ALBARRAN*; A. J. RAISSI; C. J. SHATZ; J. B. DING. <i>Stanford Univ. - Neurosciences Program, Stanford Univ., James H. Clark Ctr., Stanford Univ. Dept. of Neurosurg.</i>

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| 2:00 | C3 | 039.06 Modulation of activity-driven NgR1 regulation by dopamine and serotonin. A. T. BRODIN*; G. A. ZISIADIS; K. WELLFELT; L. OLSON; T. E. KARLSSON. <i>Karolinska Institutet.</i> | 1:00 | C14 | 039.17 Autophagy, highwire and map kinases regulate the temperature dependence of synaptic growth at the <i>drosophila</i> neuromuscular junction. K. M. DE LEON GONZALEZ*; B. MARIE. <i>Inst. of Neurobio.</i> |
| 3:00 | C4 | 039.07 Sex differences in dendritic spine density and morphology in mouse auditory and visual brain regions in adolescence and adulthood. E. M. PARKER*; N. L. KINDJA; C. E. CHEETHAM; R. A. SWEET. <i>Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh.</i> | 2:00 | C15 | 039.18 CRMP2 binding compound accelerates recovery from central nervous system. S. JITSKUJI*; Y. KAWAKAMI; M. SATO; A. JITSKUJI-TAKAHASHI; H. TADA; H. MASUYAMA; T. OKUDA; T. TAKAHASHI. <i>Yokohama City Univ. Grad. Sch. of Med., Yokohama City Univ. Grad. Sch. of Med., Natl. Ctr. for Geriatrics and Gerontology, FUJIFILM Corp.</i> |
| 4:00 | C5 | 039.08 Effect of spermidine on the aging hippocampus: A quantitative electron microscopic study of synaptic and mitochondrial ultrastructure. B. RACZ*; S. SCHROEDER; S. HOFER; M. G. MARCELLO; P. T. SOTONYI; K. IWATA; S. J. SIGRIST; S. KIECHL; T. EISENBERG; F. MADEO. <i>Univ. of Vet. Med., Inst. of Mol. Biosciences, Univ. of Graz, BioTechMed-Graz, Univ. of Fukui, Venetian Inst. of Mol. Medicine, Freie Univ. Berlin, Med. Univ. of Innsbruck, Univ. of Graz.</i> | | | |
| 1:00 | C6 | 039.09 ▲ Neuroplasticity of the crossed temporodentate and septodentate pathways after entorhinal cortex injury in female rats. H. DOYLE; A. GHOSH; G. SODEN; K. BARLIS; J. J. RAMIREZ*. <i>Davidson Col.</i> | | | |
| 2:00 | C7 | 039.10 Quantitative fluorescent synapse analysis reveals transient layer-specific reduction in PV inputs during sensory association training. D. A. KULJIS*; S. E. MYAL; E. PARK; K. BREGNA; W. WEGNER; K. I. WILLIG; A. L. BARTH. <i>Carnegie Mellon Univ., Carnegie Mellon Univ., Max Planck Inst. of Exptl. Med.</i> | | | |
| 3:00 | C8 | 039.11 Behavioral sensitivity to acute and chronic opioid exposure in neuroligin-3 knockout mice. D. D. BRANDNER*; P. G. MERMELSTEIN; P. E. ROTHWELL. <i>Univ. of Minnesota.</i> | | | |
| 4:00 | C9 | 039.12 ● Interneuron transplantation creates new network states and rescues social behavior deficits in a mouse model of autism with excessive synaptic inhibition. D. G. SOUTHWELL*; H. SEIFIKAR; R. MALIK; K. LAVI; D. VOGT; J. L. RUBENSTEIN; V. S. SOHAL. <i>Duke Univ., Johns Hopkins, Univ. of California San Francisco, Friedrich Miescher Inst., Michigan State Univ., Univ. of California San Francisco, U. California, San Francisco.</i> | | | |
| 1:00 | C10 | 039.13 Chronic restraint stress induces anxiety & alteration of neuronal morphology in the centromedial amygdala in rats. S. MORENO MARTÍNEZ*; H. TENDILLA BELTRÁN; V. SANDOVAL; G. FLORES; J. TERRÓN SIERRA. <i>Ctr. De Investigación Y Estudios Avanzados Del I, Cinvestav, Benemérita Univ. Autónoma de Puebla, Escuela Nacional de Ciencias Biológicas, Benemérita Univ. Autónoma de Puebla.</i> | | | |
| 2:00 | C11 | 039.14 The transcription factor gooseberry, a pax3/7 homolog, interacts with wingless (Wnt) to maintain neuronal function. M. PEREZ CARAMBOT*; C. DOMINICCI-COTTO; B. MARIE. <i>Inst. of Neurobio.</i> | | | |
| 3:00 | C12 | 039.15 Microglia contribute to the loss of inhibitory synapses in chronic <i>Toxoplasma gondii</i> infection. G. L. CARRILLO*; T. GLAUSEN; J. TEAMER; Z. BOONE; I. BLADER; M. A. FOX. <i>Fralin Biomed. Res. Inst., Univ. at Buffalo, Fralin Biomed. Res. Inst., Univ. At Buffalo.</i> | | | |
| 4:00 | C13 | 039.16 ● Combining optogenetics and FACS to examine NMDA subunit expression at specific synapses. Y. CASTILLO-OCAMPO*; A. HERNANDEZ-LOPEZ; M. COLON-ROMERO; P. LOPEZ; J. T. PORTER. <i>Ponce Hlth. Sci. Univ.</i> | | | |
| | | | | | POSTER |
| | | | | | 040. Neuronal Firing Properties: Modulation, Development, and Pathologies I |
| | | | | | <i>Theme B – Neural Excitability/ Synapses/ and Glia</i> |
| | | | | | Sat. 1:00 PM – McCormick Place, Hall A |
| 1:00 | C16 | 040.01 Evaluating the contribution of passive propagation on axonal afterdepolarization using hippocampal mossy fiber model. H. KAMIYA*. <i>Hokkaido Univ. Grad. Sch. of Med.</i> | | | |
| 2:00 | C17 | 040.02 Human cortical organoids reveal delayed maturation of cellular electrophysiologic properties by chronic methadone exposure during early neural development. W. WU*; H. YAO; A. R. MUOTRI; G. G. HADDAD. <i>UCSD, UCSD, UCSD, UCSD.</i> | | | |
| 3:00 | C18 | 040.03 Biophysical signatures of sparse coding in hippocampal-like circuits. A. TRINH*; S. E. CLARKE; E. HARVEY-GIRARD; L. MALER. <i>Univ. of Ottawa, Stanford Univ.</i> | | | |
| 4:00 | C19 | 040.04 Different effects on primary afferent muscle spindle afferents vs golgi tendon organ afferents in short term hyperglycemic and insulin nanoparticle treated rats. V. K. HAFTEL*; C. SMITH. <i>Morehouse Col., Morehouse Col.</i> | | | |
| 1:00 | C20 | 040.05 ▲ Electrophysiological characterization of NPY and POMC neurons of the hypothalamic arcuate nucleus. D. CASTILLO-ROLON; S. ORTEGA-TINOCO; N. VILLALOBOS; G. ARENAS-LOPEZ; S. HERNANDEZ-LOPEZ; J. GARDUÑO*. <i>Facultad de Medicina.</i> | | | |
| 2:00 | C21 | 040.06 Intrinsic excitability of neurons of the <i>xenopus laevis</i> optic tectum is regulated by changes in sodium currents during retinotectal circuit development. A. C. THOMPSON*; C. D. AIZENMAN. <i>Brown Univ.</i> | | | |
| 3:00 | C22 | 040.07 Metabotropic receptor signalling facilitates intrinsic plasticity in cerebellar Purkinje cells. G. WATKINS*; C. HANSEL. <i>Univ. of Chicago, Univ. of Chicago Dept. of Neurobio.</i> | | | |
| 4:00 | C23 | 040.08 Dual separable feedback systems govern firing rate homeostasis. Y. KULIK*; R. T. JONES; A. MOUGHAMIAN; J. WHIPPEN; G. W. DAVIS. <i>UCSF, Univ. of California, San Francisco, UCSF, Univ. California-SF.</i> | | | |
| 1:00 | C24 | 040.09 Excitability hysteresis of retrosplenial layer 2/3 pyramidal cells after subiculum synaptic inputs. M. GAO*; A. NOGUCHI; Y. IKEGAYA. <i>The Univ. of Tokyo, Grad Sch. Pharma Sci, Univ. Tokyo.</i> | | | |
| 2:00 | C25 | 040.10 Dopaminergic transmission rapidly and persistently enhances excitability of D1 receptor-expressing | | | |

- Indicated a real or perceived conflict of interest, see page 72 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

3:00	C26	040.11	Comparison of female rat nucleus accumbens core neuron electrophysiological properties between early and late proestrus. S. PROANO*; A. KRENTZEL; J. MEITZEN. <i>North Carolina State Univ.</i>	2:00	C37	041.02	Sex differences and the relationship of estrus cycle in a rat epilepsy model of diisoflourophosphate (DFP)-induced neurotoxicity. M. C. GAGE*; M. PUTRA; S. SHARMA; M. GOLDEN; T. THIPPESWAMY. <i>Iowa State Univ., Iowa State Univ., Iowa State Univ.</i>
4:00	C27	040.12	Role of noradrenaline and serotonin in intrinsic persistent firing in CA1 pyramidal neurons. A. REBOREDA*; M. J. VALERO-ARACAMA; A. ARBOIT; M. SAUVAGE; M. YOSHIDA. <i>Leibniz Inst. For Neurobio., German Ctr. For Neurodegenerative Diseases-DZNE, Ruhr Univ. Bochum, Friedrich-Alexander-University of Erlangen-Nürnberg, German Ctr. For Neurodegenerative Diseases-DZNE.</i>	3:00	C38	041.03	Quantitative spatiotemporal analysis of microglia morphology in the developing rat hippocampus after status epilepticus. M. LOPEZ-MERAZ*; D. ALVAREZ-CRODA; L. BELTRAN-PARRAZAL; C. MORGADO-VALLE; D. J. LOANE. <i>CICE, Univ. Veracruzana, CICE - Univ. Veracruzana, Univ. Veracruzana, Univ. Veracruzana, Univ. of Maryland Sch. of Med.</i>
1:00	C28	040.13	Developmental emergence of sex differences in the intrinsic membrane properties of retrosplenial cortical neurons. H. YOUSUF*; J. R. MOYER, Jr. <i>Univ. of Wisconsin-Milwaukee, Univ. of Wisconsin Milwaukee Dept. of Psychology.</i>	4:00	C39	041.04	Soman-induced cell death and neuroinflammatory response in human acetylcholinesterase knock-in serum carboxylesterase knockout mice. M. F. STONE; E. R. KUNDRICK; B. M. MARRERO-ROSADO; C. R. SCHULTZ; K. A. WALKER; E. M. MATSON; S. J. DEBUS; M. DE ARAUJO FURTADO; C. CADIEUX; L. A. LUMLEY*. <i>US Army Med. Res. Instute of Chem. Def., Uniformed Services Univ. of Hlth. Sci.</i>
2:00	C29	040.14	Spatiotemporal dopaminergic modulation of Schaffer collateral-CA1 plasticity: A computational modeling approach. J. SCHMALZ*; G. KUMAR. <i>Univ. of Idaho.</i>	1:00	C40	041.05	Neurovascular coupling during acute interictal events in awake mouse. J. LI*; F. YANG; Y. SONG; M. ZHAO; D. LI; J. NIEMEYER; W. LIN; H. MA; T. H. SCHWARTZ. <i>Weill Cornell Med., The First Hosp. of Jilin Univ., BEIHUA Univ., Weill Cornell Med., The First Hosp. of Jilin Univ., Suzhou Inst. of Biomed. Engin. and Technol. Chinese Acad. of Sci.</i>
3:00	C30	040.15	Assembly of excitable membrane domains at the neuro-cardiac sympathetic synapses. O. G. SHCHERBAKOVA*; P. MOHLER; B. K. KOBILKA. <i>Natl. Res. Ctr. "Kurchatov Institute", The Ohio State Univ., Stanford Univ.</i>	2:00	C41	041.06	A marmoset model of primary epilepsy. X. YANG*, Z. CHEN; W. LI. <i>Bio-X Centre, Shanghai Jiao Tong Univ.</i>
4:00	C31	040.16	Sodium channel gating sensitivity to external calcium is regulated by the calcium-sensing receptor in neocortical neurons. B. J. KNIGHT*; S. M. SMITH. <i>VAPORHCS/OHSU.</i>	3:00	C42	041.07	Anticonvulsant drug actions in a rat model of birth asphyxia. M. JOHNE; K. RÖMERMAN; P. HAMPEL; W. THEILMANN; T. ALA-KURIKKA; K. KAILA*; W. LÖSCHER. <i>Univ. of Vet. Med. Hannover, Germany, Ctr. for Systems Neurosci. Hannover, Univ. of Helsinki.</i>
1:00	C32	040.17	Ectopic spiking in parvalbumin-expressing inhibitory interneurons of the neocortex. B. B. THEYEL*. <i>Brown Univ.</i>	4:00	C43	041.08	A genetic cross between Gad2-Cre and loxTB Htr2c mouse strains does not prevent seizures and death in a 5-HT _{2C} -null SUDEP mouse model. C. A. MASSEY*; J. L. NOEBELS. <i>Baylor Col. of Med.</i>
2:00	C33	040.18	In vivo quantification of excitation and kilohertz frequency block of the rat vagus nerve. N. A. PELOT*; W. M. GRILL. <i>Duke Univ.</i>	1:00	C44	041.09	Optimization of a zebrafish epilepsy model for testing anti-epileptic drugs. P. MILDER*; J. MARRS; T. R. CUMMINS. <i>Indiana Univ. Purdue Univ. Indianapolis, Indiana Univ. Purdue Univ., Indiana University-Purdue Univ. Indianapolis.</i>
3:00	C34	040.19	Effects of spinal cord injury on excitability of male mouse. Neurons of the major pelvic ganglion. M. L. GRAY*; D. J. SCHULZ. <i>Univ. of Missouri, Univ. of Missouri-Columbia.</i>	2:00	C45	041.10	A rat model of somatosensory-evoked reflex seizures induced by peripheral stimulation. A. BORTEL*; Z. YAO; A. SHMUEL. <i>McGill Univ.</i>
4:00	C35	040.20	Activation of SK channels by spontaneous Ca ²⁺ release at dendritic branchpoints of layer 5 cortical pyramidal neurons. D. M. ZEPPENFELD*; L. O. TRUSSELL. <i>Oregon Hlth. Sci. Univ., Oregon Hlth. and Sci. Univ.</i>	3:00	C46	041.11	The spatiotemporal dynamic of neuronal and hemodynamic changes during acute ictal events in awake mouse. F. YANG*; J. LI; Y. SONG; M. ZHAO; J. NIEMEYER; D. LI; W. LIN; H. MA; T. H. SCHWARTZ. <i>Weill Cornell Med., The First Hosp. of Jilin Univ., BEIHUA Univ., Weill Cornell Med., The First Hosp. of Jilin Univ., Suzhou Inst. of Biomed. Engin. and Technol. Chinese Acad. of Sci.</i>
1:00	C36	041.01	Auditory brainstem responses, acoustic startle reflex and prepulse inhibition as markers of susceptibility of audiogenic seizures in rats. A. O. CUNHA*; M. MORADI; J. L. DE DEUS; C. C. CEBALLOS; P. C. G. BARCELLOS; J. C. OLIVEIRA; N. GARCIA-CAIRASCO; R. M. LEAO. <i>Univ. of Sao Paulo, Univ. de Sao Paulo, Univ. of Sao Paulo, Yale Univ., Univ. de Sao Paulo, Univ. de Sao Paulo, Ribeirao Preto Sch. Med., Univ. of Sao Paulo.</i>	4:00	C47	041.12	Evaluation of neuroinflammation, number and location of cysts in a rat epilepsy model with neurocisticercosis. A. D. DELGADO*; R. C. OROZCO; R. H. CELIZ; M. VERASTEGUI; R. GILMAN. <i>Univ. Peruana Cayetano Heredia, Johns Hopkins Univ.</i>

POSTER

041. Animal Models of Epilepsy I

Theme B – Neural Excitability/ Synapses/ and Glia

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

1:00	C36	041.01	Auditory brainstem responses, acoustic startle reflex and prepulse inhibition as markers of susceptibility of audiogenic seizures in rats. A. O. CUNHA*; M. MORADI; J. L. DE DEUS; C. C. CEBALLOS; P. C. G. BARCELLOS; J. C. OLIVEIRA; N. GARCIA-CAIRASCO; R. M. LEAO. <i>Univ. of Sao Paulo, Univ. de Sao Paulo, Univ. of Sao Paulo, Yale Univ., Univ. de Sao Paulo, Univ. de Sao Paulo, Ribeirao Preto Sch. Med., Univ. of Sao Paulo.</i>
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1:00	C48	041.13 ● Modeling catastrophic childhood genetic epilepsies: The epilepsy zebrafish project (EZP). C. A. CARPENTER*; J. LIU; A. GRIFFIN; B. GRONE; K. HAMLING; M. T. DINDAY; M. ANVAR; C. ONONUJU; R. PATERNO; S. C. BARABAN. <i>Univ. of California, San Francisco, Univ. California San Francisco, NYU, Univ. of California, Berkeley.</i>
2:00	C49	041.14 ▲ Fisetin attenuates behavioural impairment and inflammatory response in pentylenetetrazole-induced kindling model of epilepsy by modulating neuronal plasticity. S. KHATOON*; M. SAMIM; N. AGARWAL. <i>Sch. of Chem. and Life Sciences, JAMIA HAMDARD, Sch. of Chem. and Life Sciences, JAMIA HAMDARD, Sch. of Chem. and Life Sciences, JAMIA HAMDARD.</i>
3:00	C50	041.15 Silencing the epileptic network in a bilateral sub-cortical band heterotopia rat model. D. HARDY*; V. PLANTIER; E. BUHLER; A. VINCK; F. WATRIN; A. REPRESA; J. MANENT. <i>INSERM Aix-Marseille Univ.</i>
4:00	C51	041.16 Epileptic seizures lead to a loss of near-critical brain organisation in the zebrafish brain. D. BURROWS*; R. E. ROSCH; D. S. BASSETT; M. P. MEYER. <i>King's Col. London, Univ. Col. London, Univ. of Pennsylvania, King's Col. London.</i>
1:00	C52	041.17 Fast 2-photon imaging of excitatory and inhibitory subpopulations in PTZ-treated larval zebrafish reveals patterns of initiation and propagation during ictal-like events. J. E. NIEMEYER*; P. GADAMSETTY; S. SYLVESTER; H. MA; E. AKSAY; T. H. SCHWARTZ. <i>Weill Cornell Med., Weill Cornell Med., Weill Cornell Med. Col., Joan and Sanford I Weill Med. Col. of Cornell Univ.</i>

POSTER**042. Alzheimer's Disease and Other Dementias: Imaging Studies I****Theme C – Neurodegenerative Disorders and Injury**

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

1:00	C53	042.01 Evaluating the neuroprotective potential of exosome delivered catalase-SKL in a pre-clinical model of Alzheimer's disease. Q. LIU*; S. HAYES; P. KISER; S. SELVAKUMARAN; B. L. ALLMAN; P. WALTON; S. N. WHITEHEAD. <i>Schulich Sch. of Med. and Dentistry, Western Univ., Schulich Sch. of Med. and Dentistry, Western Univ.</i>
2:00	C54	042.02 ●▲ Preclinical model for Alzheimer's disease: The confluence of aging, genetic risk, and diet. B. COLARUSSO*; P. KULKARNI; J. YEBOAH; M. GUPTA; X. CAI; E. KOURANOVA; J. HARTNER; C. FERRIS. <i>Northeastern Univ., Washington Univ., Horizon Discovery Ltd.</i>
3:00	C55	042.03 Mutant amyloid precursor protein (APP) increases axonal transport rates in the hippocampal-basal forebrain memory circuit: An MRI and confocal imaging study. E. L. BEARER; C. S. MEDINA; R. E. JACOBS*. <i>Univ. of New Mexico Hlth. Sci. Ctr., Caltech, Marine Biol. Lab., USC Keck Sch. of Med.</i>
4:00	C56	042.04 Brain hippocampal glutathione level and pH interrelation in Alzheimer's disease: A multinuclear MR spectroscopic cross-sectional study. D. SHUKLA; P. K. MANDAL*; M. TRIPATHI; R. MISHRA; A. KALYANI; K. SANDAL; D. DWIVEDI. <i>Natl. Brain Res. Ctr., FLOREY Inst. of Neurosci. and Mental Hlth., All India Inst. of Med. Sci.</i>
1:00	C57	042.05 Basal forebrain volume selectively and reliably predicts the cortical spread of Alzheimer's degeneration. S. FERNÁNDEZ-CABELLO; R. N. SPRENG; T. W. SCHMITZ*. <i>Univ. of Salzburg, McGill Univ., Western Univ.</i>
2:00	C58	042.06 Brain functional network integrity sustains cognitive function despite atrophy in presymptomatic genetic frontotemporal dementia. K. A. TSVETANOV*; S. GAZZINA; S. JONES; J. B. ROWE. <i>Cambridge Univ. Dept. Clin. Neurosciences.</i>
3:00	C59	042.07 Regional lipid expression abnormalities identified using imaging mass spectrometry correspond to MRI-defined white matter hyperintensities within post-mortem human brain tissue. W. PINSKY*; A. HARRIS; A. ROSEBOROUGH; S. WHITEHEAD. <i>Univ. of Western Ontario, Univ. of Western Ontario, Schulich Sch. of Med. and Dent.</i>
4:00	C60	042.08 Blood brain barrier dysfunction and fibrinogen extravasation are associated with post-mortem MR imaging of white matter hyperintensities in normal aging, Alzheimer's disease and cerebrovascular disease. A. ROSEBOROUGH*; K. LANGDON; R. HAMMOND; S. PASTERNAK; A. KHAN; S. WHITEHEAD. <i>Schulich Sch. of Med., Schulich Sch. of Med., Robarts Res. Inst., Schulich Sch. of Med., Lawson Hlth. Res. Inst., Schulich Sch. of Med.</i>
1:00	C61	042.09 Pathological mechanism and therapy for extracellular space in Alzheimer's disease. D. CHUI*; X. YUE; Z. TONG; A. WANG; R. WANG; Y. JIN; H. HAN. <i>Peking Univ. Third Hosp., Capital Med. Univ.</i>
2:00	C62	042.10 Modulation of ventral visual pathways connectivity: Cortical interactions evaluated for structural alterations in visual perceptual abnormalities in Parkinson's disease. G. ELUMALAI*; P. MAITI; G. VINODHANAND; C. VADIYALA; D. SINGH; N. DAYAL; V. L. BROWN; V. KURRA. <i>Team Neuron, Col. of Medicine, Texila American Univ., Brain Res. Laboratory, Saginaw Valley State Univ.</i>
3:00	C63	042.11 ▲ Optic ataxia in Alzheimer's: Neural-cortical connectivity analysis in correlations with "how" stream visual pathways in disease progression stages of Alzheimer. N. H. C. CERESOLI*; N. DYAL; G. ELUMALAI; V. KURRA; G. VINODHANAND; C. VADIYALA. <i>Texila American Univ., Texila American Univ.</i>
4:00	C64	042.12 ▲ Visual processing of spatial recognition: Cortical connectivity deficits in Parkinson's spatial perceptual visual pathway. G. VINODHANAND; G. ELUMALAI; P. MAITI; D. SINGH; N. DAYAL; V. BROWN; Z. L. GODLO*; C. VADIYALA; V. KURRA. <i>Texila American Univ., Saginaw Valley State Univ.</i>
1:00	C65	042.13 ▲ Associative visual object agnosia (AVOA): Structural alterations and their underlying substrates in correlations with what stream visual pathways in Alzheimer's. D. SINGH; G. ELUMALAI; P. MAITI; G. VINODHANAND; N. DYAL; V. L. C. BROWN; N. A. S. V. GHANTA; M. NANDURI*. <i>Texila American Univ., Saginaw Valley State Univ.</i>
2:00	C66	042.14 ▲ Diffusion imaging fiber tractography: Prosopagnosia and facial expression analysis deficit in progressive Alzheimer's. C. VADIYALA*; P. MAITI; G. ELUMALAI; P. SINGRU; A. O. HAUGHTON. <i>Texila American Univ., Central Michigan University/St. Mary's of Michigan, Texila American Univ., Texila American Univ.</i>

* Indicated a real or perceived conflict of interest, see page 72 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

3:00	C67	042.15 ▲ Logopenic aphasia tau pathology: An observation on phonological loop fiber-specific white matter reductions in Alzheimer's disease - Is it a causal or casual link. V. KURRA*; G. ELUMALAI; P. MAITI; G. VINODHANAND; C. VADIYALA. <i>Texila American Univ., Texila American Univ., Central Michigan University/St. Mary's of Michigan, Texila American Univ., Texila American Univ.</i>	2:00	C76	043.02 Role of the indirect pathway in L-Dopa-induced dyskinesia. L. ANDREOLI*; J. JAKOBSSON; M. A. CENCI. <i>Lund Univ., Wallenberg Neurosci. Ctr., Lund Univ.</i>
4:00	C68	042.16 Neural activity patterns underlying abnormal phonological processing in patients with logopenic variant primary progressive aphasia. K. RANASINGHE*; A. J. BEAGLE; D. MIZUIRI; S. HONMA; A. WELCH; M. GORNO-TEMPINI; K. A. VOSSEL; J. F. HOODE; S. S. NAGARAJAN. <i>Univ. of California San Francisco, UCSF, Univ. of Minnesota, UCSF, UCSF.</i>	4:00	C78	043.04 Role of auxiliary beta-subunits for Cav2.3 calcium channel signaling in dopamine neurons. A. SILLER*; N. T. HOFER; K. VILUSIC; E. FRITZ; T. SCHNEIDER; H. J. DRAHEIM; J. STRIESSNIG; N. J. ORTNER. <i>Univ. of Innsbruck, Univ. Cologne, Boehringer Ingelheim Pharma GmbH & Co KG.</i>
1:00	C69	042.17 ▲ Diffusion imaging fibre tractographic analysis for auditory saccadic attention deficit (ASAD) in progression stages of Alzheimer's disease. P. P. SINGRU*; G. ELUMALAI; C. VADIYALA; H. KURRA. <i>Texila American Univ., Texila American Univ., Texila American Univ.</i>	1:00	C79	043.05 H63D HFE protects cells from alpha-synuclein mediated toxicity in pre-formed fibril model of Parkinson's disease. Y. KIM*; J. R. CONNOR; M. STAHL. <i>Pennsylvania State Univ., Pennsylvania State Univ.</i>
2:00	C70	042.18 ▲ Analysis of neural structural connectivity in olfactory attention deficit in Alzheimer's patients as a diagnostic and progression monitoring method. H. CHATTERJEE*; G. VINODHANAND; G. ELUMALAI; N. S. OSAKWE; N. SEWRAM. <i>Texila American Univ., Texila American Univ., Texila American Univ., Texila American Univ.</i>	2:00	C80	043.06 Microglial alterations in the putamen of Parkinsonian monkeys with and without L-Dopa treatment and dyskinésias. T. DIPAOLO; K. PICARD; C. LECOURS; M. ST-PIERRE; M. BOURQUE; L. GRÉGOIRE; L. CANTIN; M. PARENT*; M. TREMBLAY. <i>Univ. Laval.</i>
3:00	C71	042.19 Convolutional neural network for predicting conversion from mild cognitive impairment to Alzheimer's dementia using transfer learning. J. B. BAE*; J. STOCKS; A. HEYWOOD; Y. JUNG; P. KARTEEK; F. BEG; L. WANG. <i>Northwestern Univ., Northwestern Univ., KAIST, Simon Fraser Univ., Northwestern Univ. Feinberg Sch. of Med.</i>	3:00	C81	043.07 Characterizing the role of Abtb2b in neuronal health. H. J. T. NONARATH*; E. M. CLARK; B. A. LINK. <i>Med. Col. of Wisconsin.</i>
4:00	C72	042.20 An electrochemical sensor array for detecting Alzheimer's disease biomarker VOCs. S. EMAM*; P. P. KULKARNI; M. NASROLLAHPOUR; B. COLARUSSO; A. EKENSEAIR; C. F. FERRIS; N. SUN. <i>Northeastern Univ., Northeastern Univ. Dept. of Psychology, Northeastern Univ., Northeastern Univ., Northeastern University, Ctr. for Translational NeurolImaging.</i>	4:00	C82	043.08 Regulation of the alternative splicing of the D3/D3nf receptor isoform: By the D1R-PKA-PTB pathway. O. CASADOS-DELGADO*, Sr; A. AVALOS-FUENTES; F. PAZ-BERMUDEZ; H. CORTES-CALLEJA; B. FLORÁN-GARDUÑO. <i>CINVESTAV, Natl. Rehabil. Inst.</i>
1:00	C73	042.21 Validation of a fully automated method for precise quantification of amyloid beta using F18-Florbetaben PET scans. M. TAHMI*; W. BOUZEID; Q. R. RAZLIGHI. <i>Columbia Univ.</i>	1:00	C83	043.09 Mammalian target of rapamycin complex 1 activated by astrocytic TRPV1 regulates the expression of neurotrophic factors in the MPP ⁺ -lesioned rat model of Parkinson's disease. J. BAEK*; Y. CHUNG; W. SHIN; B. JIN. <i>Grad. School, Kyung Hee Univ., Sch. of Medicine, Kyung Hee Univ., Korea Inst. of Toxicology.</i>
2:00	C74	042.22 Pana project: Theragnostic approach for Alzheimer's disease. M. RODRIGUEZ-PEREZ; B. PELAZ; P. AGUARI; A. POSADO-FERNANDEZ; E. POLO; M. ARAMBURU-NUÑEZ; L. VAZQUEZ-VAZQUEZ; F. CAMPOS; A. ALMEIDA; J. CASTILLO; P. DEL PINO; T. SOBRINO*. <i>Hlth. Res. Inst. Santiago de Compostela, Univ. de Santiago de Compostela, Hlth. Res. Inst. Santiago de Compostela, Inst. of Biomed. Res. of Salamanca.</i>	2:00	C84	043.10 Age-dependent neuromelanin accumulation in a novel humanized transgenic mouse model for Parkinson's disease and brain aging. A. LAGUNA; N. PEÑUELAS; J. ROMERO-GIMÉNEZ; M. GONZALEZ-SEPULVEDA; B. RODRÍGUEZ-GALVÁN; A. PARENT; T. CUADROS; I. CARBALLO-CARBAJAL; M. VILA*. <i>Vall d'Hebron Res. Inst., Ctr. for Networked Biomed. Res. on Neurodegenerative Dis. (CIBERNED), Autonomous Univ. of Barcelona, Catalan Inst. for Res. and Advanced Studies (ICREA).</i>
3:00			3:00	C85	043.11 Cell type and brain region-specific chromatin abnormalities in dopamine depleted mice. A. J. LAWLER*; A. R. BROWN; R. S. BOUCHARD; I. M. KAPLOW; N. TOONG; C. SRINIVASAN; Y. KIM; N. SHIN; A. H. GITTIS; A. R. PFENNING. <i>CARNEGIE MELLON UNIVERSITY, CARNEGIE MELLON UNIVERSITY.</i>
4:00			4:00	C86	043.12 Investigating the role of a Prkar1b mutation previously associated with a rare neurodegenerative disorder. M. E. GAINE*; M. ARGUE; R. ILOUZ; T. ABEL. <i>Univ. of Iowa, Bar Ilan Univ.</i>
1:00			1:00	C87	043.13 Cellular mechanisms involved in the subset distribution of lower GBA activity in idiopathic Parkinson's disease. P. HALLETT*; E. MOLONEY; R. THOMAS; O. ISACSON. <i>Harvard Med. Sch. / McLean Hos.</i>

POSTER

043. Cellular Mechanisms of Parkinson's Disease I

Theme C – Neurodegenerative Disorders and Injury

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

- 1:00 C75 **043.01** Parkinson's disease-related phenotype characterization of A53T alpha-synuclein IPSC-derived dopaminergic cultures. T. FERRARO; R. REMELLI; E. BIANCHINI; E. TORCHIO; A. TOTI; C. GRIFFANTE; M. CORSI*. *Aptuit (Verona) Srl, an Evotec Co.*

• Indicated a real or perceived conflict of interest, see page 72 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

2:00	C88	043.14	Trained innate immunity in microglia in response to environmental stress: Relevance to persistent neuroinflammation in Parkinson's disease. M. HUANG*; J. LUO; S. SARKAR; E. MALOVIC; A. CHARLI; J. HUA; V. ANANTHARAM; A. KANTHASAMY; A. G. KANTHASAMY. <i>Iowa State Univ.</i>	1:00	D8	044.05	Development of an <i>in silico</i> model of tau progression based on <i>in vivo</i> measurements of selected relevant parameters. J. SOUCY*; F. MOHAMMADI; V. HORTELAN; T. BOULIER; P. ROSA-NETO; T. A. PASCOAL; M. SAVARD; M. KANG; S. MATHOTAARACHCHI; J. THERRIAULT; H. BENALI. <i>Concordia Univ., Concordia Univ., Sorbonne Universities, McGill Univ., McGill Univ., McGill.</i>
3:00	C89	043.15	Examining the role of glucocerebrosidase in LRRK2 mediated Parkinson's disease pathogenesis. D. YSELSTEIN*, D. KRAINIC. <i>Northwestern Univ. Feinberg Sch. of Med.</i>	2:00	D9	044.06	The role of deacetylation in tau mediated neurodegeneration. H. TRZECIAKIEWICZ*, D. AJIT; J. TSENG; Y. CHEN; S. MOY; D. IRWIN; T. COHEN. <i>Univ. of North Carolina, Univ. of Pennsylvania.</i>
4:00	C90	043.16 ▲ The effect of chlorinated solvent trichloroethylene on tyrosine hydroxylase 1 expression in zebrafish embryos using qPCR. K. D. MCCARTHY*; P. KUHN; B. L. DEL MORAL. <i>Edgewood Col., Edgewood Col.</i>	3:00	D10	044.07	Introduction of tau oligomers into cortical neurons alters action potential dynamics and disrupts synaptic transmission and plasticity. E. HILL*; T. K. KARIKARI; K. G. MOFFAT; M. J. E. RICHARDSON; M. J. WALL. <i>Univ. of Warwick, Inst. of Neurosci. and Physiology, Univ. of Gothenburg, Univ. of Warwick.</i>	
1:00	C91	043.17 ▲ Elucidating the contribution of the inflammatory regulators interleukin 13 and its receptor alpha-1 in Parkinson's disease. C. A. AGUIRRE*; M. SANCHEZ-ALAVEZ; R. CINTRON-COLON; B. CONTI. <i>The Scripps Res. Inst.</i>	4:00	D11	044.08	Dysregulation of exosome cargo by mutant tau expressed in human-induced pluripotent stem cell (iPSC) neurons, revealed by proteomics analyses. S. PODVIN*; Q. LIU; A. JONES; C. MOSIER; C. LIETZ; L. RANSOM; T. IKEZU; R. RISSMAN; S. YUAN; V. HOOK. <i>Univ. of California San Diego, Boston Univ. Sch. of Med.</i>	
2:00	C92	043.18 Microglial glucocorticoid receptors contribution to degeneration of midbrain dopamine neurons and novel insight of TLR9 implication. A. COMPAGNION*; L. MAATOUK; M. CARRILLO-DE SAUVAGE; A. BEMELMANS; R. M. RANSOHOFF; F. TRONCHE; B. MANOURY; S. VYAS. <i>IBPS UPMC, CEA, Biogen, INEM Hôpital Necker.</i>	1:00	D12	044.09	The diverse activities of TTBK isoforms are regulated by extracatalytic regions and autophosphorylation. C. BAO*; G. DILLON; B. BAJRAMI; H. CERTO; S. KOIRALA; D. RABAH. <i>Biogen.</i>	
3:00	D1	043.19 Deciphering the role of the P5 type ATPase ATP13A2 in autophagy and calcium homeostasis in long term human neuronal cultures. G. MINAKAKI*; J. BLANZ; K. OEVEL; C. VALDEZ; K. TRAJKOVIC; D. KRAINIC. <i>Northwestern Univ. Feinberg Sch. of Med.</i>	2:00	D13	044.10	Pathological correlates of depressive and suicidal phenotypes across brain regions in chronic traumatic encephalopathy. I. MAHAR*; B. R. HUBER; T. D. STEIN; V. E. ALVAREZ; A. C. MCKEE. <i>Boston Univ., Boston VA Med. Ctr.</i>	
4:00	D2	043.20 Cell culture model linking Parkinson's disease and melanoma. A. BOSE*; D. ELIEZER; G. PETSKO. <i>Brigham and Women's Hosp., Weill Cornell Med.</i>	3:00	D14	044.11	The master circadian clock protein BMAL1 strongly modulates neuropathology in a mouse tauopathy model. P. W. SHEEHAN*; C. J. NADARAJAH; J. DIMITRY; E. S. MUSIEK. <i>Washington Univ. In St. Louis.</i>	
1:00	D3	043.21 Profiling of systemic inflammasome activation markers in Parkinson's disease. K. E. ROPER*; N. BIRCH; H. WOODHOUSE; S. MANTOVANI; J. O'SULLIVAN; R. GORDON. <i>Univ. of Queensland Ctr. For Clin. Res., Royal Brisbane and Women's Hosp.</i>	4:00	D15	044.12	Tau seeding activity closely correlates with number of tangles and synaptic phospho-Tau in brain regions corresponding to different Braak stages. P. RAMANAN*; A. AMARAL; M. MARQUIE; A. ANTON-FERNANDEZ; N. SAEZ-CALVERAS; M. SIAO TICK CHONG; C. AGUERO; T. GOMEZ-ISLA. <i>Massachusetts Gen. Hosp.</i>	
3:00	POSTER		1:00	D16	044.13	Activation of microglia by tau fibrils. M. MAJUMDER*; D. DUTTA; K. PAHAN. <i>Rush Univ. Med. Ctr., Rush Univ. Med. Ctr., Rush Univ. Med. Ctr.</i>	
4:00	044. Cellular and Circuit Mechanisms in Tauopathies	Theme C – Neurodegenerative Disorders and Injury	2:00	D17	044.14 ● Rab35 in tauopathy disorders. M. S. PARMAR*; S. A. KOREN; G. BAE; M. R. FILORAMO; J. F. ABISAMBRA; N. R. MCFARLAND. <i>Univ. of Florida, Univ. of Florida.</i>		
1:00	Sat. 1:00 PM – McCormick Place, Hall A		3:00	D18	044.15	Directs current stimulation reduces tau-induced neurodegeneration. V. MOROZOVA*; A. GORIN; Z. AHMED; A. ALONSO. <i>Col. of Staten Island.</i>	
2:00	D4	044.01 ● AAV mediated long term reduction of human tau in a tauopathy mouse model. B. ELMER*; B. RICHARDS; Z. YANG; G. J. NABEL; L. M. STANEK; L. S. SHIHABUDDIN. <i>Sanofi, Sanofi.</i>	4:00	D19	044.16 ● PERK-tau complex promotes pathogenic outcomes in tauopathy models. D. A. GILLETT*; S. KOREN; S. E. MEIER; J. F. ABISAMBRA. <i>Univ. of Florida, Univ. of Florida, Univ. of Kentucky - Sanders Brown Ctr. On A, Univ. of Florida.</i>		
3:00	D5	044.02 Mislocalization of DNA repair protein BRCA1 in human tauopathies. M. KURIHARA*; T. MANO; S. MURAYAMA; A. IWATA; T. TODA. <i>Grad. Sch. of Medicine, The Univ. of Tokyo, Japan Society for the Promotion of Sci., Tokyo Metropolitan Geriatric Hosp. and Inst. of Gerontology.</i>	1:00	D20	044.17 UBQLN2 alters tau aggregation dynamics <i>in vivo</i> . J. E. GERSON; J. WELDAY; J. D. GREGORY; H. L. PAULSON. <i>Univ. of Michigan, Univ. of Michigan, Univ. of Michigan Dept. of Neurol.</i>		
4:00	D6	044.03 Hiv glycoprotein gp120 induces tau hyperphosphorylation via cGMP-dependent kinase II. M. SATHLER*; K. SZTUKOWSKI; C. MILLER; J. H. ELDER; S. VANDEWOUDE; S. KIM. <i>Colorado State Univ., Colorado State Univ., Colorado State Univ., The Scripps Res. Inst.</i>					
1:00	D7	044.04 Neuronal hyperactivity and DNA damage in tau P301S mouse model. L. LIU*; P. PAO; L. A. WATSON; L. TSAI. <i>MIT.</i>					

● Indicated a real or perceived conflict of interest, see page 72 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

2:00	D21	044.18	Isoform-specific modulation of spines and neuronal morphology by tau. M. RIEROLA; R. BRANDT; L. BAKOTA*. <i>Univ. of Osnabrück.</i>	1:00	D33	045.09	Human 3D cell culture systems to model and elucidate spinal muscular atrophy pathology and treatment. S. CORTI*; I. FARAVELLI; P. RINCETTI; S. MANCINELLI; L. MAPELLI; G. FOROTTI; M. RIZZUTI; C. CORDIGLIERI; L. CALANDRIELLO; S. TAMANINI; N. BRESOLIN; G. P. COMI; S. LODATO; M. NIZZARDO. <i>Univ. of Milan, Humanitas Res. Hosp., Univ. of Pavia, IRCCS Ca' Granda Fndn. Ospedale Maggiore, Inst. Nazionale Genetica Medica (INGM).</i>
3:00	D22	044.19	Structural and functional analysis of hippocampal CA1 neurons in mice lacking tau expression. M. HRYNCHAK; M. RIEROLA; N. ABREU; R. BRANDT*, L. BAKOTA. <i>Neurobiologie der Univ. Osnabrück.</i>	2:00	D34	045.10	Bilirubin, a component of a metabolic traffic signal, links heme metabolism to neuronal stress signaling. B. D. PAUL*, C. VASAVDA; R. KOTHARI; R. TOKHUNTS; T. W. SEDLAK; S. H. SNYDER. <i>Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ., Johns Hopkins Sch. of Med.</i>
4:00	D23	044.20	High overexpression of UBQLN2 leads to degeneration of the retina. S. S. SANDOVAL-PISTORIUS*; L. M. SHARKEY; H. L. PAULSON. <i>Univ. of Michigan, Univ. of Michigan.</i>	3:00	D35	045.11	Enhancement of glucose uptake to maintain ATP levels in the brain neurons and calorie restriction synergistically antagonize the aging in <i>drosophila</i> . M. OKA*; E. SUZUKI; K. M. IIJIMA; K. ANDO. <i>Tokyo Metropolitan Univ., Natl. Inst. of Genet., SOKENDAI, Natl. Ctr. for Geriatrics and Gerontology, Nagoya City Univ.</i>
1:00	D24	044.21	Retinal tauopathy in mild cognitive impairment and Alzheimer's disease patients mirrors cerebral neurofibrillary tangle burden. N. MIRZAEI*; J. SHEYN; Y. KORONYO; D. FUCHS; D. LEE; M. B. SELENICA; K. L. BLACK; C. A. MILLER; M. KORONYO-HAMAQUI. <i>Cedars-Sinai Med. Ctr., Col. of Pharm. and Medicine, USF, Col. of Pharmacy, Byrd Alzheimer Institute, USF, USC.</i>	4:00	D36	045.12	Resting state brain activity optimizes a trade-off between coordinated firing activity, task adaptability, and metabolic cost. C. WEISTUCH*; A. AMGALAN; S. F. SULTAN; K. DILL; L. MUJICA-PARODI. <i>Stony Brook Univ.</i>
POSTER				1:00	D37	045.13	Crosstalk between DNA repair pathways in Huntington's disease. A. PLUCIENNIK*; H. ABDULLAH. <i>Thomas Jefferson Univ.</i>
045. Mechanism Underlying Neurodegenerative Disease				2:00	D38	045.14	Iron accumulation is selectively associated with brain volume and vascular white matter health. C. E. BAUER*; V. ZACHARIOU; E. SEAGO; B. T. GOLD. <i>Univ. of Kentucky.</i>
Theme C – Neurodegenerative Disorders and Injury				3:00	D39	045.15	The glutathione cycle shapes synaptic glutamate transmission - Translational opportunities. T. W. SEDLAK*; B. D. PAUL; M. KOGA; A. SAWA; S. H. SNYDER. <i>Johns Hopkins, Johns Hopkins Univ. Sch. of Med., Natl. Def. Med. Col., Johns Hopkins Univ., Johns Hopkins Univ. Sch. Med.</i>
				4:00	D40	045.16	Single-cell RNA-seq analysis of Batten genes in the retina and AAV targeting approaches. M. K. SCHWARTZ*; S. B. LIKHITE; A. CAMPBELL; I. PALLAZZO; R. J. PINEDA; P. R. MORALES; A. FISCHER; K. C. MEYER. <i>The Ohio State Univ., The Res. Inst. at Nationwide Children's Hosp., The Mannheimer Foundation, Inc.</i>
				1:00	D41	045.17	Induced pluripotent stem cells (iPSCs) and iPSCs-derived motor neurons (MNs) obtained from patients with Brown-Vialetto-Van Laere (BVVL) syndrome reveal alterations of redox status, mitochondrial features and cytoskeletal organization. A. NICEFORO*; S. PETRINI; F. COLASUONNO; Z. ABBASZADEH; V. D'ORIA; E. BERTINI; S. MORENO; L. QIANG; P. W. BAAS; C. COMPAGNUCCI. <i>Univ. Roma Tre, Children's Res. Hosp. Bambino Gesù, Rome, Italy, Drexel Univ., Children's Res. Hosp. Bambino Gesù, Rome, Italy.</i>
1:00	D25	045.01	Fast blue vs. cholera toxin B: Which retrograde tracer is better for spinal motoneurons labeling? H. FARID*; W. B. GELFORD; L. L. GOSS; T. L. GARRETT; S. M. ELBASIOUNY. <i>Wright State Univ., Wright State Univ.</i>				
2:00	D26	045.02	Contrasting changes in Kv2.1 channel expression level between disease-resistant and disease-vulnerable SOD1 ^{G93A} motoneurons in ALS. J. C. HARRIS*; C. S. I. DRAPER; T. L. GARRETT; S. M. ELBASIOUNY. <i>Wright State Univ., Wright State Univ.</i>				
3:00	D27	045.03	Cell typing of mouse spinal motoneurons using immunohistochemistry markers. T. L. GARRETT*; C. L. WINTERMUTE; M. E. MORAN; S. M. ELBASIOUNY. <i>Wright State Univ., Wright State Univ., Wright State Univ.</i>				
4:00	D28	045.04	A network-biology approach for the development of combinatorial treatments for the motoneuron-disease spinal muscular atrophy (SMA). N. HENSEL*; I. M. TAPKEN; F. CIERI; K. JUNG; E. DI SCHIAVI; P. CLAUS. <i>Hannover Med. Sch., Ctr. for Systems Neurosciences (ZSN), Inst. of Biosci. and BioResources, IBBR, CNR, Univ. of Vet. Med. Hannover.</i>				
1:00	D29	045.05	CyPPA effects on SK channels in SOD1 ^{G93A} mouse model. M. M. MURPHY*; T. L. GARRETT; S. M. ELBASIOUNY. <i>Wright State Univ., Wright State Univ.</i>				
2:00	D30	045.06	Prolactin protection against oxidative and hypoxic stress in hippocampal neurons. F. MACÍAS; M. ULLOA; R. M. AROÑA; C. CLAPP; G. MARTÍNEZ DE LA ESCALERA; E. ARNOLD*. <i>Univ. Nacional Autónoma de México, Univ. Nacional Autonoma de Mexico (UNAM).</i>				
3:00	D31	045.07	Gene-replacement strategy for IRF2BPL, an intronless gene intolerant to variations. S. SINHA RAY*; S. LIKHITE; C. DENNYS-RIVERS; R. RODRIGO; X. ZHANG; M. SCHWARTZ; N. WEIN; K. C. MEYER. <i>Res. Inst. at Nationwide Children's Hosp.</i>				
4:00	D32	045.08	Inositol polyphosphate multikinase is a regulator of transsulfuration pathway. R. TYAGI*; S. H. SNYDER; B. D. PAUL. <i>Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ.</i>				

POSTER**046. Cell Stress and Death Mechanisms****Theme C – Neurodegenerative Disorders and Injury**

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

- 1:00 D42 **046.01** Breast cancer metastasis to the brain: Biomarkers of drug resistance. A. M. FLOREA*; D. BUSSELBERG. *Federal Inst. For Risk Assessment (bfr), Weill Cornell Med. Col. In Qatar.*
- 2:00 D43 **046.02** Cisplatin's dual-effect of the circadian clock triggers proliferation and apoptosis. D. BUSSELBERG*; Z. SADIQ. *Weill Cornell Med. Col. In Qatar.*
- 3:00 D44 **046.03** RNA-seq analysis of DRG sensory neurons and satellite glial cells in a mouse model of cisplatin-induced peripheral neuropathy: An exploratory study. A. CALLS*; E. UDINA; X. NAVARRO; R. VELASCO; J. BRUNA. *Univ. Autònoma de Barcelona.*
- 4:00 D45 **046.04** Depletion of endoplasmic reticulum calcium by neuronal activation triggers redistribution of resident ER proteins. B. K. HARVEY*; L. FORTUNO; K. A. TRYCHTA; C. T. RICHIE; A. M. DOSSAT. *NIDA - NIH.*
- 1:00 D46 **046.05** Electrical stimulation boosts differentiation and maturation of neural stem cell by improving microenvironment on carbon nanotube scaffold. S. ZHONGQING*; R. ZHU; B. NIU; L. HE; K. CHIU. *Dept. of Ophthalmology, The Univ. of Hong Kong, Jinan Univ., The Univ. of Hong Kong, Jinan Univ., The Univ. of Hong Kong.*
- 2:00 E1 **046.06** Epigenetic changes after unpredictable mild chronic stress in female SAMR1 and SAMP8: Effects on behavior. D. PUIGORIOL-ILLAMOLA*; C. GRIÑÁN-FERRÉ; M. PALLÀS. *Univ. of Barcelona.*
- 3:00 E2 **046.07** ▲ Ethanol as a vehicle for the administration of resveratrol prevent oxidative stress in hippocampus of Wistar rats. I. CESAR ARTEAGA*; D. JUÁREZ SERRANO; E. BRAMBILA COLOMBRES; A. R. NAVARRO CRUZ; H. A. RUBIO ZAPATA; O. VERA LOPEZ; P. AGUILAR-ALONSO. *Benemerita Univ. Autonoma De Puebla, Benemerita Univ. Autónoma De Puebla, Benemerita Univ. Autonoma de Puebla, Benemerita Univ. Autonoma de Puebla, Univ. Autonoma de Yucatan, BUAP.*
- 4:00 E3 **046.08** Excitotoxic neuronal death inducing megachannel resides in monomeric F_1F_0 ATP synthase. N. MNATSAKANYAN*; H. PARK; J. WU; M. LLAGUNO; B. MURTISHI; P. MIRANDA; F. SIGWORTH; E. A. JONAS. *Yale Univ., Univ. of Alabama.*
- 1:00 E4 **046.09** ● Exploring the role of glycogen and the synthetic machinery in neuronal stress response. A. ONKAR*; S. GANESH. *Indian Inst. of Technol. Kanpur.*
- 2:00 E5 **046.10** Induction of cerebral hyperexcitability by peripheral viral challenge is mediated by CXCL10. T. J. PETRISKO*; J. BLOEMER; S. SRINIVASA; P. D. PINKY; R. T. HESLIN; Y. DU; S. E. SETTI; H. HONG; V. D. SUPPIRAMANIAM; M. REED; G. W. KONAT. *West Virginia Univ., Auburn Univ.*
- 3:00 E6 **046.11** Mechanisms of PERK haplotype activity differences. S. BOND*; C. AKAY-ESPINOZA; K. L. JORDAN-SCIUTTO. *Univ. of Pennsylvania, Univ. of Pennsylvania Sch. of Dent. Med., Univ. of Pennsylvania.*
- 4:00 E7 **046.12** ● Modeling motor neuron diseases with iPSC-derived neurons. R. PRICE*; J. PINEDA; N. LIN; T. SMITH; A. W. ESSEX; J. EVANS. *Phenovista Biosci., Ixcells Biotechnologies.*
- 1:00 E8 **046.13** Methanolic extract of *Lupinus exaltatus* Zucc induces the expression of the stress response protein HSP-16.2 in *C. elegans*. G. CAMARGO HERNANDEZ*; S. SANCHEZ ENRIQUEZ; M. MALDONADO RUBIO; D. MENDOZA ARANDA; O. MARTINEZ ALVAREZ; M. GALLEGOS SAUCEDO; A. HERNANDEZ CHAVEZ; R. RODRIGUEZ MACIAS; J. BAÑUELOS PINEDA; L. HERNANDEZ. *Cuertos Univ. de Guadalajara, Univ. Autónoma de Nayarit, CUCS Univ. de Guadalajara, CUCBA Univ. de Guadalajara.*
- 2:00 E9 **046.14** Neuromodulatory effects of excess glucocorticoid exposure: Studies on fly and mouse models. P. MISRA*; S. GANESH. *Indian Inst. of Technology, Kanpur, Indian Inst. of Technol.*
- 3:00 E10 **046.15** ● Determining the inflammatory signaling pathways involved in cembranoid treatments on peripheral immune cells. A. H. MARTINS*; M. N. GONZALEZ-VEGA; V. A. ETEROVIC; A. ROCHE-LIMA; K. CARRASQUILLO-CARRION; P. A. FERCHMIN. *Univ. of Puerto Rico, Univ. Central Del Caribe.*
- 4:00 E11 **046.16** Knockout of the neuropsychiatric risk gene, Cacna1c, increases newborn neuron vulnerability through neuroinflammation. M. F. NOTERMAN*; M. SHIN; E. VAZQUEZ-ROSA; C. CINTRÓN-PÉREZ; A. M. RAJADHYAKSHA; E. B. TAYLOR; A. A. PIEPER. *Univ. of Iowa, Case Western Reserve Univ., Joan and Sanford I Weill Med. Col. of Cornell Univ., Univ. Hosp.*
- 1:00 E12 **046.17** Involvement of iron regulatory proteins in bright light induced stress in post hatch chick retina. M. MAURYA*; T. C. NAG; P. KUMAR; T. S. ROY; R. DADA. *All India Inst. of Med. Sciences, New Delhi, All India Inst. of Med. Scieenes.*
- 2:00 E13 **046.18** Pifithrin-alpha reduces methamphetamine neurotoxicity in cultured dopaminergic neurons. Y. CHEN; S. YU; B. K. HARVEY; N. H. GREIG; Y. WANG*. *Fu-Jen Catholic Univ., Natl. Hlth. Res. Inst., NIDA - NIH, Intramural Res. Program, Natl. Inst. On Aging, NIH.*
- 3:00 E14 **046.19** Lysosomal regulation of inter mitochondrial contact fate and motility in charcot marie tooth type 2. Y. C. WONG*; W. PENG; D. KRAINIC. *Northwestern Univ. Feinberg Sch. of Med.*
- 4:00 E15 **046.20** Telfairia occidentalis mitigates the damaging effect of aluminium on the hippocampus of Wistar rats. A. VICTOR. *Obafemi Awolowo University, ILE-IFE. Osun State.*
- 1:00 E16 **046.21** Role of copper imbalance in the infection of human induced pluripotent stem cells-derived astrocytes with zika virus. T. PUIG-PIJUAN*; L. R. Q. SOUZA; C. PEDROSA; R. H. F. VALVERDE; M. EINICKER-LAMAS; S. K. REHEN. *Inst. de Biofísica Carlos Chagas Filho, Univ. Federal do Rio de Janeiro, Inst. D'Or de Pesquisa e Ensino (IDOR), Inst. de Ciências Biomédicas, Univ. Federal do Rio de Janeiro.*
- 2:00 E17 **046.22** Neuroprotective effect of gintonin, a ginseng-derived ingredient, against 3-nitropropionic acid-induced Huntington's disease-like behavioral, biochemical, and cellular alterations. Y. CHANG*; M. JANG; J. CHOI; I. CHO. *Kyung Hee Univ.*
- 3:00 E18 **046.23** Role of mitophagy in hypoxia adaptation in Andeans. H. ZHAO*; G. G. HADDAD. *Univ. of California San Diego, Sch. of Medicine, Dept. of Pediatrics, UCSD.*
- 4:00 E19 **046.24** Extracellular vesicles as vehicles of toxicity in Krabbe disease. C. R. REITER*; J. MARSHALL; D. WOZNIAK; G. SCESA; D. NGUYEN; M. I. GIVOGRGI; E. R. BONGARZONE. *Univ. of Illinois at Chicago, Aurora Univ.*

* Indicated a real or perceived conflict of interest, see page 72 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

1:00	E20	046.25 Benzo[a]pyrene-induced neuropeptide Y over expression and neurobehavioral changes in developing Wistar rats. M. PATRI*. <i>Ravenshaw Univ.</i>	1:00	E30	047.05 Small leucine-rich proteoglycan: A novel pathogen candidate for Parkinson's disease. E. BOK; M. LEE; J. BAEK; W. SHIN*. <i>Korea Inst. of Toxicology.</i>
2:00	E21	046.26 Genotype-phenotype relations of glycine decarboxylase and neuro-metabolic disease based on large-scale analysis of disease mutations. J. FARRIS*; S. ALAM; K. PAHAN; K. HALDAR. <i>Univ. of Notre Dame, Boler-Parseghian Ctr. for Rare and Neglected Dis., Rush Univ. Med. Ctr.</i>	2:00	E31	047.06 The effects of local energetic stress on mitochondrial transport in primary cortical axons. O. WATTERS*; N. M. C. CONNOLLY; H. KÖNIG; H. DÜSSMANN; J. H. M. PREHN. <i>Royal Col. of Surgeons In Ireland, RCSI Ctr. for Systems Med.</i>
3:00	E22	046.27 PS1 FAD mutants attenuate trophic factor-dependent neuroprotection via altering NMDA-trophic factor receptors interactions with PS1. M. A. RAHIM*; Z. SHAO; C. DIMOVASILI; A. GEORGAKOPOULOS; N. ROBAKIS. <i>Icahn Sch. of Med. At Mount Sinai, Icahn Sch. of Med. at Mount Sinai.</i>	3:00	E32	047.07 Modeling of Parkinson's disease (PD) related pathophysiology in primary human dopaminergic neurons: Role of autophagy and protein aggregation. S. F. ALI*; E. CUEVAS; A. GUZMAN-LOPEZ; H. ROSAHERNANDEZ; Z. ZHANG; S. M. LANTZ; S. IMAM. <i>Neurochemistry Lab, Div. of Neurotoxicology, Natl. Ctr. for Toxicological Res/Fda, NCTR-FDA, Natl. Ctr. for Toxicological Res., Natl. Ctr. for Toxicological Res., Natl. Ctr. for Toxicological Res., NCTR/FDA, Natl. Ctr. for Toxicological Res.</i>
4:00	E23	046.28 Targeting mitochondrial fission for neuroprotection in peripheral diabetic neuropathy. Y. LIU*; K. H. FLIPPO; R. A. MERRILL; A. S. DICKEY; L. SHUTOV; M. YOREK; Y. M. USACHEV; S. STRACK. <i>Univ. of Iowa Carver Col. of Med., Univ. of Iowa Carver Col. of Med., Univ. of Iowa, Duke Univ. Hlth. Syst., Univ. of Iowa, Univ. of Iowa Dept. of Pharmacol., Univ. Iowa Col. Med.</i>	4:00	E33	047.08 • Astrocyte-like cells derived from donors with globoid cell leukodystrophy display cell autonomous and non-cell autonomous effects associated with disease. R. LIEBERMAN; G. Y. GAO; H. PARK; R. H. BARKER, Jr; J. P. LEONARD; B. HUNTER*, L. K. CORTES. <i>Sanofi, Sanofi.</i>
1:00	E24	046.29 Dehydroepiandrosterone sulfate lends protection against damage induced by chemical hypoxia in <i>Caenorhabditis elegans</i> GABAergic system. L. HERNANDEZ*; M. J. GALLEGOS-SAUCEO; A. CASTILLO-ROMERO; R. CORTÉZ-ZÁRATE; A. L. PEREIRA SUÁREZ; M. A. RAMIREZ-HERRERA; J. BAÑUELOS-PINEDA; A. HERNÁNDEZ-CHÁVEZ; G. CAMARGO. <i>CUCS-Universidad de Guadalajara, CUCS-Universidad de Guadajara, CUCBA-Universidad de Guadalajara, CUALTOS-Universidad de Guadalajara.</i>	1:00	E34	047.09 Inhibition of synaptic zinc release by tetanus neurotoxin promotes retinal ganglion cell survival and axon regeneration following optic nerve injury. E. G. SERGEEVA*; Y. LI; L. I. BENOWITZ; P. A. ROSENBERG. <i>Boston Children's Hospital, Harvard Med. Sch., Zhongshan Ophthalmic Ctr, Sun Yat-sen Univ., Boston Children's Hospital, Harvard Med. Sch.</i>
2:00	E25	046.30 Peripheral and central nervous systems changes during primary varicella zoster virus infection in guinea pig. C. S. NIEMEYER*; T. MESCHER; C. N. COMO; J. E. ORFILA; A. N. BUBAK; J. BETKER; T. ANCHÓRDOQUY; M. A. NAGEL. <i>Univ. of Colorado, Sch. of Med.</i>	2:00	E35	047.10 Methionine metabolism dysregulation in oligodendrocytes contributes to MS phenotype. S. STERNBACH*; N. SINGHAL; E. FREEMAN; J. McDONOUGH. <i>Kent State Univ.</i>
3:00			3:00	E36	047.11 Lysosome-autophagosome defects mediated proteinopathy in early stages of Alzheimer's disease pathogenesis. S. H. MUSTALY*; A. GILMAN-SACHS; K. D. BEAMAN; J. MCDAID; S. SCHRANK; R. A. MARR; G. E. STUTZMANN. <i>Rosalind Franklin Univ. of Med. and Sci., Rosalind Franklin Univ. of Med. and Sci.</i>
4:00			4:00	E37	047.12 Involvement of the complement system in the SAH-induced hippocampal abnormalities. G. W. BRITZ*; M. A. SHARPE; A. S. REGNIER-GOLANOV; D. S. BASKIN; E. V. GOLANOV. <i>Houston Methodist Hosp.</i>
1:00	E26	047.01 NMDA receptor antagonist prevents cell death in the hippocampal dentate gyrus induced by hyponatremia accompanying adrenal insufficiency in rats. H. FUJISAWA*; H. IZUMIDA; A. SUZUKI; Y. SUGIMURA. <i>Fujita Hlth. Univ., Nishichita Gen. Hosp.</i>	1:00	E38	047.13 ▲ Effects in anxiety like behaviour after consumption of two lipid diets in 45 days age old Wistar rats. A. CARBALLO-VILLALOBOS*; P. VERGARA ARAGÓN; I. GRACIA MORA; A. GÓMEZ-MARTÍNEZ; V. MELÉNDEZ PÉREZ; H. GARCÍA RODRÍGUEZ; A. ZAPATA ARENAS; R. BUSTAMANTE-GARCÍA. <i>UNAM, UNAM, UNAM, UNAM.</i>
2:00	E27	047.02 Neuroprotection of retinal ganglion cells by bone marrow mesenchymal stem cells-derived small extracellular vesicles. S. I. TOMAREV*; Z. AHMED; B. MEAD. <i>NEI, NIH, Inst. of Inflammation and Ageing, Col. of Med. and Dent. Sciences, Univ. of Birmingham.</i>	2:00	E39	047.14 Reversal of glutamate transport contributes to retinal zinc elevation and ganglion cell death after optic nerve injury. N. J. HANOVICE*; Y. LI; N. C. DANBOLT; L. I. BENOWITZ; P. A. ROSENBERG. <i>Boston Children's Hosp., State Key Lab. of Ophthalmology, Zhongshan Ophthalmic Center, Sun Yat-sen Univ., Univ. of Oslo, Boston Children's Hosp.</i>
3:00	E28	047.03 Regulation of calcium dynamics at mitochondria-lysosome contact sites. W. PENG*; Y. C. WONG; D. KRAINC. <i>Northwestern Univ. Feinberg Sch. of Med.</i>	3:00	E40	047.15 Chronic infiltration of T lymphocytes into the brain in a non-human primate model of Parkinson's disease. J. SEO*. <i>Korea Res. Inst. of Biosci. and Biotech.</i>
4:00	E29	047.04 • Induction of oligodendrocyte precursor maturation and <i>in vitro</i> myelination by inhibition of serotonin receptor 2A. S. GIERA*; K. RADZWILL; G. SHENG; J. E. FARLEY; C. GARRON; C. PEDRAZA. <i>Sanofi.</i>	4:00	E41	047.16 Lsm12-Epac1 pathway suppresses C9orf72 poly(GR)-induced neurodegeneration by establishing ran gradient for nucleocytoplasmic transport. J. LEE*; J. PARK; J. KIM; C. LIM. <i>UNIST.</i>

POSTER

047. Cellular Stress and Death Mechanisms

Theme C – Neurodegenerative Disorders and Injury

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

1:00	E26	047.01 NMDA receptor antagonist prevents cell death in the hippocampal dentate gyrus induced by hyponatremia accompanying adrenal insufficiency in rats. H. FUJISAWA*; H. IZUMIDA; A. SUZUKI; Y. SUGIMURA. <i>Fujita Hlth. Univ., Nishichita Gen. Hosp.</i>
2:00	E27	047.02 Neuroprotection of retinal ganglion cells by bone marrow mesenchymal stem cells-derived small extracellular vesicles. S. I. TOMAREV*; Z. AHMED; B. MEAD. <i>NEI, NIH, Inst. of Inflammation and Ageing, Col. of Med. and Dent. Sciences, Univ. of Birmingham.</i>
3:00	E28	047.03 Regulation of calcium dynamics at mitochondria-lysosome contact sites. W. PENG*; Y. C. WONG; D. KRAINC. <i>Northwestern Univ. Feinberg Sch. of Med.</i>
4:00	E29	047.04 • Induction of oligodendrocyte precursor maturation and <i>in vitro</i> myelination by inhibition of serotonin receptor 2A. S. GIERA*; K. RADZWILL; G. SHENG; J. E. FARLEY; C. GARRON; C. PEDRAZA. <i>Sanofi.</i>

• Indicated a real or perceived conflict of interest, see page 72 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

1:00	E42	047.17	Lipid profiles of exosomes derived from the developing brain exposed to ethanol. M. SAITO*; S. CANALS-BAKER; K. MASIELLO; M. SAITO; E. LEVY. <i>Nathan S Kline Inst., New York Univ. Langone Hlth.</i>
2:00	E43	047.18	Characterizing synapse dysfunction in <i>Drosophila</i> mayday mutants. J. M. WILLIS*; D. WEAVER; D. T. BABCOCK. <i>Lehigh Univ.</i>
3:00	E44	047.19	The role of neurofibromin in neurocognitive impairment, CNS cell function and differentiation in a porcine model of neurofibromatosis type 1 (NF1). V. J. SWIER*; K. A. WHITE; P. NEGRAO DE ASSIS; A. MOUTAL; R. KHANNA; J. M. WEIMER. <i>Sanford Res., Univ. of Arizona, Sanford Res.</i>
4:00	F1	047.20	Nailing down peripheral neuropathy; a lipidomics approach. S. E. ELZINGA; A. E. RUMORA; L. M. HINDER; K. GUO; S. EID; P. O'BRIEN; J. M. HAYES; M. A. TABBEY; J. HUR; E. L. FELDMAN*. <i>Univ. of Michigan, Reata Pharmaceuticals, Univ. of North Dakota.</i>
1:00	F2	047.21	Preventing aggregation of multiple misfolded proteins and promoting their clearance in neurodegeneration. D. IBGHI; P. BERTRAND*; Y. WU; T. CHEVET; N. VAUCHER; A. CEDAZO-MINGUEZ. <i>SANOFI R&D.</i>
2:00	F3	047.22	Pathological assessment in heterogeneous nuclear ribonucleoprotein A1 (hnRNP A1) in multiple sclerosis. S. LEE*; Y. SHIN; J. W. TSAO; M. C. LEVIN. <i>Univ. of Tennessee, VA medical center, Univ. of Saskatchewan.</i>
3:00	F4	047.23	BiOLD identifies CLN3 protein interactions. C. SWANSON*; T. B. JOHNSON; J. J. BRUDVIG; D. G. MAY; K. J. ROUX; J. M. WEIMER. <i>Sanford Res., Sanford Res.</i>
4:00	F5	047.24	ADAR2 mislocalization and widespread RNA editing aberrations in C9orf72-mediated ALS/FTD. S. P. MOORE*; E. ALSOP; I. LORENZINI; A. STARR; B. E. RABICHOW; J. L. LEVY; C. BURCIU; R. REIMAN; J. CHEW; V. BELZIL; D. W. DICKSON; J. ROBERTSON; K. A. STAATS; J. K. ICHIDA; L. PETRUCELLI; K. VAN KEUREN-JENSEN; R. SATTLER. <i>Barrow Neurolog. Inst., The Translation Genomics Res. Inst., Mayo Clin., Univ. of Toronto, Stem Cell Biol. and Regenerative Medicine, Keck.</i>
1:00	F6	047.25	Bag6 prevents the aggregation of neurodegeneration-associated protein fragments. Y. T. K. KASU*; J. JOHNSON; C. SAJAN; C. S. BROWER. <i>Texas Woman's Univ.</i>
2:00	F7	047.26	The role of inflammation underlying vision impairment after traumatic brain injury. L. P. EVANS*; A. WOLL; S. WU; E. A. NEWELL; P. J. FERGUSON; V. MAHAJAN; M. HARPER; A. G. BASSUK. <i>Univ. of Iowa, The Iowa City Dept. of Veterans Affairs Ctr. for the Prevention and Treatment of Visual Loss, Univ. of Iowa Carver Col. of Med., Univ. of Iowa, Stanford Univ.</i>
3:00	F8	047.27	Microbiome dysbiosis and postoperative delirium pathogenesis. Y. ZHANG*; L. LIU; N. LIUFU; Z. XIE. <i>Massachusetts Gen. Hospital/Harvard Med. Sch.</i>
4:00	F9	047.28	Identifying mechanisms underlying neural dysfunction in iPSC derived cortical organoids infected with human cytomegalovirus. B. S. O'BRIEN; S. L. SISON; M. SCHUMACHER; S. S. TERHUNE; A. D. EBERT*. <i>Med. Col. of Wisconsin, Med. Col. of Wisconsin, Med. Col. of Wisconsin.</i>

1:00 F10 **047.29** Ttm50 facilitates calpain proteolytic activity by localizing calpain to calcium stores and increasing calpain sensitivity to calcium. E. METWALLY*; G. ZHAO; Q. WANG; Y. Q. ZHANG. *State Key Lab. for Mol. and Developmental Biology, CAS Ctr. for Excellence in Brain Sci. and Intelligence Technology, Inst. of Genet. and Developmental Biology, Chinese Acad. of Sciences.*

POSTER

048. Neurotoxicity, Inflammation, and Neuroprotection: Preclinical Studies I

Theme C – Neurodegenerative Disorders and Injury

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

1:00	F11	048.01	Increased transplantation efficacy of mesenchymal stem cell by focused ultrasound and improvement of the spatial memory in the 192 IgG-saporin rat model. J. LEE*; Y. SEO; J. SHIN; C. KONG; Y. NA; W. CHANG; J. CHANG. <i>Yonsei Univ. Col. of Med., Yonsei Univ. Col. of Med., Catholic Kwandong Univ. Col. of Med.</i>
2:00	F12	048.02	Molecular changes associated with noninvasive transplantation and homing of mesenchymal stem cells by focused ultrasound in the rat brain. Y. SEO*; J. LEE; J. SHIN; C. KONG; Y. NA; W. CHANG; J. CHANG. <i>Yonsei Univ. Col. of Med., Yonsei Univ. Col. of Med., Catholic Kwandong Univ. Col. of Med.</i>
3:00	F13	048.03	Changes in the level of P2X7 expression after focused ultrasound induced blood-brain barrier opening in the rat brain. J. SIM*; J. SHIN; C. KONG; J. LEE; Y. NA; W. CHANG; J. CHANG. <i>Yonsei Univ. Col. of Med., Yonsei Univ. Col. of Med., Catholic Kwandong Univ. Col. of Med.</i>
4:00	F14	048.04	Rat movement control using fully implantable neural stimulator. C. KOH*; J. SHIN; C. KONG; S. YUN; J. SEO; G. CHOI; S. AHN; S. SHIM; H. JUNG; S. KIM; J. CHANG. <i>Yonsei Univ. Col. of Med., Yonsei Univ. Col. of Med., Seoul Natl. Univ.</i>
1:00	F15	048.05	Pain-relieving effects by downregulation of GTP cyclohydrolase I in a rat model of central neuropathic pain. M. PARK*; C. KOH; H. JUNG; J. CHANG. <i>Yonsei Univ. Col. of Med., Yonsei Univ. Col. of Med.</i>
2:00	F16	048.06	Optimizing skull penetration of focused ultrasound through analysis of energy efficiency for various skull factors. C. KONG*; J. SHIN; Y. NA; H. BEAK; J. PARK; W. CHANG; J. CHANG; J. CHANG. <i>Yonsei Univ. Col. of Med., Yonsei Univ. Col. of Med., Catholic Kwandong Univ. Col. of Med., Daegu-Gyeongbuk Med. Innovation Fndn.</i>
3:00	F17	048.07	The modulation of activity-regulated cytoskeleton associated protein expression in the rat hippocampus using focused ultrasound. J. SHIN*; C. KONG; J. SIM; J. LEE; Y. SEO; Y. NA; W. CHANG; J. CHANG. <i>Yonsei Univ. Col. of Med., Yonsei Univ. Col. of Med., Catholic Kwandong Univ. Col. of Med.</i>
4:00	F18	048.08	Temporal dynamics of the emergence of cortical neuronal hyperactivity in a relapsing-remitting experimental neuroinflammation. T. FU*; E. ELLWARDT; D. LUCHTMAN; F. ZIPP; A. STROH. <i>Univ. Med. Ctr. of the Johannes Gutenberg-University Mainz, Univ. Med. Ctr. of the Johannes Gutenberg-University Mainz.</i>

* Indicated a real or perceived conflict of interest, see page 72 for details.

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* Indicates abstract's submitting author

1:00	F19	048.09	Molecular signatures of different lesions types in the white matter brain of patients with progressive multiple sclerosis. M. L. ELKJAER*; T. FRISCH; R. REYNOLDS; T. KACPROWSKI; T. A. KRUSE; M. THOMASSEN; J. BAUMBACH; Z. ILLES. <i>Univ. of Southern Denmark, Imperial Col. London, Tech. Univ. of Munich.</i>	4:00	F30	049.04	Neuroglobin boosts axon regeneration during ischemic reperfusion via p38 binding and activation depending on oxygen signal. C. LI*; X. XIONG; F. PAN; R. CHEN; D. HU; X. QIU; X. XIE; B. TIAN; X. CHEN. <i>Dept. of Pathophysiology, Sch. of Basic Medicine, Tongji Med. College; Inst. of Brain Research; Key Lab. of Neurolog. Diseases, Ministry of Education; Huazhong Univ. of Sci. and Technol., Dept. of Urology, Union Hospital, Huazhong Univ. of Sci. and Technol., Dept. of Pathology, Jingzhou Central Hospital, The Second Clin. Med. College, Yangtze Univ., Dept. of Neurobiology, Sch. of Basic Medicine, Tongji Med. College, Huazhong Univ. of Sci. and Technol.</i>
2:00	F20	048.10	Metabotropic glutamate receptors are implicated in cerebellar dysfunction in multiple sclerosis. C. ARNDTSEN*; N. FAVRET; A. IACOANGELI; S. A. SADIQ. <i>Tisch MS Res. Ctr. of New York.</i>	1:00	F31	049.05	Genetic variation contributes to gene expression response in blood of ischemic stroke patients: An eQTL study. H. AMINI; N. SHROFF; P. P. SITORUS; P. CARMONA-MORA; X. ZHAN; B. STAMOVA; G. C. JICKLING; B. P. ANDER; F. R. SHARP*. <i>Univ. of California Davis, Univ. of Alberta.</i>
3:00	F21	048.11	▲ Myelin oligodendrocyte glycoprotein antibodies in patients with CNS inflammatory demyelinating disease and recent clinical attacks. S. KIM*; E. LEE; L. CHOI. <i>Asan Med. Ctr., Asan Med. Inst. of Convergence Sci. and Technol.</i>	2:00	F32	049.06	Inhibition of long chain fatty acyl CoA synthetase modulates inducible nitric oxide synthase expression. M. ALI*; M. WEIS. <i>Texas Tech. Univ. Hlth. Sci. Ctr.</i>
4:00	F22	048.12	● The diroximel fumarate (DRF) metabolite, 2-hydroxyethyl succinimide (HES), demonstrated no effect on DRF efficacy in an animal model of multiple sclerosis and <i>in vitro</i> pharmacological assessments. M. PALTE*; N. PENNER; M. TURNER; J. HANNA; L. DAHM. <i>Biogen, Alkermes, Biogen.</i>	3:00	F33	049.07	β-estradiol protects against acidosis-mediated and ischemic neuronal injury by promoting ASIC1a protein degradation. T. LENG*; R. ZHOU; T. YANG; Z. XIONG. <i>Morehouse Sch. of Med.</i>
1:00	F23	048.13	Complement component 3 knock-out rescue the RGC loss in experimental autoimmune encephalomyelitis mouse model. J. JIN*; C. J. KERSBERGEN; M. D. SMITH; K. WHARTENBY; P. A. CALABRESI. <i>Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med.</i>	4:00	F34	049.08	Fenofibrate PPARα agonist reduces oxidative stress in cardiomyocytes exposed to high glucose and hypoxia reperfusion. F. CORTÉS LÓPEZ*; M. D. IBARRA- LARA; M. A. SÁNCHEZ- MENDOZA; E. SORIA-CASTRO; M. SÁNCHEZ- AGUILAR; L. DEL VALLE- MONDRAGÓN; L. G. CERVANTES- PÉREZ; V. RAMIREZ- GONZALEZ; V. CASTREJÓN; A. SÁNCHEZ- LÓPEZ; G. PASTELÍN- HERNÁNDEZ; D. CENTURIÓN- PACHECO. <i>CINVESTAV, INC, INC, INNSZ, INC.</i>
2:00	F24	048.14	▲ Myelin oligodendrocyte glycoprotein antibodies in patients with CNS inflammatory demyelinating disease and recent clinical attacks. S. KIM*; L. CHOI; S. LEE; H. KIM; H. KIM; S. KIM; Y. LIM; K. KIM; E. LEE. <i>Asan Med. Center, Univ. of Ulsan, Col. of Med., Asan Med. Inst. of Convergence Sci. and Technol.</i>	1:00	F35	049.09	Activation of AMP-activated protein kinase mediates ischaemic neuronal injury through modulation of miR-210. S. L. PFEIFFER*; P. WEISOVÁ; U. MAMRAK; S. HAUNSBERGER; A. RESLER; A. BEŘOVÁ; B. D'ORSI; G. CHEN; H. DUSSMANN; B. HENNESSY; N. PLESNILA; J. H. PREHN. <i>Royal Col. of Surgeons in Ireland, Univ. of Munich Med. Ctr, Comenius Univ., Univ. of Padua, Beaumont Hosp.</i>
3:00	F25	048.15	A novel treatment strategy for multiple sclerosis. F. MUBARIZ*; M. ARVAS; V. GERZANICH; C. T. BEVER, Jr.; T. K. MAKAR. <i>Univ. of Maryland Sch. of Med., Univ. of Maryland Sch. of Med., DVA, Univ. of Maryland Baltimore.</i>	2:00	F36	049.10	Absence of Aryl hydrocarbon receptor promotes a effect neuroprotective in response to brain ischemia insult. R. CASTANEDA ARELLANO*; L. G. GARCIA-LARA; Q. D. ÁNGELES-LÓPEZ; F. PÉREZ-SEVERIANO; G. ELIZONDO-AZUELA; S. GONZÁLEZ-POZOS; J. V. SEGOVIA-VILA. <i>Univ. de Guadalajara, CINVESTAV, CINVESTAV, Inst. Nacional de Neurología y Neurocirugía, CINVESTAV.</i>
4:00	F26	048.16	Expression profile of neural, trophic, and immunomodulatory genes in multiple sclerosis donor-derived mesenchymal stem cell-neural progenitors. J. GREENWALD; S. A. SADIQ; V. K. HARRIS*. <i>Tisch MS Res. Ctr. of New York.</i>	3:00	F37	049.11	The prion protein is highly abundant in a cleaved form on cerebral extracellular vesicles and may regulate their neuronal binding. Potential implications in hypoxic stroke. S. BRENNA; H. C. ALTMEPPEN; B. MOHAMMADI; F. SCHLINK; P. LUDEWIG; C. SCHNEIDER; M. GLATZEL; B. PUIG*; T. MAGNUS. <i>Univ. Med. Ctr. Hamburg Eppendorf, Univ. Med. Ctr. Hamburg Eppendorf, Heinrich-Pette-Institute. Leibniz Inst. for Exptl. Virology.</i>
1:00	F27	049.01	Phosphorylation of Fbxw7 by Cdk5 causes decreased stability of Fbxw7 in glutamate mediated excitotoxicity. Y. OH*; Y. KO. <i>Yonsei Univ.</i>	4:00	F38	049.12	Effect of myocardial infarction induced PS2 overexpression in rat brain and the abnormal events associated with calcium imbalance. J. K. SWAMINATHAN*; A. KAMALABAI; A. MUTHUSWAMY. <i>BHARATHIDASAN UNIVERSITY.</i>
2:00	F28	049.02	Transient cerebral ischemia induces NADPH oxidase-mediated oxidative damage to proteins in the postsynaptic density. K. MUROTOMI*; N. TAKAGI; K. TANONAKA. <i>Advanced Industrial Sci. and Technol. (AIST), Tokyo Univ. Phar & Life Sci.</i>				
3:00	F29	049.03	Endothelium-targeted deletion of microRNA-15a/16-1 ameliorates blood-brain barrier dysfunction in ischemic stroke. F. MA; P. SUN; X. ZHANG; M. HAMBLIN; K. YIN*. <i>Univ. of Pittsburgh Sch. of Med., Dept. of Pharmacol.</i>				

POSTER

049. Ischemic Stroke I

Theme C – Neurodegenerative Disorders and Injury

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

1:00	F27	049.01	Phosphorylation of Fbxw7 by Cdk5 causes decreased stability of Fbxw7 in glutamate mediated excitotoxicity. Y. OH*; Y. KO. <i>Yonsei Univ.</i>
2:00	F28	049.02	Transient cerebral ischemia induces NADPH oxidase-mediated oxidative damage to proteins in the postsynaptic density. K. MUROTOMI*; N. TAKAGI; K. TANONAKA. <i>Advanced Industrial Sci. and Technol. (AIST), Tokyo Univ. Phar & Life Sci.</i>
3:00	F29	049.03	Endothelium-targeted deletion of microRNA-15a/16-1 ameliorates blood-brain barrier dysfunction in ischemic stroke. F. MA; P. SUN; X. ZHANG; M. HAMBLIN; K. YIN*. <i>Univ. of Pittsburgh Sch. of Med., Dept. of Pharmacol.</i>

* Indicated a real or perceived conflict of interest, see page 72 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

1:00	F39	049.13	Examining the mitochondrial network within neurons following cardiac arrest and resuscitation. K. J. MAHERAS*; T. H. SANDERSON. <i>Univ. of Michigan, The Univ. of Michigan.</i>	1:00	DP03/G4	050.04	(Dynamic Poster) Axonal varicosity dynamics in central neuron mechanosensation and injury. C. GU*; C. SUN; J. P. RICE; Y. GU. <i>Ohio State Univ., OSU, The Ohio State Univ.</i>
2:00	F40	049.14	Investigation of Na+/K+-ATPase isoforms in higher and lower brain regions following focal ischemia in mice. C. A. LOWRY*; B. M. BENNETT; R. D. ANDREW. <i>Queen's Univ., Queen's Univ.</i>	1:00	G5	050.05	Traumatic brain injury induces synaptic alterations dependent on the synaptic and ASD-related protein Shank3. C. C. URRUTIA-RUIZ*; T. M. BOECKERS. <i>Ulm Univ.</i>
3:00	F41	049.15	Multiplex profiling of secreted factors in the cerebrospinal fluid of Moyamoya disease patients. K. ABHINAV*; A. LEE; A. PENDHARKAR; Y. ROSENBERG-HASSON; H. UCHINO; M. Y. CHENG; G. K. STEINBERG. <i>Stanford Univ. Sch. of Med., Stanford Univ. Sch. of Med., Stanford Univ., Stanford Univ.</i>	2:00	G6	050.06	Exclusive targeting of extrasynaptic NMDA receptors improves mice cognitive function after mild traumatic brain injury. A. CHAIKA; T. PIVNEVA; A. SAVTCHENKO; E. MOLOKANOVA; N. VOITENKO*. <i>Bogomoletz Inst. of Physiol., Kyiv Academic Univ., Nanotools Biosci., NeurANO Biosci.</i>
4:00	F42	049.16	Dna methylation inhibition promotes axonal growth and neuronal survival in a murine cerebral ischemia model. I. PONCE*; L. VALENCIA-LÓPEZ; R. SANTANA-MARTÍNEZ; L. TOVAR-Y-ROMO. <i>Univ. Nacional Autónoma De México.</i>	3:00	G7	050.07	TLR4 regulation of excitation/inhibition balance in the uninjured and injured brain. S. NGUYEN*; D. SUBRAMANIAN; Y. LI; V. SANTHAKUMAR. <i>Univ. of California, Riverside, Rutgers NJMS.</i>
1:00	F43	049.17	Neuroprotective effects of apoaequorin on ischemic stroke. C. W. SMIES*; J. R. MOYER, Jr. <i>Univ. of Wisconsin - Milwaukee, Univ. of Wisconsin - Milwaukee.</i>	4:00	G8	050.08	MAPK-mediated phosphorylation of MKL2 regulates nuclear localization and transcriptional activity in striatal neurons. A. ARIZA*; Y. FUNAHASHI; K. KAIBUCHI. <i>Nagoya University, Grad. Sch. of Med.</i>
2:00	F44	049.18	Deletion of long noncoding RNA FosDT ameliorates post-ischemic functional deficit in both sexes independent of age. S. L. MEHTA*; T. KIM; K. MORRIS-BLANCO; S. BATHULA; A. K. CHOKKALLA; R. VEMUGANTI. <i>Univ. of Wisconsin, Univ. of Wisconsin Madison, Univ. of Wisconsin-Madison.</i>	1:00	G9	050.09	Microglia and vasculature in mouse models of repetitive mild head injury at high altitude. K. WHITING*; S. JAISWAL; F. W. LISCHKA; X. XU; C. WANG; G. YU; C. L. DALGARD; M. SZCZESNIAK; I. MAKALOWSKA; N. P. CRAMER; D. L. DICKSTEIN; D. P. PERL; B. J. DARDZINSKI; Z. GALDZICKI. <i>Uniformed Services Univ. of the Hlth. Sci., Uniformed Services Univ. of the Hlth. Sci., Virginia Tech., Adam Mickiewicz Univ., Uniformed Services Univ. of the Hlth. Sci.</i>
3:00	F45	049.19	Impact of age and sex on alpha-synuclein inhibition induced post-stroke recovery. B. CHELLUBOINA*; T. KIM; J. KIM; S. BATHULA; R. VEMUGANTI. <i>Univ. of Wisconsin.</i>	2:00	G10	050.10	Optogenetically-identified alterations in synaptic efficacy of parvalbumin interneurons after traumatic brain injury. A. C. HARRIS*, Jr; K. M. JACOBS. <i>Virginia Commonwealth Univ.</i>
4:00	F46	049.20	Longitudinal multimodal <i>in vivo</i> imaging reveals the dynamic of the ischemic injury in toll-like receptor 2 (Tlr2)-deficient mouse. S. GAJOVIC*; M. DOBRIVOJEVIC RADMILOVIC; D. GORUP; S. SKOKIC; A. GLASNOVIC; P. JOSIC; J. KRIZ. <i>Univ. of Zagreb Sch. of Med., Laval Univ.</i>	3:00	G11	050.11	Neurotoxicity, neuroprotection, and the visibility of dying neurons before microglial engulfment. T. BALENA*; N. RAHMATI; K. P. LILLIS; K. J. STALEY. <i>Massachusetts Gen. Hosp., Harvard Med. School/ Massachusetts Gen. Hos, Massachusetts Gen. Hosp., Massachusetts Gen. Hosp.</i>

POSTER

050. Brain Injury and Trauma I

Theme C – Neurodegenerative Disorders and Injury

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

1:00	G1	050.01	Traumatic brain injury and Alzheimer's disease in aged mice leads to similar increases in sleep and peripheral Cd115 expression. M. SABER*; Y. HUR; O. N. KOKICO-COHREN; R. K. ROWE; J. LIFSHITZ. <i>Univ. of Arizona Col. of Med. - Phoenix, Barrow Neurolog. Inst. at Phoenix Children's Hospital, Phoenix, The Ohio State Univ. Neurolog. Inst., Phoenix Veterans Affairs Hlth. Care Syst.</i>	1:00	G12	050.12	Contribution of injury-induced hippocampal neurogenesis to cellular learning and memory function. N. M. WESTON*; A. T. ROLFE; T. M. REEVES; D. SUN. <i>Virginia Commonwealth Univ.</i>
2:00	G2	050.02	Somatostatin interneuron dysfunction in the orbitofrontal cortex is associated with cognitive inflexibility after traumatic brain injury. A. NOLAN*; V. S. SOHAL; S. ROSI. <i>Univ. of California San Francisco, U. California, San Francisco, Univ. of California San Francisco.</i>	1:00	G13	050.13	Finite element modelling strain prediction of a rat impact injury model correlates with measures of MRI and pathophysiology. C. K. DONAT; M. GHAJARI; M. YANEZ LOPEZ; M. GOLDFINGER; N. BAXAN; R. SEEAMBER; J. CHADWICK; F. MUELLER; P. SIEGKAS; S. M. GENTLEMAN; M. SASTRE*; D. J. SHARP. <i>Imperial Col. London, Imperial Col. London, Imperial Col. London.</i>
3:00	G3	050.03	Evaluating cathepsin B and its role in neuronal membrane disruption following diffuse brain injury in rats. M. L. HERNANDEZ*; M. MARONE; K. M. GORSE; A. D. LAFRENAYE. <i>VCU, VCU.</i>	2:00	G14	050.14	Progressive long-term spatial memory loss following repeat concussive and subconcussive brain injury in mice is associated with hippocampal neuron loss and altered microglial phenotypes. A. REINER; N. A. DEL MAR; C. C. DORIAN; J. D. WORTHEN; A. C. MICETICH; M. G. HONIG*. <i>The Univ. of Tennessee Hlth. Sci. Ctr.</i>

* Indicated a real or perceived conflict of interest, see page 72 for details.

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* Indicates abstract's submitting author

3:00	G15	050.15 Brain extracellular matrix alters local ion concentrations and responses to injury. K. P. NORMOYLE*; V. I. DZHALA; K. P. LILLIS; K. EGAWA; J. C. GLYKYS; N. RAHMATI; K. J. STALEY. <i>Massachusetts Gen. Hosp., Massachusetts Gen. Hosp., Massachusetts Gen. Hosp., Hokkaido Univ. Grad. Sch. of Med., Univ. of Iowa. Carver Col. of Med., Harvard Med. School/Massachusetts Gen. Hos, Massachusetts Gen. Hosp.</i>	2:00	G26	050.26 MRI assessment of TBI-induced hallmark disabilities in a closed head TBI rodent model. J. HOU*; R. NELSON; D. PLANT; R. MARTIN; M. FEBO; K. K. WANG; F. J. THOMPSON; P. BOSE. <i>North Florida/South Georgia Veterans Hlth. Syst., Univ. of Florida, Univ. of Florida, Univ. of Florida, Univ. of Florida, Univ. of Florida.</i>
4:00	G16	050.16 Carbamates and organophosphates, differential effects on axonal transport. S. X. NAUGHTON*; A. V. TERRY, JR. <i>Augusta Univ., Augusta Univ.</i>	3:00	G27	050.27 • Brief treatment with 2DG reduces post-traumatic epilepsy with frequent focal and generalized seizures after CCI-induced TBI in unique “fast” kindling-susceptible PPKS rats. T. P. SUTULA*; R. KOTLOSKI; P. A. RUTECKI. <i>Univ. of Wisconsin, Univ. of Wisconsin and Middleton VA Hosp.</i>
1:00	G17	050.17 Reduction of neurogranin protein expression after controlled cortical impact. S. SVIRSKY*; S. W. CARLSON; J. HENCHIR; C. E. DIXON. <i>Univ. of Pittsburgh, Univ. of Pittsburgh Med. Ctr., VA Pittsburgh Healthcare Syst.</i>	4:00	G28	050.28 Simple weight-drop model of closed head diffuse traumatic brain injury in rats without preparatory surgery. V. DELIC*; J. A. BURTON; K. J. STALNAKER; K. C. PANG; K. D. BECK; B. A. CITRON. <i>VA New Jersey Hlth. Care Syst., Rutgers- NJMS.</i>
2:00	G18	050.18 Nuclear responses in neural cell cultures after applied impulse strain results in chromatin condensation. S. E. SCHNEIDER*; B. SEELBINDER; S. GHOSH; R. L. WILSON; D. M. PIERCE; C. P. NEU. <i>Univ. of Colorado Boulder, Univ. of Connecticut.</i>	1:00	G29	050.29 ▲ Influence of genetic background and anesthesia duration on hippocampal BDNF after acute TBI in rat. D. A. CORBIER DE LARA; S. DUNN; T. P. SUTULA; R. J. KOTLOSKI*. <i>Univ. of Wisconsin-Madison, Univ. of Wisconsin Sch. of Med. and Pub.</i>
3:00	G19	050.19 Persistent upregulation of hippocampal synaptic transmission and altered Ca ²⁺ handling following single or repeated closed head concussive impacts. J. MCDAID*; C. A. BRIGGS; A. LITTLEFIELD; N. M. BARRINGTON; D. A. PETERSON; D. A. KOZLOWSKI; G. E. STUTZMANN. <i>Rosalind Franklin Univ. of Med. and Sci., Rosalind Franklin Univ. of Med. and Sci., DePaul Univ.</i>	2:00	G30	050.30 Uninterrupted <i>in vivo</i> cerebral microdialysis measures of the acute neurochemical response to a concussion in a rat model combining force and rotation. I. O. MASSE*; L. MOQUIN; C. PROVOST; S. GUAY; A. GRATTON; L. DE BEAUMONT. <i>Hôpital Du Sacré-Cœur De Montréal, Douglas Inst.</i>
4:00	G20	050.20 EMT snail regulates astrocyte polarity after cortical lesions in the adult CNS. C. C. CLARKSON*; M. KARL; R. H. MILLER. <i>George Washington Univ., The George Washington Univ., George Washington Univ.</i>			
1:00	G21	050.21 Regulation of BACE1 expression after injury is linked to the p75 neurotrophin receptor. K. SAADIPOUR*; M. V. CHAO. <i>New York Univ. Sch. of Med.</i>			
2:00	G22	050.22 Imaging blood-brain barrier (BBB) disruption and traumatic microvascular injury by DCE-MRI and LA-ICP-MS. L. E. GOLDSTEIN*; O. MINAEVA; N. HUA; N. LIPOLI; E. S. FRANZ; C. A. TAGGE; A. M. FISHER; R. VEKSLER; X. LIU; S. E. RIND; K. BABCOCK; J. A. MONCASTER; A. FRIEDMAN; A. C. MCKEE. <i>Boston Univ. Sch. of Med. & Col. of Engin., Boston Univ. Sch. of Med., Boston Univ. Col. of Engin., Ben-Gurion Univ. of the Negev, Dalhousie Univ.</i>			
3:00	G23	050.23 The neurobehavioral and neuropathological effects of a novel experimental model of repeated mild traumatic brain injury. S. J. MCDONALD*; L. PHAM; W. T. O'BRIEN; D. K. WRIGHT; S. R. SHULTZ. <i>Monash Univ., La Trobe Univ.</i>			
4:00	G24	050.24 Time course of deficit and recovery following repetitive mild traumatic brain injury in a rodent assay of cognitive flexibility. C. KNAPP; B. FALLON; D. FOX; S. FLORESCO; R. RAGHUPATHI; B. WATERHOUSE*; R. NAVARRA. <i>Rowan Univ. Grad. Sch. of Biomed. Sci., Univ. of British Columbia, Drexel Univ. Col. of Med.</i>			
1:00	G25	050.25 Structural and functional attributes of the rodent central norepinephrine transmitter system following repetitive mild traumatic brain injury. B. WATERHOUSE*; N. JOSHI; D. FOX; R. RAGHUPATHI; D. DEVILBISS; D. CHANDLER; R. NAVARRA. <i>Rowan Univ. Grad. Sch. of Biomed. Sci., Drexel Univ. Col. of Med.</i>			

POSTER

051. Axon Injury and Recovery

Theme C – Neurodegenerative Disorders and Injury

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

1:00	G31	051.01 Toll-like receptor 9 antagonism preserves proximal corticospinal tract axons following spinal cord injury. L. LI*; L. NI; R. F. HEARY; S. ELKABES. <i>NJMS, Rutgers Univ.</i>
2:00	G32	051.02 Axon injury induces fragmentation of axonal mitochondria. J. KEDRA*; S. LIN; G. GALLO; G. SMITH. <i>Temple Univ. Sch. of Med.</i>
3:00	G33	051.03 Effect of PTEN antagonist peptide on the functional motor recovery in rat. S. LV*; W. WU. <i>Guangdong-hongkong-Macau Inst. of CNS Regeneration, The Univ. Of Hong Kong.</i>
4:00	G34	051.04 Inflammatory priming of mesenchymal stem cells improves angiogenesis in the spinal cord after contusion injury. I. MALDONADO-LASUNCION*; J. VERHAAGEN; M. OUDEGA. <i>Univ. of Miami, Netherlands Inst. for Neurosci., Netherlands Inst. for Neurosci., Univ. of Miami Dept. of Neurolog. Surgery, DVA.</i>
1:00	G35	051.05 Id2 promotes axonal growth through upregulation of Neurogenin2. J. LIU*; Z. HUANG; J. JIN; Q. CHEN; L. ZHOU; B. ZHOU; A. LI; P. YU. <i>Jinan Univ., Beihang Univ.</i>
2:00	G36	051.06 Longitudinal profiling of systemic T cells in persons with traumatic spinal cord injury. C. PINPIN*; M. A. BANK; A. B. STEIN; O. BLOOM. <i>Feinstein Inst. For Med. Res., North Shore Univ. Hosp., Zucker Sch. of Med. at Hofstra Northwell.</i>

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■ Indicates abstract's submitting author

3:00	G37	051.07	Elucidating the neural plasticity underlying functional recovery after spinal cord injury in primates. Y. TAKATA*; H. NAKAGAWA; H. YAMANAKA; M. TAKADA. <i>Primate Res. Institute, Kyoto Univ., Immunol. Frontier Res. Center, Osaka Univ.</i>	4:00	H6	051.20	An integrated <i>in silico pipeline identifies a novel TF combination that promotes enhanced CST growth following injury</i> . I. VENKATESH*; Z. WANG; V. MEHRA; E. EASTWOOD; M. SIMPSON; A. CHAKRABORTY; D. GROSS; Z. BEINE; M. CABAHUG; G. OLSON; M. G. BLACKMORE. <i>Marquette Univ., Marquette Univ., Marquette Univ.</i>
4:00	G38	051.08	circRNA-Kat6b overexpression attenuated nerve injury-induced nociceptive hypersensitivity via rescuing Kcnk1 in spinal cord neurons. L. XIE; Q. ZHANG; X. LIU; H. ZHOU; L. HAO; Z. PAN*. <i>Xuzhou Med. Univ.</i>	1:00	H7	051.21	▲ Characterization of radial nerve cord <i>in vitro</i> explants of sea cucumber <i>Holothuria glaberrima</i> . R. A. GARCIA ROSARIO*; A. J. SIRFA LOPEZ; E. A. QUESADA DIAZ; P. V. FIGUEROA DELGADO; J. E. GARCIA ARRARAS. <i>UPR-Rio Piedras, Polytechnic Univ. of Puerto Rico.</i>
1:00	G39	051.09	Role of macrophage inflammatory protein-1alpha (CCL3) in secondary damage following contusive spinal cord injury. N. PELISCH*; K. STEHLIK; B. APERI; A. KRONER. <i>Med. Col. of Wisconsin, Clement J. Zablocki VA Med. Ctr.</i>	2:00	H8	051.22	Acquired infections impair recovery after spinal cord injury. A. R. FILOUS*; J. M. SCHWAB. <i>The Ohio State Univ., Columbus.</i>
2:00	G40	051.10	Calcium and ERK1/2 signaling during spinal cord and skeletal muscle regeneration in the tail of <i>Xenopus laevis</i> larvae. J. B. LEVIN*; L. N. BORODINSKY. <i>Shriners Hosp. For Children, UC Davis, Univ. of California Davis.</i>	3:00	H9	051.23	▲ Profilin1 delivery tunes cytoskeleton dynamics towards CNS axon regeneration. R. PINTO-COSTA*; S. C. LEITE; M. M. SOUSA. <i>IBMC, Inst. of Psychiatry and Neurosci. of Paris.</i>
3:00	G41	051.11	Time-dependent changes in the perineuronal nets of transected spinal cord: Differential responses in thoracic regions of scar formation and in extracellular milieu of lumbar motoneurons. M. H. SKUP*; K. GRYCZ; O. GAJEWSKA-WOZNIAK; J. CZARKOWSKA-BAUCH. <i>Nencki Inst. of Exp Biol, Polish Acad. Sci.</i>	4:00	H10	051.24	Analysis of metabolic, inflammatory, motor and neurological changes of obesity in an <i>in vivo</i> spinal cord injury model. O. OJEDA- GONZALEZ; R. H. RODRIGUEZ BARRERA*; A. FLORES-ROMERO; E. GARCIA- VENCES. <i>Univ. Anahuac Mexico Norte.</i>
4:00	G42	051.12	Differential effects of toll-like receptor 2 stimulating ligands on the viability of spinal cord neurons in an injury model <i>in vitro</i> . C. ACIOGLU*; R. F. HEARY; S. ELKABES. <i>New Jersey Med. School, Rutgers, The State Univ. of New Jersey.</i>	1:00	H11	051.25	Modulating the EphB2-NMDA receptor interaction in the superficial dorsal horn attenuates neuropathic pain following cervical spinal cord injury. N. M. HEINSINGER*; W. ZHOU; J. L. WATSON; A. FALNIKAR; T. FOX; E. V. BROWN; B. A. CHARSTAR; M. B. DALVA; A. C. LEPORE. <i>Thomas Jefferson Univ.</i>
1:00	G43	051.13	Identification of function of synaptic cell adhesion molecule 3 as a new therapeutic target in spinal cord injury model. J. KYUNG*; I. HAN. <i>CHA Univ., CHA Univ.</i>	2:00	H12	051.26	Systemic protein kinase inhibition reduces local inflammation after cervical spinal cord injury. M. ZAVVARIAN*; J. HONG; M. KHAZAEI; J. WANG; M. G. FEHLINGS. <i>Univ. of Toronto, Krembil Res. Institute, Univ. Hlth. Netw, Univ. Hlth. Network, Toronto Western Hosp.</i>
2:00	G44	051.14	TLR4 signaling contributes to increased scar formation myelin and neuronal loss and reduced locomotor recovery after spinal cord injury. F. RYAN*; E. J. BRADBURY; S. DAVID. <i>McGill Univ. Hlth. Ctr., King's Col. London.</i>	3:00	H13	051.27	Myelin modulates macrophage inflammatory responses after spinal cord injury. T. J. KOPPER*; K. B. BETHEL; B. ZHANG; W. M. BAILEY; J. C. GENSEL. <i>Univ. of Kentucky, Univ. of Kentucky.</i>
3:00	H1	051.15	System-wide changes at a single cell resolution: Profiling the lumbar spinal cord following thoracic contusion. K. MATSON*; D. RUSS; C. KATHE; A. SATHYAMURTHY; J. SQUAIR; G. COURTINE; A. LEVINE. <i>NIH, Swiss Federal Inst. of Technol. Lausanne.</i>	4:00	H14	051.28	DLK and LZK direct diverse responses to axon damage in larval zebrafish. K. P. ADULA*; H. MARKOVIC; A. SAGASTI. <i>UCLA, UCLA.</i>
4:00	H2	051.16	Effect of VEGF on inflammatory regulation and functional improvement in rats following a complete spinal cord transection. J. LI*; Q. WEN; L. ZHOU; W. WU. <i>Jinan Univ., GHM Inst. of CNS Regeneration, Jinan Univ., The Univ. Of Hong Kong.</i>	1:00	H15	051.29	Molecular and histologic outcomes indicate reduced wounding following spinal cord injury in spiny mice, <i>Acomys cahirinus</i> . K. A. STREETER*; M. D. SUNSHINE; J. O. BRANT; A. G. SANDOVAL; M. MADEN; D. D. FULLER. <i>Univ. of Florida, Univ. of Florida.</i>
1:00	H3	051.17	Spinal circuits involved in the lower urinary tract function of the rat. A. M. SARTORI*; A. HOFER; C. D. CRUZ; T. M. KESSLER; M. E. SCHWAB. <i>Univ. and ETH Zurich, Univ. of Zurich, Dept. of Exptl. Biol. - FMUP.</i>	2:00	H16	051.30	Viral expression of constitutively active AKT3 induces CST axonal sprouting and regeneration, but also promoted seizure activity. T. J. CAMPION*, III; I. S. SHEIKH; I. P. JUNKER; Y. LIU; G. M. SMITH. <i>Temple Univ. Lewis Katz Sch. of Med., Temple Univ. Lewis Katz Sch. of Med., Temple Univ. Lewis Katz Sch. of Med.</i>
2:00	H4	051.18	Spike timing-dependent plasticity in the adult rat with chronic cervical spinal cord contusion. N. DE LA OLIVA*; A. E. HAGGERTY; M. A. PEREZ; M. OUDEGA. <i>Miami Project To Cure Paralysis, Univ. of Miami, Bruce W. Carter Dept. of Veterans Affairs Med. Ctr., Affiliated Cancer Hosp. & Inst. of Guangzhou Med. Univ., Miller Sch. of Medicine, Univ. of Miami.</i>	3:00	H17	051.31	Effects of morphine on reactive microglia and macrophages in an SCI rodent model. M. N. TERMINEL*; J. A. RAU; K. BRAKEL; R. DUNDUMULLA; M. A. HOOK; C. RUIZ. <i>Texas A&M Hlth. Sci. Ctr., Texas A&M Univ.</i>
3:00	H5	051.19	Spleen tyrosine kinase promotes neutrophil activation and exacerbates long-term neurologic deficits following spinal cord injury. D. A. MCCREEDY*; C. L. ABRAM; Y. HU; C. A. LOWELL. <i>Univ. of California.</i>	4:00	H18	051.32	Assessment of the growth competence of ascending sensory neurons after spinal cord injury. E. EWAN*; D. CARLIN; G. ZHAO; V. CAVALLI. <i>Washington Univ. in St. Louis.</i>

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1:00	H19	051.33	A novel mammalian model of spinal cord injury responses and repair: The African spiny mouse (<i>Acomys cahirinus</i>). M. ORR*; W. BAILEY; C. CALULOT; K. MCFARLANE; S. KAPP; K. RICHARDS; A. SEIFERT; J. GENSEL. <i>Univ. of Kentucky, Univ. of Kentucky, Univ. of Kentucky</i> .	3:00	H31	052.11	Sensory neuronal subtypes innervating mouse tongue. D. ARRIS*; P. WU; M. GRAYSON; C. HUNG; S. RUPAREL. <i>Univ. of Texas Hlth. Sci. Ctr., Univ. of Texas Hlth. Sci. Ctr.</i>
2:00	H20	051.34	Immunization with neural derived peptides induces neurogenesis in rats with chronic spinal cord injury. R. R. BARRERA; A. F. ROMERO*; E. G. VENES; K. S. ZAVALA; L. N. TORRES; D. A. INCONTRI; J. W. JUÁREZ; J. I. ARIAS. <i>Univ. Anáhuac</i> .	4:00	H32	052.12	● Vascular action in a mouse model of migraine. L. K. BALCZIAK*; A. WATTIEZ; B. N. MASON; M. W. CHAPLEAU; A. F. RUSSO. <i>Univ. of Iowa, Univ. of Iowa, Univ. of Iowa</i> .
POSTER							
052.	Somatosensation: Trigeminal Pain Circuits and Processing		1:00	H33	052.13	Fluctuating estrogen levels exacerbate serotonin-evoked pain signaling in trigeminal sensory neurons. S. LULLA*; H. R. MCDONALD; D. L. AVERITT. <i>Texas Woman's Univ.</i>	
	<i>Theme D – Sensory Systems</i>		2:00	H34	052.14	Gonadal hormones modulate peripheral serotonin levels and plasticity in serotonin receptor expression: A potential mechanism underlying sex differences in trigeminal pain. T. M. HICKMAN*; S. LULLA; H. R. MCDONALD; E. MONTELONGO; R. HORNUNG; D. L. AVERITT. <i>Texas Woman's Univ.</i>	
Sat. 1:00 PM – McCormick Place, Hall A							
1:00	H21	052.01	Alterations in cerebellar BDNF and MeCP ₂ expression in a repetitive acidic saline exposure persistent jaw muscle pain model. J. MORRIS-WIMAN*; C. G. WIDMER. <i>West Virginia Sch. of Osteo. Med., Univ. of Florida</i> .	1:00	H35	053.01	● Value of patient training on reporting rescue medication use: Relevance to clinical trials in migraine. K. M. DUMAIS*; S. M. DALLABRIDA. <i>ERT</i> .
2:00	H22	052.02	Involvement of melanopsin on the photic excitation of neurons in caudal trigeminal brainstem. A. TASHIRO*; Y. MORIMOTO. <i>Natl. Def. Med. Col.</i>	2:00	H36	053.02	● Nose-to-brain insulin-like growth factor-1 abrogates trigeminal system activation from spreading depression. L. A. WON; R. P. KRAIG*. <i>Univ. Chicago, Univ. of Chicago</i> .
3:00	H23	052.03	Synaptic connectivity of substance P-, CGRP-, isolectin B4-immunopositive axon terminals in the medullary dorsal horn in the normal rat and following inflammation. Y. CHO; J. LEE; H. HAN; D. AHN; H. KO; Y. BAE*. <i>Sch. of Dentistry, Kyungpook Natl. Univ., Sch. of Dentistry, Kyungpook Natl. Univ.</i>	3:00	H37	053.03	a9a10 nicotinic acetylcholine receptor antagonist as a potential target for acute migraine therapy. M. M. SHAH*; J. SANZ; J. MCINTOSH; F. PORRECA; J. Y. XIE. <i>NYIT Col. of Osteo. Med. at Arkansas State Univ., Univ. of Utah, Univ. of Arizona Col. of Pharm., NYIT Col. of Osteo. Med. at Arkansas State Univ.</i>
4:00	H24	052.04	The role of TRPV1 in trigeminal ganglion and brain stem following dental pulp inflammation in rats. M. CHA*; I. SALLEM; I. JUNG; B. LEE. <i>Yonsei Univ. Col. of Med., Yonsei Univ. Col. of Dent.</i>	4:00	H38	053.04	● Altered functional connectivity during a spontaneous visual aura in a migraine patient. J. ASHLEY*; M. ASHLEY; G. S. GRIESBACH; C. K. SINGH; N. G. HARRIS. <i>Ctr. for Neuro Skills Clin. Res. and Education Fndn., Ctr. for Neuro Skills, Univ. of California Los Angeles, Ctr. For Neuro Skills, Ctr. For Neuro Skills, Dept. Neurosurgery, UCLA</i> .
1:00	H25	052.05	Heterogeneous types of thermosensitive neurons mediate oral temperature coding in the mouse trigeminothalamic tract. J. LI*, C. LEMON. <i>Univ. of Oklahoma</i> .	1:00	H39	053.05	A bioactive lipid mechanically sensitizes trigeminal neurons: A role in migraine headache. F. MOEHRING*; C. L. STUCKY. <i>Med. Col. of Wisconsin</i> .
2:00	H26	052.06	Estrogen-dependent glia activation in a model for TMJ nociception. J. K. OLSON; M. M. RAHMAN; R. THOMPSON; D. A. BEREITER*. <i>Univ. of Minnesota Sch. of Dent.</i>	2:00	H40	053.06	▲ Eeg brain source analysis of cortical spreading depression propagation. D. BORREGO*; C. MONCION; J. J. RIERA. <i>Florida Intl. Univ.</i>
3:00	H27	052.07	A role of voltage-gated potassium channel K _V 4.3 in controlling orofacial nociception of cooling temperatures. Y. T. CHANG*; H. KANDA; J. G. GU. <i>UAB, Hyogo Univ. of Hlth. Sci.</i>	3:00	H41	053.07	Can osteopathic manipulative treatment relieve migraine pain in rats? K. BYRD*; B. CHUNG; K. SHARMA; J. XIE; R. FLEMING. <i>New York Inst. of Technol. Col. of Osteo. Med. at Arkansas State Univ., Arkansas State Univ., New York Inst. of Technol. Col. of Osteo. Med. at Arkansas State Univ.</i>
4:00	H28	052.08	● Effects of cooling temperatures on the excitability of nociceptive-like trigeminal ganglion neurons that innervate the orofacial skin of rats. Y. OKUTSU*; J. GU. <i>Univ. of Alabama At Birmingham, Univ. of Alabama At Birmingham</i> .	4:00	H42	053.08	● ▲ Next generation sequencing (NGS) in a case of severe migraine reveals a rare CACNA1A variant and highlights the complexity of NGS data implementation in clinical practice. M. MAHALE*; A. BASKYS. <i>Univ. of California Riverside, Western Univ. of Hlth. Sciences, GCBS</i> .
1:00	H29	052.09	Potential role of TRPV1 antagonism for relieving orthodontic force induced pain. K. ADACHI*; N. HASEGAWA; T. TSUCHIYA; M. YUGAWA; A. SASAKI; N. SUDA. <i>Meikai Univ. Sch. of Dent., Meikai Univ. Sch. of Dent.</i>				
2:00	H30	052.10	Nociceptors expressing TRPV1 and trigeminal nucleus neurons expressing NK1 mediate orthodontic pain. S. WANG*; M. KIM; K. ONG; E. PAE; M. CHUNG. <i>Univ. of Maryland, Univ. of Maryland</i> .				

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* Indicates abstract's submitting author

1:00	H43	053.09	Peripheral cannabinoid 1 receptor activation prevents hypersensitivity symptoms in murine models of chronic migraine and rebound headaches. Y. MULPURI*; T. YAMAMOTO; M. IZRAYLEV; C. KRAMME; M. SIMONIAN; H. H. SELTZMAN; I. SPIGELMAN. <i>Sch. of Dentistry, UCLA, Res. Triangle Inst.</i>	3:00	I8	054.03	Peripheral ASIC3 activation by lysophosphatidylcholine induced chronic joint pain and associated anxiety in mice. F. JACQUOT*; J. BARBIER; A. BAYLE; L. DELAY; E. LINGUEGLIA; D. ARRID; E. DEVAL; F. MARCHAND. <i>Neuro-Dol, CNRS/UNSA UMR6097, INSERM.</i>
2:00	H44	053.10	▲ Short- and long-term neuromodulatory effects on migraine and trigeminal neuropathy pain. G. J. TOBIN; R. K. HARPER; D. SNODGRASS; F. YAN-GO; J. JEN; R. L. MERRILL; E. K. SAUERLAND; R. M. HARPER*. <i>UCLA, UCLA, Mount Sinai Med. Ctr., UCLA, Univ. of Nevada.</i>	4:00	I9	054.04	Intradermal capsaicin induced paw flinch count is a highly reproducible model of acute pain in rat. H. RASHID*; R. SAMADFAM. <i>Charles River Labs.</i>
3:00	H45	053.11	Environmental and genetic circadian disruption increases migraine-associated phenotypes in mice. L. C. STROTHER*; L. J. PTACEK; P. J. GOADSBY; P. R. HOLLAND. <i>King's Col. London, UCSF, HHMI.</i>	1:00	I10	054.05	Cinnamaldehyde produce anti-nociception via AQP5 and pERK1/2 signaling in rats with xerostomia. M. LEE*; J. CHOI. <i>Dong-Eui Univ., Ulsan Col.</i>
4:00	H46	053.12	Oxytocin modulates the nociceptive transmission at trigeminocervical complex evoked by electrical meningeal stimulation. J. E. GARCIA-BOLL*; G. MARTÍNEZ-LORENZANA; A. GONZÁLEZ-HERNÁNDEZ; M. CONDÉS-LARA. <i>Inst. of Neurobio.</i>	2:00	I11	054.06	Comparison of fentanyl, buprenorphine, and DAMGO analgesic efficacy and potassium flux in mice lacking K_{ATP} channel activity. G. T. SAKAMAKI*; K. JOHNSON; M. MENSINGER; A. H. KLEIN. <i>Univ. of Minnesota - Duluth.</i>
1:00	I1	053.13	Does heat shock protein 90 have a role in regulating the blood brain barrier during cortical spreading depression? S. M. PALOMINO*; J. M. STREICHER; T. M. LARGENT-MILNES. <i>Univ. of Arizona, Univ. of Arizona.</i>	3:00	I12	054.07	Vincristine treatment during adolescence produces peripheral neuropathy that persists into adulthood in a rat model. A. LI*; G. RAJIC; L. M. CAREY, IV; J. D. CRYSTAL; Y. Y. LAI; T. J. SAJDYK; J. L. RENBARGER; A. G. HOHMANN. <i>Indiana Univ., Indiana University, Sch. of Med.</i>
2:00	I2	053.14	Dietary supplementation with grape seed extract prevents development of trigeminal sensitization and inhibits pain signaling in a preclinical chronic TMD model. L. CORNELISON; S. E. WOODMAN; J. COX; C. LIKENS; H. CHILDRESS; S. ANTONOPOULOS; P. L. DURHAM*. <i>Missouri State Univ., MISSOURI STATE UNIVERSITY.</i>	4:00	I13	054.08	▲ Early life vincristine exposure does not prime developing pain pathways. L. M. STYCZYNSKI*; K. A. SCHAPPACHER; E. K. SERAFIN; M. L. BACCEI. <i>Univ. of Cincinnati.</i>
3:00	I3	053.15	Trigeminal sensitization caused by early life stress is inhibited by dietary supplementation with enriched chicken bone broth in a model of episodic migraine. O. PETERSON; L. CORNELISON*; P. L. DURHAM. <i>Missouri State Univ.</i>	1:00	I14	054.09	Paclitaxel-induced peripheral neuropathy in rodents: Standardization of protocol with respect to sex, species, and paclitaxel formulation. D. GIUVELIS; I. D. MENG; K. L. TUCKER*. <i>Univ. of New England.</i>
4:00	I4	053.16	Noninvasive vagus nerve stimulation inhibits trigeminal nociception by enhancing descending pain modulation: similar effect as observed with morphine in chronic migraine model. S. E. WOODMAN*; L. CORNELISON; P. L. DURHAM. <i>Missouri State Univ.</i>	2:00	I15	054.10	Further investigation into the translational utility of oxaliplatin induced behavioural models. A. S. FISHER*; A. THOMAS; C. MILLUM; N. UPTON. <i>Transpharmation.</i>
1:00	I5	053.17	Long lasting pain inhibition by C tactile afferents. S. SHAIKH*; H. OLAUSSON; M. SAVALLAMPI; F. P. MCGLONE; S. S. NAGI. <i>Linköping Univ. Hosp., Liverpool John Moores Univ.</i>	3:00	I16	054.11	Glial cells activation in a mouse model of alcohol-induced neuropathic pain. P. CHU SIN CHUNG*; M. PERTIN; G. KIRSCHMANN; I. DECOSTERD. <i>CHUV.</i>
4:00				4:00	I17	054.12	Partial crush injury: A new experimental model for chronic neuropathic pain. H. KIM*; C. WON; W. KIM; S. CHUNG; S. OH. <i>Seoul Natl. Univ., Sch. of Dent, Seoul Nat'l Univ.</i>
1:00				1:00	I18	054.13	Characterization of bone remodeling and peripheral sprouting in the K/BxN male and female mouse. G. G. DOS SANTOS*; J. JIMENEZ-ANDRADE; E. MUÑOZ-ISLAS; M. B. RAMIREZ-ROSAS; G. F. CATROLI; N. OHASHI; T. L. YAKSH; M. CORR. <i>Univ. of California San Diego, Univ. Autónoma De Tamaulipas, Univ. of California San Diego.</i>
2:00				2:00	I19	054.14	Characterization of a syngeneic mouse model of prostate cancer induced bone pain. R. M. CAIN; S. H. PARK; M. R. EBER; R. PARKER; J. M. JIMENEZ-ANDRADE; Y. SHIOZAWA; C. M. PETERS*. <i>Wake Forest Med. Sch., Autonomous Univ. of Tamaulipas.</i>
3:00				3:00	I20	054.15	Characteristics of streptozotocin-induced diabetic neuropathic pain in rats and mice. H. LIAO*; J. HU; R. HUANG; X. ZHANG; X. SONG. <i>Southern Univ. of Sci. and Technol.</i>
4:00				4:00	I21	054.16	Phantom limb pain model in rats: Behavioral and histochemical evaluation. H. C. MARTINEZ*; A. LANJEWAR; A. NIEDECKEN; C. MARCH; B. I. SCHACHNER; S. M. NOUDALI; M. NESHEIWAT; S. JERGOVA; J. SAGEN. <i>Univ. of Miami, USC.</i>

POSTER**054. Pain: Animal Models of Behavior****Theme D – Sensory Systems**

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

1:00	I6	054.01	Effect of protein disulfide isomerase in DRG on mice pain behaviors. Y. ZHANG*; H. ZHANG; X. DU. <i>Hebei Med. Univ., Hebei Med. Univ., Hebei Med. Univ.</i>
2:00	I7	054.02	The activation of alpha 2 adrenergic receptors inhibits pain behavior related to TRPV1 at the peripheral nerve level. Y. MATSUSHITA*; M. MANABE; N. KITAMURA; I. SHIBUYA. <i>Fac. Agr., Tottori Univ.</i>

* Indicated a real or perceived conflict of interest, see page 72 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

1:00	I22	054.17 Pain-induced impulsivity in rats and its reversal by various agents. S. G. SAPUTRA*; N. ESPINOZA; A. NAZARIAN. <i>Western Univ. of Hlth. Sci.</i>
2:00	I23	054.18 Spinal oxytocin inhibits early and late formalin-induced nociception by recruitment of two differential intracellular pathways. A. GONZALEZ-HERNANDEZ*; A. DE LOS MONTEROS-ZÚÑIGA; G. MARTINEZ-LORENZANA; M. CONDES-LARA. <i>Inst. de Neurobiología, UNAM.</i>
3:00	I24	054.19 Testosterone and resistance exercise training protect against the development of chronic widespread muscle pain. J. LESNAK*; S. INOUE; L. RASMUSSEN; K. A. SLUKA. <i>Univ. of Iowa, Univ. of Iowa.</i>
4:00	I25	054.20 Age- and sex-related differences in acute pain, osteoarthritis (OA)-like pain, and descending noxious inhibitory control (DNIC) in rats. J. Y. RO*; Y. ZHANG; C. TRICOU; J. T. DA SILVA. <i>Univ. of Maryland Sch. of Dent., Univ. of Maryland Baltimore Sch. of Dent., Univ. of Maryland Sch. of Dentistry.</i>
1:00	I26	054.21 Behavioral characterization of comorbid symptoms of pain, depression, and anxiety in thermally injured male and female rats. B. CHEPPUDIRA*; A. MARES; M. M. STRAIN; A. V. TREVINO; R. J. CHRISTY; S. L. CRIMMINS. <i>US Army Inst. of Surgical Res.</i>
2:00	I27	054.22 Pain in osteoarthritis - Characterizing and predicting pain persistence after joint replacement. J. BARROSO*; K. WAKAIZUMI; A. VIGOTSKY; S. HUANG; T. SCHNITZER; V. M. GALHARDO; V. APKARIAN. <i>Northwestern University, Northwestern Univ., Feinberg Sch. of Med., Northwestern Univ., Faculdade Medicina Univ. Porto.</i>
3:00	I28	054.23 ▲ Osteoporosis-induced anxiety but not back pain is altered by chronic risperidone treatment. A. ELKINSON; V. E. EATON; K. L. HOUSEKNECHT; T. E. KING*. <i>Univ. of New England, Univ. of New England.</i>
4:00	I29	054.24 Behavioral pain assessment in a dental pulp injury model. H. L. ROSSI*; L. P. SEE; C. H. MITCHELL; I. ABDUS-SABOOR. <i>Univ. of Pennsylvania, Univ. of Pennsylvania, Univ. of Pennsylvania, Univ. of Pennsylvania.</i>
1:00	I30	054.25 Standardization of the up down behavioral model for the evaluation of tactile allodynia and mechanical hyperalgesia induced by traumatic spinal cord injury in Wistar rats. A. MATA-BERMUDEZ*; C. RÍOS-CASTAÑEDA; A. DIAZ-RUIZ. <i>Univ. Autónoma Metropolitana, Doctorado En Ciencias Biológicas y de la Salud, Inst. Nacional de Neurología y Neurocirugía, Univ. Autónoma Metropolitana.</i>
2:00	I31	054.26 ▲ Tetrahydrocannabinol enhances spontaneous pain in a rat model of inflammatory bowel disease. J. DUNFORD; A. T. LEE; M. M. MORGAN*. <i>Washington State Univ., Washington State Univ.</i>

POSTER

055.	Pain: Channels and Physiology Afferents to Spinal Cord
<i>Theme D – Sensory Systems</i>	
Sat. 1:00 PM – McCormick Place, Hall A	
1:00	I32 055.01 Transient receptor potential vanilloid 4 ion channel participates in C-fibers but not in ADelta-fibers in mechanonociception of the normal and inflamed joint. F. RICHTER*; G. SEGOND VON BANCHET; H. SCHAIBLE. <i>Univ. Hosp. Jena.</i>
2:00	I33 055.02 TRPV1 antagonist BCTC inhibits pH 6.0-induced pain in human skin. S. HEBER*; G. HARTNER; C. I. CIOTU; M. GOLD-BINDER; N. NINIDZE; A. GLEISS; H. KRESS; M. J. FISCHER. <i>Med. Univ. of Vienna.</i>
3:00	I34 055.03 Orai1 is required for metabotropic glutamate receptor 5-mediated calcium signaling. H. HU*; J. XIA; Y. DOU; Y. MEI; F. M. MUÑOZ; D. LI. NJMS, <i>Drexel Univ. Col. of Med., Inst. of Neuroscience, Chinese Acad. of Scie, Rutgers New Jersey Med. Sch., Drexel Univ. Col. of Med., Rutgers New Jersey Med. Sch.</i>
4:00	I35 055.04 Peripheral mechanism of store-operated calcium channel Orai1 in inflammatory pain. Y. MEI*; D. WEI; H. HU. <i>Rutgers New Jersey Med. Sch., New York Univ., NJMS.</i>
1:00	I36 055.05 The Cdk5/p35 complex increases P2X2/3R signaling in nociceptive trigeminal neurons. E. UTRERAS*; R. SANDOVAL; N. PINTO; P. CASTRO; C. GONZALEZ-BILLAUT; A. B. KULKARNI; R. MADRID; C. CODDOU. <i>Univ. de Chile, Univ. Católica del Norte, NIDCR, NIH, Univ. de Santiago de Chile.</i>
2:00	I37 055.06 Sephin1, a GMQ-related molecule, activates acid-sensing ion channel 3 (ASIC3) at neutral pH and enhances acid-mediated ASIC3 activation. G. CALLEJO*; J. R. HOCKLEY; L. A. PATTISON; J. C. GREENHALGH; S. CHAKRABARTI; E. S. SMITH; T. RAHMAN. <i>Univ. of Cambridge.</i>
3:00	I38 055.07 Muscle GDNF signaling to neurons modulates peripheral sensitization after ischemic injury through a CREB/CBP interaction. L. F. QUEME*; A. A. WEYLER; M. P. JANKOWSKI. <i>Cincinnati Children's Med. Ctr.</i>
4:00	I39 055.08 Feeding inhibits nociceptive responses during sensitization in the hornworm, <i>Manduca sexta</i> . N. CRAWFORD*; C. VALTIERRA; G. M. DOWNING; M. FUSE. <i>San Francisco State Univ., San Francisco State.</i>
1:00	I40 055.09 A novel interaction between the peripheral sensory, immune and endocrine systems modulates injury-related nociception in neonates. A. J. DOURSON*; C. E. MCCROSSAN; Z. K. FORD; M. C. HOFMANN; M. P. JANKOWSKI. <i>Cincinnati Children's Hosp. Med. Ctr., Univ. of Cincinnati.</i>
2:00	I41 055.10 Up regulation of T type CaV3.2 channels by Cdk5 dependent phosphorylation shapes the compound action potential in afferent fibers and contributes to nerve injury induced allodynia. K. GOMEZ*; A. CALDERON-RIVERA; A. SANDOVAL; R. GONZALEZ-RAMIREZ; A. VARGAS-PARADA; R. DELGADO-LEZAMA; R. FELIX. <i>Cinvestav, Natl. Autonomous Univ. of Mexico (UNAM), "Dr. Manuel Gea González" Gen. Hosp., Cinvestav.</i>

- 3:00 I42 **055.11** Fadu human squamous cell carcinoma induces hyperexcitability of primary sensory neurons. M. L. UHESKI*; A. GORUR; Y. LI; P. M. DOUGHERTY; J. CATA. *MD Anderson, MD Anderson Cancer Ctr., The Univ. of Texas MD Anderson Cancer Ctr., Howard Hughes Med. Inst. - Univ. of Texas MD Anderson Cancer Ctr.*
- 4:00 I43 **055.12** Modulation of knee-innervating dorsal root ganglion neurons with fibroblast-like synoviocytes and adeno-associated virus. S. CHAKRABARTI*; L. A. PATTISON; K. SINGHAL; R. H. RICKMAN; B. DOLESCHALL; J. R. F. HOCKLEY; G. CALLEJO; P. A. HEPPENSTALL; E. S. J. SMITH. *Univ. of Cambridge, EMBL - Europaeisches Lab. Heidelberg.*
- 1:00 I44 **055.13** Human osteoarthritic synovial fluid increases excitability of mouse sensory neurones: An *in vitro* translational model to study arthritic pain. E. S. SMITH*; S. CHAKRABARTI; D. C. BULMER; D. R. JADON. *Univ. of Cambridge, Univ. of Cambridge.*
- 1:00 DP04/J1 **055.14** (Dynamic Poster) Development of an *in vitro* human-derived 3D model of dorsal horn pain signalling. W. A. ANDERSON*; N. IYER; M. E. MESELHE; L. MCCOY; K. POLLARD; A. D. SHARMA; D. A. BOWSER; L. J. CURLEY; R. S. ASHTON; M. J. MOORE. *Axosim, Inc., Tulane Univ., Univ. of Wisconsin-Madison, Tulane Univ., Tulane Univ.*
- 3:00 J2 **055.15** Differential sensitization of lamina I and III-V spinoparabrachial (SPB) neurons in anesthetized mice in chronic inflammatory condition. J. ALLARD*. *E-Phys.*
- 4:00 J3 **055.16** A-type potassium currents mediated by Kv4.2 regulate excitability of Y1R-eGFP expressing dorsal horn neurons after nerve injury. G. P. SINHA*; B. K. TAYLOR. *Univ. of Pittsburgh, Univ. of Pittsburgh.*
- 1:00 J4 **055.17** Compositional changes in the gut microbiome contribute to stress-induced comorbid visceral pain. J. ASGAR*; J. YANG; J. RAVEL; R. TRAUB; W. GUO; S. ZOU; R. DUBNER; K. REN; F. WEI. *Univ. of Maryland Sch. of Dent., Inst. for Genome Sci.*
- 2:00 J5 **055.18** Aoah mediates gut microbiome modulation of pelvic pain. W. YANG*; R. YAGGIE; J. ROSEN; C. BUSHELL; M. WELGE; B. WHITE; A. SCHAEFFER; D. J. KLUMPP. *Northwestern Univ., Univ. of Illinois at Urbana-Champaign.*
- 3:00 J6 **055.19** Sensory neuron, sympathetic preganglionic and post ganglionic neurons form a loop that may amplify neuropathic pain in the spared nerve injury model. W. XIE*; J. A. STRONG; J. ZHANG. *Univ. Cincinnati Coll Med., Univ. of Cincinnati.*
- 4:00 J7 **055.20** High fat diet exacerbates neuropathic pain behaviors by delaying regeneration in a crush nerve injury model. X. ZHU; W. XIE; J. A. STRONG; J. ZHANG*. *Univ. of Cincinnati Col. of Med., Central South Univ.*
- 1:00 J8 **055.21** The role of alpha-synuclein in inflammatory and neuropathic nociception in mice. M. MÖLLER*; C. V. MÖSER; G. GEIßLINGER; E. NIEDERBERGER. *Klinikum der Goethe-Universität, Fraunhofer Inst. for Mol. Biol. and Applied Ecology IME.*
- 2:00 J9 **055.22** Steroid receptor regulation of inflammatory low back pain in mice. K. A. QUALLS*; L. ZHANG; S. I. IBRAHIM; D. BUESING; Y. M. ULRICH-LAI; W. XIE; J. A. STRONG; J. ZHANG. *Univ. of Cincinnati, Capital Med. Univ.*
- 3:00 J10 **055.23** Functional macrophage subtype changes in a mouse model of inflammatory low back pain/radiculopathy. L. ZHANG; W. XIE; S. H. LEE; T. BERTA; J. A. STRONG*; J. ZHANG. *Univ. of Cincinnati Col. of Med., Capital Med. Univ.*
- 4:00 J11 **055.24** ▲ The effect of orthodontic tooth movement on the excitability of the trigeminal ganglion. M. YUGAWA*; T. TSUCHIYA; N. HASEGAWA; A. SASAKI; N. SUDA; K. ADACHI. *Meikai Univ. Sch. of Dent., Meikai Univ. Sch. of Dent.*
- 1:00 J12 **055.25** Minocycline reduces experimental muscle hyperalgesia induced by nerve growth factor in humans: A placebo-controlled double-blind drug-crossover study. J. S. DUNN*; S. S. NAGI; D. A. MAHNS. *Western Sydney Univ., Linköping Univ.*

POSTER

056. Pain: Inflammatory Mechanisms

Theme D – Sensory Systems

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

- 1:00 J13 **056.01** Physical exercise prevents transition of acute to chronic muscle pain by a mechanism dependent of PPAR γ receptors. M. G. OLIVEIRA-FUSARO*; G. AZAMBUJA; C. O. JORGE; B. B. GOMES; H. L. RODRIGUES; C. FUSARO. *Lab. of Pain and Inflammation Research, Sch. of Applied Science, State Univ. of Campinas, Sao Francisco Univ.*
- 2:00 J14 **056.02** Peripheral knockdown of endocytic protein AP2A2 ameliorates acute and chronic inflammatory pain-like behaviors in mice. R. G. POWELL*; A. BHATTACHARJEE. *SUNY Univ. At Buffalo, Univ. at Buffalo - The State Univ. of New York.*
- 3:00 J15 **056.03** ● SUVN-K1806045: A P2X7 receptor antagonist, in animal models of nociception and peripheral neuropathic pain. V. GOURA; A. VUYYURU; R. KALLEPALLI; R. ABRAHAM; K. BOJJA; V. REBALLI; P. JAYARAJAN; S. KOMMINENI; S. JARUGUMALLI; N. MUDDANA*; R. NIROGI. *Suven Life Sci. Ltd.*
- 4:00 J16 **056.04** Role of DNA methylation in transcriptional regulation of pro-nociceptive genes implicated in inflammatory muscle pain in trigeminal ganglia (TG). J. JOSEPH*; G. BAI; H. ROSS; Y. ZHANG; M. CHUNG; K. S. LEE; J. Y. RO. *Univ. of Maryland Baltimore, Sch. of Dent.*
- 1:00 J17 **056.05** The induction of inflammatory pain is associated with the downregulation of microRNA 3584 and upregulation of disintegrin and metalloprotease 19. P. TAN*; C. LIU. *Chi-Mei Med. Ctr., E-Da Hospital/I-Shou Univ.*
- 2:00 J18 **056.06** Lysophosphatidic acid mediates formalin-induced inflammatory pain in mice. Y. HOSHINO*; N. ITO; D. SAIGUSA; T. OKUNO; T. YOKOMIZO. *Univ. of Tokyo, Tohoku University, Juntendo Univ.*
- 3:00 J19 **056.07** Is cannabinoid system involved in prostaglandin synthesis during inflammatory hyperalgesia? T. IBUKI*; Y. YAMAZAKI; H. KITAGAWA; K. MATSUMURA. *Kyoto Prefectural Univ. Med., Kusatsu Gen. Hosp., Osaka Inst. of Technol., Osaka Inst. of Technol.*
- 4:00 J20 **056.08** TRPC5 is required for mechanical hypersensitivity in persistent inflammatory pain models. K. SADLER*; F. MOEHRING; C. L. STUCKY. *Med. Col. of Wisconsin.*

* Indicated a real or perceived conflict of interest, see page 72 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

1:00	J21	056.09	Neuronal Fcγ receptor type 1 contributes to antigen-induced inflammatory pain. F. LIU*; T. WANG; B. YUAN; C. MA. <i>Inst. of Basic Med. Sciences, CAMS&PUMC.</i>	1:00	J33	056.21	Sexual dimorphism in the inflammatory response to chronic constriction injury in rats. J. B. BALL*; S. M. FULGHAM; M. E. HARLAND; R. A. DREHER; M. G. FRANK; S. F. MAIER; P. M. GRACE; L. R. WATKINS. <i>Univ. of Colorado Boulder, Univ. of Texas MD Anderson Cancer Ctr.</i>
2:00	J22	056.10	Cathepsin K, a novel mediator of chronic inflammatory pain. M. PARACHA*; A. THAKAR; R. A. DARLING; T. E. BROWN. <i>Univ. of Wyoming, Univ. of Wyoming, Univ. of Wyoming.</i>	2:00	J34	056.22	<i>Ex vivo</i> human models of extracellular acidification in inflammatory pain states for enabling translational research and drug discovery. A. TON*; T. INDERSMITTEN; P. RATCHADA; K. SWEAT; G. PAGE; P. MILLER; A. GHETTI. <i>Anabios Corp.</i>
3:00	J23	056.11	Release of ATP in the DRG participates of the development of inflammatory pain. J. B. P. LEMES*; K. F. MALANGE; N. S. CARVALHO; C. M. C. LOTUFO; C. A. PARADA. <i>State Univ. of Campinas - Unicamp, Univ. Federal de Uberlândia.</i>	3:00	J35	056.23	Interaction among COX2 enzyme and NMDA, P2X7 receptors in DRG contributes to inflammatory hyperalgesia in the peripheral tissue. N. S. CARVALHO*; F. H. FARIA; G. F. CATROLI; G. G. DOS SANTOS; A. F. NEVES; S. F. MAGALHÃES; J. B. P. LEMES; C. A. PARADA. <i>Univ. Estadual De Campinas - UNICAMP, Univ. of California.</i>
4:00	J24	056.12	Satellite glial cells are required for painful inflammatory response. J. LAPP*; K. E. MILLER. <i>Oklahoma State University- Ctr. For Hlth. Scien, Oklahoma State Univ. Ctr. for Hlth. Sci.</i>	4:00	J36	056.24	● Contribution of cutaneous COX-2 to inflammation and pain in a murine model of sickle cell disease: A potential therapeutic strategy for resolvins. B. D. MCADAMS*; I. A. KHASABOVA; J. J. GABLE; S. G. KHASABOV; V. S. SEYBOLD; K. GUPTA; W. R. KENNEDY; A. KALYUZHNY; D. A. SIMONE. <i>Univ. Minnesota, Univ. Minnesota, Univ. Minnesota, R&D SYSTEMS.</i>
1:00	J25	056.13	Peripheral antinociceptive effect of oleanolic acid in a rat model of joint inflammation. I. M. SALMAN*; M. FOUANI; W. NAJJAR; N. LAWAND. <i>American Univ. of Beirut, American Univ. of Beirut.</i>	1:00	J37	056.25	Oral coadministration of metformin and topiramate in rat formalin test. L. F. ORTEGA-VARELA*; C. CERVANTES-DURAN; J. G. TORRES-ALVARADO; E. BENITEZ-FAJARDO; M. Y. GAUTHERAU-TORRES. <i>Univ. Michoacana de San Nicolas De Hidalgo, Univ. Nacional Autonoma de Mexico, Univ. Michoacana de San Nicolas De Hidalgo, Univ. Michoacana de San Nicolas De Hidalgo.</i>
2:00	J26	056.14	FAM19A1, a chemokine-like secreted protein, is required for mechanical allodynia. H. JIANG*; G. YU; C. GUO; M. XIAO; L. ZHANG; D. KRANZ; W. YANG; F. LI; Q. LIU. <i>Washington Univ. Sch. of Med.</i>	2:00	J38	056.26	Small animal neuroimaging analysis of visceral pain matrix in an inflammatory bowel disease model rats. Y. L. CUI*; T. HUANG; D. HU; Y. WU; M. SHIGETA; E. HAYASHINAKA; Y. WADA; K. NOGUCHI; Y. DAI; Y. WATANABE. <i>RIKEN Ctr. for Biosystems Dynamics Res., Hyogo Coll Med., Hyogo Univ. of Hlth. Sci.</i>
3:00	J27	056.15	The development of bilateral pain hypersensitization in a mouse model of chronic temporomandibular disorder induced by unilateral CFA injection. N. ROTPENPIAN; A. KAEWPITAK; A. WANASUNTRONWRONG; N. PAKAPROT*. <i>Mahidol Univ., Prince of Songkla Univ.</i>	3:00	J39	056.27	Acute fasting and refeeding alleviate pain via different pathway. J. LEE*; S. OH; Y. KANG. <i>Seoul Natl. Univ., Sch. of Dent, Seoul Nat'l Univ., Osaka Univ. Grad. Sch. Dent.</i>
4:00	J28	056.16	The expression of aspartate aminotransferase and glutaminase in dorsal root ganglion of rats with genetically induced hypoglutamatergic tone during peripheral inflammation. R. D. PANDE*; K. E. MILLER. <i>Oklahoma State Univ. Ctr. For Hlth. Sci.</i>				
1:00	J29	056.17	IB-MECA acute treatment relieves pain in CFA chronic inflammatory model in rats. J. A. F. ASSUMPÇÃO*; S. G. CIOATO; L. F. MEDEIROS; B. C. LOPES; A. A. SALVI; A. SOUZA; R. ROESLER; W. CAUMO; I. L. S. TORRES. <i>UFRGS - Univ. Federal Do Rio Grande Do Sul, UFRGS - Univ. Federal Do Rio Grande Do Sul, HCPA - Hosp. de Clínicas de Porto Alegre, Unilassale - Ctr. Universitário Unilas, Unilassale - Ctr. Universitário Unilasalle.</i>				
2:00	J30	056.18	The effect of morphine on post-operative allodynia and toll like receptor 4 mediated inflammation in male and female rats. M. E. HARLAND*; J. B. BALL; A. J. KWILASZ; S. M. FULGHAM; R. A. DREHER; S. F. MAIER; K. C. RICE; P. M. GRACE; L. R. WATKINS. <i>Univ. of Colorado, Intramural Res. Program, Natl. Inst. on Drug Abuse, IRP, NIH, Univ. of Texas MD Anderson Cancer Ctr.</i>				
3:00	J31	056.19	Six weeks of prior voluntary exercise induces a sex dependent antioxidant response which is protective after chronic constriction injury. S. M. FULGHAM*; J. B. BALL; M. E. HARLAND; R. A. DREHER; A. J. KWILASZ; S. F. MAIER; L. R. WATKINS; P. M. GRACE. <i>CU Boulder, Univ. of Texas MD Anderson.</i>				
4:00	J32	056.20	New insight of the role of FKN/CX3CR1 signaling in a mouse model of neuropathic pain. Q. FAN; F. LI; L. LIU; J. LI; Y. YIN; J. CHENG*. <i>Cleveland Clin.</i>				

POSTER

057. Touch: Barrel Cortex Coding

Theme D – Sensory Systems

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

1:00	J40	057.01	Guided neuroplasticity of excitatory neurons in primary sensory cortex: A whisker model. Y. CHENG*; J. HUANG; C. YEH; Y. PEI. <i>Natl. Taiwan Univ., Chang Gung Mem. Hosp., Chang Gung Mem. Hosp. at Linkou.</i>
2:00	J41	057.02	Structural and functional organization of the lower jaw barrel subfield in rat primary somatosensory cortex. V. PELLICER MORATA; A. L. CURRY; L. WANG; J. W. TSAO; R. S. WATERS*. <i>Univ. Tennessee Hlth. Sci. Ctr., Univ. of Memphis.</i>
1:00	DP05/J42	057.03 (Dynamic Poster)	The sensorimotor strategies and neuronal representations of whisker-based object recognition in mice. C. RODGERS*; R. NOGUEIRA; B. C. PIL; E. GREEMAN; S. FUSI; R. M. BRUNO. <i>Columbia Univ., Columbia Univ.</i>

• Indicated a real or perceived conflict of interest, see page 72 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

4:00	J43	057.04	A new set of higher order stimulus spaces reveals an elaborate slip-stick code in rat barrel cortex. E. R. HARRELL*; M. A. GOLDIN; B. BATHELLIER; D. E. SHULZ. <i>Ctr. Natl. Recherche Scientifique (CNRS), Ctr. Natl. Recherche Scientifique (CNRS)</i> .	4:00	K13	057.20	Primary somatosensory cortex is essential for texture discrimination but not object detection in mice. J. PARK*; C. RODGERS; Y. HONG; J. DAHAN; R. M. BRUNO. <i>Columbia Univ., Columbia Univ., Columbia Univ.</i>
1:00	J44	057.05	Morphological and electrophysiological alterations of layer V pyramidal neurons in the barrel cortex of p53 knock-out mice. H. KUANG*; T. LIU. <i>The First Affiliated Hosp. of Nanchang Universi, The First Affiliated Hosp. of Nanchang Univ.</i>	1:00	K14	057.21	Nicotinic acetylcholine receptor inhibition in primary somatosensory cortex improves performance during a sensory-guided decision-making task. M. F. OGINSKY*; S. E. KWON. <i>Univ. of Michigan, Univ. of Michigan-Ann Arbor.</i>
2:00	J45	057.06	Multi-sensory coding by layer 5 pyramidal neurons in mouse vibrissa cortex during active sensation. R. LIU*; M. DESCHEÑES; D. KLEINFELD. <i>Univ. of California San Diego, Univ. Laval.</i>	2:00	K15	057.22	Specific GABA _A receptor subtypes influence sensory input processing through gephyrin scaffold dynamics. Y. TSAI*; M. HLEIHIL; J. STOBART; K. FERRARI; B. WEBER; S. TYAGARAJAN. <i>Inst. of Pharmacol. and Toxicology, UZH, Col. of Pharm.</i>
3:00	J46	057.07	Novel paradigms of stimulus evoked fMRI in awake mice. X. CHEN*; C. TONG; Z. HAN; Z. LIANG. <i>Inst. of Neuroscience, Chinese Acad. of Sci., Southern Med. Univ.</i>	3:00	K16	057.23	Cholinergic modulation of cortical-cortical feedback pathways. C. CHANG*; S. KWON. <i>Univ. of Michigan, Ann Arbor.</i>
4:00	K1	057.08	Somatostatin interneurons of barrel cortex layer 4 are necessary for plastic change induced by classical conditioning involving whiskers. G. DOBRZANSKI*; A. LUKOMSKA; R. ZAKRZEWSKA; M. LIGUZ-LECZNAR; M. M. KOSSUT. <i>Nencki Inst. of Exptl. Biol. PAS.</i>	4:00	K17	057.24	Context dependent sensory processing across primary and secondary somatosensory cortex during a tactile working memory task. C. CONDYLIS; E. LOWET; J. NI; K. BISTRONG; T. OUELLETTE; N. JOSEPHS; E. D. KOLACZYK; J. L. CHEN*. <i>Boston Univ., Boston Univ., Boston Univ.</i>
1:00	K2	057.09	Computations in layer 4 barrel cortex during texture discrimination. M. PITSIANI*; C. BUETFERING; Z. YANG; P. LATHAM; M. HAUSSER. <i>Univ. Col. London, UCL.</i>				
2:00	K3	057.10	Developmental connectomics in mouse cerebral cortex. A. G. GOUR*; K. BOERGENS; P. LASERSTEIN; Y. HUA; M. HELMSTAEDTER. <i>Max Planck Inst. For Brain Res.</i>				
3:00	K4	057.11	Functional connectivity of diverse long range inputs to the primary somatosensory cortex. S. NASKAR*; J. QI; C. R. GERFEN; S. LEE. <i>NIH/NIMH/NIH.</i>				
4:00	K5	057.12	Circuit basis for functional heterogeneity of principal neurons in layer II/III of sensory cortex. A. R. INACIO*; F. PEREIRA; C. R. GERFEN; S. LEE. <i>NIMH/NIH.</i>				
1:00	K6	057.13	Decision coding by layer 2/3 neurons in primary somatosensory cortex. C. BUETFERING*; M. PITSIANI; J. SMALLRIDGE; M. HAUSSER. <i>UCL.</i>				
2:00	K7	057.14	Two-photon all-optical interrogation of layer 2/3 mouse barrel cortex during a sensory discrimination task. O. M. GAULD*; A. M. PACKER; L. E. RUSSELL; M. HAUSSER. <i>Univ. Col. London (UCL), Univ. of Oxford.</i>				
3:00	K8	057.15	Inter-columnar interactions in layers 2-4 of barrel cortex in behaving mice. B. VOELCKER*; R. PANCHOLI; S. P. PERON. <i>NYU, New York Univ.</i>				
4:00	K9	057.16	A molecular and anatomical characterization of neuronal cell types in layer 2/3 of primary somatosensory cortex. C. J. CONDYLIS*; K. BISTRONG; Z. YAO; K. SMITH; T. NGUYEN; B. BASIC; H. ZENG; J. L. CHEN. <i>Boston Univ., Boston Univ., Allen Inst. For Brain Sci.</i>				
1:00	K10	057.17	Context dependent sensorimotor processing during active sensation. G. I. TELIAN*; J. BROWN; H. ADESNIK. <i>Univ. of California Berkeley, Univ. of California, Berkeley.</i>	1:00	K22	058.05	Local field potential dynamics during odor-directed attention. H. L. CANSLER*; E. E. IN 'T ZANDT; D. W. WESSON. <i>Univ. of Florida.</i>
2:00	K11	057.18	Circuits underlying tactile object detection. Y. K. HONG*; B. C. PIL; E. A. GREEMAN; R. M. BRUNO. <i>Columbia Univ.</i>	2:00	K23	058.06	Differential effects of phasic and tonic locus coeruleus activations on odor discrimination and valence learning. S. TORRAVILLE*; A. GHOSH; T. OMOLUABI; F. MASSAEILI; V. STRONG; K. POWER; O. AUDU; X. CHEN; G. M. MARTIN; C. W. HARLEY; Q. YUAN. <i>Mem. Univ. of Newfoundland, Mem. Univ. of Newfoundland.</i>
3:00	K12	057.19	S1 neurons with the highest spontaneous firing rate are the most informative of success in a detection task. H. SHIN*; C. I. MOORE. <i>Brown University, Neurosci., Brown Univ.</i>				

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3:00	K24	058.07	Olfactory evidence accumulation in mice. H. WU*; S. JAYAKUMAR; J. F. R. GRIMAUD; J. D. ZAK; P. MASSET; V. KAPOOR; V. N. MURTHY. <i>Harvard Univ., Harvard Univ.</i>	1:00	K38	058.21	Vomeronasal sensory neurons undergo identity drifts and functional ambiguity after loss of Tfp2e (AP-2e). J. M. LIN*; P. E. FORNI. <i>SUNY, Univ. at Albany.</i>
4:00	K25	058.08	Tuning of ensemble responses in human olfactory cortex. V. SAGAR*, T. KAHNT. <i>Northwestern Univ.</i>	2:00	K39	058.22	Odor detection and discrimination by immature mouse olfactory sensory neurons <i>in vivo</i> . J. HUANG*; B. LIU; J. AVON; R. MUGGLETON; C. E. CHEETHAM. <i>Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh.</i>
1:00	K26	058.09	A novel computer vision tool to infer fish behavior in response to odor stimulation. S. BANERJEE*; W. J. SCHEIRER; L. LI. <i>Univ. of Notre Dame, Univ. of Notre Dame.</i>	3:00	K40	058.23	Interactions of DEET and novel repellents with mosquito odorant receptors. G. G. GRANT; R. R. ESTRERA; M. J. REGAN; A. C. HALL*. <i>Smith Col., Smith Col., Smith Col.</i>
2:00	K27	058.10	Characterization of the olfactory and cardiac response in the establishment of hierarchical order in crayfish. I. HERNANDEZ-PRIOR*; K. MENDOZA-ANGELES; J. HERNANDEZ-FALCON. <i>Univ. Nacional Autónoma De México.</i>	4:00	L1	058.24	Learning transfer from retro- to orthonasal olfaction and odor-evoked local field potential characterization across olfactory routes. R. HE*; K. CHEN; L. M. KAY. <i>The Univ. of Chicago, The Univ. of Chicago, The Univ. of Chicago.</i>
3:00	K28	058.11	Behavioral scene-selective activity of ventral tenia tecta neurons. K. SHIOTANI*; Y. TANISUMI; K. MURATA; J. HIROKAWA; K. MORI; Y. SAKURAI; H. MANABE. <i>Doshisha Univ., Res. Fellow of Japan Society for the Promotion of Sci., Univ. of Fukui, The Univ. of Tokyo.</i>	1:00	L2	058.25	Sensitive and selective bile acid receptors in the vomeronasal organ. W. WONG*; J. CAO; X. ZHANG; W. I. DOYLE; J. P. MEEKS. <i>UT Southwestern, UCSD.</i>
4:00	K29	058.12	Mouse detection of fluctuating odors based on intermittency. A. GUMASTE*; M. IZYDORCZAK; E. CONNOR; K. L. BAKER; K. NAGEL; J. CRIMALDI; J. V. VERHAGEN. <i>Yale Univ., John B Pierce Lab., Univ. of Colorado, Yale Univ., NYU Langone Med. Sch., John B. Pierce Lab.</i>	2:00	L3	058.26	Kirrel3 and olfactory circuit formation and that contributes to neurodegenerative diseases in the mouse. E. EERDUNFU*; L. BAO; Y. WU; H. TAKEUCHI; Y. IKEGAYA. <i>The Univ. of Tokyo.</i>
1:00	K30	058.13 ▲	A geometric framework for odor learning and representation. J. A. COOK*; T. A. CLELAND. <i>Cornell Univ., Cornell Univ.</i>	3:00	L4	058.27	The unique role of accessory olfactory bulb external granule cells in chemosensory information processing. X. ZHANG*; J. P. MEEKS. <i>UT Southwestern Med. Ctr., UT Southwestern Med. Ctr.</i>
2:00	K31	058.14 ●▲	Pheromone-mediated vocalizations resist habituation. A. E. PHILIPP-MULLER*; J. KIM. <i>Univ. of Toronto.</i>	4:00	L5	058.28	Modulation of primary olfactory receptor activity by mixtures. L. XU*; W. LI; V. VOLETI; E. M. HILLMAN; S. J. FIRESTEIN. <i>Columbia Univ., Columbia Univ., Columbia Univ., Columbia Univ.</i>
3:00	K32	058.15	Tailshock evokes widespread, spatially and temporally patterned neural activity in the mouse olfactory bulb <i>in vivo</i> . K. A. PERKINS*, Jr; J. P. MCGANN. <i>Rutgers Univ.</i>	1:00	L6	058.29	Snowballs or snowflakes: Transcriptional heterogeneity in olfactory sensory neurons. T. TSUKAHARA*; D. H. BRANN; S. R. DATTA. <i>Harvard Med. Sch.</i>
4:00	K33	058.16	Reduced olfactory perception to isoamyl acetate in streptozotocin-induced diabetic female rats. D. REBOLLEDO-SOLLEIRO*; J. E. RIOS-CARRILLO; I. CRUZ-GUTIERREZ; A. ESPINOZA-SALGADO; R. C. ZEPEDA; H. SOLLEIRO-VILLAVICENCIO; G. ROLDAN-ROLDAN. <i>Facultad de Medicina, Univ. Nacional Autonoma de Mexico, Univ. Veracruzana.</i>	2:00	L7	058.30	Widespread inhibitory responses in the mouse olfactory sensory neurons <i>in vivo</i> . S. INAGAKI*; R. IWATA; T. IMAI. <i>Kyushu Univ.</i>
1:00	K34	058.17	Behavioral decision making for predator defensive behaviors in mice. Q. T. NGUYEN*; S. HAGA-YAMANAKA. <i>Univ. of California Riverside.</i>				
2:00	K35	058.18	Modulation of olfactory learning and processing by baseline gustatory cortex inputs. B. N. BALLINTYN*; D. B. KATZ; P. MILLER. <i>Brandeis Univ., Brandeis Univ.</i>				
3:00	K36	058.19	The role of the olfactory bulb respiratory rhythm in coordinating neocortical and limbic system oscillations for sensory cognition. A. SHERIFF*; L. M. KAY. <i>Inst. for Mind and Biol., The Univ. of Chicago.</i>				
4:00	K37	058.20 ●	Bilateral imaging of sensory dynamics during odor-guided navigation in freely behaving mice. D. P. LEMAN; I. A. CHEN; W. W. YEN; J. CLEVENGER; N. PERKINS; L. KRETSGE; Y. COHEN; W. A. LIBERTI, III; K. KILIÇ; A. CRUZ-MARTIN; T. J. GARDNER; T. M. OTCHY; I. G. DAVISON*. <i>Boston Univ., Boston Univ., Univ. of California Berkeley.</i>				

POSTER

059. Temporal and Spectral Auditory Processing

Theme D – Sensory Systems

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

1:00	L8	059.01	Tracking of 1/f stimulus characteristics in the human electroencephalogram. L. WASCHKE*; T. DONOGHUE; S. SMITH; B. VOYTEK; J. OBLESER. <i>Dept. Of Psychology, Univ. of Luebeck, Univ. of California San Diego Dept. of Cognitive Sci.</i>
2:00	L9	059.02	Multiple timescale sensitivity of EEG components to statistical features in unattended tone sequences. T. I. REGEV*; G. MARKUSFELD; I. NELKEN; L. Y. DEOUELL. <i>The Hebrew Univ. of Jerusalem, The Hebrew Univ. of Jerusalem, The Hebrew Univ. of Jerusalem.</i>
3:00	L10	059.03	Cortical activity induced by laser stimulation of auditory nerves. Y. TAMAI*; Y. ITO; T. FURUYAMA; K. HORINOUCHI; N. MURASHIMA; I. MICHIMOTO; S. HIRYU; K. I. KOBAYASHI. <i>Doshisha Univ., Doshisha Univ.</i>

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4:00	L11 059.04 Variations in oscillatory patterns of spectral power and phase coherence may underlie deficits in rapid auditory processing for 12-month-old infants at familial risk for language learning impairment. S. ORTIZ-MANTILLA*; T. REALPE-BONILLA; C. P. ROESLER; A. A. BENASICH. <i>Rutgers Univ. Newark.</i>	3:00	L26 059.19 Temporal perturbation releases auditory neural responses from adaptation. M. MENCELOGLU*, M. GRABOWECKY; S. SUZUKI. <i>Northwestern Univ., Northwestern Univ.</i>
1:00	L12 059.05 Sequence learning in mammals: An animal model to explore the mechanisms of language acquisition. D. LUO*; R. AUKSZTULEWICZ; J. W. SCHNUPP. <i>City Univ. of Hong Kong, Max Planck Inst. for Empirical Aesthetics.</i>	4:00	L27 059.20 Auditory steady state stimulation enhance gamma activity during sleep. D. L. HENAO*, G. HUBERFELD; J. F. NIETO; M. VALDERRAMA; M. LE VAN QUYEN. <i>Univ. De Los Andes, Pierre and Marie Curie Univ., Univ. de los Andes, Univ. of Los Andes, Ctr. de Recherche de l'ICM, INSERM UMRS 975- CNRS UMR 7225.</i>
2:00	L13 059.06 Memory-based and cross-modal acceleration effects on auditory steady-state response. S. SUGIYAMA*; M. NISHIHARA; K. INUI. <i>Gifu Univ. Grad. Sch. of Med., Aichi Med. Univ., Aichi Human Service Ctr.</i>	1:00	L28 059.21 Fluctuation in auditory test results in mice. T. M. MAKISHIMA*; B. YANG; R. COOK; J. MARUYAMA; S. PAESSLER. <i>Univ. of Texas Med. Br. at Galveston, Univ. of Texas Med. Br.</i>
3:00	L14 059.07 The development of tonotopic specialization of the chick cochlear nucleus. L. S. JONES*; R. BURGER; M. KELLEY; Z. MANN. <i>Lehigh Univ., NIH, Kings Col. London.</i>	2:00	L29 059.22 A new computational approach to the neural processing of sound, and it's about time. S. K. SCOTT*; K. JASMIN; C. F. LIMA. <i>Univ. Col. London, UCL Inst. of Cognitive Neurosci., Univ. Inst. of Lisbon (ISCTE-IUL).</i>
4:00	L15 059.08 Neural circuit and processing mechanism underlying auditory pattern recognition in the cricket brain. X. ZHANG*; B. HEDWIG. <i>Univ. of Cambridge.</i>	3:00	L30 059.23 Region specific timescale dependency of auditory neural activity to song stimulus in avian brain. M. INDA*, A. YOSHIDA; K. HOTTA; K. OKA. <i>Keio-Univ. Biophysics and Neuroinformatics Lab.</i>
1:00	L16 059.09 Behavioural and neural measures of auditory regularity detection in ferrets. K. C. POOLE*, E. J. JONES; J. K. BIZLEY. <i>Univ. Col. London.</i>	4:00	L31 059.24 Tracking rhythmicity of neural oscillations in the auditory thalamocortical system. S. A. NEYMOTIN*, A. BARCZAK; M. N. O'CONNELL; T. MCGINNIS; N. MARKOWITZ; E. ESPINAL; E. Y. GRIFFITH; S. DURA-BERNAL; W. W. LYTTON; S. R. JONES; S. BICKEL; P. LAKATOS. <i>Nathan S. Kline Inst. For Psychiatric Res., Hofstra Northwell Sch. of Med., SUNY Downstate Med. Ctr., Kings County Hosp. Ctr., Brown Univ., Providence VA Med. Ctr., NYU Langone Med. Ctr.</i>
2:00	L17 059.10 Effects of stochastically varying modulation frequency on the detection of amplitude-modulated noise. K. N. O'CONNOR*; D. R. JOHNSON; J. S. JOHNSON; M. L. SUTTER. <i>UC Davis, UC Davis.</i>	1:00	L32 059.25 Data-driven model of auditory thalamocortical system rhythms. E. Y. GRIFFITH*, S. DURA-BERNAL; A. BARCZAK; M. N. O'CONNELL; T. M. MCGINNIS; P. LAKATOS; W. W. LYTTON; S. A. NEYMOTIN. <i>State Univ. of New York Downstate Med. Ctr., State Univ. of New York Downstate Med. Ctr., Nathan S. Kline Inst. For Psychiatric Res.</i>
3:00	L18 059.11 Age related changes in peripheral and central auditory processing in Fischer 344 rats. D. SUTA*, K. PYSANENKO; J. POPELAR; Z. BURES; N. RYBALKO; T. CHIU; J. SYKA. <i>Inst. of Exptl. Med. CAS, CIIRC Czech Tech. Univ., Dept of Biol. Sci. and Technology, NCTU.</i>		
4:00	L19 059.12 Including measures of high gamma power can improve the decoding of natural speech from EEG. S. R. SYNIGAL*, E. S. TEOH; E. C. LALOR. <i>Univ. of Rochester, Trinity Col. Dublin, The Univ. of Dublin, Univ. of Rochester.</i>		
1:00	L20 059.13 Mild therapeutic hypothermia preserves residual hearing against cochlear implant trauma: Preclinical results and translational potential. R. SANGALETTI*, E. A. DUGAN; C. KING; D. DIETRICH; M. HOFFER; S. RAJGURU. <i>Univ. of Miami, Univ. of Miami, Lucent Med. Systems, Univ. of Miami, Univ. of Miami, Univ. of Miami.</i>		
1:00	DP06/L21 059.14 (Dynamic Poster) Sensitivity to Schroeder phase in octopus cells: Testing the dendritic delay hypothesis. H. LU*, P. H. SMITH; P. X. JORIS. <i>KU Leuven, Univ. of Wisconsin.</i>		
3:00	L22 059.15 Replication of the neural processing of pitch in youth without clinical diagnoses. N. M. RUSSO-PONSARAN*; A. KARLS; T. NICOL; N. KRAUS. <i>Rush Univ. Med. Ctr., Northwestern Univ.</i>		
4:00	L23 059.16 Rhythmic auditory stimulation to entrain epileptic brain rhythms. R. QUON*, G. LESLIE; E. CAMP; B. C. JOBST. <i>Geisel Sch. of Med. at Dartmouth Col., Georgia Tech., Dartmouth-Hitchcock, Dartmouth-Hitchcock Med. Ctr.</i>		
1:00	L24 059.17 A temporal correlate to monaural edge pitch in the inter-spike interval statistics in the auditory nerve. Y. LI*; P. X. JORIS. <i>KU Leuven.</i>		
2:00	L25 059.18 General auditory and speech-specific contributions to cortical envelope tracking revealed using auditory chimeras. K. D. PRINSLOO*; E. C. LALOR. <i>Univ. of Rochester.</i>		

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4:00	L36	060.04 ▲ Spiral ganglion neurons with distinct preferred frequency responses employ different strategies to innervate the cochlear nucleus. S. S. MOHAMMED; A. J. PARNG; C. K. BORCEAN; H. YOON; J. L. SCHEFFEL; D. A. GUTIERREZ; W. YU*. <i>Loyola Univ. Chicago.</i>	2:00	M3	061.02 Neural mechanisms for flexible navigation-based decisions in mice. S. KIRA*; G. PICA; S. PANZERI; C. D. HARVEY. <i>Harvard Med. Sch., Istituto Italiano Di Tecnologia.</i>
1:00	L37	060.05 Morphological identification of zebra finch primary auditory neurons for parallel encoding of individually unique, but species-specific song features. M. ARAKI*; Y. YAZAKI-SUGIYAMA. <i>Okinawa Inst. of Sci. and Technol., Okinawa Inst. of Sci. and Technol. (OIST) Grad. Univ.</i>	3:00	M4	061.03 Frontal eye field neurons accumulate momentary vestibular acceleration and visual speed evidence for self-motion perception. Q. K. ZHENG*; L. ZHOU; Y. GU. <i>Inst. of Neuroscience, Chinese Acad. of Sci.</i>
2:00	L38	060.06 Sensitivity to tissue damage in mouse type II spiral ganglion neurons over the course of development. N. J. NOWAK*; M. B. WOOD; P. A. FUCHS. <i>Johns Hopkins Sch. of Med., Johns Hopkins Univ.</i>	4:00	M5	061.04 Changes in spontaneous brain activities during perception of 3-D object shape from motion. S. IWAKI*. <i>Natl. Inst. Adv Indust Sci. & Tech.</i>
3:00	L39	060.07 Convergence of auditory nerve fibers onto globular bushy cells. G. A. SPIROU*; M. KERSTING; M. H. ELLISMAN; P. B. MANIS. <i>Univ. of South Florida, UCSD BSB 1000, Univ. N Carolina-Chapel Hill.</i>	1:00	M6	061.05 Characterization of the behavior of different neural network models performing a visual search task. D. A. NICHOLSON; A. A. PRINZ*. <i>Emory Univ.</i>
4:00	L40	060.08 Synaptic actions of descending projections to the dorsal cochlear nucleus. T. S. BALMER*; L. O. TRUSSELL. <i>Oregon Hlth. and Sci. Univ.</i>	2:00	M7	061.06 Stratal fast spiking GABAergic interneurons are necessary for object value learning based on the environment. J. KUNIMATSU*; O. HIKOSAKA. <i>Univ. of Tsukuba, Natl. Eye Inst.</i>
1:00	L41	060.09 Synaptic properties of a novel inhibitory cell type in the cochlear nucleus. T. NGODUP*; L. O. TRUSSELL. <i>Oregon Hlth. and Sci. Univ.</i>	3:00	M8	061.07 Utilizing wisdom of crowds in the context of visual search task with varying difficulty levels. T. SAHA ROY*; S. MAZUMDER; K. DAS. <i>Indian Inst. of Sci. Educ. And Res. Kolkata.</i>
2:00	L42	060.10 Localization of cochlear nuclei by auditory nerve tracing in <i>Trachemys scripta</i> turtles. J. R. DONOHUE*; D. T. DALY; M. ARIEL. <i>St. Louis Univ., St. Louis Univ. Sch. of Med.</i>	4:00	M9	061.08 Evidence accumulation in changing environments: Linking normative computation and neural implementation. P. R. MURPHY*; N. WILMING; D. HERNANDEZ BOCANEGRA; G. PRAT ORTEGA; T. H. DONNER. <i>Univ. Med. Ctr. Hamburg-Eppendorf, IDIBAPS.</i>
3:00	L43	060.11 CaMKIIα positive dorsal cochlear nucleus neurons are necessary for tinnitus perception in mice. T. B. MALFATTI*; B. C. BOERNER; R. N. LEÃO; K. E. LEÃO. <i>Federal Univ. of Rio Grande do Norte.</i>	1:00	M10	061.09 Comparing the dynamics of neural response and choice probability in the frontal eye field and lateral intraparietal area during ongoing visual search. K. MIRPOUR*; J. W. BISLEY. <i>UCLA.</i>
4:00	L44	060.12 Effects of the two-pore potassium channel subunit TASK-5 on neuronal firing in the auditory brainstem. H. SABER; L. RÜTTIGER; M. KAISER; C. KÖRBER*. <i>Univ. of Heidelberg, Univ. of Tübingen.</i>	2:00	M11	061.10 Piano playing enhances awareness of musical scores during binocular rivalry. S. GILL*; S. KIM; C. KIM. <i>Korea Univ., Univ. of Sydney.</i>
1:00	L45	060.13 ● Preclinical evaluation of a novel mGluR7 negative allosteric modulator in a noise-induced hearing loss mouse model. R. M. AMANIPOUR*; X. ZHU; B. DING; S. CELANIRE; G. A. DUVEY; A. SCHULTZ; R. D. FRISINA; J. P. WALTON. <i>Univ. of South Florida, Global Ctr. for Hearing & Speech Res., Univ. of South Florida, Univ. South Florida, Pragma Therapeut., Univ. of South Florida.</i>	3:00	M12	061.11 The loss function of perception is adjustable. T. TENG*; S. LI; H. ZHANG. <i>Peking Univ., Peking Univ., Peking Univ., Peking Univ.</i>
2:00	L46	060.14 Distinct short-term plasticity of synaptic inputs onto auditory medial olivocochlear efferent neurons. G. E. ROMERO*; L. O. TRUSSELL. <i>Oregon Hlth. & Sci. Univ.</i>	4:00	M13	061.12 Beta activity (15-30 Hz) modulates the choice probability in a visual selection task. A. DUBEY*; D. A. MARKOWITZ; B. PESARAN. <i>New York Univ., New York Univ.</i>

POSTER

061. Decision Making I

Theme D – Sensory Systems

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

1:00	M2	061.01 The caudate nucleus controls coordinated patterns of adaptive, context-dependent adjustments to complex decisions. T. DOI; Y. FAN; J. I. GOLD; L. DING*. <i>Univ. of Pennsylvania, Univ. of Pennsylvania, Univ. Pennsylvania.</i>
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1:00 M14 **061.13** Brain activity associated with preferences for artworks depending on the context of human or AI creators. S. NAM*; J. SONG; C. KIM. *Korea Univ.*

2:00 M15 **061.14** Incentivizing dissecting and modeling human confidence judgments. Z. BOUNDY-SINGER*; C. M. ZIEMBA; R. L. T. GORIS. *Univ. of Texas At Austin.*

3:00 M16 **061.15** ● Distinct BOLD signal time course profiles found for sensation, reward, and perception in social alcohol drinkers. K. SANDERS*; T. W. JAMES. *Indiana Univ.*

4:00 M17 **061.16** Deficits in decision making after pharmacological and chemogenetic inactivation of Area LIP. D. JEURISSEN; S. SHUSRUTH*; Y. EL-SHAMAYLEH; G. D. HORWITZ; M. N. SHADLEN. *Columbia Univ., Univ. of Washington, Howard Hughes Med. Inst. - Columbia Univ.*

1:00 M18 **061.17** Unbiased estimation of firing-rate variance from spikes to reveal decision computations. C. AGHAMOHAMMADI*; T. A. ENGEL. *Cold Spring Harbor Lab.*

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2:00	M19 061.18 Value computation in a naturalistic foraging task by non-human primates. B. CAZIOT*; P. R. SCHRATER; X. S. PITKOW; D. E. ANGELAKI. <i>New York Univ., Univ. Minnesota, Baylor Col. of Med.</i>	3:00	M30 062.11 Central pattern generator-driven efference copy couples eye movements with forelimb locomotion in mice. F. FRANÇA DE BARROS; C. TAILLEBUIS; M. MANUEL; H. BRAS; D. COMBES; F. M. LAMBERT; M. BERANECK*. <i>CNRS, Univ. Paris Descartes, Univ. Bordeaux, CNRS, CNRS, CNRS.</i>
POSTER			
062.	Eye Movements: Central Processing		
	Theme E – Motor Systems		
	Sat. 1:00 PM – McCormick Place, Hall A		
1:00	M20 062.01 A post exercise benefit to executive function is independent of a change in cerebral blood flow: Evidence from hypercapnia. B. TARI*; J. VANHIE; M. A. FADEL; G. R. BELFRY; M. HEATH. <i>Univ. of Western Ontario.</i>	4:00	M31 062.12 Human saccadic variability and perceptual judgements along the cardinal axes. T. MALEVICH*; Z. M. HAFED. <i>Werner Reichardt Ctr. For Integrative Neurosci.</i>
2:00	M21 062.02 Voluntary saccade training of large amplitudes in healthy older adults yields bilateral changes in latency and kinematics. P. B. CAMACHO*; R. CARBONARI; C. LOPEZ-ORTIZ. <i>Univ. of Illinois at Urbana Champaign, Univ. of Illinois at Urbana-Champaign, Univ. of Illinois at Urbana-Champaign.</i>	1:00	M32 062.13 Eye movements during a touchscreen Archimedes spiral tracing task. B. D. HEINTZ*; W. E. HUDDLESTON; K. G. KEENAN. <i>Univ. of Wisconsin-Milwaukee, Univ. of Wisconsin - Milwaukee, Univ. of Wisconsin-Milwaukee.</i>
3:00	M22 062.03 Influence of accuracy of eye movement to hand movements in visual and memorial reaching task in hereditary spinocerebellar degeneration. S. INOMATA-TERADA*; S. TOKUSHIGE; S. MATSUDA; M. HAMADA; S. TSUJI; Y. UGAWA; Y. TERAO. <i>Kyorin Univ., Kyorin Univ., NTT Med. Ctr., The Univ. of Tokyo, Intl. Univ. of Hlth. and Welfare, Fukushima Med. Univ.</i>	2:00	M33 062.14 Diagonal nystagmus induced by vertical optokinetic stimulation in subjects with idiopathic infantile nystagmus. J. R. ECONOMIDES*; Y. SUH; J. B. SIMMONS; D. L. ADAMS; J. C. HORTON. <i>Univ. of California San Francisco, Korea Univ. Col. of Med.</i>
4:00	M23 062.04 Altered pupil dynamics in the progression of Parkinson's disease. J. HUANG*; B. C. COE; M. SMORENBURG; D. BRIEN; D. BEATON; B. TAN; C. MARRAS; J. LAWRENCE-DEWAR; S. STROTHER; D. KWAN; P. MC LAUGHLIN; A. LANG; S. E. BLACK; E. FINGER; M. FREEMAN; M. J. STRONG; R. SWARTZ; C. TARTAGLIA; L. ZINMAN; D. P. MUÑOZ; A. THE ONDRI INVESTIGATORS. <i>Queen's Univ., Baycrest Hlth. Sci., Univ. of Toronto, Thunder Bay Regional Res. Inst., Baycrest Hlth. Sci., York Univ., Western Univ., Sunnybrook Hlth. Sci. Ctr., London Hlth. Sci. Ctr. - UH, Ontario Neurodegenerative Dis. Res. Initiative.</i>	3:00	M34 062.15 Cortical contributions to the latency of smooth pursuit eye movements determined by simultaneous recordings in area MT and the frontal eye fields. J. P. MAYO*; S. G. LISBERGER. <i>Duke Univ.</i>
1:00	M24 062.05 ● Saccade vigor as an implicit measure of subjective value. T. YOON*; R. SHADMEHR. <i>Johns Hopkins Univ.</i>	4:00	M35 062.16 Behavioral evidence for dynamic modulation of eye velocity feedback during smooth pursuit steady-state. S. BEHLING*; S. G. LISBERGER. <i>Duke Univ.</i>
2:00	M25 062.06 Value of error: Mechanisms that modulate sensorimotor learning. E. SEDAGHAT NEJAD*; R. SHADMEHR. <i>Johns Hopkins Univ., Johns Hopkins Univ. Dept. of Biomed. Engin.</i>	1:00	M36 062.17 Oculomotor plant hypothesis (OPH) revisited: Abducens neuron behaviors during combined eye-head gaze shifts, disjunctive smooth pursuit and sleep in monkeys. J. HUANG; W. KING; W. ZHOU*. <i>Univ. of Mississippi Med. Ctr., Univ. of Michigan.</i>
3:00	M26 062.07 Signatures of the fast and slow adaptation processes during saccade adaptation. S. P. OROZCO*; R. SHADMEHR. <i>Johns Hopkins Univ.</i>	2:00	M37 062.18 The interaction between prior knowledge and sensory evidence revealed in multivariate EEG activity pattern during smooth pursuit eye movement. W. JEONG*; J. LEE; S. KIM. <i>Sungkyunkwan Univ., Sungkyunkwan Univ., Sungkyunkwan Univ.</i>
4:00	M27 062.08 Saccade vigor reflects preference in effort-based decisions. C. KORBISCH; D. R. APUAN*; A. A. AHMED. <i>Univ. of Colorado, Boulder, Univ. of Colorado Boulder, Univ. of Colorado.</i>	3:00	M38 062.19 ● Fixational eye motion characteristics in a large, healthy control population as measured by the tracking scanning laser ophthalmoscope. C. K. SHEEHY*; E. BENSINGER; A. J. GREEN. <i>UCSF, UC Berkeley Sch. of Optometry.</i>
1:00	M28 062.09 The limits of saccadic frequency during visual scanning. J. A. EDELMAN*; A. AHMED. <i>City Col. of New York, CUNY Med. Sch.</i>	4:00	M39 062.20 Predictive accommodation control in humans. S. UMEMOTO; Y. HIRATA*. <i>Chubu Univ. Col. of Engin., Chubu Univ. Col. of Engin.</i>
2:00	M29 062.10 Gaze sampling and step location decisions during visually-guided walking with multiple foot-placement alternatives. F. J. DOMÍNGUEZ-ZAMORA*; D. S. MARIGOLD. <i>Simon Fraser Univ.</i>	1:00	M40 062.21 Eye size and the kinematics of horizontal eye rotation. J. L. DEMER*; R. A. CLARK. <i>UCLA, UCLA.</i>
		2:00	M41 062.22 Optimising the minimally delayed oculomotor response task: The effect of decreased spatial and increased temporal uncertainty. P. C. KNOX*; D. LIANG. <i>Univ. of Liverpool, South China Normal Univ.</i>

• Indicated a real or perceived conflict of interest, see page 72 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

POSTER

063. Cerebellum: Plasticity and Climbing Fibers

Theme E – Motor Systems

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

- 1:00 M42 **063.01** Metabotropic dependent and independent supralinear calcium signals associated with paired parallel fibre and climbing fibre stimulation in cerebellar purkinje neurons. M. CANEPARI*, K. AIT OUARES. *LIPhy, CNRS UMR 5588.*
- 2:00 M43 **063.02** Structural and ultrastructural plasticity of Purkinje neurons and glutamatergic climbing fibers in the cerebellum motor areas of MPTP-treated Parkinsonian monkeys: A 3D quantitative analysis. R. M. VILLALBA*; B. CHANEY; R. JANG; Y. SMITH; J. PARE. *Yerkes Resch Ctr. and Udall Ctr. of Excellence For Parkinson's Disease, Emory Un., Furman Univ., Dept. of Neurology-School of Medicine, Emory Univ.*
- 3:00 M44 **063.03** Transfer of cerebellar motor learning in smooth pursuit eye movements between sites with distinct behavioral and neural properties. D. J. HERZFELD*; S. G. LISBERGER. *Duke Univ.*
- 4:00 N1 **063.04** Cerebellar climbing fiber coding of eye movements and reward expectation in monkeys. N. LARRY*; M. YARKONI; A. LIXENBERG; M. JOSHUA. *The Hebrew Univ. of Jerusalem.*
- 1:00 N2 **063.05** Sensory prediction error, not motor error, drives complex spikes in the Purkinje cells of cerebellum. K. KARBASI*; D. J. HERZFELD; Y. KOJIMA; R. SOETEDJO; R. SHADMEHR. *Johns Hopkins Sch. of Med., Duke Univ., Univ. of Washington.*
- 2:00 N3 **063.06** Sensory modulation of climbing fiber bursts in the cerebellum of awake mice. A. S. FANNING; R. A. CHITWOOD; J. J. SIEGEL; M. D. MAUK; H. NISHIYAMA*. *Univ. Texas, Austin, Baylor Col. of Med.*
- 3:00 N4 **063.07** Cerebellar climbing fibers convey reward signals during motor learning in monkeys. H. LIU; Y. HU; Y. YANG*. *Inst. of Biophysics, CAS.*
- 4:00 N5 **063.08** Enhanced oculomotor learning in mice with impaired LTD. A. M. SHAKHAWAT*; J. N. BHATEJA; M. GAGNON; J. RAYMOND. *Stanford Univ.*
- 1:00 N6 **063.09** Experience tunes the timing requirements for synaptic plasticity in the cerebellum. S. JAYABAL*; A. SUVRATHAN; J. DISANTO; J. L. RAYMOND. *Stanford Univ. Sch. of Med., McGill Univ.*
- 2:00 N7 **063.10** A disinhibitory microcircuit to gate climbing fiber-mediated learning. K. ZHANG*; A. BONNAN; G. G. GROSS; D. B. ARNOLD; J. M. CHRISTIE. *Max Planck Florida Inst., Florida Atlantic Univ., MPFI, USC, USC, Max Planck Florida Inst.*
- 3:00 N8 **063.11** Changes in behavioral state account for the modulation of cerebellar learning by cannabinoid receptors. C. ALBERGARIA*; N. SILVA; D. M. DARMOHRAY; M. R. CAREY. *Champalimaud Ctr. For the Unknown, Champalimaud Ctr. for The Unknown, Champalimaud Ctr. For the Unknown.*
- 4:00 N9 **063.12** Olivocerebellar connections in the Atlantic stingray (*Dasyatis sabina*). D. V. SCARTON*; S. M. GRUBER; R. L. PUZDROWSKI. *Univ. of Houston-Clear Lake, Univ. of Houston Clear Lake.*

POSTER

064. Motor Systems: Fine Manual Control

Theme E – Motor Systems

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

- 1:00 N10 **064.01** Signals corresponding to bimanual movements in the posterior parietal cortex are shared across the hemispheres. E. F. MOOSHAGIAN*; C. D. HOLMES; L. H. SNYDER. *Washington Univ. Sch. of Med.*
- 2:00 N11 **064.02** Inter-hemispheric communication between parietal reach regions in bimanual coordination. J. KANG*; E. MOOSHAGIAN; L. H. SNYDER. *Washington Univ. Sch. of Med.*
- 3:00 N12 **064.03** Influence of shared control parameters on interference during asymmetric dynamic perturbation. P. C. DESROCHERS*; A. T. BRUNFELDT; F. A. KAGERER. *Michigan State Univ., Michigan State Univ.*
- 4:00 N13 **064.04** Structural learning generalizes to a contralateral effector. A. T. BRUNFELDT*; P. C. DESROCHERS; F. A. KAGERER. *Michigan State Univ.*
- 1:00 N14 **064.05** Crossed corticospinal facilitation between arm and trunk muscles during bilateral tasks. S. CHIOU*; M. A. PEREZ. *Univ. of Birmingham, Univ. of Miami, Bruce W. Carter Dept. of Veterans Affairs Med. Ctr., Shirley Ryan Ability Lab.*
- 2:00 N15 **064.06** Hand coordination in space overrules the optimization of variability and effort during bimanual tracking. J. MATHEW*; A. DE RUGY; F. DANION. *Univ. Catholique De Louvain, Aix-Marseille Univ., Univ. de Bordeaux, The Univ. of Queensland.*
- 3:00 N16 **064.07** Rapid temporal retuning of internal models after exposure to sensory delays. K. KILTENI*; C. HOUBORG; H. EHRSSEN. *Karolinska Institutet, Karolinska Inst., Karolinska Institutet.*
- 4:00 N17 **064.08** Tonic electromyography in task irrelevant muscles differs between successful and failed stopping. M. FISHER*; I. UTRECHT; I. GREENHOUSE. *Univ. of Oregon.*
- 1:00 N18 **064.09** Interlimb facilitation of handgrip strength is scaled to opposite arm force generation. G. C. TOFFANO; T. P. DOS SANTOS; R. L. SAINBURG; J. E. DE ARAUJO*. *Univ. of São Paulo, Penn State Univ.*
- 2:00 N19 **064.10** Bimanual coupling between motor execution and kinesthetic illusion of movement. M. BOVE*; F. GARBARINI; M. BIGGIO; A. BISIO. *Univ. of Genoa, Univ. of Turin.*
- 3:00 N20 **064.11** Body position does not affect jerk decomposition in upper limb cycling. L. BOTZHEIM; D. PIOVESAN; J. LACZKO*. *Univ. of Pecs, MTA Wigner Res. Ctr. For Physics, Gannon Univ., Northwestern University, Feinberg Sch. of Med.*
- 4:00 N21 **064.12▲** Influence of upper limb contractions on corticospinal excitability of trunk muscles. P. SHARMA; C. L. HAGGETT*; P. H. STRUTTON. *Imperial Col. London.*
- 1:00 N22 **064.13** Robotic characterization of movement asymmetry in humans with spinal cord injury. Y. LEI*; B. CHEN; M. A. PEREZ. *Univ. of Miami, Shirley Ryan Ability Lab., Bruce W. Carter Dept. of Veterans Affairs Med. Ctr.*
- 2:00 N23 **064.14** Complexity matching in asymmetric bimanual movement tasks is reduced in individuals with mild cognitive impairments. J. RUDISCH*; K. MÜLLER; C. VOELCKER-REHAGE. *Chemnitz Univ. of Technol.*

3:00	N24	064.15	Getting behind the mirror during mirror therapy: What happens to the unseen hand? J. M. KIM*, S. YEO; T. D. PUNT. <i>Univ. of Birmingham.</i>	3:00	N36	065.03	Network synchronization and synchrony propagation: Emergent elements of inspiration. S. ASHHAD*, J. L. FELDMAN. <i>UCLA.</i>
4:00	N25	064.16	The control of bimanual movements using covert visual attention. S. D. SARDAR; S. YEO; S. C. NESBITT; T. D. PUNT*. <i>Univ. of Birmingham.</i>	4:00	N37	065.04	Is Nav 1.6 sodium channel essential for generation of inspiratory activity <i>in vitro</i> ? J. VIEMARI*; G. PITOLLAT; S. ZANELLA; F. BROCARD. <i>CNRS-Institut de Neurosciences de la Timone, Aix-Marseille Univ., Inst. de Neurosciences de la Timone.</i>
1:00	N26	064.17	Age-dependent changes in bilateral coordination: A kinematic and electroencephalography study. P. SHIH; V. NIKULIN; C. J. STEELE; C. GUNDLACH; J. KRUSE; A. VILLRINGER; B. SEHM*. <i>Max Planck Inst. For Human Cognitive and Brain Sci., Cerebral Imaging Centre, Douglas Mental Hlth. Uni, Univ. Leipzig, Dept. of Gen. Psychology, Tech. Univ., Max Planck Inst. for Human Cognitive and Brain Sci.</i>	1:00	N38	065.05	The role of TRP channels in the pre-Botzinger complex inspiratory rhythm and breathing. A. K. TRYBA*. <i>The Univ. of Chicago.</i>
2:00	N27	064.18	Spatial constraints of a visuomotor task during bilateral transfer learning. R. N. ADDISON*; A. W. VAN GEMMERT. <i>Louisiana State Univ., Louisiana State Univ.</i>	2:00	N39	065.06	Morphine induced respiratory depression: Behavioral, phrenic and brainstem respiratory neuronal evidence. H. XING*; C. M. JOHNSON; N. SABATE; C. JIANG. <i>Georgia State Univ., Georgia State Univ.</i>
3:00	N28	064.19	One hand or two: Using multivariate pattern analysis to locate brain regions that distinguish between unimanual and bimanual tasks. D. J. GORBET*; L. E. SERGIO. <i>York Univ., York Univ.</i>	3:00	N40	065.07	● Intermittent hypoxia causes cardiometabolic dysfunction in obese, ob/ob mice. S. N. FRAMNES-DEBOER*; A. A. JONES; D. M. ARBLE. <i>Marquette Univ.</i>
4:00	N29	064.20	▲ Using machine learning to investigate sexual dimorphisms in fine motor control during rat string-pulling behavior. R. I. LAKE; N. S. ADAMCZYK; M. K. LORD; A. A. BLACKWELL; J. R. OSTERLUND; P. M. HASTINGS; I. Q. WHISHAW; D. G. WALLACE*. <i>Northern Illinois Univ., DePaul Univ., Univ. of Lethbridge.</i>	4:00	N41	065.08	Naked mole rats: New model to investigate the central respiratory network <i>in vitro</i> . J. VIEMARI; B. M. BROWNE; T. J. PARK; A. J. GARCIA*, III. <i>CNRS-Institut de Neurosciences de La Timone, Univ. of Illinois at Chicago, Univ. of Illinois at Chicago, The Univ. of Chicago.</i>
1:00	N30	064.21	Disruptions of fine motor control in string-pulling behavior following middle cerebral artery occlusion (MCAO) stroke in the rat. A. A. BLACKWELL*; M. L. HART; I. Q. WHISHAW; J. L. CHEATWOOD; D. G. WALLACE. <i>Northern Illinois Univ., Southern Illinois Univ., Univ. of Lethbridge.</i>	1:00	N42	065.09	Chemogenetic exploration of the role of Somatostatin and Neuromedin B receptor-expressing neurons in the formation of breathing pattern and sighs <i>in vivo</i> . E. BONDARENKO*; R. ABREU; J. L. FELDMAN. <i>UCLA.</i>
1:00	DP07/N31	064.22	(Dynamic Poster) Two thumbs up: How mice handle food with their first digits and forepaws. J. M. BARRETT*; M. G. RAINERI TAPIES; G. M. G. SHEPHERD. <i>Northwestern Univ.</i>	2:00	N43	065.10	Pou3f1 is required for the identity and function of inspiratory motor neurons in the developing spinal cord. S. KIM*; A. Y. HAN; K. KAM; J. L. FELDMAN; B. G. NOVITCH. <i>UCLA, Chicago Med. Sch., UCLA.</i>
3:00	N32	064.23	Exploring the role of dorsolateral striatum in bimanually coordinated movements in rats. A. K. PIMENTEL-FARFAN*; A. BÁEZ-CORDERO; M. T. PEÑA-RANGEL; P. E. RUEDA-OROZCO. <i>Inst. de Neurobiología, UNAM.</i>	3:00	N44	065.11	Role of synaptic inhibition in the coupling of the respiratory rhythms that underlie eupnea and sigh behaviors. D. S. BORRUS*; G. D. CONRADI SMITH; C. A. DEL NEGRO. <i>Col. of William and Mary, The Col. of William & Mary, William & Mary.</i>
4:00	N33	064.24	Dynamic engagement of sensorimotor interneurons during motor learning. J. LEE*; D. M. LOVINGER. <i>Natl. Inst. of Hlth., Natl. Inst. on Alcohol Abuse and Alcoholism Rockville Office.</i>	4:00	N45	065.12	▲ Respiratory sympathetic coupling mechanism: Comparative role of post-inspiratory neurons in post-inspiratory complex (PICO) & kolliker-fuse (KF) nucleus. R. TOOR*; Q. SUN; S. McMULLAN; C. HILDRETH; J. PHILLIPS. <i>Macquarie Univ.</i>
1:00	N34	065.01	Microglia shape the embryonic development of mammalian respiratory networks. M. THOBY BRISSON*; L. CARDOIT; M. MAYEUR; O. PASCUAL. <i>Univ. De Bordeaux, CNRS UMR 5287, CRNL-INSERM1028.</i>	1:00	N46	065.13	Fourier analysis applied to time series calcium imaging in the preBötzinger complex can delineate constituent dbx1 derived rhythmically active interneurons. C. J. GROVER*; C. A. DEL NEGRO. <i>William & Mary, William & Mary.</i>
2:00	N35	065.02	Exploring the role of bombesin-related peptide-/peptide receptor-expressing neurons in formation of breathing pattern and sighs <i>in vivo</i> . Y. CUI*; D. N. CHIU; J. L. FELDMAN. <i>UCLA, Chengdu Med. Col.</i>	2:00	O1	065.14	Inspiratory rhythmogenic activity in preBötzinger complex is burst-independent and opioid-sensitive. C. THÖRN PEREZ*; X. SUN; N. HALEMANI; X. M. SHAO; M. GREENWOOD; S. HEATH; J. L. FELDMAN; K. KAM. <i>UCLA, Rosalind Franklin Univ. of Med. and Scien, David Geffen Sch. Med. at UCLA, Rosalind Franklin Univ. of Med. and Sci.</i>
3:00	O2	065.15	Burstlet hypothesis of inspiratory rhythm generation: Are rhythm- and pattern- generation separate mechanisms? P. KALLURKAR*; C. GROVER; M. C. PICARDO; C. A. DEL NEGRO. <i>William & Mary.</i>				

* Indicated a real or perceived conflict of interest, see page 72 for details.

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* Indicates abstract's submitting author

4:00	O3	065.16 Effects of persistent sodium current blockade in respiratory circuits depend on the pharmacological mechanism of action and network dynamics. R. S. PHILLIPS*; J. E. RUBIN. <i>Univ. of Pittsburgh.</i>	3:00	O15	066.11 Transcallosal functional connectivity between motor cortices in rats probed with unilateral optogenetic stimulation of glutamatergic neurons. C. SKOVEN*; L. TOMASEVIC; D. KVITSIANI; B. PAKKENBERG; H. R. SIEBNER; T. B. DYRBY. <i>Copenhagen Univ. Hosp. Hvidovre, Aarhus Univ. / DANDRITE, Bispebjerg Univ. Hosp., Univ. of Copenhagen, Copenhagen Univ. Hosp. Bispebjerg, Tech. Univ. of Denmark (DTU).</i>
1:00	O4	065.17 <i>In vitro</i> sighs in rat are inspiratory bursts with longer duration rather than larger amplitude. C. MORGADO-VALLE*; L. LOPEZ-MERAZ; C. A. PEREZ-ESTUDILLO; L. BELTRAN-PARRAZAL. <i>Univ. Veracruzana.</i>	4:00	O16	066.12 Troponin I is expressed in α -motor neurons and can act as a potential transcription factor relevant to the age-related neuronal loss. K. M. PIEKARZ*; K. SATARANATARAJAN; H. VAN REMMEN. <i>Univ. of Oklahoma Hlth. Sci. Ctr., Oklahoma Med. Res. Fndn.</i>
1:00		POSTER	1:00	O17	066.13 Size dependent vulnerability of lumbar motor neuron dendritic degeneration in SOD1 ^{G93A} mice. M. J. FOGARTY*; E. W. MU; N. A. LAVIDIS; P. G. NOAKES; M. C. BELLINGHAM. <i>Mayo Clin., Univ. of Queensland, The Univ. of Queensland, Univ. Queensland, Univ. of Queensland.</i>
2:00		066.14 ▲ Membrane-initiated testosterone signaling regulates androgen receptors in a sexually dimorphic motor nucleus. L. M. HAETZEL*; L. M. RUDOLPH. <i>Pomona Col.</i>	2:00	O18	066.14 ▲ Membrane-initiated testosterone signaling regulates androgen receptors in a sexually dimorphic motor nucleus. L. M. HAETZEL*; L. M. RUDOLPH. <i>Pomona Col.</i>
3:00		066.15 Variability and stability of triceps surae M-wave during walking, running, and hopping. M. MCLEOD*; B. POULIOT; A. K. THOMPSON. <i>Col. of Charleston, Med. Univ. of South Carolina, Med. Univ. of South Carolina.</i>	3:00	O19	066.15 Variability and stability of triceps surae M-wave during walking, running, and hopping. M. MCLEOD*; B. POULIOT; A. K. THOMPSON. <i>Col. of Charleston, Med. Univ. of South Carolina, Med. Univ. of South Carolina.</i>
4:00		066.16 Effects of stretch velocity on the latency of the human soleus stretch reflex. Y. MAKIHARA*, N. MRACHACZ-KERSTING; T. SINKJAER; A. K. THOMPSON. <i>Intl. University of Hlth. and Welfare, Aalborg Univ., Lundbeck Fndn., Med. Univ. of South Carolina.</i>	4:00	O20	066.16 Effects of stretch velocity on the latency of the human soleus stretch reflex. Y. MAKIHARA*, N. MRACHACZ-KERSTING; T. SINKJAER; A. K. THOMPSON. <i>Intl. University of Hlth. and Welfare, Aalborg Univ., Lundbeck Fndn., Med. Univ. of South Carolina.</i>
1:00		066.17 Task dependent adaptation and long-term changes in the human soleus stretch reflex. N. MRACHACZ-KERSTING*, U. G. KERSTING; T. SINKJAER; A. K. THOMPSON. <i>Aalborg Univ., German Sport Univ. Cologne, Lundbeck Fndn., Med. Univ. of South Carolina.</i>	1:00	O21	066.17 Task dependent adaptation and long-term changes in the human soleus stretch reflex. N. MRACHACZ-KERSTING*, U. G. KERSTING; T. SINKJAER; A. K. THOMPSON. <i>Aalborg Univ., German Sport Univ. Cologne, Lundbeck Fndn., Med. Univ. of South Carolina.</i>
2:00		066.18 Can combining reflex conditioning and motor practice enhance beneficial plasticity in people with chronic incomplete SCI? A. K. THOMPSON*, B. A. POULIOT; J. R. WOLPAW; C. R. GILL. <i>Med. Univ. of South Carolina, Med. Univ. of South Carolina, Wadsworth Center, NY State Dept. of Hlth., Med. Univ. of South Carolina.</i>	2:00	O22	066.18 Can combining reflex conditioning and motor practice enhance beneficial plasticity in people with chronic incomplete SCI? A. K. THOMPSON*, B. A. POULIOT; J. R. WOLPAW; C. R. GILL. <i>Med. Univ. of South Carolina, Med. Univ. of South Carolina, Wadsworth Center, NY State Dept. of Hlth., Med. Univ. of South Carolina.</i>
3:00		066.19 Operant conditioning of the extensor carpi radialis motor-evoked potential to transcranial magnetic stimulation in people with incomplete spinal cord injury. B. A. POULIOT*; B. H. S. DELLENBACH; A. K. THOMPSON. <i>Med. Univ. of South Carolina.</i>	3:00	O23	066.19 Operant conditioning of the extensor carpi radialis motor-evoked potential to transcranial magnetic stimulation in people with incomplete spinal cord injury. B. A. POULIOT*; B. H. S. DELLENBACH; A. K. THOMPSON. <i>Med. Univ. of South Carolina.</i>
4:00		066.20 Subtype specific maturation of intrinsic properties drives the orderly recruitment of slow and fast lumbar motoneurons during postnatal development. S. A. SHARPLES*; F. SORRELL; G. B. MILES. <i>Univ. of St. Andrews, Univ. of St Andrews.</i>	4:00	O24	066.20 Subtype specific maturation of intrinsic properties drives the orderly recruitment of slow and fast lumbar motoneurons during postnatal development. S. A. SHARPLES*; F. SORRELL; G. B. MILES. <i>Univ. of St. Andrews, Univ. of St Andrews.</i>
1:00		066.21 Post discharge activity of spinal motor neurons across postnatal development in mice. F. L. SORRELL*; S. A. SHARPLES; K. T. SILLAR; G. B. MILES. <i>Univ. of St Andrews, Univ. of Calgary, Univ. St Andrews.</i>	1:00	O25	066.21 Post discharge activity of spinal motor neurons across postnatal development in mice. F. L. SORRELL*; S. A. SHARPLES; K. T. SILLAR; G. B. MILES. <i>Univ. of St Andrews, Univ. of Calgary, Univ. St Andrews.</i>
2:00		066.22 Preterm fetal hypoxia-ischemia increases abnormal motor activity in the neonatal rabbit. C. F. CAVARSAN*; P. STEELE; M. WESTEFELD; K. A. QUINLAN. <i>Univ. of Rhode Island.</i>	2:00	O26	066.22 Preterm fetal hypoxia-ischemia increases abnormal motor activity in the neonatal rabbit. C. F. CAVARSAN*; P. STEELE; M. WESTEFELD; K. A. QUINLAN. <i>Univ. of Rhode Island.</i>

POSTER**067. Invertebrate Sensory-Motor Integration****Theme F – Integrative Physiology and Behavior**

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

- 1:00 O27 **067.01** Worm-like turning: Planning coordination of long soft body movements. P. PANDIT; A. KANDHARI; Y. WANG; K. A. DALTORIO*. Case Western Reserve Univ., Case Western Reserve Univ.
- 2:00 O28 **067.02** Structural skin for soft body locomotion: Worm robots that eliminate hard joints. A. KANDHARI*; A. MEHRINGER; D. JOLLEY; H. J. CHIEL; R. D. QUINN; K. A. DALTORIO. Case Western Reserve Univ., Case Western Res. Univ.
- 3:00 O29 **067.03** Whole ganglion mapping for various mechanosensation in the leech nervous system using voltage-sensitive dye imaging. Y. TOMINA*; K. OKA; D. A. WAGENAAR. Caltech, Keio Univ., Keio Univ., Caltech.
- 4:00 O30 **067.04** Form and function: Connectivity and activity maps of behavioral circuits in the medicinal leech. M. M. ASHABER; Y. TOMINA; E. A. BUSHONG; K. Y. KIM; T. DEERINCK; M. H. ELLISMAN; D. A. WAGENAAR*. Caltech, UCSD, Caltech.
- 1:00 O31 **067.05** Neural correlates of adaptive responses to changing load in feeding *Aplysia*. J. P. GILL*; H. J. CHIEL. Case Western Reserve Univ., Case Western Reserve Univ.
- 2:00 O32 **067.06 ▲** Investigating signaling direction of interneurons B4/B5 in *Aplysia californica*. Y. HUAN*; J. P. GILL; R. K. SMOLDT; H. J. CHIEL. Case Western Reserve Univ., Case Western Reserve Univ., Case Western Reserve Univ.
- 3:00 O33 **067.07** Large-scale voltage-sensitive dye recording of neuronal activity in the brain of berghia, a newly introduced laboratory species. E. S. HILL; W. N. FROST*. Rosalind Franklin Univ.
- 4:00 O34 **067.08** Spatial vision from a low-resolution eye. P. D. QUINLAN*; K. E. FISCHER; B. DRESCHER; J. W. LICHTMAN; P. S. KATZ. Univ. of Massachusetts Amherst, Univ. of Massachusetts Amherst, Univ. of Massachusetts Amherst, Harvard Univ.
- 1:00 O35 **067.09** Sound production in decapod crustaceans - Behavioral contexts and a newly found role for the circuits of the stomatogastric nervous system. M. GOERITZ*; A. S. FLOOD; C. RADFORD. Brandeis Univ., Univ. of Auckland.
- 2:00 O36 **067.10** Sensory encoding of 'natural' forces during walking: Effects of applying joint torques from single steps of freely moving insects. S. N. ZILL*; C. J. DALLMANN; C. M. HARRIS; J. SCHMITZ; A. BUSCHGES. Joan C. Edwards Sch. of Medicine, Marshall Univ., Univ. of Washington, Bielefeld Univ., Joan C. Edwards Sch. of Medicine, Marshall Univ., Univ. of Cologne.
- 1:00 DP09/O37 **067.11** (Dynamic Poster) Sensorimotor processing in freely-moving *Hydra vulgaris*. W. YAMAMOTO*; R. YUSTE. Columbia Univ.
- 4:00 O38 **067.12** Behavioral and neural responses to thermal stimulation in *Hydra vulgaris*. C. N. TZOUANAS; S. K. KIM*; K. N. BADHIWALA; J. T. ROBINSON. Rice Univ., Rice Univ., Baylor Col. of Med.

- 1:00 O39 **067.13** Sensory-motor behaviors in hydra captured with high-throughput automated tracking technology. K. N. BADHIWALA*; B. AVANTS; J. T. ROBINSON. Rice Univ., Rice Univ., Rice Univ.

- 2:00 O40 **067.14** Electrophysiological and motor responses to chemosensory stimuli in isolated cephalopod arms. H. J. RHODES*; K. E. FOUKE. Denison Univ., Marine Biol. Lab.

- 3:00 O41 **067.15 ▲** Dehydration state dependent alterations in humidity and visual perception across *drosophila* species. C. ZHU; I. D'ALESSANDRO; G. TURNER; S. M. WASSERMAN*. Wellesley Col.

- 4:00 O42 **067.16 ▲** Contributions of taurine and baclofen to subordinate female crayfish, *procambus clarkii*. C. M. MECCA*; S. A. LISKOWICZ; R. F. WALDECK. Univ. of Scranton.

- 1:00 O43 **067.17** Repetitive nociceptive stimulation can produce habituating or sensitizing effects. J. HOYNOSKI*; B. D. BURRELL. Univ. of South Dakota, Univ. of South Dakota.

- 2:00 O44 **067.18** Receptive field properties of visually sensitive interneurons coordinating light-guided behavior in the medicinal leech. T. K. H. GROVES; J. A. JELLIES*. Western Michigan Univ.

- 3:00 P1 **067.19** Identification of neurotransmitters that affect ciliolocomotor crawling in the sea slug *Pleurobranchaea californica*. C. LEE*; E. ROMANOVA; C. HUANG; J. V. SWEEDLER; R. GILLETTE. Univ. of Illinois Urbana-Champaign, Univ. of Illinois At Urbana Champaign, Univ. of Illinois At Urbana Champaign, Univ. of Illinois at Chicago Dept. of Chem., Univ. Illinois.

- 4:00 P2 **067.20** Role of mechanoreceptors on magnetic field orientation by the nematode *C. elegans*. C. BAINBRIDGE*; T. OWOYEMI; K. OWOYEMI; B. PALUZZI; D. NISWONGER; Z. BENEFIELD; N. LEONARD; W. STEIN; D. HALL; A. VIDAL-GADEA. Illinois State Univ., Albert Einstein Col. of Med.

- 1:00 DP08/P3 **067.21** (Dynamic Poster) Development of a robotic testing platform for neural control networks based on the common fruit fly (*Drosophila melanogaster*). C. GOLDSMITH; N. S. SZCZECINSKI*; R. D. QUINN. Case Western Reserve Univ., Case Western Reserve Univ.

- 2:00 P4 **067.22** The antennal lobe is a *drosophila melanogaster* locus of behavioral individuality. M. A. CHURGIN*; B. L. DE BIVORT. Harvard Univ.

- 3:00 P5 **067.23 ▲** Regulation of *Drosophila* courtship behavior and neuronal development by the dissatisfaction nuclear receptor. J. DUCKHORN*; J. CANDE; D. STERN; T. SHIRANGI. Villanova Univ., Janelia Res. Campus, Villanova Univ.

POSTER**068. Vertebrate Sensory-Motor Integration****Theme F – Integrative Physiology and Behavior**

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

- 1:00 P6 **068.01** Describing whisker shape and mechanics in order to better understand tactile sensory signals across different individuals and species. R. A. GRANT*; G. DOUGILL; E. L. STAROSTIN; G. H. M. VAN DER HEIJDEN; V. G. A. GOSS. Manchester Metropolitan Univ., London South Bank Univ., UCL.

• Indicated a real or perceived conflict of interest, see page 72 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

2:00	P7	068.02 ▲ Comparative neocortical neuromorphology in felids: African lion (<i>panthera leo</i>), African leopard (<i>panthera pardus pardus</i>), and cheetah (<i>acinonyx jubatus</i>). B. G. JACOBS*; V. NGUYEN; R. UCHIDA; A. WARLING; L. SLOAN; C. DODELSON; R. SHIN; B. WICINSKI; M. BERTELSEN; C. D. STIMPSON; M. A. SPOCTER; M. SCHALL; P. HOF; C. SHERWOOD; P. MANGER. <i>Colorado Col., Icahn Sch. of Med. at Mount Sinai, Copenhagen Zoo, George Washington Univ., Des Moines Univ., Univ. of the Witwatersrand.</i>	3:00	P20	068.15 Mice exhibit one-shot learning when navigating a maze. M. H. ROSENBERG*, T. ZHANG; P. PERONA; M. MEISTER. <i>Caltech, Caltech, Caltech.</i>
3:00	P8	068.03 Population coding of multiple types of information in dentate gyrus. T. MURANO*; R. NAKAJIMA; A. NAKAO; S. AMEMORI; N. HIRATA; A. MURAKAMI; Y. KAMITANI; J. YAMAMOTO; T. MIYAKAWA. <i>Fujita Hlth. University, ICMS, Div. Syst. Med., Kyoto, MIT, Toyoake, Kyoto Univ., UT Southwestern Med. Ctr.</i>	4:00	P21	068.16 Homeostatic plasticity mechanisms in nature: Increased excitability of motor neurons after months of inactivity in a hibernating frog. J. M. SANTIN*. <i>Univ. of North Carolina At Greensboro.</i>
4:00	P9	068.04 Resynthesizing the functional organization of the primate brain according to its evolutionary history. P. CISEK*. <i>Univ. of Montreal.</i>	1:00	P22	068.17 Cortical and behavioral contagion of ticklishness in rats. L. KAUFMANN*; M. BRECHT; S. ISHIYAMA. <i>Humboldt University/BCCN Berlin, Universitätsmedizin der Johannes Gutenberg-Universität Mainz.</i>
1:00	P10	068.05 Robust reconstruction of mouse poses. S. STORCHI*. <i>Univ. of Manchester.</i>	2:00	P23	068.18 Functional properties of a thalamocortical circuit for the control of social behavior. A. C. NELSON*; V. KAPOOR; J. A. GNANASEGARAM; E. VAUGHN; V. N. MURTHY; C. G. DULAC. <i>Harvard Univ., Harvard Univ.</i>
2:00	P11	068.06 A novel method for camera-based pose tracking of rhesus macaques in an open enclosure. B. Y. HAYDEN*; B. R. EISENREICH; P. BALA; Y. JAFARIAN; H. PARK; J. ZIMMERMANN. <i>Univ. of Minnesota Twin Cities, Univ. of Minnesota.</i>	3:00	P24	068.19 Reciprocal antagonism between hunger and maternal care. X. XU*; X. LI; Y. HAN; W. ZHANG. <i>Inst. of Neuroscience, Chinese Acad. of Sci.</i>
3:00	P12	068.07 A hypothetical model of sensorimotor adaptation in larval zebrafish. K. J. HERRERA*; F. ENGERT. <i>Harvard Univ.</i>	4:00	P25	068.20 Subthalamic glutamatergic neurons encode magnitude and valence of food and state-dependently regulate food intake in mice. C. XIAO*; C. ZHOU; H. WU; X. YAN; W. GU; Y. LUAN. <i>Xuzhou Med. Univ.</i>
4:00	P13	068.08 Litter size influence impulse propagation and myelination of axons in cutaneous nerves of the rat. V. MARTINEZ-ALVAREZ*; B. SEGURA-ALEGRIA; E. E. RODRIGUEZ-TORRES; M. PORRAS; E. AGUIRRE-BENITEZ; V. RAMIREZ-ROSAS; I. JIMÉNEZ-ESTRADA. <i>CINVESTAV-IPN, UNAM-Fes Iztacala, Autonomous Univ. of Hidalgo (UAEH), Fac. of Medicine-UNAM.</i>			
1:00	P14	068.09 Magnetosensory neurons encode direction in gravity centered coordinate system. J. D. DICKMAN*; N. A. LEFELDT; E. BERTRAM; H. ADAMS; D. McDONALD; L. WU. <i>Baylor Col. of Med., Rice Univ., Baylor Col. of Med.</i>			
2:00	P15	068.10 The evolution of esthetics in goal-directed foraging. E. D. GRIBKOVA*; R. GILLETTE. <i>Univ. of Illinois At Urbana-Champaign.</i>			
3:00	P16	068.11 Neural circuits of distinct defensive-arousal states evoked by visual threat stimuli. Z. REN*; N. LIU; K. HUANG; Y. TIAN; Q. YANG; J. ZHANG; X. RONG; Y. TIAN; F. JU; P. WEI; L. WANG. <i>Shenzhen Inst. of Advanced Technology, CAS.</i>			
4:00	P17	068.12 Quantifying the predictability of rat behavior. E. MENICHINI*; T. MUZZU; K. JAIN; J. H. MACKE; G. BERMAN; A. B. SALEEM. <i>Univ. Col. London, Emory Univ., Tech. Univ. of Munich, Emory Univ.</i>			
1:00	P18	068.13 Newts can learn but are not humdrum. A. RETAILLEAU; T. BORAUD*. <i>IMN - CNRS 5293, CNRS - Univ. Bx2.</i>			
2:00	P19	068.14 Cell type specific membrane potential changes in dorsolateral striatum accompanying sensorimotor learning. T. SIPPY*; C. N. CHAIMOWITZ; S. CROCHET; C. C. PETERSEN. <i>New York Univ., New York Univ., EPFL, École Polytechnique Fédérale de Lausanne (EPFL).</i>			
					POSTER
					069. Neural and Contextual Modulation of Affiliative Behavior
					<i>Theme F – Integrative Physiology and Behavior</i>
					Sat. 1:00 PM – McCormick Place, Hall A
1:00	P26	069.01 Cohabitation with mating induces place preferences in biparentally reared, but not monoparentally reared male prairie voles. G. VALERA-MARIN*; F. CAMACHO; N. F. DÍAZ; L. J. YOUNG; R. G. PAREDES; W. PORTILLO. <i>Inst. de Neurobiología, UNAM, Inst. Nacional de Perinatología Isidro Espinosa de los Reyes, Emory Univ.</i>			
2:00	P27	069.02 The influence of tyrosine hydroxylase neurons on pair-bonding behaviors of a socially monogamous rodent. J. B. LICHTER*; M. S. McMURRAY; B. KEANE; N. G. SOLOMON. <i>Miami Univ., Miami Univ., Miami Univ.</i>			
3:00	P28	069.03 Kinship, mating and social preference in female prairie voles <i>microtus ochrogaster</i> tested in a multiple partner paradigm. A. FERREIRA-NUÑO*; F. CAMACHO; N. DÍAZ-MARTÍNEZ; L. J. YOUNG; R. PAREDES-GUERRERO; W. PORTILLO-MARTINEZ. <i>Univ. Autónoma Metropolitana, Univ. Nacional Autónoma de México, Inst. de Perinatología., Emory Univ.</i>			
4:00	P29	069.04 The role of prolactin in maintaining the parental brain. V. S. FARRAR*; R. C. VIERNES; R. M. CALISI. <i>Univ. of California, Davis.</i>			
1:00	P30	069.05 Gestational exposure to a ketogenic diet improves sociability and affect in CD-1 mice. K. G. FLYNN; A. M. S. ARQOUB; L. A. MARTINEZ*. <i>Trinity Col.</i>			
2:00	P31	069.06 Neural mechanisms of kinship behavior in the rat. A. CLEMENS*; M. BRECHT. <i>Humboldt-Universität zu Berlin.</i>			
3:00	P32	069.07 ▲ Effects of a FAAH inhibitor on sociability and social novelty preference in adolescent male and female rats. C. JOHNSTON; Z. R. MICHAS; H. STADLER; O. LYONS-POTTER; K. HICKS; R. WITMER; H. H. LOPEZ*. <i>Skidmore Col., Skidmore Col.</i>			

4:00	P33	069.08	Perceptual mechanisms of social affiliation and the role of oxytocin in zebrafish. A. S. NUNES*; L. CARREIRA; S. ANBALAGAN; J. BLECHMAN; G. LEVKOWITZ; R. OLIVEIRA. <i>Inst. Gulbenkian de Ciência, Weizmann Inst. of Sci.</i>	3:00	Q2	069.19 ▲	Neural and behavioral correlates of social attachments in juvenile prairie voles. A. R. ALAWNEH; A. N. PERRY*; B. S. CUSHING. <i>Univ. of Texas at El Paso.</i>
1:00	P34	069.09	Hippocampal neuropeptide-Y in relation to social behavior in the African naked mole-rat. C. A. D. DUNNE-JAFFE*; D. P. MCCLOSKEY. <i>Col. of Staten Island, City Univ. of New York.</i>	4:00	Q3	069.20	Cloning and expression of the estrogen receptors α and β from the prairie vole (<i>microtus ochrogaster</i>). G. PENA CONTRERAS*; K. R. HERNANDEZ; A. N. PERRY; M. MIRANDA-ARANGO; B. S. CUSHING. <i>Univ. of Texas at El Paso.</i>
2:00	P35	069.10 ▲	Social decision-making network activation and behavior following pair reunion and in response to an infidelity challenge in monogamous zebra finches. A. M. SMITH; K. K. BOEDIGHEIMER; H. HAWES; K. G. SWANSON; I. D. PHAM; S. A. HEIMOVICS*. <i>Univ. of St Thomas, Univ. of St. Thomas.</i>	1:00	Q4	069.21 ●	Awake BOLD response to predator odor reveals populational differences in emotionality and temperament in prairie voles. R. J. ORTIZ*; J. R. YEE; P. P. KULKARNI; X. CAI; J. E. MOHL; A. N. PERRY; C. F. FERRIS; B. S. CUSHING. <i>Univ. of Texas at El Paso, Northeastern Univ. Dept. of Psychology, Northeastern University, Ctr. for Translational NeuroImaging.</i>
3:00	P36	069.11	Same-sex affiliation in female meadow voles: The role of environmental conditions and nonapeptides. N. ONDRASEK*; S. M. FREEMAN; M. PALUMBO; I. ORELLANA BONILLA; E. SALDANA; R. M. CALISI; K. L. BALES; I. ZUCKER. <i>Univ. of California, Davis, Utah State Univ., Univ. of California, Davis, Univ. of California, Berkeley.</i>	2:00	Q5	069.22	The role of reward signaling in prairie vole peer relationships. N. S. LEE*; A. K. BEERY. <i>Univ. of Massachusetts Amherst, Smith Col., Smith Col.</i>
4:00	P37	069.12	Perinatal oxytocin transforms sex differences in brain structure and function in prairie voles: An MRI study. J. R. YEE*; C. CARTER; X. CAI; W. KENKEL; A. M. PERKEYBILE; P. P. KULKARNI; C. F. FERRIS. <i>Univ. of Vet. Med. Vienna, Kinsey Inst., Northeastern Univ., Indiana Univ. Bloomington, Indiana Univ., Northeastern Univ. Dept. of Psychology, Northeastern University, Ctr. for Translational NeuroImaging.</i>	3:00	Q6	069.23 ▲	Social selectivity and social reward in prairie voles. A. B. BEERY*; J. CHEN; S. LOPEZ; N. S. LEE. <i>Smith Col., Univ. of Massachusetts Amherst.</i>
1:00	P38	069.13	Suitability of sociality research using Hatano rats. K. ABE*; R. YANAGISAWA; R. OHTA; M. KAWAGUCHI. <i>Meiji Univ., Natl. Inst. for Envrn. Studies, Hatano Res. Institute, Food And Drug Safety Ctr., Sch. of Agriculture, Meiji Univ.</i>	1:00	DP10/Q7	069.24 (Dynamic Poster) Pair bonding increases the predictability of the behavioral repertoire in prairie voles. S. AGEZO*; A. M. BORIE; K. JAIN; J. KWON; L. J. YOUNG; R. C. LIU; G. J. BERMAN. <i>Emory Univ. Dept. of Biol., Emory Univ., Emory Univ.</i>	
2:00	P39	069.14	Analysis of hair cortisol concentration in captive chimpanzees (<i>pan troglodytes</i>): Correlates with group size and dynamics. K. A. PHILLIPS*; A. BEARMAN; K. JASPE; K. M. BRASKY; M. A. DE LA GARZA. <i>Trinity Univ., Texas Biomed. Res. Inst.</i>	1:00	Q8	069.25	Deciphering the combinatorial effects of septal oxytocin and vasopressin during social behavior in mice. A. M. BORIE*; F. MUSCATELLI-BOSSY; F. D. JEANNETEAU; M. G. DESARMÉNIEN. <i>Inst. de Génomique Fonctionnelle, Inst. de Neurobiologie de la Méditerranée, Inst. of Functional Genomics.</i>
3:00	P40	069.15	The role of developmental social complexity on adult zebrafish social behaviour. M. C. TELES*; C. GONÇALVES; R. F. OLIVEIRA. <i>Inst. Gulbenkian de Ciência, ISPA- Inst. universitário.</i>	2:00	Q9	069.26	Sociosexual experience shapes oxytocin action on glutamatergic transmission in the nucleus accumbens of prairie voles. J. GUO*; A. M. BORIE; S. AGEZO; P. LUNSFORD; L. J. YOUNG; R. C. LIU. <i>Yerkes Natl. Primate Center, Emory Univ., Emory Univ. Sch. of Med., Emory Univ. Sch. of Med.</i>
4:00	P41	069.16	Gender differences in the association between loneliness and cortisol in older adults. C. VENERO*; S. GARCÍA-HERRANZ; S. BALIYAN; L. UTRERA; R. RODRÍGUEZ-FERNÁNDEZ; M. GEORGIADIS; R. VELASCO; P. SAMPREDO-PIQUERO; A. VALENCIA; H. PERAITA; M. DÍAZ-MARDOMINGO. <i>UNED, Univ. de Málaga.</i>	3:00	Q10	069.27 ▲	Ultrasonic vocalizations reflect discrimination of conspecific odors in pair-bonded male prairie voles. D. ARSLAN*; Y. J. KWON; L. J. YOUNG; R. C. LIU. <i>Emory Univ., Yerkes Natl. Primate Res. Ctr., Emory Univ., Ctr. for Translational Social Neurosci., Emory Sch. of Med.</i>
1:00	P42	069.17	Stimulation of median raphe terminals in dorsal CA2 reduces social investigation. S. LEE*; S. WILLIAMS AVRAM; A. CYMERBLIT-SABBA; N. CILZ; J. SONG; K. COUREY; S. YOUNG. <i>NIH, Univ. of Akron.</i>	4:00	Q11	069.28	Probiotics and social behavior: <i>Lactobacillus reuteri administration affects social affiliation, neurochemical expression, and the gut microbiome in socially monogamous prairie voles.</i> M. L. DONOVAN*; Y. LIU; G. N. PLATT; B. K. WASHBURN; M. LYNCH; T. C. CHARLES; J. T. CURTIS; K. M. JONES; Z. WANG. <i>Florida State Univ., Florida State Univ., Metagenom Bio Inc, Univ. of Waterloo, Oklahoma State Univ.</i>
2:00	Q1	069.18	Estrogen receptor alpha expression in the medial amygdala influences socially monogamous behavior of male prairie voles in a field setting. S. A. CASTILLO*; C. T. LAMBERT; B. KEANE; J. B. LICHTER; A. N. PERRY; B. S. CUSHING; N. G. SOLOMON. <i>The Univ. of Texas At El Paso, Univ. of Alberta, Miami University-Hamilton, Miami Univ., Univ. of Texas at El Paso, Univ. of Texas At El Paso, Miami Univ.</i>	1:00	Q12	069.29	Stimulus-specific effects of social buffering and underlying neurochemical mechanisms in prairie voles. E. K. CHUN*; M. L. DONOVAN; Y. LIU; Z. WANG. <i>Florida State Univ.</i>
3:00				2:00	Q13	069.30	The development of AAV-CRISPR/Cas9 to edit the prairie vole genome in adult brain. A. J. BOENDER*; M. BOON; A. BORIE; L. J. YOUNG. <i>Emory Univ., Univ. of Groningen.</i>

• Indicated a real or perceived conflict of interest, see page 72 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

POSTER

070. Stress and the Inflammatory/Immune Response

Theme F – Integrative Physiology and Behavior

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

- 1:00 Q14 **070.01** Effects of maternal separation stress on inflammatory cytokines in a rat model of post-traumatic stress disorder. H. TODA*; M. TANICHI; M. KOGA; T. SAITO; S. TOKUNO; S. TAKESHITA; M. NAGAMINE; M. FUJITA; K. SHIMIZU; A. YOSHINO. *Natl. Def. Med. Col., The Univ. of Tokyo, Natl. Def. Med. Col., Natl. Def. Med. Col.*
- 2:00 Q15 **070.02** Preconditioning with lipopolysaccharide improves inflammation-induced depressive-like behaviors. M. KOGA*; H. TODA; M. KINOSHITA; F. ASAI; Y. MITSUI; M. NAGAMINE; K. SHIMIZU; A. YOSHINO. *Natl. Def. Med. Col., Natl. Def. Med. Col., Natl. Def. Med. Res. Inst.*
- 3:00 Q16 **070.03** Adolescent social stress has protracted effects on neural and peripheral markers of inflammation. M. J. WATT*; M. SATHYANESAN; E. T. GRAACK; J. L. SCHOLL; M. A. WEBER; V. C. HUBER; G. L. FORSTER; S. S. NEWTON. *Univ. of Otago, Univ. of South Dakota.*
- 4:00 Q17 **070.04** Stress primes secretory autophagy in the neuroimmune system. S. MARTINELLI*; K. WECKMANN; E. ANDERZHANOVA; S. WIECHMANN; E. B. BINDER; N. GASSEN. *Max Planck Inst. of Psychiatry, Universitätsklinikum Bonn, Technische Univ. Muenchen, Max-Planck Inst. of Psychiatry.*
- 1:00 Q18 **070.05** Hypothermic responses under infectious condition depend on estrous stages in microsomal prostaglandin E synthase-1-deficient mice. T. MATSUWAKI*; M. ONISHI; A. FUJISAWA; K. YAMANOUCHI; A. BLOMQVIST; M. NISHIHARA. *The Univ. of Tokyo, Linkoping University.*
- 2:00 R1 **070.06** ● Peripheral and central immune responses to trauma: Potential mechanisms in PTSD risk? J. DESLAURIERS*; X. ZHOU; V. B. RISBROUGH. *Univ. of California San Diego, Veterans Affairs Ctr. of Excellence for Stress and Mental Hlth.*
- 3:00 R2 **070.07** Effects of social experience on immune parameters and brain transcriptome in mouse social hierarchies. W. LEE*; J. P. CURLEY. *Columbia Univ., Univ. of Texas At Austin.*
- 4:00 R3 **070.08** Chronic stress affects microglial chemotactic activity in WT and NOP KO mice *in vivo*. V. L. DIBONA*; B. PENG; M. NISSENBAUM; H. ZHANG; U. EYO; L. WU; M. ANSONOFF; J. E. PINTAR; A. W. KUSNECOV. *Rutgers The State Univ. of New Jersey, Rutgers Robert Wood Johnson Med. Sch., Univ. of Virginia, Mayo Clin., Rutgers Univ.*
- 1:00 R4 **070.09** Methylation of genes and regulation of inflammatory processes in college students with alcoholic parents. J. L. SCHOLL*; K. PEARSON; K. A. BROWN-RICE; N. A. KALLSEN; G. E. DAVIES; E. A. EHLLI; S. OLSON; A. SCHWEINLE; K. A. FERCHO; L. A. BAUGH; G. L. FORSTER. *Univ. of South Dakota, Univ. of South Dakota, Sam Houston State Univ., Avera Inst. for Human Genet., Univ. of Otago.*
- 2:00 R5 **070.10** Central immune alterations in a gestational stress model of postpartum depression. B. LEUNER*; C. GOODPASTER; N. DEEMS; R. GILFARB; K. LENZ. *Ohio State Univ., The Ohio State Univ.*
- 3:00 R6 **070.11** Effects of environmental enrichment and social housing on LPS-induced pubertal immune response. K. B. SMITH*; M. MURACK; R. CHANDRASEGARAM; D. TATA; J. MALLET; C. MATAR; N. ISMAIL. *Univ. of Ottawa, Cardiff Univ., Aristotle Univ. of Thessaloniki.*
- 4:00 R7 **070.12** ▲ An investigation of a probiotic-supplemented diet on stress responsivity and immune function in male Long-Evans rats. N. NATALE*; B. HINDI; P. SANTORE; M. H. KENT; K. G. LAMBERT. *Univ. of Richmond.*
- 1:00 R8 **070.13** ▲ BDNF controls NRF2-KEAP1 through a receptor independent mechanism. F. BROUILLARD; J. FATH; A. CABAYÉ; D. CLAVERIE; G. TRUGNAN; C. BERNARD; J. BENOLIEL*; C. BECKER. *Inserm 1124, CNRS UMR8601, IRBA, INSERM U1157, INSERM U1106, INSERM U 1124.*
- 2:00 R9 **070.14** Chronical treatment with sertindole, but not clozapine and ziprasidone, affects the activity of antioxidative enzymes in rat brain. N. TATALOVIC*; A. NIKOLIĆ-KOKIĆ; Z. OREŠČANIN-DUŠIĆ; M. SPASIĆ; D. BLAGOJEVIĆ; & MILJEVIĆ. *Univ. of Belgrade, Inst. For Biol. Res. "Sinisa Stankovic", Univ. of Belgrade, Sch. of Medicine, Inst. of Mental Hlth.*
- 3:00 R10 **070.15** Neuroinflammation and blood-brain barrier integrity in depressed suicides with or without a history of child abuse. M. WAKID*; D. ALMEIDA; Y. WANG; M. DAVOLI; I. RAGOUESSIS; G. TURECKI; N. MECHAWAR. *Douglas Mental Hlth. Univ. Inst., Genome Quebec.*

POSTER

071. Autonomic Regulation: Gastrointestinal, Renal, Urinary, and Reproductive Regulation

Theme F – Integrative Physiology and Behavior

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

- 1:00 R11 **071.01** Intravesical pressure changes evoked by angiotensin-(1-7) into the lateral preoptic area are similar to peripheral administration responses in female Wistar rats. G. B. LAMY; B. DO VALE; R. L. DE ALMEIDA; B. B. ANTONIO; D. P. VENANCIO; J. S. DE SOUZA; G. GIANNOCO; M. A. SATO*. *Ctr. Universitario Saude ABC, Univ. Federal de São Paulo.*
- 2:00 R12 **071.02** TRPA1-expressing lamina propria mesenchymal cells regulate colonic motility through prostaglandin release. Y. YANG; S. WANG; K. KOBAYASHI; H. KANDA; Y. KOGURE; S. YAMAMOTO; H. YAMANAKA; K. NOGUCHI; Y. DAI*. *Hyogo Univ. of Hlth. Sci., Hyogo Col. of Med., Beijing Univ. of Chinese Med.*
- 3:00 R13 **071.03** ● Real time closed loop control of bladder function with dorsal root ganglia sensory feedback and sacral root electrical stimulation. Z. OUYANG*; Z. J. SPERRY; E. C. BOTTORFF; T. M. BRUNS. *Univ. of Michigan.*
- 4:00 R14 **071.04** ● Stimulation of the pudendal sensory nerve alters voiding behavior in conscious unrestrained Wistar rats. C. L. LANGDALE*; J. A. HOKANSON; D. DEGOSKI; P. MILLIKEN; W. M. GRILL. *Duke Univ., Galvanic Bioelectronics, Duke Univ., Duke Univ., Duke Univ.*
- 1:00 R15 **071.05** Regulation of insulin secretion by hypothalamic neurons. I. PAPAZOGLOU*; J. LEE; Z. CUI; C. LI; M. J. KRASHES; S. RANE. *NIH/NIDDK.*

* Indicated a real or perceived conflict of interest, see page 72 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

2:00	R16	071.06	Innervation of the parasympathetic nervous system visualization in human and modulation of chemogenetic activation/inhibition in mice. C. NAMKOONG*; W. SONG; D. CHEON; J. HWANG; H. CHOI. <i>Seoul Natl. Univ. College of Med., Neurosci. Res. Inst., Seoul Natl. Univ. Col. of Med., Seoul Natl. Univ. Col. of Med., Seoul Natl. Univ., BK21 Plus Biomed. Sci. Project Team, Dept. of Intrnl. Med.</i>	1:00	S7	071.17	Pomc-deficient mice have altered reproductive function. Z. THOMPSON*, O. ELEGBEDE; M. MEYERS; G. L. JONES; J. M. ADAMS; H. YU; M. J. LOW. <i>Univ. of Michigan, Wayne County Community Col., Washtenaw Community Col., Univ. of Michigan, Univ. of Michigan.</i>
3:00	R17	071.07	Comprehensive overview of full thickness enteric nervous system. D. CHEON*; H. CHOI. <i>Seoul Natl. Univ. Col. of Med., Seoul Natl. Univ.</i>	2:00	S8	071.18	● Closing the loop on gastric electrical stimulation: Multichannel recording platform for non-invasive measurement of vagal nerve activity. M. P. WARD; T. NOWAK; A. GUPTA; T. L. POWLEY; J. FURNESS; M. SONNTAG; A. HARRISON*; E. BROWN; I. CLEMENTS. <i>Purdue Univ., Indiana Univ. Sch. of Med., Indiana Univ. Hlth., Purdue Univ., Univ. of Melbourne, Biocircuit Technologies.</i>
4:00	R18	071.08	Cystometrogram technique in Wistar rats impacts detrusor contractile dynamics. D. MEDINA AGUINAGA*; R. F. HOEY; M. ALTAMIRA-CAMACHO; A. MUÑOZ; J. QUINTANAR-STEPHANO; C. H. HUBSCHER. <i>Univ. of Louisville Sch. Med., Autonomous Univ. of Aguascalientes, Ctr. Universitario Del Norte, Univ. De Gua.</i>	3:00	S9	071.19	Long-term optogenetic stimulation of CRH specific neurons in Barrington's nucleus as a model of bladder hypertrophy. J. P. VAN BATAVIA*; S. BUTLER; J. FESI; S. VICINI; S. ZDERIC. <i>Children's Hosp. of Philadelphia, Georgetown Univ. Med. Ctr.</i>
1:00	R19	071.09	Computational modeling of the neural circuit of rodent lower urinary tract. B. LATIMER*; T. BANKS; M. GAHL; V. GUNTU; D. J. SCHULZ; S. S. NAIR. <i>Univ. of Missouri, Univ. of Missouri-Columbia, Univ. of Missouri Columbia.</i>	4:00	S10	071.20	Sensory epithelial gastrointestinal enteroendocrine cells use different signaling pathways for chemo and mechanotransduction. C. ALCAINO*; K. KNUTSON; S. T. WHITEMAN; V. NAYAK; H. KACMAZ; A. J. TREICHEL; P. R. STREGE; J. H. LI; A. B. LEITER; G. FARRUGIA; A. BEYDER. <i>Mayo Clin., Univ. of Massachusetts.</i>
2:00	R20	071.10	The role of KCC2 in overactive bladder and central sensitization. E. J. GONZALEZ*; W. M. GRILL. <i>Duke Univ.</i>	1:00	S11	071.21	● Transcutaneous electrical spinal cord neuromodulation (TESCoN) improves bladder and bowel function after neurological dysfunction. P. GAD*; K. LATACK; E. KREYDIN; H. ZHONG; V. EDGERTON. <i>Univ. Of California Los Angeles, Univ. of Souther California, UCLA, Univ. of California Los Angeles.</i>
3:00	S1	071.11	Age related reduction of urethral afferents sensitivity. A. GERAMIPOUR*; Z. C. DANZIGER. <i>Florida Intl. Univ., Florida Intl. Univ.</i>	2:00	S12	071.22	Effects of arsenic exposure on blood brain barrier and colonic permeability in healthy young rats. C. A. BARRERA BUGUEÑO*; I. HERESMANN; W. QUIROZ; M. JULIO-PIEPER; J. A. BRAVO. <i>Pontificia Univ. Católica De Valparaíso.</i>
4:00	S2	071.12	Respiratory-gated transcutaneous vagus nerve stimulation increases 4D cine MRI-assessed stomach emptying in functional dyspepsia. R. SCLOCCO*; C. NGUYEN; R. STALEY; H. FISHER; C. VELEZ; A. MENDEZ; K. LU; Z. LIU; M. WARD; T. L. POWLEY; N. W. KETTNER; B. KUO; V. NAPADOW. <i>Massachusetts Gen. Hospital, Harvard Med. Sc, Purdue Univ., Logan Univ.</i>	3:00	S13	071.23	Juvenile rats exposed to high fat diet display rapid changes in colon submucosal neurons. M. JULIO-PIEPER*; F. VILLALOBOS-MANRÍQUEZ; M. ZAMORANO-CATALDO; A. LÓPEZ; N. CÁCERES; J. EYZAGUIRRE-VELÁSQUEZ; J. ESCOBAR-LUNA; J. A. BRAVO; G. CRUZ. <i>Pontificia Univ. Católica De Valparaíso, Univ. de Valparaíso.</i>
1:00	S3	071.13	Acid sensing ion channel 3 controls afferent sensitization in a model of cystitis induced by cyclophosphamide. N. MONTALBETTI; J. G. ROONEY; M. D. CARATTINO*. <i>Univ. of Pittsburgh.</i>	4:00	S14	071.24	Early life gut dysbiosis in rats results in mesocorticolimbic circuit alterations in adulthood. C. GONZALEZ-ARANCIBIA*; J. ILLANES-GONZALEZ; J. URRUTIA-PINONES; M. JULIO-PIEPER; J. MARTINEZ-PINTO; R. SOTOMAYOR-ZARATE; J. A. BRAVO. <i>Univ. De Valparaíso, Pontificia Univ. Católica de Valparaíso, Programa de Doctorado en Ciencias mencion Neurociencias.</i>
2:00	S4	071.14	Understanding the role of free fatty acid receptor 3 (FFAR3) in mediating gut-brain communication in obesity. T. COOK*; R. BONOMO; C. GAVINI; L. GAUTRON; B. LAYDEN; V. MANSUY-AUBERT. <i>Loyola Univ. Chicago, Univ. Texas Southwestern Med. Ctr., Univ. of Illinois at Chicago.</i>	1:00	S15	071.25	Somatostatin and npy neurons in the dorsovagal complex of the hindbrain differentially influence gastric motility. L. BELLUSCI; S. VICINI; R. A. GILLIS; N. SAHIBZADA*. <i>Georgetown Univ., Georgetown Univ. Med. Ctr., Georgetown Univ. Med. Cent.</i>
3:00	S5	071.15	▲ The expression of the G protein-coupled estrogen receptor (GPR30) in pelvic floor muscles seems unrelated to serum estradiol levels in female rabbits. S. Y. RODRÍGUEZ-JAIMES; G. C. HERNÁNDEZ-HERNÁNDEZ; A. CARRASCO-RUIZ; M. MARTINEZ-GOMEZ; E. CUEVAS; F. CASTELÁN*. <i>Univ. Autónoma de Tlaxcala, Univ. Autónoma de Tlaxcala, Univ. Autónoma de Tlaxcala, Inst. de Investigaciones Biomédicas UNAM, Ctr. Tlaxcala De Biología De La Conducta/Universidad Autónoma De Tlaxcala, Univ. Nacional Autónoma De Mexico.</i>	2:00	S16	071.26	Npy neurons in the hindbrain regulate vagal neurotransmission to the stomach. S. VICINI*, M. KUAH; D. CASTELLANO; L. BELLUSCI; R. A. GILLIS; N. SAHIBZADA. <i>Georgetown Univ. Med. Ctr., Georgetown Univ., Georgetown Univ. Med. Cent.</i>
4:00	S6	071.16	Sensory and postganglionic neurons of the urethra in female rats. N. MIRTO AGUILAR*; A. D. DIAZ; C. MORAN; Y. CRUZ. <i>Univ. Veracruzana, Facultad De Ciencias Químicas, BUAP, Benemérita Univ. Autónoma de Puebla, Univ. Autónoma Tlaxcala.</i>				

• Indicated a real or perceived conflict of interest, see page 72 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

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| <p>3:00 S17 071.27 ● Recruitment of lower urinary tract peripheral afferents and muscles in response to spinal stimulation. M. K. JANTZ*; C. GOPINATH; R. KUMAR; L. WONG; J. I. OGREN; G. CHITNIS; B. L. MCLAUGHLIN; R. A. GAUNT. <i>Univ. of Pittsburgh, Micro-Leads, Univ. of Pittsburgh.</i></p> <p>4:00 S18 071.28 Epidural stimulation and microstimulation of dorsal root ganglion with penetrating microelectrode arrays enables selective access to innervation of lower urinary tract: Mapping and functional outcomes. C. GOPINATH*; M. K. JANTZ; R. KUMAR; J. I. OGREN; G. CHITNIS; L. WONG; B. MCLAUGHLIN; L. E. FISHER; R. A. GAUNT. <i>Univ. of Pittsburgh, Univ. of Pittsburgh, Micro-Leads Inc, Micro-Leads, Univ. of Pittsburgh.</i></p> <p>1:00 T1 071.29 A soft silicone electrode net for modulating bladder function. R. KUMAR*; C. GOPINATH; T. W. SIMPSON; D. M. WEIR; M. K. JANTZ; A. THIESSEN; D. McDONNALL; R. A. GAUNT. <i>Univ. of Pittsburgh, Univ. of Pittsburgh, Ripple.</i></p> <p>2:00 T2 071.30 Anatomical and functional mapping of renal nerves. R. TYSHYNSKY*; D. VAN HELDEN; E. LARSON; S. SENSARMA; L. VULCHANOV; J. W. OSBORN, Jr. <i>Univ. of Minnesota Twin Cities, Univ. of Minnesota Twin Cities.</i></p> | <p>4:00 T10 072.08 A neural projection from the parastrial nucleus to the dorsomedial hypothalamus contributes to the activation of BAT thermogenesis. P. CHIAVETTA*; G. CANO; A. STANZANI; D. TUPONE. <i>Oregon Hlth. and Sci. Univ., Univ. of Pittsburgh Dept. of Neurosci., Univ. of Bologna.</i></p> <p>1:00 T11 072.09 Behavioral mitigation of detrimental effects of acute thermal stress in Antarctic Nototheinoid fish, <i>N. coriiceps</i>. I. I. ISMAILOV*; J. B. SCHARPING; I. E. ANDREEVA; M. J. FRIEDLANDER. <i>Fralin Biomed. Res. Inst. at Virginia Tech. Carilion, Virginia Tech. Carilion Sch. of Med.</i></p> <p>2:00 T12 072.10 EP3R-expressing glutamatergic neurons mediate inflammatory fever. N. L. MACHADO*; S. BANDARU; S. B. ABBOTT; C. SAPER. <i>Beth Israel Deaconess Med. Ctr. - Harvard Med., The Heart Res. Inst.</i></p> <p>3:00 T13 072.11 The ion channel TRPM2 mediates direct warmth detection within the brain by modulating the sensitivity to temperature of preoptic warm-sensitive neurons. G. B. KAMM*; J. C. BOFFI; I. SONNTAG; A. TAPPE-THEODOR; T. KUNER; J. SIEMENS. <i>Heidelberg Univ., European Mol. Biol. Lab., Heidelberg Univ.</i></p> <p>4:00 T14 072.12 Thermoregulation via temperature dependent prostaglandin D2 production in mouse preoptic area. T. A. WANG*; C. TEO; M. ÅKERBLOM; C. CHEN; M. T. FONTAINE; V. J. GREENFIELD; A. DIAZ; M. T. McMANUS; Y.</p> |
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POSTER

072. Autonomic Regulation: Thermoregulation, Inflammation, and Other Interactions

Theme F – Integrative Physiology and Behavior

Sat. 1:00 PM – McCormick Place Hall A

- 1:00 T3 **072.01** Systemic serotonin-induced inhibition in brown adipose tissue sympathetic nerve activity requires inhibition of the dorsomedial hypothalamus. C. M. MOTA*, C. J. MADDEN; L. G. S. BRANCO; S. F. MORRISON. *Oregon Hlth. & Sci. Univ., Univ. of São Paulo.*

2:00 T4 **072.02** Torpor trap: Searching for the neural circuit underlying torpor. M. T. AMBLER*; M. W. JONES; A. E. PICKERING. *Univ. of Bristol.*

3:00 T5 **072.03** Molecular diversity of vagal sensory neurons controlling airway protection. B. D. UMANS*; S. L. PRESCOTT; E. K. WILLIAMS; N. R. JOSHI; S. D. LIBERLES. *Harvard Med. Sch., Harvard Med. Sch., Harvard Med. School, HHMI.*

4:00 T6 **072.04** A skin thermal surge following cocaine injection: Mediation of peripheral dopamine receptor. S. CHANG*; Y. RYU; S. LEE; H. KIM; H. JANG; D. AHN; Y. YI; E. JEONG; S. YOON; C. YANG; H. KIM. *Daegu Haany Univ., Korea Inst. of Oriental Med.*

1:00 T7 **072.05** Vagal afferent nerve activity contributes to the anti-inflammatory effects of vagus nerve stimulation in rats with concanavalin A-induced hepatitis. B. JO*; K. LEE; C. CHO; H. YOO; U. NAMGUNG*. *Daejeon Univ.*

2:00 T8 **072.06** Vasopressin receptor 1a defines mechano and thermosensitive neurons in rat OVLT. C. A. ZAELZER*; C. W. BOURQUE. *McGill Univ. Hlth. Ctr.*

3:00 T9 **072.07** ▲ The effects of ocular atropine administration on c-Fos activation in oxytocin wild-type and knockout mice. J. GUIDUBALDI; M. A. GREENWOOD; E. A. HAMMOCK*. *Florida State Univ.*

- 4:00 T10 **072.08** A neural projection from the parastrial nucleus to the dorsomedial hypothalamus contributes to the activation of BAT thermogenesis. P. CHIAVETTA*, G. CANO; A. STANZANI; D. TUPONE. *Oregon Hlth. and Sci. Univ., Univ. of Pittsburgh Dept. of Neurosci., Univ. of Bologna.*

1:00 T11 **072.09** Behavioral mitigation of detrimental effects of acute thermal stress in Antarctic Nototheinoid fish, *N. coriiceps*. I. I. ISMAILOV*, J. B. SCHARPING; I. E. ANDREEVA; M. J. FRIEDLANDER. *Fralin Biomed. Res. Inst. at Virginia Tech. Carilion, Virginia Tech. Carilion Sch. of Med.*

2:00 T12 **072.10** EP3R-expressing glutamatergic neurons mediate inflammatory fever. N. L. MACHADO*; S. BANDARU; S. B. ABBOTT; C. SAPER. *Beth Israel Deaconess Med. Ctr. - Harvard Med., The Heart Res. Inst.*

3:00 T13 **072.11** The ion channel TRPM2 mediates direct warmth detection within the brain by modulating the sensitivity to temperature of preoptic warm-sensitive neurons. G. B. KAMM*; J. C. BOFFI; I. SONNTAG; A. TAPPE-THEODOR; T. KUNER; J. SIEMENS. *Heidelberg Univ., European Mol. Biol. Lab., Heidelberg Univ.*

4:00 T14 **072.12** Thermoregulation via temperature dependent prostaglandin D2 production in mouse preoptic area. T. A. WANG*; C. TEO; M. ÅKERBLOM; C. CHEN; M. T. FONTAINE; V. J. GREINER; A. DIAZ; M. T. MCMANUS; Y. N. JAN; L. Y. JAN. *Univ. of California, San Francisco, UCSF Diabetes Ctr., Univ. of California, San Francisco, UCSF Diabetes Ctr., HHMI/UCSF, Univ. of California San Francisco Dept. of Physiol.*

1:00 T15 **072.13** Neuro-immune cross talk in influenza virus pathogenesis. K. SHORT; B. CHUA; C. W. LAW; S. B. MAZZONE; A. E. MCGOVERN*. *Univ. of Queensland, Univ. of Melbourne, Walter and Eliza Hall Inst. of Med. Res., Univ. of Melbourne, The Univ. of Melbourne.*

2:00 T16 **072.14** Involvement of TRPV1 in thermoregulatory responses in Wistar rats subjected to social stress. D. A. CHIANCA*, Jr; T. O. REIS; M. T. T. CHIRICO; A. R. R. ABREU; M. R. GUEDES; L. B. T. MESQUITA; P. LIMA; R. C. DE MENEZES. *Federal Univ. of Ouro Preto.*

3:00 T17 **072.15▲** Respiratory inflammation increases risk for sudden death in *Kcnai1*-null mice, a model for temporal lobe epilepsy. L. NETZEL*; J. HALLGREN; K. SIMEONE. *Creighton Univ. Sch. of Medicine, Dept. of Pharmacol.*

4:00 T18 **072.16▲** Influence of neuraminidase inhibitor on the abnormal jumping off behavior induced experimentally by the combined administration of haloperidol and clonidine in mice. N. ONO*; M. YOSHIDA; A. TODA. *Miki Hlth. Sci. Res. Inst., Rajkiy Col. of Pharmacol. Sci.*

POSTER

073 Feeding and Food-Related Disorders

Theme F – Integrative Physiology and Behavior

Sat 1:00 PM – McCormick Place Hall A

- 1:00 T19 **073.01** Analysis of nausea induced by emetine or cisplatin in rats. M. FUNAHASHI*; Y. HIRAI; K. HISADOME; M. FUJITA; S. SU; N. YAMAZAKI; J. SANEFUJI. *Hokkaido Univ, Grad Sch. Dent. Med.*

2:00 T20 **073.02** Neurotrophin-4 is essential for survival of a large proportion of vagal afferents that innervate the small intestinal mucosa. H. K. SERLIN*; E. A. FOX. *Purdue Univ., Purdue Univ.*

- Indicated a real or perceived conflict of interest, see page 72 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

- 3:00 U1 **073.03** Peripheral ghrelin elevation and proinflammatory state in dehydration-induced anorexic rats. P. SOBERANES-CHAVEZ*; M. PERELLO; E. ALVAREZ-SALAS; P. DE GORTARI. *Natl. Inst. of Psychiatry, Lab. of Neurophysiology-Multidisciplinary Inst. of Cell Biol.*
- 4:00 U2 **073.04** Real-time monitoring and quantification of binge-like eating behaviors in animal models. Y. FUJIOKA*; K. KAWAI; K. ENDO; M. ISHIBASHI; S. YOKOI; N. IWADE; M. KATSUNO; H. WATANABE; S. ISHIGAKI; G. SOBUE. *Nagoya Univ. Grad. Sch. of Med., Nagoya Univ. Grad. Sch. of Med., Nagoya Univ.*
- 1:00 U3 **073.05** Decreases in DNA methylation in the hypothalamus tracks weight gain during the development of obesity. T. MCFADDEN*; S. A. ORSI; J. L. NELSEN; M. O'DONNELL; T. J. JAROME. *Virginia Polytechnic Inst. and State Univ., Virginia Polytechnic Inst. and State Univ., Virginia Polytechnic Inst. and State Univ., Virginia Polytechnic Inst. and State Univ.*
- 2:00 U4 **073.06** ▲ Levels of the sleep-inducing factor adenosine in blood are modulated in obese patients after blueberry intake. E. REYES-CUAPILO*; M. HIGUERA-HERNÁNDEZ; M. PORRUA-ARDURA; M. GUTIÉRREZ-MENDOZA; H. BUDDE; C. BLANCO-CENTURIÓN; A. BARCIELA-VERAS; N. BARBOSA ROCHA; T. YAMAMOTO; D. MONTEIRO; L. CID; D. TELLES-CORREIA; S. MACHADO; E. MURILLO-RODRÍGUEZ. *Univ. Anahuá Mayab, Fac. of Human Sciences, Med. Sch. Hamburg., Dept. of Psychiatry and Behavioral Sciences. The Med. Univ. of South Carolina., Univ. Católica Dom Bosco, Hlth. School, Polytechnic Inst. of Porto, Grad. Sch. of Technology, Industrial and Social Sci. Tokushima Univ., Sport Sci. Sch. of Rio Maior. Inst. Politécnico de Santarém, Univ. of Lisbon. Fac. of Med., Salgado de Oliveira Univ., Lab. de Neurociencias Moleculares e Integrativas. Escuela de Medicina División Ciencias de la Salud. Univ. Anáhuac Mayab.*
- 3:00 U5 **073.07** Modulation of serotonin 2C receptor RNA editing by alterations in energy balance. T. MALIK*; R. B. EMESON. *Vanderbilt Univ., Vanderbilt Univ.*
- 4:00 U6 **073.08** Comparison between mouse substrains in a model of binge-like eating. G. R. CURTIS*; J. R. BARSON. *Drexel Univ. Col. of Med.*
- 1:00 U7 **073.09** The proopiomelanocortin peptide beta-endorphin can mediate the severity of activity-based anorexia in mice. C. M. DAIMON*; S. T. HENTGES. *Colorado State Univ.*
- 2:00 U8 **073.10** The growth hormone secretagogue receptor in the ventral tegmental area mediates chronic social defeat induced feeding in mice. A. SMITH*; L. HYLAND; B. MACAULAY; R. PROWSE; A. ABIZAID. *Carleton Univ.*
- 3:00 U9 **073.11** Hedgehog pathway and ciliary GPCR signaling in obesity. S. E. ENGLE*; P. J. ANTONELLIS; R. BANSAL; L. S. WHITEHOUSE; N. F. BERBARI. *Indiana Univ. Purdue Univ. Indianapolis.*
- 4:00 U10 **073.12** Cancer chemotherapeutics targeting Akt-associated pathways evoke emesis in the least shrew. N. A. DARMANI*; L. BELKACEMI; W. ZHONG. *Coll Osteo. Med. Pacific, Western Univ. Hlth. Sci.*

POSTER

- 074. Fear and Aversive Learning and Memory: Extinction**
Theme G – Motivation and Emotion
Sat. 1:00 PM – McCormick Place, Hall A
- 1:00 U11 **074.01** A thalamo-amygdalar circuit underlies exposure-induced attenuation of remote fear memories. B. A. SILVA*; S. ASTORI; A. BURNS; H. HEISER; M. MARTINEZ-REZA; C. SANDI; J. GRÄFF. *École Polytechnique Fédérale De Lausanne (EPFL), EPFL.*
- 2:00 U12 **074.02** Amygdala reward neurons form and store fear extinction memory. X. ZHANG*; J. KIM; S. TONEGAWA. *MIT. The Picower Inst. for Learning and Memory, Dept. of Brain and Cognitive Sci., MIT.*
- 3:00 U13 **074.03** The role of interactions between ventral hippocampus and basolateral amygdala in control of fear extinction memory in mice. K. PARK*; V. Y. BOLSHAKOV. *McLean Hospital/Harvard Med. Sch., McLean Hosp- Harvard Med. Sch.*
- 4:00 U14 **074.04** Contributions of the postrhinal cortex to retrieval of auditory fear conditioning. N. E. DEANGELI*, C. A. TOAL; D. J. BUCCI; T. P. TODD. *Dartmouth Col.*
- 1:00 U15 **074.05** Subconscious processes during fear extinction in sedated rodents alongside fMRI acquisition are sufficient to reduce long-term fear. E. ANDRES*; F. AEDO-JURY; L. HAMZHEPOUR; K. RADYUSHKIN; U. SCHMITT; R. KALISCH; A. STROH. *German Resilience Ctr., Univ. Med. Ctr., Univ. Med. Ctr., Univ. Med. Ctr.*
- 2:00 U16 **074.06** Extinction reduces fear potentiated startle at long lead intervals but not at short. O. ÅSLI*. *The Arctic Univ. of Norway.*
- 3:00 U17 **074.07** Fear learning, slow-wave sleep and trait anxiety: A conditioning study. I. C. BIRCH*; T. B. LONSDORF; J. E. DUNSMOOR; S. ZAMMIT; M. W. JONES; P. A. LEWIS. *Cardiff Univ., Univ. Med. Ctr. Hamburg-Eppendorf, Univ. of Texas, Cardiff Univ., Bristol Univ., Bristol Univ.*
- 4:00 U18 **074.08** The effects of serotonergic lesion of dorsal raphe nucleus (DRN) and median raphe nucleus (MRN) on fear extinction in rats. S. NAKAZAWA*; T. OZAWA; Y. ICHITANI; K. YAMADA. *Univ. Tsukuba.*
- 1:00 U19 **074.09** The specific effects of CO₂ on the lability of fear memory. F. NAGHAVI*; E. E. KOFFMAN; C. KRUSE; B. LIN; J. DU. *The Univ. of Toledo.*
- 2:00 U20 **074.10** Subthreshold fear conditioning produces a rapidly developing neural mechanism that primes subsequent learning. K. E. COLE*; J. D. LEE; R. G. PARSONS. *Stony Brook Univ., Michigan State Univ.*
- 3:00 U21 **074.11** Sex differences in the endocannabinoid modulation of fear memory dynamics. A. S. NASTASE*; M. MORENA; A. SANTORI; R. SHANSKY; M. N. HILL. *Univ. of Calgary, Univ. of Calgary, Sapienza Univ. of Rome, Northeastern Univ.*
- 4:00 U22 **074.12** Sex differences in prefrontal neural mechanisms underlying fear expression and extinction. A. S. RUSSO*; M. E. VOULO; J. LEE; D. JUN; K. KALENJA; R. G. PARSONS. *Stony Brook Univ., Michigan State Univ.*
- 1:00 U23 **074.13** ▲ Optogenetic stimulation of substantia nigra to dorsal lateral striatum pathway during fear extinction prevents fear renewal. J. WISEMAN*; K. SPRAGUE; E. C. LOETZ; A. HOHORST; K. CAMPOS; T. HUBERT; E. B. OLESON; B. N. GREENWOOD. *Univ. of Colorado Denver.*

* Indicated a real or perceived conflict of interest, see page 72 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

2:00	U24	074.14 ▲ Acute exercise augments fear extinction through a mechanism involving mTOR signaling. N. A. MOYA*; M. K. TANNER; A. M. SMITH; A. BALOLIA; J. K. P. DAVIS; E. C. LOETZ; B. N. GREENWOOD. <i>Univ. of Colorado Denver, Univ. of Colorado Denver.</i>	4:00	U34	075.04 The medial prefrontal cortex and anteromedial thalamic nucleus organize a positive feedback loop and regulate motivation of anticipatory behavior. S. JUNN; L. R. WHITAKER; C. NICOLAS; S. IKEMOTO*. <i>Natl. Inst. on Drug Abuse.</i>
3:00	U25	074.15 ▲ Dorsal striatum-modulation of fear extinction and relapse. A. BALOLIA*; M. K. TANNER; N. A. MOYA; J. DAVIS; E. C. LOETZ; J. JAIME; B. N. GREENWOOD. <i>Univ. of Colorado Denver, Univ. of Colorado Denver.</i>	1:00	U35	075.05 Medial prefrontal cortex stimulation produces reward and activate dopamine neurons via nucleus accumbens neurons projecting to the ventral tegmental area and substantia nigra. A. BADAWI; C. YANG; C. T. POTTER; R. F. DON; A. KESNER; L. R. WHITAKER; A. KISNER; S. JUNN; Y. APONTE; S. IKEMOTO. <i>Natl. Inst. on Drug Abuse, Fourth Military Med. Univ.</i>
4:00	U26	074.16 Novelty facilitated extinction ameliorates maladaptive fear learning in the 129S1 mouse strain. V. A. CAZARES*; G. RODRIGUEZ; L. J. OUILLETTE; R. PARENT; K. M. GLANOWSKA; S. J. MOORE; G. G. MURPHY. <i>Univ. of Michigan, Univ. of Michigan Ann Arbor, Univ. of Michigan, Univ. of Michigan, Univ. of Michigan, Univ. of Michigan.</i>	2:00	U36	075.06 Role of afferent projections to dorsolateral striatum in incubation of methamphetamine craving in male and female rats. I. R. DAVIS*; S. A. COLDREN; X. LI. <i>Univ. of Maryland.</i>
1:00	U27	074.17 The role of diminished motivation in extinguishing fear responses to environmental stimuli. G. RODRIGUEZ*; V. A. CAZARES; T. K. STEVENSON; E. D. GLASS; S. J. MOORE; G. G. MURPHY. <i>Univ. of Michigan.</i>	3:00	U37	075.07 Dorsal raphe projections regulate the rewarding nature of amphetamine. D. N. TAPP; J. C. PERKINS; M. S. MCMURRAY*. <i>Miami Univ.</i>
2:00	U28	074.18 Examination of diurnal differences in FOS expression in ventromedial prefrontal cortex (vmPFC) to basal medial amygdala (BMA) projection neurons after auditory conditioned fear extinction and conditioned fear recall. L. A. MILLISOR*; J. R. RAVENEL; M. J. HARTSOCK; H. K. STRNAD; R. RASMUSSEN; R. L. SPENCER. <i>Univ. of Colorado Boulder.</i>	4:00	U38	075.08 Neurobehavioral analysis of addiction-relevant behavioural endophenotypes. J. A. JONES*; B. JUPP; S. J. SAWIAK; P. ZHUKOVSKY; M. A. KHAN; A. BELIN-RAUSCENT; M. FOUYSSAC; A. L. MILTON; B. J. EVERITT; T. W. ROBBINS; D. BELIN; J. W. DALLEY. <i>Univ. of Cambridge, Univ. of Cambridge.</i>
3:00	U29	074.19 Diurnal examination of conditioned fear extinction recall through chemogenetic manipulation of ventromedial prefrontal cortex neurons that project to the basomedial amygdala. J. R. RAVENEL*; L. A. MILLISOR; R. RASMUSSEN; A. E. CONCHA; H. K. STRNAD; M. J. HARTSOCK; R. L. SPENCER. <i>Univ. of Colorado Boulder.</i>	1:00	U39	075.09 ● Real time pharmacokinetic and pharmacodynamic measurements of drugs within the brains of freely behaving rats. K. L. PLOENSE*; P. DAUPHIN-DUCHARME; N. ARROYO-CURRAS; S. WILLIAMS; N. SCHWARZ; T. E. KIPPIN; K. W. PLAXCO. <i>Univ. of California Santa Barbara, Johns Hopkins Univ. Sch. of Med., Univ. of California Santa Barbara.</i>
4:00	U30	074.20 Diurnal examination of infralimbic prefrontal cortex neuronal activity: Role of projections to the basomedial amygdala during auditory conditioned fear extinction in rats. M. J. HARTSOCK*; M. J. NAVARRO; N. A. BRENNAN; J. R. RAVENEL; L. A. MILLISOR; H. K. STRNAD; M. P. SADDORIS; R. L. SPENCER. <i>Univ. of Colorado Boulder.</i>	2:00	U40	075.10 The mTOR inhibitor everolimus blocks incubated cocaine-craving via reversing withdrawal-induced proteomic adaptations within prelimbic cortex. A. S. CHIU; E. K. SHULMAN; M. C. KANG; G. SHAB; K. N. ELIAS; A. M. FABELLA; K. N. HOLDER; B. D. BARGER; M. SANKARAN; T. E. KIPPIN; K. K. SZUMLINSKI*. <i>Univ. California-Santa Barbara.</i>
			3:00	V1	075.11 A novel method for real time, high-precision, in brain measurements of serotonin using electrochemical aptamer-based (E-AB) biosensors. J. GERSON*; K. PLOENSE; K. PLAXCO; T. E. KIPPIN. <i>UCSB, Univ. of California Santa Barbara, UCSB, Univ. California, Santa Barbara.</i>
			4:00	V2	075.12 Effects of manipulating PFC-NAC subcircuit activity on methamphetamine use in B6 mice. C. N. BROWN*; J. BELTRAN; W. YEN; T. TRAN; B. BARGER; N. WILLIAMS; A. PARK; T. KIPPIN; K. SZUMLINSKI. <i>UCSB Psychological and Brain Sci.</i>
			1:00	V3	075.13 Both male and female mice exhibit comparable age-related differences in the incubation of alcohol withdrawal-induced negative affect: A study of molecular correlate. C. L. JIMENEZ CHAVEZ*; L. W. BREWIN; A. LAGUNA; M. A. COELHO; D. LIEBERMAN; I. SWAUNCY; T. TRAN; T. ALBANESE; I. GABRIELLA; S. L. SCUDDER; K. K. SZUMLINSKI. <i>Univ. of California, Santa Barbara.</i>
			2:00	V4	075.14 Role of midbrain mTOR signaling in hyperactivity and attention deficit behaviors. X. LIU*; C. VICKSTROM; M. HU; Y. HU; Q. LIU. <i>Med. Col. of Wisconsin.</i>
			3:00	V5	075.15 ▲ Sex and strain differences in preference for a context associated with voluntary activity. K. M. BORDASH; K. T. LEONARD; C. A. DAVIS; J. E. G. GRISEL*. <i>Bucknell Univ.</i>

POSTER

075. Neural Mechanisms Underlying Motivated Behaviors and Addiction

Theme G – Motivation and Emotion

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

1:00	U31	075.01 Excitatory input from the insula to the ventral bed nucleus of the stria terminalis governs the acquisition of cues that predict reward. K. S. GIRVEN*; S. ARONI; P. N. MCKEON; J. F. CHEER; D. R. SPARTA. <i>Univ. of Maryland, Baltimore, Univ. of Maryland, Sch. of Med., Univ. of Maryland Sch. of Med., Univ. of Maryland.</i>
2:00	U32	075.02 Effects of disconnection of the medial orbitofrontal cortex and ventral tegmental area on effort-related responding in rats. W. HAUBER*; A. MUENSTER. <i>Univ. Stuttgart/Dept Neurobiol.</i>
3:00	U33	075.03 Pavlovian conditioned approach behavior is encoded by cortico-accumbens activity. M. G. SPRING*; J. R. MCREYNOLDS; A. J. CACCAMISE; K. SONI; E. A. PANTHER; B. M. WINDSOR; J. R. MANTSCH; R. A. WHEELER. <i>Marquette Univ.</i>

4:00	V6	075.16	Modeling pathological aggressive motivation: VTA CRF circuits in aggression-specific arousal. H. E. COVINGTON, III; K. CHIEN-YOUNG; E. L. NEWMAN; N. AKDILEK; K. HA; L. CART; E. SINGLETON; M. Z. LEONARD; K. A. MICZEK*. <i>Tufts Univ.</i>	3:00	V16	076.07	● Hippocampal 5HT _{1A} and 5HTT alterations lead to cognitive deficits associated with major depressive disorder in a 14-day combined stress rat model. G. T. NGOUPAYE*; T. MADLALA; M. MABANDLA. <i>Univ. of Durban, 1 Discipline of Human Physiology, Sch. of Lab. Med. & Med. Sciences, Col. of Hlth. Sciences, Univ. of KwaZulu-Natal, Durban, 4000. South Africa.</i>
1:00	V7	075.17	Escalation of aggressive motivation after rapid alcohol self-administration: Role of CRF. H. E. COVINGTON*, III; N. AKDILEK; E. L. NEWMAN; W. HAYEK; L. CART; R. GENEROSO; K. CHIEN-YOUNG; K. HAZZARD; C. LI; K. A. MICZEK. <i>Tufts Univ.</i>	4:00	V17	076.08	Behavioral characterization of the effect of chronic social defeat stress in Swiss Webster mice as a model of depression and cognitive impairment. H. M. MANCHA-GUTIÉRREZ*; C. LOPEZ-RUBALCAVA. <i>CINVESTAV-IPN.</i>
2:00	V8	075.18	The connectome of the dopamine neuron in the addicted brain. G. WILDENBERG*; J. KORANDA; X. ZHUANG; N. B. KASTHURI. <i>Univ. of Chicago/Argonne Natl. Lab., Univ. of Chicago Dept. of Neurobio., Univ. of Chicago Dept. of Neurobio., Univ. of Chicago.</i>	1:00	V18	076.09	Social dominance is associated with resilience and increased active coping behaviors. K. B. LECLAIR*; K. CHAN; L. F. PARISE; L. LI; F. CATHOMAS; M. P. KASTER; S. J. RUSSO. <i>Icahn Sch. of Med. At Mount Sinai.</i>
3:00	V9	075.19	Laterodorsal tegmental nucleus glutamate inputs to the ventral tegmental area are critical for the development of cocaine locomotor sensitization in mice. A. PURANI; D. ARIZANOVSKA; C. BULLARD; N. BUIE; P. VEZINA; S. STEIDL*. <i>Loyola Univ. Chicago, The Univ. of Chicago, Loyola Univ. Chicago.</i>	2:00	V19	076.10	Chronic social defeat stress increases intestinal permeability and endotoxemia in mice. K. L. CHAN*; K. B. LECLAIR; F. CATHOMAS; Y. SHIMO; M. P. KASTER; G. PRICE; S. J. RUSSO. <i>Icahn Sch. of Med. at Mount Sinai.</i>
				3:00	V20	076.11	Early social isolation effects on amygdala kindling seizures and depressive-like behavior. A. VALDÉS-CRUZ*; A. E. DÍAZ-FUENTES; C. A. GARCIA-CABALLERO; D. MARTINEZ-VARGAS; V. M. MAGDALENO-MADRIGAL; S. ALMAZÁN-ALVARADO. <i>Inst. Nacional De Psiquiatría RFM.</i>
1:00	V10	076.01	Enhanced anxiety-like behaviors by lactate dehydrogenase inhibitor treatment in a mouse model of chronic social defeat stress. H. HAGIHARA*; H. SHOJI; Y. TAKAMIYA; T. MIYAKAWA. <i>Fujita Hlth. University, ICMS, Div. Syst. Med.</i>	4:00	V21	076.12	Behavioral consequences of inescapable foot shock stress in male rats. A. STEPHENS*; D. A. MORILAK; D. J. LODGE; A. FRAZER; F. R. CÁRRENO. <i>UT Hlth. San Antonio, UT Hlth. San Antonio, South Texas Veteran's Hlth. Care Syst.</i>
2:00	V11	076.02	Chronic social defeat stress promotes changes in motivated behavior and mesolimbic dopamine function that are limited to social contexts. C. A. FAVORETTO*; D. P. COVEY; M. E. FOX; I. M. H. QUADROS; M. K. LOBO; J. F. CHEER. <i>Univ. Federal De São Paulo, Univ. of Maryland.</i>	1:00	V22	076.13	A mouse model of chronic stress-induced social anhedonia: Reversal by leptin. Y. LEI*; D. WANG; M. GUO; X. LU. <i>Med. Col. of Georgia at Augusta Univ.</i>
3:00	V12	076.03	Social instability stress and chronic non-discriminatory social defeat are effective chronic stress paradigms for both male and female mice. C. N. YOHN*; A. BAZER; S. ASHAMALLA; A. DIETERICH; B. A. SAMUELS. <i>Rutgers Univ., Rutgers Univ.</i>	2:00	V23	076.14	Methionine promotes resilience to chronic social defeat stress by modulating NMDA receptor expression in the cortex. M. A. KHALIFE*; M. BILEN; P. IBRAHIM; N. BARMO; E. ABOU HAIDAR; V. JABRE; N. KARNIB; L. EL HAYEK; P. NASRALLAH; J. STEPHAN; S. SLEIMAN. <i>Lebanese American Univ., Lebanese American Univ.</i>
4:00	V13	076.04	Chronic unpredictable stress cause alterations in monoamine systems in the brain but leads to no behavior changes in rats. J. ZACCARELLI-MAGALHÃES*; G. R. ABREU; M. MANES; A. R. FUKUSHIMA; N. MOREIRA; E. L. RICCI; H. S. SPINOSA. <i>FMVZ - Univ. of São Paulo, Presbyterian Mackenzie Univ.</i>	3:00	V24	076.15	Sex-dependent effects of adolescent social isolation on depressive behavior in heterozygous serotonin transporter knockout rats. J. L. LUKKES*; H. L. KLINE; A. R. ABREU; A. SHEKHAR. <i>Indiana Univ. Sch. of Med., Indiana Univ. Sch. of Med., Indiana Univ. Sch. of Med.</i>
1:00	V14	076.05	● Development of a mouse model of depression using emotional stress. T. SEKI*; H. YAMAGATA; A. KOBAYASHI; S. UCHIDA; Y. WATANABE; S. NAKAGAWA. <i>Yamaguchi Univ. Sch. of Med., Kyoto Univ. Grad. Sch. of Med., Southern Tohoku Res. Inst. for Neurosci. Southern TOHOKU Gen. Hosp.</i>	4:00	V25	076.16	Assessment of mechanisms underlying the impact of the B lymphocyte in the response to stress. E. B. E. ENGLER-CHIURAZZI*; D. R. CORBIN; J. M. POVROZNIK; B. A. WHITE; A. GUNTER; C. JEBBIA; E. COOK; L. GROSSMAN; J. W. SIMPKINS. <i>West Virginia Univ.</i>
2:00	V15	076.06	Impairment of episodic memory in an animal model of depression induced by chronic unpredictable stress. J. KIM*; J. LEE; T. KIM; H. KANG; J. KOO. <i>Korea Brain Res. Inst., DGIST, Chung-Ang Univ., Korea Brain Res. Inst.</i>	1:00	V26	076.17	The protective effects of Ghrelin/GHSR on hippocampal neurogenesis in CUMS mice. H. HUANG*; X. CHEN; Q. HAN; J. WANG; Q. LIU; B. LI; G. WU; Y. WANG; J. YU. <i>Fudan Univ.</i>
			2:00	V27	076.18	▲ Immediate acute stress differentially affects interaction with and recognition of inanimate and animate subjects in a genetic rat model of depression. A. K. SCHAAACK*; M. MOCCHI; E. E. REDEI. <i>Northwestern Univ. Feinberg Sch. of Med.</i>	

* Indicated a real or perceived conflict of interest, see page 72 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

3:00	V28	076.19 ▲ Stress during adolescence sex dependently alters adult affective behaviors in a genetic rat model of depression. S. KIM*; S. A. GACEK; M. M. MOCCHI; E. E. REDEI. <i>Northwestern Univ. Feinberg Sch. of Med.</i>	3:00	V39	077.07 Psychostimulants exert dose dependent effects on frontostriatal neuronal signaling. R. C. SPENCER*; A. J. MARTIN; D. M. DEVILBISS; R. L. JENISON; C. W. BERRIDGE. <i>Univ. of Wisconsin-Madison, Rowan Univ. - Sch. of Osteo. Med.</i>
4:00	V29	076.20 ▲ Stress enhanced fear learning is modified by the intensity of fear conditioning in a genetic rat model of depression. K. J. PRZYBYL*; S. T. JENZ; P. H. LIM; S. L. WERT; W. LUO; E. E. REDEI. <i>Northwestern Univ. Feinberg Sch. of Med.</i>	4:00	V40	077.08 Stress disrupts cognition-related neuronal coding within frontostriatal circuitry. A. MARTIN*; D. M. DEVILBISS; R. C. SPENCER; R. L. JENISON; C. W. BERRIDGE. <i>Univ. of Wisconsin - Madison, Rowan Univ. - Sch. of Osteo. Med.</i>
1:00	V30	076.21 Chronic stress induces microglial-mediated inflammatory responses and compromises the oligodendroglial homeostasis during depression. A. G. KOKKOSIS*; K. VALAIS; M. MULLAHY; S. E. TSIRKA. <i>Stony Brook Univ.</i>	1:00	V41	077.09 A history of cocaine increases impulsivity and disrupts neural activity in the prelimbic cortex. T. M. MOSCHAK*; R. M. CARELLI. <i>Univ. of North Carolina.</i>
2:00	V31	076.22 A rodent model of early life stress (ELS) associated with altered miRNA expression in rat hypothalamus. L. A. ALLEN*; Y. DWIVEDI. <i>The Univ. of Alabama at Birmingham.</i>	2:00	V42	077.10 Behavioral effects of prior cocaine exposure on unsignaled delay-based decision making and prelimbic cortical activity. M. L. NGBOKOLI*; T. M. MOSCHAK; R. M. CARELLI. <i>Univ. of North Carolina At Chapel Hill.</i>
3:00	V32	076.23 Characterization of proinflammatory markers in the ventral tegmental area following different forms of chronic stress. V. BALI*; M. RODRIGUEZ; M. DOYLE; C. MANNING; A. ROBISON; M. MAZEI-ROBISON. <i>Michigan State Univ., Univ. of Texas at El Paso.</i>	3:00	V43	077.11 ▲ Breakdown of stable delay discounting behavior following methamphetamine administration. W. J. MANDELL*; D. T. GUENTHER; M. KREHER; D. R. MILLER; B. SETLOW; H. KHOSHBOUEI; S. N. BURKE; A. P. MAURER. <i>Univ. of Florida, Univ. of Florida.</i>
4:00			4:00	V44	077.12 Effects of methylphenidate on impulsive choice and timing processes in Lewis rats. K. PANFIL*, R. SMALL; K. KIRKPATRICK. <i>Kansas State Univ.</i>
1:00			1:00	V45	077.13 Chronic alcohol induced liver injury correlates with memory deficits and neuroinflammation. J. A. KING*; B. NEPHEW; G. POIRIER; A. CHAUDHURY; A. LIM; P. MANDREKAR. <i>Worcester Polytechnic Inst., Worcester Polytechnic Inst., Umass Med. Sch.</i>
2:00			2:00	V46	077.14 Using fMRI to further understand sexual HIV-risk decision-making in stimulant users and controls. T. D. WILLSON*; J. LISINSKI; M. W. JOHNSON; S. M. LACONTE; H. U. DESHPANDE; W. K. BICKEL; M. N. KOFFARNUS*. <i>Virginia Tech., Virginia Tech., Johnson Hopkins Univ. Sch. of Med.</i>

POSTER

077. Cognitive Effects of Abused Substances

Theme G – Motivation and Emotion

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

1:00	V33	077.01 ▲ Alterations in NMDAR subunit expression and functional behavioral deficits after prenatal alcohol exposure. V. LICHERI*; J. CHANDRASEKARAN; J. A. KENTON, JR; K. MARQUARDT; C. F. VALENZUELA; J. L. BRIGMAN. <i>Univ. of New Mexico Sch. of Med., New Mexico Alcohol Res. Center, UNM Hlth. Sci. Ctr.</i>	1:00	V47	078.01 Gpr88 agonist decreases excessive alcohol intake in mice. S. BEN HAMIDA; E. CLARKE; E. MORONCINI; E. DARcq; C. JIN*, B. L. KIEFFER. <i>McGill Univ., RTI Intl.</i>
2:00	V34	077.02 Cognitive control on the rodent touch-screen five-choice continuous performance task is impaired by prenatal alcohol exposure in a sex dependent manner. S. L. OLGUIN*; D. J. GREGG; C. F. VALENZUELA; J. CAVANAGH; J. L. BRIGMAN. <i>Univ. of New Mexico, Univ. of New Mexico.</i>	2:00	V48	078.02 Lowering of dietary n-6 polyunsaturated fatty acid lowered voluntary ethanol binge drinking in mice. C. T. CHEN*; S. HAVEN; K. SCHUEBEL; D. GOLDMAN; J. R. HIBBELN. <i>NIH, Johns Hopkin Univ., Natl. Inst. on Alcohol Abuse and Alcoholism Lab. of Neurogenetics, NIH/NIAAA.</i>
3:00	V35	077.03 Optogenetic rescue of cortico-striatal dysregulation and behavioral flexibility deficits following prenatal alcohol exposure. J. CHANDRASEKARAN*; J. KENTON; V. LICHERI; C. F. VALENZUELA; J. L. BRIGMAN. <i>Univ. of New Mexico.</i>	3:00	V49	078.03 Cluster of differentiation 5 knockout mice display reduced ethanol consumption and resistance to ethanol induced sedation. J. D. OBRAY*; A. J. PAYNE; C. M. T. FREITAS; B. WILLIAMS; J. BALDRIDGE; J. T. YORGASON; K. S. WEBER; S. C. STEFFENSEN. <i>Brigham Young Univ.</i>
4:00	V36	077.04 Are there common neural substrates of cocaine craving and post-cocaine working memory deficits in rats? M. SCHWENDT*; C. M. GOBIN. <i>Univ. of Florida.</i>			
1:00	V37	077.05 Interaction of mGlu5 and A2a receptors in regulation of working memory and cocaine-seeking. P. U. HAMOR*; C. M. GOBIN; M. SCHWENDT. <i>Univ. of Florida.</i>			
2:00	V38	077.06 Cannabis vapor self-administration during adolescence abolishes sex differences in cognitive flexibility in adulthood. T. G. FREELS*; H. R. WRIGHT; N. C. GLODOSKY; A. M. HAMPTON; X. L. HERRERA; M. W. MELVILLE; R. J. MC LAUGHLIN. <i>Washington State Univ., Washington State Univ., Washington State Univ.</i>			

4:00	W4	078.04	Voluntary alcohol consumption in adolescent and adult rats: Consumption patterns and effects on taste reactivity. T. J. WUKITSCH*; T. J. MOSER; J. GOMENDOZA; P. M. SMALL; C. CUNNINGHAM; J. P. RACK; M. ALLISON; M. CAIN. <i>Kansas State Univ., Kansas State Univ.</i>	1:00	W17	078.17	Efficacy of selective GluK1-containing kainate receptor antagonism to modulate alcohol consumption and ethanol-related phenotypes in mice. N. QUIJANO CARDÉ*; E. PEREZ; H. KRANZLER; M. DE BIASI. <i>Univ. of Pennsylvania, Univ. of Pennsylvania, Univ. of Pennsylvania.</i>
1:00	W5	078.05	Gene expression changes associated with anxiety like-behaviors and alcohol escalation. E. D. BARBIER*; R. BARCHIESI; K. CHANTHONGDEE; M. HEILIG; E. DOMI. <i>Ctr. for Social and Affective Neuroscience, IKE.</i>	2:00	W18	078.18	Acute TLR3 activation with a poly I: C challenge results in a transient increase in ethanol intake in C57BL/6J male mice. A. GANO*; C. KING; H. C. BECKER. <i>Med. Univ. of South Carolina, Med. Univ. South Carolina.</i>
2:00	W6	078.06	Synthetic peripherally restricted cannabinoid suppresses voluntary alcohol intake in rats via non-CB1/CB2 receptor action. V. N. MARTY*; Y. MULPURI; A. S. DHOPESHWARAKAR; J. J. MUNIER; A. LIAO; S. LELE; R. H. VO; I. YENOKIAN; K. MACKIE; I. SPIGELMAN. <i>Univ. of California Los Angeles, Indiana Univ. Bloomington Dept. of Psychological and Brain Sci.</i>	3:00	W19	078.19	▲ The loss of environmental enrichment does not enhance alcohol self-administration. X. M. HENRY*; B. S. BURRELL; M. W. BARBEL; S. M. THOMPSON; D. N. TAPP; M. S. MCMURRAY. <i>Miami Univ.</i>
3:00	W7	078.07	Association of mesolimbic responses to alcohol cues with current alcohol intake in human adolescents. S. I. HUDSON*; K. H. MACNIVEN; B. KNUTSON. <i>Stanford Univ.</i>	4:00	W20	078.20	▲ Caffeine-induced increases in the reinforcing effects of alcohol are independent of activity at the dopamine D ₂ receptor. G. BARKELL; S. E. HOLSTEIN*. <i>Lycoming Col.</i>
4:00	W8	078.08	● Combination treatment with varenicline and bupropion eliminates alcohol deprivation effect in rats. K. DANIELSSON*; A. DE BEJCZY; L. ADERMARK; M. ERICSON; B. SÖDERPALM. <i>Univ. of Gothenburg, Beroendekliniken, Sahlgrenska Univ. Hosp.</i>	1:00	W21	078.21	Effects of maternal separation during light or dark phase of the cycle on CB1 and D2 receptor expression and alcohol consumption in adult male rats. O. AMANCIO-BELMONT*; A. BECERRIL-MELÉNDEZ; M. MÉNDEZ-DÍAZ; A. RUIZ-CONTRERAS; Ó. PROSPÉRO-GARCÍA. <i>UNAM.</i>
1:00	W9	078.09	Observing the effects of combined alcohol and caffeine on somatic withdrawal signs in C57BL/6J mice. M. D. JENKINS; J. N. BERRY*. <i>Butler Univ.</i>	2:00	W22	078.22	▲ Enhanced vulnerability to aversion-resistant alcohol drinking in female mice. A. M. THOMAS*; O. RAMSEY; S. MONROE; E. A. SNEDDON; A. K. RADKE. <i>Miami Univ.</i>
2:00	W10	078.10	Testing the contribution of social context on preclinical efficacy of potential treatments for alcohol use disorder. M. T. ROBINS*; A. E. RYABININ. <i>Oregon Hlth. & Sci. Univ.</i>	3:00	W23	078.23	Subregion-specific effects of pituitary adenylate cyclase-activating polypeptide isoforms in the nucleus accumbens on ethanol drinking. A. T. GARGIULO*; B. E. PIRINO; G. R. CURTIS; P. SHAH; J. R. BARSON. <i>Drexel Univ. Col. of Med.</i>
3:00	W11	078.11	Bdnf projections from the orbitofrontal cortex to the dorsolateral striatum regulate alcohol drinking behaviors and habit. J. J. MOFFAT*; S. A. SAKHAI; Y. EHINGER; K. PHAMLUONG; D. RON. <i>Univ. of California, San Francisco.</i>	4:00	W24	078.24	Intermittent alcohol exposure on differentially reared rats affects and their taste response to ethanol. T. J. MOSER*; T. J. WUKITSCH; M. CAIN. <i>Kansas State Univ., Kansas State Univ.</i>
4:00	W12	078.12	Mu opioid receptor in direct-pathway medium spiny neurons contribute to the preference for alcohol drinking. A. MATSUI*; V. A. ALVAREZ. <i>NIAAA/NIH, Natl. Inst. on Alcohol Abuse and Alcoholism.</i>	1:00	W25	078.25	A novel mouse model of the interaction between early life stress and vulnerability to ethanol dependence in C57BL/6J mice. A. OKHUAROBO*; J. L. BOLTON; I. IGBE; T. Z. BARAM; C. CONTEM. <i>The Scripps Res. Inst., Univ. of Benin, Univ. of California-Irvine.</i>
1:00	W13	078.13	▲ Single or repeated mild traumatic brain injury during adolescence does not significantly affect ethanol consumption or cause long-term behavioral alterations in Sprague-Dawley rats. E. P. GAVRILLES; J. E. MILLER; T. L. DOREMUS-FITZWATER*. <i>Ithaca Col.</i>				
2:00	W14	078.14	The lack of conditioned place preference but unaltered stimulatory and ataxic effect of alcohol in the mGluR3-KO mice. T. AITTA-AHO*; M. LAINIOLA; A. LINDEN; L. HIETALA. <i>Univ. of Helsinki.</i>				
3:00	W15	078.15	Extended amygdala dynorphin/kappa opioid receptor activity contributes to excessive binge-like ethanol consumption in male and female mice. H. L. HAUN*; T. KASH; H. C. BECKER. <i>Med. Univ. of South Carolina, UNC- Chapel Hill, Med. Univ. South Carolina.</i>				
4:00	W16	078.16	Selective reduction of binge-like ethanol consumption through modulation of KV3 potassium channels in mice. R. CANNADY*; P. J. MULHOLLAND; C. H. LARGE. <i>Med. Univ. of South Carolina, Autifony Therapeut. Limited.</i>				

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3:00	W28	079.03	Low dose alcohol enhances dopamine release in the nucleus accumbens via alpha6-containing nicotinic receptors on gabaergic inputs from the ventral tegmental area. E. ANDERSON; A. STOCKARD; J. BRUNDAGE; A. PAYNE; D. OBRAY; M. GAO; J. MCINTOSH; A. M. LEE; J. YORGASON; S. SUDWEEKS; J. WU; S. C. STEFFENSEN*. <i>Brigham Young Univ., Barrow Neurolog. Institute, St. Joseph's Hosp. and Med. Ctr., Univ. Utah, Univ. of Minnesota, Barrow Neurolog Inst.</i>	2:00	W39	079.14	Posterior cingulate cortical response to active avoidance mediates the relationship between punishment sensitivity and problem drinking. T. M. LE*; S. ZHORNITSKY; W. WANG; J. S. IDE; C. R. LI. <i>Yale Univ., Yale Univ.</i>
4:00	W29	079.04	Evaluating the influence of sex and estrus cycle phase on dopamine dynamics in the mesolimbic pathway following acute ethanol administration. M. PARSONS*; J. OBRAY; R. JORGENSEN; J. BOWMAN; S. STEFFENSEN. <i>Brigham Young Univ.</i>	3:00	W40	079.15	Functional disruption in signaling between central (CNS) and peripheral nervous system in AUD individuals. S. HWANG*; R. DOUGLAS; R. SINHA; C. LACADIE; D. SEO. <i>Yale Univ. Sch. Med.</i>
1:00	W30	079.05	Impact of acute ethanol injections on medial prefrontal cortex neural activity. M. MORNINGSTAR*; B. MA; C. C. LAPISH. <i>IUPUI.</i>	4:00	W41	079.16	Drug-induced synaptic plasticity from striatal medium spiny neurons to cholinergic interneurons and behavioral inflexibility. H. GANGAL; Y. CHENG; X. WANG; J. LU; D. ARGEYLAN; X. XIE; L. N. SMITH; J. WANG. <i>Texas A&M Univ.</i>
2:00	W31	079.06	Binge drinking alters orthodenticle homeobox 2 gene and protein expression in the ventral tegmental area. C. COLES*; A. W. LASEK. <i>Univ. of Illinois At Chicago.</i>	1:00	W42	079.17	Neural encoding in medial prefrontal cortex during aversion resistant drinking in rodent models of alcohol use disorder. N. M. TIMME*; D. N. LINSENBARDT; M. TIMM; T. GALBARI; E. CORNWELL; C. C. LAPISH. <i>IUPUI, Univ. of Utah.</i>
3:00	W32	079.07	Chloride and calcium dynamics underlying ethanol-induced interneuronopathy. S. M. LEE*; R. J. DING; A. G. J. SKORPUT; P. W. L. YEH; H. H. YEH. <i>Geisel Sch. of Med. at Dartmouth Col., Dartmouth Col., Univ. of Minnesota Twin Cities.</i>	2:00	W43	079.18	Frontal white matter integrity correlates with anterior cingulate cortex metabolites: An exploratory multimodal neuroimaging study of alcohol use disorder. G. G. GRECCO*; E. J. CHUMIN; M. DZEMIDZIC; H. CHENG; P. FINN; S. D. NEWMAN; K. K. YODER. <i>Indiana Univ. Sch. of Med., Indiana Univ. Sch. of Med., Indiana Univ. Sch. of Med., Indiana Univ.</i>
4:00	W33	079.08	An acetylcholine-dopamine interaction in the rat nucleus accumbens and its tentative involvement in ethanol's dopamine-liberating effect. A. ANDRÉN*; L. ADERMARK; B. SÖDERPALT; M. ERICSON. <i>Univ. of Gothenburg, Sahlgrenska Univ. Hosp.</i>				
1:00	W34	079.09 ▲	Induction of alcohol dependence in C57Bl/6J mice alters prelimbic prefrontal cortical GCaMP6f activity in response to alcohol-predictive cues in the 2CAP task. K. A. CLAYTON; F. A. KHAN; C. C. LAPISH; P. J. MULHOLLAND; J. A. RINKER*. <i>Col. of Charleston, Citadel, IUPUI, MUSC, Med. Univ. of South Carolina.</i>				
2:00	W35	079.10	Interoceptive conditioning with low alcohol dose: Inactivation of the dentate gyrus partially disrupted low dose alcohol discrimination. D. F. LOVELOCK*; K. VAN VOORHIES; P. A. RANDALL; T. KASH; J. BESHEER. <i>Univ. of North Carolina at Chapel Hill.</i>				
3:00	W36	079.11	Serotonin 1A receptor-dependent modulation of alcohol-induced deficits in 5-HT/VGLUT3 innervation. A. BELMER*; K. BEECHER; S. E. BARTLETT. <i>Queensland Univ. of Technol.</i>				
4:00	W37	079.12	Alcohol drinking reduces the number of myelinated axons in the prefrontal cortex in male adolescent rats. B. A. REYES*; T. LHAMO; A. AL-SIBAI; L. BENGSTON; A. SILVA-GOTAY; E. TAVARES; H. N. RICHARDSON; E. J. VAN BOCKSTAEL. <i>Drexel Univ., Univ. of Massachusetts, Univ. of Massachusetts Amherst, Univ. of Massachusetts - Amherst, Univ. of Massachusetts Amherst, Drexel Univ. Col. Of Med.</i>				
1:00	W38	079.13	Studying alcoholism with diffusion weighted MRI with neurite orientation dispersion and density modeling: Effects of diagnosis and alcohol intoxication on axonal density. K. K. YODER*; E. J. CHUMIN; M. DZEMIDZIC; K. L. HILE; M. E. HALCOMB; M. H. PLAWECKI; S. J. O'CONNOR; S. M. MUSTAFI; Y. WU. <i>Indiana Univ. Sch. of Med., Indiana Univ. Sch. of Med., Indiana Univ. Sch. of Med.</i>				

POSTER

080. Nicotine, Reward, and Dependence

Theme G – Motivation and Emotion

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

1:00	W44	080.01 ▲	Disrupting smoking related memory reconsolidation attenuates craving and diminishes ACC reactivity to smoking cues. X. LIN*; J. DENG; L. SHI; L. LU. <i>Peking Univ., Sixth Hosp. of Peking Univ., Peking Univ., Inst. Mental Health, Peking Univ. Sixth Hospita.</i>
2:00	X1	080.02	Nicotine behavioral choice assays for larval zebrafish. H. SCHNEIDER*; A. PEARSON; S. KRAUSE; S. GOLDE; A. TUCKER; K. GARDNER; L. WHITE; D. ROSENE; D. HARRIS. <i>DePauw Univ., DePauw Univ.</i>
3:00	X2	080.03 ▲	Chemogenetic inactivation of the insula decreases context-induced relapse to nicotine seeking after punishment-imposed abstinence. R. J. HERMAN*; Y. VAN MOURIK; D. SCHETTERS; T. J. DE VRIES; N. J. MARCHANT. <i>Amsterdam Univ. Med. Ctr.</i>
4:00	X3	080.04	Dynamic neural and circuit activity in the interpeduncular nucleus during nicotine withdrawal. P. M. KLENOWSKI*; R. ZHAO-SHEA; P. D. GARDNER; F. SUN; Y. LI; A. R. TAPPER. <i>Univ. of Massachusetts, Univ. of Massachusetts Med. Sch., Univ. of Massachusetts Med. Sch., Peking Univ. Sch. of Life Sci., Peking Univ., Univ. of Massachusetts Med. Sch.</i>
1:00	X4	080.05	Insular cortical GABAergic interneurons are critical for the cross-tolerance between nicotine and opiates. G. C. LONEY*; C. P. KING; C. E. BASS; P. MEYER. <i>SUNY at Buffalo, Univ. at Buffalo, Univ. At Buffalo SUNY, Univ. At Buffalo.</i>

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2:00	X5	080.06	The effect of nicotine/cotinine on gut-brain axis communication via immune cell signaling through pro-inflammatory cytokine production. J. LAKES*; C. RICHARDS; M. FLYTHE. <i>Univ. of Kentucky.</i>	2:00	X17	080.18	Nicotine enhances reinstatement of ethanol-seeking induced by a contextually controlled discriminative-stimulus. H. ANGELYN*; P. MEYER. <i>Univ. At Buffalo, Univ. At Buffalo.</i>
3:00	X6	080.07	Brain region specific single-molecule imaging show low dose nicotine drives structural changes in receptor assembly. X. FU*; F. H. MOONSCHI; A. M. FOX-LOE; A. J. AVELAR; B. J. HENDERSON; J. R. PAULY; C. RICHARDS. <i>Univ. of Kentucky, Slippery Rock Univ., Joan C Edwards Sch. of Med. at Marshall Univ., Univ. of Kentucky.</i>	3:00	X18	080.19	Investigating the effects of nicotine vapor exposure on impulsive choice. R. J. FLORES; P. GINER; T. G. MIRAMONTES; I. A. MENDEZ*. <i>Univ. of Texas at El Paso, Univ. of Texas at El Paso.</i>
4:00	X7	080.08	Role of endocytic pathways in modulating nicotine-induced upregulation of $\alpha 7$ nicotinic acetylcholine receptor (nAChR) downstream of G protein interactions in Xenopus oocytes. J. PANCHAL*; M. ISLAM; K. DEBOUEUF; J. B. ANDERSON; J. FARLEY. <i>Indiana Univ., Indiana Univ. Bloomington, Indiana Univ. Bloomington, Indiana Univ. Bloomington.</i>				
1:00	X8	080.09	Female rats display greater neuronal activation in the interpeduncular nucleus during nicotine withdrawal than males. F. MATOS*; P. CORREA; V. CORREA; L. M. CARCOBA; S. D. INIGUEZ; A. R. ZAVALA; L. E. O'DELL. <i>The Univ. of Texas At El Paso, Natl. Inst. of Mental Hlth., California State Univ.</i>				
2:00	X9	080.10	Ovarian hormones mediate acquisition of nicotine self-administration and accumbens glutamatergic plasticity. P. F. OVERBY; J. M. LEYRER-JACKSON; J. PIÑA; H. ULANGKAYA; M. D. NAMBA*; H. A. BIMONTE-NELSON; C. D. GIPSON. <i>Arizona State Univ.</i>	1:00	X19	081.01	Population dynamics of cortical activity in retrosplenial cortex during spatial decisions in virtual environments. L. M. FRANCO*; M. J. GOARD. <i>Univ. of California Santa Barbara, Univ. of California Santa Barbara, Univ. of California Santa Barbara.</i>
1:00	DP11/X10	080.11 (Dynamic Poster)	Chemogenetic inhibition of accumbens cholinergic interneurons inhibits cue-induced nicotine seeking. J. M. LEYRER; M. HOLTER; M. BRICKNER; J. NEWBERN; P. F. OVERBY; M. F. OLIVE; C. D. GIPSON*. <i>Arizona State Univ., Arizona State Univ., Univ. of North Carolina, Chapel Hill, Arizona State university.</i>	2:00	X20	081.02	Up down alternations in a self-balancing spiking network. J. GORNET*; D. LEVENSTEIN; G. BUZSAKI; J. M. RINZEL. <i>Washington Univ. In St. Louis, NYU, New York University, Sch. of Med., New York Univ. Ctr. for Neural Sci.</i>
4:00	X11	080.12	Identification of a brainstem-midbrain circuitry underlying nicotine reward and aversion. C. LIU; A. TOSE; J. X. DU; Y. ZHU; J. W. DE JONG; K. T. BEIER; S. LAMMEL*. <i>UC Berkeley, UCSD, UC Irvine.</i>	3:00	X21	081.03	Cortical network dynamics reflect transitions between locomotor states in head-fixed mice in a virtual reality system. N. NAKAI*; Y. SEKINE; M. SATO; T. TAKUMI. <i>RIKEN.</i>
1:00	X12	080.13 ▲	Physiological investigation of reward responsiveness between nicotine users and nonusers. C. A. LOVE*; A. PALMISANO; O. OKIFO; M. PADUA; R. LIVOTI; K. JENKINS; M. MOURMOURAS; K. MILLER; A. PURINS; G. CIAMBRIELLO; R. S. ASTUR. <i>Univ. of Connecticut.</i>	4:00	X22	081.04	Large-scale cognitive control networks: A monkey fMRI study. T. YAO*; P. BALAN; W. VANDUFFEL. <i>KU Leuven, MGH Martins Ctr., Harvard Med. Sch.</i>
2:00	X13	080.14 ▲	Association between brain alterations and neuropsychological scales in the patients with nicotine addicting. Y. CHUANG*; M. HO; J. WENG. <i>Chang Gung Univ., Chung Shan Med. Univ., Chung Shan Med. Univ. Hosp., Chang Gung Mem. Hosp.</i>	1:00	X23	081.05	Neural dynamics in the mouse secondary and primary motor cortices during self-initiated and externally triggered movements. S. TERADA*; K. KOBAYASHI; M. MATSUZAKI. <i>The Univ. of Tokyo, Natl. Inst. For Physiological Sci.</i>
3:00	X14	080.15	To vape or not: Nicotine E-cigarette vapor inhalation in a rodent model. V. LALLAI*; C. D. FOWLER. <i>UCI, Univ. of California Irvine.</i>	2:00	X24	081.06	Multidimensional topography of lateral prefrontal projectome mapped by EM-fMRI in the macaque. R. XU*; N. P. BICHOT; A. TAKAHASHI; P. K. WEIGAND; A. L. MARINO; R. DESIMONE. <i>MIT.</i>
4:00	X15	080.16	Investigating the tobacco constituent menthol as an interoceptive stimulus or a modulator of the nicotine stimulus in rats. Y. W. HUYNH*; A. E. MORAN; A. RAIMONDI; A. FINKNER; R. A. BEVINS. <i>Univ. of Nebraska Lincoln.</i>	3:00	X25	081.07	Context-dependent relationships between locus coeruleus activation, changes in pupil size and coordinated neural activity in anterior cingulate cortex. S. JOSHI*; J. I. GOLD. <i>Univ. of Pennsylvania.</i>
1:00	X16	080.17	Nicotine exposure in Swiss adolescent mice: Does subsequent treatment with varenicline modify anxiety-like behavior and the pattern of nicotine consumption during re-exposure at adulthood? A. C. MANHAES*; V. H. S. D. PINHEIRO; B. M. LOTUFO; F. U. BRAGA; A. T. M. A. CYPRIANO; C. C. FILgueiras; Y. ABREU-VILLAÇA. <i>Univ. Estado do Rio de Janeiro.</i>	4:00	X26	081.08	Prefrontal cortex regulates sensory filtering through a basal ganglia-to-thalamus pathway. M. NAKAJIMA*; L. I. SCHMITT; M. HALASSA. <i>MIT.</i>
2:00				1:00	X27	081.09	Dynamic motifs capture brain-wide patterns of neural activity. C. J. MACDOWELL*; T. J. BUSCHMAN. <i>Princeton Univ., Rutgers RWJ Med. Sch.</i>
3:00				2:00	X28	081.10	Diverse activity dynamics of inhibitory subtypes in mouse posterior parietal cortex. C. F. KHOURY*; C. A. RUNYAN. <i>Univ. of Pittsburgh.</i>
4:00				3:00	X29	081.11	Microcircuitry of agranular cortex: Multiplexed executive control and performance monitoring signals. S. P. ERRINGTON*; A. SAJAD; J. D. SCHALL. <i>Vanderbilt Univ.</i>
				4:00	X30	081.12 ▲	Microcircuitry of agranular frontal cortex: Laminarphase-amplitude coupling for cognitive control. R. DOUBNIA*; A. SAJAD; B. HERRERA; J. SCHALL; J. RIERA; G. WOODMAN. <i>Florida Intl. Univ., Vanderbilt Univ.</i>

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- 1:00 X31 **081.13** Microcircuitry of agranular frontal cortex: A stochastic 2-compartment model of neocortical pyramidal cells. B. HERRERA*; A. SAJAD; G. F. WOODMAN; J. D. SCHALL; J. J. RIERA. *Florida Intl. Univ., Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ.*
- 2:00 X32 **081.14** Microcircuitry of agranular cortex: Laminar organization of signals for the feedback related negativity. A. SAJAD*; J. D. SCHALL. *Vanderbilt Univ.*
- 3:00 X33 **081.15** Laminar organization of reward signal in the superior colliculus priority map. J. Y. KAN*; B. J. WHITE; L. ITTI; D. P. MUÑOZ. *Queen's Univ., USC.*
- 4:00 X34 **081.16** The marmoset mesoscale connectome. P. THEODONI*; P. MAJKA; D. H. RESER; M. G. ROSA; X. WANG. *New York Univ., NYU-ECNU Inst. of Brain and Cognitive Sci., New York Univ. Shanghai, Nencki Inst. of Exptl. Biol., Australian Res. Council, Monash Univ., Monash Univ.*
- 1:00 X35 **081.17** Understanding distributed working memory using a large scale circuit model of the mouse cortex. X. DING*; S. FROUDIST-WALSH; D. BLISS; X. WANG. *New York Univ., NYU.*
- 2:00 X36 **081.18** A gradient of cortical dopamine stabilizes distributed working memory representations in a large-scale model of macaque cortex. S. FROUDIST-WALSH*; N. PALOMERO-GALLAGHER; D. P. BLISS; X. DING; K. KNOBLAUCH; L. JANKOVIC-RAPAN; M. NIU; H. KENNEDY; K. ZILLES; X. WANG. *New York Univ., Res. Ctr. Juelich, INM-1, Inserm U846.*
- 3:00 X37 **081.19** Reorganization of neural encoding in the retrosplenial cortex by the potent psychedelic ibogaine. V. E. IVAN*; I. M. ESTEVES; A. R. NEUMANN; M. MOHAJERANI; B. L. MCNAUGHTON; A. J. GRUBER. *Univ. of Lethbridge, Univ. of California at Irvine.*
- 4:00 X38 **081.20** Achieving and using stability in neural circuits. L. KOZACHKOV*; M. LUNDQVIST; J. SLOTINE; E. K. MILLER. *MIT, MIT.*
- 1:00 X39 **081.21** Frontal cortex dynamics during passive sequence viewing using behaving nonhuman primate fMRI. N. YUSIF RODRIGUEZ*; D. BASU; T. M. DESROCHERS. *Brown Univ.*
- 2:00 X40 **081.22** Dynamic encoding of choice-target information in the perirhinal cortex. T. OHNUKI*; Y. OSAKO; Y. SAKURAI; J. HIROKAWA. *Doshisha Univ.*
- 3:00 X41 **081.23** Cortical encoding of attentional set-shifting abilities. F. SCARSI*; S. GUADAGNA; D. DAUTAN; R. MASTROGIACOMO; D. SCHEGGIA; M. NIGRO; T. BALLARD; U. OLCESE; F. PAPALEO. *Inst. Italiano di Tecnologia, Ophthalmology and Rare Dis., Swammerdam Inst. for Life Sciences, Ctr. for Neuroscience, Fac. of Sci.*
- 4:00 X42 **081.24** Longitudinal functional and behavioral markers of trait versus state individual characteristics. A. EICHENBAUM*; I. PAPPAS; D. J. LURIE; J. R. COHEN; M. D'ESPOSITO. *Univ. of California Berkeley, Univ. of California, Berkeley, Univ. of North Carolina at Chapel Hill.*
- 1:00 X43 **081.25** Time reversal in the relationship between neural activity and behavior provides a signature of executive control in the mouse medial prefrontal cortex. J. AFONSO; I. PICA; A. MONTEIRO; C. GOLDEN; P. CHADDERTON; S. ROYER; A. RENART*. *Champalimaud Fndn., Imperial Col. London, Ctr. For Functional Connectomics, Korea Inst. of Sci. and Technol.*

POSTER

- 082. Memory Consolidation and Reconsolidation: Neural Circuit Mechanisms**
- Theme H – Cognition**
- Sat. 1:00 PM – McCormick Place, Hall A
- 1:00 X44 **082.01** Endocannabinoids modulate fear responses to predictable and unpredictable threat through CRH neurons in the extended amygdala network. J. L. REMMES*; M. D. LANGE; J. C. BARTSCH; F. REMMERS; B. LUTZ; H. PAPE. *Univ. Med. Ctr. of the Westfälische Wilhelms-University, Univ. Med. Ctr. of the Johannes Gutenberg Univ.*
- 2:00 X45 **082.02 ▲** Optogenetic stimulation of BLA-IC projections induces long-term avoidance memories. A. HERNANDEZ-MATIAS*, J. JAIMES-CABRERA; K. GUZMAN-RAMOS; F. BERMUDEZ-RATTONI; D. OSORIO-GOMEZ. *Inst. De Fisiología Celular - UNAM, Univ. Autónoma Metropolitana - Unidad Lerma.*
- 3:00 X46 **082.03** A role for distinct interpeduncular nucleus 5-HTergic circuits in fear memory consolidation and recall. I. YOU*; L. LIU; A. SACINO; M. UCHIGASHIMA; K. FUTAI; A. R. TAPPER. *Brudnick Neuropsychiatric Res. Inst. Univ. of Massachusetts Med. Sch., MIT, Hokkaido Univ. Grad. Sch. of Med.*
- 4:00 Y1 **082.04** Inhibiting the thalamic nucleus reuniens activity or protein degradation prior to memory reactivation prevents drug-induced reconsolidation impairment. F. TROYNER*; M. A. BICCA; L. J. BERTOGLIO. *Univ. Federal De Santa Catarina, Johns Hopkins Univ., Univ. Federal de Santa Catarina.*
- 1:00 Y2 **082.05** *In vivo* evidence of sharp wave-ripple associated dendritic Ca²⁺ signals in hippocampal interneurons. Z. MEZRICKZY*; G. JUHÁSZ; B. CHIOVINI; D. PÁLFI; L. JUDÁK; G. KATONA; B. RÓZSA. *Pázmány Péter Catholic Univ., Inst. of Exptl. Medicine, Hungarian Acad. of Sci.*
- 2:00 Y3 **082.06** Evolution of fear memory representation in local and global circuits. H. MIYAWAKI*, K. MIZUSEKI. *Grad. Sch. of Medicine, Osaka City Univ.*
- 3:00 Y4 **082.07 ●** Observing consolidation: Calcium imaging of long-term object memory traces in anterior cingulate cortex. L. A. L. DESCAMPS*; J. R. MAXEY; T. ROGERSON; M. J. SCHNITZER; C. G. KENTROS. *NTNU, Stanford Univ.*
- 4:00 Y5 **082.08** Tracking large-scale neuronal populations in lateral visual cortex across cue-outcome association learning. K. L. MCGUIRE*; R. N. RAMESH; C. R. BURGESS; A. U. SUGDEN; J. D. ZAREMBA; M. L. ANDERMANN. *Harvard Univ., Beth Israel Deaconess Med. Ctr., Univ. of Michigan.*
- 1:00 Y6 **082.09** Associative learning in mouse visual association cortical circuits. J. D. ZAREMBA*; A. U. SUGDEN; E. H. THOMPSON; K. K. LENSJØ; K. L. MCGUIRE; O. ALTURKISTANI; M. L. ANDERMANN. *Harvard Med. School, Beth Israel Deaconess Medi, Univ. of Oslo, Univ. of Oslo.*
- 2:00 Y7 **082.10** The Locus Coeruleus activity during hippocampal-cortical communication. M. YANG*; N. K. LOGOTHETIS; S. J. SARA; O. ESCHENKO. *Max Planck Inst. for Biol. Cybernetics, Biomed. Imaging Institute, The Univ. of Manchester, Collège de France, New York Univ. Med. Sch.*

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* Indicates abstract's submitting author

3:00	Y8	082.11	Avoiding catastrophic forgetting by selective memory reactivation during slow wave sleep. E. DELANOIS*; O. C. GONZALEZ; G. P. KRISHNAN; M. V. BAZHENOV. UCSD, UCSD, Univ. of California San Diego, Univ. of California San Diego.	1:00	Y18	083.05	Rapid reorganization of hippocampal episodic-distance and allocentric-direction maps during a virtual navigation task. M. R. MEHTA*; J. J. MOORE. Univ. of California at Los Angeles (UCLA).
4:00	Y9	082.12	Competitive inhibition and heterosynaptic plasticity prevent memory interference through pattern separation of overlapping memories during wake and sleep. J. C. DOMINGUEZ*, Jr; R. GOLDEN; G. P. KRISHNAN; M. V. BAZHENOV. UCSD, UCSD.	2:00	Y19	083.06	● Comparison of different basis functions in decoding hippocampal spatial maps. S. SRINIVASAVARADHAN*; Y. H. EZZELDIN; C. FRAGOULI; S. DIGGAVI; M. R. MEHTA. Univ. of California at Los Angeles, Univ. of California at Los Angeles, Univ. of California at Los Angeles (UCLA).
1:00	Y10	082.13	Slow-wave sleep helps reduce interference of the overlapping memory traces. Y. SOKOLOV*; G. P. KRISHNAN; M. V. BAZHENOV. Univ. of California San Diego.	3:00	Y20	083.07	● Navigational affordances influence the use of geometric strategies in blind and sighted mice. M. C. GARZA*; T. I. ERESANARA; J. B. JULIAN; I. A. MUZZIO. Univ. of Texas at San Antonio, NTNNU.
2:00	Y11	082.14	Neural mechanisms of reactivation during slow-wave sleep. G. P. KRISHNAN*, O. C. GONZALEZ; R. RAMYAA; M. V. BAZHENOV. Univ. of California San Diego, UCSD, New Mexico Tech., Univ. of California San Diego.	4:00	Y21	083.08	Role of the retrosplenial cortex in spatial reorientation. C. M. GAGLIARDI*; M. E. NORMANDIN; J. H. VASQUEZ; N. PUNJAALA; I. A. MUZZIO. Univ. of Texas At San Antonio, The Univ. of Texas at San Antonio, Univ. of Texas at San Antonio.
3:00	Y12	082.15	Catastrophic forgetting and continual learning in a multi-layer spiking network with reward-modulated spike-timing-dependent plasticity. R. G. GOLDEN*; E. DELANOIS; M. V. BAZHENOV. Univ. of California San Diego, UCSD.	1:00	Y22	083.09	Brain waves under a computational microscope - New structures, new perspectives. Y. A. D. DABAGHIAN*. Univ. of Texas at Houston, McGovern Med. S.
4:00	Y13	082.16	Simulated sleep helps to generalize knowledge in a spiking network trained with spike-timing dependent plasticity. T. TADROS*; G. P. KRISHNAN; M. V. BAZHENOV. Univ. of California San Diego, UCSD.	2:00	Y23	083.10	Implicit learning and exploitation of regularities involve hippocampal and prefrontal theta activity. E. SPAAK*; F. P. DE LANGE. Donders Institute, Radboud Univ.
				3:00	Y24	083.11	Mapping spatial memory in fish. C. CURRAN-ALFARO*; W. M. SAIDEL. Rutgers Univ.

POSTER**083. Cortical and Cortico-Hippocampal Circuits: Spatial Navigation I****Theme H – Cognition**

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

1:00	Y14	083.01	Network dynamics of cortico-entorhinal-hippocampal coupling during slow wave sleep: Experiment and theory. K. CHOUDHARY*; S. BERBERICH; J. M. MCFARLAND; T. T. HAHN; M. R. MEHTA. Univ. of California Los Angeles (UCLA), UCLA Brain Res. Inst., W. M. Keck Ctr. for Neurophysiology, UCLA Integrative Ctr. for Learning and Memory, Central Inst. of Mental Hlth., Univ. of Maryland, Zentralinstitut Fuer Seelische Gesundheit, Dept. of Neurol. and Neurobio.
2:00	Y15	083.02	Hippocampal anchor fields. M. SHAHI*; S. DHINGRA; R. SANDLER; R. RIOS; C. VUONG; L. ACHARYA; M. R. MEHTA. UCLA, UCLA, UC Berkeley, Baylor Col. of Med., UCLA.
3:00	Y16	083.03	Differential modulation of hippocampal pyramidal cells and interneurons by the eta rhythm. K. SAFARYAN*; M. R. MEHTA. Univ. of California at Los Angeles (UCLA), UCLA; W. M. Keck Ctr. for Neurophysiology, UCLA; Integrative Ctr. for Learning and Memory, UCLA; Brain Res. Inst.
4:00	Y17	083.04	Representations for real world space during virtual reality navigation in the rat hippocampus. C. PURANDARE*, K. CHOUDHARY; M. R. MEHTA. Univ. of California Los Angeles, UCLA, UCLA, UCLA, Univ. of California Los Angeles (UCLA), Univ. of California at Los Angeles (UCLA).

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* Indicates abstract's submitting author

1:00	Y25	084.01	Pathway-specific information outflow from the subiculum. T. KITANISHI*; R. UMABA; K. MIZUSEKI. Osaka City Univ. Grad. Sch. of Med., Osaka City Univ. Grad. Sch. of Med., JST, Osaka City Univ. Grad. Sch. of Med.
2:00	Y26	084.02	The impact of NEIL3-dependent molecular mechanisms on neural coding of spatial memory. N. KUNATH*; P. BIGONAH; A. VANKOVA; M. BJØRÅS; J. YE. Norwegian Univ. of Sci. and Technol.
3:00	Y27	084.03	Behavior time-scale synaptic plasticity supports the manifestation of a conjunctive code in the hippocampus. X. ZHAO*; C. HSU; N. P. SPRUSTON. Janelia Res. Campus, HHMI, HHMI Janelia Res. Campus.
4:00	Y28	084.04	Shared representational geometry as an explanation for cross-subject prediction of place cell data from the rodent hippocampus. H. CHEN*; J. R. MANNING; M. A. A. VAN DER MEER. Dartmouth Col.
1:00	Y29	084.05	Place cells demonstrate pattern completion deficits in hippocampal CA3 and pattern separation deficits in dentate-gyrus in Alzheimer's disease model mice performing a novel tactile-morph task. O. RECHNITZ; D. KHATIB; G. MORRIS; D. DERDIKMAN*. Technion - Israel Inst. of Technol.
2:00	Y30	084.06	Cue control in head direction and place cells: Landmarks vs. barriers. A. E. SMITH; E. R. WOOD; P. A. DUDCHENKO*. Univ. of Edinburgh, Univ. Stirling.

- 1:00 DP12/Y31 **084.07** (Dynamic Poster) Long-term spatial memory is maintained in the presence of ongoing changes in hippocampal representations. N. SADEH; M. ZEMER; L. SHEINTUCH; L. BALILTI TORGMAN; A. RUBIN; Y. ZIV*. *Weizmann Inst. of Sci.*
- 4:00 Y32 **084.08** Global place encoding in a visually ambiguous environment. H. Y. CHENG*; D. W. OVERINGTON; K. J. JEFFERY. *Univ. Col. London.*
- 1:00 Y33 **084.09** Oscillation activity of an item-location-retention task in the medial temporal lobe of non-human primates. H. CHEN*; Y. NAYA. *Peking Univ., Ctr. for Life Sciences, Peking Univ., Acadamy for Advanced Interdisciplinary Studies, Peking Univ., Sch. of Psychology and Cognitive Sciences, Peking Univ., IDG/McGovern Inst. for Brain Research, Peking Univ.*
- 2:00 Y34 **084.10** Contrasting parietal and hippocampal activity during virtual navigation in the macaque. M. VERICEL; J. DUHAMEL*, P. BARADUC; S. WIRTH. *Inst. Des Sci. Cognitives UMR-5229, Gipsa-Lab, CNRS / U. Grenoble-Alpes UMR 5216.*
- 3:00 Y35 **084.11** Place selectivity in the hippocampus of the non-human primate. H. TAN*; T. P. Y. NG; C. OWENS; C. LIBEDINSKY; S. YEN. *Singapore Inst. for Neurotechnology (SINAPSE), Dept. of Psychology, Natl. Univ. of Singapore, Dept. of Electrical and Computer Engineering, Natl. Univ. of Singapore.*
- 4:00 Y36 **084.12** A value map in primate hippocampus during reward-based learning. E. B. KNUDSEN*; J. D. WALLIS. *Univ. of California Berkeley.*
- 1:00 Y37 **084.13** Manipulating interactions between model-based and model-free reinforcement learning systems in nonhuman primates. C. F. FORD*; J. D. WALLIS. *Univ. of California, Berkeley, Univ. of California, Berkeley.*
- 2:00 Y38 **084.14** OFC representations influence choice accumulation in ACC. Z. Z. BALEWSKI*; J. D. WALLIS. *Univ. of California Berkeley.*
- 3:00 Y39 **084.15** Strengthened temporal coordination within pre-existing sequential cell assemblies supports trajectory replay. U. FAROOQ*, J. SIBILLE; K. LIU; G. DRAGOI. *Yale Univ.*
- 4:00 Y40 **084.16** Preconfigured patterns are the primary driver of offline multi-neuronal sequence replay. K. LIU*; J. SIBILLE; G. DRAGOI. *Yale Univ.*
- 1:00 Y41 **084.17** Head direction representation in the hippocampal formation of Japanese quails. K. KRIVORUCHKO*, E. BEN-YISHAY; N. ULANOVSKY; D. DERDIKMAN; Y. GUTFREUND. *The Technion, Weizmann Inst. of Sci.*
- 2:00 Y42 **084.18** Space and flight-direction representation in the dorsal pallium of barn owls. A. AGARWAL; A. SAREL; N. ULANOVSKY; D. DERDIKMAN; Y. GUTFREUND*. *Technion - Israel Inst. of Technol., Weizmann Inst. of Sci.*
- 3:00 Y43 **084.19** Hippocampal CA1, CA3, and dentate gyrus place cell firing characteristics in a rat model of moderate prenatal alcohol exposure. R. E. HARVEY*; L. E. BERKOWITZ; D. D. SAVAGE II; D. A. HAMILTON; B. J. CLARK. *Univ. of New Mexico, Univ. of New Mexico, Univ. of New Mexico Sch. of Med., Univ. New Mexico, Univ. of New Mexico.*
- 4:00 Y44 **084.20** Disruption of the anterior thalamic head direction cell network impairs the hippocampal place signal. R. E. HARVEY; L. E. BERKOWITZ; B. J. CLARK*. *Univ. of New Mexico, Univ. of New Mexico, Univ. of New Mexico.*

- 1:00 Z1 **084.21** Characterization of cortical and thalamic head direction cells in the TgF344-AD rat model of Alzheimer's disease. L. E. BERKOWITZ*; R. E. HARVEY; M. GABALDON-PARISH; V. J. ROY; B. J. CLARK. *Univ. of New Mexico, Univ. of New Mexico.*

POSTER

085. Learning, Habit, and Compulsion

Theme H – Cognition

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

- 1:00 Z2 **085.01** Disynaptic, VTA-mediated, cerebellar modulation of the prefrontal cortex. J. VERA*; M. OÑATE; C. CHEN; V. LOVALLO; K. KHODAKHAH. *Albert Einstein Col. of Med., Harvard Med. Sch.*
- 2:00 Z3 **085.02** Mapping cerebellar connectivity with the prefrontal cortex via the ventral tegmental area. M. OÑATE*; V. LOVALLO; N. WAZEED; K. KHODAKHAH. *Albert Einstein Col. of Med.*
- 3:00 Z4 **085.03** Neuroanatomical characterization of cerebellar monosynaptic projections to the substantia nigra pars compacta and pars reticulata. M. OÑATE; J. VERA; S. WASHBURN; V. LOVALLO*, N. WAZEED; K. KHODAKHAH. *Albert Einstein Col. of Med.*
- 4:00 Z5 **085.04** Probing individual differences to dissect lateral orbitofrontal cortex contributions to distinct perseverative behaviors. E. E. MANNING*; X. LI; S. E. AHMARI. *Univ. of Pittsburgh, Tsinghua Univ.*
- 1:00 Z6 **085.05** Assessing the role of direct and indirect pathway projecting spiny projection neurons in compulsive behavior. S. C. PIANTADOSI*; V. L. CORBIT; J. R. HYDE; B. CHAMBERLAIN; S. E. AHMARI. *Univ. of Pittsburgh.*
- 2:00 Z7 **085.06** Potentiated transmission of M2 signals in central striatum is related to compulsive grooming behavior. V. L. CORBIT*; S. PIANTADOSI; J. WOOD; J. CHOI; I. B. WITTEN; A. H. GITTIS; S. AHMARI. *Univ. of Pittsburgh, Princeton Univ., Princeton Univ., Carnegie Mellon Univ.*
- 3:00 Z8 **085.07** Simple associative learning accounts for an unexpectedly rich dynamics of operant extinction learning. J. R. DONOSO*; Z. LEDERER; J. PACKHEISER; R. PUSCH; O. GÜNTÜRKÜN; S. CHENG. *Ruhr-Universität Bochum, RUB.*
- 4:00 Z9 **085.08** Acquisition of trace-eyeblink conditioning in female and male C57Bl/6J mice. A. P. RAPP*; M. OH; C. WEISS; J. F. DISTERHOFT. *Northwestern Univ.*
- 1:00 Z10 **085.09** Open source automated training of non-human primates using facial recognition. J. BUTLER*; S. W. KENNERLEY. *Univ. Col. London.*
- 2:00 Z11 **085.10** Long-term enriched environment exposure enhances training proficiency in a complex rodent driving task. K. G. LAMBERT*; D. LESERVE; L. E. CRAWFORD; L. KNOUSE; M. H. KENT; D. VAVRA; K. BREAKALL; C. GLORY; E. MEISEL. *Univ. of Richmond.*
- 3:00 Z12 **085.11** What is the least training a monkey needs to perform an abstract cognitive task? V. P. FERRERA*; G. JENSEN; A. MEANEY; Y. ALKAN; F. MUÑOZ; H. TERRACE. *Columbia Univ., Columbia Univ.*
- 4:00 Z13 **085.12** Rapid and flexible learning of object associations that are context-dependent. M. R. RILEY*; K. L. HOFFMAN. *Vanderbilt Univ.*

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* Indicates abstract's submitting author

1:00	Z14	085.13	Amygdala central nucleus inactivation impairs cerebellar dependent learning in female rats. S. R. BRAL*; S. J. FARLEY; J. H. FREEMAN. <i>Univ. of Iowa, Iowa Neurosci. Inst.</i>	3:00	Z27	086.07	Long-range GABAergic projections connect the dentate gyri of the two hemispheres in a cell type-specific fashion and support contextual memory. T. YEN; M. I. SCHLESIGER; D. A. MACLAREN; C. LIEN; H. MONYER. <i>Brain Res. Ctr., Taiwan Intl. Grad. Program in Mol. Med., Med. Fac. of Heidelberg Univ. and DKFZ, Med. Fac. of Heidelberg Univ. and DKFZ, Med. Fac. of Univ. Heidelberg & DKFZ.</i>
2:00	Z15	085.14	Model-free algorithms are inadequate to explain transitive inference performance in monkeys. G. G. JENSEN*; H. S. TERRACE; V. P. FERRERA. <i>Columbia Univ., Reed Col., Columbia Univ.</i>	4:00	Z28	086.08	Experience-dependent enhancement of odor representations in the dentate gyrus. N. I. WOODS; F. STEFANINI; D. APODACA-MONTANO; I. TAN; J. BIANE; M. KHEIRBEK*. <i>Univ. of California San Francisco, Columbia Univ., Univ. of California San Francisco, Univ. of California, San Francisco.</i>
3:00	Z16	085.15	Optogenetic inhibition of amygdala central nucleus efferent pathways modulate cerebellum dependent learning. S. J. FARLEY*; J. H. FREEMAN. <i>Univ. of Iowa, Iowa Neurosci. Inst.</i>	1:00	Z29	086.09	Dissecting the neural circuit for discrete cue representation in the dentate gyrus. S. N. TUNCEMIR*; C. O. LACEFIELD; G. TURI; R. HEN. <i>Columbia University/RFMH, Columbia Univ.</i>
4:00	Z17	085.16	Strategies for optimized design and behavioral training of cognitive tasks in head-fixed mice. T. W. BERNKLAU*; L. S. MEHRKE; D. HÄHNKE; A. RANGANATH; S. N. JACOB. <i>Tech. Univ. of Munich.</i>	2:00	Z30	086.10	Single unit recordings of somatostatin-expressing interneuron types in mouse dentate gyrus exposed to a virtual reality. M. YUAN*; M. BARTOS. <i>Inst. For Physiol. I, Fac. of Biol.</i>
1:00	Z18	085.17	The Janelia Smart Cage: A system for automated training of head-restrained mice in their home cage. N. TIEN*; H. INAGAKI; M. INAGAKI; J. ARNOLD; P. POLIDORO; S. DRUCKMANN; A. LEONARDO; K. SVOBODA. <i>Janelia Res. Campus, HHMI, Stanford Univ.</i>	3:00	Z31	086.11	GLP-1R activation in motivation and hippocampal-dependent cognitive function. D. L. GRAHAM*; N. HENDERSON; H. MADKOUR; T. TRAMMELL; G. D. STANWOOD. <i>Florida State Univ. Col. of Med.</i>
2:00	Z19	085.18	Autonomous mouse behavioral testing and loss-of-function screen in homecage with voluntary head-fixation. Y. HAO; N. LI*. <i>Baylor Col. of Med.</i>	4:00	Z32	086.12	Reactivation of neuronal ensembles in the dentate gyrus is required to update spatial memories. P. J. LAMOTHE-MOLINA*; A. FRANZELIN; L. M. AUKSUTAT; F. MORELLINI; T. G. OERTNER. <i>Univ. Med. Ctr. Hamburg-Eppendorf (UKE), Univ. Med. Ctr. Hamburg-Eppendorf (UKE).</i>
3:00	Z20	085.19	Effects of acupuncture on behavioral stereotypies and brain dopamine system in mice as a model of Tourette syndrome. L. LIN*; M. LI; H. XIANG; X. HU. <i>Tong Ji Med. Col.</i>	1:00	Z33	086.13	Female C57BL/6J mice exposed to whole-body ⁵⁶ Fe space radiation at astronaut-relevant age show improved touchscreen performance of pattern separation and extinction learning relative to control mice. I. SOLER*; F. H. TRAN; R. P. REYNOLDS; M. J. DESALLE; S. YUN; A. J. EISCH. <i>Univ. of Pennsylvania, Children's Hosp. of Philadelphia Res. Inst.</i>

POSTER**086. Hippocampus: Dentate Gyrus****Theme H – Cognition**

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

1:00	Z21	086.01	Hilar mossy cells encode hippocampal ripple information. A. OUCHI*; Y. IKEGAYA. <i>The Univ. of Tokyo.</i>
2:00	Z22	086.02	Hippocampal neural circuit dysfunction contributes to memory deficits in CDKL5 mutant mice. S. HAO*; Q. WANG; B. TANG; Z. WU; J. TANG. <i>Dept. of Pediatrics, Baylor Col. of Medici, Jan and Dan Duncan Neurolog. Res. Institute, Texas Children's Hosp.</i>
3:00	Z23	086.03	Microglia mediate dissociation of memory engrams and forgetting via complement-dependent synapse elimination. C. WANG*, Y. GU. <i>Ctr. for Stem Cells and Regenerative Medicine, Zhejiang Univ. Sch. of Medicine, Hangzhou, China, Ctr. for Neuroscience, Zhejiang Univ. Sch. of Medicine, Hangzhou, China.</i>
4:00	Z24	086.04	Genetic ablation of neural progenitors in mice impairs acquisition of trace eyeblink conditioning. L. N. MILLER*; C. WEISS; J. F. DISTERHOFT. <i>Northwestern Univ.</i>
1:00	Z25	086.05	Granule cells of the dentate gyrus active in a novel environment are regulated by unique inhibitory circuitry. W. SHU*; Y. MA; M. B. JACKSON. <i>Univ. of Wisconsin-Madison.</i>
2:00	Z26	086.06	The role of adult neurogenesis ablation in a probabilistic learning task. K. B. HUNTZICKER*; R. KARLSSON; H. A. CAMERON. <i>Natl. Inst. of Mental Hlth., Natl. Inst. of Hlth. (NIH), NIH.</i>

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* Indicates abstract's submitting author

2:00	Z34	086.14	The role of adult-born granule cells in memory consolidation. S. J. TEMME*; R. PAK; G. MING; H. SONG; K. M. CHRISTIAN. <i>Univ. of Pennsylvania, Univ. of Pennsylvania, Univ. of Pennsylvania, U Penn, Univ. of Pennsylvania.</i>
3:00	Z35	086.15	● ERA dependent TrkB mediated novelty seeking behavior is female biased. B. OZAYDIN; D. ZAFER; V. CHANANA; M. B. HACKETT; D. HANALIOGLU; P. KEMANLI; N. AYCAN; N. DEVECI; P. FERRAZZANO; J. E. LEVINE; P. CENGIZ*. <i>Waisman Center, Univ. of Wisconsin, Dept. of Pediatrics and Waisman Center, Univ. of Wisconsin, Wisconsin Natl. Primate Res. Ctr.</i>
4:00	Z36	086.16	Dentate granule and mossy cells exhibit distinct spatiotemporal responses to local change in a one-dimensional landscape of visual-tactile cues. D. JUNG*; S. KIM; A. SARIEV; D. KIM; S. ROYER. <i>Korea Inst. of Sci. and Technol., Korea Advanced Inst. of Sci. and Technol., Sungkyunkwan Univ.</i>
1:00	Z37	086.17	The role of the neural circuit formation factor LOTUS in cognitive function. R. NISHIDA*; R. ISHIKAWA; S. KIDA; K. TAKEI. <i>Yokohama City Univ. Grad Sch. of Med. Life Sci., Tokyo Univ. of Agr.</i>

2:00	Z38	086.18	Distinct impact of spatial and non spatial context manipulations in dentate gyrus. A. SARIEV*; D. JUNG; S. ROYER. <i>Korea Inst. of Sci. and Technol., Univ. of Sci. and Technol., Korea Advanced Inst. of Sci. and Technol.</i>	2:00	AA6	087.10	Diminished Ca ²⁺ signaling, Ca _v 1 Ca ²⁺ channel expression and activity in pancreatic beta cells expressing truncated DISC1 (Disrupted in Schizophrenia 1). P. LU; R. SHARMA; L. ALONSO; R. ZHUGE; A. JURCZYK; A. R. RITTENHOUSE*. <i>Univ. of Mass Med. Sch., Univ. of Mass Med. Sch., Univ. Massachusetts Med. Sch.</i>
POSTER							
087.	Schizophrenia: Animal Models and Genetic Studies			3:00	AA7	087.11	Perineuronal net aberrations as a putative mechanism of behavioral and neural alterations in DISC-1 mutation model of schizophrenia. R. SULTANA*; C. C. LEE. <i>Louisiana State Univ.</i>
	Theme H – Cognition			4:00	AA8	087.12 ▲	Neural correlates of conditioned hallucinations in a ketamine mouse model of schizophrenia. J. WU; R. P. HABERMAN; M. GALLAGHER; M. KOH*. <i>Johns Hopkins Univ.</i>
1:00	Z39	087.01	Deficits in inhibitory control and cortical synchronization in a 15q13.3 microdeletion mouse model. M. ZONOUZI*; N. SCHUELERT; S. JAEGER; C. DORNER-CIOSSEK; H. ROSEN BROCK; V. MACK. <i>Boehringer Ingelheim Pharma GmbH & Co. KG.</i>	1:00	AA9	087.13	Neural circuits underlying hyperlocomotive behaviors induced by 14-3-3 deficiency in the hippocampus of mice. J. ZHANG*; Y. WU; Y. ZHOU. <i>Florida State Univ.</i>
2:00	Z40	087.02	Brain-derived neurotrophic factor and JNK-signalling modulate perineuronal net development and maturation of cultured cortical interneurons: Implications for schizophrenia-related 16p11.2 duplication syndrome. A. WILLIS*; J. A. PRATT; B. J. MORRIS. <i>Univ. of Glasgow, Univ. of Strathclyde.</i>	2:00	AA10	087.14	DGCR2, a schizophrenia risk gene, regulates synaptic transmission, anxiety and hippocampal-prefrontal synchrony. H. L. ROBINSON*; B. LUO; W. CHEN; Z. TAN; P. CHENG; M. XIONG; E. FEI; L. MEI. <i>Case Western Reserve Univ. Dept. of Neurosci., Nanchang Univ. Inst. of Life Sci.</i>
3:00	Z41	087.03	Co-localization of EQTL and GWAS in schizophrenia. L. MA; S. CHETTY. <i>Stanford Univ. Sch. of Med., Stanford Univ. Sch. of Med.</i>	3:00	AA11	087.15	Targeting a disrupted population of prefrontal parvalbumin interneurons to rescue cognitive deficits in a rat model of schizophrenia. L. CHAMBERLIN*; B. R. FERGUSON; E. P. MCEACHERN; W. J. GAO. <i>Drexel Univ. Col. of Med., Stanford Univ.</i>
4:00	Z42	087.04	Role of the glycogen synthase kinase 3 pathway in the pathophysiology of schizophrenia. J. DI RE*; G. BOTELLO-LINS; L. STERTZ; H. RAVENTOS; C. WALSBASS; F. LAEZZA. <i>Univ. of Texas Med. Br., Univ. of Texas Med. Br., Clear Falls ISD, Univ. of Texas Hlth. Sci. Ctr., Univ. of Costa Rica.</i>	4:00	AA12	087.16	CaMKIIα KO and WT differed in their ability to learn in an olfactory learning task and working memory. D. RAMIREZ-GORDILLO*; L. MEDIAVILLO; A. OLSON; K. BAYER; D. RESTREPO. <i>Univ. of Colorado Anschutz, New Mexico State Univ., Univ. of Colorado Anschutz.</i>
1:00	AA1	087.05	Evaluation of the cell type-specific expression of schizophrenia risk-related transcripts in postmortem human dorsolateral prefrontal cortex using single molecule <i>in situ</i> hybridization. Y. TAKAHASHI*; K. R. MAYNARD; M. TIPPANI; A. E. JAFFE; K. MARTINOWICH; D. R. WEINBERGER; T. M. HYDE. <i>Lieber Inst. for Brain Develop., Gunma Univ. Grad. Sch. of Med., Dept. of Mental Health, Johns Hopkins Univ., Dept. of Biostatistics, Johns Hopkins Bloomberg Sch. of Publ. Hlth., McKusick-Nathans Inst. of Genet. Medicine, Johns Hopkins Sch. of Med., Dept. of Psychiatry and Behavioral Sciences., Johns Hopkins Univ. Sch. of Med., Dept. of Neuroscience, Johns Hopkins Univ. Sch. of Med., Dept. of Neurology, Johns Hopkins Sch. of Med.</i>	1:00	AA13	087.17	Specific, modular correction of hippocampal deficits across murine disease models. J. B. KAHN*; R. G. PORT; H. TAKANO; S. A. ANDERSON; D. A. COULTER. <i>Univ. of Pennsylvania, Children's Hosp. of Philadelphia, Children's Hosp. of Philadelphia, Children's Hosp. of Philadelphia/Upenn Sch. Med.</i>
2:00	AA2	087.06	Identification of low-level brain somatic mutations in dorsolateral prefrontal cortex underlying schizophrenia. M. KIM*; J. LEE; J. PARK; I. KIM; K. KIM; S. PARK; S. KIM; Y. AN; S. KIM; J. LEE. <i>KAIST, KISTI, SMRI.</i>	2:00	AA14	087.18	Disrupted-in-schizophrenia-1 is required for proper prefrontal pyramidal-interneuron circuit architecture. J. SAUER*; M. BARTOS. <i>Albert-Ludwigs-University Freiburg.</i>
3:00	AA3	087.07	Lack of accumbal trace amine neurons in schizophrenia: Key of disease progression. K. IKEMOTO*. <i>Iwaki City Med. Ctr.</i>	3:00	AA15	087.19	NMDA receptors on parvalbumin-positive interneurons and pyramidal neurons both contribute to MK-801 induced gamma oscillatory disturbances: Complex relationships with behaviour. M. R. HUDSON*; E. SOKOLENKO; T. J. O'BRIEN; N. C. JONES. <i>Monash Univ., Melbourne Univ.</i>
4:00	AA4	087.08	Micro-RNA 137 host gene transcripts in schizophrenia: A postmortem study. N. FENG; A. MANDAL; N. AKULA; R. KRAMER; B. KOLACHANA; Q. XU; F. J. MCMAHON; P. AULUCK; S. MARENCO*; B. K. LIPSKA. <i>NIMH/HBCC, NIMH/Human Genet. Br.</i>	4:00	AA16	087.20	Role of GluN2C subunit in nucleus reticularis of the thalamus in schizophrenia-like phenotypes in mice. G. P. SHELKAR*; J. LIU; F. ZHAO; R. PAVULURI; P. GANDHI; R. CLAUSEN; S. M. DRAVID. <i>Creighton Univ., Univ. of Copenhagen.</i>
1:00	AA5	087.09	Schizophrenic psychosis symptoms on a background of mild to moderate carnitine palmitoyltransferase II deficiency: A case report. R. N. WICKRAMASEKARA*; J. NGO; S. ANDERSON; D. WILTON; V. KOLLI; A. SHIBATA; H. STESSMAN. <i>Creighton Univ., Creighton Univ., Creighton Univ., CHI Hlth., Creighton Univ.</i>	1:00	AA17	087.21 ●	Human thalamus <i>in situ</i> hybridization. Variations in distribution and gene expression level of multiple probes between control subjects. R. CALZAVARA*; J. J. FITZPATRICK; J. D. BARCHAS; W. E. BUNNEY; F. S. LEE; R. M. MYERS; A. F. SCHATZBERG; H. AKIL; S. J. WATSON. <i>Univ. of Michigan Med. Sch., Weill Cornell Med. Col., Univ. of California Irvine, Hudson Alpha Inst. for Biotech., Stanford Univ.</i>

- 2:00 AA18 **087.22** Changes in the interneuron network contribute to adolescent pathology in a 15q13.3 microdeletion mouse model. B. SOMMER*; N. SCHUELERT; S. JAEGER; S. HOBSON; H. ROSENROCK; V. MACK; M. ZONOUZI. *Boehringer Ingelheim Pharma GmbH & Co. KG.*
- 3:00 AA19 **087.23** Increased expression of schizophrenia-associated gene C4 leads to hypoconnectivity of prefrontal cortex and reduced social interaction. A. L. COMER; T. JINADASA; L. KRETSGE; T. NGUYEN; J. LEE; E. NEWMARK; F. HAUSMANN; S. N. ROSENTHAL; K. LIU KOT; W. YEN; A. CRUZ-MARTIN*. *Boston Univ., Boston Univ., Boston Univ., Connecticut Col.*
- 4:00 AA20 **087.24** The bacterial metabolite indole-3-propionic acid increases kynurenic acid levels in the rat brain *in vivo*. T. BLANCO-AYALA*; K. SATHYASAIKUMAR; A. KLAUSING; R. SCHWARCZ. *Maryland Psychiatric Res. Ctr., Metropolitan Autonomous Univ.*
- 1:00 AA21 **087.25** Elevated kynurenic acid levels in the brain of germ-free mice. F. M. NOTARANGELO*; M. A. THOMAS; T. COKSAYGAN; L. J. DETOLLA; R. SCHWARCZ. *Maryland Psychiatric Res. Center, Univ. of Maryland Sch. of Med., Program of Comparative Medicine, Univ. of Maryland Sch. of Med.*
- 2:00 AA22 **087.26** The probiotic *lactobacillus reuteri* produces kynurenic acid from kynurenine *in vitro*. A. E. FOO; F. M. NOTARANGELO; R. SCHWARCZ*. *Maryland Psychiatric Res. Ctr.*
- 3:00 AA23 **087.27** Nutrient sensing signaling in dorsolateral prefrontal cortex in schizophrenia. A. HAMOUD*; R. E. MCCULLUMSMITH. *The Univ. of Toledo Col. of Med., Univ. of Toledo.*
- 4:00 AA24 **087.28** Protein protein interaction of the PSD95 interactome. R. ALNAFISAH*; G. LABILLOY; J. REIGLE; K. GREIS; J. MELLER; R. E. MCCULLUMSMITH; A. FUNK. *Univ. of Toledo, Cincinnati Children's Hosp. Med. Ctr., Univ. of Cincinnati, Univ. of Toledo.*
- 1:00 AA25 **087.29** Microarray analysis in postmortem pyramidal neurons reveals molecular mechanisms in schizophrenia. X. WU*; R. SHUKLA; K. ALGANEM; J. REIGLE; M. S. SIMMONS; J. H. MEADOR-WOODRUFF; E. DEPASQUALE; J. MELLER; R. E. MCCULLUMSMITH. *Univ. of Toledo, CAMH, Cincinnati Children's Hosp. Med. Ctr., UAB, Univ. Alabama at Birmingham, Univ. of Cincinnati.*
- 2:00 AA26 **087.30** Characterization of AKT3 in the anterior cingulate cortex in schizophrenia. E. A. DEVINE*; S. M. O'DONOVAN; R. E. MCCULLUMSMITH. *Univ. of Toledo Col. of Med.*
- 3:00 AA29 **088.03** Characterizing the neural progenitors and post-mitotic neurons using recombinant rabbit monoclonal antibodies. S. BALASUBRAMANIAN*, J. K. SUKUMARAN; S. SHANKAR; V. SREERAG; S. MENON; S. SAJJA; C. BHAMBhani. *Thermo Fisher Scientific, Thermo Fisher Scientific.*
- 4:00 AA30 **088.04** Detection of mitochondrial DNA methylation and the effect of mitochondrial DNA-depletion on the nuclear DNA methylation pattern. X. WANG*; I. WEIDLING; H. M. WILKINS; S. KOPPEL; B. MENTA; J. PEREZ-ORTIZ; R. SWERDLOW. *Univ. of Kansas Med. Ctr., Univ. of Kansas Med. Ctr.*
- 1:00 AA31 **088.05** Chemical preconditioning of rat bone marrow mesenchymal stromal cells using a prolyl hydroxylase inhibitor for cell transplantation therapy after stroke. J. ZHAO; Z. Z. WEI*; M. QU; T. YU; S. YU; L. WEI. *Anesthesiol./ Neurol., Emory Univ. Sch. Med.*
- 2:00 AA32 **088.06** Tools to monitor the activation of opioid receptor signaling pathways for screening drugs and detecting endorphin release. K. KRONING*; W. WANG. *Univ. of Michigan.*
- 3:00 AA33 **088.07** Lysosomal cell death: Specific detection by simultaneous labeling of its nucleolytic and proteolytic markers. V. V. DIDENKO*; C. L. MINCHEW. *Baylor Col. of Med., Michael E. DeBakey Veterans Affairs Med. Ctr.*
- 4:00 AA34 **088.08** Engineering REST/NRSF-specific synthetic PUF proteins to control neuronal gene expression: A combined experimental and computational study. A. MEROLLA*; S. CRISCUOLO; M. GATTI IOU; L. MARAGLIANO; F. CESCA; F. BENFENATI. *Italian Inst. of Technol., Univ. of Genova, Univ. of Trieste, IRCCS, Ospedale Policlinico San Martino.*
- 1:00 AA35 **088.09** Microinvasive sampling platform for chronic detection of proteins and neuropeptides brain interstitial fluid. E. B. ROUSSEAU*; R. RAMAN; M. J. COTLER; K. B. RAMADI; F. M. WHITE; R. LANGER; M. J. CIMA. *MIT, MIT, MIT, MIT.*
- 2:00 AA36 **088.10** Use of new lipid nanoparticule formulations for *in vivo* delivery of messenger RNA in the central nervous system. K. NESZVECSKO*, M. DANSEREAU; J. CÔTÉ; J. LONGPRÉ; P. SARRET. *Inst. De Pharmacologie - Univ. De Sherbroo, Univ. De Sherbrooke, Univ. de Sherbrooke, Univ. de Sherbrooke, Univ. of Sherbrooke.*
- 3:00 AA37 **088.11** ▲ Differential dorsal-ventral immediate early gene expression in CA1 during place navigation and contextual fear discrimination in rats. E. D. MORGAN*; R. MCHUGH; J. Q. LEE; R. J. SUTHERLAND; R. J. McDONALD. *Univ. of Lethbridge, Univ. Lethbridge, Univ. Lethbridge.*
- 4:00 AA38 **088.12** ● Antisense oligonucleotides target neurons, oligodendrocytes, astrocytes and microglia in the rat central nervous system after intrathecal administration. C. MAZUR*; B. DEBROSSE-SERRA; H. T. ZHAO; B. POWERS; F. KAMME; J. WATSON; H. B. KORDASIEWICZ; E. SWAYZE. *Ionis Pharmaceuticals, Inc.*
- 1:00 AA39 **088.13** ● ZooMabs- The next generation of recombinant monoclonal antibodies. W. A. SPECKMANN*; C. MOHAN; Y. JAN; W. ZHENG. *MilliporeSigma.*

POSTER**088. Molecular and Biochemical Techniques****Theme I – Techniques**

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

- 1:00 AA27 **088.01** Pinpoint monitoring of glucocorticoid receptor transcriptional activity in the IL-PFC mouse brain. S. HER*; Y. HAN. *KBSI, Korea Basic Sci. Inst.*
- 2:00 AA28 **088.02** Knockoff: Acute disruption of a synaptic vesicle membrane protein (synaptotagmin 1). J. D. VEVEA*; E. R. CHAPMAN. *Univ. of Wisconsin - Madison HHMI, Howard Hughes Med. Inst.*

* Indicated a real or perceived conflict of interest, see page 72 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

2:00	AA40	088.14 ▲ <i>In vitro</i> uptake, delivery, and temporal regulation of hBDNF via surface modified PAMAM dendrimer nanoparticles using TET system. C. E. THOMPSON*; P. OTERO; B. SRINAGESHWAR; M. FLORENDO; A. SHARMA; A. M. FIGACZ; R. A. KIM; D. SWANSON; G. L. DUNBAR; J. ROSSIGNOL. <i>Central Michigan Univ., Central Michigan Univ., Central Michigan Univ., Central Michigan Univ., Central Michigan Univ., Field Neurosciences Inst. Lab.</i>	4:00	BB4	089.04 Automated analysis of whole brain vasculature using machine learning. M. I. TODOROV*; J. C. PAETZOLD; O. SCHOPPE; G. TETTEH; V. EFREMOV; K. VÖLGYI; M. DÜRING; M. DICHGANS; M. PIRAUD; B. MENZE; A. ERTÜRK. <i>Klinikum der Univ. München, Grad. Sch. of Systemic Neurosciences, Inst. for Stroke and Dementia Research, Univ. Hospital, Ludwig-Maximilians-Universität LMU, Dept. of Computer Science, Tech. Univ. of Munich, Munich Sch. of Bioengineering, Tech. Univ. of Munich, Munich Cluster for Systems Neurol. (SyNergy), German Ctr. for Neurodegenerative Dis. (DZNE).</i>
1:00	DP13/AA41	088.15 ● (Dynamic Poster) Precise morphological mapping of high plex neurodegenerative and neuroinflammation protein targets in human FFPE brain tissue with digital spatial profiling. A. ROSENBLUM; A. BAHRAMI; L. BOGATZKI; W. CARTER; J. R. KUHAR*; K. R. MILLER; Y. LIANG; G. GEISS; J. M. BEECHEM. <i>Nanostring Technologies, Inc, Nanostring Technologies.</i>	1:00	BB5	089.05 Ascot identifies key regulators of neuronal subtype-specific splicing. J. P. LING*; C. WILKS; B. LANGMEAD; S. BLACKSHAW. <i>Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ.</i>
4:00	AA42	088.16 The effects of methamphetamine (MA) and 3,4-methylenedioxymethamphetamine (MDMA) on hepatocytes. N. P. FROMMANN*; N. HUSSEIN; A. TIWARI; F. S. HALL. <i>Univ. of Toledo, Univ. of Toledo Col. of Pharm. and Pharmaceut. Sci.</i>	2:00	BB6	089.06 Coupled autoencoders for multimodal cell type analysis. R. GALA*; N. GOUVENS; A. BUDZILLO; Z. YAO; F. BAFTIZADEH; O. PENN; B.ASIC; G. MURPHY; H. ZENG; U. SÜMBÜL. <i>Allen Inst.</i>
1:00	AA43	088.17 Viral gene delivery of the transcription factor REST into organotypic hippocampal cultures. R. BUTLER-RYAN*. <i>Univ. of Leeds.</i>	3:00	BB7	089.07 Computational comparison of glycopeptides derived from rabies virus used as a vector in structural properties and predicted targets. A. E. GONZALEZ-SANTIAGO*; R. CASTAÑEDA-ARELLANO; M. G. SANCHEZ-PARADA; I. G. AGUILAR-GARCIA; R. D. CASTRO-TORRES; A. A. SOBREVILLA-NAVARRO. <i>Univ. de Guadalajara, Univ. de Guadalajara, Univ. de Barcelona.</i>
2:00	AA44	088.18 Delivery of different-sized dendrimers and large plasmids to the brain following intracranial injections in C57BL/6J mice. B. SRINAGESHWAR*; M. FLORENDO; A. WEDSTER; P. OTERO; C. E. THOMPSON; S. KONERU; B. MACDONALD; R. CRANDALL; M. M. ANDREWS; N. MUNRO; A. ANTCLIFF; A. AL-GHARAIBEH; A. FIGACZ; D. STORY; S. BAIYASI; D. SWANSON; A. SHARMA; G. L. DUNBAR; J. ROSSIGNOL. <i>Central Michigan Univ., Central Michigan Univ., Central Michigan Univ., Central Michigan Univ., Central Michigan Univ., Field Neurosciences Inst.</i>	4:00	BB8	089.08 Generative and discriminative approaches for neuronal cell type. M. CALABRESI; M. VILLAFANE-DELGADO*, W. GRAY-RONCAL. <i>Johns Hopkins Univ. Applied Physics Laborator.</i>
1:00			1:00	BB9	089.09 ● Training a neural model using the <i>C. elegans</i> connectome to perform exploration tasks. R. NORMAN-TENAZAS*; R. S. RAIS; E. C. JOHNSON; W. GRAY-RONCAL. <i>Johns Hopkins Univ. Applied Physics Lab., Johns Hopkins Univ.</i>
1:00			1:00	DP12/BB10	089.10 (Dynamic Poster) bossDB: A scalable cloud-based data ecosystem for storage and sharing of electron microscopy and x-ray microtomography datasets. S. HIDER; D. PRYOR; T. GION; L. RODRIGUEZ; C. FERNANDES; C. BISHOP; J. MATELSKY; M. WILT; J. DOWNS; W. GRAY-RONCAL; B. A. WESTER*. <i>Johns Hopkins Univ. APL.</i>
3:00			3:00	BB11	089.11 Transfer learning analysis of computer vision tools for automated analysis of connectivity in electron microscopy data. E. C. JOHNSON*; L. M. RODRIGUEZ; R. NORMAN-TENAZAS; E. L. DYER; W. R. GRAY RONCAL. <i>Johns Hopkins Univ. Applied Physics Lab., Georgia Inst. of Technol., Johns Hopkins Univ.</i>
2:00	BB2	089.02 Enhanced and unified anatomical labeling for a common mouse brain atlas. U. CHON*; D. J. VANSELOW; K. C. CHENG; Y. KIM. <i>Pennsylvania State University, Col. of Med., Pennsylvania State University, Col. of Med.</i>	4:00	BB12	089.12 Navigate: Neuroanatomical validation of MR based connectomes. H. P. COWLEY*; M. VILLAFANE-DELGADO; J. MATELSKY; A. SIVAKUMAR; M. WOLMETZ; W. R. GRAY RONCAL. <i>The Johns Hopkins Univ. Applied Physics Lab.</i>
3:00	BB3	089.03 Comprehensive convergence map of the subthalamic nucleus using connectivity and molecular profiling datasets. H. JEON*; H. LEE; J. KIM; L. FENG; J. KIM. <i>Korea Inst. of Sci. and Technol. (KIST), Korea Univ. of Sci. and Technol. (UST).</i>	1:00	BB13	089.13 Rapid and scalable connectome reconstruction assessment through graph analytics. J. DOWNS*; M. VILLAFANE-DELGADO; E. REILLY; M. HUGHES; E. C. JOHNSON; W. GRAY RONCAL. <i>Johns Hopkins Univ. Applied Physics Lab.</i>
2:00			2:00	BB14	089.14 ▲ SMART: Statistical method for annotation reconstruction from traces. S. MATSON; E. P. REILLY; M. HUGHES; M. WILT; C. A. BISHOP; E. C. JOHNSON; W. R. GRAY-RONCAL*. <i>Johns Hopkins Univ., Johns Hopkins Univ. Applied Physics Lab.</i>

POSTER

089. Connectomics Analytics I

Theme I – Techniques

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

1:00	DP14/BB1	089.01 (Dynamic Poster) CHemoarchitectonic Atlas of the Mouse thalamus as a BNDU opEn Resource (CHAMBER): A publicly-accessible online database of protein expression in mouse brain. K. C. NAKAMURA*; B. MICKLEM; N. BERRY; G. SPAGNOL; A. SHAROTT; P. J. MAGILL. <i>MRC Brain Network Dynamics Unit.</i>	3:00	BB11	089.11 Transfer learning analysis of computer vision tools for automated analysis of connectivity in electron microscopy data. E. C. JOHNSON*; L. M. RODRIGUEZ; R. NORMAN-TENAZAS; E. L. DYER; W. R. GRAY RONCAL. <i>Johns Hopkins Univ. Applied Physics Lab., Georgia Inst. of Technol., Johns Hopkins Univ.</i>
2:00	BB2	089.02 Enhanced and unified anatomical labeling for a common mouse brain atlas. U. CHON*; D. J. VANSELOW; K. C. CHENG; Y. KIM. <i>Pennsylvania State University, Col. of Med., Pennsylvania State University, Col. of Med.</i>	4:00	BB12	089.12 Navigate: Neuroanatomical validation of MR based connectomes. H. P. COWLEY*; M. VILLAFANE-DELGADO; J. MATELSKY; A. SIVAKUMAR; M. WOLMETZ; W. R. GRAY RONCAL. <i>The Johns Hopkins Univ. Applied Physics Lab.</i>
3:00	BB3	089.03 Comprehensive convergence map of the subthalamic nucleus using connectivity and molecular profiling datasets. H. JEON*; H. LEE; J. KIM; L. FENG; J. KIM. <i>Korea Inst. of Sci. and Technol. (KIST), Korea Univ. of Sci. and Technol. (UST).</i>	1:00	BB13	089.13 Rapid and scalable connectome reconstruction assessment through graph analytics. J. DOWNS*; M. VILLAFANE-DELGADO; E. REILLY; M. HUGHES; E. C. JOHNSON; W. GRAY RONCAL. <i>Johns Hopkins Univ. Applied Physics Lab.</i>
2:00			2:00	BB14	089.14 ▲ SMART: Statistical method for annotation reconstruction from traces. S. MATSON; E. P. REILLY; M. HUGHES; M. WILT; C. A. BISHOP; E. C. JOHNSON; W. R. GRAY-RONCAL*. <i>Johns Hopkins Univ., Johns Hopkins Univ. Applied Physics Lab.</i>

* Indicated a real or perceived conflict of interest, see page 72 for details.

▲ Indicates a high school or undergraduate student presenter.

† Indicates abstract's submitting author

3:00	BB15	089.15	A method for repeated neural circuit identification in noisy brain graph data. E. P. REILLY*; M. V. SCHUYLER; J. K. MATELSKY; W. R. GRAY-RONCAL. <i>The Johns Hopkins Univ. Applied Physics Lab., The Johns Hopkins Univ. Applied Physics Lab.</i>	3:00	BB25	090.07	A next generation wide field-of-view multi-area two photon microscope for simultaneous imaging across mouse sensorimotor cortex. M. A. CLOUGH*; I. A. CHEN; S. L. SMITH; J. L. CHEN. <i>Boston Univ., UC Santa Barbara, Boston Univ.</i>
4:00	BB16	089.16	Passive functional mapping of eloquent cortex using stereo-electroencephalography (SEEG). A. VATO*; G. LI; S. JIANG; D. ZHANG; L. CHEN; N. RAVIV; G. SCHALK. <i>New York State Dept. of Hlth., Inst. Italiano di Tecnologia, Shanghai Jiao Tong Univ., Fudan Univ., Albany Med. Col., Albany Med. Col., State Univ. of New York.</i>	4:00	BB26	090.08	Resting state connectivity revealed with intrinsic signal optical imaging in squirrel monkeys. N. S. CARD*; O. A. GHARBAWIE. <i>Univ. of Pittsburgh, Univ. of Pittsburgh.</i>
1:00	BB17	089.17	Localization of the central sulcus and hand area sensorimotor cortex using electrocorticographic activity evoked by median nerve stimulation. T. XIE*; Z. WU; A. VATO; Q. GUO; H. YE; X. SHENG; X. ZHU; G. SCHALK; L. CHEN. <i>New York State Dept. of Hlth., Shanghai Jiao Tong Univ., Huashan Hospital, Fudan Univ., Inst. Italiano di Tecnologia, Albany Med. Col., State Univ. of New York.</i>	1:00	BB27	090.09	A dual-mode FRET and BRET sensor for monitoring cAMP dynamics. A. R. FRENCH*, A. L. TESMER; M. TANTAMA. <i>Purdue Univ.</i>
2:00	BB18	089.18	Universal SpikeDeeptector: A deep-learning based method for detecting neural spiking activity of different species. M. SAIF-UR-REHMAN*, R. LIENKAEMPER; S. DYCK; A. RAYAN; Y. PARPALEY; J. WELLMER; C. LIU; B. LEE; S. KELLIS; D. MANAHAN-VAUGHAN; O. GÜNTÜRKÜN; R. A. ANDERSEN; I. IOSSIFIDIS; T. GLASMACHERS; C. KLAES. <i>Ruhr Univ., Ruhr Univ., Ruhr Univ., USC, Caltech, Ruhr Univ., HRW Univ. of Applied Sci., Ruhr Univ.</i>	2:00	BB28	090.10	A new high density diffuse optical tomography system for functional brain mapping in preschool-age children. K. TRIPATHY*; A. M. SVOBODA; M. L. SCHROEDER; A. K. FISHELL; E. J. RICHTER; S. RAFFERTY; C. TRACY; Z. E. MARKOW; M. WHEELOCK; A. T. EGGBRECHT; J. P. CULVER. <i>Washington Univ. In St Louis, Washington Univ. In St. Louis, Washington Univ. Sch. of Med., Washington Univ. in St Louis, Washington Univ. Sch. of Med., Washington Univ. in St Louis.</i>
3:00				3:00	BB29	090.11	High-throughput microscopy platform toward a roadmap for accelerating vertebrate neuroregeneration research. Y. L. WANG*, E. L. JAKLITSCH; S. H. CHUNG. <i>Northeastern Univ., Northeastern Univ.</i>
4:00				4:00	BB30	090.12	Multi-axis two-photon microscopy for imaging neural activity across distributed circuits in behaving animals. T. H. KIM*, M. J. WAGNER; O. JAIDAR; Y. ZHANG; J. B. DING; L. LUO; M. J. SCHNITZER. <i>Stanford Univ., Stanford Univ., HHMI, Stanford Univ., Stanford Univ., Stanford Univ.</i>

POSTER

090. Physiological Methods

Theme I – Techniques

Sat. 1:00 PM – McCormick Place, Hall A							
1:00	BB19	090.01	● Minimum aberration deep brain fluorescence microendoscopy using a miniature aspherical lens assembly. M. SATO*; S. SANO; H. WATANABE; J. NAKAI. <i>Saitama Univ., RIKEN Ctr. for Brain Sci., Sumita Optical Glass, Inc., Tohoku Univ.</i>	1:00	BB31	090.13	A modular open-source framework for two-photon and lightsheet microscopes. M. NIKITCHENKO*; E. A. NAUMANN; E. E. THOMSON; M. LORING. <i>Duke Univ., Duke Univ. Sch. of Med., Duke Univ.</i>
2:00	BB20	090.02	Improving Epac-based FRET sensors for imaging cAMP <i>in vivo</i> . C. I. MASSENGILL*; T. MAO; H. ZHONG. <i>Oregon Hlth. and Sci. Univ.</i>	2:00	BB32	090.14	Developing diffuse optical tomography with multiple cameras for imaging mouse brain hemodynamics in deep and superficial tissue. Z. E. MARKOW*; M. D. REISMAN; A. Q. BAUER; A. T. EGGBRECHT; M. A. ANASTASIO; J. P. CULVER. <i>Washington Univ. In St. Louis, Washington Univ. In St. Louis, Univ. of Illinois at Urbana-Champaign.</i>
3:00	BB21	090.03	A fast intrinsic optical signal (FIOS) from unstained hippocampal slice is a novel kind of optical signal: comparison with the voltage-sensitive dye signal. Y. TOMINAGA; M. KOIKE-TANI; T. TANI; T. TOMINAGA*. <i>Inst. of Neuroscience, Tokushima Bunri Univ., Marine Biol. Lab.</i>	3:00	BB33	090.15	Photoswitchable GPCR-based opsins for <i>in vivo</i> subcellular neuromodulation. B. A. COPITS*; P. O'NEILL; J. YOO; A. VASQUEZ; V. K. SAMINENI; C. STANDER; R. K. SUNAHARA; R. W. GEREAU, IV; M. R. BRUCHAS. <i>Washington Univ. Sch. of Med., Washington Univ. Sch. of Med., UCSD, Washington Univ., UCSD, Washington Univ. Sch. Med., Univ. of Washington.</i>
4:00	BB22	090.04	Two-photon photoactivated voltage imaging in tissue with an archaerhodopsin-derived reporter. D. BRINKS*; M. CHIEN; G. SILVA; Y. ADAM; W. BLOXHAM; S. KHEIFETS; A. E. COHEN. <i>Harvard Univ., Delft Univ. of Technol., Erasmus Med. Ctr.</i>	4:00	BB34	090.16	Combining infrared neuromodulation (IRN) with isotonic glucose solution to lower the IR dose requirement. J. ZHUO*; M. T. MCPHEETERS; E. M. JACKSON; S. S. SHANKAR; M. GANGULY; E. D. JANSEN; H. J. CHIEL; M. W. JENKINS. <i>Case Western Reserve Univ., Case Western Reserve Univ., Vanderbilt Univ., Vanderbilt Univ., Case Western Reserve Univ., Case Western Reserve Univ.</i>
1:00	BB23	090.05	▲ Boosting sensitivity in light field microscopy for fast volumetric calcium imaging in living zebrafish brain. Z. ZHANG; L. CONG; F. LI; J. DU; K. WANG*. <i>Inst. of Neuroscience, State Key Lab. of Neuroscience, CAS Ctr. for Excellence in Brain Sci. and Intelligence Technology, Chinese Acad. of Sci., Univ. of Chinese Acad. of Sci., Univ. of Chinese Acad. of Sci.</i>				
2:00	BB24	090.06	Speed considerations for large field two-photon microscopy. H. B. BANKS*; J. R. BUMSTEAD; L. M. BRIER; A. BICE; J. P. CULVER. <i>Washington Univ. In St. Louis.</i>				

* Indicated a real or perceived conflict of interest, see page 72 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

1:00	BB35	090.17	Cell-type specific optical recordings of electrophysiological oscillations in behaving mice using genetically encoded fluorescent voltage indicators.
	S. HAZIZA*; R. CHRAPKIEWICZ; J. MARSHALL; M. KANNAN; G. VASAN; K. CHO; T. DAVIDSON; T. TASCI; J. LI; Y. ZHANG; J. LI; V. PIERIBONE; M. LIN; V. SOHAL; M. SCHNITZER. <i>Stanford Univ., Harvard Univ., Yale Univ., UCSF.</i>		
2:00	BB36	090.18	Automated task training and longitudinal monitoring of mouse mesoscale cortical circuits using homecages. T. H. MURPHY*; J. LEDUE; M. BALBI; F. BOLANOS; M. P. VANNI; D. BIERBRAUER; T. SIU; L. A. BOLANOS; J. D. BOYD. <i>Univ. British Columbia, Univ. of British Columbia, UBC, Univ. de Montréal, Univ. British Columbia.</i>
3:00	BB37	090.19	Clear optically matched panoramic access channel technique (COMPACT) for large volume deep brain imaging. M. CUI*. <i>Purdue Univ.</i>
4:00	BB38	090.20	Miniaturized devices for bioluminescence imaging of brain and spinal cord. D. CELINSKIS*; M. GOMEZ-RAMIREZ; D. A. BORTON; C. I. MOORE. <i>Brown Univ., Carney Inst. for Brain Sci., Brown Univ., Dept. of Veterans Affairs, Providence Med. Center, Ctr. for Neurorestoration and Neurotechnology.</i>

POSTER

091. Techniques: Cellular Electrophysiology

Theme I – Techniques

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

1:00	BB39	091.01	Fluorescent glass pipettes for optically targeted electrophysiological recordings. K. OKAMOTO*; N. FUJI; T. EBINA; K. KONISHI; Y. SATO; T. KASHIMA; R. NAKANO; H. HIOKI; H. TAKEUCHI; J. YUMOTO; M. MATSUZAKI; Y. IKEGAYA. <i>Juntendo Univ., The Univ. of Tokyo, AGC Inc., The Univ. of Tokyo, The Univ. of Tokyo, The Univ. of Tokyo.</i>
2:00	BB40	091.02	High throughput opsin screening using automated intracellular electrophysiology. M. C. YIP*; C. R. LANDRY; A. YANG; I. KOLB; E. S. BOYDEN; C. R. FOREST. <i>Georgia Inst. of Technol., Georgia Inst. of Technol., MIT, Janelia Res. Campus, MIT.</i>
3:00	BB41	091.03	Patch-walking: Coordinated multi-pipette patch clamping to efficiently discover synaptic connections. M. C. YIP; C. F. LEWALLEN*; C. R. LANDRY; I. KOLB; W. STOY; C. R. FOREST. <i>Georgia Inst. of Technol., Georgia Inst. of Technol., Janelia Res. Campus.</i>
4:00	BB42	091.04	Adaptive voltage protocols increase precision of voltage-gated ion channel measurements on high-throughput automated patch clamp platforms. S. WILLIAMS; J. KAMMONEN; P. MITCHELL*. <i>Charles River.</i>
1:00	BB43	091.05	Automated electrophysiology of single cells in brain organoids. C. R. LANDRY*; M. C. YIP; C. F. LEWALLEN; Y. ZHOU; Z. WEN; C. R. FOREST. <i>Georgia Inst. of Technol., Georgia Inst. of Technol., Emory Univ. Sch. of Med., Emory Univ. Sch. of Med.</i>
2:00	BB44	091.06	Neuronal activity in neurobasal A medium vs. ACSF: Which is best for whole-cell recordings in three-dimensional neural spheroids? M. R. ALKASLASI*; B. B. THEYEL; J. L. SEVETSON; D. HOFFMAN-KIM; B. W. CONNORS. <i>Brown Univ., Brown Univ., Brown Univ., Brown Univ., Brown Univ., Brown Univ.</i>

3:00	BB45	091.07	Human induced neuronal autaptic cultures to study synaptic function and neuronal morphology. P. FENSKE*; M. K. GRAUEL; M. M. BROCKMANN; A. L. DORRN; T. TRIMBUCH; C. ROSEN MUND. <i>Charite Universitaetsmedzin Berlin.</i>
4:00	BB46	091.08	A novel approach for single trial AC measurement of membrane conductance under current clamp. A. PARABUCKI; M. SOKOLETSKY; H. FAMINI; Y. KATZ; I. LAMPL*. <i>Weizmann Inst. Sci.</i>
1:00	BB47	091.09	Ultrastructural and physiological aspects of synapses in acute brain slices prepared at cold and physiological temperatures. K. EGUCHI*; P. KOPPENSTEINER; R. SHIGEMOTO. <i>IST Austria.</i>
2:00	BB48	091.10	Fine marking method of metal microelectrode for the electrophysiological recording <i>in vivo</i> . K. KOIDA*; H. SAWAHATA; R. NUMANO; T. KAWANO; T. HARA. <i>Toyohashi Univ. of Technol., Natl. Inst. of Technology, Ibaraki Col.</i>
3:00	BB49	091.11	Ionic mechanisms underlying firing pattern of dopaminergic neurons during a noxious stimulus. J. M. PERKINS*; A. KULKARNI; C. PALADINI. <i>Univ. of Texas at San Antonio.</i>
4:00	BB50	091.12	Subthreshold synaptic dynamics in midbrain dopamine neurons and their role in driving spiking activity. A. S. KULKARNI*; K. OTOMO; J. PERKINS; S. STOJANOVIC; J. ROEPER; C. PALADINI. <i>Univ. of Texas At San Antonio, Goethe Univ. Frankfurt, Goethe Univ. Frankfurt.</i>
1:00	BB51	091.13	Mechanisms of negative BOLD responses. J. J. RIERA*; P. VALDES HERNANDEZ; A. MOSHKFOROUSH. <i>Florida Intl. Univ.</i>

POSTER

092. Connectomics Analytics II

Theme I – Techniques

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

1:00	BB52	092.01	Automated parameter search for fmri preprocessing pipeline quality control using functional connectivity matrix clustering. M. KOLLADA*; H. GONZALEZ; Y. LIU; M. S. MELLEM; P. AHAMMAD. <i>Blackthorn Therapeut.</i>
2:00	BB53	092.02	The network analysis using synchronization likelihood and cross-correlation for electroencephalogram during facial expressions. A. WATANABE*; T. YAMAZAKI. <i>Kyushu Inst. of Technol.</i>
3:00	BB54	092.03	Total electrical noise in human intracranial microwire recordings and its simulation. P. N. STEINMETZ*. <i>NeurTex Brain Res. Inst.</i>
4:00	BB55	092.04	Nonlinear dynamics analyses of EEG signals capture brain states at different levels of consciousness. S. L. EAGLEMAN*; D. CHANDER; C. REYNOLDS; N. OUELLETTE; B. MACIVER. <i>Stanford Univ., Stanford Univ., Oregon Hlth. Sci. Univ., Stanford Univ., Stanford Univ.</i>
1:00	BB56	092.05	Generalization performance improvement method using automatic feature selection in pathological voice detection. K. SUZUKI*; S. SHINOHARA; N. MANOME; M. HIGUCHI; Y. OMIYA; S. MITSUYOSHI. <i>SoftBank Robotics Corp./The Univ. of Tokyo, The Univ. of Tokyo, The Univ. of Tokyo, PST Inc., The Univ. of Tokyo.</i>

2:00	BB57	092.06	Parkinson's disease detection from a small amount of data based on self-organizing maps. N. MANOME*; S. SHINOHARA; K. SUZUKI; Y. OMIYA; M. HIGUCHI; S. MITSUYOSHI. <i>SoftBank Robotics Corp./The Univ. of Tokyo, The Univ. of Tokyo, PST Inc.</i>	4:00	BB71	092.20	Evaluation of functional brain parcellation methods using a multi-domain task battery. D. ZHI*; M. KING; C. R. HERNANDEZ-CASTILLO; R. IVRY; J. DIEDRICHSEN. <i>Western Univ., Univ. of California, Univ. California, Western Univ.</i>
3:00	BB58	092.07	Language mapping using high-density EEG: A large-scale network connectivity analysis. V. YOUSSEFOZADEH*; F. SALAMI; A. BABAJANI-FEREMI. <i>Med. Col. of Wisconsin, The Univ. of Tennessee Hlth. Sci. Ctr., The Univ. of Tennessee Hlth. Sci. Ctr.</i>	1:00	BB72	092.21	● Advancing legacy fMRI analyses: Towards fieldmap-free susceptibility distortion correction of GRE EPI data. C. FONTENEAU*; L. J. JI; A. HOWELL; G. REPOVS; E. W. DICKIE; T. S. COALSON; J. ANDERSSON; M. F. GLASSER; A. ANTICEVIC. <i>Yale Univ. Sch. of Med., Div. of Neurocognition, Neurocomputation, & Neurogenetics (N3), Interdepartmental Neurosci. Program, Yale Univ., Univ. of Ljubljana, Kimel Family Translational Imaging-Genetics Laboratory, Campbell Family Mental Hlth. Res. Institute, Ctr. of Addiction and Mental Hlth., Washington Univ. Sch. of Med., Ctr. for Functional Magnetic Resonance Imaging of the Brain (FMRIB), Univ. of Oxford, St. Luke's Hosp., Yale Univ.</i>
4:00	BB59	092.08	Characterization of functional hierarchical organization of human brain based on intrinsic connectivity networks. C. CHU; L. FAN; Y. LIU; D. WU; J. SUI; S. B. EICKHOFF; T. JIANG*. <i>Inst. of Automation, Chinese Acad. of Sci., Inst. for Systems Neuroscience, Heinrich-Heine Univ.</i>	2:00	BB73	092.22	Using global t-SNE to reveal global structure of human brain atlas . Y. ZHOU*; T. O. SHARPEE. <i>UC San Diego, Salk Inst.</i>
1:00	BB60	092.09	EEG source localization algorithm gFOTV and adaptive causal modeling in study of selective attention. H. ZHOU*; C. M. HABER; A. IRIMIA; G. V. SIMPSON; M. S. COHEN; A. LENARTOWICZ; W. LIU. <i>Univ. of California Los Angeles, New York Univ., USC, Think Now, Inc., Univ. of California Los Angeles.</i>	3:00	BB74	092.23	▲ A predictive approach to personality: Using machine learning to build better models. J. E. KOBSTA*; A. TAVAKKOLI. <i>Dartmouth Col.</i>
2:00	BB61	092.10	Tensor-based brain network embedding in a transdiagnostic psychiatric cohort. P. J. THOMAS*; B. CAO; A. LEOW; P. S. YU; K. PHAN; O. A. AJILORE. <i>Univ. of Illinois at Chicago, Facebook, Inc.</i>	4:00	BB75	092.24	Microsaccade detection method using a non-Gaussian state-space model. H. YOSHIDA*; K. NAGANO; T. KOHAMA. <i>Kindai Univ., Kindai Univ.</i>
3:00	BB62	092.11	Uni- versus multivariable identification of grey matter biomarkers in osteoarthritis. A. D. VIGOTSKY*; J. BARROSO; A. V. APKARIAN. <i>Northwestern Univ., Northwestern Univ. Feinberg Sch. of Med.</i>	1:00	BB76	092.25	Comparison between novel and established machine learning approaches to identify biotypes of posttraumatic stress. J. L. NIELSON*; T. KIRSH; B. E. COHEN; A. R. FERGUSON; T. C. NEYLAN; E. KUMMERFELD; S. MA. <i>Univ. of Minnesota, Univ. of Minnesota, Univ. of California San Francisco, Brain and Spinal Injury Ctr. (BASIC), UCSF, Univ. of Minnesota.</i>
4:00	BB63	092.12	Phase-based macrovascular filtering from gradient echo bold fMRI reduces orientation dependence. O. W. STANLEY*; A. B. KUURSTRA; R. S. MENON. <i>The Univ. of Western Ontario, Robarts Res. Inst.</i>	2:00	BB77	092.26	Functional and structural connectivity of the human brain: Synergy of results from direct electrical stimulation and diffusion magnetic resonance imaging. M. JEDYNAK*; L. TREBAUL; J. LEMARECHAL; N. LABRA; P. DEMAN; V. TUYISENGE; F. TADEL; B. CHANTELOUP-FORÉT; C. SAUBAT; G. REYES MEJIA; C. POUPON; J. MANGIN; O. DAVID; F. TRACT CONSORTIUM. <i>Grenoble Inst. of Neuroscience, INSERM U1216, Univ. Grenoble Alpes, Grenoble Inst. of Neuroscience, Sorbonne Universités, UPMC Univ. Paris 06 UMR S 1127, Inserm U 1127, CNRS UMR 7225, Inst. du Cerveau et de la Moelle épinière, ICM, Ecole Normale Supérieure, ENS, Ctr. MEG-EEG, F-75013, CATI Multicenter Neuroimaging Platform Neurospin, I2BM, CEA, Paris-Saclay Univ.</i>
1:00	BB64	092.13	The Haskins pediatric atlas: A comparison of spatial normalizations among MRI templates. P. J. MOLFESI*; D. GLEN; R. W. COX; P. A. BANDETTINI. <i>NIMH/NIH, NIMH / NIH, NIMH-NIH.</i>	3:00	BB78	092.27	The limit of mind reading: Challenging the added value of population multi-voxel pattern analysis (p-MVPA) to identify perceptual states. R. JABAKHANJI*; M. N. BALIKI; G. IANNETTI; A. V. APKARIAN. <i>Northwestern Univ. Feinberg Sch. of Med., Rehabil. Inst. of Chicago, Univ. Col. London.</i>
2:00	BB65	092.14	Geodesic distances between functional connectivity matrices: A geometry-aware approach. M. VENKATESH*; J. JAJA; L. PESSOA. <i>Univ. of Maryland, Col. Park, Univ. of Maryland at Col. Park Dept. of Psychology.</i>	4:00	BB79	092.28	Tools for integrative network neuroscience modeling of brain structure and activity. A. NANDA; M. RUBINOV*. <i>Vanderbilt Univ.</i>
3:00	BB66	092.15	The beating brain: A rapid MRI-based technique to characterize whole brain cardiac pulsations. D. HERMES*; A. KERR; H. WU; B. A. WANDELL. <i>Mayo Clin., Stanford Univ., Stanford Univ., Stanford Univ.</i>	1:00	BB80	092.29	A numerical model of white matter tissue with progressive levels of demyelination and axonal loss for the simulation of diffusion weighted images and the comparison of clinical imaging protocols. C. DEL GRATTA*; S. OLIVIERO. <i>Gabriele D'Annunzio Univ.</i>
4:00	BB67	092.16	Effects of visual noise on the performance and robustness of multivariate classifiers in EEG. P. LIM*; K. KUNTZELMAN; L. N. BANDEL; M. BEHRENDT; M. R. JOHNSON. <i>Univ. of Nebraska-Lincoln.</i>	2:00	BB81	092.30	DotMotif: Subgraph isomorphisms on large brain graphs. J. MATELSKY*; E. C. JOHNSON; E. P. REILLY; W. R. GRAY RONCAL. <i>Johns Hopkins Univ. Applied Physics Lab.</i>
1:00	BB68	092.17	Are you local? In most neuroimaging studies, computer says no. T. JOHNSTONE*. <i>Swinburne Univ. of Technol.</i>				
2:00	BB69	092.18	Tract edge diffusion statistics; measuring diffusivity at the boundary of the white matter. A. M. AZOR*; D. J. SHARP; P. J. HELLYER. <i>Imperial Col. London, King's Col. London.</i>				
3:00	BB70	092.19	Avalanches in human brain dynamics dissociate task specific changes. K. BANSAL; J. O. GARCIA; N. LAUHARATANAHIRUN; S. E. MULDOON; P. SAJDA; J. M. VETTEL*. <i>Columbia Univ., CCDC Army Res. Lab., Univ. at Buffalo, SUNY, CCDC Army Res. Lab.</i>				

* Indicated a real or perceived conflict of interest, see page 72 for details.

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Conflict of Interest Statements

The following presenters, signified by a dot (•) in the program, indicated a real or perceived conflict of interest.
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		053.01	K.M. Dumais : A. Employment/Salary (full or part-time); Authors are employees of ERT, who funded this research. S.M. Dallabrida : A. Employment/Salary (full or part-time); Authors are employees of ERT, who funded this research..
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056.24	K. Gupta: 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.; 1910 genetics. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Grifols. F. Consulting Fees (e.g., advisory boards); Novartis, Tautona.	070.06	X. Zhou: B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; NIMH. V.B. Risbrough: B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; NIAAA.
058.14	J. Kim: A. Employment/Salary (full or part-time); University of Toronto. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; CIHR.	071.03	Z. Ouyang: 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.; Medtronic. Z.J. Sperry: 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.; Medtronic. E.C. Bottorff: 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.; Medtronic. T.M. Bruns: 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.; Medtronic.
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066.10	W. Liu: C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); UCLA. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Patents at UCLA and stocks at Niche Biomedical.		

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075.09	K.W. Plaxco: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Diagnostic Biochips.		
076.05	T. Seki: B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; kakenhi#19K17090. H. Yamagata: C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); research support from Pfizer and MSD. S. Nakagawa: C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); research support from Pfizer and MSD.		
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086.15	D. Zafer: A. Employment/Salary (full or part-time); Waisman Center University of Wisconsin. P. Kemanli: A. Employment/Salary (full or part-time); Waisman Center University of Wisconsin.		
087.21	R. Calzavara: Other; The author is a member of the Pritzker Neuropsychiatric Disorders Research Consortium, which is supported by the Pritzker Neuropsychiatric Disorders Research Fund L.L.C. J.J. Fitzpatrick: Other; The author is a member of the Pritzker Neuropsychiatric Disorders Research Consortium, which is supported by the Pritzker Neuropsychiatric Disorders Research Fund L.L.C. J.D. Barchas: Other; The author is a member of the Pritzker Neuropsychiatric Disorders Research Consortium, which is supported by the Pritzker Neuropsychiatric Disorders Research Fund L.L.C. W.E.		
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property rights/patent holder, excluding diversified mutual funds); BlackThorn Therapeutics. F. Consulting Fees (e.g., advisory boards); BlackThorn Therapeutics.

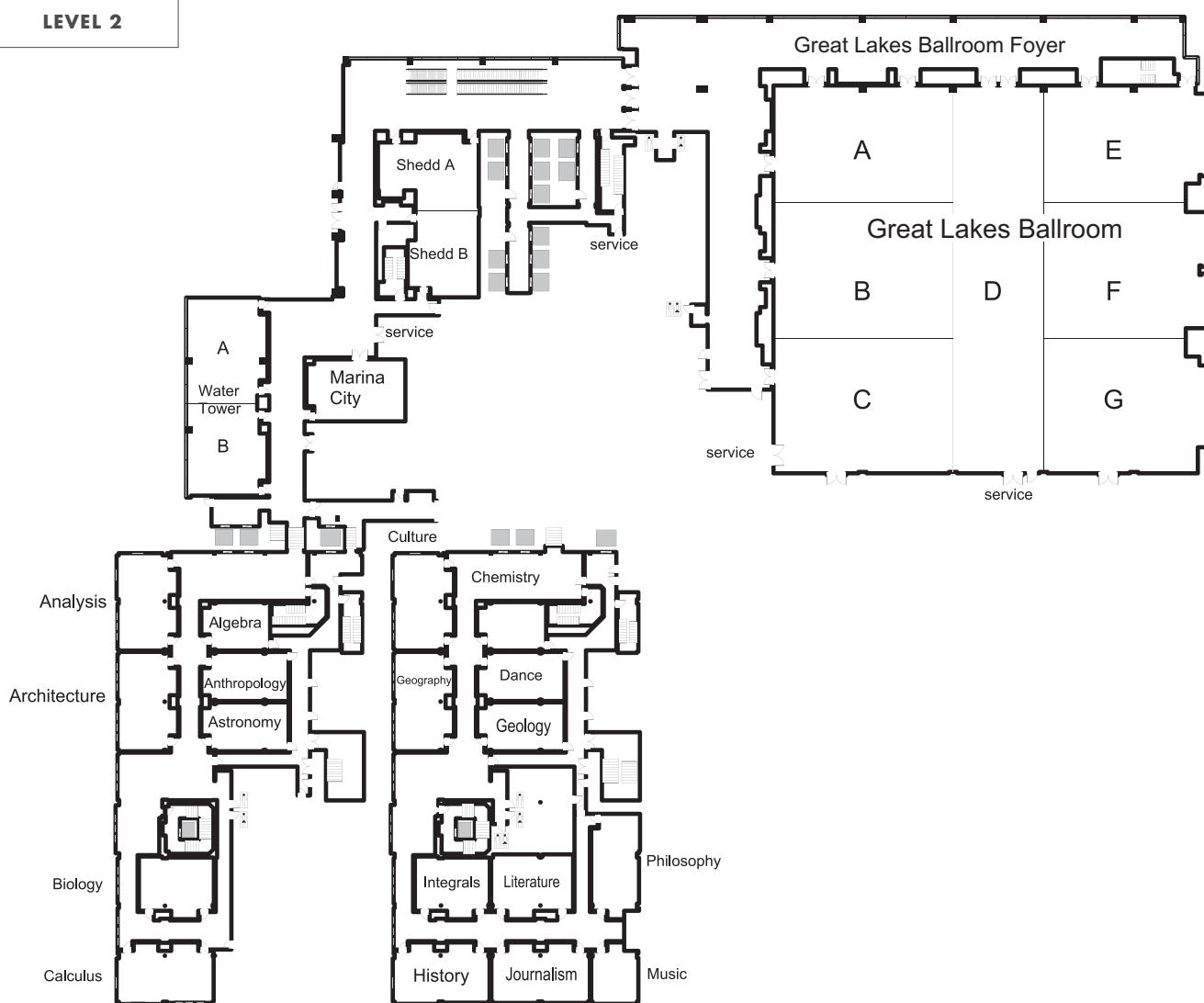
Hotel Floor Plans

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LEVEL 2

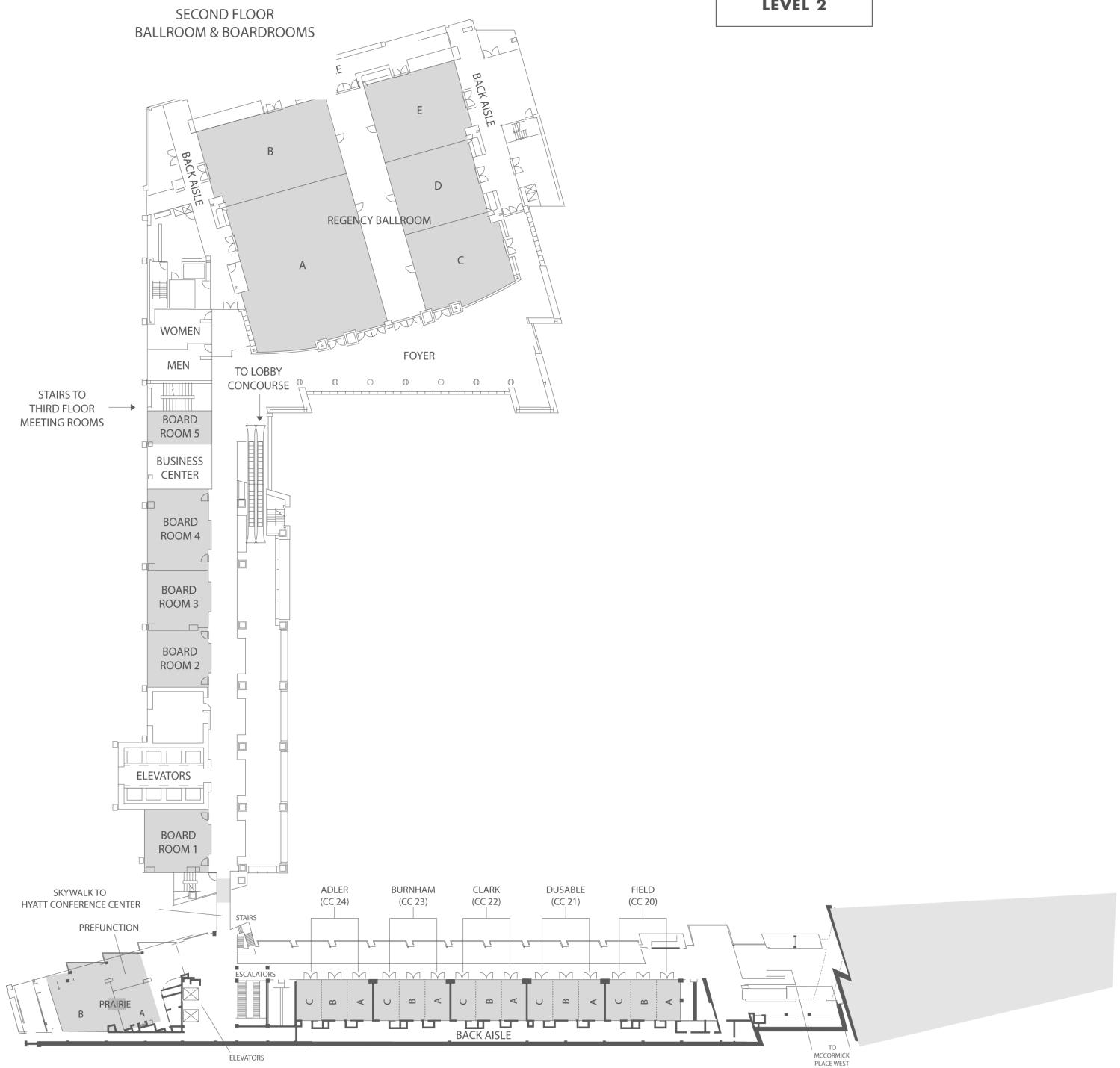


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LEVEL 2

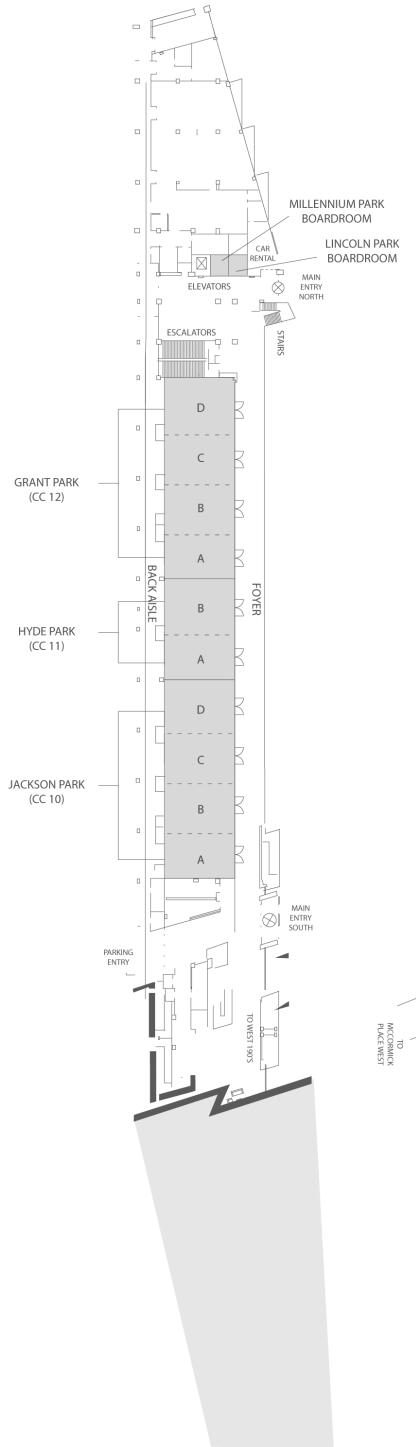


Hotel Floor Plans

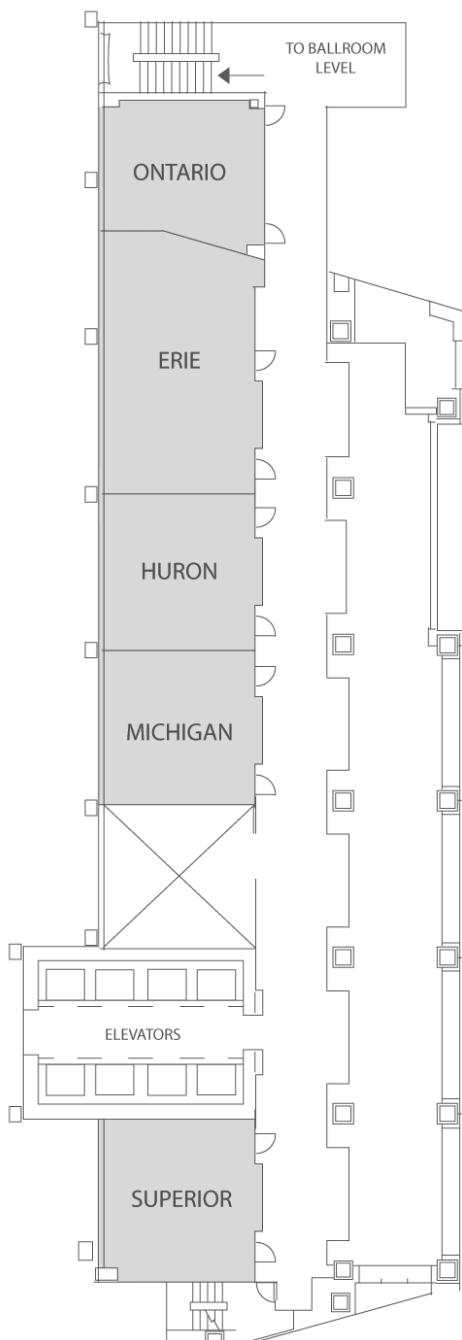
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LEVEL 1



LEVEL 3

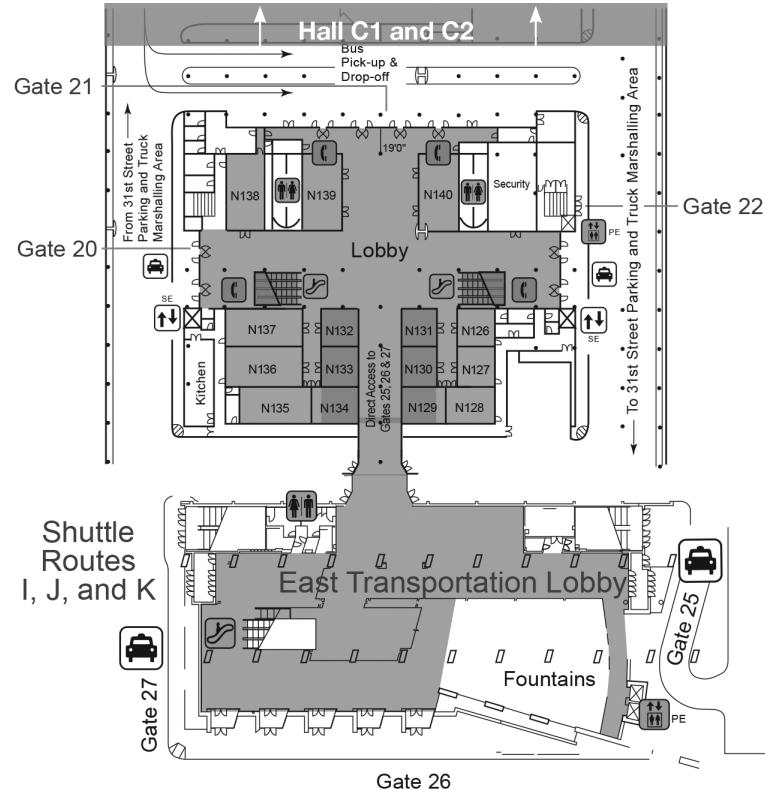


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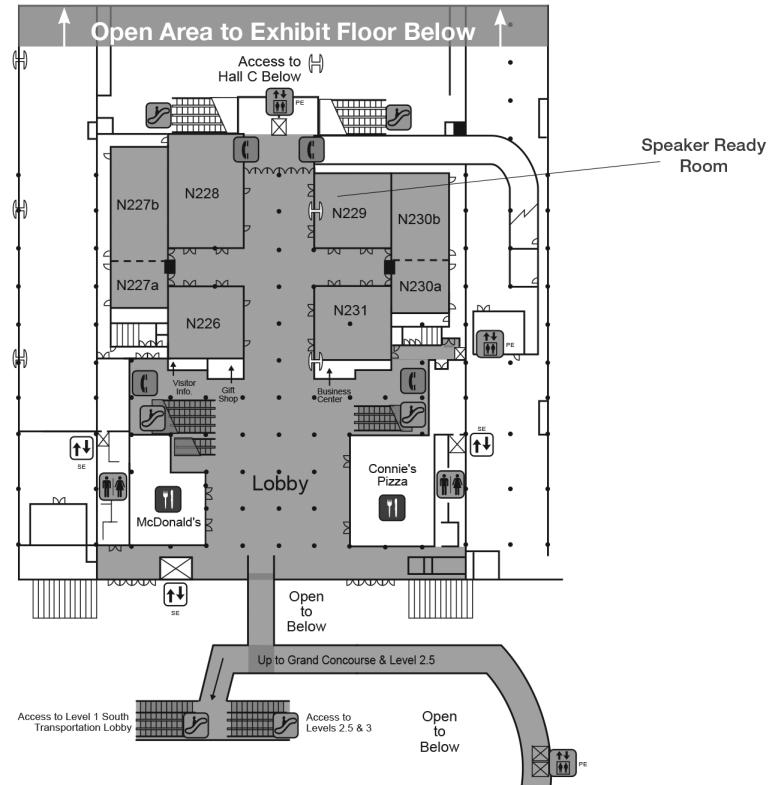
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LEVEL 1 NORTH



LEVEL 2 NORTH



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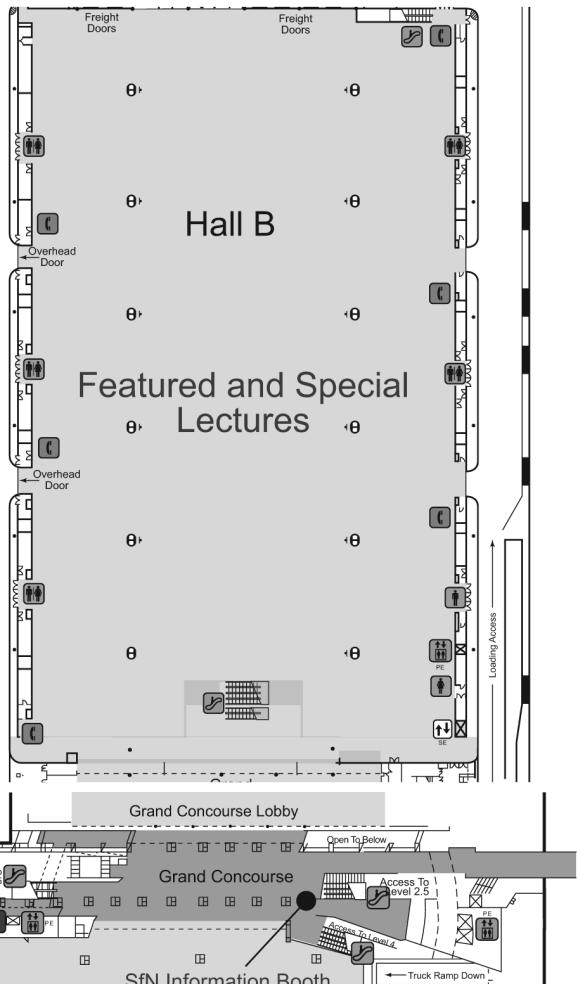
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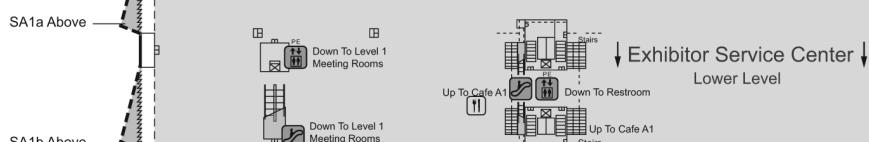
LEVEL 3 NORTH

Registration and Attendee Resources Located in Hall A:

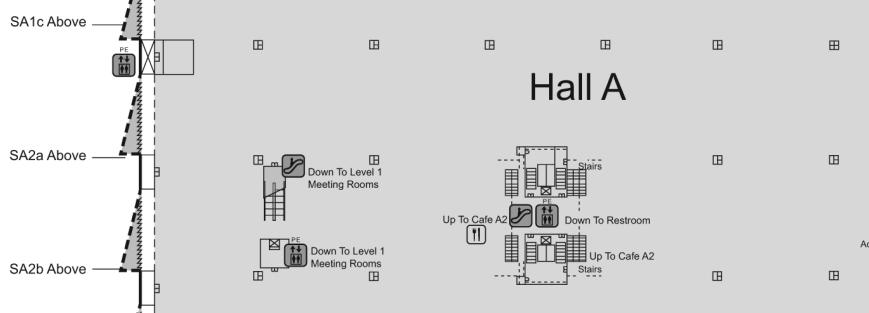
- Certificates of Attendance
- Express Badge Pick-up
- Headquarters-Logistics and Programming
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- Lost and Found
- Membership
- Mobile App Help Center
- NeuroJobs
- Neuroscience Meeting Planner Viewing Area
- Program and Exhibit Guide Pick-up
- Registration
- Wireless Assistance



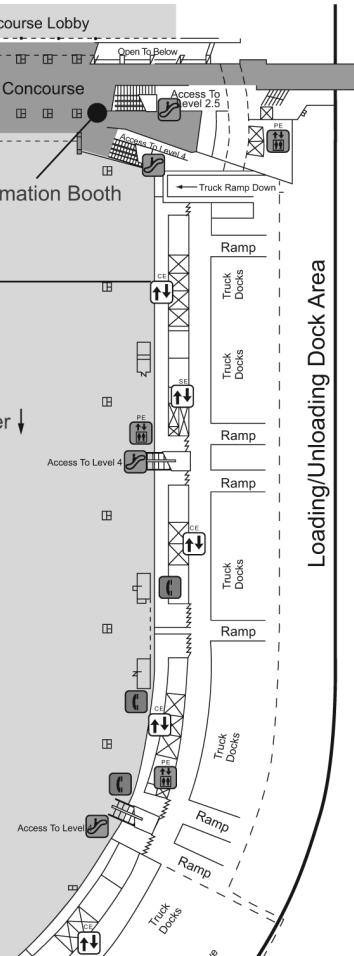
LEVEL 3 SOUTH



Posters and Exhibits



Hall A



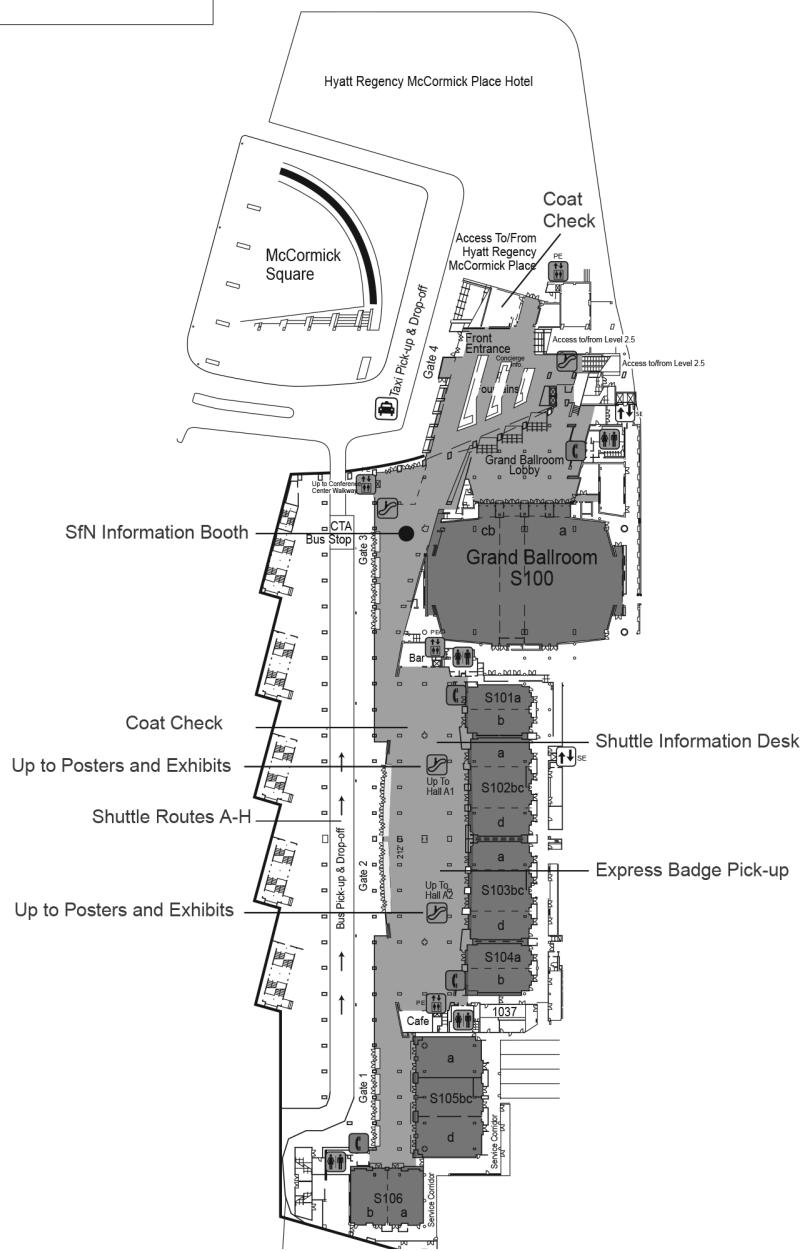
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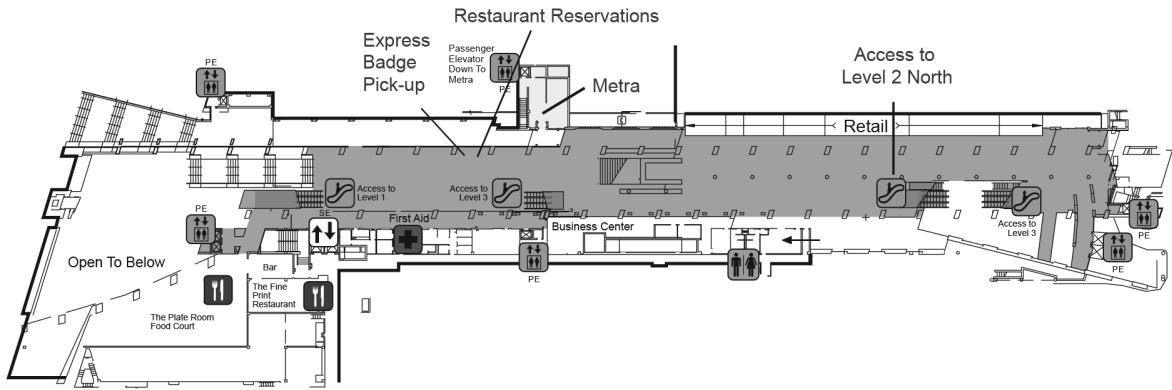
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LEVEL 1 SOUTH



LEVEL 2.5 SOUTH

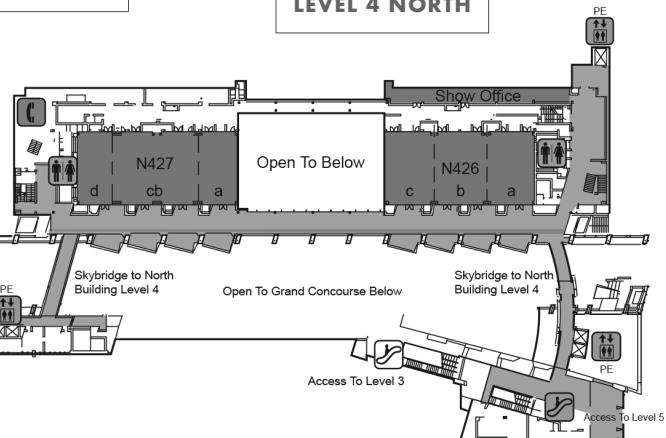


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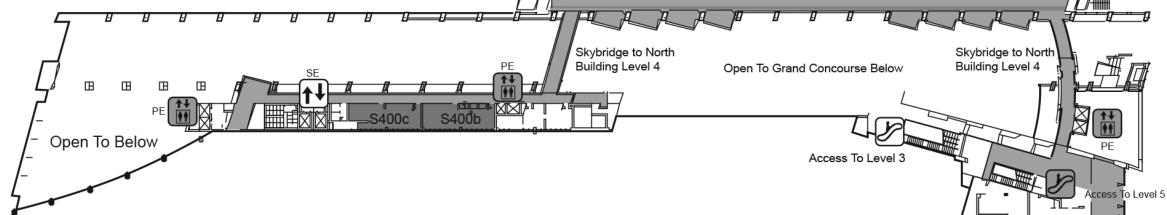
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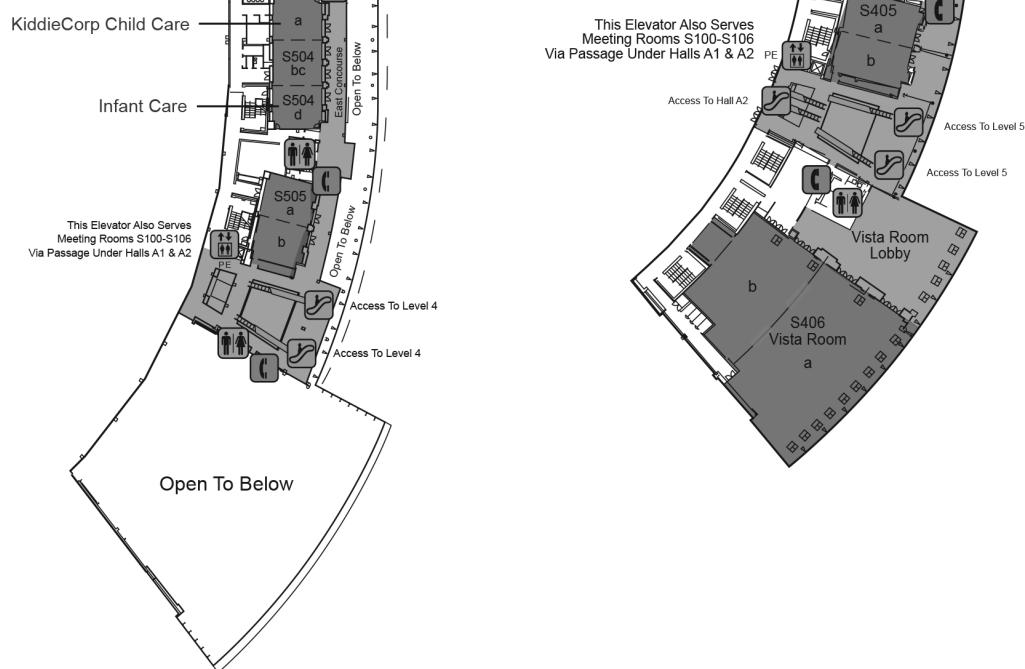
LEVEL 4 NORTH



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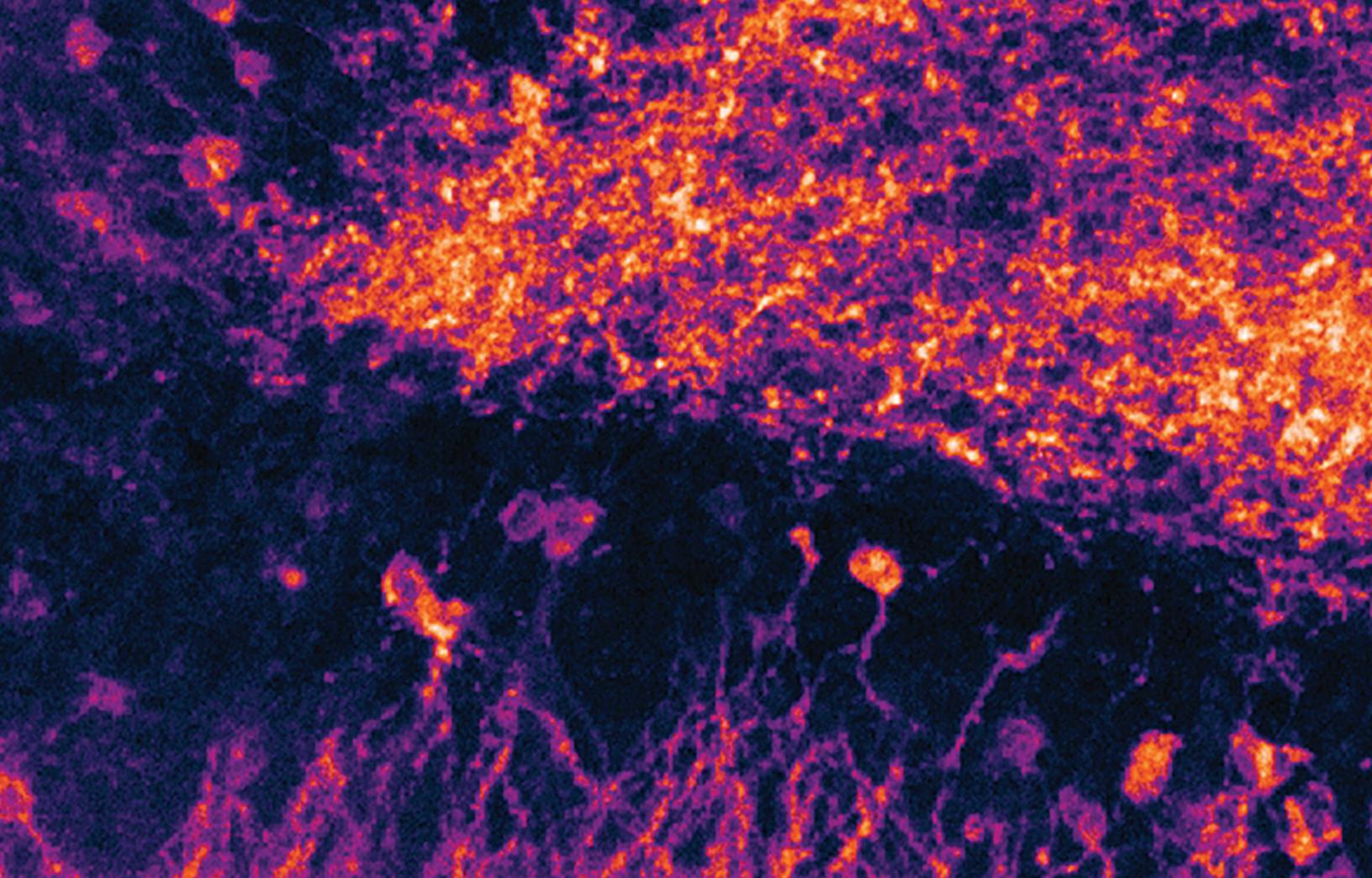


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