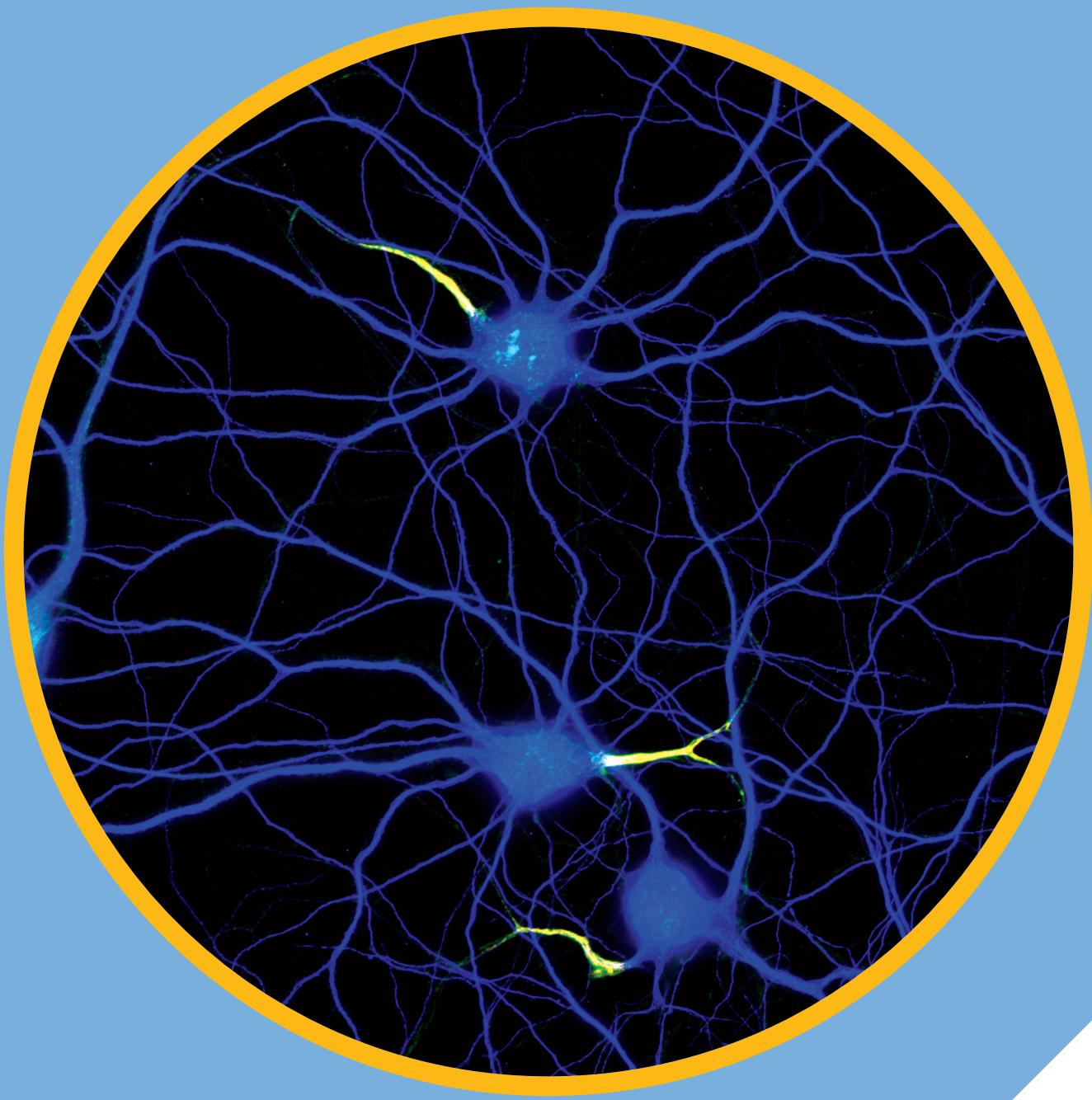


Saturday

SAN DIEGO | NOVEMBER 3–7
SESSION LISTING 001–091



**REMINDER: DAYLIGHT SAVINGS TIME
ENDS SUNDAY AT 2 A.M.**

Don't forget to set your clock back
one hour before going to bed.



SOCIETY for
NEUROSCIENCE



Information at a Glance

Session information listed here is current as of September 19, 2018.

See SfN.org for the most up-to-date annual meeting information.

Important Phone Numbers

Annual Meeting

Headquarters Office

Logistics and Programming

San Diego Convention Center:
Sails Pavilion
Logistics: (619) 525-6200
Programming: (619) 525-6205

Volunteer Leadership Lounge

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

Annual Meeting Information Booths

San Diego Convention Center

Lobby A: (619) 525-6224
Lobby D: (619) 525-6225
Sails Pavilion: (619) 525-6226

Press Office

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

Exhibit Management

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

First Aid and Hospital Numbers

First Aid Room

San Diego Convention Center:
Lobby C
(619) 525-6211

Scripps Mercy Hospital

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

Sharp Rees – Stealy Downtown

San Diego Urgent Care

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

Key to Poster Floor by Themes

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

Theme

ADevelopment
BNeural Excitability, Synapses, and Glia
CNeurodegenerative Disorders and Injury
DSensory Systems
EMotor Systems
FIntegrative Physiology and Behavior
GMotivation and Emotion
HCognition
ITechniques
JHistory and Education

NOTE: Theme J Posters will be on display in Hall B beginning at 1 p.m. on Saturday, Nov. 3, and will remain posted until 5 p.m., Sunday, Nov. 4. One-hour presentations will occur either Saturday afternoon or Sunday morning.

Code of Conduct at SfN Events

SfN is committed to supporting discovery and scientific dialogue, and to fostering a welcoming community in which all scientists are able to contribute fully. The Society asserts that sexual harassment and other harassing behaviors have no place in a healthy scientific enterprise. We expect all attendees, media, speakers, volunteers, organizers, venue staff, guests, and exhibitors at SfN-organized events to help us ensure a safe and positive

environment. At the convention center, onsite medical and security personnel are available directly or through the SfN headquarters office.

If attendees experience unwelcome or unsafe situations anywhere in the city, attendees should swiftly contact local authorities (dial 9-1-1), and additional local social services resources are listed in one convenient location at the federal website www.changingourcampus.org. Any official

report of sexual harassment should be brought to the designated Human Resources Officer in the SfN headquarters office at each meeting convention center, or sent via email to hrofficer@sfn.org. The HR Officer will facilitate the completion of a report by a complainant.

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

Cover Image: This image shows cultured hippocampal neurons labeled for dendrites (MAP2, blue), and for the axon initial segment (yellow is an overlay of neurofascin-186, green and β4-spectrin, red).

Courtesy with permission: *Journal of Neuroscience* 28 February 2018, 38 (9): 2135–2145.

Complete Session Listing

Saturday PM

LECTURE San Diego Convention Center

001. DIALOGUES BETWEEN NEUROSCIENCE AND SOCIETY: Music and the Brain

Sat. 11:00 AM - 1:00 PM — SDCC Ballroom 20

Speaker: P. METHENY, Musician & Composer.

Music is a universal language and a powerful force in the world. It can have incredible impact on our brain and easily make us cry or make us joyful. Just a few notes of a song can cause us to remember memories long past. Pat Metheny is a legendary jazz guitarist who understands the power of music. He has received 3 gold albums and 20 Grammy Awards. In this dialogue, Mr. Metheny will discuss, with a panel of SfN members, the impact of music on the brain and on our emotions and memory, as well as the process of creativity in music, art, and science and the role of music in healing.

SYMPOSIUM San Diego Convention Center

002. Neuronal Guidance in Health and Disease — CME

Sat. 1:30 PM - 4:00 PM — SDCC 6A

Chair: A. L. KOLODKIN, Johns Hopkins School of Medicine

Investigation into phylogenetically conserved cellular and molecular mechanisms underlying neuronal guidance and connectivity has greatly advanced over the past three decades. This symposium will address the intersections among several of these advances and human neural development. Select evolutionarily conserved guidance cues, receptors, and cytosolic signaling cascades will be considered, along with how mutations that affect them may alter human neural development.

1:30 **002.01** Introduction.

1:35 **002.02** Revisiting Axon guidance at the CNS midline. A. CHEDOTAL. *Inst. de la Vision.*

2:10 **002.03** Linking guidance cues to changes in neuronal form, function, and dysfunction. J. R. TERMAN. *Univ. of Texas Southwestern Med. Ctr.*

2:45 **002.04** Neural connectivity and cranial nerve disorders. E. C. ENGLE. *Harvard Med. Sch. / Boston Children's Hospital.*

3:20 **002.05** The genetics of human cortical connectivity. C. A. WALSH. *Harvard Med. Sch.*

3:55 **002.06** Closing Remarks.

MINISYMPOSIUM

San Diego Convention Center

003. New Observations in Neuroscience Using Superresolution Microscopy — CME

Sat. 1:30 PM - 4:00 PM — SDCC 6B

Chair: M. IGARASHI, Niigata University

Superresolution microscopy (SM) techniques overcome optical limitations, and several new observations using SM have had revolutionary impact on neuroscience. Several types of SM have been developed (e.g., STED, SIM, PALM, STORM), each with special features. This minisymposium will discuss the new structural and functional information about specific important molecules in neuroscience obtained with SM.

1:30 **003.01** Introduction.

1:35 **003.02** New relationships between F-actin organization and membrane trafficking in the growth cone revealed by SIM. M. NOZUMI. *Niigata Univ, Grad Sch. Med. Dent. Sci.*

1:55 **003.03** Visualizing membrane dynamics of hemi-fusion, fusion pore opening and closure by STED microscopy. L. WU. *Natl. Inst. of Neurolog. Disorders and Stroke, NIH.*

2:15 **003.04** Super-resolution microscopy to study GABAergic synaptic plasticity at the single molecule level. F. CELLA ZANACCHI. *Fondazione Inst. Italiano di Tecnologia.*

2:35 **003.05** Correlation of physiological, morphological and molecular parameters by combined patch-clamp and STORM imaging at hippocampal synapses. I. KATONA. *Inst. of Exptl. Med. (KOKI).*

2:55 **003.06** New fluorescent probes suitable for superresolution microscopy. P. XU. *Chinese Acad. of Sci.*

3:15 **003.07** Expansion Microscopy. E. S. BOYDEN. *Media Lab, Massachusetts Inst. of Technol.*

3:35 **003.08** Closing Remarks.

MINISYMPOSIUM

San Diego Convention Center

004. Neuronal Mechanisms for Prepulse Inhibition: Comparative Approaches From Sensory to Cognition — CME

Sat. 1:30 PM - 4:00 PM — SDCC 6C

Chair: T. PREUSS, City University of New York, Hunter College

Co-Chair: S. SCHMID, University of Western Ontario

Prepulse inhibition (PPI) is a measure for sensorimotor gating that has been studied across species, and PPI deficits are found in several psychiatric and neurological disorders. This minisymposium will provide a rare comparative perspective on neural mechanisms underlying PPI. Covering work from invertebrates to humans using cutting-edge approaches, the minisymposium will emphasize how comparative studies have advanced our understanding of PPI mechanisms and regulatory pathways.

1:30 **004.01** Introduction.

* Indicated a real or perceived conflict of interest, see page 74 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

- 1:35 **004.02** The role of midbrain nuclei in PPI: Revisiting the cholinergic hypothesis. S. SCHMID. *Univ. of Western Ontario*.
- 1:55 **004.03** Shining light on an amygdala-brainstem pathway important for prepulse inhibition. K. FENELON. *Univ. of Massachusetts*.
- 2:15 **004.04** Glutamatergic interneurons mediate long interstimulus interval prepulse inhibition via presynaptic inhibition. H. A. BURGESS. *Natl. Inst. of Child Hlth. and Human Development, NIH*.
- 2:35 **004.05** Cellular mechanisms of PPI in the startle circuit of fish. T. PREUSS. *City Univ. of New York, Hunter Col.*
- 2:55 **004.06** Cellular mechanisms of PPI in an invertebrate model. W. N. FROST. *The Chicago Med. Sch.*
- 3:15 **004.07** Neuromodulatory effects on prepulse inhibition in psychiatric conditions. S. KOHL. *Univ. of Cologne*.
- 3:35 **004.08** Closing Remarks.

MINISYMPOSIUM San Diego Convention Center

- 005. How to Get Out of Harm's Way: New Insight Across Multiple Species Into the Neural Mechanisms of Visually Guided Collision Avoidance** — CME

Sat. 1:30 PM - 4:00 PM — SDCC 6E

Chair: F. GABBIANI, *Baylor College of Medicine*
Co-Chair: F. ENGERT, *Harvard University*

Visually guided collision avoidance is critical to survival for many animals. Recently, common neural rules governing such behaviors have unexpectedly been identified across a wide range of species, as different as fruit flies and mice. This minisymposium will summarize shared themes and species-specific advances in understanding the biophysics, neural circuitry, brain areas, and sensorimotor programs that implement collision avoidance behaviors across species from insects to primates.

- 1:30 **005.01** Introduction.
- 1:35 **005.02** Escapes and hunting in larval zebrafish. F. ENGERT. *Harvard Univ.*
- 1:55 **005.03** The role of parallel feature integration in selecting collision avoidance behaviors. C. R. VON REYN. *Drexel Univ.*
- 2:15 **005.04** The non-human primate cortical network for peripersonal space coding and prediction of impact onto the body. S. BEN HAMED. *Inst. des Sci. Cognitives Marc Jeannerod*.
- 2:35 **005.05** Biophysics of object segmentation for collision detection. R. B. DEWELL. *Baylor Col. of Med.*
- 2:55 **005.06** Divergent midbrain circuits orchestrate dimorphic defensive behaviors in mice. P. CAO. *Natl. Inst. of Biol. Sci.*
- 3:15 **005.07** Visual threat assessment and reticulospinal encoding of calibrated responses in larval zebrafish. M. A. MACIVER. *Northwestern Univ.*
- 3:35 **005.08** Closing Remarks.

MINISYMPOSIUM San Diego Convention Center

- 006. Latent Factors and Dynamics in Motor Cortex and Their Application to Brain-Machine Interfaces** — CME

Sat. 1:30 PM - 4:00 PM — SDCC 28A

Chair: C. PANDARINATH, *Emory University, Georgia Institute of Technology*

Increasing evidence suggests that the activity of large populations of neurons in motor cortical areas exhibits low-dimensional structure that obeys dynamic rules. A better understanding of this structure and its dynamics is shedding new light on how motor cortex commands muscles and how different cortical areas interact. Further, these features have critical implications for designing robust, versatile brain-machine interfaces that restore function to people with paralysis.

- 1:30 **006.01** Introduction.
- 1:35 **006.02** Motor cortex embeds muscle-like commands in an untangled population response. A. A. RUSSO. *Columbia Univ.*
- 1:55 **006.03** Neural dynamics of bimanual control. K. C. AMES. *Columbia Univ.*
- 2:15 **006.04** Inferring single-trial neural population dynamics using sequential auto-encoders. C. PANDARINATH. *Emory Univ. and the Georgia Inst. of Technol.*
- 2:35 **006.05** Neural population dynamics are stable during repeated task execution over several weeks. A. FARSHCHIANSADEGH. *Northwestern Univ.*
- 2:55 **006.06** A cryptography-based approach for movement decoding. E. L. DYER. *Georgia Inst. of Technol.*
- 3:15 **006.07** Single-trial neural dynamics and their applications to brain-machine interfaces. J. KAO. *UCLA*.
- 3:35 **006.08** Closing Remarks.

MINISYMPOSIUM San Diego Convention Center

- 007. Neurocognitive Development of Motivated Behavior** — CME

Sat. 1:30 PM - 4:00 PM — SDCC 29D

Chair: C. A. HARTLEY, *New York University*
Co-Chair: D. G. GEE, *Yale University*

Over the course of development, the neurocognitive processes that support the ability to anticipate and respond to rewards or threats in the environment change markedly. This minisymposium will bring together recent cross-species research characterizing the typical development of the neural circuits and cognitive processes involved in the control of threat- and reward-motivated behavior and the alteration of these trajectories by experiential factors such as early-life stress.

- 1:30 **007.01** Introduction.
- 1:35 **007.02** Learned safety as a mechanism to augment fear regulation in adolescent mice. H. C. MEYER. *Weill Cornell Med.*
- 1:55 **007.03** Dynamic changes in threat and safety learning across human development. D. G. GEE. *Yale Univ.*
- 2:15 **007.04** Context-specific neurodevelopmental trajectories of mesolimbic systems in adolescence. V. P. MURTY. *Temple Univ.*

• Indicated a real or perceived conflict of interest, see page 74 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

- 2:35 **007.05** The neural mechanisms underlying the influence of pubertal testosterone on adolescent impulsivity. W. VAN DEN BOS. *Univ. of Amsterdam*.
- 2:55 **007.06** Early life stress has asymmetric effects on cortical and subcortical development. K. G. BATH. *Brown Univ.*
- 3:15 **007.07** Early life stress alters neural processing of reward and punishment. C. JOHNSON. *Harvard Univ.*
- 3:35 **007.08** Closing Remarks.

LECTURE San Diego Convention Center

008. Neural Dynamics of the Primate Attention Network — CME

Sat. 2:00 PM - 3:10 PM — SDCC Ballroom 20

Speaker: S. KASTNER, *Princeton Univ.*

The selection of information from cluttered sensory environments is one of the most fundamental cognitive operations performed by the primate brain. This process engages a large-scale network that consists of multiple nodes, distributed across cortical and subcortical regions. This lecture will focus on temporal dynamics within this network that shape both the sampling of and responses to our environment, with an emphasis on thalamo-cortical interactions. The lecture will also discuss the importance of comparative electrophysiology and neuroimaging in human and monkey brains.

LECTURE San Diego Convention Center

009. PRESIDENTIAL SPECIAL LECTURE: The dArc Matter of Synaptic Communication — CME

Sat. 5:15 PM - 6:30 PM — SDCC Ballroom 20

Speaker: V. BUDNIK, *Univ. of Massachusetts Med. Sch.*

Recent advances in cell biology have uncovered new mechanisms by which synaptic partners in the nervous system communicate. These include the release and uptake of extracellular vesicles, such as exosomes and microvesicles, which carry proteins and RNAs. They also involve the use of mechanisms resembling those used by viruses during infection. The discovery of these mechanisms is offering new perspectives for our understanding of synapse development and plasticity.

NANOSYMPOSIUM

010. Brain Size, Structure, and Evolution

Theme A: Development

Sat. 1:00 PM – San Diego Convention Center, SDCC 33

- 1:00 **010.01** Scaling laws in the gyration of the cerebral cortex across different regions: Universality and heterogeneity in aging, health and disease. B. MOTA*; J. NECUS; Y. WANG. *Univ. Federal Do Rio de Janeiro, Newcastle Univ.*
- 1:15 **010.02** ● The co-evolution of brain and cognition within the hominin clade is orchestrated by Transposable Elements. F. MACCIARDI*; O. RICKARDS; E. GUICHARD; A. BOATTINI; F. MARTINI; G. GUFFANTI. *Univ. of California, Irvine, Univ. of Rome "Tor Vergata", Univ. of Bologna, Univ. of Florence, Harvard Med. Sch.*

- 1:30 **010.03** Cortical interlaminar astrocytes in mammalian evolution. C. FALCONE*, M. WOLF-OCHOA; S. AMINA; P. MANGER; V. MARTÍNEZ CERDEÑO. *Dept. of Pathology and Lab. Med., Univ. of California-Davis, Univ. of California, Davis, University of the Witwatersrand, UC Davis.*

- 1:45 **010.04** ENIGMA-ODS: Managing international neuroscience collaborations in the ENIGMA consortium using organic data science. A. MCMAHON*; D. GARIJO; R. ESPIRITU; F. RASHID; M. JANG; T. PATTED; V. RATNAKAR; Y. GIL; P. THOMPSON; N. JANHANSHAD. *USC, USC, USC.*

- 2:00 **010.05** ● Common genetic influences on human cerebral cortical thickness and surface area support the radial unit hypothesis and implicate Wnt signaling influencing areal expansion. J. L. STEIN*; K. GRASBY; N. JAHANSHAD; J. PAINTER; D. P. HIBAR; L. COLODRO CONDE; J. BRALDEN; P. M. THOMPSON; S. MEDLAND; T. ENIGMA CONSORTIUM. *UNC-Chapel Hill, QIMR Berghofer, IGC-INI @ USC, Janssen R&D, LLC, Radboud Univ., Univ. of Southern California (USC), USC.*

- 2:15 **010.06** ● Unearthing the evolutionary history of genetic variants influencing human cortical surface area. A. K. TILOT*; S. LIU; S. BROTMAN; T. ENIGMA-EVOLUTION WORKING GROUP; J. BRALDEN; K. GRASBY; J. PAINTER; L. COLODRO CONDE; P. LIND; N. JAHANSHAD; D. P. HIBAR; S. MEDLAND; P. M. THOMPSON; T. ENIGMA CONSORTIUM; S. E. FISHER; J. L. STEIN. *Max Planck Inst. for Psycholinguistics, UNC-Chapel Hill, Univ. of Southern California (USC), Radboud Univ., QIMR Berghofer Med. Res. Inst., IGC-INI @ USC, Janssen R&D, LLC, Univ. of Southern California (USC), Max Planck Inst. for Psycholinguistics, Radboud Univ.*

- 2:30 **010.07** Tensor distribution function fractional anisotropy reveals microstructural disruption across all white matter in 22q11.2 deletion syndrome. J. VILLALON REINA*; P. M. THOMPSON; C. E. BEARDEN; K. MARTÍNEZ; E. ENIGMA-22Q11 WORKING GROUP. *USC Imaging Genet. Ctr., UCLA, Hosp. Gen. Universitario Gregorio Marañón, USC.*

NANOSYMPOSIUM

011. Network Interactions: Oscillations and Synchrony: EEG Studies

Theme B: Neural Excitability, Synapses, and Glia

Sat. 1:00 PM – San Diego Convention Center, SDCC 24

- 1:00 **011.01** Beta oscillations in the primate striatum predict repetitive negative decision-making states induced by microstimulation. K. AMEMORI*; S. AMEMORI; D. J. GIBSON; A. M. GRAYBIEL. *Kyoto Univ., MIT.*
- 1:15 **011.02** Characterization of neural oscillations using a cycle-by-cycle approach. S. R. COLE*; B. VOYTEK. *UCSD, Univ. of California San Diego Dept. of Cognitive Sci.*
- 1:30 **011.03** Non-linear machine learning and signal models reveal new insights on neural oscillations. A. GRAMFORT*; T. DUPRÉ LA TOUR; M. JAS; L. TALLOT; L. GRABOT; T. MOREAU; V. DOYERE; Y. GRENIER; V. VAN WASSENHOVE. *Inria, CEA Neurospin, Telecom ParisTech, CNRS-UMR 9197 Neuro-Psi, CEA/DSV/I2BM/NeuroSpin/Unicog, CEA.DSV.I2BM.Neurospin.*
- 1:45 **011.04** Characterizing networks of human cortical phase synchronization with MEG/EEG: Technical challenges and exciting results. J. M. PALVA*; S. PALVA. *Univ. Helsinki, Univ. of Helsinki.*

* Indicated a real or perceived conflict of interest, see page 74 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

- 2:00 **011.05** Human, modeling and animal studies uncover novel mechanisms and meaning of transient neocortical beta (15-29 Hz) events. H. SHIN*; R. LAW; M. A. SHERMAN; S. HAEGENS; S. TSUTSUI; S. LEE; M. HAMALAINEN; C. I. MOORE; S. R. JONES. *Brown University, Neurosci., Brown Univ., Donders Inst. for Brain, Cognition & Behaviour, Harvard Med. Sch., Brown Univ.*
- 2:15 **011.06** Quantifying oscillatory frequency and its role in visual perception and top-down control. J. SAMAHA*; A. WUTZ; D. MELCHER; B. R. POSTLE. *UW Madison, Univ. of California, Santa Cruz, MIT, Univ. of Trento, Univ. of Wisconsin-Madison.*
- 2:30 **011.07** The importance of capturing the speed of Alpha activity. A. MAZAHERI*. *Univ. of Birmingham.*
- 2:45 **011.08** The multiple oscillation detection algorithm (MODAL) characterizes non-stationary neural signals across species. A. WATROUS*; J. JACOBS. *Columbia Univ., Columbia Univ.*
- 3:00 **011.09** Parameterizing neural power spectra. T. DONOGHUE*; M. HALLER; E. PETERSON; P. VARMA; P. SEBASTIAN; R. GAO; T. J. NOTO; R. T. KNIGHT; A. SHESTYUK; B. VOYTEK. *UC San Diego, Helen Wills Neurosci. Inst., U.C. San Diego, Univ. of California, Berkeley, UCSD, Univ. of California San Diego Dept. of Cognitive Sci., Northwestern Univ., Univ. of California Berkeley, Nielsen, Univ. of California San Diego Dept. of Cognitive Sci.*
- 3:15 **011.10** Spatial analysis of brain oscillations reveals theta, alpha, and beta traveling waves across the human cortex. J. JACOBS; H. ZHANG*; A. WATROUS. *Columbia Univ., Columbia Univ., Columbia Univ.*
- 3:30 **011.11** Multichannel recordings in neuroscience: New computational methods for spatiotemporal dynamics. L. E. MULLER*; T. J. SEJNOWSKI. *Salk Inst.*
- 3:45 **011.12** Oscillatory mechanisms—taking into account interindividual, temporal and spectral variability. S. HAEGENS*. *Donders Inst. for Brain, Cognition & Behaviour.*

NANOSYMPOSIUM

012. Animal Models of Epilepsy

Theme B: Neural Excitability, Synapses, and Glia

Sat. 1:00 PM – San Diego Convention Center, SDCC 1

- 1:00 **012.01** Modulation of neuronal network remodeling in a translational mouse model of temporal lobe epilepsy by the novel Wnt antagonist XAV939. K. GUPTA*; E. SCHNELL. *Oregon Hlth. & Sci. Univ., Portland VA Med. Ctr.*
- 1:15 **012.02** ● Acute and subacute eeg recordings in a rat model of perinatal ischemic stroke. I. M. ELI*; A. ZAYACHKIVSKY; M. COULDWELL; F. DUDEK. *Univ. of Utah Dept. of Neurosurg., Univ. of Utah, Univ. of Utah, Univ. of Utah.*
- 1:30 **012.03** A novel mouse model for ALDH7A1-mediated pyridoxine-dependent epilepsy displays interictal epileptiform discharges and increased delta power. T. E. FAUST*; W. XIN; B. J. LEE; S. SAHA; T. CASH-PADGETT; S. DESHPANDE; A. BONCI; M. W. JONES; J. GELINAS; C. DAVIS; H. JAARO-PELED; A. SAWA. *Johns Hopkins Univ. Dept. of Psychiatry and Behavioral Sci., Johns Hopkins Univ. SOM, Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. SOM, Johns Hopkins Univ., Natl. Inst. On Drug Abuse, Univ. of Bristol, Columbia Univ., Washington State Univ., Johns Hopkins Univ., Johns Hopkins Univ.*

- 1:45 **012.04** Non-canonical mTOR-independent role of DEPDC5 in regulating GABAergic network development. E. SAMARUT*; A. SWAMINATHAN; R. HASAN-ABDI; S. RENAULT; A. SIEKERSKA; R. RICHÉ; M. LIAO; P. A. M. DE WITTE; C. YANICOSTAS; N. SOUSSI-YANICOSTAS; P. DRAPEAU. *Crchum, Crchum, Inserm, Lu Leuven, Ku Leuven.*
- 2:00 **012.05** ● Effect of epileptogenesis on mitochondrial dynamics-regulating proteins in two mouse models of temporal lobe epilepsy. M. L. BARKER-HALISKI*; C. KINOSHITA; H. S. WHITE; R. S. MORRISON. *Univ. of Washington, Univ. of Washington.*
- 2:15 **012.06** ▲ Randomization of the interpulse interval of low frequency electrical stimulation delays seizure generalization and modifies the spectral power of epileptiform activity in rats. F. SANTOS-VALENCIA*; S. ALMAZAN-ALVARADO; A. RUBIO-LUVIANO; E. URBINA-TREJO; V. MAGDALENO-MADRIGAL; A. VALDES-CRUZ; D. MARTINEZ-VARGAS. *Inst. Nacional de Psiquiatría Ramón de la Fuente, Inst. Nacional de Psiquiatría Ramón de la Fuente.*
- 2:30 **012.07** ● Pharmacogenetic control of status epilepticus and epileptiform discharges in an animal model of temporal lobe epilepsy. A. ZAYACHKIVSKY*, M. W. COULDWELL; F. DUDEK. *Univ. of Utah.*

NANOSYMPOSIUM

013. Alzheimer's Disease and Other Dementias: Genetic Analyses

Theme C: Neurodegenerative Disorders and Injury

Sat. 1:00 PM – San Diego Convention Center, SDCC 25

- 1:00 **013.01** Use of brain homogenate RNA expression data to identify novel cell-type specific alterations in Alzheimer's disease. I. S. PIRAS*; P. D. COLEMAN; M. J. HUENTELMAN. *Translational Genomics Res. Inst., ASU-Banner Neurodegenerative Res. Ctr.*
- 1:15 **013.02** ▲ Structural study of PSEN1 mutations close to active site to explain loss-of-function in Alzheimer's disease. M. CORREDOR*; P. ARAQUE-MARIN. *Univ. of Antioquia, Univ. EIA.*
- 1:30 **013.03** Probing the role of SORL1 and endocytic network dysfunction in AD pathogenesis using human neuronal models. J. E. YOUNG*; A. KNUPP; R. MARTINEZ; S. ROSE; B. ROLF; C. KEENE; S. JAYADEV. *Univ. of Washington, Univ. of Washington.*
- 1:45 **013.04** Brain-specific repression of AMPK α 1 alleviates memory deficits and synaptic failure in a mouse model of Alzheimer's disease. H. R. ZIMMERMANN*; W. YANG; T. MA. *Wake Forest Sch. of Med., Wake Forest Baptist Med. Ctr., Wake Forest Sch. of Med.*
- 2:00 **013.05** Role of Unc5c, an Alzheimer's risk gene in late-onset Alzheimer's disease in a novel mouse model. D. KARUNAKARAN*; K. R. SADLEIR; S. KEMAL; L. K. CUDDY; J. POPOVIC; R. J. WATTS; J. K. ATWAL; R. J. VASSAR. *Northwestern Univ., Genentech, Denali Therapeut. Inc..*
- 2:15 **013.06** A role for decreased DNA methylation in mediating high-fat diet and diabetic effects on hippocampal and cortical neurodegeneration. D. M. OSBORNE*; J. W. VANDER VELDEN; D. BOISON. *Legacy Hlth. Res.*

● Indicated a real or perceived conflict of interest, see page 74 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

- 2:30 **013.07** Non-Alzheimer's aging brain, behavior and biomarkers in down syndrome and mouse. L. DAI*; J. SCHIEVING; J. TIPPETTS; O. ABDULLAH; M. C. BURBACK; A. VAN HOEK; A. RAMIREZ; J. O. EDGIN; M. PRIGGE; J. S. ANDERSON; J. R. KORENBERG. *Univ. of Utah Brain Inst., Univ. of Utah, Univ. of Arizona, Univ. of Utah, Univ. of Utah.*
- 2:45 **013.08** Identification of Tip60 interacting transcription factors involved in Alzheimer's disease. M. BEAVER*; P. PANIKKER; F. ELEFANT. *Drexel Univ.*
- 3:00 **013.09** Identification of astrocytic gene signatures in Alzheimer's disease by bioinformatic compartmentalization of human brain transcriptomes into cell-specific gene clusters. E. GALEA*; L. D. WEINSTOCK; R. LARRAMONA; R. MASGRAU; L. WOOD. *Univ. Autònoma, Inst. Neurosci., Dept. Bioquímica, ICREA, Georgia Inst. of Technol.*
- 3:15 **013.10** Identification of Arc interacting proteins during amnesia. A. GAUTAM*; S. KAUL; M. THAKUR. *Univ. of Hyderabad, Natl. Inst. of Advanced Industrial Sci. & Technol., Banaras Hindu Univ.*
- 3:30 **013.11** Upregulation of protein prenylation is associated with aging and Alzheimer's disease. A. JEONG*; D. A. BENNETT; M. DISTEFANO; L. LI. *Univ. of Minnesota-Twin Cities, Rush Alzheimer's Dis. Ctr., Univ. of Minnesota, Univ. of Minnesota.*
- NANOSYMPOSIUM**
- 014. Parkinson's Disease: Diagnostics and Clinical Trials**
- Theme C: Neurodegenerative Disorders and Injury**
- Sat. 1:00 PM – San Diego Convention Center, SDCC 5
- 1:00 **014.01** Implementation of a smartphone as a wearable and wireless inertial sensor platform for determining efficacy of deep brain stimulation for Parkinson's disease tremor through machine learning. R. C. LEMOYNE*; T. J. MASTROIANNI. *Independent, Cognition Engin.*
- 1:15 **014.02** Quantitative continuous measurement of tremor. J. R. BRASIC*; G. N. MCKAY; T. P. HARRIGAN; A. Y. PANTELYAT; K. A. MILLS; B. J. HWANG; J. Y. A. BANG; C. MISHRA; L. ROSENTHAL; E. MOUKHEIBER; K. KITZMILLER; A. MATHUR; J. ROBERTS; D. F. WONG. *Johns Hopkins Sch. of Med., Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ., Johns Hopkins Sch. of Med., Johns Hopkins Univ.*
- 1:30 **014.03** • Wavelet investigation of accelerometry in Parkinson's disease. T. HARRIGAN*; J. R. BRASIC; G. N. MCKAY; K. A. MILLS; J. Y. A. BANG; B. J. HWANG; C. MISHRA; A. PANTELYAT; L. FAYAD; D. F. WONG. *Johns Hopkins Univ. Applied Physics Laborator, Johns Hopkins Sch. of Med., Johns Hopkins Univ. Med. Sch., Johns Hopkins Univ., Johns Hopkins Univ. Med. Sch., Johns Hopkins Univ., Johns Hopkins Sch. of Med., Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Med. Sch.*
- 1:45 **014.04** Mild cognitive impairment in Parkinson's disease: The voxel-based QSM analysis. Y. UCHIDA*; H. KAN; N. ARAI; Y. UEKI; N. MATSUKAWA. *Nagoya City Univ. Grad. Sch. of Med., Nagoya City Univ. Hosp., Nagoya City Univ., Nagoya City Univ.*
- 2:00 **014.05** Microphysiological systems to study human neurodegenerative disease. S. SANCES*; D. WEST; A. MEYER; A. WOODBURY; A. LAPERLE; R. HO; V. DARDOV; W. SPIVIA; J. E. VAN EYK; C. N. SVENDSEN. *Cedars-Sinai Med. Ctr., Cedars-Sinai Med. Ctr.*
- 2:15 **014.06** • Results of the first cohort of an open label dose escalating phase 1 study evaluating the safety of a human neural stem cell based therapy in Parkinson's disease. I. GARITAONANDIA; R. GONZALEZ; G. SHERMAN; A. NOSKOV; D. CARDIFF; T. CHRISTIANSEN-WEBER; A. SEMECHKIN; E. BRAINE; G. NAIR; A. EVANS; R. A. KERN*. *Intl. Stem Cell Corp, Royal Melbourne Hosp., Cyto Therapeut.*
- 2:30 **014.07** • Nilotinib increases dopamine metabolism and reduces oligomeric:total alpha-synuclein ratio in Parkinson's disease. C. E. MOUSSA*; M. HEBRON; Y. TORES-YAGHI; A. LAWALER; J. ALLERANO; T. KIMBASON; B. WILMURTH; N. STARR; A. SHEKOYAN; E. MUNDEL; N. YASUF; J. AHN; F. L. PAGAN. *Georgetown Univ. Med. Ctr., Georgetown Univ., Georgetown Univ. Med. Ctr., Medstar Georgetown Univ. Hosp.*
- NANOSYMPOSIUM**
- 015. Neurotoxicity, Inflammation, and Neuroprotection: Advances in Nanomedicine**
- Theme C: Neurodegenerative Disorders and Injury**
- Sat. 1:00 PM – San Diego Convention Center, SDCC 2
- 1:00 **015.01** Concussive head injury exacerbates Alzheimer's disease pathophysiology. Neuroprotection by TiO₂-nanowired cerebrolysin with neuronal nitric oxide synthase antibodies and mesenchymal stem cells. H. S. SHARMA*; D. F. MURESANU; J. V. LAFUENTE; A. OZKIZILCIK; Z. R. TIAN; R. PATNAIK; A. NOZARI; H. MOESSLER; R. J. CASTELLANI; A. SHARMA. *Uppsala Univ., The Fndn. of the Society for the Study of Neu., Univ. of Basque Country, Univ. of Arkansas, Univ. of Arkansas, Indian Inst. of Technology, Banaras Hindu Univ., Massachusetts Gen. Hosp., Ever NeuroPharma, Univ. of Maryland, Uppsala Univ.*
- 1:15 **015.02** Nanowired delivery of antibodies to tau and neuronal nitric oxide synthase together with cerebrolysin reduces exacerbation of brain pathology in Parkinson's disease after traumatic brain injury. A. OZKIZILCIK*; A. SHARMA; D. F. MURESANU; J. V. LAFUENTE; A. NOZARI; R. PATNAIK; Z. TIAN; H. MOESSLER; H. S. SHARMA. *Univ. of Arkansas, Uppsala Univ., The Foundation of the Society for the Study of Neu., Univ. of Basque Country, Massachusetts Gen. Hosp., Indian Inst. of Technology, Banaras Hindu Univ., Univ. of Arkansas Fayetteville, Ever Neuropharma.*
- 1:30 **015.03** Nanodelivery of histamine H3/H4 receptor modulators with antibodies to amyloid beta peptide in combination with alpha synuclein reduces brain pathology in Parkinson's disease. R. PATNAIK*; A. SHARMA; J. V. LAFUENTE; D. F. MURESANU; A. NOZARI; R. J. CASTELLANI; P. K. MENON; A. OZKIZILCIK; R. TIAN; H. S. SHARMA. *Indian Inst. of Technology, Banaras Hindu Univ., Uppsala Univ., Uppsala Univ. Hosp., Univ. of Basque Country, The Foundation of the Society for the Study of Neu., Massachusetts Gen. Hosp., Univ. of Maryland, Banaras Hindu Univ., Univ. of Arkansas, Univ. of Arkansas Fayetteville.*

* Indicates a real or perceived conflict of interest, see page 74 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

- 1:45 **015.04** ▲ Co-administration of nanowired antibodies to inducible nitric oxide synthase and tumor necrosis factor-alpha with cerebrolysin reduces SiO₂-nanoparticles induced exacerbation of spinal cord pathophysiology following trauma. P. K. MENON*; A. SHARMA; R. PATNAIK; J. V. LAFUENTE; D. F. MURESANU; A. NOZARI; A. OZKIZILCIK; R. TIAN; H. MOESSLER; H. S. SHARMA. *Banaras Hindu Univ., Uppsala Univ., Uppsala Univ. Hosp., Indian Inst. of Technology, Banaras Hindu Univ., Univ. of Basque Country, The Foundation of the Society for the Study of Neu, "RoNeuro" Inst. for Neurolog. Res. and Diagnostic,, Massachusetts Gen. Hosp., Univ. of Arkansas, Univ. of Arkansas, Ever NeuroPharma.*
- 2:00 **015.05** Neuronal plasticity mediated by the modulation of the blood-brain barrier using focused ultrasound and the delivery of therapeutics. I. AUBERT*; S. DUBEY; K. XHIMA; H. SARAGOVI; K. HYNNEN. *Sunnybrook Res. Inst., Lady Davis Institute-Jewish Gen. Hosp.*
- 2:15 **015.06** Nanowired delivery of mesenchymal stem cells with cerebrolysin reduces exacerbation of methamphetamine neurotoxicity in hot environment. J. V. LAFUENTE*; A. SHARMA; R. PATNAIK; D. F. MURESANU; L. FENG; A. OZKIZILCIK; R. TIAN; H. MOESSLER; H. S. SHARMA. *Univ. of Basque Country, Uppsala Univ., Indian Inst. of Technology, Banaras Hindu Univ., The Foundation of the Society for the Study of Neu, Bethune Intl. Peace Hosp., Univ. of Arkansas, Univ. of Aekansas Fayetteville, Ever NeuroPharma.*
- 2:30 **015.07** Co-administration of nanowired cerebrolysin with neprilysin combined with antibodies to amyloid beta peptide thwarted exacerbation of brain pathology and tau protein accumulation following concussive head injury at hot environment. A. NOZARI*; A. SHARMA; D. F. MURESANU; J. V. LAFUENTE; R. PATNAIK; I. MANZHULO; R. J. CASTELLANI; A. OZKIZILCIK; R. TIAN; H. MOESSLER; H. S. SHARMA. *Massachusetts Gen. Hosp., Uppsala Univ., The Foundation of the Society for the Study of Neu, Univ. of Basque Country, Indian Inst. of Technology, Banaras Hindu Univ., Natl. Scientific Ctr. of Marine Biol., Far Eastern Federal Univ., Univ. of Maryland, Univ. of Arkansas, Univ. of Arkansas Fayetteville, Ever NeuroPharma.*
- 2:45 **015.08** TiO₂-nanowired delivery of Chinese extract of Gingko biloba EGB-761 and BN-52021 enhanced neuroprotective effects of cerebrolysin in spinal cord injury at cold environment. A. K. PANDEY*; A. SHARMA; K. DRIEU; R. PATNAIK; Z. ZHANG; C. LI; D. F. MURESANU; J. V. LAFUENTE; A. NOZARI; A. OZKIZILCIK; R. TIAN; H. MOESSLER; H. S. SHARMA. *Senior Res. Fellow, IIT-BHU, Uppsala Univ., Uppsala Univ. Hosp., Inst. Henri Beaufour-IPSEN, Indian Inst. of Technology, Banaras Hindu Univ., Chinese Med. Hosp. of Guangdong Province, The Second Affiliated Hospital, Univ. of Chinese Med. in Guangzhou, The Fndn. of the Society for the Study of NEU, Univ. of Basque Country, Massachusetts Gen. Hosp., Univ. of Arkansas, Univ. of Arkansas Fayetteville, Ever NeuroPharma.*
- 3:00 **015.09** Nanodelivery of curcumin attenuates methamphetamine neurotoxicity and elevates dopamine and brain derived neurotrophic factors. G. TOSI*; A. SHARMA; B. RUOZI; F. FORNI; M. A. VANDELLI; J. V. LAFUENTE; A. NOZARI; D. F. MURESANU; H. S. SHARMA. *Te.far.t.I, Dept of Life Sciences, Univ. of Modena and Reggio Emilia, Uppsala Univ., Uppsala Univ. Hosp., Univ. of Basque Country, Massachusetts Gen. Hosp., The Fndn. of the Society For the Study of Neu, "RoNeuro" Inst. for Neurolog. Res. and Diagnos.*
- 3:15 **015.10** Nanowired delivery of antibodies to amyloid beta peptide, phosphorylated tau and serotonin together with cerebrolysin induces superior neuroprotection following sleep deprivation induced exacerbation of Alzheimer's disease pathophysiology. A. SHARMA*, R. J. CASTELLANI; D. F. MURESANU; J. V. LAFUENTE; A. OZKIZILCIK; Z. R. TIAN; A. NOZARI; R. PATNAIK; H. MOESSLER; H. S. SHARMA. *Uppsala Univ., Univ. of Maryland, The Fndn. of The Society for the Study of Neu, Univ. of Basque Country, Univ. of Arkansas, Univ. of Arkansas Fayetteville, Massachusetts Gen. Hosp., Indian Inst. of Technology, Banaras Hindu Univ., Ever NeuroPharma, Uppsala Univ.*
- 3:30 **015.11** Nanowired delivery of cerebrolysin with mesenchymal stem cells attenuates heat stress induced exacerbation of brain pathology following blast brain injury. D. F. MURESANU*; A. SHARMA; R. PATNAIK; J. V. LAFUENTE; A. D. BUZOIANU; I. MANZHULO; A. NOZARI; A. OZKIZILCIK; R. TIAN; L. FENG; Z. ZHANG; C. LI; H. MOESSLER; H. S. SHARMA. *The Fndn. of the Society for the Study of NEU, "RoNeuro" Inst. for Neurolog. Res. and Diagnos., Uppsala Univ., Uppsala Univ. Hosp., Indian Inst. of Technology, Banaras Hindu Univ., Univ. of Basque Country, Univ. of Med. and Pharmacy, "Iuliu Hatieganu", Natl. Scientific Ctr. of Marine Biol., Far Eastern Federal Univ., Massachusetts Gen. Hosp., Univ. of Arkansas, Univ. of Arkansas Fayetteville, Bethune Intl. Peace Hosp., Chinese Med. Hosp. of Guangdong Province, The Second Affiliated Hospital, Univ. of Chinese Med. in Guangzhou, Ever NeuroPharma.*
- 3:45 **015.12** Co-administration of TiO₂ DL-3-n-butylphthalide (DL-NBP) with mesenchymal stem cells enhanced neuroprotection in Parkinson's disease after concussive head injury. L. FENG*; A. SHARMA; N. FENG; A. NOZARI; J. V. LAFUENTE; D. F. MURESANU; R. PATNAIK; A. OZKIZILCIK; R. TIAN; H. S. SHARMA. *Bethune Intl. Peace Hosp., Uppsala Univ., Uppsala Univ. Hosp., CSPC NBP Pharmaceut. Med., Massachusetts Gen. Hosp., Univ. of Basque Country, The Foundation of the Society for the Study of Neu, "RoNeuro" Inst. for Neurolog. Res. and Diagnostic,, Indian Inst. of Technology, Banaras Hindu Univ., Univ. of Arkansas, Univ. of Arkansas Fayetteville.*

NANOSYMPOSIUM

016. Somatosensation: Cortical Mechanisms

Theme D: Sensory Systems

Sat. 1:00 PM – San Diego Convention Center, SDCC 23

- 1:00 **016.01** Corticospinal modulation of somatosensory circuit processing. M. SPRINGEL*; D. D. GINTY. *Harvard Med. Sch.*
- 1:15 **016.02** Closed- and open-loop control of voluntary whisker movements. M. ELBAZ*; C. ETHIER; M. DESCHENES. *CERVO - Laval Univ.*
- 1:30 **016.03** Neural dynamics in S1 and M1 underlying arm and hand movements. A. K. SURESH*; J. GOODMAN, JR; S. LEE; N. G. HATSOPOULOS; S. J. BENSMAIA. *Univ. of Chicago, Univ. of Chicago.*
- 1:45 **016.04** Temporal spiking patterns in somatosensory cortex convey information about surface texture. K. H. LONG*; J. D. LIEBER; S. J. BENSMAIA. *Univ. of Chicago, Univ. of Chicago, Univ. of Chicago.*

* Indicates a real or perceived conflict of interest, see page 74 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

- 2:00 **016.05** The ultra-high field functional MRI reveals the vibrotactile frequency of primary somatosensory cortex in human. B. QU*; X. YU; Y. JIANG; M. XIN; H. LAI. *Zhejiang Univ., Zhejiang Univ., Zhejiang Univ.*
- 2:15 **016.06** ▲ Neural code in barrel cortex following partial neurorrhaphy in infraorbital nerve. J. J. TSENG*; M. C. CHIANG; H. P. CHEN; H. T. LIN; C. H. LIN; J. J. HUANG; Y. C. PEI. *Chang Gung Univ., Chang Gung Mem. Hospital, Linkou, Chang Gung Mem. Hospital, Linkou, Chang Gung Mem. Hospital, Linkou, Chang Gung Univ.*
- 2:30 **016.07** Ketamine reduces hyperactivity of the anterior cingulate cortex to provide enduring relief of chronic pain. H. ZHOU*; Q. ZHANG; E. MARTINEZ; J. DALE; S. HU; E. ZHANG; K. LIU; D. HUANG; Z. CHEN; G. YANG; J. WANG. *New York Univ. Sch. of Med., Central South Univ., New York Univ. Sch. of Med.*

NANOSYMPOSIUM

017. Vision: Representation of Objects and Scenes

Theme D: Sensory Systems

Sat. 1:00 PM – San Diego Convention Center, SDCC 32

- 1:00 **017.01** The amygdala responds to the intermediate visual features of threatening animals. V. ZACHARIOU; A. C. DEL GIACCO; M. GHANE; L. G. UNGERLEIDER; X. YUE*. *NIH/NIMH, NIH.*
- 1:15 **017.02** Activations of deep convolutional neural network are aligned with gamma band activity of human visual cortex. I. KUZOVKIN*; R. VICENTE; M. PETTON; J. LACHAUX; M. BACIU; P. KAHANE; S. RHEIMS; J. R. VIDAL; J. ARU. *Univ. of Tarto, INSERM U1028, Univ. Claude Bernar, Univ. Grenoble-Alpes, CNRS, INSERM U1216, CHU de Grenoble, Hospices Civils de Lyon and Univ. Lyon, Epilepsy Inst., Univ. Grenoble Alpes, Catholic Univ. of Lyon.*
- 1:30 **017.03** ▲ Curved features are critical for animate/inanimate categorization in macaques. M. YETTER*; M. ELDRIDGE; G. MAMMARELLA; L. G. UNGERLEIDER; X. YUE. *NIMH/NIH, NIMH/NIH.*
- 1:45 **017.04** Endogenous pre-stimulus activity modulates category tuning in ventral temporal cortex and influences behavior. Y. LI*; M. J. WARD; R. M. RICHARDSON; M. G. G'SELL; A. S. GHUMAN. *Carnegie Mellon Univ., Univ. of Pittsburgh, Carnegie Mellon Univ.*
- 2:00 **017.05** Monkeys can't read but their brains can: Compositionality and CAPTCHA decoding in IT neurons. H. KATTI*; S. P. ARUN. *Indian Inst. of Sci.*
- 2:15 **017.06** Bottom-up saliency and top-down learning in the primary visual cortex. Y. YAN*; L. ZHAOPING; W. LI. *Beijing Normal Univ., Univ. Col. London.*
- 2:30 **017.07** A slow drift of macaque V4 population activity: Implications for perceptual decision-making. B. R. COWLEY*; A. C. SNYDER; K. ACAR; R. C. WILLIAMSON; B. M. YU; M. A. SMITH. *Carnegie Mellon Univ., Univ. of Pittsburgh.*

NANOSYMPOSIUM

018. Timely Insights in Circadian Regulation

Theme F: Integrative Physiology and Behavior

Sat. 1:00 PM – San Diego Convention Center, SDCC 4

- 1:00 **018.01** A hypothalamic circuit for the circadian control of aggression and its implications for sundowning in dementia and Alzheimer's disease. W. D. TODD*, III; C. B. SAPER. *Harvard Med. School/Beth Israel Deaconess Med. Ctr., Harvard Med. Sch. Dept. of Neurol.*
- 1:15 **018.02** Clock-generated temporal codes determine synaptic plasticity to control sleep. M. TABUCHI*; J. D. MONACO; G. DUAN; B. BELL; S. LIU; K. ZHANG; M. N. WU. *Johns Hopkins Univ., Johns Hopkins Univ., VIB.*
- 1:30 **018.03** Characterization of mWAKE; a novel circadian modulator of arousal in mammals. B. J. BELL*; A. WANG; Q. LIU; S. LEE; M. TABUCHI; M. N. WU. *Johns Hopkins Sch. of Med., Johns Hopkins Univ., Johns Hopkins Sch. of Med.*
- 1:45 **018.04** Glutamatergic output of the dorsomedial hypothalamus controls the release of corticosteroids. D. H. EGHLIDI*; W. D. TODD, III; M. A. KHANDAY; Y. LV; N. L. MACHADO; P. M. FULLER; J. LU; R. VETRIVELAN; E. ARRIGONI; C. B. SAPER. *Harvard Med. Sch. and Beth Israel Deaconess M., Harvard Med. School/Beth Israel Deaconess Med. Ctr., Harvard Med. School/Beth Israel Deaconess Med. Ctr., Harvard Med. School/Beth Israel Deaconess Med. Center/ The First Hosp. of Jilin Univ., Federal Univ. of Minas Gerais, Harvard Med. Sch., Beth Israel Deaconess Med. Ctr., Harvard Med. Sch., Harvard Med. Sch. Dept. of Neurol., Harvard Med. Sch. Dept. of Neurol.*
- 2:00 **018.05** Sex differences in GABA_A signaling modulate molecular rhythms in the master circadian clock. J. A. EVANS*; C. KAROW; A. TELEGA. *Marquette Univ.*
- 2:15 **018.06** Photoperiod-induced neurotransmitter switching in the suprachiasmatic nucleus. A. PORCU*; M. RIDDLE; D. K. WELSH; D. DULCIS. *Univ. of California.*
- 2:30 **018.07** Cellular-level analysis of circadian timing in the hippocampal neurons. K. H. OBRIETAN*; K. R. HOYT. *Ohio State Univ. Dept. of Neurosci., Ohio State Univ.*
- 2:45 **018.08** SCN heterogeneity revealed through developmental patterning of neuropeptide expression. V. CARMONA-ALCOCER*; K. E. ROHR; J. JOHN; F. SAABEDRA; J. A. EVANS. *Marquette Univ.*
- 3:00 **018.09** Circadian neurons control siesta sleep and wake maintenance. S. BROWN*; B. COLLINS; S. PIERRE FERRER; C. MUHEIM; A. SPINNLER; C. G. HERRERA; A. R. ADAMANTIDIS, Dr. *Univ. of Zürich, Inselspital Univ. of Bern, Univ. of Bern.*
- 3:15 **018.10** Using optogenetics to determine the role of the suprachiasmatic nucleus in mood regulation. C. A. VADNIE*; H. ZHANG; R. W. LOGAN; L. A. EBERHARDT; M. A. HILDEBRAND; D. BECKER-KRAL; C. N. HEISLER; C. A. MCCLUNG. *Univ. of Pittsburgh, Tsinghua Univ.*
- 3:30 **018.11** Parallel retina-brain circuits drive the effects of light on mood and learning. D. FERNANDEZ*; S. HATTAR. *Natl. Inst. of Mental Hlth.*

* Indicated a real or perceived conflict of interest, see page 74 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

NANOSYMPOSIUM

- 019. Animal Cognition and Behavior: Learning and Memory: Neural Circuit Mechanisms**
- Theme H: Cognition**
- Sat. 1:00 PM – San Diego Convention Center, SDCC 30B
- 1:00 **019.01** Spatial memory engram in the mouse retrosplenial cortex. M. M. MILCZAREK; S. D. VANN; F. SENGPIEL*. *Cardiff Univ., Cardiff Univ.*
- 1:15 **019.02** Vagus nerve stimulation epigenetically modulates learning and memory. T. H. SANDERS*; J. WEISS; R. LIFER; C. M. PATON; J. D. SWEATT. *Vanderbilt Univ., Vanderbilt Univ. Sch. of Med.*
- 1:30 **019.03** An identified neocortical ensemble within a distributed neocortical circuit encodes some of the essential information for performing visual shape discrimination learning. A. I. GELLER*; H. ZHAO; E. CHOI; M. SVESTKA; X. WANG; A. NAGAYACH; A. SINGH; R. G. COOK; G. ZHANG. *LSUHSC, W. Roxbury VA Hospital/Harvard Med. Sch., Louisiana State Univ. Hlth. Sci. Ctr., Tufts Univ.*
- 1:45 **019.04** Updated prefrontal neural ensembles of context-fear relationship control fear discrimination learning. A. CORCHES; E. KORZUS*; T. W. BAILEY; A. HIROTO; J. H. SPEIGEL, III; M. R. MAYFORD. *Univ. of California Riverside, Univ. of California Riverside, Univ. of California Riverside, Univ. of California San Diego.*
- 2:00 **019.05** *In vivo* imaging of memory formation: Highly sensitive CA1 neurons in the hippocampus are preferably recruited to encode trace fear memory. X. CHEN*; L. ZWEIFEL; S. LU; L. QIU; D. STORM; Z. XIA. *Univ. of Washington, Univ. of New Hampshire.*
- 2:15 **019.06** Selective reduction of eIF2 α phosphorylation in excitatory neurons enhances learning and memory. V. SHARMA*. *McGill Univ.*
- 2:30 **019.07** The role of mediodorsal thalamus for the development of cortical response types in rats learning the DNMT task. M. J. FRANCOEUR*; E. KRELL; N. MONTEIRO; L. CALDERAZZO; K. HOWARD; A. HAYES; A. MCALLISTER; B. M. GIBSON; R. G. MAIR. *Univ. of New Hampshire.*

NANOSYMPOSIUM

- 020. Human Cognition and Behavior: Timing and Temporal Processing**
- Theme H: Cognition**
- Sat. 1:00 PM – San Diego Convention Center, SDCC 7
- 1:00 **020.01** Constant stimulus intervals elongate subjective duration of the auditory stimulus sequence. K. KANNAGA*; M. MIYAZAKI. *Shizuoka Univ., Shizuoka Univ.*
- 1:15 **020.02** Contributions of auditory posterior STG to signaling temporal violations and salience: Evidence from broadband gamma and ERPs in a combined EEG/ECoG study. Y. M. FONKEN*; E. L. KOSIK; L. J. CROWTHER; J. LIN; P. BRUNNER; G. SCHALK; R. T. KNIGHT. *Knight Lab. - Univ. of California, Berkeley, Univ. of California, Berkeley, Wadsworth Ctr., Univ. of California, Irvine, Albany Med. Col. / Wadsworth Ctr., Wadsworth Ctr, NYSDOH, Univ. of California, Berkeley.*

- 1:30 **020.03** Neural time windows of auditory integration scale flexibly based on rate of information. J. L. LEE*; B. MANISCALCO; M. W. FLOUNDERS; T. BAUMGARTEN; B. J. HE. *New York Univ., UC Riverside, New York Univ.*
- 1:45 **020.04** Effective connectivity in a duration selective cortical network. D. BUETI*; F. PROTOPAPA; M. J. HAYASHI; R. KANAI. *Intl. Sch. for Advanced Studies (SISSA), Osaka Univ., Araya Brain Imaging.*
- 2:00 **020.05** Rapid temporal dynamics of stimuli modulate multi-voxel activation patterns in the ventral and dorsal visual pathways. B. GUO*; J. LI; S. WANG; M. MENG. *South China Normal Univ.*
- 2:15 **020.06** Virtual reality exposure affects performance in a motor time perception task. S. WEECH*; A. BANSAL; S. KENNY; M. BARNETT-COWAN. *Univ. of Waterloo.*
- 2:30 **020.07** Repetition suppression in the right parietal cortex mediates psychophysical duration aftereffects. M. J. HAYASHI*; R. IVRY. *Osaka Univ., Univ. California.*
- 2:45 **020.08** Timing and Sequencing in Cerebellar Ataxia. M. SLAPIK*; O. MORGAN; J. CREIGHTON; S. M. LACONTE; J. LISINSKI; C. L. MARVEL. *Johns Hopkins Univ. Sch. of Med., Virginia Tech. Carilion Res. Inst.*
- 3:00 **020.09** A kernel density inspired bayesian model of interval timing: Predicting and accounting for prior distribution and likelihood function of expected durations effects on temporal bisection performance. C. W. DANIELS*; T. A. GUPTA; F. SANABRIA. *Arizona State Univ. - Tempe Campus.*
- 3:15 **020.10** Specificity and generalization of temporal perceptual learning. R. XU*; R. M. CHURCH; T. WATANABE. *Brown Univ., Brown Univ., Brown Univ.*

THEME J POSTER San Diego Convention Center

021. History of Neuroscience

- Theme J posters will be on display from Sat. 1 p.m.-Sun. 5 p.m., with one-hour presentations occurring either Saturday afternoon (presentation numbers ending in SA) or Sunday morning (presentation numbers ending in SU)—San Diego Convention Center, SDCC Halls B-H*
- 1:00 JJJ34 **021.01SA** Eponymous women in neuroscience and medicine. B. W. BAKKUM. *Illinois Col. of Optometry.*
- 2:00 JJJ35 **021.02SA** Lessons and guidance for contemporary neuroscience from historical sources: Examples from Shakespeare and Bach. E. L. ALTSCHULER. *Metropolitan Hosp.*
- 3:00 JJJ36 **021.03SA** A biological perspective of depression and psychological processing in spinal cord injury. R. E. ASHER; R. G. FESSLER; B. T. DAVID. *Brigham and Women's Hosp., Rush Univ. Med. Ctr.*
- 4:00 JJJ37 **021.04SA** 150 years of Vierordt's law: The role of experimental protocol. S. GLASAUER; Z. SHI. *Ludwig-Maximilian-University.*
- 1:00 JJJ38 **021.05SA** Adult hippocampal neurogenesis in humans: Controversy and opportunity. J. D. RIESKAMP; J. K. DENNINGER. *The Ohio State Univ.*
- 2:00 JJJ39 **021.06SA** ▲ N-acetylaspartate: Historical background and clinical significance of unique CNS molecule. N. PUTHILLATHU VASUDEVAN; M. KIRMANI; M. KIRMANI; R. VENILOTE; N. PUTHILLATHU VASUDEVAN; A. NAMBOODIRI. *Uniformed Services Univ.*

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* Indicates abstract's submitting author

3:00	JJJ40 021.07SA Animal cognition: historical congruence of phenomenology and neuroscience. L. N. IRWIN; B. A. IRWIN. <i>Univ. of Texas At El Paso, City Univ. of New York.</i>	2:00	JJJ52 022.06SA The CogNeuro Bootcamp - An education and outreach project for high schoolers and college students. R. C. WILSON; K. CALDERON; A. FRISVOLD; Z. HAKIM; J. MIZELL; N. PENA; A. SKUPNY; S. SYLVESTER. <i>Univ. of Arizona.</i>
4:00	JJJ41 021.08SA Effect of rabies virus infection on the expression of calbindin and parvalbumin on mouse cerebellum: Raising awareness to integrate neuroscience and virology. J. R. NAIZAQUE; Z. DUENAS; O. TORRES-FERNÁNDEZ. <i>Univ. Nacional de Colombia, Univ. Nacional De Colombia, Inst. Nacional de Salud.</i>	3:00	JJJ53 022.07SA ▲ Engaging the Metro-Detroit community and youth in interactive neuroscience-related activities. K. KARAVIDHA; L. E. CHABY; S. KULKARNI; T. FISCHER; S. A. PERRINE. <i>Wayne State Univ., Northville High Sch., Wayne State Univ.</i>
1:00	JJJ42 021.09SA Anomalous pattern of earthworm use in behavioral research. W. J. WILSON. <i>Albion Col.</i>	4:00	JJJ54 022.08SA Engaging students in neuroscience research: Implementing feasible inquiry-based investigations in K-12 schools. L. THOMPSON; N. FERRARO; M. P. REILLY; S. R. GUARIGLIA. <i>St. Joseph By the Sea High Sch., New York State Inst. for Basic Res.</i>
2:00	JJJ43 021.10SA The evolution of defining pain. C. A. SALCIDO; M. K. GELTMAYER; P. N. FUCHS. <i>Univ. of Texas At Arlington, Univ. Texas Arlington.</i>	1:00	JJJ55 022.09SA Teaching neuroscience through data-driven exploratory research projects in Chinese high schools and early college years. A. H. ASSADI; K. SUN. <i>Univ. Wisconsin, AW Educ. Intl.</i>
3:00	JJJ44 021.11SA Taking phenomenology seriously: The ubiquity of first-person experience in the cognitive sciences. S. M. RENNIE; J. RIGATO; Z. F. MAINEN. <i>Fundação Champalimaud.</i>	2:00	JJJ56 022.10SA Physiology laboratory experiences for applied science education (PLEASE): Engaging African American males in science education. R. LAWSON; L. A. WHEATON; T. PEARSON. <i>Georgia Inst. of Technol., Georgia Tech., Georgia Inst. of Technol.</i>
4:00	JJJ45 021.12SA Systems views in neuroscience: From input/output analysis to situated cognition. J. LETELIER; C. H. MAUREIRA; J. LETELIER. <i>Univ. of Chile.</i>	3:00	JJJ57 022.11SA Evidence-based neuroscientific public engagement: Brain Awareness Week at UCLA. T. J. WISHARD; V. SARAVANAPANDIAN; Z. M. AGHAJAN; A. IZQUIERDO; W. GE; M. CILLUFFO; R. ROMERO; N. A. SUTHANA. <i>UCLA, UCLA, UCLA, UCLA, UCLA, UCLA, UCLA.</i>
1:00	JJJ46 021.13SA Operational closure in the nervous system. F. J. FLORES. <i>Massachusetts Gen. Hosp., Harvard Univ., MIT.</i>	4:00	JJJ58 022.12SA Using neurotechnology and novel sensory-focused demonstrations to stimulate interest in science and the brain. W. E. BABIEC; T. J. WISHARD; V. SARAVANAPANDIAN; Z. M. AGHAJAN; W. GE; M. LEBRE; R. ROMERO; N. A. SUTHANA. <i>UCLA, UCLA, UCLA, UCLA, UCLA, UCLA.</i>

THEME J POSTER *San Diego Convention Center***022. Teaching of Neuroscience: K-12**

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

1:00	JJJ47 022.01SA The teenage neuroscience initiative of the future. N. R. MYSLINSKI; K. ROINA; C. MASON; L. V. KRISTIANSEN; M. P. WITTER; R. HADID; T. ASAKAWA; G. FOWLER; R. DIAZ-BRINTON. <i>Univ. of Maryland Dent. Sch., Dana Alliance, Columbia Univ., FENS, Kavli Inst. Systems Neuroscience, Norw. Univ. Sci. & Tech., Intl. Brain Res. Organization, American Psychological Assn., Society for Neurosci.</i>
2:00	JJJ48 022.02SA Think outside the blocks: Teaching the genetic, biological, and behavioral basis of addiction to high school students using LEGOs. E. L. SPAULDING; A. GALLUP; R. DENEGRE; P. DICKSON; K. LONG; K. FUNKHOUSER; M. MCOSKER; J. KADIN; E. J. CHESLER. <i>The Jackson Lab., Univ. of Maine, Mount Desert Island High Sch.</i>
3:00	JJJ49 022.03SA Evaluating neural engineering education programs using a common assessment tool. E. H. CHUDLER; K. C. BERGSMAN; J. WEBER. <i>Univ. of Washington, Ctr. for Res. and Learning.</i>
4:00	JJJ50 022.04SA Neuroanatomy explorers: International exchange through edu-gaming. R. J. WINGATE; L. J. WILSON; R. J. WINGATE. <i>King's Col. London, King's Col. London.</i>
1:00	JJJ51 022.05SA Extracurricular biology research in a high school setting. N. J. AMIN; A. S. KRISHNAN; P. B. NEWCOMBE; R. D. FIELDS. <i>Sidwell Friends Sch., NIH.</i>

1:00	JJJ52 022.06SA The CogNeuro Bootcamp - An education and outreach project for high schoolers and college students. R. C. WILSON; K. CALDERON; A. FRISVOLD; Z. HAKIM; J. MIZELL; N. PENA; A. SKUPNY; S. SYLVESTER. <i>Univ. of Arizona.</i>
2:00	JJJ53 022.07SA ▲ Engaging the Metro-Detroit community and youth in interactive neuroscience-related activities. K. KARAVIDHA; L. E. CHABY; S. KULKARNI; T. FISCHER; S. A. PERRINE. <i>Wayne State Univ., Northville High Sch., Wayne State Univ.</i>
3:00	JJJ54 022.08SA Engaging students in neuroscience research: Implementing feasible inquiry-based investigations in K-12 schools. L. THOMPSON; N. FERRARO; M. P. REILLY; S. R. GUARIGLIA. <i>St. Joseph By the Sea High Sch., New York State Inst. for Basic Res.</i>
4:00	JJJ55 022.09SA Teaching neuroscience through data-driven exploratory research projects in Chinese high schools and early college years. A. H. ASSADI; K. SUN. <i>Univ. Wisconsin, AW Educ. Intl.</i>
1:00	JJJ56 022.10SA Physiology laboratory experiences for applied science education (PLEASE): Engaging African American males in science education. R. LAWSON; L. A. WHEATON; T. PEARSON. <i>Georgia Inst. of Technol., Georgia Tech., Georgia Inst. of Technol.</i>
2:00	JJJ57 022.11SA Evidence-based neuroscientific public engagement: Brain Awareness Week at UCLA. T. J. WISHARD; V. SARAVANAPANDIAN; Z. M. AGHAJAN; A. IZQUIERDO; W. GE; M. CILLUFFO; R. ROMERO; N. A. SUTHANA. <i>UCLA, UCLA, UCLA, UCLA, UCLA, UCLA, UCLA.</i>
3:00	JJJ58 022.12SA Using neurotechnology and novel sensory-focused demonstrations to stimulate interest in science and the brain. W. E. BABIEC; T. J. WISHARD; V. SARAVANAPANDIAN; Z. M. AGHAJAN; W. GE; M. LEBRE; R. ROMERO; N. A. SUTHANA. <i>UCLA, UCLA, UCLA, UCLA, UCLA, UCLA.</i>
4:00	JJJ59 022.13SA Neurohistory cartoons: A scientific outreach project combining the history of neuroscience and cartoon imagery. S. L. BAGLOT; N. GRADUATE STUDENT ASSOCIATION; A. MORTAZAVI; L. BOLANOS; A. R. GOBINATH. <i>Univ. of British Columbia.</i>
1:00	JJJ60 022.14SA The 2018 world brain bee championship. J. D. GREENSPAN; M. PETRULYTE; N. R. MYSLINSKI. <i>Univ. Maryland Dent. Sch., Univ. of Aberdeen, Univ. of Maryland Dent. Sch.</i>

THEME J POSTER *San Diego Convention Center***023. Teaching of Neuroscience: College I**

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

1:00	JJJ61 023.01SA The neuroscience of consciousness, free will, and moral responsibility: A undergraduate seminar integrating neuroscience, philosophy, and religion. S. MALLERY. <i>La Sierra Univ.</i>
2:00	JJJ62 023.02SA Neurophysiological measurement, analysis and sense-making in college introductory physics for life sciences laboratories. E. MILLS; C. KITTUR; S. MENDOZA; C. DAO; K. ARISAKA. <i>UCLA.</i>

• Indicated a real or perceived conflict of interest, see page 74 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

3:00	JJJ63 023.03SA Low cost eye tracking systems for use in teaching in undergraduate physics and neuroscience classes. S. MENDOZA; J. NGUYEN; E. MILLS; K. ARISAKA. <i>UCLA</i> .	3:00	LLL9 023.19SA UCLA-HBCU Neuroscience Pathways Summer Program: A multi-institutional approach to leverage the excellence of students who are underrepresented in STEM fields. K. N. PAUL; A. IZQUIERDO; H. O. LAWAL; F. SCHWEIZER; G. POE. <i>UCLA, Delaware State Univ.</i>
4:00	JJJ64 023.04SA ▲ Broadening participation in STEM using a novel research intervention tool. J. WILLIAMS; F. JEFFERSON. <i>Fort Valley State Univ., Fort Valley State Univ.</i>	4:00	LLL10 023.20SA Transforming connections for success in STEM: The Lehigh university HHMI program. N. G. SIMON; V. C. WARE. <i>Lehigh Univ.</i>
1:00	JJJ65 023.05SA Neuromembrane simulator for neuroscience students. D. W. ALI; G. D. FUNK; K. E. JONES. <i>Univ. Alberta, Fac. of Med. and Dentistry, Univ. of Alberta, Univ. Alberta.</i>	1:00	LLL11 023.21SA Integrating neuroscience into a new freshman research initiative at a regional comprehensive university: The Research Immersive Scholastic Experience in Biology program. R. E. COHEN; A. M. LAND; B. F. MARTENSEN; D. S. SHARLIN; B. A. SMITH. <i>Minnesota State Univ. Mankato, Minnesota State Univ. Mankato.</i>
2:00	JJJ66 023.06SA Backward design of a primary literature-based lecture and laboratory course in developmental neurobiology for undergraduate biology majors. G. S. VIDAL. <i>James Madison Univ.</i>	2:00	LLL12 023.22SA ▲ Exploration of teaching social neuroscience in Mexican training programs in neuroscience. I. GONZALEZ RIVERA; R. DÍAZ-LOVING. <i>Univ. Nacional Autónoma De México, Facultad, Univ. Nacional Autónoma de México.</i>
3:00	JJJ67 023.07SA Providing research experience through a course that mimics a laboratory research environment. L. M. STONE-ROY.	3:00	LLL13 023.23SA Using scientific articles and peer review to promote neuroscience education. K. M. CROSBY. <i>Mount Allison Univ.</i>
4:00	JJJ68 023.08SA Integrated Science Experience: An interdisciplinary drug discovery laboratory-based course combining cellular and molecular neuroscience with organic chemistry. B. DIBENEDICTIS; A. YOUNG; D. SHEEHY; L. PASTORINO; J. K. SNYDER. <i>Boston Univ., Boston Univ., Boston Univ.</i>	1:00	DP15/LLL14 023.24SA (Dynamic Poster) A brain simulation environment for playful learning in cognitive neuroscience. D. BIRMAN; J. L. GARDNER. <i>Stanford Univ.</i>
1:00	JJJ69 023.09SA Supporting 21st-century learning skills in a neuroscience coursework. A. J. WINTINK. <i>Ctr. For Applied Neurosci., Univ. of Guelph-Humber.</i>		
2:00	JJJ70 023.10SA The contribution of visual-spatial ability to student success in a large neurobiology course. A. C. NICHOLAS. <i>Univ. of California At Irvine.</i>		
3:00	LLL1 023.11SA Use of circuit design challenges in an integrative introduction to neuroscience course. A. C. BASU; C. S. ROYDEN; J. R. BURDO. <i>Col. of the Holy Cross, Col. of the Holy Cross, NeuroTinker, Inc.</i>		
4:00	LLL2 023.12SA Strategies for improving scientific and quantitative literacy in an undergraduate psychophysiology course. S. GARRETT-RUFFIN. <i>Bowling Green State Univ.</i>		
1:00	LLL3 023.13SA Using mTOR signaling as a tool for guided inquiry in an undergraduate molecular cell biology laboratory class. C. L. KUBERA. <i>Monmouth Univ.</i>		
2:00	LLL4 023.14SA Nu rho psi, the National Honor Society in Neuroscience. M. T. KERCHNER; S. K. DEBBURMAN; M. J. ZEE; M. J. GILL; M. T. KERCHNER. <i>Washington Col., Lake Forest Col., Northeastern Univ., North Central Col.</i>		
3:00	LLL5 023.15SA Sex-specific neurobiological differences in substance addiction: An educational pilot program for next generation STEM workforce. P. A. VIEIRA. <i>CSU Dominguez Hills.</i>		
4:00	LLL6 023.16SA Design and implementation of a multi-track neuroscience undergraduate degree. K. PHILLIPS; H. SONTHEIMER. <i>Virginia Tech.</i>		
1:00	LLL7 023.17SA Faculty for Undergraduate Neuroscience (FUN): Multiple mechanisms for supporting the development of undergraduate students and faculty in the neurosciences. H. G. MCFARLANE; R. J. BAYLINE; L. A. CHASE. <i>Kenyon Col., Washington and Jefferson Coll, Hope Col.</i>		
2:00	LLL8 023.18SA Journal of Undergraduate Neuroscience education (JUNE): A peer-reviewed, open-access and PubMed listed forum for innovative ideas in neuroscience education. B. R. JOHNSON; E. P. WIERTELAK; R. L. RAMOS. <i>Cornell Univ., Macalester Col., NYIT-COM.</i>		

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▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

- 11:00 LLL22 **024.08SU** ▲ Interactive models for optics education using eye tracking and an electronic retina. G. Q. BUTCHER; J. N. REITZ; R. ANDERSON; E. TORIGUE. *Thiel Col.*
- 8:00 LLL23 **024.10SU** Assessment of peer writing assignments significantly improves indicators of confidence in using the primary literature, in a cohort of Occupation Therapy students. A. K. PACK. *Utica Col.*
- 9:00 LLL24 **024.11SU** Neuroscientists' perspectives on making neuroscience research and teaching more critical and ethical. P. W. TSANG; A. LAM; E. L. OHAYON. *Univ. of Toronto, Inst. for Green and Open Sci. (IGOS), Inst. for Green and Open Sci. (IGOS), Neurolinx Res. Inst.*
- 10:00 LLL25 **024.12SU** Curiouser and curiouser: Contextualizing neuroscience in the arts and humanities to teach brain-body relationships to engineers, architects, and computer scientists. A. A. WALF; T. HAHN. *Rensselaer Polytechnic Inst., Rensselaer Polytechnic Inst.*
- 11:00 LLL26 **024.13SU** Exploring neuroanatomy technologies: A "brain in hand" approach utilizing 3D models for undergraduate learning. C. WILSON. *Chapman Univ.*
- 8:00 LLL27 **024.14SU** An interdisciplinary laboratory exercise in synaptic transmission: MATLAB analysis of quantal release at the fruit fly neuromuscular junction. S. KUMAR; D. L. DEITCHER; B. R. JOHNSON. *Salk Inst. for Biol. Studies, Cornell Univ.*
- 9:00 LLL28 **024.15SU** Introducing undergraduates to neuroscience literature: A pilot study involving knowledge engineering approaches. C. D'ARCY; A. MARTINEZ; B. E. PINALES; K. NEGISHI; G. A. BURNS; A. M. KHAN; J. T. OLIMPO. *Univ. Texas El Paso, Univ. of Texas at El Paso, Information Sci. Inst., Univ. of Texas at El Paso, Univ. of Texas at El Paso.*
- 10:00 LLL29 **024.16SU** Using a psychophysiology lab in introductory psychology to teach neuroscientific concepts. K. HALFMANN. *Univ. of Wisconsin - Platteville.*
- 11:00 LLL30 **024.17SU** Supporting undergraduate scholarly experience. J. D. OMELIAN; S. I. SOLLARS. *Univ. of Nebraska at Omaha Dept. of Psychology.*
- 8:00 LLL31 **024.18SU** Dance and the Brain: Promoting the understanding of neuroscience through entrainment of aesthetically pleasing movement. E. P. WIERTELAK; J. LILE. *Macalester Col., Macalester Col.*
- 9:00 LLL32 **024.19SU** Experimental group activities to promote intuitive understanding of neural network functions through role-playing. G. RIESEN; J. L. GARDNER. *Stanford Univ. Dept. of Neurol. and Neurolog. Sci., Stanford Univ.*
- 10:00 LLL33 **024.20SU** Teaching *in vivo* neuropsychopharmacology in an undergraduate research module. A. IZQUIERDO; W. E. GRISHAM. *UCLA, UCLA.*
- 11:00 LLL34 **024.21SU** Teaching scientific literacy and communication via "Sex and the Brain". T. TAN. *Harvard Med. Sch.*
- 8:00 LLL35 **024.22SU** Teaching synaptic transmission using primary literature: a skills-based approach to increased student engagement. K. BILLS; A. PAYNE; S. STEFFENSEN. *Brimigham Young Univ.*
- 9:00 LLL36 **024.23SU** An innovative approach to a neuroscience capstone learning experience. A. J. PAYNE; K. B. BILLS; S. C. STEFFENSEN. *Brimigham Young Univ.*
- 10:00 LLL37 **024.24SU** Neurocasenet: Support for teaching neuroscience with cases. L. A. ROESCH; P. MARSTELLER; K. E. FRENZEL. *Emory Univ., Emory Univ.*
- 11:00 LLL38 **024.25SU** ▲ A novel program in neurosciences in Mexico. J. C. BARRERAS-MALDONADO; P. DURAN; D. E. GARCIA-DIAZ. *Univ. Nacional Autónoma de México, Univ. Nacional Autónoma de México.*
- 8:00 LLL39 **024.26SU** ▲ Using the journal IMPULSE to enrich undergraduate curricula through neuroscience publishing. C. FENNELL; M. N. PAVELKA; S. EVERETT; E. TURNER; Z. KAPLAN; C. H. GODFREY; L. JONES; M. C. ZRULL. *Appalachian State Univ., Appalachian State Univ., Appalachian State Univ.*
- 9:00 LLL40 **024.27SU** Immersive learning in neuroscience education. T. H. GILBERT. *Athabasca Univ.*
- 10:00 LLL41 **024.28SU** Survey of computational tools for reproducible science in the classroom. D. CELINSKIS. *Brown Univ.*

THEME J POSTER San Diego Convention Center**025. Teaching of Neuroscience: Graduate and Professional**

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)—San Diego Convention Center, SDCC Halls B-H

- 1:00 LLL42 **025.01SA** The making of a human neuroanatomy textbook. A. PARENT. *Psychiat. & Neurosci. Dept, Univ. Laval.*
- 2:00 LLL43 **025.02SA** Development of low-cost tactile neuroanatomy learning tools for blind and visually impaired students. G. B. DINIZ; L. V. SITA. *Inst. of Biomed. Sci., Univ. of São Paulo.*
- 3:00 LLL44 **025.03SA** Neuroscience capstone project for masters of science in medical health science students. A. M. SHERFEY; B. A. PUDE. *Touro Univ., Samuel Merritt Univ.*
- 4:00 LLL45 **025.04SA** Hands-on workshop on improving rigor and reproducibility in preclinical behavioral testing. L. ANDERSON; K. LARUE; C. WRAY; S. J. SUKOFF RIZZO. *The Jackson Lab., The Jackson Lab.*
- 1:00 LLL46 **025.05SA** Development of an engineering-integrated clinical neuroscience medical curriculum: A novel case-centered problem-based medical education. R. GALVEZ; K. AHMAD; B. ALDRIDGE; J. AMOS; O. COIADO; E. T. HSIAO-WECKSLER; G. HUESMANN; D. LLANO; W. PLUTA; S. ROBERTS-LIEB; Y. VLASOV; J. YODH; J. ROWEN. *Univ. of Illinois, Urbana-Champaign, Univ. of Illinois, Urbana-Champaign, Univ. of Illinois, Urbana-Champaign, Univ. of Illinois, Urbana-Champaign, Univ. of Illinois, Urbana-Champaign, Carle Fndn. Hosp., Univ. of Illinois, Urbana-Champaign.*
- 2:00 LLL47 **025.06SA** Integrating student education in the research process with a stereological study: The effects of environmental enrichment on the number and size of th+ neurons in the substantia nigra pars compacta in rats. S. O. AHMAD; J. JOSEPH; E. SPALDING; N. STEVENS; S. TOTH. *St. Louis Univ., St. Louis Univ., St. Louis Univ.*
- 3:00 LLL48 **025.07SA** Interdisciplinary education for innovative research infrastructures. T. RASS; E. WINTERSELLER; A. SARIA. *Med. Univ. Innsbruck - Human Brain Project.*

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* Indicates abstract's submitting author

4:00	LLL49 025.08SA An interactive guide to neuronal data analysis for the practicing neuroscientist. E. SCHLAFLY; U. T. EDEN; J. W. BOHLAND; M. A. KRAMER. <i>Boston Univ.</i>	8:00	MMM1 026.09SU Race your brain - An interactive exhibit for Brain Awareness Week. G. A. GOMEZ ACOSTA; J. BESHEER; D. L. ROBINSON. <i>Univ. of North Carolina at Chapel Hill.</i>
1:00	LLL50 025.09SA R-based web applications for teaching behavioral and cognitive modeling in cognitive neuroscience. J. PETERS. <i>Dept. of Psychology, Biol. Psychology.</i>	9:00	MMM2 026.10SU Cultivating future generations of neuroscientists through brain awareness activities. A. N. NILSON; O. FOLORUNSO; G. TAGLIALATELA. <i>Univ. of Texas Med. Br., Univ. of Texas Med. Br., Univ. of Texas Med. Br., Univ. of Texas Med. Br.</i>
2:00	LLL51 025.10SA SFB 1280 Extinction learning: A novel way to integrate research and teaching in cognitive neuroscience. G. SALZMANN; O. GUNTURKUN. <i>Ruhr Univ. Bochum.</i>	10:00	MMM3 026.11SU Accelerating our understanding of computerized cognitive training through the human cognition project. E. CORDELL; N. NG; R. SCHAFER. <i>Lumos Labs.</i>
3:00	LLL52 025.11SA Graduate school prioritization of application components: The most highly valued characteristics desired by top neuroscience programs. J. A. BOYETTE-DAVIS. <i>St. Edward's Univ.</i>	11:00	MMM4 026.12SU Participation in multi-dimensional support based research program enhances low income Latinx high school students in the pursuit of higher education and STEM professions. M. K. LOH; J. RUIZ; H. RASGADO-FLORES. <i>Rosalind Franklin Univ. of Med. & Sci., Rosalind Franklin Univ. of Med. & Sci., Rosalind Franklin Univ. of Med. & Sci.</i>
4:00	LLL53 025.12SA The Brown University Neuropracticum: Advanced graduate training at the marine biological laboratory. C. I. MOORE; D. D. SLIVA; K. S. YANAGI; A. C. OYALOWO; A. I. MORE; C. A. DEISTER; M. PESCOLOLIDO; R. ST. LAURENT; J. J. ALLEN; D. LIPSCOMBE; A. C. HART. <i>Brown Univ., Carney Inst. for Brain Sci.</i>	8:00	MMMS 026.13SU Use of social networks in science forums. P. TORRES-CARRILLO; M. D. VERGEL-MUNGUÍA; D. B. PAZ-TREJO; H. SANCHEZ-CASTILLO. <i>Univ. Nacional Autonoma De Mexico, UNAM, Facultad de Psicología, Univ. Nacional Autonoma de Mexico, Univ. Nacional Autonoma de Mexico. Fac Psicologia.</i>
	THEME J POSTER San Diego Convention Center	9:00	MMMS 026.14SU The search for 3D printable bioinks by community biology labs. D. FOSTER; H. KIM; R. LEE; J. KOO; K. FOSTER; R. JOHNSON; B. TENG. <i>C/O TheLab Inc. /www.thelab4b.com, Stanford, TheLab Inc., TheLab Inc, California State University, Fullerton, UCLA, California State Univ. Northridge.</i>
8:00	DP15/LLL54 026.01SU (Dynamic Poster) Crescent Loom: Weaving biophysical motor circuits to control 2D underwater creatures in an accessible video game. W. M. PERRY; G. BARELLO. <i>Reed Col., Univ. of Oregon.</i>	10:00	MMMT 026.15SU NIH contributions to the BRAIN Initiative. A. ADAMS; K. B. DUPRE; G. FARBER; J. GORDON; N. S. HSU; W. KOROSHETZ; M. MOTT; K. RAMOS; N. TALLEY; S. L. WHITE. <i>NIH NINDS, NIH NIMH.</i>
9:00	LLL55 026.02SU NW Noggin on homelessness and the brain, seeing us all through research and art. W. S. GRIESAR; J. LEAKE. <i>NW Noggin (PSU, OHSU), Portland State Univ., NW Noggin (PSU, OHSU), Portland State Univ.</i>	11:00	MMMS 026.16SU Educating responsible citizens that recognize the importance of neuroscience. R. C. ZEPEDA; C. J. JUÁREZ-PORTILLA; M. A. MELGAREJO; A. PUGA; D. HERNÁNDEZ; Á. PAVÓN ROSADO; J. CUETO-ESCOBEDO; M. ALVARADO-OLIVARES; T. MOLINA-JUMÉNEZ; J. F. RODRÍGUEZ-LANDA; L. T. HERNÁNDEZ; B. BERNAL; J. MORALES-MAVIL; M. D. ROVIROSA; A. CORTÉS-SOL; C. CEBALLOS-POMARES; M. D. CABALLERO; A. CORNEJO; S. RUFINO-CUÉLLAR; M. HERNÁNDEZ; L. SERRANO-MARUQEZ; F. VÁZQUEZ-ORTEGA; E. MEZA. <i>Univ. Veracruzana, AV Medicos y Odontologos SN, Inst. de Neuroetología, Univ. Veracruzana, Facultad de Química farmaceútica Biológica, Facultad de Biología, Doctorado en Ciencias Biomédicas, Univ. Veracr.</i>
10:00	LLL56 026.03SU "Talk to A Brain Cell" exhibit is an effective educational and outreach tool to model neuronal function and synaptic plasticity with audiences of all ages and scientific backgrounds. A. J. LESIAK. <i>Univ. of Washington.</i>	8:00	MMMS 026.17SU Promoting neuroscience awareness among Central Pennsylvania youth leads to career selection in the neurosciences. K. VENKITESWARAN; S. RAVI; A. R. WHITE; E. BLANKE; E. MADAR; Y. KIM; A. BARBER; T. SUBRAMANIAN. <i>Penn State Col. of Med.</i>
11:00	LLL57 026.04SU We the Scientists: Tracking science policy at the federal and local level. C. BRAINE; M. DONEGAN; L. LONG; L. NUNNELLY; S. ROLLOTI; L. J. SIBENER. <i>Columbia Univ.</i>	9:00	MMMS 026.18SU The 31st northeast under/graduate research organization for neuroscience (NEURON) conference held at Quinnipiac University in Hamden, CT. A. J. BETZ; A. TODD; V. FRANCONE; A. C. BASU; J. G. TRAPANI; C. A. FRYE; J. D. SALAMONE. <i>Quinnipiac Univ., Quinnipiac Univ., Col. of the Holy Cross, Amherst Col., Univ. Albany, Univ. of Connecticut.</i>
8:00	LLL58 026.05SU ComSciCon: The communicating science workshop for graduate students. A. L. CALDWELL; N. SANDERS; M. DROUT; S. KOHLER. <i>UC San Diego, Astrobites, Carnegie Inst. for Sci., AAS Nova.</i>	10:00	MMMS 026.19SU NeuWriteSD: Building skills in science communication through writing. M. ROSSA; J. LOVELETT; D. SCHREINER; B. SPENCER; M. KIRCHGESSIONER. <i>Univ. of California San Diego, Univ. of California San Diego.</i>
9:00	LLL59 026.06SU Combined stem cell factor and granulocyte colony-stimulating factor treatment enhances brain repair in the chronic phase of traumatic brain injury. X. QIU; S. PING; M. KYLE; K. HUGHS; L. ZHAO. <i>SUNY Upstate Med. Univ., SUNY Upstate Med. Univ.</i>		
10:00	LLL60 026.07SU ▲ Grey matters: A multimedia approach to accessible neuroscience. T. QIU; E. STEFANOUI; P. BARTLETT; S. GU; T. GUO; G. WANG; A. CHEN. <i>Univ. of Washington, Univ. of Washington, Univ. of Washington.</i>		
11:00	LLL61 026.08SU Taste of science: A fest to feed your curiosity. B. E. SPENCER. <i>UCSD.</i>		

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* Indicates abstract's submitting author

11:00	MMM12 026.20SU The 2018 united states regional brain bee championship. D. A. SEMINOWICZ; N. R. MYSLINSKI. <i>Univ. of Maryland, Baltimore, Univ. of Maryland Dent. Sch.</i>	9:00	MMM23 027.10SU The 1 st neuroscience public event in mongolia. B. LKHAGVASUREN; E. LKHAGVASUREN; B. TSOLMON; J. JAMIYANSUREN; S. BAASANJAV; D. BOLDBAATAR; T. JADAMBA; A. BAZAR. <i>Mongolian Fndn. For Sci. and Technol., Mongolian Natl. Univ. of Med. Sci., Ministry of Education, Culture, Science, and Sports, Ctr. for Hlth. Develop.</i>
8:00	MMM13 026.21SU NeuroBoricuas: Inception of University Chapters to increase neuroscience education in colleges and K-12 schools. M. I. DE JESÚS-BURGOS; M. DIAZ-RIVERA; B. SANTOS-VERA; Y. FERRER-ACOSTA; M. P. MENDEZ-GONZÁLEZ; D. REYES-COLÓN; L. C. VICENTE-RODRÍGUEZ; J. SANTIAGO; C. BRAVO-RIVERA. <i>Univ. of Puerto Rico, Cayey Campus, Univ. of Puerto Rico Sch. of Med., Ponce Hlth. Sci. University-School of Med., Univ. Central del Caribe, Univ. of Puerto Rico, Univ. of Puerto Rico, Univ. of Puerto Rico, Cold Spring Harbor Lab.</i>	10:00	MMM24 027.11SU Malaysia's neuroscience educational community-engagement initiatives. M. MUZAIMI; F. AHMAD; R. KANDASAMY; Y. TAN; M. MUSTAFA; B. IDRIS; J. ABDULLAH; Z. IDRIS. <i>Universiti Sains Malaysia.</i>
		11:00	MMM25 027.12SU Baltimore brain connect community outreach. N. K. HUSSAIN; M. MAY; K. J. MONK; S. MAGSAMEN; R. L. HUGANIR. <i>Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med.</i>
8:00	MMM14 027.01SU Comic book representation of Batman and brain injury across the years. H. MUSTAFA; A. HARRISON; H. CULLEN; S. BLACK; B. WRIGHT; E. P. ZEHR. <i>Univ. of Victoria.</i>	8:00	MMM26 027.13SU Brainbow Road: Increasing neuroscience knowledge through educational outreach by FSU Neuroscience. R. VAIDYANATHAN; A. STIMMELL; C. MARTINEZ; E. CHUN; R. HEDINGER; J. CHITAMAN; C. SIMMONS; S. TERRILL; C. EDWARDS; A. BRUNICK; J. RYAN; M. DONOVAN. <i>Florida State Univ., Florida State Univ., Florida State Univ., Florida State Univ.</i>
9:00	MMM15 027.02SU Portrayal of concussion exposure in mixed martial arts: review and analysis of fight outcomes and head trauma risk according to gender and weight class. B. FOLLMER; R. A. DELLAGRANA; E. ZEHR. <i>Univ. of Victoria, Federal Univ. of Santa Catarina, Rehab Neurosci. Lab.</i>		
10:00	MMM16 027.03SU REMIND: Bridging the gap between neuroscience and children. A. CADETE MARTINI; S. FORNER; S. E. ROYER; C. G. COX; K. M. KLEIN; J. D. GRILL. <i>Univ. of California Irvine.</i>	8:00	MMM27 028.01SU Research integrity oversight and research misconduct investigations at the national science foundation office of the inspector general. E. RUNKO. <i>Natl. Sci. Fndn.</i>
11:00	MMM17 027.04SU ▲ Neuro club + TORCH: Brain awareness activities with under-served middle school students. H. H. MOHAMED; P. J. BROWNELL; L. M. CARLSON; S. D. DICKINSON. <i>St. Olaf Col., St. Olaf Col.</i>	9:00	MMM28 028.02SU ▲ The ethical implications of media coverage on visual prostheses in the words of visually impaired individuals. J. PATEL; E. HILDT; K. L. LAAS. <i>Illinois Inst. of Technol., Illinois Inst. of Technol.</i>
8:00	MMM18 027.05SU Are we at 3 pounds yet? Teaching young children about the brain. R. WILLIAMSMORRIS; M. L. THOMAS; Z. L. SISCO. <i>Southern Adventist Univ., Southern Adventist Univ., Southern Adventist Univ.</i>	10:00	MMM29 028.03SU Referencing autonomy in neural integration: Building on bayesian inferencing for metaethical praxis. D. C. LARRIVEE. <i>Intl. Assn. Catholic Bioethicists.</i>
9:00	MMM19 027.06SU BrainStation: Brain science in the elementary school classroom. A. I. MORE; J. J. STEIN; A. C. TSUDA; J. L. BASSELL; S. T. MERNOFF. <i>Brown Univ., Alpert Med. Sch., Providence Veterans Affairs Med. Ctr.</i>	11:00	MMM30 028.04SU Pediatric neuropsychiatry and electroconvulsive therapy: Ethical, clinical and legal considerations. C. COURCHESNE; J. ILLES; F. VILA-RODRIGUEZ. <i>Univ. of British Columbia, Univ. of British Columbia, Univ. of British Columbia.</i>
10:00	MMM20 027.07SU Drug Outreach, Promoting Awareness (DOPAteam): A novel science-based approach to teen drug education. N. T. LICHTENBERG; A. B. THOMPSON; R. ROMERO-CALDERÓN; M. Y. IGUCHI; C. EVANS. <i>UCLA, UCLA, RAND Corp., UCLA Brain Res. Inst.</i>	8:00	MMM31 028.05SU ▲ Teaching detained juveniles about their brains: A study on a novel brain-health intervention at the St. Joseph county juvenile justice center. N. MICHAEL; M. HOLLENDER. <i>Univ. of Notre Dame, Univ. of Notre Dame.</i>
11:00	MMM21 027.08SU ▲ The Army Educational Outreach Program: Developing a working model of human genetics to predict performance during military combat. S. WADHWA; M. CHEN; A. NIKOLICH; R. RATCLIFFE; V. CAPALDI; A. J. BRAGER. <i>Walter Reed Army Institute of Res.</i>	9:00	MMM32 028.06SU Possible loss of personal identity after allogeneic/xenogeneic cell transplantation for cerebral disorder. H. SHICHINOHE. <i>Hokkaido Univ. Hosp.</i>
8:00	MMM22 027.09SU Croatian society for neuroscience - 17 years of conversation with general public about most exciting topics and advances of brain research. S. KALANJ-BOGNAR; M. JUDAS; M. VUKSIC; I. KOSTOVIC. <i>Croatian Inst. For Brain Research, Sch. of M.</i>	10:00	MMM33 028.07SU Time to dump the "dimorphism:" Male and female brains are far more similar than different across multiple measures of structure and function. L. S. ELIOT; A. AHMED; H. KHAN; J. PATEL. <i>Rosalind Franklin Univ. of Med. & Sci., Rosalind Franklin Univ.</i>

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11:00	MMM34 028.08SU A three-pronged approach to science policy: Advocating to scientists, community members and policy-makers. J. GERSON; S. S. PISTORIUS. <i>Univ. of Michigan, Univ. of Michigan.</i>	2:00	A6 029.06 Stochastic cellular automata model of neurosphere growth: Roles of proliferative potential, contact inhibition, cell death, and phagocytosis. G. K. ZUPANC*, R. SIPAHI. <i>Northeastern Univ.</i>
8:00	MMM35 028.09SU Mathematical (dis)continuity conditions: Toward the future of a nature-friendly interhemispheric coupling of brains, minds and computers? J. F. GOMEZ-MOLINA. <i>Intl. Group of Neurosci. (IGN).</i>	3:00	A7 029.07 FGFRs regulate proliferation and dendritogenesis in adult-born dentate gyrus neurons. M. GRONSKA-PESKI*, J. M. HEBERT. <i>Albert Einstein Col. of Med.</i>
9:00	MMM36 028.10SU Johns Hopkins science policy group: Engaging early career researchers in advocacy. C. MATNEY; R. SIMA; L. CAIRNS; K. WOOD; M. SPAUR; S. P. BROWN. <i>Johns Hopkins Sch. of Med., Johns Hopkins Bloomberg Sch. of Publ. Hlth., Johns Hopkins Sch. of Med., Johns Hopkins Bloomberg Sch. of Publ. Hlth.</i>	4:00	A8 029.08 Morphological changes and migration termination of newborn neurons controlled by PlexinD1 signaling. M. SAWADA*; N. OHNO; M. KAWAGUCHI; S. HUNAG; T. HIKITA; Y. SAKURAI; H. NGUYEN; T. THAI; Y. ISHIDO; Y. YOSHIDA; H. NAKAGAWA; A. UEMURA; K. SAWAMOTO. <i>Nagoya City Univ. Grad. Sch. of Med. Sci., Natl. Inst. for Physiological Sci., Jichi Med. University, Sch. of Med., Nagoya City Univ. Grad. Sch. of Pharmaceut. Sci., Cincinnati Children's Hosp. Med. Ctr.</i>
10:00	MMM37 028.11SU Engaging local policy makers: strategies for scientists. J. LUCHSINGER. <i>Vanderbilt Univ.</i>	1:00	A9 029.09 Nuclear shape of adult neural stem cells in mouse dentate gyrus. R. FILIPKOWSKI*; A. W. GRYMANOWSKA; A. MARTIN; K. H. OLSZYNSKI; G. M. WILCZYNISKI; A. SZCZEPANKIEWICZ; K. NOWINSKI; B. BORUCKI; A. MAGALSKA. <i>Mossakowski Med. Res. Ctr., Nencki Inst. of Exptl. Biology, Polish Acad. of Sci., Interdisciplinary Ctr. for Mathematical and Computat. Modelling of the Univ. of Warsaw.</i>
11:00	MMM38 028.12SU Being conscious of brain death: Technical and ethical issues. Z. SUSKIN; R. EVANS. <i>Georgetown Univ. Sch. of Med., Harvard Med. Sch., Barts and The London Sch. of Med. and Dent.</i>	2:00	A10 029.10 Developmental evalualiton of doublecortin immunoreactivity at light microscopiclevel in Wistar albino rats. O. T. KAYA*; S. D. YILDIZ; C. KANDEMIR; U. S. SEHIRLI; S. SIRVANCI. <i>Marmara Univ. Sch. of Med.</i>
8:00	MMM39 028.13SU Scientist Advocates: Shifting the culture toward justice, equity, and diverse representation through community organizing, data transparency, and education. K. L. REICHARD; M. R. LEVINSTEIN; L. VOELKER; N. MESA; C. RUSCH; J. S. STEGER. <i>Univ. of Washington, Univ. of Washington, Univ. of Washington/Fred Hutch CR Ctr., Univ. of Washington/Allen Inst. for Brain Sci., Univ. of Washington.</i>	3:00	A11 029.11 Postnatsubventricular zone neurogenesis:Regulation by adenosine A _{2A} receptors. S. XAPELLI*; F. F. RIBEIRO; F. FERREIRA; R. S. RODRIGUES; R. SOARES; S. H. VAZ; S. SOLÁ; H. MIRA; A. M. SEBASTIÃO. <i>Faculdade De Medicina, Univ. De Lisboa, Inst. de Farmacologia e Neurociências, Faculdade de Medicina, Univ. de Lisboa, iMed.ULisboa, Faculdade de Farmácia, Univ. de Lisboa, Inst. de Biomedicina de Valencia (IBV-CSIC).</i>
1:00	A1 029.01 Adult-born neurons are structurally plastic and remain morphologically distinct from developmentally-born neurons. J. S. SNYDER*; D. ESPINUEVA; T. O'LEARY; S. P. CAHILL; D. SEIB; J. D. COLE. <i>Univ. of British Columbia.</i>	4:00	A12 029.12 Crosstalk between cannabinoid and adenosine A2A receptors modulating postnatal neurogenesis. R. S. RODRIGUES*; A. ARMADA-MOREIRA; F. F. RIBEIRO; A. M. SEBASTIÃO; S. XAPELLI. <i>Faculdade De Medicina Da Univ. De Lisboa, Faculdade de Medicina da Univ. de Lisboa.</i>
2:00	A2 029.02 Neurogenesis in adult human hippocampus, what signature genes expressions tell us? A. KUMAR*; V. PAREEK; H. N. SINGH; S. K. GHOSH; P. KUMAR; M. A. FAIQ; C. KUMARI. <i>All India Inst. of Med. Sciences, Patna, Etiologically Elusive Disorders Res. Network (EEDRN), Natl. Brain Res. Ctr. (NBRC), Inst. of Genomics and Integrated Biol. (IGIB), All India Inst. of Med. Sci. (AIIMS), All India Inst. of Med. Sci. (AIIMS), All India Inst. of Med. Sci. (AIIMS), Postgraduate Inst. of Med. Educ. and Res. (PGIMER).</i>	1:00	A13 029.13 Postnatal hippocampal neurogenesis: Regulation by adenosine A2A receptors. F. F. RIBEIRO*, F. FERREIRA; R. S. RODRIGUES; R. SOARES; S. SOLÁ; H. MIRA; A. M. SEBASTIÃO; S. XAPELLI. <i>Faculdade de Medicina da Univ. de Lisboa, Inst. de Farmacologia e Neurociências, Faculdade de Medicina, Univ. de Lisboa, iMed.ULisboa, Faculdade de Farmácia, Univ. de Lisboa, Inst. de Biomedicina de Valencia (IBV-CSIC).</i>
3:00	A3 029.03 Origin and migration of postnatally generated hippocampal granule cells throughout life in mice. K. D. MURRAY*; Y. JIN; H. CHENG. <i>Univ. California Davis, Univ. of California, Davis.</i>	2:00	A14 029.14 The effects of electromagnetic fields on planarian neuroregeneration. L. THOMPSON*; E. BORSUK; K. DENESOPOLIS; S. R. GUARIGLIA. <i>St. Joseph By the Sea High Sch., New York State Inst. for Basic Res.</i>
4:00	A4 029.04 Precise cell cycle regulation of cerebellar granule cell progenitors by insulin-like growth factor 1. T. SHAND*; H. ZONG. <i>Univ. of Virginia.</i>		
1:00	A5 029.05 Exploring <i>in vitro</i> neurogenesis of oligodendrocyte progenitor cells from the adult mouse suprachiasmatic nucleus. D. H. BELIGALA*, A. DE; H. RUFF; E. A. TEPE; M. E. GEUSZ. <i>Bowling Green State Univ.</i>		

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POSTER**030. Environmental and Immunological Influences on Autism****Theme A: Development**

Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H

- 1:00 A15 **030.01** The role of gene-by-environment interactions in autism spectrum disorders. F. HOLLIS*; C. MUÑOZ CASTILLO; V. MARIANO; A. KANELLOPOULOS; C. BAGNI. *Univ. De Lausanne.*
- 2:00 A16 **030.02** Prenatal air pollution and maternal stress alter brain development in the anterior cingulate cortex. C. L. BLOCK*; S. D. BILBO; C. EROGLU. *Duke Univ., Harvard Med. School/MGH, Duke Univ, DUMC.*
- 3:00 A17 **030.03** 17-β-estradiol may be a potential influence factor in a mouse model of maternal antibody induced autism spectrum disorder. A. GATA GARCIA*; L. BRIMBERG; B. DIAMOND; B. T. VOLPE. *Feinstein Inst. for Med. Res., Zucker Sch. of Med. at Hofstra/Northwell, Feinstein Inst. for Med. Res.*
- 4:00 A18 **030.04** Neuroanatomical correlates in mice perinatally exposed to indoor flame retardants showing abnormal affective and social behavior. E. KOZLOVA*; J. M. KRUM; L. ANCHONDO; N. HUFFMAN; S. UDDIN; M. NABATANZI; V. CARRILLO; B. D. CHINTHIRLA; M. C. CURRAS-COLLAZO. *Univ. of California Riverside, Univ. of California Riverside, Univ. of California Riverside.*
- 1:00 A19 **030.05** Modeling Pitocin administration at birth: How does exogenous oxytocin affect the developing brain and gastrointestinal system? M. A. KINGSBURY*; A. M. PERKEYBILE; J. R. YEE; W. M. KENKEL; J. Y. LEBRON-ECHANDY; S. D. BILBO; C. S. CARTER. *Harvard Med. School/MGH, Indiana Univ., Northeastern Univ., Kinsey Inst.*
- 2:00 A20 **030.06** Sex-biased mitochondrial and behavioral alterations following early-life immune activation. E. A. BORDT*; K. H. JIANG; C. J. SMITH; S. D. BILBO. *Massachusetts Gen. Hosp., Harvard Med. School/MGH.*
- 3:00 A21 **030.07** Mice exposed to postnatal allergy show abnormal behavior and dysregulated gene profile related to autism spectrum disorder only in male. B. SAITO*; R. YAMASAKI; D. V. KRUINING; C. THOMSEN; J. KIRA. *Kyushu Univ.*
- 4:00 A22 **030.08** ▲ Modification in the expression of GABA receptors in the cerebellum of autistic rats subjected to an enriched environment at different ages. J. A. PEREZ*; O. CRUZ; L. GARCÍA; G. CORIA AVILA; M. TOLEDO; M. HERNÁNDEZ; J. MANZO. *Doctorado en Investigaciones Cerebrales, UV, Doctorado en Investigaciones Cerebrales, UV, Univ. Veracruzana.*
- 1:00 A23 **030.09** ● Depletion and repopulation of microglia ameliorates maternal inflammation-induced neurobehavioral abnormalities and neuritogenic phenotype of microglia. S. IKEZU*; A. A. VAN ENOO; H. YEH; M. WOODBURY; S. SIVAKUMARAN; C. HOLLAND; T. GUILLAMON-VIVANCOS; A. YOSHII-KITAHARA1; Z. RUAN; J. DELPECH; P. CHAO; M. B. BOTROS; A. DESANI; O. BUTOVSKY; S. MANIMARAN; W. E. JOHNSON; M. MEDALLA; J. I. LUEBKE; T. IKEZU. *Boston Univ. Sch. of Med., Boston Univ. Sch. of Med., Brigham and Women's Hosp., Boston Univ. Sch. of Med., Boston Univ. Sch. of Med.*
- 2:00 A24 **030.10** ▲ Combined environmental stressors as a mouse model of autism spectrum disorder: Sex-specific social behavior deficits and underlying neuro-immune mediators. K. E. MALACON*, C. J. SMITH; S. D. BILBO. *Harvard Univ., Lurie Ctr. for Autism, Massachusetts Gen. Hospital/Harvard Med. Sch.*
- 3:00 A25 **030.11** Combined environmental stressors as a mouse model of autism spectrum disorder: Sex-specific changes in the gut microbiome and intestinal epithelial barrier. C. J. SMITH*; K. E. MALACON; P. K. TRAN; S. D. BILBO. *Massachusetts Gen. Hosp.*
- 4:00 A26 **030.12** Valproic acid inductions of NRF2 expression in fetal but not maternal brain: Support for the GABA shift hypothesis. J. GIFFORD*; S. A. NORTON; A. W. KUSNECOV; G. C. WAGNER. *Rutgers Univ.*
- 1:00 A27 **030.13** Modulating the pathogenicity of maternal anti-Casp2r antibody in ASD. L. BRIMBERG*; S. MADER; D. COMOLETTI; B. T. VOLPE; B. DIAMOND. *The Feinstein Inst. for Med. Res., Feinstein Inst. for Med. Res., CHINJ Rutgers, Feinstein Inst. For Med. Res., The Feinstein Inst. for Med. Res.*
- 2:00 A28 **030.14** ● Term or preterm cesarean section delivery does not lead to long-term detrimental consequences in mice. M. CHIESA*; D. GUIMOND; R. TYZIO; A. PONS BENNACEUR; N. LOZOVAYA; N. BURNASHEV; D. C. FERRARI; Y. BEN-ARI. *Neurochlore, INMED UMR1249.*
- 3:00 A29 **030.15** A potential blood-based DNA methylation biomarker for autism spectrum disorder. R. KIMURA*; Y. FUNABIKI; M. NAKATA; S. SUZUKI; T. AWAYA; T. MURAI; M. HAGIWARA. *Kyoto Univ.*
- 4:00 A30 **030.16** Assessing temporal patterns of inflammation associated with autism through the use of novel tooth-matrix biomarkers. E. BALDWIN*; D. DUMITRIU; B. D. FREEMAN; V. NGUYEN; C. AUSTIN; S. NARASIMHAN; S. S. ANDRA; M. ARORA. *Icahn Sch. of Med. at Mount Sinai, Icahn Sch. of Med. at Mount Sinai.*

POSTER**031. Developmental Disorders: Animal Models of Neurodevelopmental Disease I****Theme A: Development**

Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H

- 1:00 A31 **031.01** ● The selective M₁ muscarinic agonist CDD-0102A alleviates stereotyped motor behaviors and behavioral flexibility deficits in the BTBR mouse model of autism spectrum disorders. W. S. MESSE* JR; G. A. JOB; E. M. PRAGER; J. L. PLOTKIN; M. E. RAGOZZINO. *Univ. of Toledo, Univ. of Illinois at Chicago, Stony Brook Univ.*
- 2:00 A32 **031.02** ● Glutamate efflux changes in the dorsolateral striatum of the BTBR mouse during stereotyped motor behavior: Modulation by M₁ muscarinic receptors. M. E. RAGOZZINO*; R. OCAMPO; P. TENEQEXHI; W. S. MESSE, JR. *Univ. of Illinois at Chicago, Univ. of Toledo.*
- 3:00 A33 **031.03** Functions of Neurofibromin in cortical circuit development. L. XING*; M. J. ZYLKA; W. D. SNIDER. *UNC Chapel Hill, UNC Chapel Hill.*

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4:00	B34	031.04 Maternal postpartum SSRI influences offspring microbiome and neuroinflammation in a sex-specific manner. W. QIU*; K. GO; C. FERNANDO; A. ALBERT; J. E. HILL; L. A. M. GALEA. <i>Grad. Program In Neurosci., Univ. of British Columbia, Univ. of Saskatchewan, BC Women's Hlth. Res. Inst., Djavad Mwafaghian Ctr. for Brain Hlth.</i>	3:00	B11	031.15 Synaptic and immune molecule expression in the developing brain in a mouse and non-human primate model of maternal immune activation. S. CAMERON*; M. ESTES; J. P. ABOUBECHARA; M. GANDAL; D. VAN DER LIST; K. FARRELLY; A. MARTINEZ-HORTA; G. KINCHELOE; J. MACMAHON; L. HAAPANEN; J. VAN DE WATER; C. S. CARTER; C. M. SCHUMANN; M. D. BAUMAN; D. GESCHWIND; A. K. MCALLISTER. <i>UC Davis, UCLA, UC Davis, UC Davis.</i>
1:00	B1	031.05 Functional brain imaging in a mouse model of neurodevelopmental disorder. H. MIZUMA*; K. HIKISHIMA; N. HOSAKA; Y. MATSUMOTO; N. TAKATA; H. ONOE. <i>RIKEN Ctr. for Biosystems Dynamics Res., Okinawa Inst. of Sci. and Technol. Grad. Sch., Keio Univ. Sch. of Med., Kyoto Univ. Grad. Sch. of Med.</i>	4:00	B12	031.16 Mice with a heterozygous missense mutation in Gnb1 ($Gnb1^{K78R/+}$) exhibit developmental delay, hypoactivity, gait abnormality, and deficits in spatial learning. M. YANG*; S. COLOMBO; E. OZURUONYE; S. OWENS; G. MONTERO; S. PETRI; W. N. FRANKEL; M. BOLAND; D. GOLDSTEIN. <i>Columbia Univ. Med. Ctr., Columbia Univ. Med. Ctr., Columbia Univ. Med. Ctr., Columbia Univ. Med. Ctr.</i>
2:00	B2	031.06 Brain-wide mapping of the developmentally regulated expression of the oxytocin receptor in mice. Z. T. NOLAN*. <i>Penn State Col. of Med.</i>	1:00	B13	031.17 Longitudinal characterization of the $Cln6^{nclf}$ mouse model of CLN6 Batten disease - Characterization of fine motor performance, brain pathology and metabolic changes. K. LEHTIMÄKI; M. VIHMA*, T. BRAGGE; T. HUHTALA; J. BRUDVIG; T. JOHNSON; D. TIMM; J. T. PUOLIVALI; J. RYTKÖNEN; P. POUTAINEN; J. M. WEIMER; A. J. NURMI. <i>Charles River Discovery, Sanford Res., Sanford Res., Kuopio Univ. Hosp., Sanford Res.</i>
4:00	B4	031.08 Non-infectious fever in the near-term pregnant rat impairs social communication and behavior in the rat offspring. J. BOULANGER-BERTOLUS*; I. ST CHARLES; S. SEGAL; C. J. WATSON; J. MARCHAND; G. A. MASHOUR; C. PANCARO. <i>Univ. of Michigan Med. Sch., Wake Forest Sch. of Med., Tufts Univ. Sch. of Med.</i>	2:00	B14	031.18 Transcriptomic effects and neurological phenotypes in a mouse model of HNRNPU haploinsufficiency. S. A. DUGGER*; R. DHINDSA; M. HALVORSEN; S. OWENS; E. OZURUONYE; G. MONTERO; M. SAH; S. COLOMBO; S. PETRI; M. YANG; W. FRANKEL; M. BOLAND; D. GOLDSTEIN. <i>Columbia Univ. Med. Ctr., Columbia Univ. Med. Ctr., Columbia Univ. Med. Ctr.</i>
1:00	B5	031.09 Comparative findings: <i>In vivo</i> rates of cerebral protein synthesis in mouse models of neurodevelopmental disorders. A. TOROSSIAN*; R. M. SARÉ; T. HUANG; T. BURLIN; C. B. SMITH. <i>Natl. Inst. of Mental Hlth.</i>	3:00	B15	031.19 Baseline immune response and poly(I:C) dose interact to cause behavioral and biological phenotypes in offspring following maternal immune activation. K. E. PRENDERGAST; M. ESTES; K. FARRELLY; D. VAN DER LIST; S. A. CAMERON; J. P. ABOUBECHARA; A. M. HORTA; G. KINCHELOE; J. MACMAHON; L. HAAPANEN; M. D. BAUMAN; C. S. CARTER; J. VAN DE WATER; A. K. MCALLISTER*. <i>UC Davis, UC Davis, Univ. California, Davis, UC Davis.</i>
2:00	B6	031.10 SALM1 mutant mice display suppressed synaptic plasticity and inhibitory synapse development and abnormal social communication and startle response. R. KIM*; Y. LI; E. KIM. <i>KAIST, IBS, Inst. for Basic Sci. (IBS), Korea Adv Inst. Sci. & Tech. (KAIST).</i>	4:00	B16	031.20 Developmental regulation of threat, dopamine and VTA-amygdala connectivity. P. A. ROBINSON-DRUMMER*; M. OPENDAK; R. M. SULLIVAN. <i>NYU Child Study Ctr., New York Univ., NKI & NYU Sch. of Med.</i>
3:00	B7	031.11 NGL-3 in the regulation of brain development, synaptic NMDAR function, and locomotive behaviors. W. SHIN*; H. LEE; K. KIM; E. KIM. <i>KAIST, Inst. of Basic Sci. (IBS), Inst. for Basic Sci. (IBS), Korea Adv Inst. Sci. & Tech. (KAIST).</i>	1:00	B17	031.21 Fine motor performance, brain volumetry and metabolism in $Cln2^{R207X/R207X}$ nonsense point mutation model for CLN2 Batten disease. K. LEHTIMÄKI; T. BRAGGE; J. BRUDVIG; T. JOHNSON; D. TIMM; A. J. NURMI*; J. WEIMER; J. T. PUOLIVALI. <i>Charles River Discovery, Sanford Res.</i>
4:00	B8	031.12 Layer 6 of the medial prefrontal cortex modulates prepulse inhibition via dorsomedial thalamus. Y. KIM*; J. KIM; E. KIM. <i>KAIST, IBS CSBD.</i>	2:00	B18	031.22 Arfgef1 haploinsufficiency in mice reduces neuronal surface $GABA_A$ receptors, increases neuronal lysosome size and upregulates excitatory neurotransmitter receptors. J. TEOH*; N. SUBRAMANIAN; A. KANBER; D. WILLIAMS; A. AMADOR; S. PETRI; W. N. FRANKEL. <i>Columbia Univ. Med. Ctr., Univ. of Florida, Columbia Univ. Med. Ctr.</i>
1:00	B9	031.13 Alterations in mouse cortical development following mid-gestational Poly(I:C)-mediated maternal immune activation. C. P. CANALES*; M. ESTES; I. ZDILAR; L. SU-FEHÉR; D. VAN DER LIST; S. CAMERON; J. P. ABOUBECHARA; R. CATTA-PRETA; K. LIM; T. STRADLEIGH; L. HAAPANEN; K. FARRELLY; J. VAN DE WATER; A. K. MCALLISTER; A. S. NORD. <i>UC Davis, UC Davis, UC Davis.</i>	3:00	B19	031.23 Postdoctoral research scientist. A. AMADOR*; M. YANG; A. KANBER; E. OZURUONYE; S. OWENS; H. OLSON; A. PODURI; D. GOLDSTEIN; S. F. TRAYNELIS; H. YUAN; M. BOLAND; W. FRANKEL. <i>Columbia Univ., Harvard Med. Sch., Boston Children's Hosp., Emory Univ. Sch. of Med.</i>
2:00	B10	031.14 Principal component analysis (PCA) based data fusion approach for a mouse model of CLN6 Batten disease. T. BRAGGE; T. HUHTALA; J. T. PUOLIVALI*; J. BRUDVIG; T. JOHNSON; D. TIMM; J. RYTKÖNEN; J. M. WEIMER; A. J. NURMI; K. LEHTIMÄKI. <i>Charles River Discovery, Sanford Res., Sanford Res., Sanford Res.</i>			

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▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

4:00	B20	031.24 Developmental psychopathology after maltreatment and disordered attachment within the Strange Situation Test: Insights from an animal model. M. OPENDAK*; E. THEISEN; D. A. WILSON; R. M. SULLIVAN. <i>New York Univ., New York Univ. Sch. of Med., NKI & NYU Sch. of Med.</i>	3:00	B29	032.03 The autism mouse brain connectome project. V. ZERBI*; M. MARKICEVIC; M. PAGANI; M. RUDIN; M. MATTEOLI; M. FAGIOLINI; Y. BOZZI; G. PROVENZANO; A. BANERJEE; J. ELLEGODD; J. P. LERCH; A. GOZZI; N. WENDEROTH. <i>Neural Control of Movement Lab, ETH Zurich, Inst. Italiano di Tecnologia, Ctr. for Neurosci. and Cognitive Systems, Univ. and ETH Zürich, Humanitas Univ., Children's Hosp. Boston Harvard, Univ. of Trento, Univ. of Trento, Univ. of Zurich, Hosp. For Sick Children, Hosp. for Sick Children.</i>
1:00	B21	031.25 Pharmacological blockade of ATX-mediated LPA production prevents posthemorrhagic hydrocephalus in a preclinical lysophosphatidylcholine model. Y. C. YUNG*; M. LIN; X. SHENG; D. M. MORALES; D. L. LIMBRICK; J. CHUN. <i>Sanford Burnham Prebys Med. Discovery Inst., RevMAb Biosci. USA, Washington Univ. In St. Louis, Washington Univ. In St. Louis.</i>	4:00	B30	032.04 Cortical network graphs and dynamic functional connectivity in a mouse model of autism spectrum disorder. C. J. MACDOWELL*; T. J. BUSCHMAN. <i>Princeton Univ.</i>
2:00	B22	031.26 Parvalbumin-containing inhibitory interneuron migration, morphology, and physiology is altered in Lis1 mutant mice. T. G. EKINS*; J. A. D'AMOUR; C. J. MCBAIN. <i>NIH, Brown Univ.</i>	1:00	B31	032.05 Disruption of the dorsal striatum function promotes autistic-like behaviors. Y. LEE*; H. KWON; P. HAN. <i>Ewha Womans Univ., Ewha Womans Univ., Ewha Womans Univ.</i>
3:00	B23	031.27 Decanoic acid can lead to suppression of spasms in the multiple hit rat model of infantile spasms due to structural lesion. A. KATSAROU*; W. B. MOWREY; Q. LI; W. LIU; S. L. MOSHÉ; R. S. B. WILLIAMS; A. S. GALANOPPOULOU. <i>Albert Einstein Col. of Med., Albert Einstein Col. of Med., Albert Einstein Col. of Med., Royal Holloway Univ. of London, Albert Einstein Col. of Med.</i>	2:00	B32	032.06 ▲ Fos expression profile in suprachiasmatic nucleus in a postnatal valproate rat model of autism at different ages in a 24-hour cycle. G. J. SÁNCHEZ*; B. A. LARA; M. HERNANDEZ; G. E. ARANDA-ABREU; L. I. GARCIA; J. MANZO; R. TOLEDO-CARDENAS. <i>Ctr. de Investigaciones Cerebrales, Univ. Veracruzana.</i>
4:00	B24	031.28 Dissecting the contributions of Foxp1 and Foxp2 to motor behavior. L. G. STOICA GHITA*; C. A. FRENCH; S. F. GOMES; M. GROSZER; R. M. COSTA. <i>InsERM, Inst. du Fer à Moulin,, Champalimaud Ctr. for the Unknown, Zuckerman Mind Brain Behavior Institute, Columbia Univ.</i>	3:00	C1	032.07 Inhibitory synaptic transmission by parvalbumin-positive interneurons is perturbed in Cntnap2-KO autism model mice. M. BRIDI*; S. HUANG. <i>Hussman Inst. for Autism, Hussman Inst. for Autism.</i>
1:00	B25	031.29 Deficiency of protocadherin 1 cell adhesion molecule enhances social behavior in mice. S. HIRANO*; T. FURUSE; S. HAYASHIZAKI; K. OKANO-IMAI; S. WAKANA. <i>Kansai Med. Univ., RIKEN BioResource Ctr, The Fndn. for Biomed. Res. and Innovation.</i>	4:00	C2	032.08 ▲ Morphological, behavioral and molecular alterations in the rodent model of autistic spectrum disorder. J. MORENO-AVENDAÑO; F. CÁRDENAS; Z. DUENAS*. <i>Univ. Nacional de Colombia, Univ. de los Andes, Univ. Nacional De Colombia.</i>
2:00	B26	031.30 Characterization of the behavioral phenotype of a tuberous sclerosis complex mouse model. A. LEMONS*; R. M. SARE; C. FIGUEROA; C. B. SMITH. <i>Natl. Inst. of Mental Hlth.</i>	1:00	C3	032.09 <i>In vivo</i> magnetic resonance spectroscopy detects alterations of brain metabolites in a rat model of maternal autoantibody-related autism. M. R. BRUCE*; R. MADDOCK; D. ROWLAND; M. D. BAUMAN; J. VAN DE WATER. <i>Univ. of California - Davis, Univ. of California - Davis.</i>
			2:00	C4	032.10 Behavioral and morphological changes in the rat limbic system in an animal model of autism, exposure to propionic acid in the prenatal age. S. I. GONZALEZ CANO*; M. E. BRINGAS; I. CAMACHO-ABREGO; G. FLORES; M. ATZORI; D. MACFABE. <i>Inst. de Fisiología BUAP, Univ. Autónoma de San Luis Potosí, Alberta Children's Hosp. Res. Inst.</i>
			3:00	C5	032.11 SHANK3 deficient monkeys reveal the critical function of SHANK3 and autism-like symptoms. T. ZHUCHI*; Y. SEN; Z. HUI; L. BANG; G. XIANGYU; L. SHIHUA; Z. YONGQING; L. XIAOJIANG. <i>Ji Nan Univ., Inst. of Genet. and Developmental Biology, Chinese Acad. of Sciences,, Dept. of Human Genetics, Emory Univ.</i>
			1:00	DP01/C6	032.12 (Dynamic Poster) A compendium of genetic and non-genetic rodent models of autism. S. B. BASU*; I. DAS; M. ESTÉVEZ; A. SARKAR; A. VERENDEEV. <i>MindSpec Inc., Mindspec.</i>
			1:00	C7	032.13 Re-visiting the developmental hyperserotonemia model of autism: Stereotyped behavior and translocator protein changes. A. S. LEE*; J. DHAWAN; A. P. WALSH; M. A. MOORE; X. F. JIA; Y. CHOI; E. C. AZMITIA; A. BIEGON; P. M. WHITAKER-AZMITIA. <i>Stony Brook Univ., Stony Brook Univ., New York Univ.</i>

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2:00	C8	032.14 Synaptic gene dysregulation in Chd8 haploinsufficient mice. A. A. WADE*; C. P. CANALES; I. ZDILAR; A. L. GOMPERS; T. W. STRADLEIGH; A. S. NORD. <i>Univ. of California, Davis.</i>	2:00	C20	032.26 Reduced social motivation oxytocin signaling are involved on social behavior impairment in rats submitted to neonatal status epilepticus. R. M. CYSNEIROS*; F. T. RIBEIRO; M. SERRA-AZUL; F. LORENA. <i>Univ. Presbiteriana Mackenzie, Mackenzie Presbyterian Univ.</i>
3:00	C9	032.15 ● The GABA developmental shift is abolished by maternal immune activation already at birth. A. FERNANDEZ*; D. GUIMOND; C. DUMON; R. TYZIO; P. BONIFAZI; N. LOZOVARA; N. BURNASHEV; D. C. FERRARI; Y. BEN-ARI. <i>Neurochlore, Neurochlore, Neurochlore, INMED, Biocruces Hlth. Res. Institute, Ikerbasque: The Basque Fndn. for Sci.</i>	3:00	C21	032.27 Social skills in autism spectrum disorders relate with connectivity changes in the limbic system: An MRI study in Nf1+/- mice. L. I. PETRELLA*; Y. CAI; J. V. SERENO; A. J. SILVA; M. CASTELO-BRANCO. <i>Univ. of Coimbra, Univ. of California, Univ. of Coimbra, Univ. of Coimbra, Univ. of Coimbra.</i>
4:00	C10	032.16 Neuronal morphology and synaptic ultrastructure in the prefrontal cortex of a SHANK3- deficient rat model of Phelan-McDermid syndrome. S. JACOT-DESCOMBES; E. K. SARFO; N. KESHAV; B. WICINSKI; W. G. JANSEN; H. HARONY-NICOLAS; J. D. BUXBAUM; P. R. HOF; M. VARGHESE*. <i>Icahn Sch. of Med. At Mount Sinai, Univ. Hosp. and Sch. of Med., City Univ. of New York, City Col. of New York, Icahn Sch. of Med. At Mount Sinai, Icahn Sch. of Med. At Mount Sinai, Icahn Sch. of Med. At Mount Sinai.</i>	4:00	C22	032.28 Do gestational SSRIs lead to an increase in autism symptoms? A rat model using perinatal paroxetine. H. GARMAN*; S. KWON; M. MOORE; A. RUSSO; R. PARSONS; P. WHITAKER-AZMITIA. <i>Stony Brook Univ.</i>
1:00	C11	032.17 Motor deficit and increased anxiety-like states in mice lacking an autism-associated gene Slit3. S. PARK*; K. MENZEL; D. SIDIBE; C. PLACHEZ; S. HUANG. <i>Hussman Institue For Autism.</i>	1:00	C23	032.29 Differences in female BTBR T+ tf/J and C57BL/6J mice on stereotyped repetitive behaviors associated to autism spectrum disorder. A. PAHUA; M. ZARATE; J. TAYLOR; P. FLORES; M. SEEGER; D. A. AMODEO*. <i>California State Univ. San Bernardino.</i>
2:00	C12	032.18 Assessing the Role of SLIT3 in an animal model for Autism Spectrum Disorder. K. MENZEL; D. SIDIBE; C. PLACHEZ*. <i>Hussman Inst. for Autism.</i>			
3:00	C13	032.19 Assessment of motor function, motor learning, and olfactory climbing fiber distribution within Developmental Hyperserotonemia rat model for Autism Spectrum Disorder. E. D. HOLLAND*; T. AUSTIN; L. HOUGH. <i>Missouri State Univ.</i>			
4:00	C14	032.20 Calcium dynamics of astrocytes modulated by choline in the Df(h15q13)/+ mouse model of the 15q13.3 microdeletion syndrome. K. A. REES*; R. SRINIVASAN; U. H. WINZER-SERHAN. <i>Texas A&M Univ. Hlth. Sci. Ctr.</i>			
1:00	C15	032.21 The developmental trajectory of visual attention to social stimuli using unrestrained and noninvasive eye-tracking in infant rhesus macaques (<i>Macaca mulatta</i>). A. M. RYAN*; A. R. LAU; T. MURAI; C. HOGREFE; C. S. CARTER; M. D. BAUMAN. <i>Univ. of California Davis, The UC Davis MIND Inst., California Natl. Primate Res. Ctr., Sumitomo Dainippon Pharma Co., Ltd.</i>			
2:00	C16	032.22 Foxg1 regulates the development of cortical somatostatin-expressing interneurons. D. CHEN*; Y. NI; Y. SU; C. ZHAO. <i>Southeast Univ.</i>			
3:00	C17	032.23 Impaired behavioral flexibility in a mouse model of autism spectrum disorder. M. YUN*, J. SHIN; E. KIM; M. W. JUNG. <i>Inst. for Basic Sci., Dept. of Biol. Sciences, Korea Advanced Inst. of Sci. and Technol., Grad. Sch. of Med. Sci. and Engineering, Korea Advanced Inst. of Sci. and Technol.</i>			
4:00	C18	032.24 Environmental models of autism spectrum disorder display fine motor deficits and sex specific restricted neuronal loss. E. MATAS*; T. AL SAGHEER; O. HAIDA; A. BALBOUS-GAUTIER; M. FRANCHETEAU; P. FERNAGUT; M. JABER. <i>Univ. of Poitiers.</i>			
1:00	C19	032.25 Habitual responding in a mouse model of restricted, repetitive behavior: Associations with basal ganglia morphology. L. CURRY-POCHY*; J. FEINSTEIN; B. YAFFE; M. H. LEWIS. <i>Univ. of Florida, UF Col. of Med.</i>			

POSTER

033. Adolescent Development: Animal Models I

Theme A: Development

Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H

1:00	C24	033.01 Chronic periadolescent methylphenidate administration decreases gpr54 gene expression in the preoptic area of female rats. F. A. GUARRACI*; N. LE; N. MEBANE; A. HOLLEY; A. C. GORE. <i>Southwestern Univ., Southwestern Univ., Univ. of Texas at Austin.</i>
2:00	C25	033.02 Microglial elimination of dopamine receptors defines sex-specific nucleus accumbens development and social behavior during adolescence. A. M. KOPEC*; C. J. SMITH; N. R. AYRE; S. C. SWEAT; S. D. BILBO. <i>Harvard Med. School/Massachusetts Gen. Hospi, NIMH.</i>
3:00	C26	033.03 The effects of gestational exposure to SSRI antidepressants in anxiety tests in rat offspring. N. A. DESANCTIS*; J. P. KELLY. <i>Natl. Univ. of Ireland, Galway, Galway Neurosci. Ctr. NCBES.</i>
4:00	C27	033.04 ▲ Enrichment during adolescence differently effects evoked activity in entorhinal cortex following a single enriching experience in early adulthood. H. GODFREY; H. C. LIESEGANG; M. C. ZRULL*. <i>Appalachian State Univ.</i>
1:00	C28	033.05 Alpha5-GABA _A Rs specifically regulate synaptic transmission from somatostatin-expressing interneurons to excitatory neurons in developing visual cortex. J. CAO*; Y. YU; Y. FU. <i>Fudan Univ.</i>
2:00	C29	033.06 The effects of maternal high carbohydrates diet on melanocortin-4 receptor levels in the brain of male and female rat offspring. K. MUDLAFF*; D. GAWLINSKI; E. PRZEGALINSKI; M. FILIP. <i>Inst. of Pharmacology, Polish Acad. of Scien.</i>
3:00	C30	033.07 Differential regulation of input-specific plasticity in the prefrontal cortex by 2-AG and AEA. H. M. MOLLA*; D. R. THOMASES; K. Y. TSENG. <i>Univ. of Illinois at Chicago, Rosalind Franklin Univ. of Med. and Sci.</i>

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- 4:00 C31 **033.08** ▲ Effects of adolescent sucrose on resistance to punished cocaine in adult male and female rats. R. PARMAR*; M. COBB; R. ARANGO; M. WRIGHT; J. PARENT; I. C. SUMAYA; A. M. GANCARZ. *California State Univ. Bakersfield.*
- 1:00 C32 **033.09** ● Adolescent male rats exhibit more persistent goal-directed behavior than do adults. T. T. TOWNER*; M. FAGER; L. P. SPEAR. *Binghamton Univ., Ctr. for Develop. and Behavioral Neurosci.*
- 2:00 C33 **033.10** Age-dependent effects of EEDQ on cocaine-induced locomotor activity in male and female rats. A. TERAN; G. I. RAMIREZ; C. G. KATZ; S. A. MCDougall*. *California State Univ.*
- 3:00 C34 **033.11** Input-specific modulation of prefrontal afferent drive by α 7nAChR signaling *in vivo*. A. M. MIGUELEZ FERNÁNDEZ*; D. R. THOMASES; K. Y. TSENG. *Univ. of Illinois at Chicago - Col. of Med.*
- 4:00 C35 **033.12** Role of inflammatory signaling in pathophysiology of neuropsychiatric disorders induced by chronic adolescent THC exposure. M. DE FELICE*; J. RENARD; R. M. HUDSON; F. ZHOU GE; C. CHEN; L. WANG; S. N. WHITEHEAD; K. K. C. YEUNG; W. J. RUSHLOW; S. R. LAVIOLETTE. *Univ. of Western Ontario, Univ. of Western Ontario, Univ. of Western Ontario.*
- 1:00 C36 **033.13** Omega-3 supplementation during the adolescence period: Sex-specific effects on brain dha levels in juvenile and adult rats. J. RAYMOND*; H. PLAMONDON; M. SURETTE. *Univ. of Ottawa, Univ. Ottawa, Univ. of Moncton.*
- 2:00 C37 **033.14** Adolescent high fat diet impairs motivation and disrupts prefrontal cortex gene expression in adulthood. K. R. LLOYD*; T. M. REYES. *Univ. of Cincinnati.*
- 3:00 C38 **033.15** Early-life exposure to DEHP results in acute hyperactive phenotype and increased astrocytic protein expression in males. L. LAIRD*; K. CHANDLER; C. A. RUDYK; M. R. HOLAHAN; N. SALMASO. *Carleton Univ.*
- 4:00 D1 **033.16** A causal role for the GABAa receptor alpha 4 subunit in dorsal hippocampus in food restriction evoked wheel running. A. N. SANTIAGO*; A. SHERPA; Y. CHEN; C. AOKI. *New York Univ., New York Univ.*
- 1:00 D2 **033.17** High-sucrose intake in post-weaned rats is associated with morphological and functional changes in rat testis. Y. M. DE LEON RAMIREZ*; P. PACHECO; E. CUEVAS; M. A. LARA GARCIA; M. MARTINEZ-GOMEZ; D. L. CORONA QUINTANILLA; J. RODRIGUEZ ANTOLIN; L. NICOLAS TOLEDO. *Univ. Autónoma de Tlaxcala, Univ. Nacional Autónoma de México, Ctr. Tlaxcala de Biología de la Conducta/Universidad Autónoma de Tlaxcala, Univ. Veracruzana, Inst. de Investigaciones Biomédicas UNAM, Univ. Autónoma de, Univ. Autónoma de Tlaxcala.*
- 2:00 D3 **033.18** Developmental nicotine exposure attenuates female sex behavior. R. JOGLEKAR*; M. CAULEY; H. WHITE; E. LEVIN; S. MURPHY. *Duke Univ., Duke Univ., Duke Univ.*
- 3:00 D4 **033.19** Paternal care influences oxytocin expression in male and female California mouse offspring and basal testosterone levels in female, but not male offspring. A. GILL*; A. LEITHEAD; C. YOHN; J. FORD; E. BECKER. *St. Joseph's Univ., Rutgers Univ.*
- 4:00 D5 **033.20** Variation in early life maternal care predicts adolescent prefrontal cortex to amygdala synapse development in mice. A. W. THOMAS*; I. CHANG; K. DELEVICH; L. E. WILBRECHT. *UC Berkeley, UC Berkeley.*

POSTER**034. Neurotrophins****Theme B: Neural Excitability, Synapses, and Glia**

Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H

- 1:00 D6 **034.01** Analysis of neurodevelopment and schizophrenia-relevant behaviors in ErbB4 mutant mice lacking the Cyt-1 isoform. L. M. ERBEN*; M. E. CRONIN; M. SKIRZEWSKI; I. D. KARAVANOVA; D. VULLHORST; S. L. CARROLL; A. L. BUONANNO. *Section on Mol. Neurobiology, NICHD, NIH, Univ. of Bonn, Med. Univ. of South Carolina.*
- 2:00 D7 **034.02** Erbb4 knock-out mice demonstrate behavioral deficits associated with extracellular dopamine imbalance in the brain. M. E. CRONIN*; M. SKIRZEWSKI; R. MURPHY; A. L. BUONANNO. *Natl. Inst. of Hlth., Natl. Inst. of Hlth., Chief of Sect Mol Neurobiol (SMN), NICHD, NIH.*
- 3:00 D8 **034.03** NMDA receptor-dependent shedding of NRG2 by matrix metalloproteinases. D. VULLHORST*; A. L. BUONANNO. *NICHD, NIH, Chief of Sect Mol Neurobiol (SMN), NICHD, NIH.*
- 4:00 D9 **034.04** Modulation of neuregulin 1 ectodomain shedding by glycan 4. J. XU*; B. DOMINGUEZ; F. DE WINTER; S. YEO; K. LEE. *The Salk Inst. for Biol. Studies, Netherlands Inst. for Neurosci.*
- 1:00 D10 **034.05** EGR3 is required for activity dependent Bdnf exon IV and VI induction in the mouse hippocampus. K. K. MARBALLI*; X. ZHAO; K. T. MEYERS; J. M. CAMPBELL; A. L. GALLITANO. *Univ. of Arizona, Col. of Med., Neural Stem Cell Sci. Inst., Arizona State Univ.*
- 2:00 D11 **034.06** Nicotine challenge regulates BDNF via stimulation of metabotropic glutamate receptor 5-coupled signaling cascades in the dorsal striatum. J. KIM*; J. YANG; S. SON; S. KIM; E. HAN; E. CHOE. *Pusan Natl. Univ., Pusan Natl. Univ., Pusan Natl. Univ.*
- 3:00 D12 **034.07** Altered BDNF-trkB signaling in parvalbumin interneurons in the prefrontal cortex induces changed oscillatory activity and behavior. N. G. GUYON*; C. LOPEZ-AGUIAR; L. R. ZACHARIAS; M. Y. ZILBERTER; Y. XUAN; H. KIM; J. IMMENSCHUH; R. H. ANDERSSON; M. LINDSKOG; A. FISAHN; K. MELETIS; M. CARLÉN. *Karolinska Institutet, Univ. Federal de Minas Gerais, Univ. de São Paulo, Gladstone Inst., Karolinska Institutet.*
- 4:00 D13 **034.08** CREB and BDNF transcriptional autoregulation. E. ESLVALD*; J. TUVIKENE; A. SIRP; T. TIMMUSK. *Tallinn Univ. of Technol.*
- 1:00 D14 **034.09** Ketamine and (2R,6R)-hydroxynorketamine induce ocular dominance plasticity in the adult mouse visual cortex. A. STEINZEIG*; H. ANTILA; C. CANAROZZO; T. D. GOULD; E. CASTRÉN. *Univ. of Helsinki, Univ. of Maryland Sch. of Med.*
- 2:00 D15 **034.10** Identification of enhancer regions regulating BDNF gene expression. J. TUVIKENE*; A. AVARLAID; K. UUSTALU; A. RÄHNI; E. ESLVALD; K. JAANSON; T. TIMMUSK. *Tallinn Univ. of Technol.*

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POSTER**035. Sensory Transduction and Other Ion Channels****Theme B: Neural Excitability, Synapses, and Glia**

Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H

- 1:00 D16 **035.01** The role of TRPM3 in the hippocampus. K. HELD*; T. VOETS; Y. WANG; J. VRIENS. *Univ. of British Columbia, KU Leuven.*
- 2:00 D17 **035.02** TRPM4 modulates excitability of pyramidal neurons at layer 2/3 mPFC. E. LEIVA-SALCEDO*; D. RIQUELME. *Univ. de Santiago.*
- 3:00 D18 **035.03** Expression of TRPV1 channels by Cajal-Retzius cells and layer-specific modulation of synaptic transmission in the mouse hippocampus. M. ANSTÖTZ; S. LEE; G. MACCAFERRI*. *Northwestern Univ.*
- 4:00 D19 **035.04** • Discovery of novel co-activators of trpv1 and trpa1 to promote chemical neurostimulation for the treatment of muscle cramps and spasms. G. SHORT*; A. BROCKMAN; R. PERNI; W. MCVICAR. *Flex Pharma Inc, Flex Pharma, Inc., Flex Pharma.*
- 1:00 D20 **035.05** Characterization and optimization of the novel TRPM2 antagonist tat-M2NX. I. CRUZ-TORRES*; P. S. HERSON. *Univ. of Colorado Anschutz Med. Campus, UC Denver.*
- 2:00 D21 **035.06** Regulation of transient receptor potential canonical (TRPC)4, TRPC5 homomeric and TRPC1/4, C1/5 heteromeric channel activities by PI(4,5)₂ hydrolysis. J. KO*; J. MYEONG; Y. SHIN; I. SO. *Seoul Natl. Univ. Col. of Med., Univ. of Washington Sch. of Med., Harvard Med. Sch.*
- 3:00 D22 **035.07** Polyamine-mediated inward rectification of TRPC4 channel. Y. BAIK*; J. KIM; I. SO. *Seoul Natl. Univ. Col. of Med.*
- 4:00 D23 **035.08** Temperature sensitivity of GR28bD and its orthologs in *Drosophila*. A. MISHRA*; A. ROBINSON; B. R. BERIGAN; M. AMIRSHENAVA; J. L. LIN; B. C. ZARS; M. MILESCU; L. MILESCU; T. ZARS. *Univ. of Missouri-Columbia.*
- 1:00 D24 **035.09** Otop1 is expressed in taste cells that detect sour taste and necessary for their proton current. B. TENG*; Y. TU; A. COOPER; H. TURNER; D. ARTIGA; E. R. LIMAN. *USC.*
- 2:00 D25 **035.10** Salt loading enhances osmotic detection in rat magnocellular vasopressin neurons. J. C. WYROSDIC*; D. I. LEVI; M. PRAGER-KHOUTORSKY; C. W. BOURQUE. *McGill Univ. Hlth. Ctr., McGill Univ. Hlth. Ctr., McGill Univ. Hlth. Ctr.*
- 3:00 D26 **035.11** Modulation of anion channel gating by c-terminal domains in excitatory amino acid transporters. D. TORRES-SALAZAR*; A. M. KARA; M. H. CHENG; A. D. GONZALEZ-SUAREZ; J. GARCIA-OLIVARES; I. BAHAR; S. G. AMARA. *Natl. Inst. of Hlth., NIMH, Univ. of Pittsburgh, Yale Univ.*
- 4:00 D27 **035.12** Role of NALCN channels in pacemaking of substantia nigra dopamine neurons. S. HAHN*; S. KIM; H. KIM; M. PARK. *Sungkyunkwan Univ. Sch. of Med.*
- 1:00 D28 **035.13** Structure-function analysis of pannexin-1's permeability to anandamide. C. ANDERSON*; A. C. WERNER; N. L. WEILINGER; A. W. LOHMAN; R. J. THOMPSON. *Univ. of Calgary, Hotchkiss Brain Inst., Ctr. for Brain Hlth.*

- 2:00 D29 **035.14** • Characterization of the interaction between connexin36 and CaMKII. S. TETENBORG*; S. HORMUZDI; H. MONYER; G. VAN WOERDEN; J. O'BRIEN; U. JANSEN-BIENHOLD; K. DEDEK. *Univ. of Oldenburg, Univ. of Dundee, Med. Fac. of Univ. Heidelberg & DKFZ, Erasmus MC Univ. Med. Ctr., Univ. of Texas, Visual Neuroscience, Univ. of Oldenburg.*

- 3:00 D30 **035.15** The channel properties of alternatively spliced isoforms of anoctamin 2, calcium-activated chloride channels. D. LEE*; G. HA; E. CHEONG. *Yonsei Univ., Yonsei Univ.*

POSTER**036. Long-Term Depression (LTD)****Theme B: Neural Excitability, Synapses, and Glia**

Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H

- 1:00 D31 **036.01** Long term potential, but not depression, in interlamellar hippocampus CA1. H. KANG*; H. TETTEH; J. SU; J. LEE; S. PARK; J. KIM; J. JO; S. YANG; S. YANG. *Incheon Natl. Univ., City Univ. of Hong Kong, Sch. of Electrical & Electronic Engin., Incheon Natl. Univ., Chonnam Natl. Univ.*
- 2:00 D32 **036.02** Fluorescent lifetime imaging microscopy of Type 1 Protein Phosphatase & I-2 interaction partners downstream of NMDA receptor stimulation. M. M. PAPASERGI-SCOTT*; H. HOU; K. F. FOLEY; H. XIA. *Univ. of Rochester Med. Ctr.*
- 3:00 D33 **036.03** mGluR5-dependent NMDAR activation is associated with LTD shift upon aging. M. T. FERREIRA*; D. G. FERREIRA; R. GOMES; J. E. COELHO; M. BADER; D. BLUM; T. F. OUTEIRO; H. MARIE; P. A. POUSINHA; L. V. LOPES. *Inst. De Medicina Molecular, FMUL, Ctr. for Nanoscale Microscopy and Mol. Physiol. of the Brain, Ctr. for Biostructural Imaging of Neurodegeneration, Univ. Med. Ctr. Göttingen, Faculdade de Ciencias da Univ. de Lisboa, Max-Delbrück-Center for Mol. Med. (MDC), Charité-University Med., Inst. of Biology, Univ. of Lübeck, Inserm UMR_S1172, Max Planck Inst. for Exptl. Med., CEDOC – Ctr. de Estudos de Doenças Crônicas, NOVA Med. School, Faculdade de Ciências Médicas, Univ. NOVA de Lisboa, Inst. de Pharmacologie Moléculaire et Cellulaire (IPMC).*
- 4:00 D34 **036.04** Metabotropic glutamate receptor (mGluR) mediated long term depression in young and adult C57BL/6 mice. A. J. IDOWU*; A. KIRKWOOD. *Lagos State Univ. Col. of Med., Johns Hopkins Univ.*
- 1:00 D35 **036.05** Pannexin-1 contributes to long-term depression at the CA3-CA1 synapse. A. WERNER*; R. J. THOMPSON. *Univ. of Calgary, Univ. of Calgary.*
- 2:00 D36 **036.06** Actomyosin-mediated nanostructural remodeling of the presynaptic vesicle pool by cannabinoids induces long-term depression. M. MCFADDEN; H. XU; Y. CUI; R. A. PISKOROWSKI; C. LETERRIER; D. ZALA; L. VENANCE; V. CHEVALEYRE; Z. LENKEI*. *Inserm, CIRB Inserm, Inserm U894, Univ. Paris Descartes, CRN2M.*
- 3:00 D37 **036.07** Depolarization induced suppression of excitation mediated by endocannabinoids in the hyperdirect pathway of the basal ganglia. L. GORODETSKI*; A. KORNGREEN. *Bar-Ilan Univ.*

• Indicated a real or perceived conflict of interest, see page 74 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

4:00	D38	036.08	Cannabinoid receptor suppresses long-term depression in the neonatal brain for consolidation of neuronal circuits for spatial cognition. Y. CHAN*; C. MA; W. SHI; D. SHUM. <i>Sch. of Biomedic. Sci., Fac. Med., Univ. Hong Kong, State Key Lab. of Brain and Cognitive Sciences, Univ. Hong Kong.</i>	2:00	D51	037.10	Distinct neuronal subtypes and induction mechanisms drive acute and chronic homeostatic signaling. V. HARO ACOSTA*; P. GOEL; D. K. DICKMAN; S. NISHIMURA. <i>USC, USC, Univ. of Southern California.</i>
1:00	D39	036.09	Alcohol exposure disrupts mu opioid receptor-mediated long-term depression at insular cortex inputs to dorsolateral striatum. B. MUÑOZ*; B. M. FRITZ; F. YIN; B. K. ATWOOD. <i>Indiana Univ. Sch. of Med.</i>	3:00	E1	037.11	Mechanisms of homeostatic synaptic plasticity. J. BARTRAM*; M. SCHRÖTER; S. RONCHI; V. EMMENEGGER; J. MÜLLER; A. HIERLEMANN. <i>ETH Zurich.</i>
2:00	D40	036.10	Induction of LTD in the indirect pathway improves motor symptoms in Parkinsonian mice. C. ABBURI*; B. RODRIGUEZ; X. ZHUANG; D. MCGEHEE. <i>Univ. of Chicago, Univ. of Chicago.</i>	4:00	E2	037.12	Conditioned taste aversion disrupts the induction of neocortical long-term depression <i>in vivo</i> . E. URRIETA*; M. L. ESCOBAR. <i>Fac. of Psychology, UNAM, UNAM, Fac Psicología.</i>
3:00	D41	036.11	Acute and chronic cocaine exposure occludes long-term depression in ventral tegmental area GABA neurons. B. WU*; L. N. FRIEND; J. G. EDWARDS. <i>Brigham Young Univ., NIH, Brigham Young Univ.</i>	1:00	E3	037.13	Effects of methylphenidate and amphetamine on glutamatergic neurons from nucleus accumbens. C. REYES-VAZQUEZ*; A. VAZQUEZ-ALVAREZ; D. PINEDA-VAZQUEZ; B. PRIETO-GÓMEZ. <i>Dept. de Fisiología.</i>
POSTER							
37.	Synaptic Plasticity: Homeostatic Plasticity I						
	Theme B: Neural Excitability, Synapses, and Glia						
	Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H						
1:00	D42	037.01	A glutamate homeostat controls the presynaptic inhibition of neurotransmitter release. D. K. DICKMAN*; X. LI; P. GOEL. <i>USC.</i>	2:00	E4	037.14	Social Defeat-induced Interleukin 6-dependent synaptic changes in the prefrontal cortex of the mouse. M. MIRANDA-MORALES*; E. ESQUIVEL-RENDÓN; J. VARGAS-MIRELES; P. ACOSTA-MARES; R. CUEVAS-OLGUÍN; S. ROSE-JOHN; M. ATZORI. <i>Univ. Autonoma De San Luis Potosi, Christian Albrecht Universitet.</i>
2:00	D43	037.02	Impacts of injury-related signaling on synaptic function and homeostatic plasticity. P. GOEL*; D. DICKMAN. <i>USC.</i>	3:00	E5	037.15	▲ The proinflammatory cytokine interleukin 6 is involved in behavioral and synaptic changes induced by prolonged exposure to continuous illumination. M. MORQUECHO ROBLEDO*; R. D. CUEVAS-OLGUÍN; M. MIRANDA-MORALES; R. VELAZQUEZ-CONTRERAS; F. VEGA; J. VARGAS-MIRELES; C. ARENAS-HUERTERO; N. SADERI; R. C. SALGADO; S. ROSE-JOHN; M. ATZORI. <i>Univ. Autonoma De San Luis Potosi, UASLP, Univ. Autonoma De San Luis Potosi, Facultad De Ciencias, Univ. Autonoma De San Luis Potosi, Christian Albrecht Universitet, Univ. Autónoma de San Luis Potosí.</i>
3:00	D44	037.03	Synapse-specific and compartmentalized induction and expression of presynaptic homeostatic potentiation. X. LI*; P. GOEL; C. CHEN; V. ANGAJALA; X. CHEN; D. K. DICKMAN. <i>USC, USC, USC.</i>	4:00	E6	037.16	Primed suppressive paired associative stimulation. K. FROST*; M. CHEN; J. HODGES; J. R. CAREY. <i>Univ. of Minnesota Syst., Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota.</i>
4:00	D45	037.04	Uncoupling the maintenance and rapid induction of homeostatic synaptic plasticity. T. D. JAMES*; D. J. ZWIEFELHOFER; C. FRANK. <i>Univ. of Iowa.</i>	1:00	E7	037.17	Period1-dependent molecular mechanisms behind daytime-dependent plasticity in mouse hippocampus. J. H. STEHLE*; A. JILG; P. BECHSTEIN; J. FAHRENKRUG; E. MARONDE; O. RAWASHDEH. <i>Inst. of Anat. III, Univ. Clinics Frankfurt, Bispebjerg and Frederiksberg Hospital, Univ. of Copenhagen The Dept. of Clin. Biochem., Univ. of Queensland.</i>
1:00	D46	037.05	Trans-synaptic signaling underlying presynaptic homeostatic potentiation at the mouse neuromuscular junction. A. E. HOMAN*; S. D. MERINEY. <i>Univ. of Pittsburgh, Univ. Pittsburgh.</i>	2:00	E8	037.18	▲ Pumilio, a possible link between sleep and neuronal homeostasis. M. R. FRANCIA*; L. DE JESUS; B. MADERA; O. MENDÉZ; J. ALEMÁN; A. GHEZZI; J. L. AGOSTO. <i>Univ. of Puerto Rico Rio Piedras, Univ. of Puerto Rico Rio Piedras, UPR Mol. Sci. and Res. Ctr., Univ. of Puerto Rico Rio Piedras, Univ. of Puerto Rico, Rio Piedras, Univ. of Puerto Rico, Rio Piedras Campus.</i>
2:00	D47	037.06	The role of netrin 1-DCC signaling in regulating GABA _A R homeostatic plasticity. E. CHAN*; Y. WANG. <i>Univ. of British Columbia.</i>	3:00	E9	037.19	PVN:CRH neurons anticipate innate defensive behaviors. N. DAVIU*; T. FUZESI; D. ROSENNEGGER; N. RASIAH; T. STERLEY; J. S. BAINS. <i>Univ. of Calgary.</i>
3:00	D48	037.07	Homeostatic synaptic plasticity in embryonic motoneurons is dependent on TNF alpha signaling. C. E. GONZALEZ-ISLAS*; M. A. GARCÍA-BEREGUIAIN; C. LINDSLY; P. WENNER. <i>Emory Univ. Sch. of Med., Univ. Autónoma de Tlaxcala, Yachay Tech. Univ.</i>	4:00	E10	037.20	Labeling of cortical neurons based on their baseline firing rate in freely behaving mice. N. TROJANOWSKI*; B. MOEYEAERT; E. R. SCHREITER; G. TURRIGIANO. <i>Brandeis Univ., Howard Hughes Med. Institute, Janelia Farm Res. Campus.</i>
4:00	D49	037.08	The transition between the induction and maintenance of homeostatic synaptic signaling. K. M. LEMBKE; A. M. SPRING; C. FRANK*. <i>Univ. of Iowa.</i>				
1:00	D50	037.09	Schizophrenia related protein Fxr1 controls homeostatic tuning of neuronal activity. J. KHLGHATYAN*; A. EVSTRATOVA; S. CHAMBERLAND; A. MARAKHOVSKAIA; T. SOARES SILVA; V. MONGRAIN; K. TOTH; J. BEAULIEU. <i>Laval University/ Univ. of Toronto, Univ. of Toronto, Laval Univ., Univ. de Montréal.</i>				

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* Indicates abstract's submitting author

1:00	E11 037.21 Dendritic coordination between excitatory and inhibitory synapses via endocannabinoid signalling. D. L. H. KRUIJSSEN; H. Y. HU; B. RÓZSA; C. C. HOOGENRAAD; C. J. WIERENGA*. <i>Utrecht Univ., Inst. of Exptl. Med.</i>	1:00	E22 038.05 Brain state modulation of synaptic plasticity: Addressing roles of sleep in homeostasis and the segregation of plasticity. B. A. CARY*; G. TURRIGIANO. <i>Brandeis Univ., Brandeis Univ.</i>
2:00	E12 037.22 Salt loading enhances Mg ²⁺ resistive tonic NMDA current in supraoptic nucleus. C. NEUPANE; R. SHARMA; J. PARK*. <i>Dept. of Physiology, Sch. of Medicine, Chungnam Natl. Univ.</i>	2:00	E23 038.06 Circuit-specific DNA modifications change as photoperiod-induced neurotransmitter plasticity declines with aging. R. PRITCHARD*; H. CHEN; N. SPITZER; D. DULCIS. <i>UCSD, UCSD.</i>
3:00	E13 037.23 Extinction of conditioned taste aversion prevents the maintenance of <i>in vivo</i> insular cortex LTP through calcineurin participation: A metaplastic effect. A. RIVERA-OLVERA*; J. NELSON-MORA; M. GONSEBATT; M. L. ESCOBAR. <i>Facultad de Psicología, UNAM, Inst. de Investigaciones Biomédicas, UNAM.</i>	3:00	E24 038.07 Social stress induces neurotransmitter switching in the dorsal raphe nucleus. N. PRAKASH*; C. STARK; A. DER-AVAKIAN; D. DULCIS. <i>Univ. of California San Diego.</i>
4:00	E14 037.24 Neuropeptide vasopressin may have synapse organizing functions in multiple limbic regions throughout the brain. L. ZHANG*; M. CARDENAS-AGUAYO; A. CASTELL. <i>Natl. Autonomous Univ. of Mexico, Natl. Autonomous Univ. of Mexico.</i>	4:00	E25 038.08 Nicotine-induced neurotransmitter plasticity in the substantia nigra. I. LAI*; B. ROMOLI; S. POWELL; D. DULCIS. <i>Univ. of California San Diego.</i>
1:00	E15 037.25 Cyclophilin D regulates neuronal activity-induced filopodiogenesis by fine-tuning dendritic mitochondrial calcium dynamics. Q. WANG*; S. SUI; J. TIAN; E. GAUBA; L. GUO; H. DU. <i>The Univ. of Texas At Dallas, Qianfoshan Hosp. Affiliated to Shandong Univ., The Univ. of Texas at Dallas.</i>	1:00	E26 038.09 Neonatal nicotine exposure primes non-dopaminergic VTA neurons to express dopamine in response to adult nicotine consumption. B. ROMOLI*; A. F. LOZADA; I. M. SANDOVAL; F. P. MANFREDSSON; D. K. BERG; D. DULCIS. <i>Univ. of California San Diego, Univ. California San Diego, Michigan State Univ., UCSD, Univ. of California San Diego.</i>
2:00	E16 037.26 Tuning dendritic plasticity by modulating nicotinic acetylcholine receptor expression and trafficking. J. S. ROSENTHAL*; J. YIN; C. LONG; Q. YUAN. <i>NIH, Univ. of Maryland, Natl. Inst. of Neurolog. Disorders and Stroke NIH.</i>	2:00	E27 038.10 Adaptive mechanisms of inter-hemispheric connectivity and GABAergic function in the early phase after unilateral traumatic brain injury in mice. T. MITTMANN*; Q. WANG; M. BILLAUD; T. NOVKOVIC. <i>UMC of the Johannes-Gutenberg Univ. Mainz.</i>
3:00	E17 037.27 Modulation of synaptic plasticity after thorax trauma. S. CURSANO*; C. BATTAGLIA; S. GRABRUCKER; M. SCHOEN; A. M. GRABRUCKER; M. HUBER-LANG; T. M. BOECKERS. <i>Univ. of Ulm, Univ. of Limerick, Universitätsklinikum.</i>	3:00	E28 038.11 Two distinct mechanisms for experience-dependent homeostasis. M. BRIDI*; R. DE PASQUALE; C. L. LANTZ; Y. GU; A. BORRELL; S. CHOI; K. HE; T. T. TRAN; S. Z. HONG; A. DYKMAN; H. LEE; E. M. QUINLAN; A. KIRKWOOD. <i>Johns Hopkins Univ., Univ. of São Paulo, Univ. of Maryland, Northwestern Univ., Univ. of Maryland, Seoul Natl. Univ. Sch. of Dent., Chinese Acad. of Sci., Johns Hopkins Univ., Johns Hopkins Univ., Johns Hopkins Univ., Johns Hopkins Univ., Johns Hopkins Univ.</i>
4:00	E18 038.01 Synaptic retinoic acid signaling mediates mTOR-dependent metaplasticity that controls hippocampal learning. Y. HSU*; J. LI; D. WU; T. C. SUDHOFF; L. CHEN. <i>Stanford Univ., Stanford Univ., Stanford Univ.</i>	4:00	E29 038.12 Role of neuronal activity and metaplastic state in homeostatic synaptic plasticity. B. D. GRIER*; V. CHOKSHI; A. DYKMAN; C. L. LANTZ; E. NIEBUR; E. M. QUINLAN; H. LEE. <i>Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ., Johns Hopkins Univ., Univ. of Maryland.</i>
2:00	E19 038.02 Direct interaction between FMRP and retinoic acid receptor alpha is critical for retinoic acid-mediated homeostatic plasticity. L. CHEN*; A. G. LAU; K. L. ARENDT. <i>Stanford Univ.</i>	1:00	E30 038.13 Homeostatic regulation of intrinsic excitability in fragile x syndrome. K. HERNANDEZ*; Y. TAN; A. J. MCCARTNEY; A. RENOUX; P. K. TODD; M. A. SUTTON. <i>Univ. of Michigan, Central South University-Xiangya Sch. of Med., Yale Univ., Univ. of Michigan.</i>
3:00	E20 038.03 Retinoic acid-dependent synaptic signaling mediates homeostatic synaptic plasticity at the inhibitory synapses of mouse visual cortex. L. R. ZHONG*; X. C. CHEN; T. C. SUDHOFF; L. CHEN. <i>Stanford Univ. Sch. of Med., Stanford Univ., Stanford Univ., Stanford Univ.</i>	2:00	E31 038.14 Differential roles for unique I-type Ca ²⁺ -channel subtypes in homeostatic synaptic scaling. A. CHEN*; S. RICE; G. G. MURPHY; M. A. SUTTON. <i>Univ. of Michigan, Univ. of Michigan, Univ. of Michigan.</i>
4:00	E21 038.04 Whisker-dependent sensory processing requires cortical retinoic acid signaling. E. PARK*; M. TJIA; O. MIRY; Y. ZUO; L. CHEN. <i>Stanford Univ., Univ. of California Santa Cruz.</i>	3:00	E32 038.15 Activity-dependent proteasome trafficking in axons underlies state-dependent expression of synaptic homeostasis. J. C. ALTHAUS*; F. E. HENRY; S. J. JAKAWICH; H. NASSER; V. A. CAZARES; C. CARRUTHERS; E. L. STUENKEL; G. N. PATRICK; M. A. SUTTON. <i>Univ. of Michigan, HHMI Janelia Farm, Univ. of Michigan, UCLA, Univ. of Michigan, UCSD-Div Biol. Sci., Univ. of Michigan.</i>
		4:00	E33 038.16 Enriched environment rescues behavioral abnormalities in a mouse model of fragile X syndrome. J. LI*; K. L. ARENDT; Y. HSU; R. JIANG; L. CHEN. <i>Stanford Univ.</i>

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* Indicates abstract's submitting author

1:00	E34	038.17 Sleep temporally segregates the expression of downward firing rate homeostasis <i>in vivo</i> . A. TORRADO PACHECO*; K. B. HENGEN; G. G. TURRIGIANO. <i>Brandeis Univ., Washington Univ. In St. Louis.</i>	1:00	E46	039.09 Altered levels of triggering receptor expressed on myeloid cells 2 (trem2) in epilepsy. S. K. JOHNSON*; A. L. BREWSTER. <i>Purdue Univ.</i>
2:00	E35	038.18 Viral tools in the analysis of neuronal circuits. C. R. BATTAGLIA*; B. HENGERER; T. M. BOECKERS. <i>Univ. of Ulm, Boehringer Ingelheim Pharma Gmbh & Co. KG.</i>	2:00	E47	039.10 Effect of dorsal raphe serotonin neuron stimulation on post-ictal EEG suppression and arousal in mice. A. PETRUCCI*; K. JOYAL; G. F. BUCHANAN. <i>Univ. of Iowa, Univ. of Iowa, Univ. of Iowa.</i>
3:00	E36	038.19 Characterization of synapses in human iPSCs-derived organoids. M. MALARA*; S. PFAENDER; M. SCHOEN; B. HENGERER; T. M. BOECKERS. <i>Univ. of Ulm, Boehringer Ingelheim Pharma Gmbh & Co. KG.</i>	3:00	E48	039.11 Elucidating the role of enhancer of zeste homolog 2 (ezh2) in epilepsy. N. N. KHAN*; B. SCHÖENIKE; T. BASU; G. RODRIGUEZ; C. SINDIC; M. JOHNSON; E. WALLACE; R. MAGANTI; R. J. DINGLEDINE; A. S. ROOPRA. <i>Univ. of Wisconsin-Madison, Univ. of Wisconsin-Madison, Emory Univ. Sch. Med.</i>
4:00	E37	038.20 Representation of latent states in a non-spatial cognitive map. X. WANG*; C. CHEN; I. BARREIROS; N. NYBERG; V. SAMBORSKA; M. E. WALTON; T. BEHRENS. <i>Oxford Univ.</i>	4:00	E49	039.12 ▲ Adult born dentate granule neurons show accelerated maturation in a transgenic mouse model of adult-onset spontaneous epilepsy. M. S. HOSSAIN; A. POUGH; K. KOROMA; C. ISGOR*. <i>Florida Atlantic Univ. Charles E Schmidt Col. of Med.</i>
POSTER					
039.	Epilepsy		1:00	E50	039.13 The effect of cannabidiol on microglial function and receptor expression in an epilepsy mouse model. T. R. VICTOR*; J. C. NISSEN; M. W. ELMES; D. G. DEUTSCH; S. E. TSIRKA. <i>Stony Brook Univ., SUNY Old Westbury, Stony Brook Univ., Stony Brook Univ.</i>
	<i>Theme B: Neural Excitability, Synapses, and Glia</i>		2:00	E51	039.14 Matrix metalloproteinase-mediated degradation of perineuronal nets contributes to tumor-associated epilepsy. L. CHAUNSALI*; B. P. TEWARI; D. C. PATEL; H. SONTHEIMER. <i>Virginia Tech. Carilion Res. Inst., ICTAS II, Virginia Tech. Sch. of Neurosci.</i>
1:00	E38	039.01 Noninflammatory homeostatic changes of microglia promote the development of spontaneous recurrent seizures. X. ZHAO; Y. HUANG*. <i>Albany Med. Col.</i>	3:00	F1	039.15 Diverse effects of a kindling model of epilepsy on different inhibitory cell types in the piriform cortex. J. J. ROBERTSON; J. M. BEKKERS*. <i>John Curtin Sch. Med. Res.</i>
2:00	E39	039.02 Seizure susceptibility in a novel preclinical mouse model of Dravet syndrome. A. ADHIKARI*; N. A. COPPING; T. W. STRADLEIGH; I. ZDILAR; A. S. NORD; J. L. SILVERMAN. <i>Univ. of California Davis Sch. of Med., MIND Inst., Univ. of California, Davis.</i>	4:00	F2	039.16 Changes in structure and function of thin, hippocampal axons in epileptic mice. D. PEKALA; D. YAKOUT; D. GLODENER; J. C. WONG; A. ESCAYG; M. RAASTAD*. <i>Emory Univ., Emory Univ., Emory Univ., Emory Univ. Sch. of Med.</i>
3:00	E40	039.03 Investigation of long interspersed element-1 retrotransposon gene disruptions in the etiology of idiopathic temporal lobe epilepsy. G. A. DOYLE*; R. J. BUONO; T. N. FERRARO; R. CRIST; B. C. REINER; G. ARAUCO-SHAPIRO; R. N. LEVINSON; L. D. SHAH; W. H. BERRETTINI. <i>Univ. Pennsylvania, Cooper Med. Sch. of Rowan Univ., Univ. of Pennsylvania.</i>	1:00	F3	039.17 Trk inhibition in a new experimental model of seizures and spreading depolarization/spreading depression. Y. LU*; J. S. SPROUSE; H. E. SCHARFMAN. <i>The Nathan Kline Inst. For Psych. Res., Pyramid Biosciences, Inc., The Nathan S. Kline Inst. For Psychiatric Rese, New York Univ. Langone Hlth.</i>
4:00	E41	039.04 ● Novel genetic tools to assess astrogliosis. W. AGNEW-SVOBODA*; Y. E. WONG; T. FIACCO; M. RICCOMAGNO. <i>Univ. of California, Riverside.</i>	2:00	F4	039.18 Anatomical and morphological evidence showing active hippocampal dentate granule cells are mature cells. S. A. PARK*; D. COULTER. <i>Children's Hosp. of Philadelphia, Children's Hosp. of Philadelphia, The Univ. of Pennsylvania.</i>
1:00	E42	039.05 Single maximal electroshock seizures acutely trigger a specific response in hippocampal microglia in mice. A. SEPULVEDA RODRIGUEZ*; P. LI; J. MA; L. BOZZELLI; C. CARLONE; K. CONANT; S. VICINI; P. FORCELLI. <i>Georgetown Univ. Med. Ctr., Georgetown Univ., Sun Yat-Sen Mem. Hosp., Georgetown Univ. Med. Ctr.</i>	3:00	F5	039.19 Acute reduction of the extracellular trans-synaptic protein LGI1 increases network excitability. E. LUGARA*; E. CHABROL; G. LIGNANI; M. C. WALKER. <i>UCL Inst. of Neurol., UCL, UCL Inst. of Neurology, UCL, Inst. of Neurology.</i>
2:00	E43	039.06 Sleep quality is not affected by post-seizure latency in the methionine sulfoximine model of epilepsy. M. R. BOWER*; R. B. JOSHI; H. P. ZAVERI; J. L. GERRARD. <i>Yale, Wake Forest Sch. of Med., Yale Univ., Yale Sch. of Med.</i>	4:00	F6	039.20 Altered glutamatergic synaptic transmission associated with early life inflammatory challenge-induced adult seizure vulnerability. C. D. GÓMEZ MARTÍNEZ*; M. L. LEWIS; Q. J. PITTMAN. <i>Hotchkiss Brain Institute, Univ. of Calgary.</i>
3:00	E44	039.07 Assessing high-frequency oscillation (HFO) rates in EEG signals for seizure prediction. D. SEETHARAMA BHAT*; B. D. KERN; S. D. CABRERA; R. A. ROMERO; S. F. SANDS. <i>Univ. of Texas at El Paso, Univ. of Texas at El Paso.</i>	1:00	F7	039.21 Investigating mechanisms underlying absence epilepsy using DREADD technology to silence microcircuits within the cortico-thalamic-cortical network. S. PANTHI; B. LEITCH*. <i>Univ. of Otago.</i>
4:00	E45	039.08 Specific phosphorylation changes in HCN1 channels during epileptogenesis revealed by mass spectrometry. F. A. CONCEPCION; N. P. POOLOS*. <i>Univ. of Washington, Univ. of Washington.</i>			

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2:00	F8	039.22	Spillover-induced shifts in the contribution of synaptic and extrasynaptic GABA-A receptors after brief convulsant stimulation favors slowing and synchronization of hippocampal networks. D. E. NAYLOR*. <i>Veterans Admin. - UCLA, LA BioMed.</i>	4:00	F19	040.08	Controlling abnormal network dynamics with optogenetics targeting excitatory cells. B. ZAAIMI*; A. HAZRA; Y. WANG; S. BAKER; M. KAISER; A. TREVELYAN; M. CUNNINGHAM; F. LEBEAU; A. JACKSON. <i>Newcastle Univ.</i>
3:00	F9	039.23	Binding mode and physiological role of epilepsy-related ligand/receptor LGI1-ADAM22 complex based on structural analysis. Y. MIYAZAKI*; A. YAMAGATA; N. YOKOI; Y. FUKATA; S. FUKAI; M. FUKATA. <i>Div. of Membrane Physiology, Natl. Inst. for Physiological Sci., Inst. for Quantitative Biosciences, The Univ. of Tokyo.</i>	1:00	F20	040.09	Dysregulation and restoration of homeostatic network plasticity in fragile X syndrome mice. D. LIU*; K. A. JEWETT; K. LEE; S. SORIANO; D. E. EAGLEMAN; N. TSAI. <i>Univ. of Illinois Urbana-Champaign, Univ. of Illinois at Urbana-Champaign, Univ. of Illinois at Urbana-Champaign.</i>
4:00	F10	039.24	Downregulation of molecules mediating inhibitory neurotransmission in a NHE6 knock-out mouse model of Christianson syndrome. A. Y. GAO*; L. MASSON; T. F. JAMES; R. A. MCKINNEY. <i>McGill Univ.</i>	2:00	F21	040.10	Epilepsy-associated mutations of Nedd4-2 disrupt AMPA receptor-dependent neuronal network activity. J. ZHU*; K. LEE; K. A. JEWETT; H. MAN; H. CHUNG; N. TSAI. <i>Univ. of Illinois At Urbana-Champaign, Univ. of Illinois At Urbana-Champaign, Univ. of Illinois At Urbana-Champaign, Boston Univ.</i>
1:00	F11	039.25	Repeated stimulation of excitatory neurons in piriform cortex decreases feedback inhibition, leads to a loss of GABAergic neurons and reduces parvalbumin expression. B. H. RYU*; P. LEE; K. M. FRANKS. <i>Duke Univ.</i>	3:00	F22	040.11	Amygdala lesions prevent seizure-induced respiratory arrest and death in two mouse models of SUDEP. A. MARINCOVICH*; E. BRAVO; Y. KIM; B. J. DLOUHY; G. B. RICHERSON. <i>Univ. of Iowa, Univ. of Iowa, Univ. of Iowa.</i>
				4:00	F23	040.12	● <i>In vitro</i> neuronal network models of SCN2A epileptic encephalopathy. L. JIA*; S. PACHERNEGG; M. LI; N. JANCOVSKI; B. ROLLO; T. KARLE; S. MALJEVIC; C. REID; S. PETROU. <i>Florey Inst. of Neurosci. and Mental Hlth., The Univ. of Melbourne.</i>
1:00	F12	040.01	Large-scale 4-Hz oscillations control the expression of neocortical fast-ripples in hippocampal sclerosis. L. SHEYBANI*; P. VAN MIERLO; G. BIROT; K. SCHALLER; M. SEECK; C. MICHEL; C. QUAIRIAUX. <i>Functional Brain Mapping Laboratory, Fac. of Me, Med. Image and Signal Processing Group, Ghent Univ., Functional Brain Mapping Laboratory, Dept. of Fundamental Neuroscience, Univ. of Geneva, Neurosurg. Division, Dept. of Clin. Neuroscience, Fac. of Medicine, Geneva Univ. Hosp., Neurrol. Division, Dept. of Clin. Neuroscience, Fac. of Medicine, Geneva Univ. Hosp.</i>	1:00	F24	040.13	Pharmacological blockade of KCC2 in the subiculum triggers synchronized inter-ictal like bursts. M. P. FISKE*; G. MACCAFERRI. <i>Northwestern Univ. Feinberg Sch. of Medicin, Northwestern Univ.</i>
2:00	F13	040.02	Dissecting ictogenesis in a model of post-traumatic epilepsy. L. A. LAU*; K. LILLIS; K. STALEY. <i>MGH.</i>	2:00	F25	040.14	Imaging single neuron activity during the transition to a seizure in a mouse model of Dravet syndrome links micro- and macro-scale dynamics. S. E. MULDOON*; C. TRAN; N. GOLDSTEIN; V. JUTTON; M. VAIANA; E. M. GOLDBERG. <i>Univ. at Buffalo, SUNY, Drexel Univ. Col. of Med., The Perelman Sch. of Med. at The Univ. of Pennsylvania, Children's Hosp. of Philadelphia.</i>
3:00	F14	040.03	▲ Local network synchronization in the rat dorsal and ventral hippocampus throughout development. S. MYSIEWICZ; K. A. DOUGHERTY*. <i>Rhodes Col., Rhodes Col.</i>	3:00	F26	040.15	Glucose modulation of thalamocortical neuron excitability. K. A. SALVATI*; D. R. WYSKIEL; M. P. BEENHAKKER. <i>Univ. of Virginia, Univ. of Virginia, Univ. of Virginia.</i>
4:00	F15	040.04	High density multi electrode array: A new tool to monitor seizure-like activity evoked by different convulsant drugs. M. SESSOLO*; A. UGOLINI; A. MACCIONE; M. GANDOLFO; M. CORSI; C. VIRGINIO. <i>Aptuit, an Evotec Co., 3Brain AG.</i>	4:00	G1	040.16	Disruption in theta/gamma oscillatory dynamics <i>in vivo</i> in a rodent model of experimental epilepsy. D. SUBRAMANIAN*; J. PALMIERI; V. SANTHAKUMAR. <i>Univ. of California Riverside, Rutgers, New Jersey Med. Sch.</i>
1:00	F16	040.05	● Hesi neutox pilot study: Seizure liability assessment using hippocampal-derived CNS-like neural co-cultures. C. FLEMING; D. HESS; M. KENNEDY; T. PALM; G. C. LUERMAN*. <i>Ncardia Inc, Ncardia AG, Ncardia AG.</i>	1:00	G2	040.17	A heterogeneous thalamic network model that recapitulates oscillations modulated by GABA transporter blockade. A. C. LU*; C. K. LEE; B. TRUONG; J. R. HUGUENARD; M. P. BEENHAKKER. <i>Univ. of Virginia, Stanford Univ. Sch. Med., Univ. of Virginia.</i>
2:00	F17	040.06	Neuron-glia interactions underlie state transitions to generalized seizures. E. YAKSI*; C. DIAZ VERDUGO; S. MYREN-SVELSTAD; C. DENEUBOURG; R. PELGRIMS; N. JURISCH-YAKSI. <i>Norwegian Univ. of Sci. and Technol., Kavli Inst. for Systems Neurosci.</i>	2:00	G3	040.18	Assess circuit excitability using acute and chronic silicon probe recordings in ankyrin-G knockout mice. D. G. SUCHANEK*; A. J. WILLIAMS; Q. SUN. <i>Zoology and Physiology- Univ. of Wyoming.</i>
3:00	F18	040.07	Divergent paths to seizure: Evidence from <i>in vitro</i> models of epilepsy. R. R. PARRISH*; N. K. CODADU; T. JACKSON-TAYLOR; R. J. BURMAN; J. V. RAIMONDO; A. J. TREVELYAN. <i>Newcastle Univ., Univ. of Cape Town.</i>	3:00	G4	040.19	Association between epileptiform activity and reduced fMRI connectivity in the default mode network in the kainic acid rat model of epilepsy. L. HE; L. LI; C. B. KHALIL; H. J. YEH; N. HARRIS; J. STERN; J. ENGEL, Jr.; A. BRAGIN*. <i>David Geffen Sch. Med. UCLA, Zhejiang Univ. of Technol., UCLA, UCLA.</i>

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4:00	G5 040.20 Functional and structural properties of epileptogenic networks in the kainic acid rat model. L. LI*; M. PATEL; U. KUMAR; H. J. YEH; N. HARRIS; J. STERN; J. ENGEL, Jr.; A. BRAGIN. <i>Univ. of California Los Angeles, UCLA, UCLA, UCLA.</i>	3:00	H4 041.07 G9a-mediated heterochromatin rearrangement in the dentate gyrus during epileptogenesis. R. M. HAUSER*; C. E. WALLS; K. MCINERNEY; S. C. SINT JAGO; R. G. SANCHEZ; F. D. LUBIN. <i>The Univ. of Alabama at Birmingham, The Univ. of Alabama in Birmingham, Univ. of Alabama at Birmingham, Univ. Alabama Birmingham.</i>
1:00	G6 040.21 Human dentate gyrus granule cell morpho-electric properties are correlated with the severity of hippocampal sclerosis. A. BUCHIN*; R. DE FRATES; P. CHONG; M. RUSTY; K. DAI; U. RUTISHAUSER; R. GWINN; S. SORENSEN; J. TING; C. A. ANASTASSIOU. <i>Allen Inst. for Brain Sci., Caltech, Cedars-Sinai Med. Ctr., Swedish Med. Ctr., Univ. of British Columbia.</i>	4:00	H5 041.08 Comparison of TETS and picrotoxinin pharmacokinetics in mice. D. ZOLKOWSKA*; F. KAMIENSKI; L. M. OLSEN; M. A. ROGAWSKI. <i>Univ. of California, Davis.</i>
2:00	G7 040.22 Can ephaptic coupling participate in intercolumnar synchronization in neocortex? A. DESTEXHE*; B. REBOLLO; A. NAVARRO-GUZMAN; M. V. SANCHEZ-VIVES; B. TELENCEZUK. <i>CNRS, IDIBAPS, ICREA.</i>	1:00	H6 041.09 Investigation into serotonergic control of seizures via the 5-HT _{2C} receptor. G. A. HIGGINS*; L. B. SILENIEKS; N. RAMSEYER; E. VAN NIEKERK; C. TAYLOR; S. KANTOR; N. UPTON. <i>Intervivo Solutions Inc, Vivocode, Transpharmation Ltd.</i>
3:00	G8 040.23 Multi-modal investigation of subthreshold and spiking entrainment to externally imposed electric fields in mouse V1. F. BAFTIZADEH*; S. LEE; S. GRATIY; T. CUNNINGTON; K. DAI; S. OLSEN; C. ANASTASSIOU. <i>Allen Inst. For Brain Sci., Univ. of Washington, Univ. of British Columbia.</i>	2:00	H7 041.10 Application of a novel, probability-based algorithm to assess the development of epilepsy after traumatic brain injury (TBI). J. A. PFAMMATTER; P. V. RODRIGUES; S. KONDURU; R. A. BERGSTROM; M. V. JONES*; R. K. MAGANTI. <i>Univ. of Wisconsin Madison, Univ. of Wisconsin Madison, Beloit Col.</i>
4:00	G9 040.24 Differential optogenetic modulation of parvalbumin and somatostatin inhibitory interneuron activity downregulates seizure activity in the mouse temporal neocortex. F. PUCCI*; S. J. CRUIKSHANK; B. W. CONNORS. <i>Brown Univ., Brown Univ.</i>	3:00	H8 041.11 Optogenetic modulation of striatal output pathways for seizure suppression in rodent epilepsy. S. HYDER*; P. A. FORCELLI. <i>Georgetown Univ.</i>
		4:00	H9 041.12 Nigrotectal and nigropontine projections have divergent effects on seizure control. E. WICKER*; P. A. FORCELLI. <i>Georgetown Univ., Georgetown Univ.</i>
		1:00	H10 041.13 Multiple scales network study of epileptiform activity in larval zebrafish using <i>in vivo</i> calcium imaging. J. LIU*; S. C. BARABAN. <i>UC San Francisco.</i>
		2:00	H11 041.14 Spatial inhomogeneity in burst suppression pattern caused by an acute epileptic focus. H. MA*; E. BAIRD-DANIEL; J. LIU; M. ZHAO; A. G. DANIEL; C. A. SCHEVON; T. H. SCHWARTZ. <i>Weill Cornell Med. Col., Weill Cornell Med. Col., Columbia Univ., Weill Cornell Med. of Cornell Univ., Joan and Sanford I Weill Med. Col. of Cornell Univ.</i>
		3:00	H12 041.15 ▲ Spontaneous seizure-associated spreading depolarization in a chronic rodent model of temporal lobe epilepsy. C. M. CURAY*; F. BAHARI; J. LIU; J. KIMBUGWE; S. J. SCHIFF; K. D. ALLOWAY; B. J. GLUCKMAN. <i>Millennium Sci. Complex, Pennsylvania State Univ., The Pennsylvania State Univ., The Pennsylvania State Univ., Penn State Univ., Penn State Univ., Penn State Univ.</i>
		4:00	H13 041.16 Low cost small animal emu suitable for high-fidelity dc-sensitive 24/7 recording. J. LIU*; M. W. BILLARD; A. IMHOFF; F. BAHARI; J. KIMBUGWE; S. J. SCHIFF; K. D. ALLOWAY; B. J. GLUCKMAN. <i>The Pennsylvania State Univ., Penn State, Pennsylvania State Univ., Penn State Univ., Penn State Univ., Penn State Univ.</i>
		1:00	H14 041.17 Variability in sites of earliest recorded seizure activity in a rat model of temporal lobe epilepsy. P. BUCKMASTER*. <i>Stanford Univ.</i>
		2:00	H15 041.18 Blocking hippocampal apolipoprotein D after acute seizures prevents cognitive impairment associated with epilepsy. J. KIM; K. CHO*. <i>The Catholic Univ. of Korea, The Catholic Univ. of Korea.</i>

POSTER**041. Epilepsy: Seizure Mechanisms****Theme B: Neural Excitability, Synapses, and Glia**

Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H

1:00	G10 041.01 The HDAC inhibitor sodium butyrate reduces neuropathology and behavior dysfunction after traumatic brain injury in mice. V. GOLUB*; D. S. REDDY. <i>Texas A&M Univ. Hlth. Sci. Ctr., Texas A&M Hlth. Sci. Ctr.</i>
2:00	G11 041.02 Enantiomeric N-substituted phthalimides with excitatory amino acids protect zebrafish larvae against PTZ-induced seizures. C. CAMPOS RODRIGUEZ*; E. RAMIREZ-SAN JUAN; R. OLSSON. <i>Escuela Nacional De Ciencias Biologicas, IPN, Biomedicinskt Centrum, Lund Univ., Escuela Nacional De Ciencias Biologicas.</i>
3:00	G12 041.03 Complement C3 contributes to seizure-induced behavioral deficits in mice. N. D. SCHARTZ*; A. L. BREWSTER. <i>Purdue Univ.</i>
4:00	H1 041.04 Development of a laser scalpel neurosurgical approach to treat focal neocortical epilepsy. S. LIEBERMAN*; D. A. RIVERA; R. RADWANSKI; M. ZHAO; T. H. SCHWARTZ; C. B. SCHAFFER; N. NISHIMURA. <i>Cornell Univ., Cornell Univ., Weill Cornell Med. of Cornell Univ., Joan and Sanford I Weill Med. Col. of Cornell Univ.</i>
1:00	H2 041.05 Immunization with mycobacterium vaccae prevents asd-like behavioral outcomes but not epileptogenesis in the stress-terbutaline model of epilepsy. Z. Z. SMITH*; R. A. KUBIAK; T. CRIST; C. A. LOWRY; D. S. BARTH. <i>Univ. of Colorado Boulder, Univ. of Colorado Boulder.</i>
2:00	H3 041.06 <i>In vivo</i> direct reprogramming of reactive glial cells into neurons in a temporal lobe epilepsy model. J. YU*; J. ZHENG; T. LI; G. CHEN. <i>Jinan Univ.</i>

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POSTER

042. Astrocyte Biology

Theme B: Neural Excitability, Synapses, and Glia

Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H

- 1:00 H16 **042.01** Regional characterization of vimentin-immunoreactive astrocytes in the human brain. L. A. O'LEARY*; C. BELLIVEAU; M. DAVOLI; N. MECHAWAR. *McGill Group For Suicide Studies, Douglas Inst., McGill Univ., McGill Univ.*
- 1:00 DP03/H17 **042.02** (Dynamic Poster) Astroglial contributions to sleep homeostasis. A. M. INGIOSI*; C. R. HAYWORTH; D. O. HARVEY; J. P. WISOR; M. G. FRANK. *Washington State Univ.*
- 3:00 H18 **042.03** Nitric oxide-induced TFEB activation in murine cortical astrocytes requires zinc release from metallothionein-3. B. SEO*; J. CHOI; Y. HAN; J. KOH. *Asan Inst. for Life Sci., Asan medical center.*
- 4:00 I1 **042.04** Calcium oscillation increase in the hippocampal astrocytes induced by sonic hedgehog. C. ADACHI*; S. ARAI; T. KITAGUCHI; S. TAKEDA; T. INOUE. *Waseda Univ., Waseda Biosci. Res. Inst. in Singapore (WABIOS), Yamanashi Univ.*
- 1:00 I2 **042.05** Astrocytes contribute to dopamine signaling in the nucleus accumbens. M. CORKRUM*; A. COVELO; R. QUINTANA; M. THOMAS; A. ARAQUE. *Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota Syst., Univ. of Minnesota Twin Cities.*
- 2:00 I3 **042.06** Piezo1 is a novel calcium entry pathway in astrocytes. L. E. WICKI-STORDEUR*; R. W. KO; N. L. WEILINGER; B. A. MACVICAR. *Univ. of British Columbia.*
- 3:00 I4 **042.07** Neuronal BDNF contributes to astrocyte morphogenesis through astrocytic TrkB.T1. L. HOLT*; N. L. PACHECO; M. L. OLSEN. *Virginia Tech., Univ. of Alabama at Birmingham, Univ. of Alabama At Birmingham.*
- 4:00 I5 **042.08** Kir4.1-like currents contribute to the development of unique regional astrocyte Co₂/H⁺sensitivity in the retrotrapezoid nucleus. K. PATTERSON; C. M. GONÇALVES; D. K. MULKEY; M. L. OLSEN*. *Univ. of Alabama At Birmingham, Univ. of Connecticut, Univ. Connecticut, Virginia Tech, Sch. of Neurosci.*
- 1:00 I6 **042.09** Protein SUMOylation determines the cargo content of astrocyte-derived small extracellular vesicles. A. FERNÁNDEZ*; O. SANTIS; A. ROJAS; U. WYNEKEN. *Univ. De Los Andes, Univ. Austral.*
- 2:00 I7 **042.10** The proteolytic microenvironment as a regulator of astrocyte form and function. S. SLADE*; H. YOON; M. RADULOVIC; W. SIMON; I. A. SCARISBRICK. *Mayo Clin. Grad. Sch. of Biomed. Sci., Mayo Clin., Mayo Clin.*
- 3:00 I8 **042.11** The evolutionary origin(s) of glia. D. K. HARTLINE*. *Univ. of Hawai'i At Manoa.*
- 4:00 I9 **042.12** Morphological characteristic of astroglial processes in thick sections of the rat orofacial sensory-motor cortex: Effects of endodontic treatment versus tooth extraction. J. LOPEZ GROSS; M. ZANJIR; I. YONA; J. HWANG HO; B. BASRANI; P. CHERKAS; L. AVIVI-ARBER*. *Univ. of Toronto, Univ. of Toronto Dent.*
- 1:00 I10 **042.13** Characteristics of astrocytic endfeet in mouse brain revealed by laser ablation. H. KUBOTERA*; H. IKESHIMA-KATAOKA; Y. HATASHITA; A. ALLEGRA MASCARO; F. S. PAVONE; T. INOUE. *Waseda Univ., European Lab. for Non-linear Spectroscopy, Univ. of Florence, Neurosci. Institute, Natl. Res. Council.*
- 2:00 I11 **042.14** Modeling the variability of spontaneous astrocyte calcium activity and responses to repeated stimuli. M. TAHERI*; A. D. DORVAL; J. A. WHITE. *Univ. of Utah, Univ. of Utah, Boston Univ.*
- 3:00 I12 **042.15** Nestin regulates neurogenesis through notch signaling from astrocytes to neural stem cells. M. PEKNA*; U. WILHELMSSON; I. LEBKUECHNER; R. LEKE; P. MARASEK; X. YANG; D. ANTFOLK; M. CHEN; P. MOHSENI; E. LASIC; S. TRKOV BOBNAR; M. STENOVEC; R. ZOREC; A. NAGY; C. SAHLGREN; M. PEKNY. *Univ. of Gothenburg, Abo Akademi Univ., Lunenfeld-Tanenbaum Res. Inst., Univ. of Ljubljana.*
- 1:00 DP02/I13 **042.16** • (Dynamic Poster) Astrocytes are cellular and molecular targets of lithium treatment: A novel role for lysyl oxidase (Lox) as a regulator of astrogliosis. A. D. RIVERA*; A. BUTT. *Univ. of Portsmouth.*
- 1:00 I14 **042.17** Purinergic signalling controls bicarbonate secretion in astrocytes to regulate brain extracellular pH. S. M. THEPARAMBIL*; P. S. HOSFORD; A. V. GOURINE. *Univ. Col. London.*
- 2:00 I15 **042.18** Sex differences in cortical astroglial cells throughout postnatal development in mice. G. M. RURAK*; G. COPPOLA; N. SALMASO. *Carleton Univ., Yale Univ.*
- 3:00 I16 **042.19** • Dissecting neuronal contact and activity dependent transcriptional changes in human astrocytes using thioracil tagging. R. A. BRADLEY*; A. PETERSEN; K. LIU; C. MCFALLS; J. SHIREMAN; S. ZHANG. *Univ. of Wisconsin - Madison, Univ. of Wisconsin Madison, Univ. of Wisconsin - Madison, Univ. of Wisconsin Colleges.*
- 4:00 I17 **042.20** Small Ankyrin 1 may regulate SERCA activity in astrocytes but not in neurons. A. LABUZA*; R. J. BLOCH. *Univ. of Maryland Baltimore.*
- 1:00 J1 **042.21** Ceramide-induced interaction between tubulin and voltage-dependent anion channel 1 regulates mitochondria ATP release in astrocytes. Z. ZHU*; A. ELSHERBINI; J. KONG; Y. ITOKAZU; G. WANG; M. DINKINS; L. ZHONG; H. LIN; S. LEAHART; X. JIANG; H. QIN; W. ZHI; S. SPASSIEVA; E. BIEBERICH. *Univ. of Kentucky, Univ. of Kentucky, Massachusetts Inst. of Technology., Augusta Univ.*
- 2:00 J2 **042.22** Nuclear and cytosolic compartmentalization of β-adrenergic receptor signaling in astrocytes. D. S. WHEELER*; K. BENTON; B. KURTOGLU; K. COLE; M. CROWE; E. DASSOW; P. WITT; D. C. LOBNER; P. J. GASSER. *Marquette Univ.*
- 3:00 J3 **042.23** Astrocytes in the hippocampal dentate gyrus exhibit diurnal morphological and coupling heterogeneity via label-free imaging. G. NASERI KOUZEHGARANI*; M. E. KANDEL; G. POPESCU; M. U. GILLETTE. *Univ. of Illinois at Urbana-Champaign, Univ. of Illinois at Urbana-Champaign, Univ. of Illinois at Urbana-Champaign.*
- 4:00 J4 **042.24** Dopamine effects on astrocyte morphology and transcriptome. A. GALLOWAY*; A. ADELUYI; B. O'DONOVAN; M. L. FISHER; M. SAJISH; J. R. TURNER; P. I. ORTINSKI. *Univ. of South Carolina Sch. of Med., Univ. of South Carolina Col. of Pharm.*

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1:00	J5	042.25 Endothelia regulate astrocytic glutamate transporter 1 (GLT-1) expression: A notch story. Z. MARTÍNEZ LOZADA*; M. L. LEE; E. K. SHIH; M. B. ROBINSON. <i>Children's Hosp. of Philadelphia, Univ. of Pennsylvania.</i>	2:00	K2	043.06 Regeneration of NG-2 glia following pharmacogenetic ablation in the adult central nervous system. T. D. MERSON*; B. H. A. CHUANG; T. J. KILPATRICK; S. MITEW; Y. L. XING. <i>Australian Regenerative Med. Inst., Monash Univ., The Univ. of Melbourne.</i>
2:00	J6	042.26 Infrared laser photostimulation evokes TRP mediated calcium signaling in primary differentiated rodent astrocytes. A. I. BORRACHERO-CONEJO*; W. R. ADAMS; E. SARACINO; G. NICCHIA; M. MOLA; F. FORMAGGIO; M. CAPRINI; T. POSATI; R. ZAMBONI; M. MUCCINI; A. MAHADEVAN-JANSEN; V. BENFENATI. <i>CNR-ISMN, Vanderbilt Univ., CNR, Univ. of Bari, Univ. of Bologna.</i>	3:00	K3	043.07 Regulation of myelin structure and conduction velocity by perinodal astrocytes. D. J. DUTTA; D. WOO; P. R. LEE; S. PAJECVIC; O. BUKALO; H. WAKE; W. HUFFMAN*; P. J. BASSER; S. SHEIKHBAHAEI; V. LAZAREVIC; J. C. SMITH; R. D. FIELDS. <i>NIH.</i>
3:00	J7	042.27 Cortical astrocytes are derived from two distinct progenitor populations. E. C. GINGRICH*; B. TING; P. S. SAKTHIVEL; A. D. R. GARCIA. <i>Drexel Univ., Drexel Univ. Col. of Med.</i>	4:00	K4	043.08 Neuronal activity promotes the adaptive myelination of oligodendrocytes from human pluripotent stem cells <i>in vitro</i> . T. BRICKLER*; J. BIAN; J. VEGA LEONEL; S. CHETTY. <i>Stanford Univ.</i>
4:00	J8	042.28 Role of AKT isoforms in reactive astrogliosis. R. A. MILSTEAD*; J. LEVENGA; H. WONG; C. HOEFFER. <i>Univ. of Colorado, Boulder.</i>	1:00	K5	043.09 Oligodendrocytes contribute to brain glutamate homeostasis. W. XIN*; Y. MIRONOVA; H. SHEN; R. MARINO; A. WAISMAN; W. LAMERS; D. E. BERGLES; A. BONCI. <i>Johns Hopkins Univ., Natl. Inst. on Drug Abuse, Univ. Med. Ctr. of the Johannes Gutenberg University Mainz, Univ. of Amsterdam.</i>
1:00	J9	042.29 ● Vmat2 in astrocytes regulates dopamine homeostasis in the developing prefrontal cortex. T. ZEHNDER*; F. PETRELLI; L. PUCCI; G. DALLÉRAC; C. CALI; S. SULTAN; C. ASENSIO; V. GUNDERSEN; N. TONI; G. KNOTT; F. MAGARA; F. KIRCHHOFF; N. DÉGLON; B. GIROS; R. EDWARDS; J. MOTHET; P. BEZZI. <i>Univ. of Lausanne, Aix-Marseille Univ., Univ. of California San Francisco, Univ. of Oslo, UECole Polytechnique Fédérale de Lausanne, Lausanne Univ. Hosp. Ctr., Univ. of Saarland, Lausanne Univ. Hosp., Douglas Mental Hlth. Univ. Inst. McGill Univ.</i>	2:00	K6	043.10 ● Oligodendrocyte specific transcriptional profiling: From candidate genes to <i>in vivo</i> functional assays. A. FOSTER*; B. EMERY. <i>Oregon Hlth. and Sciene Univ., Oregon Hlth. and Sci. Univ.</i>
2:00	J10	042.30 ▲ Adult zebrafish astrogliial response to olfactory organ damage in the olfactory bulb. J. SCHEIB*; C. BYRD-JACOBS. <i>Western Michigan Univ.</i>	3:00	K7	043.11 Mechanistic target of rapamycin regulates the oligodendrocyte cytoskeleton during myelination. T. L. WOOD*; A. S. MUSAH; T. L. BROWN; H. HASHIMOTO; W. B. MACKLIN. <i>New Jersey Med. Sch, Rutgers Univ., Univ. of Colorado Anschutz Med. Campus.</i>
4:00			4:00	K8	043.12 Mbp mRNA transport in oligodendrocytes is critical for myelin maintenance. M. FU*; C. LEE; B. BARRES. <i>Stanford Univ.</i>
			1:00	K9	043.13 The UPR is required for maintaining ER protein homeostasis and the viability and function of adult mature oligodendrocytes. W. LIN*; S. STONE; S. WU. <i>Univ. of Minnesota Dept. of Neurosci., Univ. of Minnesota.</i>
1:00	J11	043.01 Myelination in the developing Xenopus laevis. Z. CHORGAY*, E. S. RUTHAZER. <i>Montreal Neurolog. Inst., McGill Univ.</i>	2:00	K10	043.14 Interleukin-33 signaling is involved in glial progenitor cell Proliferation and oligodendrocyte differentiation. H. HUANG; H. SUNG; C. HO; C. WANG; W. CHEN; S. TZENG*. <i>Natl. Cheng Kung Univ., Natl. Cheng Kung Univ., Chang Gung Mem. Hosp., Natl. Cheng Kung Univ.</i>
2:00	J12	043.02 KIF21B regulates myelination in zebrafish. J. STEENGAARD; K. KJAER-SORENSEN; L. S. LAURSEN*. <i>Aarhus Univ., Aarhus Univ.</i>	3:00	K11	043.15 Endocytosis pathway control of proteoglycan NG2 is linked to oligodendrocyte progenitor asymmetric division and differentiation. C. K. PETRITSCH*; M. CHOUCHANE. <i>Univ. of California San Francisco.</i>
3:00	J13	043.03 PAK1 regulation of oligodendrocyte differentiation and myelination. T. L. BROWN; L. T. FINSETH; W. B. MACKLIN*. <i>Univ. Colorado Med. Sch.</i>	4:00	K12	043.16 Teneurin-4 regulates oligodendrocyte process formation in CNS myelination. N. SUZUKI*; Y. YAMADA. <i>TMDU/Department of Mol. and Cell. Biol., NIDCR, NIH.</i>
4:00	J14	043.04 Oligodendrocyte lineage subtypes equally originate from embryonic and postnatal waves and have spatial preference in the mammalian central nervous system. E. M. FLORIDDIA*; S. ZHANG; J. P. GONÇALVES DOS SANTOS; G. CASTELO-BRANCO. <i>Karolinska Institutet.</i>	1:00	K13	043.17 Oligodendrocyte-axon interaction via teneurin-4 controls cell adhesion in morphogenesis of oligodendrocytes for myelination. C. HAYASHI*; N. SUZUKI; N. KIKURA; Y. HOSODA; Y. MABUCHI; C. AKAZAWA. <i>Tokyo Med. and Dent. Univ.</i>
1:00	K1	043.05 Understanding the molecular mechanisms underlying differential myelination in the cortex. V. A. JOKHI*; P. ARLOTTA. <i>Harvard Univ.</i>			

● Indicated a real or perceived conflict of interest, see page 74 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

POSTER**044. Brain Wellness and Aging: Molecular Mechanisms****Theme C: Neurodegenerative Disorders and Injury**

Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H

- 1:00 K14 **044.01** Long-term intranasal aspart in the aged F344 model of aging: From pathway analysis to behavior, and insulin receptors to mechanisms of brain insulin resistance. K. L. ANDERSON*; H. N. FRAZIER; A. O. GHOWERI; K. VATTANAPHONE; M. XIA; G. A. FOX; E. SUDKAMP; E. S. JOHNSON; K. E. HARGIS; J. C. GANT; L. D. BREWER; N. M. PORTER; J. R. PAULY; E. M. BLALOCK; O. THIBAULT. *Univ. of Kentucky, Univ. of Kentucky, Thiel Col., Univ. of Kentucky.*
- 2:00 K15 **044.02** Inducing elevated insulin receptor signaling via a constitutively active human insulin receptor leads to alterations in glucose metabolism in cultured hippocampal neurons. H. N. FRAZIER*; K. L. ANDERSON; A. O. GHOWERI; S. D. KRANER; G. J. POPA; M. D. MENDENHALL; C. M. NORRIS; O. THIBAULT. *Univ. of Kentucky, Univ. of Kentucky.*
- 3:00 K16 **044.03** ● Tissue-specific gene expression changes are associated with aging in mice. A. SRIVASTAVA*; E. BARTH; M. A. ERMOLAEVA; C. FRAHM; M. MARZ; O. W. WITTE. *Jena Univ. Hosp., Friedrich Schiller Univ., FLI Leibniz Inst. for Age Res.*
- 4:00 K17 **044.04** The age-associated stressors amyloid beta oligomers and oxidative damage induce repressive histone methylation in cultured hippocampal neurons. A. IONESCU*; L. TONG; K. TSEUNG; N. BERCHTOLD; C. W. COTMAN. *UC Irvine, Scripps Col.*
- 1:00 K18 **044.05** Extracellular vesicles profile is altered in cerebrospinal fluid of aged rats. I. R. SIQUEIRA*; G. ANDRADE; K. BERTOLDI; F. GALVÃO, Jr.; P. WORM; L. R. CECHINEL. *Univ. Federal Do Rio Grande Do Sul, Univ. Federal do Rio Grande do Su, Universidade Federal do Rio Grande do Sul, Complexo Hospitalar Santa Casa de Misericórdia, Univ. Federal Do Rio Grande Do Sul.*
- 1:00 DP04/L1 **044.06** (Dynamic Poster) Retrograde axonal transport of BDNF diminishes with age in basal forebrain cholinergic neurons. A. SHEKARI; M. FAHNESTOCK*. *McMaster Univ.*
- 3:00 L2 **044.07** A novel bdnf subtype bdnf pro-peptide and tau pathology. M. KOJIMA*; K. MATSUI; T. MIZUI. *AIST, AIST, BMI.*
- 4:00 L3 **044.08** Glucocorticoid receptor density increases with aging in rat hippocampal CA1 neurons, showing an inverse relationship to FK506 binding protein 12.6/1b, a major Ca²⁺ regulator. I. KADISH*; J. C. GANT; E. M. BLALOCK; K. CHEN; O. THIBAULT; N. M. PORTER; P. W. LANDFIELD. *Univ. of Alabama Birmingham, Univ. of Kentucky, Univ. Kentucky Coll Med., Univ. of Kentucky, Univ. Kentucky Med. Ctr., Univ. of Kentucky.*
- 1:00 L4 **044.09** Transcriptome analysis by CAGE-seq in the young and old cultured neurons. K. MURAI*; G. MATSUMOTO; M. FUCHINO; N. MORI. *Nagasaki-University Sch. of Med.*
- 2:00 L5 **044.10** CNV neurons are rare in aged human neocortex. W. D. CHRONISTER*; M. B. WIERNAN; I. E. BURBULIS; M. J. WOLPERT; M. F. HAAKENSON; J. E. KLEINMAN; T. HYDE; D. R. WEINBERGER; S. BEKIRANOV; M. J. MCCONNELL. *Univ. of Virginia, Lieber Inst. for Brain Development, Johns Hopkins Univ.*
- 3:00 L6 **044.11** Disrupting the epigenome in novel NICE mice to study age-related cognitive decline. J. M. ROSS*; G. COPPOTELLI; J. AMORIM; E. HILLSTEDT; E. NEEDHAM; E. POTTS; D. A. SINCLAIR. *Harvard Med. Sch., Karolinska Institutet, Harvard Med. Sch., Univ. of Coimbra.*
- 4:00 L7 **044.12** The effects of tacedinaline (histone deacetylase inhibitor) on antipsychotic drug induced side effects in aged mice. B. M. MCCLARTY*; L. RUOXU; G. RODRIGUEZ; H. DONG. *Northwestern Univ., Northwestern Univ. Feinberg Sch. of Med.*
- 1:00 L8 **044.13** ● Neuroprotection and anti-aging effects of anthocyanidins via histone acetylation regulation. T. NATORI*; T. SUNOHARA; M. MIYAJIMA. *Univ. Yamanashigakuin.*
- 2:00 L9 **044.14** Klotho regulates the activity of hippocampal neurons. H. T. VO*; M. L. PHILLIPS; J. H. HERSKOWITZ; G. D. KING. *Univ. of Alabama at Birmingham, Univ. of Alabama at Birmingham.*
- 3:00 L10 **044.15** Characterization of interaction between ubiquitin ligase RNF167 and ubiquitin conjugating enzyme Ube2N. K. GHILARDUCCI; C. DESROCHES; B. DJERIR; J. ARTEAU; L. EL CHEIKH-HUSSEIN; M. P. LUSSIER*. *Univ. Du Québec À Montréal.*
- 4:00 L11 **044.16** Unraveling the role of the WASH complex in neurological dysfunction. J. L. COURTLAND*; I. KIM; S. H. SODERLING. *Duke Univ., Duke Univ., Duke Univ. Sch. of Med.*
- 1:00 L12 **044.17** Predictors of estrogen's neuroprotective efficacy. J. TOOFAN*; C. SU; N. SUMIEN; M. SINGH. *Univ. of North Texas Hlth. Sci. Ctr., Univ. of North Texas Hlth. Sci. Ctr., Univ. of North Texas Hlth. Sci. Ctr.*
- 2:00 L13 **044.18** Progressive loss of neuron identity and function through a cis-regulatory mutation. E. LEYVA-DÍAZ*; O. HOBERT. *Columbia Univ., HHMI.*
- 3:00 L14 **044.19** Novel mechanisms of protein homeostasis in muscle and neurons. M. MORI*; P. HAGHIGHI. *Buck Inst. for Res. On Aging.*
- 4:00 L15 **044.20** Investigating the biological mechanisms underlying alterations in cognition from the multimodal intervention study FINGER. A. SANDEBRING*; L. PATERNAIN-MARKINEZ; J. GOICOLEA; I. BJÖRKHEM; A. SOLOMON; M. KIVIPELTO; A. CEDAZO-MINGUEZ. *Ctr. for Alzheimer Res., Div. of Clin. Chemistry, Dept. of Lab. Med.*
- 1:00 L16 **044.21** ▲ Point mutations in the vesicular acetylcholine transporter alter behavioral performance during *Drosophila* lifespan. J. MURPHY; S. WILLIAMS; Y. MARTINEZ; H. O. LAWAL*. *Delaware State Univ.*
- 2:00 L17 **044.22** Proteasome function in the longevity *Drosophila* mutant methuselah. T. SCHMIDT-GLENNEWINKEL*; J. GAO; C. YEH; M. FIGUEREIDO-PEREIRA. *Hunter Col. of CUNY.*
- 3:00 L18 **044.23** Biogenetic features and function of the mitochondrial ribosome in health and mitochondrial encephalomyopathies. A. K. CHOI*; A. BARRIENTOS; H. ZHONG. *Univ. of Miami, Univ. of Miami.*
- 4:00 M1 **044.24** A mitochondrial membrane-spanning ternary complex regulates mitochondrial motility. L. LI*; X. WANG. *Stanford Univ., Stanford Univ.*

• Indicates a real or perceived conflict of interest, see page 74 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

1:00	M2	044.25 Inhibition of synaptic transmission by the antidepressant amitriptyline in basal forebrain neurons from young and aged vGAT-ChR2-eYFP mice using patch-clamp electrophysiology and optogenetic light stimulation. E. BANG*; A. TOBERY; D. A. MURCHISON; D. W. DUBOIS; K. S. MONTGOMERY; W. H. GRIFFITH. <i>Texas A&M Hlth. Sci. Ctr.</i>	1:00	M13	045.05 ● Let7i as a key regulator of Pgrmc1 and progesterone-induced neuroprotection. M. SINGH*; T. NGUYEN; C. SU. <i>Univ. of North Texas Hlth. Sci. Ctr., Univ. of North Texas Hlth. Sci. Ctr.</i>
2:00	M3	044.26 A novel optogenetic mouse model for aging in basal forebrain neurons of ChR2-eYFP (vGAT) BAC mice: Alterations in synaptic physiology, calcium homeostasis and cognition. K. S. MONTGOMERY*; D. W. DUBOIS; E. BANG; A. S. FINCHER; D. W. MURCHISON; W. H. GRIFFITH. <i>Texas A&M Hlth. Sci. Ctr.</i>	2:00	M14	045.06 Sigma-1 and sigma-2 receptor densities do not correlate with tau pathology in the frontal cortex of AD brains. J. XU*; Y. GUO; N. J. CAIRNS; J. C. MORRIS; T. BENZINGER. <i>Washington Univ. Sch. of Med., Washington Univ. Sch. of Med., Washington Univ. Sch. of Med., Washington Univ.</i>
3:00	M4	044.27 The neurodevelopmental consequences of genomic stress. N. MICHEL*; U. MAJUMDAR; M. J. MCCONNELL. <i>Univ. of Virginia, Univ. of Virginia.</i>	3:00	M15	045.07 Therapeutic and diagnostic targeting of sigma-2 receptors in oncological and neurodegenerative diseases. F. SPINELLI*; M. PATI; E. FANIZZA; N. COLABUFO; N. DENORA; N. DEPALO; C. ABATE. <i>Univ. of Bari, Univ. of Bari, Natl. Res. Council of Italy.</i>
4:00	M5	044.28 Human amylin promotes the pathogenesis of Alzheimer's disease. Y. A. LIM*; W. LEE; P. T. H. WONG; T. V. ARUMUGAM. <i>Natl. Univ. of Singapore.</i>	4:00	M16	045.08 The essential role of sigma-2 receptor/TMEM97 and progesterone receptor membrane component 1 in the internalization of low-density lipoprotein via an interaction with the low-density lipoprotein receptor. A. RIAD*; C. ZENG; C. WENG; S. CARLIN; R. H. MACH. <i>Univ. of Pennsylvania.</i>
1:00	M6	044.29 ▲ Characterizing the role of autophagy gene product BEC-1 in neuronal longevity in the model organism <i>Caenorhabditis elegans</i> . N. ASHLEY*; H. TROMBLEY; A. HOLGADO. <i>St. Edward's Univ.</i>	1:00	M17	045.09 Biological roles of TMEM97 and PGRMC1 in cell growth and sigma-2 ligand-induced cell death. C. ZENG*; H. WINTERS; C. WENG; L. PUENTES; M. SCHNEIDER; C. RAQUEL; K. XU; M. MAKVANDI; R. MACH. <i>Univ. of Pennsylvania Perelman Sch. of Medi.</i>
2:00	M7	044.30 Biomechanical approach of brain aging, neurodegenerative diseases and frailty. A. VALLET*; A. LOKOSOU; S. LORTHOIS; P. SWIDER; P. ASSEMAT; L. RISSER; Z. CZOSNYKA; M. CZOSNYKA; N. DEL CAMPO; L. BALARDY; P. PERAN; O. BALÉDENT; P. PAYOUX; E. SCHMIDT. <i>INSERM, CHIMERE, Ctr. Natl. De La Recherche Scientifique, Ctr. Natl. De La Recherche Scientifique, Neurosurg. Unit, Ctr. Hospitalier Universitaire de Toulouse.</i>	2:00	M18	045.10 Identification of a second [³ H]DTG binding site on TMEM97-KO cell membranes. C. WENG*; C. ZENG; A. RIAD; K. XU; R. H. MACH. <i>Univ. of Pennsylvania, Univ. of Pennsylvania Perelman Sch. of Medi.</i>
3:00	M8	044.31 ▲ Investigating the role of autophagy in axonal development in unc-33 mutant <i>C. elegans</i> . M. N. WILSON*; R. FIRTH; A. SANCHEZ; H. TROMBLEY; A. HOLGADO. <i>St. Edward's Univ.</i>	3:00	N1	045.11 CD36-dependent amyloid pathology in the retinal projection. E. S. PLYLER*; M. A. SMITH; J. R. RICHARDSON; C. M. DENGLER-CRISH; S. D. CRISH. <i>Northeast Ohio Med. Univ., Northeast Ohio Med. Univ.</i>
			4:00	N2	045.12 Sex differences in pathology of the visual system in the 3xtg mouse model of Alzheimer's disease. G. FRAME*; M. A. SMITH; J. K. LEPP; L. LIN; E. S. PLYLER; P. GATES; Z. B. SLUZALA; S. D. CRISH; C. M. DENGLER-CRISH. <i>Kent State Univ., Northeast Ohio Med. Univ., Baldwin Wallace Univ.</i>
1:00	M9	045.01 ● Clinical evidence of synaptic protection in Alzheimer's patients following treatment with CT1812. S. M. CATALANO*; N. J. IZZO; K. MOZZONI; C. SILKY; C. REHAK; M. GRUNDMAN. <i>Cognition Therapeut. Inc., Cognition Therapeutics, Inc., Global R&D Partners LLC.</i>	1:00	N3	045.13 Activation of interleukin-6 signaling pathway in the hippocampus of rodent models of Alzheimer's disease. N. D. SILVA*; R. L. FILHO; J. A. PENNY; J. R. CLARKE; R. GONÇALVES; J. TIEMI; S. T. FERREIRA; F. G. DE FELICE. <i>Federal Univ. of Rio de Janeiro, Queen's Univ., Federal Univ. of Rio de Janeiro, Federal Univ. of Rio de Janeiro, Fed. Univ. Rio de Janeiro, Fed Univ. Rio de Janeiro.</i>
2:00	M10	045.02 ● Sigma-2 antagonist CT1812 protects synapses from Abeta oligomer-induced loss <i>in vitro</i> . N. J. IZZO*; C. SILKY; C. REHAK; K. MOZZONI; L. WAYBRIGHT; R. YURKO; N. KNEZOVICH; R. MARTONE; S. CATALANO. <i>Cognition Therapeut. Inc.</i>	2:00	N4	045.14 Relationship between amyloid-β plaques and cortical parvalbumin-positive interneurons in 5xFAD mice. S. BARINGER; F. ALI; A. C. KWAN*. <i>Yale Sch. of Med.</i>
3:00	M11	045.03 Differential sigma-2 receptor/TMEM97-mediated cytotoxic and metabolic stimulative properties of monovalent and bivalent SN79 analogs. C. Z. LIU*; B. M. MCVEIGH; M. MOTTLINELLI; H. E. NICHOLSON; C. R. MCCURDY; W. D. BOWEN. <i>Brown Univ., Univ. of Florida.</i>	3:00	N5	045.15 <i>In vivo</i> evaluation of amyloid and tau pathology in the novel 6XFAD mouse model of Alzheimer's disease. S. KANG*; M. BAEK; E. NAM; H. PARK; Y. SUH; K. CHANG. <i>Gachon Univ., Neurosci. Res. Institute(Nri), Gachon advanced institute for healthy science & technology.</i>
4:00	M12	045.04 ● Small molecule modulators of Sig2R/Tmem97 reduce alcohol withdrawal-induced behaviors. S. MARTIN*; L. SCOTT; J. SAHN; A. FERRAGUD; J. PIERCE; V. SABINO. <i>Univ. of Texas at Austin, Univ. of Texas at Austin, Boston Univ. Sch. of Med.</i>	4:00	N6	045.16 Does acarbose treatment differentially affect physiological or pathological mechanisms in the 5xFAD mouse model of Alzheimer's disease over the lifespan? S. J. MOORE*; L. OUILLETTE; V. A. CAZARES; R. C. PARENT; G. G. MURPHY. <i>Univ. of Michigan, Univ. of Michigan.</i>

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* Indicates abstract's submitting author

- 1:00 N7 **045.17** Mutagenic analysis of inhibitory and facilitatory modulation of $\alpha 7$ nAChRs by A β (1-42). J. B. ANDERSON*; K. DEBOEUF; J. PANCHAL; M. F. ISLAM; A. CHAUDHARY; J. FARLEY. *Indiana Univ. Bloomington, Indiana Univ. Bloomington, Indiana Univ. Bloomington.*
- 2:00 N8 **045.18** Exercise associated with mesenchymal stem cell transplantation decrease anti-inflammatory cytokines in Alzheimer's disease mice model. D. HASHIGUCHI*; D. Y. HUKUDA; H. C. CAMPOS; S. G. SILVA; A. COPPI; R. ARIDA; B. M. LONGO. *UNIFESP, Univ. de Mogi das Cruzes, Hosp. Israelita Albert Einstein, Univ. of Surrey.*
- 3:00 N9 **045.19** Are there sex differences in the tta:appsi mouse model of Alzheimer's disease after chronic unpredictable stress? M. PALUMBO*; H. DONG. *Northwestern Univ., Northwestern Univ. Feinberg Sch. of Med.*
- 4:00 N10 **045.20** Comparing knock-in and transgenic mouse and rat models of Alzheimer's disease; synaptic transmission, plaques and microglia. R. WANG; D. BENITEZ; V. C. SMITH; C. M. HALL; M. J. ROBERTS; N. WONG; C. N. E. PEERBOOM; H. BOUTIN; M. M. FERNANDES FREITAS; W. LIU; B. DE STROOPER; D. A. SALIH; D. M. CUMMINGS; F. A. EDWARDS*. *Univ. Col. London, Leiden Univ., Univ. of Manchester, Univ. Col. London, Dept Neurosci Physiol Pharmacol.*

POSTER

046. Alzheimer's Disease and Other Dementias: APP/Abeta: Animal and Cellular Models I

Theme C: Neurodegenerative Disorders and Injury

Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H

- 1:00 N11 **046.01** Restoration of activity in the thalamic reticular nucleus improves slow wave sleep and reduces A β deposition in Alzheimer's disease mice. R. JAGIRDAR*; F. M. SEIBT; J. O'MALLEY; M. BEIERLEIN; J. CHIN. *Baylor Col. of Med., McGovern Med. Sch. at UTHealth.*
- 2:00 N12 **046.02** Ultrastructural and functional evidence of decreased white matter integrity with Alzheimer's pathology. M. L. RUSSO*; G. D. AYALA; T. F. MUSIAL; L. A. BEAN; D. A. NICHOLSON. *Rush Univ. Med. Ctr.*
- 3:00 O1 **046.03** Mitigating the effects of adult obesity with exercise and dietary treatment in a mouse model of Alzheimer's disease. C. ANASTASSIADIS*; M. UROSEVIC; C. ROLLINS; D. R. GALLINO; V. KONG; G. AYRANCI; G. A. DEVENYI; J. GERMANN; M. CHAKRAVARTY. *Douglas Mental Hlth. Univ. Inst., Douglas Mental Hlth. Univ. Inst., Univ. of Cambridge, Douglas Mental Hlth. Univ. Inst., Douglas Mental Hlth. Univ. Inst., Cerebral Imaging Ctr. - Douglas Mental Hlth. Un., Douglas Univ. Mental Hlth. Institute, McGill, Douglas Mental Hlth. Univ. Inst.*
- 4:00 O2 **046.04** Reducing APP gene expression rescues endosomal defects in the Ts65Dn model of Down syndrome. W. C. MOBLEY*; M. MACCECCHINI; X. CHEN. *Univ. of California San Diego Dept. of Neurosciences, QR Pharma, Inc, UC San Diego.*
- 1:00 O3 **046.05** Long-term CNS effects of proton irradiation in male and female wildtype and APP/PS1 Alzheimer's-like mice. C. A. LEMERE*; B. LIU; G. G. LIU; P. J. LORELLO; B. CALDARONE. *Brigham & Women's Hosp; Harvard Med. Sch., Brigham & Women's Hosp, Harvard Med. Sch.*
- 2:00 O4 **046.06** ● ALWPs regulate amyloid plaque load and tau phosphorylation in a mouse model of Alzheimer's disease. J. LEE*; Y. NAM; Y. KOH; Y. WE; H. HOE. *Korea Brain Res. Inst., Ctr. for Infectious Dis.*
- 3:00 O5 **046.07** Role of peroxisomes during adult neurogenesis in a mouse model of Alzheimer's disease. A. FRACASSI*; C. SCOPA; F. COLASUONNO; R. SCARDIGLI; G. TAGLIALATELA; S. MORENO. *Univ. of Texas Med. Br., Univ. Roma Tre, CNR-Institute of Translational Pharmacol.*
- 4:00 O6 **046.08** Neither sleep disruption nor induced cortical plasticity precipitates the onset of amyloid- β pathology in an Alzheimer's disease mouse model: Preliminary data from a study of sleep and plasticity as risk factors. M. T. KIRKCALDIE*; E. A. BUCHER; A. E. KING; J. C. VICKERS. *Univ. of Tasmania.*
- 1:00 O7 **046.09** ●▲ A neurotrophic factor mimetic improves memory retention in an aged, transgenic mouse model of Alzheimer's. D. E. MORRISON*; K. ZHANG; O. ARTAZI; E. FERRARI; M. D. SPRITZER. *Middlebury Col.*
- 2:00 O8 **046.10** Cofilin-mediated Abeta accumulation by APP endocytosis and microglial phagocytosis. T. LIU*; J. A. WOO; C. TROTTER; P. LEPOCHAT; M. Z. BUKHARI; D. E. KANG. *Univ. of South Florida, Univ. of South Florida, Univ. of South Florida, James A. Haley Veteran's Admin. Hosp.*
- 3:00 O9 **046.11** Longitudinal characterization of a novel transgenic rat model of cerebral amyloid angiopathy. D. POPESCU*; F. XU; J. DAVIS; S. I. BEIGELMAN; S. SUBZWARI; B. J. ANDERSON; W. E. VAN NOSTRAND; J. K. ROBINSON. *Stony Brook Univ., Univ. of Rhode Island.*
- 4:00 O10 **046.12** Strategies for quantifying behavioral changes in primate models. R. G. WITHER*; S. E. BOEHNKE; R. A. MARINO; J. Y. KAN; A. LABLANS; B. HYDUK; R. LEVY; F. G. DE FELICE; D. P. MUÑOZ. *Queen's Univ., Fed Univ. Rio De Janeiro.*
- 1:00 O11 **046.13** Octodon degus, toward its consolidation as a natural model of Alzheimer's disease. J. M. ZOLEZZI*; P. CISTERNAS; N. C. INESTROSA. *CARE Chile-UC, P. Univ. Católica De Chile, CARE Chile-UC, Pontificia Univ. Católica de Chile, Ctr. For Aging and Regeneration (CARE), P. Catholic Univ. of Chile.*
- 2:00 O12 **046.14** Vascular amyloidosis, astrocytic endfeet, and blood-brain barrier disruption. W. A. MILLS*, III; I. F. KIMBROUGH; L. CHAUNSALI; A. STUBLEN; H. SONTHEIMER. *Virginia Tech., Virginia Tech., Virginia Tech. Carilion Res. Inst.*
- 3:00 O13 **046.15** Probing cortico-cortical and hippocampal-cortical interactions in a second-generation mouse model of Alzheimer's disease. S. SINGH*; J. MEHLA; R. J. SUTHERLAND; M. H. MOHAJERANI. *Univ. of Lethbridge, Univ. of Lethbridge.*
- 4:00 O14 **046.16** ● APP-directed antisense oligonucleotides reduced APP gene expression in mouse models of Down Syndrome. M. SAWA*; H. ZHAO; H. KORDASIEWICZ; B. FITZSIMMONS; D. DERSE; A. BECKER; C. OVERK; W. C. MOBLEY. *UCSD, Ionis Pharmaceuticals.*
- 1:00 O15 **046.17** Effect of TREM2 deficiency on the phenotype of APP/PS1 mice expressing human APOE isoforms. C. WOLFE*; N. FITZ; B. PLAYSÖ; K. NAM; F. LETRONNE; I. LEFTEROV; R. KOLDAMOVA. *Univ. of Pittsburgh.*

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2:00	O16	046.18	A novel conditional mouse model of amyloidogenesis. L. J. OUILLETTE*; R. PARENT; H. BURNS; A. SMARSH; V. A. CAZARES; S. J. MOORE; G. G. MURPHY. <i>Univ. of Michigan, Univ. of Michigan, Univ. of Michigan, Univ. of Michigan</i> .	2:00	P12	046.30	TDP-43 interacts with mitochondrial proteins critical for mitophagy and mitochondrial dynamics. S. A. DAVIS; S. ITAMAN; C. KHALID-JANNEY; J. SHERARD; J. A. DOWELL; N. J. CAIRNS; M. A. GITCHO*. <i>Delaware State Univ., Wisconsin Inst. for Discovery, Washington Univ. Sch. of Med.</i>
3:00	P1	046.19	Changes in dorsal hippocampal calcium levels and behavior before, during, and after AD pathology in the 5XFAD mouse. A. O. GHOWERI*; L. OUILLETTE; H. N. FRAZIER; K. L. ANDERSON; J. C. GANT; R. PARENT; G. G. MURPHY; O. THIBAULT. <i>Univ. of Kentucky, Univ. of Michigan</i> .				
4:00	P2	046.20	Absence of tau does not prevent dystrophic neurite formation in two Alzheimer's disease mouse models. S. KEMAL*; R. J. VASSAR. <i>Northwestern Univ.</i>				
1:00	P3	046.21	Effects of chronic stress on anxiety- and fear-like behaviors in the TgF344-AD rat model of Alzheimer's disease. S. BOUQUIN*; C. R. MAESTAS-OLGUIN; A. A. TOURIGNY; B. J. CLARK; N. S. PENTKOWSKI. <i>Univ. of New Mexico, Univ. of New Mexico, Univ. of New Mexico</i> .				
2:00	P4	046.22	Effects of tart cherry extract on neuroinflammation and cognitive function in 5xFAD animal models of Alzheimer's disease. Z. BOWERS*; P. MAITI; D. SENGUPTA; G. L. DUNBAR. <i>Central Michigan Univ., Central Michigan University/St. Mary's of Michigan, Central Michigan University/St. Mary's of Michigan, Central Michigan Univ.</i>		P13	047.01	Novel methodologies for reproducing pathological tau <i>in vitro</i> : A powerful platform for mechanistic studies, discovery of novel imaging agents and novel therapies for the treatment of Alzheimer's disease and tauopathies. N. AÏT BOUZIAD*; J. ADAMCIK; R. MEZZENGA; H. A. LASHUEL. <i>EPFL, ETH Zürich</i> .
3:00	P5	046.23	The non-transcriptional role of hif-1a in the activation of g-secretase in the brain. T. LI*; C. CARROLL; D. CHIU; A. BRANDES; Y. HATTORI; C. IADECOLA; Y. LI. <i>Weill Cornell Med., Mem. Sloan Kettering Cancer Ctr., Weill Cornell Med., Mem. Sloan-Kettering Cancer Ctr.</i>		P14	047.02	The study of axonal localization mechanisms of tau in neuron. M. IWATA*; S. WATANABE; T. MIYASAKA; H. MISONOU. <i>Doshisha Univ.</i>
4:00	P6	046.24	Early and persistent sex-differences in the age-associated increase of amyloid beta in 3xtg-ad mice. J. R. RICHARDSON*; A. EID; M. EDLER; I. MHATRE; C. CRISH. <i>Northeast Ohio Med. Univ.</i>		P15	047.03	Tubulin degeneration induces tau abnormalities. H. FUJIWARA*; S. WATANABE; M. IWATA; M. NOBUHARA; S. WADA-KAKUDA; H. MISONOU; T. MIYASAKA. <i>Doshisha Univ., Grad. Sch. of Brain Science, Doshisha Univ.</i>
1:00	P7	046.25	GABA-specific changes in a mouse model of Alzheimer's disease. A. M. LEISGANG*; A. M. SALAZAR; A. ORTIZ; J. W. KINNEY. <i>Univ. of Nevada Las Vegas.</i>		Q1	047.04	The identification of the tau C terminal sequences involved in aggregates formation. S. SHIMONAKA*; S. MATSUMOTO; Y. MOTOI; N. HATTORI. <i>Juntendo Univ., Kagoshima Univ., Juntendo Univ.</i>
2:00	P8	046.26	▲ Alzheimer's disease modeling using induced pluripotent stem cells carrying an A246E mutation in PSEN1. M. A. HERNANDEZ-SAPIENS*; E. E. REZA-ZALDIVAR; R. R. CEVALLOS; Y. K. G. GUTIERREZ-MERCADO; A. L. MARQUEZ-AGUIRRE; K. GAZARIAN; A. A. CANALES-AGUIRRE. <i>CIATEGR, CIATEGR, Biomed. Res. Inst., CIATEGR, Biomed. Res. Inst.</i>		Q2	047.05	Modulating disease-relevant brain derived tau oligomeric strains by small molecules. F. LO CASCIO*; A. PALUMBO PICCIONELLO; S. MCALLEN; A. ELLSWORTH; N. BHATT; R. KAYED. <i>Univ. of Texas Med. Br., Univ. of Palermo, Univ. of Palermo</i> .
3:00	P9	046.27	Blood-brain barrier disruption increases amyloid-related pathology in a CAA mouse model. I. ABDALLAH*; A. KADDOUMI. <i>Auburn Univ., Auburn Univ.</i>		Q3	047.06	The role of the endosomal system in tau pathology. S. VÁZQUEZ SÁNCHEZ*; V. WIERSMA; W. SCHEPER; J. VAN WEERING. <i>Vrij Univ. Amsterdam, VU Med. Ctr.</i>
4:00	P10	046.28	Assessment of astrocyte and microglia activation in a splicing-defective mouse model of Alzheimer's disease. Y. JIAO*; P. CHEN; J. PENG. <i>St. Jude Children's Res. Hosp.</i>		Q4	047.07	Bdnf reduction triggers aep-cleaved tau to bind and inhibit trkB receptors, mediating the pathogenesis of Alzheimer's disease. J. XIANG*; Z. WANG; E. AHN; X. LIU; S. YU; F. P. MANFREDSSON; I. M. SANDOVAL; J. WANG; S. WU; K. YE. <i>Emory Univ. Sch. of Med., Fourth Military Med. Univ., Emory University, Michigan State Univ., Huazhong Univ. of Sci. and Technol., Fourth Military Med. Univ., Emory Univ. Sch. of Med.</i>
1:00	P11	046.29	Exercise and enriched environment are unable to prevent isolation stress-induced exacerbation of Alzheimer's pathology in 5xFAD mice. J. L. PETERMAN*; J. D. WHITE; A. CALCAGNO; M. J. EIMERBRINK; C. HAGEN; G. W. BOEHM; M. J. CHUMLEY. <i>Texas Christian Univ., Yale Sch. of Med., Texas Christian Univ.</i>		Q5	047.08	Mapping the activity-dependent tau interactome in human iPSC-derived neurons. T. E. TRACY*; D. SWANEY; M. MORITZ; M. WARD; R. HUTTENHAIN; S. MIN; M. TELPOUKHOVSKAIA; J. MARTIN; C. WANG; P. D. SOHN; E. STEVENSON; I. AVELLANO; Y. ZHOU; N. J. KROGAN; L. GAN. <i>Gladstone Inst. of Neurolog. Dis., Univ. of California, San Francisco, Gladstone Inst. of Data Sci. and Biotech., Natl. Inst. of Hlth. Office of Intramural.</i>

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1:00	Q6	047.09	Interaction of rna-binding proteins musashi and tau oligomers in Alzheimer's disease. M. MONTALBANO*; U. SENGUPTA; S. MCALLEN; M. G. KHARAS; R. KAYED. <i>Univ. of Texas Med. Br., Mitchell Ctr. for Neurodegenerative Disease, Univ. of Texas Med. Br., Mol. Pharmacol. and Chemistry, Ctr. for Cell Engineering, Sloan Kettering Inst.</i>	2:00	R2	048.06	Modeling prion-like tau spread in <i>Drosophila melanogaster</i> . S. A. LEVY*; B. FROST. <i>UT Hlth. San Antonio, UT Hlth. San Antonio</i> .
2:00	Q7	047.10	Generation and characterization of tau aggregates. A. ELLSWORTH*; G. GHAG; N. BHATT; U. SENGUPTA; R. KAYED. <i>Univ. of Texas Med. Br. at Galveston</i> .	3:00	R3	048.07	Exosomes containing specific tau oligomer formations accelerate pathological tau phosphorylation in c57bl/6 mice. Z. RUAN*; A. YOSHII-KITAHARA; A. M. DELEO; S. IKEZU; S. VENKATESAN KALAVAI; R. KAYED; S. GORANTLA; H. E. GENDELMAN; T. IKEZU. <i>Boston Univ., Univ. of Texas Med. Br., Univ. of Nebraska Med. Ctr., Boston Univ. Sch. of Med.</i>
3:00	Q8	047.11	Epilepsy and tau pathology. R. A. CLOYD*; J. F. ABISAMBRA; B. N. SMITH. <i>Univ. of Kentucky, Univ. of Kentucky</i> .	4:00	R4	048.08	Selective partial decrease of GSK-3 beta reduces tau hyperphosphorylation, aggregation and propagation. A. C. AMARAL*; S. WEGMANN; M. S. T. CHONG; B. G. PEREZ-NIEVAS; A. G. MARTINEZ; H. ARGENTE-ESRIG; P. RAMANAN; C. COMMINS; C. AGUERO; S. TAKEDA; T. GOMEZ-ISLA. <i>Massachusetts Gen. Hospital/Harvard Med. Sch., Massachusetts Gen. Hospital/ Harvard Med. Sch., Massachusetts Gen. Hosp., Osaka Univ. Sch. of Med.</i>
4:00	Q9	047.12	● A β -induced exaggeration of Alzheimer-related τ spreading is associated with prion protein. L. GOMES*; S. HIPP; A. RIJAL UPADHAYA; K. BALAKRISHNAN; M. KOPER; J. REICHWALD; S. RABE; R. VANDENBERGHE; C. A. F. VON ARNIM; M. STAUFENBIEL; D. THAL. <i>KU Leuven, Ulm Univ., Univ. Hosp. of Tübingen, Ulm Univ., Novartis Inst. for Biomed. Sci., UZ Leuven, Ulm Univ., UZ Leuven</i> .	1:00	R5	048.09	● Viral-driven expression of a peptide tau aggregation inhibitor reduces neuropathological hallmark in a mouse model of tauopathy. A. P. WRIGHT; I. HERNANDEZ; G. LUNA; J. SCHERRER; G. NAUMANN; Y. E. SIBI; M. I. APOSTOL; B. E. DEVERMAN; K. S. KOSIK; J. J. TREANOR*. <i>ADRx Inc., Univ. of California Santa Barbara, Broad Inst.</i>
1:00	Q10	047.13	Methylene blue inhibits formation of tau fibrils but not granular tau oligomers. M. SAITO; Y. SOEDA; S. MAEDA; A. TAKASHIMA*. <i>Gakushuin Univ., Keio Univ. Sch. of Med.</i>	2:00	R6	048.10	The effect of human mutant tau on cognition and sleep in the rTg4510 mouse model of tauopathy. R. J. KEENAN*; H. DAYKIN; D. K. WRIGHT; K. J. BARNHAM; G. ALLOCCA; D. HOYER; L. H. JACOBSON. <i>Univ. of Melbourne, Florey Inst. of Neurosci. and Mental Hlth., Monash Univ., The Scripps Res. Inst.</i>
POSTER							
048.	Alzheimer's Disease and Other Dementias: Tau: Animal and Cellular Models			3:00	R7	048.11	Tau null mutation increases reward motivation but does not impair cognitive flexibility in mice. S. OBERRAUCH*; M. BRIAN; J. METHA; S. A. BARNES; C. MURAWSKI; P. BOSSAERTS; C. NOWELL; L. M. CHALLIS; A. J. LAWRENCE; T. J. FEATHERBY; D. HOYER; L. H. JACOBSON. <i>The Univ. of Melbourne, The Florey Inst. of Neurosci. and Mental Hlth., Univ. of California San Diego, Monash Univ., The Scripps Res. Inst.</i>
	Theme C: Neurodegenerative Disorders and Injury			4:00	R8	048.12	Arginine levels in 3xTgAD mice and its implication in cognitive deficit. K. L. MARTINEZ-GONZALEZ*; P. GARCÍA; L. SERRANO; S. FLORES. <i>Univ. Nacional Autónoma De Mexico, Posgrado en Ciencias Biológicas, Inst. Mexicano del Seguro Social.</i>
1:00	Q11	048.01	● Development and validation of a tau seeding model in rTg4510 mice. B. MASTIS; R. CHANG; K. YANAMANDRA; B. DESROSIERS; T. FELDMAN; X. LANGLOIS; T. DELLOVADE*. <i>Abbvie Foundational Neurosci. Ctr.</i>	1:00	R9	048.13	● Abnormal cortical calcium activity in a tauopathy transgenic mouse model. Q. WU*; B. YANG; W. LI; Y. LIN; W. GAN; E. M. SIGURDSSON. <i>New York Univ. Sch. of Med., New York Univ. Sch. of Med., New York Univ. Sch. of Med., New York Univ. Sch. of Med.</i>
2:00	Q12	048.02	Construction of a tau-seed injection model using hTau mice. B. HUTTER-PAIER*; S. AKASOFU; J. GARTLÖN; M. ROBERTS; E. SAJEDI; R. DE SILVA; T. LOEFFLER; S. DULLER. <i>QPS Austria GmbH, Eisai Co., Ltd., Eisai Ltd., Univ. Col. London.</i>	2:00	R10	048.14	Characterization of a tau FRET biosensor sensitive to tau intramolecular folding. L. SAUNDERS*; H. WALLRABE; Z. SVINDRYCH; A. PERIASAMY; G. S. BLOOM. <i>Univ. of Virginia, Dartmouth.</i>
3:00	Q13	048.03	▲ Spatiotemporal profiling of tau pathology in a fibril-seeded mouse model with light-sheet microscopy. J. DETREZ; H. MAURIN; K. VAN KOLEN; R. WILLEMS; J. COLOMBELLI; B. LECHAT; B. ROUCOURT; F. VAN LEUVEN; S. BATOUT; P. LARSEN; R. NYUDENS; J. TIMMERMANS*; W. H. DE VOS. <i>Univ. of Antwerp, Janssen Res. & Develop., Barcelona Inst. of Sci. and Technol., Catholic Univ. of Leuven, Remynd Nv, KULeuven, SCK-CEN, Univ. of Ghent.</i>	3:00	R11	048.15	● The roles of physiological and pathophysiological tau in synaptic function and morphology. M. ALBINO MATIAS*; L. RAEYMAEKERS; C. WINTMOLDERS; A. BOTTELBERGS; W. DRINKENBURG; J. DE WIT; J. D. PITA-ALMENAR. <i>Janssen Pharmaceutica NV, VIB Ctr. For Brain & Dis. Res.</i>
4:00	Q14	048.04	Prion-like tau seeds are aberrantly modified in neurons via inhibition of HDAC6. J. TSENG*; T. J. COHEN. <i>Univ. of North Carolina at Chapel Hill, Univ. of North Carolina - Chapel Hill.</i>				
1:00	R1	048.05	● Evaluation of tau antibody epitope exposure in pathological seeds derived from tau transgenic mice and human brain. K. VAN KOLEN*; C. SOUSA; L. DELBROEK; A. MARREIRO; B. VASCONCELOS; M. VANDERMEEREN; C. THEUNIS; M. H. MERCKEN. <i>Janssen PRD, KU Leuven.</i>				

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4:00	R12	048.16	A rat model of pretangle Alzheimer's disease featuring hyperphosphorylated tau in the locus coeruleus. A. GHOSH*; S. TORRAVILLE; E. A. CHIRINOS; B. MUKHERJEE; F. M. MCCARTHY; S. MILWAY; S. WALLING; G. M. MARTIN; C. W. HARLEY; Q. YUAN. <i>Mem. Univ. of Newfoundland, Mem. Univ. of Newfoundland.</i>	1:00	S3	049.05	● Learning and memory improvement mediated by CB ₁ cannabinoid receptors in animal models of cholinergic dysfunction. M. MORENO-RODRÍGUEZ; J. MARTÍNEZ-GARDEAZABAL; A. LLORENTE-OVEJERO; L. LOMBARDERO; I. MANUEL; R. RODRIGUEZ-PUERTAS*. <i>Univ. of the Basque Country.</i>
1:00	R13	048.17	Histological demonstration of plaques and tangles in brains of human Alzheimer's disease (AD) patients and parenchymal plaques in two rodent models of Alzheimer's disease: Usefulness of Styrelbenzine analog-FSB. S. SARKAR*; K. SAMBAMURTI; J. RAYMICK; J. HANIG. <i>Natl. Ctr. For Toxicology, MUSC, Food & Drug Admin. FDA.</i>	2:00	S4	049.06	● The effects of pharmacological sleep enhancement using DORA-22 in the 5XFAD mouse model of Alzheimer's disease-related pathology. M. J. DUNCAN*; H. FARLOW; D. H. YUN; C. WANG; C. TIRUMALARAJU; J. A. HOWARD; M. N. SANDEN; K. J. MCQUERRY; B. F. O'HARA; A. D. BACHSTETTER. <i>Univ. of Kentucky Med. Sch., Univ. of Kentucky, Univ. of Kentucky.</i>
2:00	R14	048.18	Alzheimer's disease-like hyperphosphorylation and conformational change of human tau protein following long-term overexpression in the rat locus coeruleus. H. HALL*; L. BREUILLAUD; L. FLORES AGUILAR; A. CUELLO. <i>McGill Univ., McGill Univ.</i>	3:00	S5	049.07	A non-pharmacological therapy improves spatial memory, waste clearance and neurotransmission in naturally aged rat model of Alzheimer's disease. H. TOBEY; D. BLEDSOE; T. LUCAS; M. MYKINS; C. CAMPBELL; S. S. BERR; T. SASSER; C. MOLINOS; R. HELM; L. SHAN; P. BROLINSON; B. G. KLEIN*; B. M. COSTA. <i>Edward Via Col. of Osteo. Med., Edward Via Col. of Osteo. Med., Virginia Tech, Col. of Vet. Med., Univ. of Virginia Sch. of Med., Bruker BioSpin Preclinical Imaging, Bruker Espanola, Virginia Tech., Virginia Tech, Col. of Vet. Med., VCOM, Virginia Tech.</i>
3:00	R15	048.19	Tau and alpha-synuclein in lead exposure model of neurodegeneration. S. W. BIHAQI*; B. ALANSI; A. LAHOUEL; M. ANWAR; F. MUSHTAQ; M. DASH; N. H. ZAWIA. <i>Univ. of Rhode Island, Univ. of Rhode Island, Jijel Univ., Thamar Univ.</i>	4:00	S6	049.08	Systemic AAV-mediated gene delivery of a mutant form of EPO restores cognitive abilities and reduces neuropathology in 5xFAD mice. D. F. DELOTTERIE*; L. L. SOMERVILLE; J. T. KILLMAR; Y. XUE; T. S. REX; M. P. MCDONALD. <i>Univ. of Tennessee Hlth. Sci. Ctr., Vanderbilt Univ., Univ. of Tennessee Hlth. Sci. Ctr.</i>
4:00	R16	048.20	● Development of an uptake assay to study tau internalization in primary cultures. A. J. CARPINTERO SOARES*; L. DE MUYNCK; W. ANNAERT; D. MOECHARS. <i>Janssen Pharmaceutica NV, VIB Ctr. for Brain & Dis. Res.</i>	1:00	S7	049.09	Neuroprotective effect of phycocyanin in experimental paradigms of STZ induced Alzheimer's disease. M. AGRAWAL*; Y. PERUMAL; S. BANSAL; S. ARORA; R. DHARAVATH; K. CHOPRA. <i>Panjab Univ., Postgraduate Inst. of Med. Educ. and Res.</i>

POSTER

049.	Alzheimer's Disease and Other Dementias: Therapeutic Strategies: Preclinical Animal Models I	Theme C: Neurodegenerative Disorders and Injury	Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H
1:00	R17	049.01	Cocaine- and amphetamine-regulated transcript: A downstream regulator of nicotine's effect in rat model of Alzheimer's disease. M. A. UPADHYA*; C. D. BORKAR; H. M. UPADHYA; N. K. SUBHEDAR; D. M. KOKARE. <i>Indian Inst. of Sci. Educ. and Res., Dept. of Pharmaceut. Sci.</i>
2:00	R18	049.02	Nuclear factor of activated T-cells 4 is up-regulated in astrocytes in aging canine brain model. S. D. KRANNER*; F. TRIANI; K. MCCARTY; C. M. NORRIS; E. HEAD. <i>Sanders Brown Ctr. on Aging, Sapienza Univ. of Rome.</i>
3:00	S1	049.03	Inhibition of phosphodiesterase-4 reverses Aβ-induced memory impairment by regulation of HPA axis related cAMP signaling. Y. XU*; H. ZHANG; J. M. O'DONNELL; J. PAN. <i>State Univ. of New York at Buffalo, West Virginia Univ., Wenzhou Med. Univ.</i>
4:00	S2	049.04	Repeated cold exposures protect old 3xTg-AD mice from cold-induced tau phosphorylation. M. TOURNISSAC*; P. BOURASSA; R. MARTINEZ; E. PLANEL; S. HÉBERT; F. CALON. <i>Laval Univ., CHU De Québec - Univ. Laval Res. Ctr. Inst. of Nutr. and Functional Foods, Laval Univ., Laval Univ.</i>

1:00	S11	049.13	The impact of metformin treatment and voluntary running on Alzheimer's disease-related neuropathology in a transgenic mouse model. A. JALDI*; O. BELLO; T. AJISEBUTU; T. FALEGAN; D. LEE; V. MULGRAVE; T. SMITH; J. ALLARD. <i>Howard Univ. Col. of Med., Howard Univ., Howard Univ.</i>
2:00	S12	049.14	The anti-epileptic drug Levetiracetam partially restores impaired hippocampal long-term potentiation in mice lacking synaptic zinc. M. MAHAVONGTRAKUL*; C. COX; E. KRAMAR; J. NOCHE; R. CAMPBELL; A. TRAN; C. CHINN; M. WOOD; J. BUSCIGLIO. <i>Univ. of California, Irvine.</i>
3:00	S13	049.15	Methylene blue reverses caspase-6-mediated cognitive deficits in mice. L. ZHOU*; P. J. SJOSTROM; A. C. LEBLANC. <i>Lady Davis Inst., McGill Univ., McGill Univ.</i>

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4:00	S14 049.16 Tetrahydrobiopterin as a potential treatment for Alzheimer's disease: A study in 3xTg-AD mice. F. CALON*; M. TOURNISSLAC; A. LO; C. TREMBLAY; P. BOURASSA; V. EMOND; F. MOUSSA; S. VANCASSEL; H. FANET. Laval Univ., OptiNutriBrain - Intl. associated laboratory, Univ. Paris Sud, Univ. of Bordeaux, Inst. of Nutr. and Functional Foods - Laval Univ.	3:00	T5 050.03 ▲ Analysis of neuromuscular degeneration and regeneration in PINK1 knockout rats. A. M. RIZWAN; L. J. MCMEEKIN; S. K. BARODIA; M. V. KING; N. K. MOKHA; R. B. CREED; M. S. GOLDBERG*. Univ. Alabama at Birmingham.
1:00	S15 049.17 Perinatal choline supplementation ameliorates Alzheimer's disease (AD) neuropathology and increases brain expression of BMP9 - a trophic factor for cholinergic neurons - while BMP9 deficiency increases vulnerability to AD-related pathology and cognitive deficits in rodent models. T. J. MELLOTT; C. M. TOGNONI; A. LIU; K. CORDEIRO; N. WASIF; E. BRUNS; A. SANKAR; M. MACRAE; S. LEE; J. K. BLUSZTAJN*. Boston Univ. Sch. Med., Univ. of Connecticut Sch. of Med.	4:00	T6 050.04 Six month-old LRRK2 G2019S knock-in mice do not express motor learning deficits on the rotarod task. L. CROWN*; L. WOHLFORD; M. J. BARTLETT; J. WIEGAND; A. J. EBY; E. MONROE; K. GIES; T. FALK; S. L. COWEN. Univ. of Arizona.
2:00	S16 049.18 Aspirin modulates hippocampal plasticity and improves memory via transcriptional activation of PPAR α in the mouse model of Alzheimer's disease. D. PATEL*; A. ROY; K. PAHAN. Rush Univ. Med. Ctr., Jesse Brown Veterans Affairs Med. Ctr.	1:00	T7 050.05 Mice with genetically evoked selective loss of noradrenergic system as a possible tool to study presymptomatic phase of Parkinson's disease. G. KREINER*; K. RAFA-ZABLOCKA; A. JURGA; J. BARUT; M. BAGINSKA; R. PARLATO; I. NALEPA. Inst. of Pharmacology, PAS, Inst. of Applied Physiology, Univ. of Ulm, Inst. of Anat. and Cell Biology, Univ. of Heidelberg.
3:00	S17 049.19 ● Therapeutic efficacy of a novel CDC-mutant anti-pyroGlu3 Abeta IgG2a antibody (07/2a-k) without increasing microhemorrhages in aged APP/PS1dE9 mice. K. MAKIOKA*; N. MAKIOKA; Q. SHI; B. LIU; G. G. LIU; B. J. CALDARONE; M. KLEINSCHMIDT; J. RAHFELD; I. LUES; S. SCHILLING; C. A. LEMERE. Brigham and Women'S Hosp. (BWH), Harvard Med. Sch., Harvard Med. Sch., Brigham and Women's Hosp. (BWH), Probiotrud AG, Fraunhofer Inst. for Cell Therapy and Immunol.	2:00	T8 050.06 Generation of embryonic cell line knock-out for NQO1 for animal pre-clinical model for Parkinson's disease. P. MUÑOZ*. Univ. of Chile.
4:00	S18 049.20 ● Development of oral plasmalogens precursors for the treatment of Alzheimer's disease: Clinical proof-of-concept in the pediatric orphan disease rhizomelic chondrodysplasia punctata. T. M. SMITH*; W. FALLATAH; D. JAYASINGHE; S. A. RITCHIE; N. BRAVERMAN. Med-Life Discoveries LP, McGill Univ.	3:00	T9 050.07 Neurogenic inflammation resulting from expression of constitutively activated NLRP3 in mesencephalic dopamine neurons. K. VON HERRMANN*; E. M. MARTINEZ; F. L. ANDERSON; A. L. YOUNG; M. C. HAVRDA. Geisel Sch. of Med. At Dartmouth.
1:00	T1 049.21 Small peptide inhibition of TDP-43 mitochondrial localization alleviates neurodegeneration and memory loss in an APP transgenic mouse model for Alzheimer's disease. M. HARLAND*; J. GAO; L. WANG; H. FUJIOKA; H. ARAKAWA; G. PERRY; X. WANG. Case Western Reserve Univ., Univ. of Texas at San Antonio.	4:00	T10 050.08 An experimental rodent model of Parkinson's disease: Quantitative measurements of rigidity, gait, and iron deposition. P. K. BOSE*; J. HOU; R. NELSON; D. PLANT; S. TSUDA; G. MUSTAFA; I. ANWAR; R. J. BERGERON, Jr.; R. A. HROMAS; A. RAMIREZ-ZAMORA; E. HAACKE; F. J. THOMPSON. North Florida/South Georgia Veterans Hlth. Syst., Univ. of Florida, Univ. of Florida, UT Hlth. San Antonio, Univ. of Florida, Wayne State Univ., Univ. of Florida.
2:00	T2 049.22 Preclinical evaluation of senolytic therapies for Alzheimer's disease. P. ZHANG*; M. GOROSPE; M. P. MATTSON. Natl. Institute on Aging, Natl. Institute on Aging.	1:00	T11 050.09 Electrophysiological patterns as a biomarker of Parkinson's disease. A. N. MARTINEZ; M. F. ALAMOS; E. F. RODRIGUEZ; R. A. FUENTES*. Univ. de Chile, Univ. de Chile, Pontificia Univ. Catolica de Chile, Pontificia Univ. Catolica de Chile.
		2:00	T12 050.10 Stem cell transplantation and physical exercise in a model of Parkinson's disease. A. A. OLIVEIRA*, JR; J. D. C. HURTADO; J. P. B. SANCHEZ; C. RODRIGUES; M. R. WINK. UFCSPA - Univ. Federal De Ciencias Da Saúde.
		3:00	T13 050.11 Encephalitic infection with mosquito-borne alphavirus causes long-term neurodegenerative consequences consistent with Parkinsonism in surviving host. C. BANTLE*; A. PHILLIPS; S. ROCHA; K. OLSON; R. TJALKENS. Colorado State Univ., Jefferson Comprehensive Parkinson's Ctr.
		4:00	T14 050.12 AAV-mediated progerin expression in the rat midbrain as a model of age-related Parkinson's disease. I. M. SANDOVAL*; B. F. DALEY; J. H. KORDOWER; F. P. MANFREDSSON; T. J. COLLIER. Michigan State Univ., Mercy Hlth. St. Mary's, Rush Univ. Med. Ctr., Van Andel Res. Inst., Michigan State Univ., Michigan State Univ. CHM.
		1:00	T15 050.13 PET studies with a rat model of PGJ2-induced neuroinflammation exhibiting parkinsonian-like pathology. A. NIKOLOPOULOU*; C. CORWIN; Y. KANG; M. E. FIGUEIREDO-PEREIRA; J. W. BABICH. Weill Cornell Med., Hunter Col.

POSTER

050. Parkinson's Disease: Animal Models and Associated Behaviors

Theme C: Neurodegenerative Disorders and Injury

Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H

- 1:00 T3 **050.01** Impacts of CDNF and MANF on neuronal networks and complex behaviors in zebrafish. Y. CHEN*; S. SEMENOVA; D. BARONIO; P. PANULA. Univ. of Helsinki.
- 2:00 T4 **050.02** Striataly-mediated motor and cognitive function in the DJ-1 KO rat model of Parkinson's disease. D. GIANGRASSO*; T. M. FURLONG; K. A. KEEFE. Univ. of Utah, The Univ. of Utah, Univ. Utah.

* Indicates a real or perceived conflict of interest, see page 74 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

2:00	T16	050.14	Link between mood regulation and circadian rhythm in midbrain dopaminergic neurons in a 6-hydroxydopamine-injected mouse model of Parkinson's disease. K. KIM*; J. KIM; D. KIM; S. JANG; M. CHOI; H. CHOE; G. SON. <i>Daegu Gyeongbuk Inst. of Sci. and Technolog., Korea Brain Res. Inst. (KBRI), Korea Univ.</i>	1:00	U9	050.25	Intranigral iron accumulation in rat using ferrous sulfate released from a nanostructured silica matrix as a model of Parkinson's disease. R. OSORNIO*; E. ORTIZ-ISLAS; M. SALINAS-MOROTE; G. CHÁVEZ-CORTES; D. SILVA-ADAYA; M. CALVILLO-VELASCO. INNN, MVS., INNN, MVS., INNN, MVS.
3:00	T17	050.15	Effects of sleep disruption on stress, nigrostriatal markers, and behavior in a chronic/progressive MPTP model of Parkinson's disease. C. K. MESHUL*; M. XU; J. K. BOHLEN; C. MOORE; M. A. NIPPER; C. E. JONES; D. A. FINN; M. M. LIM. <i>VA Med. Ctr., Oregon Hlth. & Sci. Univ., VA Med. Ctr.</i>	2:00	U10	050.26	● Cognitive and vocal communication is impacted by social isolation in a Parkinson's disease rat model. C. K. BROADFOOT*; M. R. CIUCCI; C. A. KELM-NELSON. <i>Univ. of Wisconsin Madison.</i>
4:00	T18	050.16	Induction of a unilateral lesion with a selective adenosine A1 receptor agonist produces motor deficits and neuronal loss in the substantia nigra of Wistar rats. J. STOCKWELL*; D. SADI; I. M. MENDEZ; F. S. CAYABYAB. <i>Univ. of Saskatchewan, Univ. of Saskatchewan.</i>	3:00	U11	050.27	A non-human primate model of parkinsonian freezing. Y. HAN; E. H. BEDOY; N. CHEHADE; D. KASE*; T. M. PEARCE; R. S. TURNER. <i>Tsinghua Univ., Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh Med. Ctr.</i>
1:00	U1	050.17	Acquisition and reversal of visual discrimination learning in MPTP-treated C57BL/6J mice. J. P. JARVENPÄÄ; T. HEIKKINEN*, M. KOPANITSA; A. SHATILLO; J. RYTKÖNEN; L. REMES; J. T. PUOLIVALI. <i>Univ. of Eastern Finland, Charles River Discovery, UK Dementia Res. Institute, Imperial Col.</i>				
2:00	U2	050.18	▲ Memory disabilities in rats with dopaminergic denervation in globus pallidus. A. VIDALS-CRUZ; G. AVILA; A. S. SIERRA; E. C. CHUC-MEZA*; M. GARCIA-RAMIREZ. <i>Natl. Sch. of Biol. Sciences-IPN, Escuela Nacional De Ciencias Biológicas, Cinvestav Zácatenco, Natl. Sch. Biolog. Sci. IPN, ENCB-IPN.</i>	1:00	DP05/U12	051.01	(Dynamic Poster) Distinct network hubs identify functional connectivity patterns predictive of treatment response to subthalamic stimulation in Parkinson's disease. C. WU*; J. MULLER; T. FOLTYNIE; P. LIMOUSIN; L. ZRINZO; H. AKRAM. <i>Thomas Jefferson Univ., UCL Inst. of Neurol., Natl. Hosp. for Neurol. and Neurosurg.</i>
3:00	U3	050.19	Implication of nigral dopaminergic lesion and repeated L-dopa exposure in neuropsychiatric symptoms of Parkinson's disease. S. LOIODICE*; H. WING YOUNG; B. RION; B. MÉOT; P. MONTAGNE; A. DENIBAUD; R. VIEL; C. DRIEU LA ROCHELLE. <i>Biotrial Pharmacol., Biotrial Pharmacol., Plate-Forme H2P2, Univ. de Rennes 1.</i>	2:00	V1	051.02	Freezing of gait in challenging activities: Analysis of freezing during backward gait whilst playing tennis. B. BERGMANS*; P. GINIS; A. NIEUWBOER. <i>KU Leuven.</i>
4:00	U4	050.20	The intranasal MPTP administration in rats: An animal model to study nociceptive alterations in the early stages of Parkinson's disease. K. ROVERSI*; R. TONELLO; S. MACEDO, Jr; J. FERREIRA; R. D. S. PREDIGER. <i>Univ. Federal de Santa Catarina, Univ. of Cincinnati.</i>	3:00	V2	051.03	Auditory habituation in persons with Parkinson's disease after a socially evaluated cold pressor. A. F. ZAMAN*; E. L. STEGEMÖLLER. <i>Iowa State Univ. Dept. of Kinesiology.</i>
1:00	U5	050.21	Glial-derived inflammatory environment as an outcome of dopamine and glutamate dysregulation in the dorsal striatum of dyskinetic mice. M. S. PEREIRA*; G. H. D. ABREU; J. ROCCA; S. HAMADAT; J. SEPULVEDA-DIAZ; P. MICHEL; R. RAISMAN-VOZARI; E. DEL BEL. <i>Univ. De São Paulo, Inst. du Cerveau et de la Moelle épinière, Univ. De São Paulo.</i>	4:00	V3	051.04	Altered diffusivity measures of the hypothalamus in Parkinson's disease patients with autonomic dysfunction. C. ROUSSEAU*; M. SKLEROV; N. BROWNER; Y. LEE; A. BOUCAUD; J. PRIETO; M. STYNER; E. DAYAN. <i>UNC At Chapel Hill, Dept. of Neurology, Univ. of North Carolina at Chapel Hill, Dept. of Radiology, Univ. of North Carolina at Chapel Hill, Dept. of Psychiatry, Univ. of North Carolina at Chapel Hill.</i>
2:00	U6	050.22	Profiling epigenome-wide DNA methylation and hydroxymethylation after developmental exposure to the toxicant dieldrin, a model of increased parkinsonian toxicity. J. KOCHMANSKI; S. VANOVEREN; C. L. SAVONEN; A. I. BERNSTEIN*. <i>Michigan State Univ.</i>	1:00	V4	051.05	Gene and protein expression in blood and CSF for biomarker identification in Parkinson's disease patients. S. QIN; J. K. NOLT*. <i>Northwestern Med. Central Dupage Hosp.</i>
3:00	U7	050.23	Pleiotrophin overexpression in the 6-hydroxydopamine striatal mouse model of Parkinson's disease: Involvement of neuroinflammation. E. GRAMAGE*; R. FERNÁNDEZ-CALLE; Y. B. MARTÍN; C. PÉREZ-GARCÍA; G. HERRADÓN. <i>Univ. San Pablo-CEU, CEU Universities, Univ. Francisco de Vitoria.</i>	2:00	V5	051.06	● Serum ceruloplasmin is associated with impulsivity in people with Parkinson's disease. M. C. BAKEBERG*; M. RILEY; A. JEFFERSON; M. BYRNES; F. L. MASTAGLIA; R. S. ANDERTON. <i>The Perron Inst. for Neurolog. and Translat, The Univ. of Western Australia, The Univ. of Notre Dame, Australia.</i>
4:00	U8	050.24	▲ Lipid peroxidation in different cerebral nuclei induced by Manganese inhalation as a Parkinson's disease model. D. RODRÍGUEZ-NOLASCO; A. GUTIÉRREZ-VALDEZ; E. MONTIEL-FLORES; V. ANAYA-MARTÍNEZ; M. AVILA-COSTA*. <i>UNAM, Neuromorphology Lab., UNAM, Neuromorphology Lab.</i>				

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3:00	V6 051.07 Pesticides and the risk of Parkinson's disease in an Egyptian study population. T. W. RÖSLER*; M. SALAMA; A. S. SHALASH; E. M. KHEDR; A. EL-TANTAWY; G. FAWI; A. EL-MOTAYAM; E. EL-SEIDY; M. EL-SHERIF; M. EL-GAMAL; M. MOHARRAM; M. EL-KATTAN; M. ABDEL-NABY; S. ASHOUR; U. MÜLLER; A. DEMPFLER; G. KUHLENBÄUMER; G. U. HÖGLINGER. <i>German Ctr. for Neurodegenerative Dis., Tech. Univ. of Munich, Mansoura Univ., Mansoura Univ., Ain Shams Univ., Assiut Univ., Mansoura Univ., Sohag Univ., Zagazig Univ., Tanta Univ., Justus Liebig Univ., Kiel Univ., Kiel Univ., Ludwig-Maximilians-University.</i>	1:00	V16 051.17 The human dopamine beta hydroxylase rs62711 (t>c) polymorphism is associated with Parkinson's disease and altered protein expression/activity. E. GONZALEZ-LOPEZ*; K. E. VRANA; X. HUANG. <i>Penn State Univ. Col. of Med., Dept of Pharmacol., Pennsylvania State Univ.</i>
4:00	V7 051.08 Transcriptomic profiling in midbrains of Parkinson's disease patients. L. ARAÚJO CALDI GOMES*; A. ROSER; G. JAIN; V. CAPECE; F. SANANBENESI; A. FISCHER; M. BAEHR; P. LINGOR. <i>Univ. Med. Ctr. Goettingen, DFG Res. Ctr. Mol. Physiol. of the Brain (CNMPB), German Ctr. for Neurodegenerative Dis. (DZNE).</i>	2:00	W1 051.18 Abnormal muscle tone during REM sleep is associated with increased rigidity in people with early Parkinson's disease. M. E. LINN-EVANS*; M. N. PETRUCCI; S. L. AMUNDSEN HUFFMASTER; P. J. TUITE; M. J. HOWELL; C. D. MACKINNON. <i>Univ. of Minnesota Twin Cities, Univ. of Minnesota.</i>
1:00	V8 051.09 The cognitive cost is higher than motor cost during gait under dual-task in people with Parkinson's disease. M. E. PIEMONTE*; M. PIKEL; M. D'ALENCAR; R. STERM; M. GUBITOSO; A. ROQUE. <i>Univ. Sao Paulo, Univ. Sao Paulo, Univ. Sao Paulo.</i>	3:00	W2 051.19 The Role of inflammatory cytokines in Motor Symptoms of Parkinson's disease. K. DIAZ-SANTANA*; E. L. STEGEMÖLLER; M. KOHUT. <i>Iowa State Univ.</i>
2:00	V9 051.10 Quantifying Parkinsonian motor symptoms using tablet-based behavioral biomarkers. J. Y. YU*; S. LEE; D. D. LIU; M. AHN; P. M. LAURO; W. F. ASAAD. <i>The Warren Alpert Med. Sch. of Brown Universi, Brown Univ., Handong Global Univ., Brown Univ., Brown Univ.</i>	4:00	W3 051.20 Detection of inflammasome proteins in plasma obtained from Parkinson's disease patients. F. ANDERSON*; A. ANDREW; K. VON HERRMANN; A. YOUNG; S. LEE; M. C. HAVRDA. <i>Dartmouth Col. Geisel Sch. of Med., Geisel Sch. of Med. At Dartmouth, Geisel Sch. of Med. at Dartmouth Col., Geisel Sch. of Med. at Dartmouth.</i>
3:00	V10 051.11 Characteristics of beta waveform shape in Parkinson's disease detected with scalp electroencephalography. N. JACKSON*; S. R. COLE; B. VOYTEK; N. C. SWANN. <i>Univ. of Oregon, UCSD, Univ. of California San Diego Dept. of Cognitive Sci., Univ. of Oregon.</i>	1:00	W4 051.21 • Phenylbutyrate may stop progression of idiopathic Parkinson's disease. C. R. FREED*; S. M. GARCIA; G. LEHMICKE; M. A. LEEHEY; W. ZHOU. <i>Univ. of Colorado, Univ. of Colorado.</i>
4:00	V11 051.12 Cerebral white matter hyperintensity severity is linked to changes in attention and executive function in Parkinson's disease. C. MCDANIEL*; M. SHAHID; T. R. HENDERSHOTT; L. TIAN; B. CHOLERTON; K. L. POSTON; P. LINORTNER. <i>Stanford Univ., Washington Univ. in St. Louis, Stanford Univ., Stanford Univ., Stanford Univ.</i>	2:00	W5 051.22 SN hyperechogenicity as seen in transcranial sonography (TCS) is a reliable biomarker for disease progression from Stage I to Stage II in early onset Parkinson's disease (EOPD). S. RAVI*; V. SHIVKUMAR; D. DANG; T. GILMOUR; N. HARID; J. WANG; T. SUBRAMANIAN; K. VENKITESWARAN. <i>Pennsylvania State Univ. Col. of Med., Marshall Univ., Pennsylvania State Univ. Col. of Med., John Brown Univ., Univ. of Maryland, Pennsylvania State Univ. Col. of Med.</i>
1:00	V12 051.13 Upper limb tremor is predictive of falls in Parkinson's disease. G. KERR*; N. WHITE; S. MORRISON. <i>Queensland Univ. Technol., Queensland Univ. of Technol., Old Dominion Univ.</i>	3:00	W6 051.23 • The Parkinson's phenotype: Traits associated with Parkinson's disease in a large and deeply phenotyped cohort. K. HEILBRON*; A. J. NOYCE; P. FONTANILLAS; B. ALIPANAH; M. NALLS; P. CANNON. <i>23andme, Queen Mary Univ. of London, 23andMe, Natl. Inst. on Aging.</i>
2:00	V13 051.14 Machine learning-based prediction of progressive mild cognitive impairment in Parkinson's disease. M. BANG; Y. CHOI; Y. BAK; N. SHIN*; P. LEE; S. LEE. <i>The Catholic Univ. of Korea Col. of Med., The Catholic Univ. of Korea Col. of Medici, Yonsei Univ. College of Med., Yonsei Univ. College of Med.</i>	4:00	W7 051.24 Parkinson's disease and bacteriophages as its overlooked contributors. G. TETZ*; V. TETZ; S. BROWN; Y. HAO. <i>Human Microbiology Inst., Tetz Labs., NYU Sch. of Med., Ctr. for Genomics & Systems Biology, New York Univ.</i>
3:00	V14 051.15 • Assessment of bradykinesia can predict cognitive function in Parkinson's disease. A. JEFFERSON; M. BYRNES; S. GHOSH; F. MASTAGLIA; R. ANDERTON; J. E. KENNA*. <i>Perron Inst. for Neurolog. and Translationa, The Univ. of Western Australia, Univ. of Notre Dame Australia.</i>	1:00	W8 051.25 Characterizing the NLRP3 inflammasome in Parkinson's disease. M. C. HAVRDA*; E. M. MARTINEZ; K. M. VON HERRMANN; F. L. ANDERSON. <i>Geisel Sch. of Med. at Dartmouth.</i>
4:00	V15 051.16 • Bicycling suppresses abnormal beta oscillations in the basal ganglia of Parkinson's disease patients, while walking enhances them specifically in patients who freeze. L. STORZER; J. ARENS; J. HIRSCHMANN; O. ABBASI; M. GRATKOWSKI; D. SAUPE; J. VESPER; M. BUTZ; A. SCHNITZLER; S. S. DALAL*. <i>Heinrich Heine Univ. Düsseldorf, Univ. of Konstanz, Univ. Hosp. Düsseldorf, Aarhus Univ.</i>		

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POSTER

052. Neuromuscular Diseases: Motor Neuron Disease: *In Vitro* Studies**Theme C: Neurodegenerative Disorders and Injury**

Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H

- 1:00 W9 **052.01** The proline-arginine repeat protein linked to C9ORF72-ALS/FTD inhibits RNA helicase-mediated ribosome biogenesis and causes neuronal cell death. H. SUZUKI*; M. MATSUOKA. *Tokyo Med. Univ, Dept. of Pharmacol., Tokyo Med. Univ, Dept. of Dermatol Neurosci.*
- 2:00 W10 **052.02** ADAR2-mediated RNA editing of extracellular liner and circular RNAs: A potential biomarker of amyotrophic lateral sclerosis. T. HOSAKA*; T. YAMASHITA; N. HIROSE; S. TERAMOTO; A. TAMAOKA; S. KWAK. *Tsukuba Univ., Grad. Sch. of Medicine, Univ. of Tokyo, Tsukuba Univ.*
- 3:00 W11 **052.03** Distinct molecular mechanisms contribute to nuclear pore complex alterations in C9orf72 ALS/FTD. A. N. COYNE*; K. ZHANG; B. ZAEPFEL; L. R. HAYES; J. PHAM; J. D. ROTHSTEIN. *Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ.*
- 4:00 W12 **052.04** miRNAs shuttled by exosomes derived from mesenchymal stem cells move spinal cord astrocytes isolated from SOD1^{G93A}mice at the late phase of disease from a neurotoxic to a neuroprotective phenotype. G. BONANNO*; F. PROVENZANO; D. GIUNTI; C. USAI; M. MILANESE; B. PARODI; C. TORAZZA; C. MARINI; N. KERLERO DE ROSBO; A. UCCELLI. *Univ. of Genova, Ctr. of Excellence for Biomed. Res., Univ. of Genova, Natl. Res. Council.*
- 1:00 W13 **052.05** ▲ Homocysteine sensitizes the mouse neuromuscular junction to oxidative stress via nitric oxide. J. S. WANG; C. A. LINDGREN*. *Grinnell Col.*
- 2:00 W14 **052.06** Disease relevant *in vitro* assays for amyotrophic lateral sclerosis in motor neurons derived from control and patient iPSCs. S. JAIN*; M. BSIBSI; M. JANUS; J. DE GROOT; D. F. FISCHER. *Charles River, Charles River.*
- 3:00 W15 **052.07** Muscle-secreted CTRP3 regulates ERK and PI3K pathways in motor neurons and NMJ formation in spinal muscular atrophy. W. A. REHORST*; N. BROCKE-AHMADINEJAD; A. IONSECU; D. WINTER; S. CIRAK; B. WIRTH; E. PERLSON; M. J. KYE. *Univ. of Cologne, Univ. of Bonn, Tel Aviv Univ., Univ. of Cologne.*
- 4:00 W16 **052.08** Role of PACAP/EGFR/MMP-2 axis in an *in vitro* model of amyotrophic lateral sclerosis. G. MAUGERI*; A. D'AMICO; D. RASÀ; V. LA COGNATA; G. MORELLO; S. SACCONI; C. FEDERICO; S. CAVALLARO; V. D'AGATA. *Univ. of Catania, San Raffaele Open Univ. of Rome, CNR, Univ. of Catania, Italian Natl. Res. Council.*
- 1:00 W17 **052.09** A 3D tissue-engineered spinal cord model to recapitulate the amyotrophic lateral sclerosis phenotype. A. LOUIT*; M. BEAUDET; F. BERTHOD. *Laval Univ., CHU de Québec - LOEX center.*
- 2:00 W18 **052.10** The M1311V variant of the copper transporter ATP7A is associated with impaired trafficking and copper homeostasis in models of motor neuron disease. R. P. BOWSER*; A. STARR; N. BAKKAR; Z. T. MCEACHIN; I. LORENZINI; M. CHAUNG; R. KRAFT; D. C. ZARNESCU; G. J. BASSELL; E. HUTCHINS; R. REIMAN; K. VAN KEUREN-JENSEN; N. ZAHLER; S. ALWORTH; J. ICHIDA; P. R. AUGUST; A. BÉTOURNÉ; N. M. BOULIS; R. SATTLER. *Barrow Neurolog. Inst., Emory Univ., Univ. of Arizona, Translational Genomics Res. Inst., Translational Genomics Res. Inst., ICAGEN, AcuraStem, USC, ICAGEN, Above and Beyond NB LLC, Emory Univ. Sch. of Med.*
- 3:00 X1 **052.11** Functional characterization of ALS-iPSC-derived neurons upon various cellular stresses. Y. LEE; P. JEON; H. CHOI; B. KAANG; J. LEE*. *Hannam Univ., Seoul Natl. Univ.*
- 4:00 X2 **052.12** Restoring disturbed energy homeostasis in spinal muscular atrophy. M. P. THELEN*; M. J. KYE. *Univ. of Cologne.*
- 1:00 X3 **052.13** Skeletal myotubes expressing human SOD1(G93A)trigger motor neuron neurodegeneration through the release of a toxic factor(s). P. MARTINEZ*; F. J. BUSTOS; M. F. TEVY; E. JAIMOVICH; M. CONTANTINE-PATON; B. VAN ZUNDERT. *Univ. Andres Bello, Ctr. for Aging and Regeneration (CARE-UC), MIT, Univ. Mayor, Univ. de Chile.*
- 2:00 X4 **052.14** Characterization of iPSC-derived motor neurons from monozygotic twins discordant for ALS. E. R. SEMINARY*; L. WHEELER; M. MEJAKI; D. FEE; P. BARKHAUS; A. D. EBERT. *Med. Col. of Wisconsin, Med. Col. of Wisconsin.*
- 3:00 X5 **052.15** Dipeptide repeat oligomers in ALS and FTD. N. N. BHATT*; M. CARRETERO-MURILLO; S. A. MCALLEN; A. ELLSWORTH; U. SENGUPTA; J. RUDRA; R. KAYED. *Univ. of Texas Med. Br., Univ. of Texas Med. Br.*
- 4:00 X6 **052.16** ● Phenotypic functional *in vitro* screening of patient iPSC-derived motor neurons used for *in vitro* HTS disease modeling with AI-based analysis of micro electrode array data. B. M. BADER*; M. SEGURA CASTELL; K. JUEGELT; M. L. HENDRICKSON; L. SCHULTZ; O. H. SCHROEDER. *NeuroProof GmbH, BrainXell, Inc.*
- 1:00 X7 **052.17** Enhanced CSF NF-L levels and deranged neurofilaments: Conjoined players of motor neuron degeneration in sporadic ALS. V. K*; A. M. VARGHESE; S. SHRUTHI; A. NALINI; P. A. ALLADI; T. N. SATHYAPRABHA; T. R. RAJU. *Natl. Inst. Mntl Hlth. & Neurosci, Natl. Inst. Mntl Hlth. & Neurosci, Natl. Inst. Mntl Hlth. & Neurosci.*
- 2:00 X8 **052.18** Retromer complex deficiency in amyotrophic lateral sclerosis astrocytes may induce motor neuron degeneration. E. J. PEREZ-TORRES*; V. MISHRA; S. A. SMALL; F. LOTTI; S. E. PRZEDBORSKI. *Columbia Univ., Columbia Univ., Columbia Univ. Med. Ctr., Columbia Univ., Columbia Univ.*
- 3:00 X9 **052.19** Role of m⁶A RNA methylation in motor neuron function. G. NTERMENTZAKI*; D. BONANOMI; J. H. HANNA; F. LOTTI. *Columbia Univ., San Raffaele Scientific Inst., Weizmann Inst. of Sci.*
- 4:00 X10 **052.20** ● The AR N/C interaction in SBMA-molecular mechanisms and therapeutic potential. A. LISBERG*; R. CADILLA; P. EIDAM; D. MERRY. *Thomas Jefferson Univ., GlaxoSmithKline.*

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* Indicates abstract's submitting author

1:00	X11 052.21 Investigating the effects of ALS-associated mutant KIF5A on primary neurons. A. GIAMPETRUZZI*; E. W. DANIELSON; T. TRINH; C. FALLINI; J. LANDERS. <i>UMASS Med. Sch., MIT, UMASS Med. School/Clark Univ., Univ. of Massachusetts Med. Sch. Dept. of Neurol.</i>	2:00	Y8 053.10 EGF-induced MAPK-mediated Calpain2 activation triggers a neuroprotective priming mechanism against Oxygen-Glucose deprivation; implication of AMPAR downregulation and degradation of their scaffolding PDZ proteins. H. JOURDI*; F. H. KOBEISSY; A. DAOU. <i>Univ. of Balamand, American Univ. of Beirut, American Univ. of Beirut.</i>			
2:00	X12 052.22 ● Preclinical pharmacodynamic muscle markers of ALS progression. G. SRUBEK TOMASSY*; Y. LIU; M. ZHANG; L. SUN; Y. LUO; C. ROBERTS; A. R. MCCAMPBELL. <i>Biogen, Biogen, Biogen.</i>	3:00	Y9 053.11 Exploring the effects of irradiation and dietary polyphenol supplementation on behavior and neurogenesis in mice. A. D. TROFIMOVA*; N. KALYNOVSKA; D. Y. XU; H. CAO; M. S. DULCICH; N. M. BAJWA; D. BAYLINK; R. E. HARTMAN. <i>Loma Linda Univ., Loma Linda Univ., Loma Linda Univ.</i>			
POSTER						
053.	Neurotoxicity, Inflammation, and Neuroprotection: Preclinical Studies					
<i>Theme C: Neurodegenerative Disorders and Injury</i>						
Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H						
1:00	X13 053.01 Therapeutic effects of Iaquinimod on Huntington disease mice. P. YIN*; X. LI; S. LI. <i>Emory Univ.</i>	1:00	Y11 053.13 ▲ Role of prion protein in experimental autoimmune encephalomyelitis and neuroinflammation. H. LI*; M. J. BELLIZZI; J. W. HAMMOND; H. A. GELBARD. <i>The Univ. of Rochester Med. Ctr.</i>			
2:00	X14 053.02 MHE182 inhibits lipopolysaccharide-induced neuroinflammation by regulating NF-κB signaling. I. JU*; C. KWAK; Y. KWON; M. OH. <i>Kyung Hee Univ.</i>	2:00	Y12 053.14 Neuroprotective lipid synthesis is enhanced in mesencephalic neurons at the onset of MPP+ induced cellular damage. M. N. DREYER*; J. M. CALANDRIA; N. G. BAZAN. <i>LSUHSC New Orleans.</i>			
3:00	Y1 053.03 Comparing the antiseizure and neuroprotective efficacy of LY293558, diazepam, caramiphen, and LY293558-caramiphen combination against soman in a rat model relevant to the pediatric population. J. P. APLAND*; V. ARONIADOU-ANDERJASKA; T. H. FIGUEIREDO; V. I. PIDOPLICHKO; K. ROSSETTI; M. F. M. BRAGA. <i>USAMR/CD, Uniformed Services Univ., Uniformed Services Univ., Uniformed Services Univ.</i>	3:00	Y13 053.15 Assessing the effectiveness of gabapentin and d-leucine as anticonvulsants and neuroprotectants in acetylcholinesterase inhibited mice. B. C. LAGER*; K. LAITIPAYA; J. K. CHANDLER; D. D. PALMER; C. L. HONNOLD; E. A. JOHNSON. <i>USAMR/CD.</i>			
4:00	Y2 053.04 Evaluation of the neuroprotective potential and mechanism of action of a dithiolethione compound against manganese-induced toxicity in SH-SY5Y neuroblastoma cells. S. BETHARIA*; K. GUGNANI; C. YOO. <i>MCPHS Univ.</i>	4:00	Y14 053.16 Evaluation of cannabinoids for anticonvulsant and antiepileptic efficacy in a rat model of soman-induced status epilepticus. B. MARRERO-ROSADO*; F. ROSSETTI; C. SCHULTZ; E. KUNDRICK; M. STONE; S. O'BRIEN; K. WALKER; L. LUMLEY. <i>US Army Med. Res. Inst. of Chem. Def., Walter Reed Army Inst. of Res.</i>			
1:00	Y3 053.05 Neuroprotective, anti-neuroinflammatory and myelinogenic effects of agathisflavone in <i>in vitro</i> and <i>ex vivo</i> models of neuroinflammation and demyelination. M. A. CARNEIRO*; F. PIEROPAN; N. DOURADO; A. B. DA SILVA; R. S. FERREIRA; V. D. A. DA SILVA; C. S. SOUZA; A. M. BUTT; S. L. COSTA. <i>Univ. of Portsmouth, Univ. Federal of Bahia, Univ. of Portsmouth, Univ. of Sheffield.</i>	1:00	Y15 053.17 ▲ Curcumin reduces neurodegeneration in rat hippocampus induced by experimental short-term exposure to ozone. H. ESPINOZA-GUTIÉRREZ; S. NERY-FLORES; M. A. RAMIREZ-HERRERA*; M. L. MENDOZA-MAGAÑA; C. CORTEZ-ALVAREZ; R. BONNET-LEMUS; A. RAMIREZ-MENDOZA. <i>Univ. Guadalajara Ctr. Univ. Ciencias Salud, Univ. Guadalajara Ctr. Univ. Ciencias Salud.</i>			
2:00	Y4 053.06 Scaffold based hybrids as new nicotinic acetylcholine receptor ligands. D. GUNDISCH*; L. KOSTUR; X. WU; A. R. BURGOYNE. <i>Col. of Pharm. UHH.</i>	2:00	Y16 053.18 ● Neuroprotective and antioxidative efficacy of a unique combination of standardized herbal extracts of huperzia serrata (cogniup), convolvulus pluricaulis and celastrus paniculatus. I. S. AHMAD*; A. SWAROOP; M. BAGCHI; D. BAGCHI. <i>Cepham Life Sciences, Inc., Cepham, Inc., Univ. of Houston Col. of Pharm.</i>			
3:00	Y5 053.07 Sub-chronic administration of metformin selectively protects primate dopamine neurons from methamphetamine-induced damage: Investigations on its mechanism and potential use in Parkinson's disease. J. K. BLACKBURN*; D. W. CURRY; B. STUTZ; R. H. ROTH; J. D. ELSWORTH. <i>Yale Univ.</i>	3:00	Y17 053.19 Neuroprotective effect of dexamethasone administration on neural damage and seizures induced by kainic acid in rats. V. BARON-FLORES*; A. DIAZ-RUIZ; C. JIMÉNEZ-HERNÁNDEZ; Á. PÉREZ-JUÁREZ; J. LANDA-COVARRUBIAS; M. ROMERO; C. RIOS. <i>Univ. Autónoma Metropolitana Xochimilco, Natl. Inst. of Neurol Mexico, Natl. Inst. Neurology, Neurosurg.</i>			
4:00	Y6 053.08 Secreted amyloid precursor protein alpha activates nf kappa b and increases sod2 expression in cultured peripheral neurons. B. AULSTON*; G. GLAZNER. <i>St. Boniface Res. Ctr.</i>	4:00	Y18 053.20 ● Small molecule inhibitors of SARM1 prevent axon degeneration. R. KRAUSS; T. M. ENGBER*; R. DEVRAJ; T. BOSANAC; R. HUGHES. <i>Disarm Therapeut.</i>			
1:00	Y7 053.09 ● Glycopeptides as systemically delivered CNS active drugs from endogenous peptide hormones. J. M. STREICHER*; T. FALK; M. HAY; C. APOSTOL; M. BARTLETT; M. HEIEN; G. MOLNAR; C. LIU; C. SMITH; L. SZABO; R. POLT. <i>Univ. of Arizona, Univ. of Arizona, Univ. of Arizona, Univ. of Arizona.</i>					

• Indicated a real or perceived conflict of interest, see page 74 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

1:00	Z1	053.21 The Role The role of RAC1 during adult peripheral axonal regeneration. P. KOMIRISHETTY*; C. CHENG; D. W. ZOCHODNE. <i>Univ. of Alberta, Univ. of Calgary, Univ. of Alberta.</i>	1:00	Z11	054.09 ● Comparison of functional brain connectivity before and after complex approach of KiNvis and BMI to patients with severely impaired chronic stroke. -A primary analysis of the resting state functional MRI-. F. KANEKO*; K. SHINDO; M. YONETA; M. OKAWADA; K. AKABOSHI; M. LIU. <i>Keio Univ., Shonan Keiiku Hosp.</i>
2:00	Z2	053.22 Regulation of hypoxia tolerance in <i>Drosophila melanogaster</i> by activating notch in neuronal and glial cells. D. ZHOU*; J. XUE; Y. HSIAO; T. STOBDAN; G. G. HADDAD. <i>Univ. of California San Diego, UCSD, Univ. of California San Diego, The Rady Children's Hosp.</i>	2:00	Z12	054.10 Long-term treatment with recombinant human soluble thrombomodulin improves ischemic brain damage via regulating systemic HMGB1 levels in mice. T. NAKANO*; Y. NAKAMURA; K. IRIE; Y. YAMASHITA; T. MYOSE; K. MATSUO; H. KAMIMURA; H. ISHIKURA; Y. TAKASE; K. SANO; T. EGAWA; K. MISHIMA. <i>Fac. of Pharmaceut. Sciences, Fukuoka Univ., Fukuoka Univ. Hosp.</i>
3:00	POSTER				
3:00	054. Stroke, Damage, or Disease: Assessment and Treatment I				
	<i>Theme C: Neurodegenerative Disorders and Injury</i>				
	Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H				
1:00	Z3	054.01 Co-expressed gene networks associated with intracerebral hemorrhage and peri-hematoma edema volumes following human ICH: Search for potential therapeutic targets. B. STAMOVA*; M. DUROCHER; B. P. ANDER; G. JICKLING; F. HAMADE; X. ZHAN; D. LIU; X. CHENG; H. HULL; N. SHROFF; A. YEE; F. R. SHARP. <i>Univ. of California, Davis Sch. of Med.</i>	3:00	Z13	054.11 Relationship between serum levels of BDNF and cognitive function in stroke patients. W. CHANG*; J. LEE; A. LEE; H. KIM; Y. KIM. <i>Samsung Med. Ctr.</i>
2:00	Z4	054.02 New Near-infrared dye for BBB disruption assessment. J. KIM; M. PARK; K. CHOI; H. KIM*. <i>Chonnam Natl. Univ. Med. Sch.</i>	4:00	Z14	054.12 Lung-derived superoxide dismutase 3 reduces cerebral ischemia-reperfusion injury. K. J. GATES*; N. MAI; L. PRIFTI; S. KNOWLDEN; M. W. HALTERMAN. <i>Univ. of Rochester Med. Ctr.</i>
3:00	Z5	054.03 A study of hierarchical factor structure of stroke patients with cognitive dysfunction using behavioral assessment. Y. IWASAKI*; K. GORYO. <i>Kyorin Univ., Chiba Univ.</i>	1:00	Z15	054.13 Preventing microthrombi formation attenuates deficits after subarachnoid hemorrhage in mice. D. W. MCBRIDE*; P. KUMAR T.; K. MATSUMURA; S. L. BLACKBURN. <i>Univ. of Texas Hlth. Sci. Ctr. at Houst.</i>
4:00	Z6	054.04 Nogo-A neutralization enhances VEGF-mediated angiogenesis and functional recovery after stroke. R. RUST*; C. GANTNER; A. ENZLER; A. SIEWERT; L. GRÖNNERT; D. KUKELOVA; M. A. MAURER; M. E. SCHWAB. <i>Brain Res. Inst., ETH Zurich, Univ. of Bielefeld, CRTD – Ctr. for Regenerative Therapies Dresden, Technische Univ. Dresden, Univ. of Zurich.</i>	2:00	Z16	054.14 Assessment of the effect of a pro-growth extracellular matrix protein, matrilin-2, on axonal sprouting in the post-stroke brain. S. P. BRIDGES*; M. MACHNICKI; S. T. CARMICHAEL. <i>Univ. of California Los Angeles, Univ. of California Los Angeles.</i>
1:00	Z7	054.05 Investigating contralesional cortical activation with cellular resolution in post-stroke recovery. T. C. CHIANG*; M. ITO; S. HARVEY; M. Y. CHENG; G. K. STEINBERG. <i>Stanford Univ.</i>	3:00	Z17	054.15 The acute peripheral immune response in stroke-affected skeletal muscle. M. BALCH*; H. HARRIS; S. GNYAWALI; S. KHANNA; C. K. SEN; C. L. RINK. <i>The Ohio State Univ. Wexner Med. Ctr., The Ohio State Univ. Col. of Med.</i>
2:00	Z8	054.06 Upregulated interferon α/β signaling pathways are related to developing intracranial aneurysm in human and rat animal model. T. YOKOI*; S. ISHIDA; T. ISONO; T. CHANO; K. NOZAKI. <i>Shiga Univ. of Med. Sci., Shiga Univ. of Med. Sci.</i>	4:00	Z18	054.16 ● Multi-parametric MRI approach demonstrates protective effects of 3K3A-activated protein C in a novel model of white matter stroke. M. T. HUUSKONEN*; Y. WANG; A. MONTAGNE; Z. ZHAO; J. H. GRIFFIN; B. V. ZLOKOVIC. <i>Keck Sch. of Med. of the Univ. of South, The Scripps Research Inst.</i>
3:00	Z9	054.07 First-in-human study of safety, tolerability and pharmacokinetics of novel neuroprotectant YC-6 after single ascending doses in healthy Chinese subjects. X. CHEN; Q. ZHAO; Z. WANG; J. JIANG; G. YAN; S. LIN*; P. HU. <i>Peking Union Med. Col. Hospital, Peking Union Med. college & Chinese Acad. of Med. Sci., Sun Yat-Sen Univ., Guangzhou Cellprotek Pharmaceut. Co. Ltd.</i>	1:00	AA1	054.17 Different brain connectivity changes and responsiveness to dual-mode noninvasive brain stimulation over bilateral primary motor cortices in stroke patients. J. LEE*; A. LEE; H. KIM; K. KIM; W. CHANG; Y. KIM. <i>Samsung Med. Center, Sungkyunkwan Univ. Sch. of Med., SAHIST, Sungkyunkwan Univ.</i>
4:00	Z10	054.08 The anesthetic propofol alleviates neuronal injury after ischemic stroke in mice. Y. Z. WANG; M. Y. QU; Y. S. ZHAO; Z. Z. WEI; Y. YUE; L. WEI*; A. S. WU. <i>Emory Univ., Beijing Chaoyang Hospital, Capital Med. Univ.</i>	2:00	AA2	054.18 ● Relationship between EEG during motor imagery and upper limb function after the intervention with KiNvis and EEG-based BCI in patients with severe upper limb paralysis after stroke. M. OKAWADA*; F. KANEKO; K. SHINDO; M. YONETA; K. AKABOSHI; M. LIU. <i>Keio Univ., Shonan Keiiku Hosp.</i>
3:00					
3:00	AA3 054.19 The Fugl-Meyer scale does not capture recovery of motor control following stroke. A. M. HADJIOSIF*; M. BRANSCHEIDT; M. A. ANAYA; K. D. RUNNALLS; J. KELLER; A. J. BASTIAN; P. A. CELNIK; J. W. KRAKAUER. <i>Johns Hopkins Univ., Johns Hopkins Univ., Univ. of Zurich, Kennedy Krieger Inst., Johns Hopkins Univ.</i>				
4:00	AA4 054.20 Efficient engraftment of mesenchymal stem cells in a rat chronic stroke model. D. JO*; G. KIM; D. CHANG; J. YOON; S. KIM; H. SUH-KIM. <i>Ajou Univ. Sch. of Med.</i>				

* Indicated a real or perceived conflict of interest, see page 74 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

1:00	AA5 054.21 Monomethyl fumarate mediates neuroprotection against ischemia reperfusion injury in rats via activating endogenous antioxidant (nrf2/ho1) pathway. D. SINGH*; R. KH; U. SHARMA; J. NR; A. DINDA; Y. GUPTA. <i>All India Inst. of Med. Sci. (AIIMS) Ne, All India Inst. of Med. Sci. (AIIMS) Ne, All India Inst. of Med. Sci. (AIIMS) Ne, All India Inst. of Med. Sci. (AIIMS) Ne.</i>	2:00	BB5 055.02 Structural disconnection plays a key role in brain network dysfunction after stroke. J. C. GRIFFIS*; J. S. SIEGEL; N. V. METCALF; M. CORBETTA; G. SHULMAN. <i>Washington Univ. In St Louis, Univ. of Padua.</i>
2:00	AA6 054.22 An evaluation gap between patients and clinicians in left hemiparesis and right hemiparesis. S. CHOI; S. KIM*. <i>Jeonju Univ.</i>	3:00	BB6 055.03 ▲ Intravascular blood flow displays temporal synchrony when basal ganglia neurotransmitter release is videotracked online in the normal state, while vasculature and cerebral release reflect temporal asynchrony during online videotracking of stroke: Sensing with dual laser doppler flowmetry and BRODERICK PROBE®. R. CHOWDHURY*; T. ALABED; S. AL AMIN; L. WENNING; P. BRODERICK. <i>CUNY Sch. of Med., CUNY Sch. of Medicine, CCNY.</i>
3:00	AA7 054.23 Acute treatment of hypothermic compounds attenuates psychological deficits chronically developed in the mice model of focal ischemic stroke. W. ZHONG*; Y. YUAN; X. GU; C. QU; S. KIM; M. LOYE; T. DIX; L. WEI; S. YU. <i>Emory Univ., Atlanta VA Med. Ctr., The Med. Univ. of South Carolina.</i>	4:00	BB7 055.04 Use of structural and functional MRI as biomarkers for repair processes following stem cells therapy of white matter stroke. S. LEPORE*; I. L. LLORENTE; I. PHAM; W. LOWRY; S. T. CARMICHAEL; N. G. HARRIS. <i>UCLA, Univ. of California , Los Angeles, Univ. of California , Los Angeles, UCLA Sch. Med., Univ. of California , Los Angeles.</i>
4:00	AA8 054.24 ● Determining translational magnetic resonance imaging parameters predictive of therapeutic efficacy in a porcine ischemic stroke model. S. E. SPELLICY*; E. E. KAISER; M. M. BOWLER; B. J. JURGIELEWICZ; R. L. WEBB; F. D. WEST; S. L. STICE. <i>Univ. of Georgia, Med. Col. of Georgia at Augusta Univ., Univ. of Georgia, Aruna Biomed. Inc.</i>	1:00	BB8 055.05 Associations between collateral status and histological characteristics of retrieved thrombi in patients with acute ischemic stroke. C. MUN HEE*; G. PARK; J. LEE; S. LEE; J. KIM; J. HONG. <i>Ajou Univ. Med. Ctr., Ajou Univ. Sch. of Med., Ajou Univ. Sch. of Med., Ajou Univ. Sch. of Med., Ajou Univ.</i>
1:00	AA9 054.25 Sensory and motor assessment of stroke patients. Y. ACOSTA-SOJO*; C. KRISHNAN; B. J. MARTIN. <i>Univ. of Michigan, Univ. of Michigan.</i>	2:00	BB9 055.06 <i>Ex vivo</i> angiography for deeper imaging in chronic stroke models. K. KILIÇ*; E. ERDENER; S. NING; S. SUNIL; A. CHEN; D. A. BOAS. <i>BU Neurophotonics Ctr., Boston Univ.</i>
2:00	AA10 054.26 Analysis of risk-based decision making in rats following medial prefrontal stroke. C. M. O'HEARN*; C. WHIRTELEY; T. K. SHAVER; C. E. CABRAL; A. D. LAKE; B. ZHU; A. N. RICHMOND; C. VONDER HAAR. <i>West Virginia Univ.</i>	3:00	BB10 055.07 Voxel-based lesion symptom mapping relates dorsal stream insult to severity of apraxia of speech in aphasia. S. PAQUETTE*; K. V. CHENAUSKY; A. C. NORTON; G. SCHLAUG. <i>BIDMC - Harvard Med. Sch.</i>
3:00	AA11 054.27 Towards a reproducible rodent model of lasting upper extremity impairments after subcortical white matter infarcts. E. NUDI*; C. NIELSON; T. A. JONES. <i>Univ. of Texas at Austin, Univ. Texas Austin.</i>	4:00	BB11 055.08 ● Relationship between lesion location and performance on bimanual object hitting task. R. L. HAWE*; S. E. FINDLATER; J. M. KENZIE; S. H. SCOTT; S. P. DUKELOW. <i>Univ. of Calgary, Queen's Univ.</i>
4:00	BB1 054.28 Cerebrovascular disease-causing mutation, ACTA2 ^{R179H} disrupts the functions of α-actin in patients transdifferentiated smooth muscle cells. Y. SUBBURAJ; C. L. CARDENAS; B. GYORGY; D. M. MILEWICZ; M. E. LINDSAY; P. L. MUSOLINO*. <i>MGH/Harvard, Univ. of Texas.</i>	1:00	BB12 055.09 Modeling reaching function in chronic moderate to severe hemiparetic stroke: An interim analysis. G. C. BELLINGER*; M. D. ELLIS. <i>Northwestern Univ., Northwestern Univ.</i>
1:00	BB2 054.29 Vessel-derived signaling factors regulate neural progenitor cell responses to cortical stroke. N. ABDULJAWAD*; A. J. BRUMM; M. MACHNICKI; G. COPPOLA; S. CARMICHAEL. <i>Univ. of California Los Angeles, UCLA, UCLA.</i>	2:00	BB13 055.10 Diet-induced obesity exacerbates infarction and mediates hypothermia in murine experimental stroke. X. REN*; S. LEWIS; H. HU; J. SIMPKINS; E. KELLEY. <i>West Virginia University Robert C. Byrd Health Sci. Ctr., West Virginia University Robert C. Byrd Health Sci. Ctr., West Virginia University, Ctr. for Basic and Translational Stroke Res.</i>
2:00	BB3 054.30 Distributions of power variables reveal similar patterns of abnormal flexor-extensor activity across stroke survivors. F. C. HUANG*. <i>Shirley Ryan AbilityLab.</i>	3:00	BB14 055.11 Effects of shoulder abduction on cortical activity during attempted hand opening in moderate to severe chronic stroke. K. B. WILKINS*; C. CARMONA; J. P. DEWALD; J. YAO. <i>Northwestern Univ., Northwestern Univ., Northwestern Univ.</i>
1:00	POSTER	4:00	BB15 055.12 Voluntary activation of the paretic elbow and wrist muscles in chronic hemiparetic stroke using twitch interpolation: Preliminary results. L. GARMIRIAN*; A. ACOSTA; J. P. DEWALD. <i>Northwestern Univ., Northwestern Univ.</i>
1:00	BB4 055.01 Flexible brain networks during stroke recovery. Y. O. OKAZAKI*; N. HATTORI; T. KAWANO; M. HATAKENAKA; I. MIYAI; K. KITAO. <i>RIKEN, Morinomiya Hosp., Osaka Univ. Grad. Sch. of Med., Osaka Univ.</i>	1:00	BB16 055.13 The role of microglia activation and deactivation in neurological disease stages. J. SHARMA*; M. SHARMA; C. SHARMA; K. MUAINA; C. BEEZHOLD; P. GANESH; R. PUNZALAN. <i>Celprogen.</i>

055. Stroke Imaging and Diagnostic Studies: Vascular and Movement Emphasis During Recovery

Theme C: Neurodegenerative Disorders and Injury

Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H

- 1:00 BB4 **055.01** Flexible brain networks during stroke recovery. Y. O. OKAZAKI*; N. HATTORI; T. KAWANO; M. HATAKENAKA; I. MIYAI; K. KITAO. *RIKEN, Morinomiya Hosp., Osaka Univ. Grad. Sch. of Med., Osaka Univ.*

* Indicated a real or perceived conflict of interest, see page 74 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

2:00	BB17 055.14 Periodontal disease augments ischemic stroke outcomes in mice. A. S. AHMAD*; S. S. CHUKKAPALLI; P. K. KAMAT; D. HERNANDEZ; J. JIRON; J. AGUIRRE; L. KESAVALU; S. DORE. <i>Univ. of Florida, Univ. of Florida, Univ. of Florida, Univ. of Florida, Univ. of Florida</i> .	1:00	CC11 055.25 ▲ Endovascular thrombectomy of acute ischemic stroke leads to beneficial outcome in a tertiary community center. I. CHEEMA; R. DOMINIC; S. JHAS; M. SHAHIDEH; L. LOOI-LYONS; H. E. EL-BEHEIRY*. <i>Trillium Hlth. Partners, Univ. of Toronto, Trillium Hlth. Ctr.</i>
3:00	CC1 055.15 Brainstem response to sensory stimuli reveals potential correlates of spasticity after stroke. C. HAN*; D. RESS; S. LI; J. S. SULZER. <i>Univ. of Texas at Austin, Baylor Col. of Med., Univ. of Texas Hlth. Sci. Ctr. - Houston, Univ. of Texas at Austin.</i>	2:00	CC12 055.26 Stroke symptomology, rare infectious etiology. F. P. MELENDEZ*; A. DAVIS; D. CASADESUS; K. SHILLINGFORD; A. MENDELSON; E. MENDEZ. <i>Ross Univ. Sch. of Med., Jackson Mem. Hosp., American Univ. of The Caribbean Sch. of Med.</i>
4:00	CC2 055.16 Uncoupling of electron transport chain compromises mitochondrial oxidative phosphorylation and exacerbates stroke infarction. H. HU*; K. GRASMICK; I. FAROOQI; S. RELICK; J. W. SIMPKINS; X. REN. <i>West Virginia University, Ctr. for Basic and Translational Stroke Res., West Virginia University, Ctr. for Basic and Translational Stroke Res., West Virginia Univ. Ctr. for Basic and Translational Stroke Research., West Virginia Univ. Ctr. for Basic and Translational Stroke Research., West Virginia Univesity Robert C. Byrd Health Sci. Ctr.</i>		
1:00	CC3 055.17 Multiple stretch induced reduction in spasticity in hemiparetic stroke is short-lived. J. R. PATTERSON*; J. M. DROGOS; N. GURARI; J. P. DEWALD. <i>Northwestern Univ., Northwestern Univ., Northwestern Univ.</i>	1:00	CC13 056.01 Trehalose elevates brain zinc levels following a controlled cortical impact brain injury in aged mice. S. D. PORTBURY*; D. J. HARE; D. P. BISHOP; P. A. DOBLE; D. I. FINKELSTEIN; P. A. ADLARD. <i>Florey Inst. of Neurosci. and Mental Hlth., Univ. of Technol. Sydney.</i>
2:00	CC4 055.18 Association between c-reactive protein (crp-g1059c) gene polymorphism and its serum levels in intracerebral hemorrhage from north indian population. R. SAGAR*; A. K. YADAV; A. KUMAR; G. SHUKLA; D. DASH; A. K. SRIVASTAVA; S. VIVEKANANDHAN; A. GULATI; G. GUPTA; K. PRASAD. <i>All India Inst. of Med. Sciences, New Delhi, Dept. of Biotech.</i>	2:00	CC14 056.02 Characterization of mitochondrial damage due to low-intensity primary blast injury. H. SONG*; L. M. KONAN; J. CUI; C. E. JOHNSON; M. LANGENDERFER; D. G. GRANT; B. YANG; X. WANG; T. WHITE; M. GREENLIEF; U. DEMIRCI; G. Y. SUN; G. K. HUBLER; R. SWERDLOW; I. CERNAK; R. G. DEPALMA; Z. GU. <i>Univ. of Missouri Columbia, Missouri Univ. of Sci. and Technol., Univ. of Missouri Columbia, Univ. of Missouri Columbia, Univ. of Kansas Med. Ctr., Stanford Univ., Univ. of Missouri Columbia, Univ. of Missouri Columbia, STARR-C LLC, DVA.</i>
3:00	CC5 055.19 Neurogenesis and migration of new neurons in the model of global cerebral ischemia in rats. M. KHODANOVICH*; A. KISEL; M. KUDABAEVA; G. CHERNYSHOVA; V. GLAZACHEVA; I. WASSERLAUF; M. PLOTNIKOV. <i>Tomsk State Univ., Inst. of Pharmacol. and Regenerative Med.</i>	3:00	CC15 056.03 Brain pericytes are mesenchymal progenitors that support cerebrovascular regeneration after stroke. L. BERNIER*; J. K. HEFENDEHL; C. LEWIS; W. R. SCOTT; F. M. ROSSI; M. T. UNDERHILL; B. A. MACVICAR. <i>Univ. of British Columbia, Univ. of British Columbia.</i>
4:00	CC6 055.20 Training out of abnormal hand synergy patterns improves dexterity in patients with chronic stroke. F. MAWASE*; K. M. CHERRY-ALLEN; J. XU; S. UEHARA; P. A. CELNIK. <i>Johns Hopkins Sch. of Med., Johns Hopkins Univ., Johns Hopkins Univ., Johns Hopkins Univ., Johns Hopkins Univ.</i>	4:00	CC16 056.04 Cuprizone-induced iron overload and oligodendrocyte loss in the corpus callosum. P. JHELUM*; E. SANTOS-NOGUEIRA; A. HAUMONT; I. LENOËL; S. DAVID. <i>The Res. Inst. of the McGill Univ.</i>
1:00	CC7 055.21 A mouse model of perinatal stroke that produces targeted injury in sensorimotor cortex and contralateral impairments in forelimb function. M. GOMEZ-SMITH; I. S. TAKOFF; J. PITNEY; G. SILASI*. <i>Univ. of Ottawa, Julian Pitney.</i>	1:00	DD1 056.05 Oncogenes src and rock play critical roles in traumatic brain injury. D. LIU*; B. P. ANDER; F. R. SHARP; B. G. LYETH. <i>UC Davis, UC Davis.</i>
2:00	CC8 055.22 ▲ Specific brain regions are activated during early arousal and recovery from post-cardiac arrest coma. M. AZADIAN; G. TIAN*; A. BAZRAFKAN; A. A. KHAN; Y. SURI; F. AGUIRRE; M. D. DESAI; I. OTAROLA; N. KHALILI; O. MIRKHANI; J. C. WANG; J. WANG; N. MAKI; O. STEWARD; Y. AKBARI. <i>Univ. of California, Irvine.</i>	2:00	DD2 056.06 Selective vulnerability of hippocampal interneurons to graded traumatic brain injury. J. C. FRANKOWSKI*; Y. J. KIM; R. F. HUNT. <i>Univ. of California Irvine.</i>
3:00	CC9 055.23 Functional ultrasound for cortical spreading depression (csd) recording in whole brain. J. TANG*; K. KILIÇ; E. ERDENER; D. A. BOAS. <i>Boston Univ., Boston Univ.</i>	3:00	DD3 056.07 Exposure to recurrent hypoglycemia modulates endoplasmic reticulum stress in hippocampus of insulin-treated diabetic rats. A. K. REHNI*; K. R. DAVE. <i>Univ. of Miami Sch. of Med., Univ. of Miami Miller Sch. of Med.</i>
1:00	DP06/CC10 055.24 (Dynamic Poster) Wearable rehab on-the-go?: Passive tactile stimulation for upper extremity rehabilitation post-stroke. C. SEIM*; T. ESTES; T. STARNER. <i>Georgia Inst. of Technol., US Military Acad. at West Point.</i>	4:00	DD4 056.08 Experimental traumatic brain injury identifies distinct early and late phase axonal conduction deficits of white matter pathophysiology, and reveals intervening recovery. C. M. MARION*; K. L. RADOMSKI; N. P. CRAMER; Z. GALDZICKI; R. C. ARMSTRONG. <i>F. Edward Hebert Sch. of Medicine, Uniformed Ser, F. Edward Hebert Sch. of Medicine, Uniformed Services Univ. of the Hlth. Sci., F. Edward Hebert Sch. of Medicine, Uniformed Services Univ. of the Hlth. Sci.</i>

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1:00	DD5 056.09 Crosstalk between autophagy and neuroinflammation following traumatic brain injury. N. U. HEGDEKAR*; C. SARKAR; P. RAVISHANKAR; D. PHILKANA; M. M. LIPINSKI. <i>Univ. of Maryland Baltimore, Univ. of Maryland Sch. of Med., Univ. of Maryland Baltimore, Univ. of Maryland Sch. of Med.</i>	2:00	DD18 056.22 Targeting gephyrin for treatment of anxiety. Y. SHEN; A. LINDEMAYER; A. S. SHAO; X. M. SHAO; D. L. DAVIES; R. W. OLSEN; J. LIANG*. <i>Zhejiang Univ. Sch. of Med., UCLA, UCLA, USC.</i>
2:00	DD6 056.10 A novel bioluminescent reporter confirms an increase in extracellular ATP in the brain following a traumatic brain injury: Implications for downstream pathologies. A. H. FAROQI; M. DELENCLOS; E. C. KEE; J. H. LEE; J. D. BURGESS; P. J. MCLEAN*. <i>Mayo Clin. Florida, Mayo Clin. Grad. Sch. of Biomed. Sci.</i>	3:00	EE1 056.23 ● Molecular mechanism that triggers synaptic remodeling following axon injury. T. NAGENDRAN*, A. M. TAYLOR. <i>Univ. of North Carolina, Univ. of North Carolina, Univ. of North Carolina.</i>
3:00	DD7 056.11 <i>In vitro</i> quantitative analysis of neuronal electrical changes following mechanical loading. A. DILEONARDI*; E. A. MATHEIS; K. RAFAELS. <i>Army Res. Lab., Bennet Aerospace.</i>	4:00	EE2 056.24 Traumatic brain injury reduces heat shock factor 1 abundance in the hippocampus for weeks post-injury. C. DIXON*; J. HENCHIR; Y. LI; X. MA; S. CULVER; C. BERKEY; S. W. CARLSON. <i>Univ. of Pittsburgh, Univ. of Pittsburgh.</i>
4:00	DD8 056.12 Blast exposure leads to accelerated brain aging in rats. P. ARUN*; F. ROSSETTI; D. WILDER; S. SAJJA; S. VANALBERT; Y. WANG; I. D. GIST; J. B. LONG. <i>Walter Reed Army Inst. of Res.</i>	1:00	EE3 056.25 Enhanced temporal resolution of <i>in vitro</i> post-impact neural network oscillation frequency reductions using cross correlation analysis. E. A. ROGERS*, N. SURI; G. W. GROSS. <i>Ctr. For Network Neurosci., Univ. North Texas.</i>
1:00	DD9 056.13 Neuronal membrane disruption persists chronically following diffuse brain injury in the rat. A. D. LAFRENAYE*, M. MARONE; M. HERNANDEZ. <i>VCU.</i>		
2:00	DD10 056.14 ▲ Assessing the role of tau upon cytoskeleton dynamics in hiPSC derived neurons during mechanical injury. A. HOLDER*; E. GUTIERREZ; A. DICKEY; M. PATINO; A. GROISMAN; L. GOLDSTEIN; A. ALMENAR-QUERALT; S. SHAH; R. CHAVES. <i>Sanford Consortium for Regenerative Med., Univ. of California San Diego.</i>		
3:00	DD11 056.15 ▲ The effects of mechanical vibration on cellular health in differentiated neuroblastoma cells. C. SHI*; R. CHANG; D. LEONARDI. <i>Bergen County Academies, Stevens Inst. of Technol.</i>		
4:00	DD12 056.16 Chronically altered miRNA signature in the ipsilateral thalamus and perilesional cortex in rats with traumatic brain injury. S. DAS GUPTA*; N. VUOKILA; N. PUHAKKA; A. PITKÄNEN. <i>Univ. of Eastern Finland/AIVI.</i>		
1:00	DD13 056.17 Alterations in amyloid beta peptide levels following subclinical blast overpressure exposure in a rodent model of traumatic brain injury. S. L. CIARLONE*; J. A. GOODRICH; C. W. GOFORTH; S. T. AHLERS; A. E. TSCHIFFELY. <i>Naval Med. Res. Ctr., Henry M. Jackson Fndn., Uniformed Services Univ. of the Hlth. Sci.</i>		
2:00	DD14 056.18 Long-term pericyte response following traumatic brain injury in mice. M. R. MCCRARY*; K. K. JESSON; J. Y. ZHANG; X. GU; S. YU; L. WEI. <i>Emory Univ., Emory Univ. Sch. of Med., Emory Univ.</i>		
3:00	DD15 056.19 Neonatal disruption of PSD-95 PDZ domain-mediated protein-protein interactions alters dendritic spine morphology, long-term potentiation, and causes deficits in learning and memory in mice. M. L. SCHAEFER; M. WANG; P. J. PEREZ; J. XU; C. GRAY; R. A. JOHNS*. <i>Johns Hopkins Sch. Med., Johns Hopkins Sch. Med.</i>		
4:00	DD16 056.20 TBI-activated AEP contributes to AD onset through C/EBP β activation. Z. WU*; X. GU; X. LIU; L. WEI; S. YU; L. CHENG; K. YE. <i>Emory Univ. Sch. of Med., Tongji Hosp. Affiliated to Tongji Univ. Sch. of Med.</i>		
1:00	DD17 056.21 Glial and fibrotic differences in traumatic brain injury and spinal cord injury with and without immunomodulation. S. SHARMA*; J. G. COOPER; S. JEONG; I. IFERGAN; S. MILLER; J. A. KESSLER. <i>Northwestern Univ.</i>		
			POSTER
			057. Somatosensation: Trigeminal Processing
			Theme D: Sensory Systems
			Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H
1:00	EE4 057.01 Nociceptive trigeminal afferent input to cervical lamina I neurons. L. L. LUZ; P. SZUCS; B. V. SAFRONOV*. <i>IBMC, UD Fac. of Med., IBMC 503828360.</i>		
2:00	EE5 057.02 Implication of trigeminal neural pathways in blue light photosensitivity. V. MAREK*; A. DENOYER; T. VILLETTTE; A. CHARBONNIER; C. BAUDOUIN; A. RÉAUX - LE GOAZIGO; S. MÉLIK PARSA DANIANI TZ. <i>Essilor Intl., Sorbonne Université, INSERM, CNRS, Inst. de la Vision, Ctr. Hospitalier Natl. d'Ophtalmologie des Quinze-Vingts, CHU Robert Debré, Univ. Reims Champagne-Ardenne, Versailles-Saint-Quentin-en-Yvelines Univ.</i>		
3:00	EE6 057.03 Expression of vesicular glutamate transporter 1 (VGLUT1) and VGLUT2 in the axons and somata of the rat trigeminal primary sensory neurons in the normal condition and following inflammation. Y. CHO; J. BAE; H. HAN; Y. BAE*. <i>Sch. of Dentistry, Kyungpook Natl. Univ.</i>		
4:00	EE7 057.04 Functional and anatomical interaction of olfactory and trigeminal signaling. M. MAURER; N. PAPOTTO; M. SCHMELZ*; S. FRINGS; R. CARR. <i>Heidelberg Univ., Heidelberg Univ., Heidelberg Univ.</i>		
1:00	EE8 057.05 Comparison of orofacial cold sensitivity between male and female rats following infraorbital nerve chronic constrictive injury and oxaliplatin treatment. F. EROL*; J. LING; J. GU. <i>Univ. of Alabama At Birmingham.</i>		
2:00	EE9 057.06 Peripheral neurons invade oral cancer and drive oral carcinogenesis and pain. N. N. SCHEFF*; R. KLAES, III; J. W. QUAN; R. LAM; Z. R. CONLEY; B. E. AOUIZERAT; B. L. SCHMIDT. <i>New York Univ., New York Univ.</i>		
3:00	EE10 057.07 Epidermal growth factor receptor (EGFR) signaling in the peripheral nervous system contributes to oral cancer pain. E. SALVO; R. VEERAMACHANENI; K. SINGH; D. ALBERTSON; B. SCHMIDT; Y. YE*. <i>New York Univ.</i>		
4:00	EE11 057.08 Noxious lingual stimulation influences the cortical excitability. K. ADACHI*. <i>Meikai Univ. Sch. of Dent.</i>		

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1:00	EE12	057.09	Immunohistochemical analysis of histone H3 acetylation in the TREZ on TN animal model. D. LUO*. <i>Fujian Med. University/School of Basic Med.</i>	1:00	FF9	058.09	Effects of sleep quality, pain catastrophizing, anxiety and depression on pain-related activation for migraine patients and healthy controls. J. ZHANG*; A. KEARSON; S. BURROWES; L. SAMAWI; B. L. PETERLIN; M. GOYAL; J. A. HAYTHORNTHWAITE; D. A. SEMINOWICZ. <i>Univ. of Maryland Baltimore, Johns Hopkins Univ. Sch. of Med., Lancaster Gen. Hlth. Physician.</i>
2:00	EE13	057.10	Sex related microglia activation contributes to ocular hyperalgesia in a rat model for dry eye. D. A. BEREITER*; M. RAHMAN; R. THOMPSON; J. OLSON. <i>U of Minnesota Sch. of Dent.</i>	2:00	FF10	058.10	Novel model for development of a persistent sensitized state of trigeminal nociceptors: Implications for understanding chronic migraine. S. E. WOODMAN*; J. L. HAWKINS; L. CORNELISON; H. G. CHILDS; P. L. DURHAM. <i>Missouri State Univ., Missouri State Univ.</i>
3:00	EE14	057.11	Functional GABA _A receptors in the trigeminal but not sciatic nerve of the rat. J. B. PINEDA FARIAS*; J. E. LOEZA-ALCOCER; M. GOLD; R. SEKULA. <i>Univ. of Pittsburgh, Sch. of Med., Univ. of Pittsburgh, Sch. of Med.</i>	3:00	FF11	058.11	De novo protein synthesis is necessary for priming in preclinical models of migraine. J. LACKOVIC*, M. SURESH; T. PRICE; G. DUSSOR. <i>Univ. of Texas At Dallas.</i>
POSTER							
058. Somatosensation: Pain: Headache and Migraine							
<i>Theme D: Sensory Systems</i>							
Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H							
1:00	FF1	058.01	● Oxytocin receptors on PACAP38 sphenopalatine ganglia neurons. N. A. MANERING; M. KLUKINOV; X. XIE; D. C. YEOMANS*. <i>Univ. of California at Irvine, Stanford Univ., Afasci, Stanford Univ.</i>	1:00	FF13	059.01	The development of the neural code in the zebrafish optic tectum. L. AVITAN*; Z. PUJIC; A. MYHRE; J. MÖLTER; N. C. LAMB; B. SUN; G. J. GOODHILL. <i>The Univ. of Queensland.</i>
2:00	FF2	058.02	Sensitization of trigeminal-parasympathetic circuit cause post traumatic headache. A. TASHIRO*; H. OHTA; Y. MORIMOTO. <i>Natl. Def. Med. Col.</i>	2:00	FF14	059.02	An inter-hemispheric neural circuit in the zebrafish optic tectum required for efficient prey hunting. F. DEL BENE*; C. GEBHARDT; T. AUER; K. DUROURE; I. H. BIANCO. <i>Inst. Curie - Ctr. de Recherche, UCL.</i>
3:00	FF3	058.03	Delta opioid receptor activation inhibits cephalic allodynia in multiple models of headache. L. S. MOYE*; A. F. TIPTON; K. M. SIEGERSMA; W. WITKOWSKI; N. SHAMSHUDDIN; A. A. A. PRADHAN. <i>Univ. of Illinois.</i>	3:00	FF15	059.03	Mechanisms for saliency coding and transmission from the lamprey tectum to the SNc/VTA. J. PÉREZ-FERNANDEZ*; B. ROBERTSON; S. GRILLNER. <i>Karolinska Inst.</i>
4:00	FF4	058.04	Is NHE1 involved in migraine pathology and regulation of triptans uptake? E. LIKTOR-BUSA*, K. COTTIER; E. GALLOWAY; T. W. VANDERAH, Ph.D.; T. M. LARGENT-MILNES. <i>Univ. of Arizona, Univ. of Arizona, Univ. of Arizona.</i>	4:00	FF16	059.04	Motion-sensitive neurons in the nucleus of the basal optic root in hummingbirds (<i>Calypte anna</i>) and zebra finches (<i>Taeniopygia guttata</i>). A. H. GAEDE*; G. C. SMYTH; D. R. WYLIE; D. L. ALTSCHULER. <i>Univ. of British Columbia, Univ. of Alberta.</i>
1:00	FF5	058.05	HDAC inhibitors as novel therapeutic targets for migraine. Z. J. BERTELS*; A. TIPTON; L. S. MOYE; I. DRIPPS; P. SHAH; B. KARUMUDI; V. PETUKHOVA; P. A. PETUKHOV; G. R. J. THATCHER; A. A. PRADHAN. <i>Univ. of Illinois at Chicago, Univ. of Illinois at Chicago, Univ. of Illinois at Chicago.</i>	1:00	FF17	059.05	<i>In vitro</i> tracing reveals intranuclear connectivity in the pigeon's nucleus subpretectalis/interstitio-pretecto-subpretectalis. M. J. ACERBO*; O. GUNTURKUN. <i>Iowa State Univ., Ruhr-Universitat Bochum.</i>
2:00	FF6	058.06	● Vagus nerve stimulation attenuates trigeminal nociception similarly to sumatriptan in two rat models of episodic migraine. L. CORNELISON*; S. WOODMAN; J. L. HAWKINS; P. L. DURHAM. <i>Missouri State Univ., Missouri State Univ., Missouri State Univ.</i>	2:00	GG1	059.06	A matrix thalamo-pallial pathway in birds. M. FERNÁNDEZ; M. VERGARA; E. SENTIS; G. J. MARÍN*; J. MPODOZIS. <i>Facultad de Ciencias, Univ. de Chile.</i>
3:00	FF7	058.07	● Visualization of weather-related headache pathology by implantable CMOS imaging device. Y. KURAUCHI*; M. HARUTA; R. TANAKA; H. KAWAMOTO; T. SEKI; K. SASAGAWA; J. OHTA; H. KATSUKI. <i>Kumamoto Univ., Nara Inst. of Sci. and Technol.</i>	3:00	GG2	059.07	The 3-step map alignment algorithm models visuotopic defects in the midbrain of <i>Isl2-EphA3K1</i> mutants. M. REBER*; E. SAVIER; A. BATHELEMY; F. W. PFRIEGER. <i>Krembil Neurosci. Inst., CNRS, Univ. of Virginia.</i>
4:00	FF8	058.08	Pharmacological characterization of the rat inflammatory soup dural stimulation model of episodic and chronic migraine. M. URBAN*; K. ALVIRDE-VEGA; H. ZHAO; D. POSAVEC; L. HODGE; P. H. HUTSON; S. E. BROWNE. <i>Teva Pharmaceuticals.</i>	4:00	GG3	059.08	Do retinal ganglion cell axons project to multiple targets? K. HENG*; S. H. SHAH; J. L. GOLDBERG. <i>Byers Eye Inst. at Stanford Univ., Stanford Univ., UCSD.</i>

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1:00	GG4 059.09 Behavioral modulation of retinal boutons in mouse superior colliculus. S. SCHRÖDER*; N. A. STEINMETZ; M. KRUMIN; M. RIZZI; L. LAGNADO; K. D. HARRIS; M. CARANDINI. <i>Univ. Col. London, Univ. of Sussex.</i>	1:00	GG16 059.21 Comparing cortical and thalamic face-selective neural responses in the macaque. A. P. MURPHY*; C. DENG; K. W. KOYANO; B. E. RUSS; D. B. MCMAHON; D. A. LEOPOLD. <i>Natl. Inst. of Mental Hlth., Shenzhen Inst. of Advanced Technol., NIMH/NIH, The Nathan S. Kline Inst. for Psychiatric Res., Natl. Eye Inst., NIMH.</i>
2:00	GG5 059.10 Genetic and functional dissection of retinotectal pathways for modulation of pupil size. O. S. DHANDE*; T. A. SEABROOK; A. H. PHAN; N. ISHIKO; P. L. NGUYEN; J. T. WANG; A. D. HUBERMAN. <i>Neurobio. Stanford Univ. Sch. of Med., Stanford Univ. Sch. of Med., Stanford Univ.</i>	2:00	GG17 059.22 A reexamination of the functional role of cortico-thalamic feedback in the early visual system through mechanistic modeling. D. GUARINO; J. ANTOLÍK; Y. FRÉGNAC; A. P. DAVISON*. <i>Ctr. Nationale de la Recherche Scientifique (CNRS), Inst. de la Vision.</i>
3:00	GG6 059.11 Signatures of complexity in feed-forward pathways of the visual thalamus. A. R. CASTI*. <i>Fairleigh Dickinson Univ.</i>	3:00	HH1 059.23 Human subcortical pathways for imminent collision detection with and without attention. J. ZOU*; S. HE; P. ZHANG. <i>Inst. of Biophysics Chinese Acad. of Sci., Univ. Minnesota.</i>
4:00	GG7 059.12 Correspondence of transcriptomically- and morphologically-defined cell types in the human, non-human primate, and mouse dorsal lateral geniculate nucleus. G. J. MURPHY*; T. BAKKEN; V. MENON; S. A. SORENSEN; B. R. LEE; C. LEE; R. D. HODGE; O. PENN; Z. YAO; R. DALLEY; L. T. GRAYBUCK; T. NGUYEN; E. J. GARREN; N. DEE; K. SMITH; G. D. HORWITZ; E. LEIN; H. ZENG; B. TASIC. <i>Allen Inst. for Brain Sci., HHMI Janelia Res. Campus, Allen Inst. for Brain Sci., Allen Inst. for Brain Sci., Univ. of Washington, Allen Inst. for Brain Sci., Allen Inst. for Brain Sci., Allen Inst. for Brain Sci.</i>	4:00	HH2 059.24 Robust detection of laminar activities in the human LGN with UHF fMRI. P. ZHANG*; Y. QIAN. <i>Inst. of Biophysics, Inst. of Biophysics, CAS.</i>
1:00	GG8 059.13 Visual properties of local interneurons in the murine visual thalamus. A. GORIN*; S. AHN; U. M. CIFTCIOGLU; F. T. SOMMER; J. A. HIRSCH. <i>USC, USC, Helen Wills Neurosci. Inst.</i>	1:00	HH3 059.25 A probabilistic atlas of the human lateral geniculate nucleus using ultra-high resolution 7T structural magnetic resonance imaging. C. MÜLLER-AXT*; L. KAUFFMANN; P. BAZIN; K. VON KRIEGSTEIN. <i>Max Planck Inst. (MPI CBS), Grenoble-Alpes Univ., Spinoza Ctr. for Neuroimaging, Netherlands Inst. for Neurosci., Tech. Univ. of Dresden.</i>
2:00	GG9 059.14 Role of the parabigeminal nucleus in the selection of visually evoked defensive behaviors in mice. J. B. WHITLEY*; B. BORGHUIS; K. L. WHYLAND; M. E. BICKFORD. <i>Univ. of Louisville Sch. of Med.</i>	2:00	HH4 059.26 Rehabilitation of hemianopia using the principles of multisensory integration. A. S. DAKOS; H. JIANG; B. E. STEIN; B. A. ROWLAND*. <i>Wake Forest Sch. of Med.</i>
3:00	GG10 059.15 Superior colliculus and parabigeminal nucleus synaptic connections in the mouse. K. L. WHYLAND*; A. SLUSARCZYK; N. ZHOU; G. SOKHADZE; G. GOVINDAIHA; M. E. BICKFORD. <i>Univ. of Louisville Sch. of Med., Univ. of Louisville Sch. of Med.</i>	3:00	HH5 059.27 Ameliorating hemianopia by cross-modal training. H. JIANG*; B. A. ROWLAND; B. E. STEIN. <i>Wake Forest Sch. Med.</i>
4:00	GG11 059.16 GABAergic synaptic connections within the visual sector of the mouse thalamic reticular nucleus: Extrinsic projections from the pretectum. T. GORDON*, III; J. B. WHITLEY; P. W. CAMPBELL; K. WHYLAND; S. P. MASTERSON; N. ZHOU; M. E. BICKFORD. <i>Univ. of Louisville Sch. of Med.</i>	4:00	HH6 059.28 Sensory cues can avoid the multisensory transform. N. BEAN*; B. E. STEIN; B. A. ROWLAND. <i>Wake Forest Sch. of Med.</i>
1:00	GG12 059.17 Spatial and temporal processing of visual signals in the mouse thalamic reticular nucleus. U. M. CIFTCIOGLU*; F. T. SOMMER; J. A. HIRSCH. <i>USC, Helen Wills Neurosci. Inst.</i>		
2:00	GG13 059.18 Response selection is impaired by unilateral lesions in the rostral thalamic reticular nucleus. G. WEESE*. <i>Hampden-Sydney Col.</i>		
3:00	GG14 059.19 Ultrastructural comparison of synaptic connectivity of local interneurons in the carnivore and rodent visual thalamus. S. AHN*; A. KUMAR; J. B. WHITLEY; J. A. HIRSCH; M. E. BICKFORD. <i>USC, Univ. of Louisville.</i>		
4:00	GG15 059.20 The marmoset monkey medial pulvinar thalamic nucleus innervates multiple higher-order cortical areas. F. CLASCA*; A. CÓRDOBA-CLAROS; R. R. R. M. DE LIMA; P. RUBIO-GARRIDO; P. A. G. MORAIS; E. S. DE NASCIMENTO, Jr.; J. S. CAVALCANTI. <i>Autonoma Univ. Sch. Med., Federal Univ. Rio Grande do Norte.</i>		

POSTER

060. Visual Categorization and Learning

Theme D: Sensory Systems

Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H

1:00	HH7 060.01 Reward may evoke visual perceptual learning following reinforcement learning rules. Z. WANG*; D. KIM; C. HU; Y. SASAKI; T. WATANABE. <i>Brown Univ., Asan Med. Ctr.</i>
2:00	HH8 060.02 Representation of object categories in a non-cortical brain. R. PUSCH*; A. AZIZI; A. SERIR; C. AKMESE; O. GUNTURKUN. <i>Ruhr-University Bochum.</i>
3:00	HH9 060.03 Neural correlates of iconic memory in primary visual cortex. R. TEEUWEN*; C. WACONGNE; U. H. SCHNABEL; M. W. SELF; P. R. ROELFSEMA. <i>Netherlands Inst. For Neurosci.</i>
4:00	HH10 060.04 Combined lesion of inferior temporal areas TE and TEO severely impair visual categorization in rhesus monkeys. T. SETOGAWA*; M. A. ELDRIDGE; R. C. SAUNDERS; B. J. RICHMOND. <i>NIMH.</i>
1:00	HH11 060.05 Recency of stimulus repetition degrades performance of old world monkeys in sequential delayed visual match-to-sample with visual noise. R. KUBOKI; N. MATSUMOTO*; Y. SUGASE-MIYAMOTO; B. J. RICHMOND; M. SHIDARA. <i>Univ. of Tsukuba, AIST, NIMH, Univ. Tsukuba.</i>

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2:00	HH12	060.06	Role of oscillations in encoding visual familiarity. A. A. CHUBYKIN*; S. T. KISSINGER; A. PAK; S. C. MASMANIDIS. <i>Purdue Univ., UCLA.</i>	1:00	II8	061.09	Assessing different 3D gaze vector calibration techniques on synchronized motion capture and eye-tracking data. S. STONE*; E. B. LAVOIE; C. S. CHAPMAN. <i>Univ. of Alberta, Univ. of Alberta.</i>
3:00	HH13	060.07	Selectivity for numerical categories within and without visual receptive fields in primate association cortex. P. VISWANATHAN*, A. NIEDER. <i>Inst. of Neurobiology, Univ. of Tuebingen, Inst. of Neurobiology, Univ. of Tuebingen.</i>	2:00	II9	061.10	Interindividual differences in eye movements during face viewing are consistent across task and stimulus manipulations. K. WEGNER-CLEMENS*; J. RENNIG; J. F. MAGNOTTI; M. S. BEAUCHAMP. <i>Baylor Col. of Med.</i>
4:00	HH14	060.08	Non-symbolic exact calculation involves infero-temporal “visual number form areas”. M. AMALRIC*, A. O'DONNELL; C. LUSSIER; J. CANTLON. <i>Univ. of Rochester.</i>	3:00	II10	061.11	Convolutional network model of allocentric landmark impact on target localization. S. SALIMIAN*; R. WILDES; J. CRAWFORD. <i>York Univ., York Univ., York Univ., York Univ., York Univ.</i>
1:00	HH15	060.09	Reinstatement of stimulus specific neural dynamics in human visual cortex. B. L. FOSTER*; D. YOSHOR. <i>Baylor Col. of Med.</i>	4:00	II11	061.12	Saccade-related remapping helps improve perception during fixation. P. LAAMERAD*, D. GUITTON; C. C. PACK. <i>Montreal Neurolog. Institute, McGill Univ., Montreal Neurolog. Institute, McGill Univ.</i>
1:00	DP07/HH16	060.10	(Dynamic Poster) The dynamics of optic flow during natural locomotion. J. S. MATTHIS*; K. S. MULLER; M. M. HAYHOE. <i>Univ. of Texas at Austin.</i>	1:00	II12	061.13	Neural dynamics of recurrent active vision. T. KANEKO*; M. KOMATSU; N. ICHINOHE; H. OKANO. <i>RIKEN Ctr. for Brain Sci., Keio Univ. Sch. of Med., Natl. Ctr. of Neurol. and Psychiatry, RIKEN Ctr. For Brain Sci.</i>

POSTER**061. Eye Movements and Perception****Theme D: Sensory Systems**

Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H

1:00	HH17	061.01	Perceived location of a test-flash before, during and after smooth pursuit eye movement is not influenced by the presence of the pursuit target. J. POLA*; H. J. WYATT. <i>SUNY Col. Optometry.</i>	2:00	II13	061.14	Marmosets and humans robustly show similar saliency-based looking patterns to natural video stimuli. R. VEALE*; C. CHEN; D. MATROV; K. ISA; K. MIURA; M. YOSHIDA; T. ISA. <i>Kyoto Univ., Grad. Schi Med, Kyoto Univ., Natl. Inst. Physiol Sci.</i>
2:00	II1	061.02	V1 neurons sense smooth pursuit eye movements. G. LI; J. SHAO; C. L. BAKER*; K. E. CULLEN. <i>McGill Vision Res. Unit, The Johns Hopkins Univ.</i>	3:00	II14	061.15	Impact of allocentric cues on transsaccadic integration of multiple objects. G. TOMOU*; X. YAN; J. CRAWFORD. <i>York Univ., York Univ., York Univ., York Univ.</i>
3:00	II2	061.03	Relationship between predictive optokinetic behavior and velocity storage following vestibular neurectomy. S. MIKI*; R. BAKER; Y. HIRATA. <i>Chubu Univ., New York Univ. Langone Med. Ctr., Chubu Univ. Col. of Engin.</i>	4:00	II15	061.16	The influence of spatiotemporal structure on recall performance in memory-guided saccade sequences. S. ATPUTHARAJ*; D. C. CAPPADOCIA; M. FALLAH; J. CRAWFORD. <i>York Univ., York Univ., York Univ., York Univ.</i>
4:00	II3	061.04	Ocular torsion contributes to rotational motion illusions. X. WU*; M. SPERING. <i>Univ. of British Columbia.</i>	1:00	II16	061.17	▲ Mediated relationship of academic issues and oculomotor insufficiency in diverse populations. M. F. AWAD*; D. A. DEL CID; R. MOSHER; A. KANGAVARY; J. A. ARMENDARIZ; S. A. DREW. <i>California State University, Northridge, California State University, Northridge, California State Univ. Northridge.</i>
1:00	II4	061.05	Eye and body movements during object interactions in real and virtual worlds. E. B. LAVOIE*; S. A. STONE; J. S. HEBERT; C. S. CHAPMAN. <i>Univ. of Alberta, Univ. of Alberta, Univ. of Alberta.</i>	2:00	II17	061.18	Neurobehavioral encoding of action intent and organization across development. A. Y. BAYANI*; N. ATAWALA; D. TEMPLES, 30319; L. A. WHEATON. <i>Georgia Inst. of Technol., Georgia Inst. of Technol., Georgia Tech.</i>
2:00	II5	061.06	Extra-retinal mechanisms as compensation for retinal-circuit-level visual suppression around saccades. S. IDREES*; M. BAUMANN; F. FRANKE; Z. M. HAFED; T. A. MUENCH. <i>Werner Reichardt Ctr. For Integrative Neurosc., IMPRS for Cognitive and Systems Neurosci., Werner Reichardt Ctr. For Integrative Neuroscien, Hertie Inst. for Clin. Brain Res., ETH Zürich, Inst. for Ophthalmic Res.</i>	3:00	II18	061.19	Microsaccade dynamics mediate perceptual alternation in Monet's "Impression, Sunrise". R. G. ALEXANDER*; A. VENKATAKRISHNAN; J. CHANOVAS; S. FERGUSON; S. L. MACKNIK; S. MARTINEZ-CONDE. <i>SUNY Downstate Med. Ctr.</i>
3:00	II6	061.07	Prioritization of visual stimuli in the intermediate layers of the superior colliculus. B. J. WHITE*; J. Y. KAN; L. ITTI; D. P. MUÑOZ. <i>Queen's Univ., USC.</i>	4:00	JJ1	061.20	An oculomotor signature as a fraud resistant tool for biometric identity verification. N. BRUNET*; R. G. ALEXANDER; S. MARTINEZ-CONDE; S. L. MACKNIK. <i>SUNY Downstate Med. Ctr.</i>
4:00	II7	061.08	Effects of saccade size and target motion in transsaccadic perception. A. SINCLAIR*; S. L. PRIME. <i>Univ. of Saskatchewan.</i>	1:00	JJ2	061.21	The nigrotectal projection of the mouse. C. A. VILLALOBOS*; Q. WU; P. H. LEE; M. A. BASSO; P. J. MAY. <i>UCLA, UCLA, UCLA, Univ. Mississippi Med. Ctr.</i>
2:00	JJ3	061.22	Target-feature and outcome histories prime perceptual speed and efficiency in an urgent visual search task. E. E. OOR*; J. A. SEIDEMAN; T. R. STANFORD; E. SALINAS. <i>Wake Forest Sch. of Med.</i>				

* Indicated a real or perceived conflict of interest, see page 74 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

3:00	JJ4 061.23 Modulation of effects of pre-cues on saccade latency by spatial and contextual factors in behaving monkeys. J. HUANG; T. CHEN; Y. YU; Y. OU; C. ZHANG; Y. XU; H. ZHU; W. ZHOU*. <i>Univ. of Mississippi Med. Ctr., Dept. of Otolaryngology, First Affiliated Hospital, Shanxi Med. Univ.</i>	2:00	KK7 062.06 ● Cognitive function in people with and without freezing of gait in Parkinson's disease. R. MORRIS*; K. SMULDERS; D. PETERSON; M. M. MANCINI; P. M. CARLSON-KUHTA; J. NUTT; F. HORAK. <i>Oregon Hlth. & Sci. Univ., Arizona State Univ.</i>
4:00	JJ5 061.24 Dynamics of perisaccadic visual remapping in the frontal eye fields. R. MORRISON*; J. MAYO; M. A. SMITH. <i>Univ. of Pittsburgh, Duke Univ., Univ. of Pittsburgh.</i>	3:00	KK8 062.07 Age-related differences in quasi-stiffness and the kinematics of individual unit sways during quiet standing. A. H. VETTE*; J. BOBET; M. O. ABE; K. NAKAZAWA; K. MASANI. <i>Univ. of Alberta, Hokkaido Univ., The Univ. of Tokyo, Toronto Rehab Inst.</i>
1:00	JJ6 061.25 Neurons in FEF that track where you have looked in visual search. J. W. BISLEY*; Z. BOLANDNAZAR; K. MIRPOUR. <i>UCLA, UCLA, UCLA.</i>	4:00	KK9 062.08 Sensorimotor phenotyping of mild traumatic brain injury and balance: Feature-based behavioral characterization. H. M. RAO*; G. A. CICCARELLI; M. NOLAN; A. O'BRIEN; G. VERGARA-DIAZ; H. EDWARDS; R. ZAFONTE; J. S. PALMER; T. F. QUATIERI; P. BONATO; R. J. MCKINDLES; A. C. LAMMERT. <i>MIT Lincoln Lab., Spaulding Rehabil. Hosp., Spaulding Rehabil. Hosp., Harvard Med. Sch.</i>
2:00	JJ7 061.26 Elucidating the roles of the frontal eye field and the lateral intraparietal area during ongoing visual search. K. MIRPOUR*; J. W. BISLEY. <i>UCLA, UCLA, UCLA.</i>	1:00	KK10 062.09 Sensorimotor phenotyping of mild traumatic brain injury and balance: Models for mechanism identification. G. A. CICCARELLI*; M. NOLAN; H. M. RAO; A. O'BRIEN; G. VERGARA-DIAZ; H. EDWARDS; R. ZAFONTE; J. S. PALMER; T. F. QUATIERI; P. BONATO; R. J. MCKINDLES; A. C. LAMMERT. <i>MIT Lincoln Lab., Spaulding Rehabil. Hosp., Spaulding Rehabil. Hosp., Harvard Med. Sch.</i>
3:00	JJ8 061.27 Long-term memory of object locations in craniotopic space requires cortical oculomotor proprioception. W. ZHANG*; S. G. LOMBER; M. E. GOLDBERG; L. D. SUN. <i>Columbia Univ., Columbia Univ. Med. Ctr., Univ. of Western Ontario, Columbia Univ. Med. Ctr.</i>	2:00	KK11 062.10 Sensorimotor transformations for balance in patients with Parkinson's disease are temporally precise but spatially diffuse. J. MCKAY*; K. C. LANG; M. E. HACKNEY; L. H. TING. <i>Emory Univ., Emory Univ., Emory University/Atlanta VAMC, Emory Univ. and Georgia Tech.</i>
4:00	KK1 061.28 Online control of interocular angles is mediated by ocular proprioception. R. ENOKI*; W. ZHANG; A. K. SINGH; S. G. LOMBER; L. D. SUN. <i>Columbia Univ. Med. Ctr., Columbia Univ. Med. Ctr., Columbia Univ., Univ. of Western Ontario.</i>	3:00	KK12 062.11 Impaired directional perception of perturbations to standing is associated with balance impairment in people with Parkinson's disease. S. BONG*; J. MCKAY; S. FACTOR; L. H. TING. <i>Emory Univ. and Georgia Tech., Emory Univ., Emory Univ., Emory Univ. and Georgia Tech.</i>

POSTER

062. Posture and Gait: Aging, Injury, and Disease I

Theme E: Motor Systems

Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H

1:00	KK2 062.01 Cognitively challenging exercise is beneficial on executive function in Parkinson's disease. S. JUNG*; L. KING; M. MANCINI; P. CARLSON-KUHTA; K. SMULDERS; N. BARLOW; R. MORRIS; J. NUTT; F. HORAK. <i>Oregon Hlth. & Sci. Univ., Seoul Natl. Univ. Boramae Med. Ctr., VA Portland Hlth. Care Syst.</i>
2:00	KK3 062.02 Cortical correlates of dual-task turning with and without freezing of gait. M. MANCINI*; V. BELLUSCIO; S. STUART. <i>Oregon Hlth. and Sci. Univ.</i>
3:00	KK4 062.03 Sensory weighting in chronic mTBI with vestibular and oculomotor dysfunction. L. A. KING*; L. PARRINGTON; D. A. JEHU; T. HULLAR; S. KAMPEL; S. STUART; R. PETERKA. <i>Oregon Hlth. and Sci. Univ., Dept. of Neurol., Oregon Hlth. and Sci. Univ., Oregon Hlth. and Sci. Univ., VA Portland Hlth. Care Syst., Oregon Hlth. and Sci. Univ.</i>
4:00	KK5 062.04 Role of sex on cholinergic activity on attention and gait in Parkinson's disease. D. MARTINI*; R. MORRIS; T. MADHYASTHA; T. J. GRABOWSKI, Jr; V. KELLY; K. CHUNG; A. HILLER; C. ZABETIAN; T. MONTINE; J. F. QUINN; F. B. HORAK. <i>Oregon Hlth. and Sci. Univ., Univ. of Washington, Univ. of Washington Dept. of Radiology, Univ. of Washington, Oregon Hlth. Sci. Univ. Neurol., Oregon Hlth. Sci. Univ., Univ. of Washington, Stanford Med., Oregon Hlth. Sci. Univ. Neurology, CR-131, OHSU.</i>
1:00	KK6 062.05 Good vibrations: Cortical activity response to tactile cues in Parkinson's freezers and non-freezers. S. STUART*; G. BOOTH; M. M. MANCINI. <i>Oregon Hlth. & Sci. Univ.</i>

POSTER

063. Posture and Gait: Aging, Injury, and Disease II

Theme E: Motor Systems

Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H

1:00	LL1 063.01 Is gait associated with hippocampal volume in older adults? N. DEMNITZ*, P. SEAGER; A. STATHI; J. WITHELL; H. DAWES; P. ESSER; K. P. EBMEIER; H. JOHANSEN-BERG; C. E. SEXTON. <i>Univ. of Oxford, Univ. of Birmingham, Univ. of Bath, Oxford Brookes Univ., Univ. of California, San Francisco.</i>
2:00	LL2 063.02 The feedforward motor programme during toe walking is impaired in children with cerebral palsy. J. LORENTZEN*; M. WILLERSLEV-OLSEN; H. M. LARSEN; S. F. FARMER; J. NIELSEN. <i>Univ. of Copenhagen, Univ. of Copenhagen, Inst. of Neurology, Univ. Col. London, Univ. of Copenhagen.</i>
3:00	LL3 063.03 Asymmetry during gait initiation differentiates people with Parkinson's disease with and without rem sleep without atonia. M. N. PETRUCCI*; A. L. KOHUT-JACKSON; S. L. AMUNDSEN HUFFMASTER; M. E. LINN-EVANS; M. J. HOWELL; P. J. TUIYE; C. D. MACKINNON. <i>Univ. of Minnesota, Univ. of Minnesota.</i>

* Indicated a real or perceived conflict of interest, see page 74 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

4:00	LL4 063.04 Additional haptic information provided by light touch reduces postural sway more than does the anchor system in older adults. R. MORAES*; B. L. S. BEDO; V. M. ARPINI; R. A. BATISTELA; P. R. P. SANTIAGO; E. MAUERBERG-DECASTRO. <i>Univ. of São Paulo, Univ. of São Paulo, São Paulo State Univ.</i>	4:00	MM2 063.16 Walking balance control is delayed in Parkinson's disease: Preliminary results. D. GRENET*; H. REIMANN; T. D. FETTROW; E. D. THOMPSON; J. J. JEKA. <i>Univ. of Delaware, Univ. of Delaware, Temple Univ., Univ. of Delaware.</i>
1:00	LL5 063.05 Beat perception ability and familiarity with music alter gait in older adults during auditory cueing. E. A. READY*; J. D. HOLMES; J. A. GRAHN. <i>Univ. of Western Ontario, Univ. of Western Ontario, Univ. of Western Ontario.</i>	1:00	MM3 063.17 A novel method for repeatable tap tests in a rodent model of hydrocephalus. D. L. POETA*; T. K. JACOBSON; A. IOANNOU; P. M. KLINGE; R. D. BURWELL. <i>Brown Univ., Rhode Island Hosp.</i>
2:00	LL6 063.06 Optical flow perturbations to detect preclinical balance impairment in people with multiple sclerosis. B. P. SELGRADE*; D. MEYER; J. J. SOSNOFF; J. R. FRANZ. <i>Univ. of North Carolina/ NC State Univ., Univ. of North Carolina Hlth. Care, Univ. Illinois, Urbana-Champaign, Univ. of North Carolina - Chapel Hill/ NC Sta.</i>	2:00	MM4 063.18 Entrainment of stepping frequency in chronic stroke survivors on a vertically oscillating treadmill. S. C. RAAB*; B. ROBERTSON-DICK; D. GOBESKI; T. ONUSHKO; L. REIM; A. S. HYNGSTROM; B. D. SCHMIT. <i>Marquette Univ., Med. Col. of Wisconsin, Marquette Univ. Dept. of Biomed. Engin.</i>
3:00	LL7 063.07 Identification of vestibular impairment in schwannoma patients relative to healthy controls requires testing during more challenging gait tests, while vestibular loss following surgery alters standard gait. O. ZOBEIRI; G. MISCHLER; S. KING; R. F. LEWIS; K. E. CULLEN*. <i>The Johns Hopkins Univ., Harvard Med. Sch.</i>	3:00	MM5 063.19 Influence of altered neuromechanics via stance time visual feedback on the lateral control of balance of transfemoral amputees walking with a powered knee prosthesis. A. BRANDT*; H. HUANG. <i>NC State Univ. and UNC Chapel Hill.</i>
4:00	LL8 063.08 Effect of abrupt and varied pelvis force perturbation on dynamic balance during locomotion in humans with spinal cord injury. J. LIN; C. HSU; W. DEE; M. WU*. <i>Shirley Ryan Ability Lab., Northwestern Univ. - Chicago.</i>	4:00	MM6 063.20 Cortical inhibitory/excitatory balance during dynamic plantarflexion scales with walking speed. C. L. BANKS*; V. L. LITTLE; Q. DING; C. PATTEN. <i>Univ. of California, Davis.</i>
1:00	LL9 063.09 Gait variability and sustained attention are associated in healthy older adults. O. LO*; A. LUDINGTON; L. A. LIPSITZ; M. ESTERMAN; M. A. HALKO; B. MANOR. <i>Harvard Med. Sch., Inst. for Aging Research, Hebrew SeniorLife, Beth Israel Deaconess Med. Ctr., VA Boston Healthcare Syst., Harvard Med. Sch. / Beth Israel Deaconess Med.</i>	1:00	MM7 063.21 Frequency domain measures of motor symptoms in Parkinson's disease. E. WADE*; N. NAGHAVI. <i>Univ. of Tennessee, Univ. of Tennessee, Knoxville.</i>
2:00	LL10 063.10 The influence of transcranial direct current stimulation of the motor cortex on balance in Parkinson's disease. L. LIMA DE ALBUQUERQUE*; I. MUÑOZ; K. FISCHER; M. R. LANDERS; B. POSTON. <i>Univ. of Nevada Las Vegas, Univ. of Nevada Las Vegas.</i>		
3:00	LL11 063.11 Combining learning mechanisms to improve walking in people with stroke. K. M. CHERRY-ALLEN*; H. D. HUANG; P. A. CELNIK; A. J. BASTIAN. <i>Johns Hopkins Univ., Johns Hopkins Univ., Kennedy Krieger Inst.</i>		
4:00	LL12 063.12 Gene polymorphisms linked to myelin lipid metabolism and antioxidative pathway may contribute to cerebral palsy etiopathogenesis. S. KALANJ-BOGNAR*; K. MLINAC-JERKOVIC; K. ILIC. <i>Croatian Inst. For Brain Research, Sch. of M.</i>		
1:00	LL13 063.13 ● Closed-loop gait phase modulated deep brain stimulation in Parkinson's disease patients. C. LU*; K. H. LOUIE; J. C. GUZIOR; T. I. NETOFF; S. E. COOPER. <i>Univ. of Minnesota, Univ. of Minnesota.</i>		
2:00	LL14 063.14 Gait parameters of Ts65Dn mice are impaired vs. age matched WT's. L. VER DONCK*; M. MELIS; H. VAN CRAENENDONCK. <i>Janssen Res. & Development, A Div. of Jans.</i>		
3:00	MM1 063.15 Tremor responses for persons with pd is exacerbated by standing posture. N. REILLY*; G. KERR; S. MORRISON. <i>Old Dominion Univ., Queensland Univ. Technol., Old Dominion Univ.</i>		
			POSTER
			064. CPG Modulation
			Theme E: Motor Systems
			Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H
1:00		MM8 064.01 Low intensity ultrasound reversibly inhibits single neuron firing in a tractable invertebrate model. M. NEWHOFF*; C. SMITH; E. EBBINI; K. A. MESCE. <i>Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota, Univ. Minnesota.</i>	
2:00		MM9 064.02 Neuropeptide-elicited neuronal switching between single and dual network activity. S. H. FAHOUM*; D. M. BLITZ. <i>Miami Univ.</i>	
3:00		MM10 064.03 Post-feeding time point-dependent, hormonal modulation of the crab gastric mill rhythm. M. P. NUSBAUM*; A. P. COOK; K. DELANEY; M. S. TEMPORAL; L. LI. <i>Univ. of Pennsylvania Perelman Sch. of Med., Univ. of Wisconsin, Univ. of Wisconsin Madison Sch. of Pharm.</i>	
4:00		MM11 064.04 State-dependent cotransmitter modulation of rhythmic motor activity by an identified sensory neuron. D. J. POWELL*; E. MARDER; M. P. NUSBAUM. <i>Brandeis Univ., Univ. of Pennsylvania Perelman Sch. of Med.</i>	
1:00		MM12 064.05 Nonlinear dynamics of synaptic responses amplify the slow frequency power of multimodal neural oscillations. N. DAUR*; O. ITANI; F. NADIM; D. BUCHER. <i>NJIT & Rutgers U-Newark, Inst. for Brain and Neurosci. Res. (IBNR), NJIT.</i>	
2:00		MM13 064.06 An ensemble modeling approach to identifying ion channel correlations. K. TIAN; A. A. PRINZ*. <i>Emory Univ.</i>	

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▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

3:00	MM14 064.07 Multitasking neurons: A single neuron with multiple hierarchical control roles in multiple networks. E. S. HILL*; W. N. FROST. <i>Rosalind Franklin Univ. of Med. and Sci.</i>	1:00	NN12 065.09 Muscle synergies involved in control of locomotion in the cat: Insights from a computational neuromechanical model. A. N. KLISHKO*; S. N. MARKIN; N. A. SHEVTSOVA; M. A. LEMAY; I. A. RYBAK; B. I. PRILUTSKY. <i>Georgia Inst. of Technol., Drexel Univ. Col. of Med., Temple Univ. Col. of Engin.</i>
4:00	NN1 064.08 Understanding a flexible locomotor pattern in <i>Xenopus</i> larvae. H. ZHANG*; S. ANAGIANNI; F. JACQUOT; D. STANSFIELD. <i>Univ. of Edinburgh.</i>	2:00	NN13 065.10 Sensory cortical control of movement. S. K. KARADIMAS*; K. SATKUNENDRARAJAH; A. LALIBERTE; S. GOSGNACH; M. FEHLINGS. <i>Krembil Discovery Tower, Univ. of Toronto, Kajana Satkunendarajah, Alex Laliberte, Univ. of Alberta.</i>
1:00	NN2 064.09 Neural-glial communication in the mammalian spinal cord modulates locomotor networks. M. J. BROADHEAD*; G. B. MILES. <i>Univ. of St Andrews.</i>	1:00	DP08/NN14 065.11 (Dynamic Poster) An artificial neural network learns to optimally combine central pattern generator with sensory feedback for bipedal locomotion. H. X. RYU*; A. D. KUO. <i>Univ. of Calgary.</i>
2:00	NN3 064.10 Dopamineergic modulation of the exploratory headsweep motor program in <i>Drosophila melanogaster</i> larvae. J. MACLEOD*; W. LI; S. R. PULVER. <i>Univ. of St Andrews, Univ. of St Andrews, Univ. of St Andrews.</i>	4:00	NN15 065.12 A hunger state dependent central control switch for assessing food value. G. KEMENES*; K. STARAS; M. CROSSLEY. <i>Sussex Neuroscience, Sch. of Life Sciences, Univ. of Sussex.</i>
		1:00	NN16 065.13 Alterations in spinal cord injury-induced plasticity of spinal rhythm generating interneurons following treadmill training with epidural stimulation in mouse. D. GARCIA-RAMIREZ*; N. HA; L. YAO; K. A. SCHMIDT; S. F. GISZTER; K. J. DOUGHERTY. <i>Drexel Univ. Col. of Med., Drexel Univ.</i>
1:00	NN4 065.01 Activation of D ₂ -like receptors depresses synaptic transmission in deep dorsal horn interneurons and DRPs produced by stimulation of low-threshold afferent fibers. J. J. MILLA CRUZ*; J. R. CALVO; C. M. VILLALON; S. HOCHMAN; J. N. QUEVEDO. <i>CINVESTAV-IPN, Pharmacobiology, CINVESTAV-IPN (sede Sur), Emory Univ. Sch. Med.</i>	2:00	OO1 065.14 Layered development of V2a descending projection underlying maturation of motor repertoire in larval zebrafish. A. PUJALA; M. KOYAMA*. <i>HHMI Janelia Res. Campus.</i>
2:00	NN5 065.02 Chewing differentially influences upper limb motor patterns. B. SAMULSKI*; J. PREBOR; C. ARMITANO; S. MORRISON. <i>Old Dominion Univ.</i>	3:00	OO2 065.15 Defensive behavior elicited via deep brain stimulation of the midbrain in freely moving micropigs. I. OPRIS*; S. CHANG; F. D. BENAVIDES; F. J. SANCHEZ; L. M. VILLAMIL; A. J. SANTAMARIA; Y. NUNEZ-GOMEZ; J. P. SOLANO; J. D. GUEST; B. R. NOGA. <i>Univ. of Miami Miller Sch. of Med., Univ. of Miami Miller Sch. of Med., Univ. of Miami.</i>
3:00	NN6 065.03 ● Rhythmic movements evoked by both long-train and short-train intracortical microstimulation in primate orofacial sensorimotor cortex. J. D. LAURENCE-CHASEN*; K. TAKAHASHI; C. P. ORSBON; C. F. ROSS; N. G. HATSOPOULOS. <i>Univ. of Chicago.</i>		
4:00	NN7 065.04 Convergence of sensory and reticulospinal inputs to glutamatergic commissural interneurons in the lumbar spinal cord. A. GIORGI*; M. PERREAUDET. <i>Emory Univ.</i>		
1:00	NN8 065.05 Descending control of heading direction and speed during walking in <i>Drosophila</i> : A bottleneck at the sensory-motor interface. A. RAYSHUBSKIY*; R. I. WILSON. <i>Harvard Univ., Harvard Med. Sch.</i>	1:00	OO3 066.01 Optogenetic activation of POMC terminals in the medial preoptic nucleus regulates lordosis behavior. C. S. JOHNSON*; P. E. MICEVYCH. <i>Univ. of California Los Angeles.</i>
2:00	NN9 065.06 Postsynaptic response patterns to stimulation of low-threshold hindlimb afferents in flexor- and extensor-aligned rhythm-generating neurons. E. Z. LI*; D. L. GARCIA-RAMIREZ; L. YAO; K. J. DOUGHERTY. <i>Drexel Univ. Col. of Med.</i>	2:00	OO4 066.02 ▲ Membrane G protein-coupled estrogen receptor-1 (GPER) activation in the ARH reduces medial preoptic nucleus u-opioid receptors activity to facilitate sexual receptivity. R. R. TOMINNA*; S. CHOKR; M. LA FOREST; K. SINCHAK. <i>California State University, Long Beach, California State university, Long Beach, California State University, Long Beach.</i>
3:00	NN10 065.07 Reorganization of proprioceptive inputs facilitates locomotor recovery after injury to the CNS. K. A. MESCE*; A. W. BIGELOW; J. G. PUHL. <i>Univ. Minnesota, Univ. of Minnesota.</i>	3:00	OO5 066.03 ▲ Dopaminergic regulation of mate competition aggression in male Zebra finches: Effects of prior winning experience and recent aggressive behavior on tyrosine hydroxylase immunoreactivity in the social behavior network. E. J. JACOBSON*; S. C. MOLL; A. M. SMITH; J. PRIBBLE; S. A. HEIMOVICS. <i>Univ. of St. Thomas, Univ. of St. Thomas, Univ. of St. Thomas.</i>
4:00	NN11 065.08 Functional heterogeneity of neurons within a midbrain nucleus driving locomotion in adult zebrafish. E. M. BERG*; A. EL MANIRA. <i>Karolinska Inst.</i>		

POSTER

065. Rhythmic Motor Pattern Generation: Afferent and Descending Control

Theme E: Motor Systems

Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H

- 1:00 NN4 **065.01** Activation of D₂-like receptors depresses synaptic transmission in deep dorsal horn interneurons and DRPs produced by stimulation of low-threshold afferent fibers. J. J. MILLA CRUZ*; J. R. CALVO; C. M. VILLALON; S. HOCHMAN; J. N. QUEVEDO. *CINVESTAV-IPN, Pharmacobiology, CINVESTAV-IPN (sede Sur), Emory Univ. Sch. Med.*
- 2:00 NN5 **065.02** Chewing differentially influences upper limb motor patterns. B. SAMULSKI*; J. PREBOR; C. ARMITANO; S. MORRISON. *Old Dominion Univ.*
- 3:00 NN6 **065.03** ● Rhythmic movements evoked by both long-train and short-train intracortical microstimulation in primate orofacial sensorimotor cortex. J. D. LAURENCE-CHASEN*; K. TAKAHASHI; C. P. ORSBON; C. F. ROSS; N. G. HATSOPOULOS. *Univ. of Chicago.*
- 4:00 NN7 **065.04** Convergence of sensory and reticulospinal inputs to glutamatergic commissural interneurons in the lumbar spinal cord. A. GIORGI*; M. PERREAUDET. *Emory Univ.*
- 1:00 NN8 **065.05** Descending control of heading direction and speed during walking in *Drosophila*: A bottleneck at the sensory-motor interface. A. RAYSHUBSKIY*; R. I. WILSON. *Harvard Univ., Harvard Med. Sch.*
- 2:00 NN9 **065.06** Postsynaptic response patterns to stimulation of low-threshold hindlimb afferents in flexor- and extensor-aligned rhythm-generating neurons. E. Z. LI*; D. L. GARCIA-RAMIREZ; L. YAO; K. J. DOUGHERTY. *Drexel Univ. Col. of Med.*
- 3:00 NN10 **065.07** Reorganization of proprioceptive inputs facilitates locomotor recovery after injury to the CNS. K. A. MESCE*; A. W. BIGELOW; J. G. PUHL. *Univ. Minnesota, Univ. of Minnesota.*
- 4:00 NN11 **065.08** Functional heterogeneity of neurons within a midbrain nucleus driving locomotion in adult zebrafish. E. M. BERG*; A. EL MANIRA. *Karolinska Inst.*

- 1:00 NN12 **065.09** Muscle synergies involved in control of locomotion in the cat: Insights from a computational neuromechanical model. A. N. KLISHKO*; S. N. MARKIN; N. A. SHEVTSOVA; M. A. LEMAY; I. A. RYBAK; B. I. PRILUTSKY. *Georgia Inst. of Technol., Drexel Univ. Col. of Med., Temple Univ. Col. of Engin.*
- 2:00 NN13 **065.10** Sensory cortical control of movement. S. K. KARADIMAS*; K. SATKUNENDRARAJAH; A. LALIBERTE; S. GOSGNACH; M. FEHLINGS. *Krembil Discovery Tower, Univ. of Toronto, Kajana Satkunendarajah, Alex Laliberte, Univ. of Alberta.*
- 1:00 DP08/NN14 **065.11** (Dynamic Poster) An artificial neural network learns to optimally combine central pattern generator with sensory feedback for bipedal locomotion. H. X. RYU*; A. D. KUO. *Univ. of Calgary.*
- 4:00 NN15 **065.12** A hunger state dependent central control switch for assessing food value. G. KEMENES*; K. STARAS; M. CROSSLEY. *Sussex Neuroscience, Sch. of Life Sciences, Univ. of Sussex.*
- 1:00 NN16 **065.13** Alterations in spinal cord injury-induced plasticity of spinal rhythm generating interneurons following treadmill training with epidural stimulation in mouse. D. GARCIA-RAMIREZ*; N. HA; L. YAO; K. A. SCHMIDT; S. F. GISZTER; K. J. DOUGHERTY. *Drexel Univ. Col. of Med., Drexel Univ.*

- 2:00 OO1 **065.14** Layered development of V2a descending projection underlying maturation of motor repertoire in larval zebrafish. A. PUJALA; M. KOYAMA*. *HHMI Janelia Res. Campus.*
- 3:00 OO2 **065.15** Defensive behavior elicited via deep brain stimulation of the midbrain in freely moving micropigs. I. OPRIS*; S. CHANG; F. D. BENAVIDES; F. J. SANCHEZ; L. M. VILLAMIL; A. J. SANTAMARIA; Y. NUNEZ-GOMEZ; J. P. SOLANO; J. D. GUEST; B. R. NOGA. *Univ. of Miami Miller Sch. of Med., Univ. of Miami Miller Sch. of Med., Univ. of Miami.*

POSTER

066. Neuroendocrinology of Sexual Behavior

Theme F: Integrative Physiology and Behavior

Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H

- 1:00 OO3 **066.01** Optogenetic activation of POMC terminals in the medial preoptic nucleus regulates lordosis behavior. C. S. JOHNSON*; P. E. MICEVYCH. *Univ. of California Los Angeles.*
- 2:00 OO4 **066.02** ▲ Membrane G protein-coupled estrogen receptor-1 (GPER) activation in the ARH reduces medial preoptic nucleus u-opioid receptors activity to facilitate sexual receptivity. R. R. TOMINNA*; S. CHOKR; M. LA FOREST; K. SINCHAK. *California State University, Long Beach, California State university, Long Beach, California State University, Long Beach.*
- 3:00 OO5 **066.03** ▲ Dopaminergic regulation of mate competition aggression in male Zebra finches: Effects of prior winning experience and recent aggressive behavior on tyrosine hydroxylase immunoreactivity in the social behavior network. E. J. JACOBSON*; S. C. MOLL; A. M. SMITH; J. PRIBBLE; S. A. HEIMOVICS. *Univ. of St. Thomas, Univ. of St. Thomas, Univ. of St. Thomas.*

• Indicated a real or perceived conflict of interest, see page 74 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

4:00	OO6 066.04 Effect of serotonin on mating success in teleopsis dalmanni. E. R. SCOTT*; J. G. SWALLOW; K. RENNER. <i>Univ. of Colorado Denver, Univ. of South Dakota.</i>	1:00	PP1 066.17 CRISPR/Cas genome editing identifies prostaglandin F sensitive cells as crucial regulators for the control of reproductive behavior in the cichlid <i>astatotilapia burtoni</i> . S. A. JUNTTI*. <i>Univ. of Maryland.</i>
1:00	OO7 066.05 Mating-receptivity in female dipterans is mediated by daily fluctuations of dopamine levels. E. J. SANDERS*; A. N. BUBAK; K. J. RENNER; J. G. SWALLOW. <i>Univ. of Colorado Denver, Univ. of Colorado Denver - Anschutz Med. Campus, Univ. of South Dakota.</i>	2:00	PP2 066.18 Effects of testosterone and quinpirole (D2-type agonist) in adulthood on the sexual partner preference of neonatally gonadectomized male rats. M. BARRADAS*; D. HERRERA COVARRUBIAS; L. GARCÍA; P. CARRILLO; J. MANZO; G. CORIA-AVILA. <i>Univ. Veracruzana, Ctr. De Investigaciones, Univ. Veracruzana.</i>
2:00	OO8 066.06 Measuring fecal corticosterone in male prairie voles. S. MCGLOTHLIN*, J. CURTIS. <i>Oklahoma State Univ. Ctr. for Hlth. Scienc, Oklahoma State Univ. Ctr. for Hlth. Sci.</i>	3:00	PP3 066.19 When sexual hormones are not enough. Role of sexual experience in female mice receptivity. P. MARCO MANCLUS*; R. G. PAREDES; W. PORTILLO. <i>Inst. de Neurobiología de la UNAM, Inst. de Neurobiología de la UNAM.</i>
3:00	OO9 066.07 ▲ The roles of estrogen receptor alpha and beta in sexual behavior and social preferences in female prairie voles. D. TORRES*; J. M. LANDEROS; A. N. PERRY; B. S. CUSHING. <i>The Univ. of Texas At El Paso, Univ. of Texas At El Paso, Univ. of Texas at El Paso.</i>	4:00	PP4 066.20 Effects of pair bond formation in prairie vole brain functional connectivity. M. F. LOPEZ*; J. ORTIZ; F. CAMACHO; N. F. DIAZ; L. J. YOUNG; R. PAREDES; W. PORTILLO; S. ALCAUTER. <i>Inst. de Neurobiología, UNAM, Inst. Nacional de Perinatología, Emory Univ.</i>
4:00	OO10 066.08 Does female mate choice influence monogamous pair bond formation and reproduction in prairie voles? A. FRANCIS*; J. T. CURTIS. <i>Oklahoma State Univ. Ctr. for Hlth. Scienc, Oklahoma State Univ. Ctr. for Hlth. Sci.</i>	1:00	PP5 066.21 ▲ Standardization of MEMRI to study brain regions involved in sexual behavior. J. A. AGUILAR MORENO*; J. ORTIZ; D. GASCA; S. ALCAUTER; R. PAREDES-G. <i>Inst. de Neurobiología, Inst. de Neurobiología, Inst. de Neurobiología.</i>
1:00	OO11 066.09 ▲ The effects of alcohol on prosocial behavior in the prairie vole. R. GRINCEVICIUTE*; Q. W. VIDAL; R. J. ORTIZ; K. R. HERNANDEZ; A. N. PERRY; C. A. FIELD; B. S. CUSHING. <i>Univ. of Texas at El Paso, Univ. of Texas at El Paso, Univ. of Texas at El Paso, Univ. of Texas at El Paso.</i>	2:00	PP6 066.22 Partner preference in the female monogamous praire vole <i>microtus ochrogaster</i> tested in a multiple partner paradigm. A. FERREIRA-NUNO*; F. J. CAMACHO; L. J. YOUNG; R. G. PAREDES; W. PORTILLO. <i>Univ. Autonoma Metropolitana, Inst. De Neurobiología UNAM, Emory Univ.</i>
1:00	DP09/OO12 066.10 ● (Dynamic Poster) Population differences in the neural microarchitecture of the prairie vole brain within regions relevant to emotionality and prosocial behavior. R. J. ORTIZ*; J. R. YEE; P. P. KULKARNI; A. N. PERRY; I. E. KEHOE; B. KEANE; N. G. SOLOMON; C. FERRIS; B. S. CUSHING. <i>Univ. of Texas At El Paso, Northeastern Univ., Northeastern Univ. Dept. of Psychology, Miami Univ.</i>	3:00	PP7 066.23 ● Influence of acute bremelanotide following chronic administration of fluoxetine on 50-kHz vocalizations during distributed clitoral stimulation. C. A. GERSON*; L. SPARKS; B. V. GONZALEZ CAUTELA; J. G. PFAUS. <i>Concordia Univ.</i>
3:00	OO13 066.11 ▲ The effects of cohabitation and reproductive activation on microglia in male and female prairie voles. A. ENRIQUEZ; A. N. PERRY*; B. S. CUSHING. <i>Univ. of Texas at El Paso.</i>	4:00	PP8 066.24 ● The catecholamines synthesis and the morphometry of the ovarian intrinsic neurons in the senescent rats. J. M. BRAVO*; A. DIAZ; B. VENEGAS; Y. CRUZ; C. MORAN; C. PASTELIN. <i>Univ. Autonoma de Tlaxcala, Benemerita Univ. Autonoma de Puebla, Benemerita Univ. Autonoma de Puebla, Benemerita Univ. Autonoma de Puebla, Benemerita Univ. Autonoma de Puebla.</i>
4:00	OO14 066.12 ▲ Diet-induced obesity impairs male rat copulation and dopamine synthesis in the medial preoptic area. N. DAO*; H. E. WALSH; N. SCHMITZER-TORBERT. <i>Wabash Col., Wabash Col.</i>	1:00	PP9 066.25 Effects of developmental exposure to bisphenol-S on sexual behavior in female rats. H. A. MOLENDA-FIGUEIRA*; A. T. DUFFIN; K. R. GRIMES; D. T. LARSON; B. A. LENZ; K. R. MAKOVEC; T. J. POZOLINSKI; M. E. RACINE; T. A. TAUBER. <i>Univ. of Wisconsin-Stevens Point.</i>
1:00	OO15 066.13 Fos expression in female rats with a conditioned partner preference for an individual male. C. E. MAC CIONNAITH*; A. LEMAY; E. GOMEZ-PERALES; G. C. ROBERT; R. CERNIK; J. G. PFAUS. <i>Concordia Univ.</i>	2:00	PP10 066.26 ▲ Sexual behavior, ejaculate and fertility of rapid ejaculators during copulatory competition. M. R. FUENTES MORALES*; SR; G. GUTIÉRREZ OSPINA; J. A. FERNÁNDEZ GUASTI; R. LUCIO. <i>Univ. Nacional Autónoma De México, Univ. Nacional Autónoma de México, CINVESTAV-IPN, Univ. Autónoma de Tlaxcala.</i>
2:00	OO16 066.14 The estrogen receptor- α splice variant, ER $\alpha\Delta 4$, negatively regulates estradiol signaling through mGluR2/3, <i>in vivo</i> . A. M. WONG*; C. S. JOHNSON; A. SCOTT; P. E. MICEVYCH. <i>UCLA, Univ. of California Los Angeles, David Geffen Schl Med. at UCLA.</i>	3:00	PP11 066.27 ▲ Practice makes perfect: Repeated sexual experience enhances sexual motivation as female rats approach middle-age. C. M. GONZALEZ*; D. LUCERO; P. WOMBLE; S. H. MEERTS; F. A. GUARRACI. <i>Southwestern Univ., Carleton Col.</i>
3:00	OO17 066.15 Investigating the role of dopamine in steroid-independent male sexual behavior in orchidectomized B6D2F1 hybrid male mice. C. D. DAVID*; B. N. WYROSDIC; R. M. A. ABBAKER; J. PARK. <i>Univ. of Massachusetts Boston.</i>		
4:00	OO18 066.16 ▲ Sexual satiety modifies the tissue characteristics of the prostatic lobes in male rats. V. RODRÍGUEZ*; M. GARCÍA-LORENZANA; Y. CRUZ; R. A. LUCIO. <i>Ctr. Tlaxcala de Biología de La Conducta, Univer, Univ. Autónoma Metropolitana-Iztapalapa, Univ. Autonoma Tlaxcala, Univ. Autonoma de Tlaxcala.</i>		

• Indicated a real or perceived conflict of interest, see page 74 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

4:00	PP12 066.28 Prenatal acetaminophen disrupts adult male sexual behavior: Partial recovery following sexual experience. G. A. CORIA-AVILA*; V. X. DÍAZ-ESTRADA; M. BARRADAS; L. I. GARCIA; J. MANZO; G. HERNANDEZ PEREDO REZK; D. HERRERA-COVARRUBIAS. <i>Univ. Veracruzana, Univ. Veracruzana, Ctr. de Investigaciones, Ctr. de Investigaciones Cerebrales, Univ. Veracruzana, Ctr. de Especialidades Medicas del Estado de Veracruz, Univ. Veracruzana.</i>	1:00	PP22 067.09 Dissecting whole-brain direct connectomic LC-NE network. W. YE*; X. ZHU; H. HUANG; K. ZHANG; P. LAU; X. HE; F. XU; G. BI. <i>Univ. of Sci. and Technol. of China, Chinese Acad. of Sci. Key Lab. of Brain Function and Dis., Natl. Lab. for Physical Sci. at the Microscale, Zhejiang Univ., Ctr. for Brain Science, Key Lab. of Magnetic Resonance in Biol. Systems and State Key Lab. of Magnetic Resonance and Atomic and Mol. Physics, Wuhan Inst. of Physics and Mathematics, Chinese Acad. of Sci., Chinese Acad. of Sci. Ctr. for Excellence in Brain Sci. and Intelligence Technol., Chinese Acad. of Sci. Ctr. for Excellence in Brain Sci. and Intelligence Technol.</i>
1:00	PP13 066.29 Raised without a father: Monoparental care impairs the preference for opposite sex odors in female prairie voles, but not in males. G. VALERA-MARIN*; F. J. CAMACHO; N. F. DIAZ; L. J. YOUNG; R. G. PAREDES; W. PORTILLO. <i>Univ. Nacional Autónoma De México, Inst. Nacional de Perinatología, Emory Univ.</i>	2:00	QQ1 067.10 Genetic identification of a noradrenergic population implicated in alleviation of stress-related responses. Y. CHEN*; M. DAS; E. A. OYARZABAL; Q. CHENG; N. W. PLUMMER; K. G. SMITH; G. K. JONES; D. MALAWSKY; J. L. YAKEL; Y. I. SHIH; P. JENSEN. <i>Natl. Inst. of Envrn. Hlth. Sci., Univ. of North Carolina.</i>
POSTER			
067.	Stress-Modulated Pathways, Neuromodulators, and Behavior		
	Theme F: Integrative Physiology and Behavior		
	Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H		
1:00	PP14 067.01 Monoaminergic systems contribute to decision-making in the familiar choice task just after acute mild stress. M. ISHIDA*; S. AMEMIYA; N. KUBOTA; H. KASAHARA; T. NISHIJIMA; I. KITA. <i>Tokyo Metropolitan Univ.</i>	4:00	QQ3 067.12 Molecular and circuit mechanisms underlying paraventricular thalamic regulation of habituation to stress. B. CORBETT*; S. LUZ; A. CURTIS; J. ARNER; S. BHATNAGAR. <i>Children's Hosp. of Philadelphia.</i>
2:00	PP15 067.02 Acute amphetamine-induced activation of chemically-identified neurons within the rat nucleus of the solitary tract (NTS). C. M. EDWARDS*; H. ZHENG; L. M. RINAMAN. <i>Florida State Univ.</i>	1:00	QQ4 067.13 Stress-modulated learning in eyelid conditioning. C. BLEVINS*; R. A. GRAY; B. V. ZEMELMAN. <i>Univ. of Texas At Austin, The Univ. of Texas At Austin, Univ. of Texas at Austin.</i>
3:00	PP16 067.03 Housing conditions influence characteristic of voluntary exercise and brain monoamine levels in laboratory rats. N. KUBOTA*; S. YANAGITA. <i>Tokyo Metropolitan Univ., Tokyo Univ. of Sci.</i>	2:00	QQ5 067.14 Inhibition of PVN neurons influences stress-induced changes of motor learning in the VOR. A. KATOH*; A. YAMAGIWA. <i>Tokai Univ., Tokai Univ.</i>
4:00	PP17 067.04 Sex differences in dorsal raphe nucleus transcriptome responses associated with stress HPA axis habituation. T. J. PHILIPPE*; M. DORDEVIC; P. PAVLIDIS; M. UNDERHILL; V. VIAU. <i>Univ. of British Columbia, Univ. of British Columbia.</i>	3:00	QQ6 067.15 Influence of categorically distinct stressors on visual attention to food in humans. S. LI; J. R. KEENE; B. N. HARRIS; J. A. CARR*. <i>Texas Tech. Univ., Texas Tech. Univ., Texas Tech. Univ.</i>
1:00	PP18 067.05 Chronic restraint stress induced increase serotonin transporter expression in rat left adrenal gland. ; N. SAROJ; S. MORENO MARTÍNEZ; J. TERRÓN SIERRA; P. LÓPEZ SÁNCHEZ. <i>Escuela Superior De Medicina Del Inst. Politéc, CINVESTAV-IPN, Escuela Superior de Medicina Del Inst. Politécnico Nacional.</i>	4:00	QQ7 067.16 Behavioral susceptibility to acute stress is associated with decreased opioid receptor expression in the locus coeruleus. T. LOVEGROVE; O. BORODOVITSYNA; D. J. CHANDLER*. <i>Rowan Univ. Sch. of Osteo. Med.</i>
2:00	PP19 067.06 Effect of tryptophan hydroxylase inhibition on chronic restraint stress induced changes in 5-HT in adrenal gland of rats. N. SAROJ*; SHIVSHANKER; S. MORENO MARTÍNEZ; E. VERA AGUILAR; J. TERRÓN SIERRA. <i>CINVESTAV-IPN, Escuela Superior de Medicina del Inst. Politécnico Nacional.</i>	1:00	QQ8 067.17 Age- and stress-dependent changes in locus coeruleus physiology and anxiety-like behavior. O. BORODOVITSYNA*; D. J. CHANDLER. <i>Rowan Univ. GSBS.</i>
3:00	PP20 067.07 Ultrastructural localization of serotonergic 5-HT _{2A} receptors in the rat locus coeruleus. E. J. VAN BOCKSTAELE*; I. HORRILLO; R. ALEXIS; B. REYES. <i>Drexel Univ. Col. of Med., Univ. of Basque Country UPV/EHU, Spain, Drexel Univ.</i>	2:00	QQ9 067.18 Locomotor response to acute stressors requires hypothalamic-pituitary-interrenal axis activation and glucocorticoid receptor. H. LEE*; T. L. SCHWAB; A. N. SIGAFOOS; J. L. GAUERKE; R. G. KRUG, II; M. R. SERRES; D. C. JACOBS; R. P. COTTER; B. DAS; M. O. PETERSEN; C. L. DABY; R. M. URBAN; B. C. BERRY; K. J. CLARK. <i>Mayo Clin., Mayo Clin., The Ohio State Univ., Natl. Inst. of Hlth., KIIT Univ., Univ. of Edinburgh, Univ. of Colorado, Harvard Univ.</i>
4:00	PP21 067.08 Chronic morphine exposure alters the female rat estrous cycle and stress-related peptidergic receptor expression in the locus coeruleus. B. A. REYES*; I. HORRILLO; E. J. VAN BOCKSTAELE. <i>Drexel Univ., Univ. of Basque Country UPV/EHU, Drexel Univ. Col. of Med.</i>	3:00	QQ10 067.19 Neurochemical and electrophysiological characterization of target-specific neuronal populations in the rat dorsal raphe nucleus and their susceptibility to chronic CORT administration as a model of depression. E. PROUTY; D. CHANDLER; W. GAO; B. D. WATERHOUSE*. <i>Drexel Univ. Col. Med., Rowan Univ. Sch. of Osteo. Med.</i>

POSTER

- 068. Brain Blood Flow, Metabolism, and Homeostasis: Energy Metabolism**
- Theme F: Integrative Physiology and Behavior**
- Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H
- 1:00 QQ11 **068.01** ● Royal jelly ameliorates diet-induced obesity and glucose intolerance by promoting brown adipose tissue thermogenesis in mice. A. TERAO*; T. YONESHIRO; R. KAEDE; K. NAGAYA; J. AOYAMA; M. SAITO; Y. OKAMATSU-OGURA; K. KIMURA. *Tokai Univ., Hokkaido Univ.*
- 2:00 QQ12 **068.02** Impact of sex differences on the metabolic and neurological effects of chronic caffeine administration in mice. S. CAMANDOLA*; E. MURPHY; R. CUTLER; J. FIORI O'CONNELL; M. P. MATTSON; N. PLICK. *Natl. Inst. on Aging, Natl. Inst. on Aging.*
- 3:00 QQ13 **068.03** Adipose tissue-targeted stem cell transplantation for insulin resistance-related CNS dysfunction. S. SAIeva*; B. KRISHNAN; G. LA ROCCA; N. ABATE; G. TAGLIALATELA. *Univ. of Texas Med. Br., Univ. of Texas Med. Br., Univ. degli Studi di Palermo, Univ. of Texas Med. Br.*
- 4:00 QQ14 **068.04** Reshaping circadian metabolism in the suprachiasmatic nucleus and prefrontal cortex by nutritional challenge. P. TOGNINI*; K. KINOUCHI; Y. LIU; J. HELBLING; K. L. ECKEL-MAHAN; P. BALDI; P. SASSONE-CORSI. *Scuola Normale Superiore Di Pisa, Univ. of California Irvine, Univ. of California Irvine, INRA, Univ. Bordeaux, Univ. of Texas Hlth. Sci. Center, Houston, Univ. of California Irvine.*
- 1:00 QQ15 **068.05** Selective effects of L-acetylcarnitine on energy-utilizing ATPases of synapses derived from hippocampal sub-fields. F. FERRARI*; L. BAGINI; A. GORINI; R. F. VILLA. *Univ. of Pavia.*
- 2:00 QQ16 **068.06** Long-term optogenetic activation of mouse cortical neurons after cardiac arrest. M. THUNEMANN*; T. V. NESS; K. KILIÇ; H. UHLIROVA; L. F. BARROS; A. M. DALE; G. T. EINEVOLL; A. DEVOR. *Univ. of California San Diego, Norwegian Univ. of Life Sci., BU Neurophotonics Ctr., Univ. of California San Diego, Inst. of Scientific Instruments of the CAS, Ctr. de Estudios Científicos, Univ. of California San Diego, Norwegian Univ. Life Sci., Martins Ctr. for Biomed. Imaging, Harvard Med. Sch.*
- 3:00 QQ17 **068.07** Tentonin3/TMEM150C contributes to glucose-stimulated insulin release in pancreatic β -cells. J. WEE*; G. HONG; S. PAK; U. OH. *Korea Inst. of Sci. and Technol., Seoul Natl. Univ., Korea Inst. of Sci. and Technol.*
- 4:00 QQ18 **068.08** Characterization of olfactory circuits modulating energy homeostasis. P. JOVANOVIC*; H. CHODAVARAPU; L. CAMBIER; B. CHANG; C. E. RIERA. *Cedars-Sinai Med. Ctr.*
- 1:00 QQ19 **068.09** Elevated blood creatinine correlating with gray matter atrophy? A novel finding with far-reaching implications. E. KOTKOWSKI*; P. T. FOX; L. R. PRICE; C. G. FRANKLIN; M. SALAZAR. *Univ. of Texas Hlth. Sci. Ctr. at San A, UT Hlth. San Antonio, Texas State Univ., UT Hlth. San Antonio.*

- 2:00 QQ20 **068.10** The role of AgRP neurons in shaping the composition and energy harvest capacity of the gut microbiota. S. EW BANK*; C. A. CAMPOS; S. L. PADILLA; A. J. BOWEN; J. L. DEMPSEY; J. Y. CUI; R. D. PALMITER. *Univ. of Washington, Univ. of Washington, Univ. of Washington.*
- 3:00 QQ21 **068.11** Involvement of specific phospholipase C beta subtypes in serotonin 2C receptor activation of arcuate POMC neurons. J. CHOI*; J. SOHN. *KAIST.*
- 4:00 QQ22 **068.12** Glucose metabolism of the avian brain: an FDG-PET study in pigeons (*columba livia*) with estimated arterial input function of anesthetized and awake state. K. VON EUGEN*; F. STRÖCKENS; H. BACKES; H. ENDEPOLIS; O. GUNTURKUN. *Ruhr-University Bochum, Max Planck Inst. for Metabolism Res., Univ. Hosp. of Cologne.*
- 1:00 QQ23 **068.13** Excitation of neurons in DMV brain regions directly regulate hepatic lipid synthesis and gluconeogenesis gene expression. W. SONG*; C. NAMKOONG. *Seoul Natl. Univ. Col. of Med.*
- 2:00 QQ24 **068.14** Optogenetic stimulation and NMDA + AMPA receptor blockade reveal lack of association between cortical gamma activity and brain O₂ use. M. K. DAHLQVIST; K. J. THOMSEN*; M. J. LAURITZEN. *Copenhagen University, Inst. of Neurosci.*
- 3:00 QQ25 **068.15** The effect of GLUT1 and MCT1 inhibition on cerebral glucose and lactate levels following intraperitoneal injections of metabolic fuels in mice. A. BELAND*; D. YAZJI; C. MESSIER. *Univ. of Ottawa.*
- 4:00 QQ26 **068.16** Metabolic cost of plasticity shapes synaptic plasticity rules, a computational modeling study. H. LI*; M. C. VAN ROSSUM. *Univ. of Nottingham.*
- 1:00 RR1 **068.17** Brain-specific loss of long-chain fatty acid oxidation. C. J. WHITE*; J. LEE; J. CHOI; E. SELEN ALPERGIN; M. J. WOLFGANG. *Johns Hopkins Sch. of Med., Yale Sch. of Med.*
- 2:00 RR2 **068.18** ● The effect of bromocriptine, a D2 receptor agonist, in lean and obese mice. S. N. FRAMNES*; E. BAKKE; D. M. ARBLE. *Marquette Univ.*
- 3:00 RR3 **068.19** Impact of high fructose diet on neuronal development, metabolism and psycho-emotional behavior. A. MENIGOZ*; C. E. BARRETT; D. G. RAINNIE. *Yerkes Natl. Primate Res. Ctr. Emory Un, Dept. of Psych. and Beh. Disorders, Emory Univ., Emory Univ.*
- 4:00 RR4 **068.20** Innervation has distinct impact on global transcriptome of white and brown adipose tissues. Q. ZHU; J. CAO; L. LIU; C. LIANG; H. SHI*. *Miami Univ., Miami Univ.*
- 1:00 RR5 **068.21** Deep brain photoreception: An opsin-5 dependent hypothalamic-adipose neuraxis. K. ZHANG*; B. A. UPTON; S. VEMARAJU; G. NAYAK; J. A. MOCKO; R. A. LANG. *Cincinnati Children's Hosp. and Med. Ctr., Univ. of Cincinnati Col. of Med., Cincinnati Children's Hosp. and Med. Ctr., Abrahamson Pediatric Eye Inst.*
- 2:00 RR6 **068.22** Opn3 (Encephalopsin) as a putative mammalian deep brain photoreceptor. B. A. UPTON*; K. ZHANG; S. VEMARAJU; A. SWEENEY; A. HOLT; E. BUHR; R. VAN GELDER; R. LANG. *Cincinnati Children's Hosp. Med. Ctr., Univ. of Pennsylvania, Univ. of Washington.*

* Indicated a real or perceived conflict of interest, see page 74 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

POSTER

069. Recent Advances in Cardiovascular Regulation

Theme F: Integrative Physiology and Behavior

Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H

- 1:00 RR7 **069.01** ▲ Role of hypothalamic opioids in moxibustion modulation of sympathoexcitatory cardiovascular reflex responses. Y. GONG*; S. TJEN-A-LOOI; L. FU; L. CHENG. *Univ. of California, Irvine, Univ. of California, Irvine, Shanghai Univ. of Traditional Chinese Med.*
- 2:00 RR8 **069.02** Effects of breath-holding in central nervous system activities and autonomic nervous system activities. T. KIKUCHI*; M. TAKAYOSE; K. ARAI; K. FUJIMOTO; Y. SANO; K. SHIROISHI; N. GYODA. *Nihon Univ., Tokyo Univ. of Marine Sci. and Technol., Teikyo Universoty, Teikyo Univ. of Sci.*
- 3:00 RR9 **069.03** Functional MRI of the brainstem and hypothalamus during lower body negative pressure: Sympathetic and parasympathetic rhythms in humans. F. BEISSNER*; J. MANUEL SANCÉZ; N. NAZARENKO; K. HEUSSER; J. TANK; J. JORDAN. *Somatosensory and Autonomic Therapy Res., German Aerospace Ctr. (DLR).*
- 4:00 RR10 **069.04** Comparing implantable and non-invasive bioelectronic medicines using cardiopulmonary physiology and machine learning, towards closed-loop therapy systems. P. D. GANZER*; M. A. HAWK; C. G. FETZEK; T. VINCI; R. HAMLIN; W. MUIR; D. FRIEDENBERG; S. COLACHIS; A. HEINTZ; K. SHQUA; M. COLACHIS; K. HANJORA; C. SWIFTNEY; A. ZMAROWSKI; G. SHARMA; S. KUTE; H. BRESLER; D. WEBER. *Battelle Mem. Inst., Battelle Mem. Inst., The Ohio State Univ., Lincoln Mem. Univ., Battelle Mem. Inst., Battelle Mem. Inst., Univ. of Pittsburgh.*
- 1:00 RR11 **069.05** Regional brain changes in patients with pulmonary hypertension. A. SAHIB; L. EHLERT; B. ROY; X. SONG; M. TOWNSLEY; S. SINGH; K. MCCLOY; M. EGHBALI; R. SAGGAR; R. KUMAR*. *Univ. of California at Los Angeles, Univ. of California at Los Angeles, Univ. of California at Los Angeles, Univ. of California Los Angeles, Univ. of California Los Angeles, Univ. of California Los Angeles.*
- 2:00 RR12 **069.06** Change in autonomic nervous responses in patients underwent dental occlusion treatment. H. YOSHIMI*; Y. KOMORIYA; T. SUZUKI; Y. ONO. *Meiji Univ., Med. Corp. Gibakai, Yoshimi Dent. Office.*
- 3:00 RR13 **069.07** Neuromodulatory effects of cranial and cervical nerve stimulation on migraine vs. trigeminal neuropathy pain. L. C. FEULNER; R. K. HARPER; G. TOBIN; E. P. NGUYEN; D. SNODGRASS; F. L. YAN-GO; R. L. MERRILL; E. K. SAUERLAND; J. JEN; R. M. HARPER*. *Univ. of California at Los Angeles, Univ. of Nevada Sch. of Med., The Mount Sinai Hosp.*
- 4:00 RR14 **069.08** Causality analysis of arterial baroreflex control following spaceflight and head-down tilt bedrest reveals a new mechanism for cardiovascular deconditioning. A. P. BLABER*; D. XU. *Simon Fraser Univ.*
- 1:00 SS1 **069.09** Intracranial pressure is a determinant of sympathetic activity. E. A. SCHMIDT*; F. DESPAS; A. PAVYLE TRAON; Z. CZOSNYKA; J. PICKARD; K. RAHMOUNI; A. PATHAK; J. SENARD. *Hôpital Pierre Paul Riquet Place Du Dr Baylac TSA, Univ. Hosp., Brain physics Lab., Univ. of Iowa.*

- 2:00 SS2 **069.10** Vagus nerve stimulation modulates respiratory and cardiac function in the common marmoset. L. SANTOS*; S. D. KOEHLER; X. WANG. *Johns Hopkins Univ., The Johns Hopkins Sch. of Med., Johns Hopkins Univ. Sch. Med.*
- 3:00 SS3 **069.11** Regional brain blood flow and diffusion changes in cognition regulatory sites in patients with heart failure. B. ROY*; X. SONG; C. CABRERA-MINO; G. C. FONAROW; M. A. WOO; R. KUMAR. *Univ. of California at Los Angeles, Univ. of California at Los Angeles.*
- 4:00 SS4 **069.12** Intermittent transdermal vagus nerve stimulation increases heart rate variability. R. W. ROOSEVELT*; B. HARRIS; G. COLLIER. *Arkansas Tech. Univ., Arkansas Tech. Univ.*
- 1:00 SS5 **069.13** ▲ Assessment of caudate nuclei volumes, cognition, and mood functions in adolescents with single ventricle heart disease. S. NOORANI*; B. ROY; S. SINGH; N. HALNON; M. WOO; A. LEWIS; N. PIKE; R. KUMAR. *UCLA, Univ. of California at Los Angeles, Univ. of California at Los Angeles, Univ. of California at Los Angeles, Div. of Pediatric Cardiology, Children's Hosp. Los Angeles, Univ. of California at Los Angeles, Univ. of California at Los Angeles, Univ. of California at Los Angeles.*
- 2:00 SS6 **069.14** Heartbeat analysis for speedy disease/health detection: The scaling exponents computed by EKG-mDFA serve as a useful bioindex. T. YAZAWA*. *Tokyo Metropolitan Univ.*
- 3:00 SS7 **069.15** Short-term effect of thermal pain on heart rate variability. R. K. GOIT*; R. KHADKA. *Nepalgunj Med. Col., BP Koirala Inst. of Hlth. Sci.*

POSTER

070. Cardiovascular Regulation: New Insights

Theme F: Integrative Physiology and Behavior

Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H

- 1:00 DP10/SS8 **070.01** (Dynamic Poster) Reduced bone marrow adrenergic receptor signaling is protective against microglia activation *ex vivo* following high fat diet feeding. N. AHMARI*; J. J. LEBOWITZ; D. R. MILLER; A. K. GOPINATH; R. M. LARKIN; N. J. BLAKER; W. L. MALPHURS; C. J. MARTYNIAK; H. KHOSHBOUEI; L. F. HAYWARD; J. ZUBCEVIC. *Univ. of Florida, Univ. of Florida, Univ. of Florida, Univ. of Florida.*
- 2:00 SS9 **070.02** Characterization of cardiac nerve synaptic transmission in the mouse stellate ganglion. J. D. TOMPKINS*; M. W. DOYLE; M. C. ANDRESEN. *UCLA, OHSU.*
- 3:00 SS10 **070.03** Development of the reporters for all-optical study of neuro-cardiac transmission. O. SHCHERBAKOVA*; N. A. VERLOV; R. A. PANTINA. *Natl. Res. Ctr. Kurchatov Inst., Petersburg Nuclear Physics Inst. Named After B.P. Konstantinov, Natl. Res. Ctr.*
- 4:00 SS11 **070.04** Medial amygdaloid nucleus modulates cardiovascular responses to the emotional stress in rats by the angiotensinergic neurotransmission. W. C. FERREIRA*; L. GOMES-DE-SOUZA; C. C. CRESTANI. *São Paulo State Univ.*

* Indicated a real or perceived conflict of interest, see page 74 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

1:00	SS12 070.05 Neuromodulatory effects of auricular vagus nerve stimulation on caudomedial neurons in the nucleus tractus solitarius of the rat. C. S. HUBBARD*; E. BEAUMONT; R. SCLOCCO; R. G. GARCIA; C. JUNG; V. NAPADOW; I. AY. A.A. Martinos Ctr. for Biomed. Imaging, Massachusetts Gen. Hospital, Harvard Med. Sch., East Tennessee State Univ., A.A. Martinos Ctr. for Biomed. Imaging, Massachusetts Gen. Hospital, Harvard Med. Sch.	4:00	TT9 070.16 Effect of ovariectomy on hippocampal BDNF gene methylation and mRNA expression in Dahl salt-sensitive hypertensive and Dahl salt-resistant rats. R. C. SPETH*; H. W. PANG; A. LINARES; N. ROSE; A. PAI; A. A. DE SOUZA; C. A. WEST; H. JI; M. S. TRIVEDI; K. SANDBERG. Nova Southeastern Univ. Col. of Pharm., Georgetown Univ. Col. of Med., Nova Southeastern Univ., Georgetown Univ.
2:00	SS13 070.06 Tentinin 3/TMEM150c, a mechanosensitive channel, is essential for the baroreceptor reflex. U. OH; G. HONG*; H. KIM; H. KIM. Korea Inst. of Sci. and Technol. (KIST), Korea Inst. of Sci. & Technol., KIST.	1:00	TT10 070.17 Fibroblast growth factor 19 alters excitability in the dorsal motor nucleus of the vagus. J. WEAN*, B. N. SMITH. Univ. of Kentucky, Univ. of Kentucky.
3:00	SS14 070.07 Responses of neurons in the rostral ventrolateral medulla (RVLM) to anticipated, passive, and active movement. D. M. MILLER; A. JOSHI; J. P. BIELANIN; S. R. WITTMAN; A. A. MCCALL; S. M. BARMAN; B. J. YATES*. Univ. of Pittsburgh, Michigan State Univ.		
4:00	TT1 070.08 Deletion of Trip8b alters modulation of cardiac electrophysiology by intracardiac neurons. K. SCHERSCHEL*, C. JUNGEN; N. ERLENHARDT; C. EICKHOLT; D. M. CHETKOVICH; N. KLOECKER; C. MEYER. Univ. Heart Ctr. Hamburg, Univ. of Düsseldorf, Northwestern Univ. Feinberg Sch. of Med., Univ. of Düsseldorf, Med. Fac.		
1:00	TT2 070.09 Effect of chronic administration of sodium hydrosulfide, L-cysteine and DL-propargylglycine on the cardiovascular changes induced by a high fat diet in rats. S. HUERTA*; C. B. GOMEZ; G. MENÉNDEZ-REVILLA; A. SANCHEZ-LOPEZ; D. CENTURIÓN. Cinvestav Unidad Coapa.	1:00	TT11 071.01 Control of autonomic function by insulin receptors. U. HYUN*; J. SOHN. KAIST.
2:00	TT3 070.10 Role of GABAergic receptors in the lateral hypothalamus in cardiovascular responses during acute restraint stress in rats. L. GOMES-DE-SOUZA*; R. BENINI; W. COSTA-FERREIRA; C. C. CRESTANI. São Paulo State Univ.	2:00	TT12 071.02 Dorsal raphe nucleus GABA neurons regulating energy expenditure. A. R. NECTOW*; M. SCHNEEBERGER PANE; L. PAROLARI; V. BHAVE; T. D. BANERJEE; P. WANG; P. COHEN; N. RENIER; J. FRIEDMAN. The Rockefeller Univ., Rockefeller Univ., Princeton Univ., ICM, Rockefeller Univ/ HHMI.
3:00	TT4 070.11 Identifying 'angiotensin sensitive' neurons in the lamina terminalis that coordinate endocrine, autonomic and behavioral responses mediating cardiovascular homeostasis. A. D. DE KLOET*; A. R. ALLEYNE; S. W. HARDEN; E. B. BRUCE; K. M. CAHILL; Y. TAN; M. K. RAIZADA; C. SUMNERS; C. J. FRAZIER; E. G. KRAUSE. Univ. of Florida, Col. of Med., Univ. of Florida, Col. of Pharm.	3:00	TT13 071.03 The novel 5-HT ₂ receptor antagonist MC-RG19 attenuates 8-OH-DPAT-induced hypothermia in male and female rats. J. J. HESTERMAN*; L. FLORES; B. E. BLASS; D. J. CANNEY; R. GAO; B. A. PAGNI. Arizona State Univ., Arizona State Univ., Temple Univ. Sch. of Pharm.
4:00	TT5 070.12 Tumor necrosis factor alpha receptor 1 in the hypothalamic paraventricular nucleus contributes to reactive oxygen production and glutamate signaling under basal and hypertensive states. M. J. GLASS*; G. WANG. Weill Cornell Med. Col.	4:00	TT14 071.04 Sympathetic neuromodulation of the brown adipose tissue. C. E. LYONS*; M. RAZZOLI; E. B. LARSON; D. SVEDBERG; M. SANDERS; M. THOMAS; A. BARTOLOMUCCI. Univ. of Minnesota, Univ. of Minnesota Syst., Univ. of Minnesota.
1:00	TT6 070.13 Pharmacological activation of superior colliculus and periaqueductal gray alters physiological measures of arousal. C. ELORETTE*; P. A. FORCELLI; L. MALKOVA. Georgetown Univ., Georgetown Univ.	1:00	TT15 071.05 Neurons in the ventral lateral preoptic area inhibit brown adipose tissue thermogenesis and muscle shivering. E. P. CONCEICAO*; C. J. MADDEN; S. F. MORRISON. Oregon Hlth. and Sci. Univ., Oregon Hlth. & Sci. Univ., Oregon Hlth. and Sci. Univ. Dept. of Neurolog. Surgery.
2:00	TT7 070.14 Effects of chronic intermittent hypoxia (cih) on baroreflex control of heart rate (hr) in mice: Aortic depressor afferent, vagal efferent, and central components. J. CHEN; H. GU; R. D. WURSTER; Z. CHENG*. Univ. of Central Florida, Loyola Univ. Hlth. Syst., Univ. of Central Florida.	2:00	TT16 071.06 Dorsal raphe nucleus gabaergic neurons control adaptive thermogenesis. M. SCHNEEBERGER PANE*; L. PAROLARI; P. WANG; N. RENIER; A. R. NECTOW; J. FRIEDMAN. The Rockefeller Univ., Rockefeller Univ., The Rockefeller Univ., The Rockefeller Univ., Princeton Univ., Rockefeller Univ/ HHMI.
3:00	TT8 070.15 Deletion of ADAM17 reduces PVN-neuronal excitability and preserves ACE2 compensatory activity in hypertension. S. MUKERJEE*; H. GAO; T. BASTING; A. ZSOMBOK; E. LAZARTIGUES. LSUHSC, Tulane Univ., LSUHSC.	3:00	TT17 071.07 PVH ^{BDNF} neurons regulate browning of inguinal white adipose tissue (iWAT). S. WU*; B. XU. Scripps Res. Inst., Scripps Res. Inst. Florida.
		4:00	TT18 071.08 Immunohistochemical and morphometric differences between DRG and nodose sensory neurons innervating the pancreatic islets of the rat. M. E. PEARCE; T. L. REDLER; H. D. NGUYEN; V. P. DUGAN; M. L. CAMPBELL-THOMPSON; R. D. JOHNSON*. Univ. of Florida, Univ. of Florida, Univ. of Florida.

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* Indicates abstract's submitting author

POSTER

072. Dopaminergic Reward Systems

Theme G: Motivation and Emotion

Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H

- 1:00 TT19 **072.01** ● Effects of dopaminergic compounds on motivation in a marmoset novel effort discounting task. T. ENOMOTO*; N. KONOIKE; A. TAKEMOTO; K. NAKAMURA; K. IKEDA. *Sumitomo Dainippon Pharma Co., Ltd., Primate Res. Institute, Kyoto Univ.*
- 2:00 TT20 **072.02** Specialized populations of dopamine neurons in monkey substantia nigra. M. G. COSTELLO*, D. B. T. MCMAHON; O. HIKOSAKA. *Natl. Inst. of Health/NEI*.
- 3:00 TT21 **072.03** Reward-dependent modulations of local field potentials reflect dopaminergic and non-dopaminergic activities within the primate midbrain. B. PASQUEREAU; R. S. TURNER*. *CNRS, Univ. of Pittsburgh*.
- 4:00 TT22 **072.04** Social reward signals in the medial prefrontal cortex and the lateral hypothalamus of the macaque. A. NORITAKE*, T. NINOMIYA; M. ISODA. *Natl. Inst. for Physiological Sci., Natl. Inst. for Physiological Sci.*
- 1:00 TT23 **072.05** Chronic intranasal oxytocin modulation of dopamine release in the nucleus accumbens is sub-region specific. P. POPOV*; P. R. PATEL; C. M. CALDWELL; D. CAI; J. D. BERKE; C. A. CHESTEK; J. B. BECKER. *Univ. of Michigan, Univ. of Michigan, Univ. of Michigan, Univ. of California*.
- 2:00 TT24 **072.06** Effect of oxytocin receptor activation in nigro-striatal pathways impulsive choice and striatal dopamine release. M. MORENO*; J. FUENTEALBA; S. FLORESCO; M. VAN HOLSTEIN. *Pontificia Univ. Catolica de Chile, The Univ. of British Columbia*.
- 3:00 UU1 **072.07** Dopamine's role in changing subjective preference. M. J. LEFNER*; A. P. MAGNON; M. R. LOPEZ; J. GUTIERREZ; M. J. WANAT. *Univ. of Texas At San Antonio*.
- 4:00 UU2 **072.08** Is it possible that non-attractive male mouse can get attractive mind set? Y. N. OHNISHI*; Y. KAWAHARA; Y. H. OHNISHI; A. NISHI. *Kurume Univ. Sch. of Med., Kurume Univ. Sch. of Med.*
- 1:00 UU3 **072.09** ● Sexually dimorphic endocannabinoid-mediated plasticity in the VTA after acute fasting. N. J. GODFREY*; M. QIAO; S. L. BORGLAND. *Univ. of Calgary, Univ. of Calgary*.
- 2:00 UU4 **072.10** Rapid dopamine release in male mice accompanies exposure to female odorant cues. I. GILDISH*; D. P. COVEY; A. C. PUCHE; M. T. SHIPLEY; J. F. CHEER. *Univ. of Maryland Sch. of Med.*
- 3:00 UU5 **072.11** Sex differences in the dynamics of dopamine release and neuronal activity. M. RIVERA-GARCÍA*; T. G. CHOWDHURY; B. MOGHADDAM. *Oregon Hlth. and Sci. Univ.*
- 4:00 UU6 **072.12** ▲ Gender differences in voluntary wheel running during adulthood is associated with distinct adaptations in the dopaminergic system in the dorsal striatum. A. MANDYAM; M. PAVLICH; M. TERRANOVA; C. D. MANDYAM*. *UCSD, VA San Diego, VA San Diego Healthcare Syst.*
- 1:00 UU7 **072.13** G-protein coupled estradiol receptor 1 activation regulates drug preference and dopamine release in male rats. J. A. QUIGLEY*; J. B. BECKER. *Univ. of Michigan*.
- 2:00 UU8 **072.14** Estradiol-induced potentiation of dopamine release in dorsal striatum following amphetamine administration requires estradiol receptors and mGluR5. Z. SONG*; H. YANG; E. M. PECKHAM; J. B. BECKER. *Univ. of Michigan, UCLA, Concordia Univ., Univ. of Michigan*.
- 3:00 UU9 **072.15** Lack of sex differences in d-amphetamine-induced dopamine release measured with Fallypride PET. C. T. SMITH*; L. C. DANG; D. T. SAN JUAN; S. F. PERKINS; L. L. BURGESS; D. K. SMITH; R. L. COWAN; N. T. LE; R. M. KESSLER; G. R. SAMANEZ-LARKING; D. H. ZALD. *Vanderbilt Univ., Vanderbilt Univ. Med. Ctr., Vanderbilt Univ. Med. Ctr., Univ. of Alabama Birmingham Sch. of Med., Duke Univ.*
- 4:00 UU10 **072.16** VTA-DH circuits mediate morphine addiction and chronic pain. Y. HAN; M. V. CENTENO; A. L. GUEDEA; C. GAO; A. V. APKARIAN; J. M. RADULOVIC*. *Northwestern Univ., Northwestern Univ. Feinberg Sch. of Med., Xuzhou Med. Univ.*
- 1:00 UU11 **072.17** Preparatory activity of nigral dopamine neurons supports flexible choice behavior. K. TAO*; S. FUJISAWA. *RIKEN Ctr. for Brain Sci.*
- 2:00 UU12 **072.18** ● Dopamine and costly working memory contributions to stimulus-response learning. A. WESTBROOK*; R. VAN DEN BOSCH; B. LAMBREGTS; L. HOFMANS; D. PAPADOPETRAKI; J. MÄÄTTÄ; A. G. COLLINS; M. J. FRANK; R. COOLS. *Brown Univ., Radboud Univ., Radboud Univ., Univ. of California Berkeley, Brown Inst. for Brain Sci.*
- 3:00 UU13 **072.19** Dopamine D1 and D2 receptor mediation of neutral-valence learning. S. ROUGHLEY; S. KILLCROSS*. *Univ. of New South Wales, Univ. of New South Wales*.
- 4:00 UU14 **072.20** Effect of inactivating nigrostriatal projections on sensitivity to outcome devaluation during sign-tracking behavior. K. A. AMAYA*; W. S. TACKETT; S. F. OHAZURIKE; K. S. SMITH. *Dartmouth Col.*
- 1:00 UU15 **072.21** Dorsal, but not ventral striatal dopamine mediates the effect of gambling disorder on compulsivity during reversal learning. R. J. VAN HOLST*; G. SESCOUSSE; T. VAN TIMMEREN; H. E. DEN OUDEN; M. JANSSEN; A. S. BERRY; W. J. JAGUST; R. COOLS. *Academic Med. Ctr., Radboud Univ., INSERM-CNRS, Radboud Univ., Radboudumc, E O Lawrence Berkeley Natl. Lab., Univ. of California, Radboudumc*.
- 2:00 UU16 **072.22** Chemogenetic inactivation of amygdala affects reinforcement learning in rodents. G. M. ZABALA-ALEMAN*; Y. CHUDASAMA; B. AVERBECK. *Natl. Inst. of Mental Hlth., Univ. Central del Caribe*.
- 3:00 UU17 **072.23** Predictive reward signals of dopamine neurons are controlled by attentional states. W. PAN*; J. T. DUDMAN. *HHMI/Janelia Res. Campus*.
- 4:00 UU18 **072.24** ▲ Adolescent high fructose corn syrup exposure disrupts learning and motivational processes into adulthood. S. M. KRUGEL; J. BRITTEN; D. L. RAMOS, Jr.; N. C. DYANICK; K. D. LASHER; R. P. DALY; T. BERNICKER; S. E. YOHN; D. F. WERNER; J. L. SANTERRE-ANDERSON*. *Kings Col., Vanderbilt Univ., Binghamton Univ.*
- 1:00 UU19 **072.25** ▲ Effect of a high fat diet on dopaminergic D2 antagonist-induced hypokinesia and agonist-induced stereotypies in rats. S. VILLARREAL*; N. RAMIREZ; A. HUSSAIN; C. GREENE; I. C. SUMAYA. *CSU Bakersfield*.

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2:00	UU20 072.26 Your offspring is what you eat: The impact of maternal CAF diet on the epigenetic control of dopaminergic-related genes during perinatal period. M. F. ROSSETTI*; R. SCHUMACHER; C. STOKER; G. LAZZARINO; M. ANDREOLI; J. VARAYOUD; J. RAMOS. <i>Inst. of Hlth. and Envrn. of Litoral– Fa, Dept. of Clin. Biochemistry, Fac. of Biochem. and Biol. Sciences, Natl. Univ. of the Litoral, Lab. of Exptl. Neurodevelopment, Inst. of Develop. and Paediatric Res. (IDIP), La Plata Children's Hosp., Dept. of Physiology, Fac. of Biochem. and Biol. Sciences, Natl. Univ. of the Litoral.</i>	1:00	VV7 073.05 Thiamine tetrahydrofurfuryl disulfide promotes voluntary locomotor activity through dopaminergic activation in the medial prefrontal cortex. M. SAIKI*; M. SOYA; T. MATSUI; T. NARUTO; T. KITAYOSHI; H. SOYA. <i>Univ. of Tsukuba, Fac. of Hlth. and Sports Science, Univ. O, Univ. of Tsukuba, Takeda Consumer Healthcare Co. Limited, Univ. Tsukuba.</i>
3:00	UU21 072.27 How sweet it is: Dissociating the 'wanting' and 'liking' of chocolate in humans. A. MASTROIANNI*; R. EIKELBOOM. <i>Wilfrid Laurier Univ.</i>	2:00	VV8 073.06 Mediation of effort-based choice and miniaturized fluorescence microscopy calcium imaging in rat anterior cingulate cortex. E. E. HART*; G. BLAIR; H. T. BLAIR, IV; A. IZQUIERDO. <i>Univ. of California Los Angeles, UCLA, UCLA, UCLA.</i>
4:00	UU22 072.28 Dopamine synthesis capacity as a predictor of individual differences in behavioral and neural responses to methylphenidate. R. VAN DEN BOSCH*; B. I. H. M. LAMBREGTS; L. HOFMANS; D. PAPADOPETRAKI; J. I. M. MÄÄTTÄ; A. WESTBROOK; R. COOLS. <i>Radboud Univ., Radboud Univ. Med. Ctr., Brown Univ.</i>	3:00	VV9 073.07 Dissociable control of u-opioid-mediated hyperphagia vs. food impulsivity across medial prefrontal, orbitofrontal, and agranular insular cortices in rat. J. L. GIACOMINI*; E. K. GEIDUSCHEK; R. A. SELLECK; K. SADEGHIAN; B. A. BALDO. <i>Univ. of Wisconsin Madison, Univ. of Wisconsin Madison, Rosalind Franklin Univ., Univ. of Wisconsin Madison.</i>
1:00	VV1 072.29 Ketamine-induced locomotor activity in preweanling and adolescent male and female rats: Role of the dopamine system. A. E. MORAN*; M. G. APODACA; T. J. BAUM; V. GOMEZ; C. A. CRAWFORD; S. A. MCDougall. <i>California State Univ.</i>	4:00	VV10 073.08 ▲ Cortical parietal thickness and hippocampal volume are bidirectionally associated with executive function and impulsive externalizing behavior. K. MATTINGLY*; L. FAUL; B. DEPUE. <i>Univ. of Louisville, Univ. of Louisville.</i>
2:00	VV2 072.30 Ketamine differentially affects the locomotor activity of male and female rats across ontogeny: Role of ketamine pharmacokinetics. V. GOMEZ*; G. I. RAMIREZ; G. I. PARK; B. C. ADAME; C. A. CRAWFORD; S. A. MCDougall. <i>California State Univ.</i>	1:00	VV11 073.09 Mapping consumer cognition and emotions: A machine learning approach. D. REW; M. MINOR; G. A. DE ERAUSQUIN*. <i>UTRGV Robert Vackar Col. of Business and Entrepreneurship, UTRGV Sch. of Med.</i>
3:00		2:00	VV12 073.10 Punishment sensitivity and implicit motivational behavior in people with food craving. L. BIZARRO*; R. C. DECKER; G. J. WEYDMANN. <i>Univ. Federal Do Rio Grande Do Sul, Univ. Federal Do Rio Grande Do Sul, Univ. Federal do Rio Grande do Sul.</i>
4:00		3:00	VV13 073.11 ● Monetary incentives shape behavioral and neural precision of spatial working memory. Y. CHO*; C. H. SCHLEIFER; F. MOUJAES; M. STARC; L. JI; N. SANTAMAURO; B. ADKINSON; A. KOLOBARIC; M. FLYNN; J. KRISTAL; J. D. MURRAY; G. REPOVS; A. ANTICEVIC. <i>Yale Univ., Univ. of Ljubljana.</i>

POSTER**073. Motivation: Cortical Neurocircuitry****Theme G: Motivation and Emotion**

Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H

1:00	VV3 073.01 Increased extracellular free-water in the frontopolar cortex predicts cognitive fatigability in older adults. S. E. BURKE*; I. B. H. SAMUEL; Q. ZHAO; S. SIEGEL; J. CAGLE; B. KLUGER; M. DING. <i>Univ. of Florida, Univ. of Colorado Sch. of Med.</i>
2:00	VV4 073.02 Functional brain networks linking motivated anticipation to subsequent memory. M. T. VU*; J. K. STANEK; L. LEREBOURS; T. EGNER; R. ADCOCK. <i>Duke Univ., Duke Univ., Univ. of North Carolina at Chapel Hill, Duke Univ., Duke Univ.</i>
3:00	VV5 073.03 Investigation of the role of the ventromedial prefrontal cortex local morphology in its functional organization. A. LOPEZ-PERSEM*; C. AMIEZ; J. SALLET. <i>Univ. of Oxford, INSERM U1208.</i>
4:00	VV6 073.04 Reward and aversion representation in the primary somatosensory, primary motor, and dorsal premotor cortices of non-human primates completing a motor task. J. P. HESSBURG*; A. TARIGOPPULA; D. B. MCNIEL; J. T. FRANCIS. <i>SUNY Downstate Med. Ctr., Univ. of Houston.</i>

POSTER**074. Emotion: Human Emotion I****Theme G: Motivation and Emotion**

Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H

1:00	VV14 074.01 Anterior cingulate glutamate and amygdalar activation in response to emotional stimuli, impact of personality traits. P. R. BURGHARDT*; A. S. NEFF; K. NOWAK; J. A. STANLEY. <i>Wayne State Univ., Wayne State Univ., Wayne State Univ. Sch. Med.</i>
2:00	VV15 074.02 Trait conscientiousness correlates with the abundance of major bacterial phyla in the human gut. A. NEFF*; K. NOWAK; K. CHAPPELLE; P. BURGHARDT. <i>Wayne State Univ., Wayne State Univ.</i>
3:00	VV16 074.03 An automated emotion extractor of scenes that mimics the canonical human viewer. B. R. SHETH*; S. AMBATI. <i>Univ. of Houston, Univ. Houston.</i>

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▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

4:00	VV17 074.04 Attributing success to oneself versus another: Dissociating neural correlates of pride and gratitude. K. DING*; D. ANGGRAINI; K. WUNDERLICH. <i>Ludwig Maximilian Univ. of Munich, Klinikum Der Uni Muenchen.</i>	4:00	WW7 074.16 Odor induced autobiographical memory associated with slow breathing and medial prefrontal activity: fMRI study. Y. MASAOKA*; K. WATANABE; M. KAWAMURA; M. YOSHIDA; N. KOIWA; A. YOSHIKAWA; S. KUBOTA; M. IDA; K. ONO; M. IZUMIZAKI. <i>Showa Univ. Sch. of Med., Showa Univ. Sch. of Med., Showa Univ. Sch. of Med., Jikei Med. Univ., Univ. of Human Arts and Sci., Showa University, Sch. of Med., Stroke Center, Ebara Tokyo Hosp.</i>
1:00	VV18 074.05 Dynamical integration and segregation of emotion-related brain circuitry linking to physiological arousal in humans. F. TAO*; L. WU; Z. CUI; L. HAO; Y. ZHU; S. QIN. <i>Beijing Normal Univ., Beijing Normal Univ., Univ. of Pennsylvania.</i>	1:00	WW8 074.17 Chronic mild traumatic brain injury, napping, and emotional reactivity. L. KURDZIEL*; E. MAIER; G. JEWULA; A. CORMIER; R. SPINNEY. <i>Merrimack Col.</i>
2:00	VV19 074.06 Adversity-gastrointestinal-anxiety associations across human development. B. L. CALLAGHAN*; A. FIELDS; D. G. GEE; L. J. GABARD-DURNAM; C. CALDERA; K. HUMPHREYS; B. GOFF; J. S. FLANNERY; E. H. TELZER; M. SHAPIRO; N. L. TOTTENHAM. <i>Columbia Univ., Columbia Univ., Yale Univ., Boston Childrens' Hosp., Univ. of California Los Angeles, Vanderbilt Univ., UCLA, Florida Intl. Univ., Univ. of Illinois, Columbia Univ.</i>	2:00	WW9 074.18 The effects of high-dosage combination mental and physical training intervention on indices of stress and its emotion regulation, cardiorespiratory, and neurobiological mechanisms: A pilot study. G. A. PROCHILO*; P. MOLENBERGHS. <i>University of Melbourne, Univ. of Melbourne.</i>
3:00	VV20 074.07 • Perceiving emotional sounds(MAARI): Individual differences, prior learning and context. M. D. MULLANE*; T. LINDNER; E. J. LEONARDIS; A. A. CHIBA. <i>UCSD, UCSD, UC San Diego, UCSD.</i>	3:00	WW10 074.19 Exploring the facial feedback hypothesis in Moebius syndrome. J. JORDAN*; S. LOKEY; C. I. BAKER; L. G. UNGERLEIDER; S. JAPEE. <i>Natl. Inst. of Hlth., Univ. of Illinois at Chicago, NIH, Natl. Inst. of Mental Hlth., NIH.</i>
4:00	VV21 074.08 ▲ Differences in the evaluation of affective images between young and middle adults in the presence of affective disorders. E. ACOSTA*; X. CORTIJO-PALACIOS; B. BERNAL-MORALES; A. ESCALANTE-VARELA; A. SANCHEZ-HIDALGO; M. CADENA-BARAJAS; T. CIBRIAN-LLANDERAL. <i>Univ. Veracruzana, Inst. de Neuroetologia-Universidad Veracruzana, Inst. Veracruzano de Salud Mental Rafael Velasco Fernandez, Facultad de Estadistica e Informatica-Universidad Veracruzana, CONACYT-Instituto de Neuroetologia-Universidad Veracruzana.</i>	4:00	WW11 074.20 Predictability and uncertainty in the pleasure of music. B. P. GOLD*; M. T. PEARCE; E. MAS-HERRERO; A. DAGHER; R. ZATORRE. <i>Montreal Neurolog. Inst., Intl. Lab. for Brain, Music and Sound Res., Ctr. for Interdisciplinary Res. in Music Media and Technol., Queen Mary Univ. of London, Intl. Lab. for Brain, Music and Sound Research, Montreal, QC, Canada.</i>
1:00	VV22 074.09 ▲ Differences in late positive potential in emotional information processing among individuals with alexithymia. D. A. BANUELOS*; K. JOHNS; S. KANG. <i>California State Univ. Northridge.</i>	1:00	WW12 074.21 Inter-personal functional connectivity of central and autonomic nervous systems reflects emotional convergence during watching movies. H. KIM*; D. YEO; P. SEO; S. HER; S. CHOI; K. KIM. <i>Yonsei Univ.</i>
2:00	WW1 074.10 Error monitoring in anxious individuals: Relationship between electrocortical responses and neuroanatomical variability. J. A. ANDRZEJEWSKI*; L. FANG; R. J. SYLVIAN; J. M. CARLSON. <i>Northern Michigan Univ.</i>		
3:00	WW2 074.11 Greater intensity of subjective emotional experience with increasing magnitude of electrical stimulation in human cingulate, insular, and orbitofrontal cortices. J. YIH*; D. E. BEAM; K. C. R. FOX; J. PARVIZI. <i>Stanford Univ.</i>		
4:00	WW3 074.12 Neural correlates of facial emotion perception with alexithymia and autistic traits. H. XU*; K. SOU; E. BURNS. <i>Nanyang Technological Univ.</i>		
1:00	WW4 074.13 Exploring the impact of emotional labor on social attention and brain connectivity patterns. J. AHN*; S. JUN; J. LEE; S. MIN; S. PARK; S. LEE; S. HAN. <i>Yonsei Univ., Yonsei Univ., Severance Hospital, Yonsei Univ. Col. of Med.</i>	1:00	WW13 075.01 Encoding of fear-reward-safety cue discrimination in the infralimbic cortex. K. H. NG*; S. SANGHA. <i>Purdue Univ., Purdue Inst. for Integrative Neurosci.</i>
2:00	WW5 074.14 Oxytocin modulation of amygdala connectivity varies by age and facial emotion. M. HORTA*; M. ZIAEI; R. N. SPRENG; H. FISCHER; D. FEIFEL; N. C. EBNER. <i>Univ. of Florida, Univ. of Queensland, McGill Univ., Stockholm Univ., UCSD, Kadima Neuropsychiatry Inst., Univ. of Florida.</i>	2:00	WW14 075.02 The orbitofrontal cortex projects to the paravox nucleus of the ventrolateral hypothalamus. M. R. CELIO*; A. BABALIAN; S. EICHENBERGER; A. BILELLA; F. GIRARD; V. SZABOLCSI; D. ROCCARO; G. ALVAREZ-BOLADO; C. XU. <i>Univ. of Fribourg, Inst. of Anat. and Cell Biol., Friedrich Miescher Inst.</i>
3:00	WW6 074.15 Neurite density imaging in amygdala nuclei reveals interindividual differences in neuroticism. C. T. SCHLÜTER*; C. FRAENZ; P. FRIEDRICH; O. GUNTURKUN; E. GENC. <i>Ruhr-Universität Bochum.</i>	3:00	XX1 075.03 Functional and behavioural investigation of amygdala to hippocampus connectivity. R. ALSUBAIE*; A. F. MACASKILL; E. MENICHINI. <i>Univ. Col. London, Univ. Col. London.</i>
4:00		4:00	XX2 075.04 Towards a role of inhibition in amygdalo-hippocampal emotion-related circuitry. M. LIMA*. <i>UFRN.</i>
1:00		1:00	XX3 075.05 Synchronized type-2 theta oscillations in the reciprocal cingulo-amygdala circuits drive observational fear in mice. S. KIM*; M. KIM; J. BAEK; G. GANGADHARAN; C. LATCHOUMANE; T. CHO; J. BYUN; D. KIM; H. SHIN. <i>Inst. for Basic Sci. (IBS), Soonchunhyang University, Republic of Korea, Inst. for Basic Sci. (IBS).</i>

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2:00	XX4	075.06	Parallel ventral hippocampal projections to PFC and NAc. C. SANCHEZ BELLOT*; A. F. MACASKILL. <i>Univ. Col. London.</i>	4:00	YY4	075.20	Cortical-brainstem projections gate compulsive alcohol drinking. C. SICILIANO*; X. CHEN; H. NOAMANY; J. WANG; Y. LEOW; E. Y. KIMCHI; C. M. VANDER WEELE; K. M. TYE. <i>MIT, Massachusetts Gen. Hosp., MIT.</i>
3:00	XX5	075.07	● Hippocampal inputs to the nucleus accumbens promote consummatory pleasure. A. YANG*; J. A. MENDOZA; C. LAFFERTY; J. P. BRITT. <i>McGill Univ.</i>	1:00	YY5	075.21	Homeostatic signals for social and appetitive stimuli interact in DRN dopamine neurons. G. A. MATTHEWS*; E. Y. KIMCHI; E. PERONI; E. M. BREWER; G. S. PEREIRA; J. WANG; C. A. LEPPLA; C. P. WILDES; R. WICHMANN; K. M. TYE. <i>Picower Inst. For Learning & Memory, MIT, Massachusetts Gen. Hosp., Picower Inst. for Learning & Memory, MIT, UFMG, Picower Inst. for Learning & Memory, MIT, MIT, Picower Inst. for Learning and Memory, MIT.</i>
4:00	XX6	075.08	Neuroligin-2 organizes inhibitory synaptic transmission in the lateral septum to regulate stress-induced neuronal activation and anxiety-related behavior. E. TROYANO-RODRIGUEZ*; E. MARTIN; C. R. WIRSIG-WIECHMANN; M. AHMAD. <i>Univ. of Oklahoma Hlth. Sci. Ctr., Oklahoma Ctr. for Neurosci. (OCNS).</i>	2:00	YY6	075.22	Neurotensin in the basolateral amygdala gate valence-specific plasticity underlying associative learning. J. M. OLSON*; P. NAMBURI; N. HITORA-IMAMURA; A. BEYELER; G. G. CALHOON; S. R. CHOUDHURY; X. SHI; A. C. FELIX-ORTIZ; H. O. KING; M. BORIO; E. M. IZADMEHR; M. SILVESTRE; C. A. SICILIANO; K. M. MCCULLOGH; K. J. RESSLER; F. ZHANG; K. M. TYE. <i>MIT, MIT, Hokkaido Univ., INSERM 1215, Broad Inst., MIT, Emory Univ., McLean Hosp., Harvard Med. Sch.</i>
1:00	XX7	075.09	Transforming sensory cues into aversive emotion by septal-habenular pathway. G. ZHANG*; S. LI; W. ZHONG; Y. XIONG; L. I. ZHANG; H. TAO. <i>Third Military Med. Univ., USC Keck Sch. Med., Southern Med. Univ.</i>	3:00	YY7	075.23	Closed-loop phase-locked electrical stimulation alters low-frequency coherence in a fear regulation circuit. M. LO*; E. BLACKWOOD; A. S. WIDGE. <i>Massachusetts Gen. Hosp.</i>
2:00	XX8	075.10	The role of pituitary adenylate cyclase-activating polypeptide in the lateral habenula. M. R. LEVINSTEIN*; Z. K. LEWIS; J. F. NEUMAIER. <i>Univ. of Washington.</i>	4:00	YY8	075.24	Effects of deep brain stimulation of ventral striatum in an operant set-shifting paradigm in rats. A. E. REIMER*; M. LO; M. F. MURILLO; A. S. WIDGE. <i>Massachusetts Gen. Hosp.</i>
3:00	XX9	075.11	Analysis of RiboTag mRNA in lateral habenula projection neurons. S. G. NAIR*; A. L. LESIAK; A. D. CHISHOLM; M. M. ESTABROOK; P. SILVA; J. F. NEUMAIER. <i>Univ. of Washington, Univ. of Washington.</i>	1:00	YY9	075.25	● In search of biomarkers of obsessive-compulsive disorder: Combined cortical and striatal stimulation for re-regulating circuits of obsessive-compulsive disorder. M. BILGE*; M. J. BOGESS; A. P. ROCKHILL; A. K. GOSAI; E. HAHN; C. CUSIN; T. DECKERSBACH; W. ZIV; D. D. DOUGHERTY; A. S. WIDGE. <i>Mass Gen. Hospital/ Harvard Med. Sch., A. A. Martinos Ctr. for Biomed. Imaging, Mass Gen. Hosp., MIT, Picower Inst. for Learning & Memory.</i>
4:00	XX10	075.12	DREADD mediated inhibition of the Lateral Habenula to Dorsal Raphe output pathway has antidepressant effects in rats. K. COFFEY*; R. MARX; E. VO; J. F. NEUMAIER. <i>Univ. of Washington, Univ. of Washington, Univ. Washington.</i>	2:00	YY10	075.26	Sex differences in expression and distribution of small conductance calcium-activated potassium channels in the rat basolateral amygdala. B. L. AVONTS*; J. E. VANTREASE; J. H. URBAN; J. A. ROSENKRANZ. <i>Rosalind Franklin Univ. of Med. and Scien, Rosalind Franklin Univ. of Med. and Scien.</i>
1:00	XX11	075.13	Projections from the posterior insular cortex mediate top-down control of motivated behaviors. D. A. GEHRLACH*; N. DOLENSEK; A. S. KLEIN; M. JUNGHAENEL; A. MATTHYS; N. REDDY VAKA; T. GAITANOS; R. ROY CHOWDHURY; K. CONZELMANN; N. GOGOLLA. <i>Max Planck Inst. of Neurobio., Ludwig-Maximilians-University Munich.</i>	3:00	YY11	075.27	Hypothalamic circuits for predation and evasion. J. ZENG*; Y. LI; J. ZHANG; C. YUE; W. ZHONG; Z. LIU; Q. FENG; M. LUO. <i>Natl. Inst. of Biol. Sciences, Beijing.</i>
2:00	XX12	075.14	Dissecting the behavioral role of dynorphin-expressing central amygdala neurons. M. C. WALICKI; M. R. NORRIS; G. B. GEREAU; J. G. MCCALL*. <i>Washington Univ. in St. Louis, Purdue Univ.</i>	4:00	YY12	075.28	A medial amygdala circuit predicts aggressive behavior. J. NORDMAN*; Z. LI. <i>NIH, NIMH.</i>
3:00	XX13	075.15	Mesointerpeduncular circuitry and dopaminergic control of affective state. S. R. DEGROOT*; R. ZHAO-SHEA; P. D. GARDNER; A. R. TAPPER. <i>Univ. of Massachusetts Med. Sch.</i>	1:00	YY13	075.29	Identification of the downstream partners of aggression promoting, peptidergic neurons. M. P. WOHL*; K. ASAHIWA. <i>UCSD Dept. of Neurosciences, Salk Inst.</i>
4:00	XX14	075.16	Cortical microcircuits underlying ticklishness in rat somatosensory cortex. E. MAIER*; S. ISHIYAMA; M. BRECHT. <i>BCCN Berlin / Humboldt-University.</i>				
1:00	YY1	075.17	Expression pattern of neural activity markers induced by therapeutic effects of extinction after stress. J. LIU*; D. A. MORILAK. <i>Univ. of Texas Hlth. Sci. Ctr. at San Antonio, Univ. of Texas Hlth. Sci. Ctr. at San Antonio.</i>				
2:00	YY2	075.18	▲ Optogenetic activation of medial prefrontal cortex projections to the dorsal periaqueductal gray decreases reward consumption. H. NOAMANY*; C. SICILIANO; X. CHEN; J. WANG; Y. LEOW; E. Y. KIMCHI; C. M. VANDER WEELE; K. M. TYE. <i>MIT, Massachusetts Gen. Hosp., MIT.</i>				
3:00	YY3	075.19	Thalamic filtering of task-relevant information to amygdala across changing contingencies. C. A. LEPPLA*; P. NAMBURI; G. GLOBER; C. CHANG; Y. FENG; M. JAY; K. M. TYE. <i>MIT, MIT.</i>				

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POSTER

076. Emotion: Neurocircuitry II

Theme G: Motivation and Emotion

- Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H
- 1:00 YY14 **076.01** Inhibitory postsynaptic targets of pathway from anterior to subgenual cingulate. M. P. JOYCE*; H. BARBAS. *Boston Univ.*
- 2:00 YY15 **076.02** Over-activation of primate subgenual anterior cingulate cortex induces anxiety, anhedonia and reductions in vagal tone. L. ALEXANDER*; P. L. R. GASKIN; S. J. SAWIAK; T. D. FRYER; Y. T. HONG; G. J. COCKCROFT; H. F. CLARKE; A. C. ROBERTS. *Univ. of Cambridge, Univ. of Cambridge.*
- 3:00 YY16 **076.03** Complementary pathways from A25 and hippocampus to the amygdala in primates. J. WANG*; M. P. JOYCE; H. BARBAS. *Boston Univ., Boston Univ.*
- 4:00 YY17 **076.04** Relay of affective stimuli from amygdala to thalamus parallels sensory pathways. C. TIMBIE*; M. GARCIA-CABEZAS; B. ZIKOPOULOS; H. BARBAS. *Univ. of California San Francisco, Boston Univ., Univ. of California San Francisco, Boston Univ., Boston Univ.*
- 1:00 YY18 **076.05** Social valuation requires interaction of prelimbic cortex and amygdala in rhesus macaques. M. PUJARA*; N. K. CIESINSKI; S. E. V. RHODES; E. A. MURRAY. *NIH, NIH.*
- 2:00 YY19 **076.06** Multimodal characterization of the functional and anatomical connectivity of the anterior insular cortex in the macaque monkey. J. SMUDA*; C. KLEIN; Y. MURAYAMA; N. LOGOTHETIS; H. EVRARD. *Max Planck Inst. For Biol. Cybernetics, Werner Reichardt Ctr. for Integrative Neurosci., Intl. Max Planck Res. Sch., Univ. of Manchester, Max Planck Inst. for Biol. Cybernetics.*
- 3:00 YY20 **076.07** fMRI and electrophysiological mapping of sensory afferent activity in the macaque insular cortex. R. E. HARTIG*; A. E. VEDOVELI; N. LOGOTHETIS; H. EVRARD. *Werner Reichardt Ctr. for Integrative Neurosci., Max Planck Inst. for Biol. Cybernetics, Intl. Max Planck Res. Sch., Univ. of Manchester.*
- 4:00 YY21 **076.08** Multiple areal distribution of the von Economo and fork neurons in the human anterior insular cortex. F. M. HORN*; H. C. EVRARD. *Werner Reichardt Ctr. for Integrative Neurosci., Max Planck Inst. for Biol. Cybernetics, Intl. Max Planck Res. Sch.*
- 1:00 YY22 **076.09** Stimulation induced facilitation and depression of neural activity in human and non-human primate cortex. A. C. PAULK*; I. BASU; M. M. ROBERTSON; B. CROCKER; N. PELED; K. FARNES; H. DENG; M. THOMBS; C. MARTINEZ-RUBIO; J. CHENG; E. J. MCDONALD; D. DOUGHERTY; A. S. WIDGE; E. N. ESKANDAR; S. S. CASH. *Massachusetts Gen. Hosp., MIT, MGH/HST Martinos Ctr. For Biomed. Imaging, Massachusetts Gen. Hosp., Massachusetts Gen. Hosp., Mass Genl Hosp.*
- 2:00 YY23 **076.10** Decoding of cognitive flexibility state using cingulate and pre-frontal cortical local field potentials during the performance of a multi-source interference task. I. BASU*; A. YOUSEFI; A. C. PAULK; R. ZELMANN; K. FARNES; B. CROCKER; G. BELOK; S. S. CASH; U. EDEN; D. D. DOUGHERTY; A. S. WIDGE. *MGH, Massachusetts Gen. Hosp., Massachusetts Gen. Hosp. / Harvard Med. S. MIT, Mass Genl Hosp, Boston Univ., Massachusetts Gen. Hosp.*

- 3:00 YY24 **076.11** Stress-sensitive cortisol awakening response regulates emotional learning via altering amygdala-hippocampal prefrontal circuits. Y. TIAN*; W. LIN; B. XIONG; S. QIN. *Beijing Normal Univ., Beijing Normal Univ.*
- 1:00 DP11/ZZ1 **076.12** (Dynamic Poster) Neuroimaging multi-modality visualization and analysis tool. N. PELED*; O. FELSENSTEIN; A. C. PAULK; A. S. WIDGE; S. S. CASH; D. DOUGHERTY; E. N. ESKANDAR; M. HAMALAINEN; S. M. STUFFLEBEAM. *MGH/HST Martinos Ctr. For Biomed. Imaging, Bar-Ilan university, Massachusetts Gen. Hosp., Massachusetts Gen. Hosp., Mass Genl Hosp, Harvard Med. Sch., MGH NMR Ctr.*
- 1:00 ZZ2 **076.13** Closed-loop intracranial stimulation system for humans. R. ZELMANN*; A. C. PAULK; I. BASU; B. CROCKER; A. YOUSEFI; A. A. SARMA; W. TRUCCOLO; A. S. WIDGE; S. S. CASH. *Massachusetts Gen. Hosp., MIT, Brown Univ.*
- 2:00 ZZ3 **076.14** ● Closed-loop deep brain stimulation for chronic pain. P. SHIRVALKAR*; M. DESAI; H. E. DAWES; E. F. CHANG. *Univ. of California San Francisco, Univ. of California, San Francisco, UCSF, UCSF.*
- 3:00 ZZ4 **076.15** Intrinsic connectivity network activation during interoceptive and exteroceptive negative emotion processing - A comparative fMRI study. B. JARRAHI*, S. MACKEY. *Stanford Univ.*
- 4:00 ZZ5 **076.16** Gray matter correlates of emotional intelligence in incarcerated adult offenders. D. M. ULRICH*; P. K. NYALAKANTI; K. A. KIEHL. *Univ. of New Mexico, Mind Res. Network, Mind Res. Network, Univ. of New Mexico.*
- 1:00 ZZ6 **076.17** Inter-regional phase-amplitude coupling in cognitive reappraisal-based emotion regulation. T. B. POTTER*; T. NGUYEN; Y. ZHANG. *Univ. of Houston.*
- 2:00 ZZ7 **076.18** Intrinsic functional connectivity in emotion regulation network is altered in emotional laborers. S. MIN*; S. JUN; J. AHN; J. LEE; S. PARK; S. LEE; S. HAN. *Yonsei Univ., Yonsei Univ. Col. of Med.*
- 3:00 ZZ8 **076.19** Anxiety in irritable bowel syndrome is associated with increased inhibitory neurotransmitter concentrations and reduced functional connectivity of medial prefrontal cortex. A. ICENHOUR*, S. TAPPER; O. BEDNARSKA; S. T. WITT; A. TISELL; M. ENGSTRÖM; P. LUNDBERG; S. ELSENBURCH; S. WALTER. *Univ. Hosp. Essen, Univ. Hosp. Linköping, Univ. Hosp. Linköping, Univ. Hosp. Linköping, Univ. Hosp. Linköping, Univ. Hosp. Linköping.*

POSTER

077. Emotion: Fear, Anxiety, and Pain I

Theme G: Motivation and Emotion

- Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H
- 1:00 ZZ9 **077.01** High resolution resting state functional connectivity in anxiety. C. N. WEIS*; A. A. HUGGINS; K. P. BENNETT; E. A. PARISI; C. L. LARSON. *Univ. of Wisconsin-Milwaukee.*
- 2:00 ZZ10 **077.02** ● Perceived stress and behavioral pattern separation in law enforcement officers. D. W. GRUPE*; R. J. DAVIDSON. *Univ. of Wisconsin-Madison.*

* Indicates a real or perceived conflict of interest, see page 74 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

3:00	ZZ11 077.03 What the eyes can't see the heart does not grieve over: A study of the relationship between psychological distance and the opinion on decreasing the age of criminal responsibility in Brazil. C. P. BAHIA*; I. F. R. CALDAS; K. FIGUEIREDO; H. MELO; I. PAIM; P. BATAGLIA; R. MARTINS; A. P. JÚNIOR. <i>Federal Univ. of Para, Federal Univ. of Para, Federal Univ. of Para, UNESP.</i>	2:00	ZZ22 077.14 Anxiogenesis induced by nitric oxide in the right medial prefrontal cortex depends on the activation of NMDA and CRF1 receptors located in the BNST of mice. R. L. NUNES-DE-SOUZA*; M. P. FARIA. <i>Univ. Estadual Paulista, UNESP, Univ. Estadual Paulista - UNESP.</i>
4:00	ZZ12 077.04 The roles of estradiol and progesterone in mediating fear-potentiated startle during the acquisition and extinction of differential fear conditioning: Comparing naturally cycling women, women using hormonal contraceptives, and men. E. M. GLOVER*; O. LAUZON; J. EDMOND; B. SARRECCIA; R. ALFRED; O. TYLER; S. PEARCEY; V. WAGNER. <i>Kennesaw State Univ., Kennesaw State Univ.</i>	3:00	ZZ23 077.15 The role of the left and right medial prefrontal cortex in the modulation of ethanol consumption induced by social defeat stress in mice. L. CANTO DE SOUZA*; R. L. NUNES-DE-SOUZA; C. DA SILVA PLANETA. <i>São Paulo State Univ. (UNESP), Joint Grad. Program in Physiological Sci. UFSCar/UNESP.</i>
1:00	ZZ13 077.05 Functional connectivity influences stress-induced changes in autonomic arousal. H. E. DARK*; N. G. HARNETT; A. M. GOODMAN; S. MRUG; M. A. SCHUSTER; M. N. ELLIOT; S. TORTOLERO; D. C. KNIGHT. <i>Univ. of Alabama Birmingham, Univ. of Alabama at Birmingham, Boston Childrens Hosp., Rand Corp., The Univ. of Texas Sch. of Publ. Hlth., Univ. of Alabama-Birmingham.</i>	4:00	ZZ24 077.16 The breakdown of free fatty acids-GPR40/FFAR1 signaling in the brain induce development of chronic pain after social defeat stress in mice. F. AIZAWA*; I. YAO; S. SATO; F. YAMAZAKI; T. YAMASHITA; K. NAKAMOTO; A. HIRASAWA; T. KURIHARA; F. KASUYA; A. MIYATA; M. SETOU; S. TOKUYAMA. <i>Kobegakuin Univ., Hamamatsu Univ. Sch. of Med., Hamamatsu Univ. Sch. of Med., Kobegakuin Univ., Grad. Sch. of Pharmaceut. Sciences, Kyoto Univ., Grad. Sch. of Med. and Dent. Sciences, Kagoshima Univ.</i>
2:00	ZZ14 077.06 Computational mechanisms of defensive startling in humans. D. R. BACH*; T. JOVANOVIC. <i>Univ. of Zurich, Emory Univ.</i>	1:00	ZZ25 077.17 Context aversion induced by social defeat in mice. J. M. PENAGOS*; A. C. CIPRIANO; N. SANTOS-COSTA; J. L. RICO; R. L. NUNES-DE-SOUZA. <i>Unesp - Univ. Estadual Paulista, Joint Grad. Program in Physiological Sci. UFSCar/UNESP, São Paulo State Univ. (Unesp), Sch. of Phar, Univ. Fndn. Konrad Lorenz, Univ. Estadual Paulista, UNESP.</i>
3:00	ZZ15 077.07 Pavlovian fear conditioning in a naturalistic environment. P. R. ZAMBETTI*; J. J. KIM. <i>Univ. of Washington, Univ. of Washington.</i>	2:00	ZZ26 077.18 Heightened emotional contagion of fear learning in the hAPP-J20 mouse model of Alzheimer's disease. T. M. GILL*; P. E. SANCHEZ; J. SIMMS; T. GUO; K. HO; V. STURM; J. YOKOYAMA; B. MILLER; L. MUCKE. <i>Gladstone Inst. of Neurolog. Dis., Denaili Therapeut., Univ. of California, San Francisco, Univ. of California, San Francisco.</i>
4:00	ZZ16 077.08 The effectiveness of looming stimuli to elicit defensive behavior in rats engaged in a risky foraging scenario. B. P. SCHUESSLER*; P. R. ZAMBETTI; J. J. KIM. <i>Univ. of Washington, Seattle, Univ. of Washington.</i>	3:00	AAA1 077.19 Parsing the neural circuits for visually-evoked emotional contagion. H. JUNG*; A. D. HUBERMAN. <i>Stanford Univ. of Sch. of Med., Stanford Univ. Sch. of Med.</i>
1:00	ZZ17 077.09 Anxiety-like behavior in adolescent mice is enhanced by selective knockdown of GAD67 in neuropeptide Y interneurons. M. A. CORTES*; K. M. CORDER; A. F. BARTLEY; S. LEAR; F. LUBIN; L. E. DOBRUNZ. <i>Univ. of Alabama at Birmingham.</i>	4:00	AAA2 077.20 Nrnx3-dependent somatostatin-expressing neurons in the ACC control the degree of socially transmitted fear. A. KIM*; S. KEUM; J. SHIN; J. KIM; J. PARK; H. SHIN. <i>Inst. for Basic Sci.</i>
2:00	ZZ18 077.10 Cell type specific overexpression of neuropeptide Y causes changes in receptor function. K. M. CORDER; Q. LI; M. A. CORTES; L. E. DOBRUNZ*. <i>Univ. of Alabama at Birmingham.</i>	1:00	AAA3 077.21 Oxytocin regulation of social buffering and social contagion of fear in zebrafish. I. D. AKINRINADE*; G. LEVKOWITZ; R. F. OLIVEIRA. <i>Inst. Gulbenkian De Ciencia, Weizmann Inst. of science, ISPA - Inst. Universitário, Champalimaud Neurosci. Program.</i>
3:00	ZZ19 077.11 Social modulation of pain: The role of serotonergic neurotransmission within amygdaloid complex on hypernociception induced by living with a conspecific in neuropathic pain in mice. A. CANTO-DE-SOUZA*; L. R. R. TAVARES; D. P. FERRARI; D. BAPTISTA-DE-SOUZA. <i>Psychobiology Group, Dept of Psychology, UFSCar, Grad. Program in Psychology/UFSCar, Joint Grad. Program in Physiological Sci. UFSCar/UNESP.</i>	2:00	AAA4 077.22 Empathy for pain: Heterogeneity activation of anterior cingulate cortex, insula and amygdaloid complex in mice living with a conspecific in chronic pain. D. B. SOUZA*; R. L. NUNES-DE-SOUZA; A. CANTO-DE-SOUZA. <i>Univ. Federal De São Carlos, Univ. Estadual Paulista, UNESP, Psychobiology Group, Dept of Psychology, UFSCar.</i>
4:00	ZZ20 077.12 Susceptibility and resilience to the chronic social stress induce hyper and antinociception, respectively, in mice under inflammatory pain. D. C. MASCARENHAS*; V. F. COSTA; A. CANTO-DE-SOUZA; R. L. NUNES-DE-SOUZA. <i>State Univ. of São Paulo - Sch. of Pharmace, Joint Grad. Program in Physiological Sci. (UFSCar/UNESP), Federal Univ. of São Carlos (UFSCar).</i>	3:00	AAA5 077.23 Enhancement of empathy for other's pain by vicarious reward: A skin conductance response study. M. NAKAJIMA*; S. SHIMADA. <i>Meiji-University, Meiji Univ.</i>
1:00	ZZ21 077.13 N-methyl-D-aspartate (NMDA) receptor blockade in the right medial prefrontal cortex (mPFC) prevents the anxiogenic-like effect induced by left mPFC inhibition in mice. N. SANTOS-COSTA*; R. L. NUNES-DE-SOUZA. <i>Univ. Estadual Paulista, UNESP, Joint Grad. Program in Physiological Sci. (PIPGCF).</i>	4:00	AAA6 077.24 Is empathy for pain unique? A meta-analysis of neuroimaging studies of empathy. I. TIMMERS*; C. A. KRONMAN; A. L. PARK; M. D. FISCHER; L. C. HEATHCOTE; J. M. HERNANDEZ; L. E. SIMONS. <i>Stanford Univ.</i>

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* Indicates abstract's submitting author

- 1:00 AAA7 **077.25** The role of empathy in own pain perception and pain estimation by others. A. YAMAMOTOVA*; P. DURATNA; Z. FELLEROVA; A. MOROZOVA; K. GEIER. *Charles Univ, 3rd Fac Med.*
- 2:00 AAA8 **077.26** The influence of context on the recognition of facial expressions of pain. G. DIRUPO*; V. DI PAOLO; E. G. LETTRY; C. CORRADI-DELL'ACQUA. *Univ. De Génève.*
- 3:00 AAA9 **077.27 ▲** Pain perception in non-suicidal self-injury. H. RHODES; K. SHEFFIELD; C. DE GUZMAN; S. DUNNA; J. A. BOYETTE-DAVIS*. *St. Edward's Univ., St. Edward's Univ.*
- 4:00 AAA10 **077.28** ER_B and GPER in rostral anterior cingulate cortex contribute to pain-related aversion. K. ZANG*; X. XIAO; L. CHEN; Y. TANG; H. CAO; L. ZHANG; Y. ZHANG. *Fudan Univ., Tongji Univ.*
- 1:00 AAA11 **077.29** The interaction between chronic pain and depression on the onset and exacerbation in parallel rodent strains. L. CHEN*; Q. GUO; L. YANG; J. YU; Y. ZHANG. *Institutes of Brain Science, Fudan Univ., Sch. of Basic Medicine, Fudan Univ.*
- 2:00 AAA12 **077.30 ●** An amygdalar neural ensemble encoding the unpleasantness of painful experiences. G. F. CORDER*; B. AHANOU; B. F. GREWE; M. J. SCHNITZER; G. SCHERRER. *Stanford Univ., Stanford Univ., ETH Zurich, Stanford Univ. Dept. of Biol., Stanford Univ.*

POSTER

078. Emotion: Fear, Anxiety, and Pain II

Theme G: Motivation and Emotion

Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H

- 1:00 AAA13 **078.01** Differential regulation of migraine-associated pain and negative affect by central and peripheral delta opioid receptors. I. DRIPPS*; L. MOYE; A. TIPTON; A. PRADHAN. *Univ. of Illinois At Chicago.*
- 2:00 AAA14 **078.02** Effects of the serotonergic agonist meta-chlorophenylpiperazine (mCPP) on OCD-like behaviors in rats. A. R. DE OLIVEIRA*; L. M. TAGUCHI; V. M. KAWAOKU; G. P. BRAGA; A. E. REIMER. *Univ. Federal de Sao Carlos, Inst. de Neurociencias e Comportamento, Massachusetts Gen. Hosp. and Harvard Med. Sch.*
- 3:00 AAA15 **078.03** Environmental enrichment prevents anxiety-like behavior and decrease the expression of neuronal nitric oxide synthase in the hippocampal formation in rats exposed to different types of chronic stress. C. R. LEITE-PANISSI*; M. BORTOLANZA; E. DEL BEL; D. M. IYOMASA. *Ribeirao Preto Dent. Sch. - USP, Univ. of São Paulo, Univ. of São Paulo- Ribeirao Preto Dent. Sch., Faculdade de Filosofia, Ciências e Letras de Ribeirão Preto.*
- 4:00 AAA16 **078.04** Molecular approach of circadian regulation of mouse anxiety-like behavior. K. SHIMIZU*; J. NAKANO; Y. FUKADA. *Dept. Biol. Sciences, The Univ. of Tokyo.*
- 1:00 AAA17 **078.05** The mechanisms to modulate anxiety behavior in female estrous cycle. G. HA*; H. J. KWAK; D. LEE; E. CHEONG. *Yonsei Univ., Yonsei Univ.*
- 2:00 AAA18 **078.06** A comparison of the successive alleys test and three more common measures of anxiety-like behavior in male and female Long Evans rats. A. BALDASSARO*; J. WEINER. *Wake Forest, Wake Forest.*
- 3:00 AAA19 **078.07** Behavioral consequences of disrupted circadian clock function within the mouse striatum. K. SCHÖTTNER*; M. BUTTON; J. GOLDSMITH; P. SOLIS; N. DE ZAVALIA; S. AMIR. *Concordia Univ.*
- 4:00 AAA20 **078.08** Serotonergic modulation of basolateral amygdala neurons mediates anxiety-related behaviors. Y. XIAODAN*; C. SHEN; J. FU; H. LAI; X. LI. *Zhejiang Univ., Dept. of Neurobiology, Inst. of Neuroscience, Zhejiang Univ. Sch. of Med.*
- 1:00 AAA21 **078.09** Arachidonoyl serotonin (aa-5-ht) modulates general fear-like behavior and inhibits mesolimbic dopamine release. T. FREELS*; D. B. LESTER; M. N. COOK. *The Univ. of Memphis.*
- 2:00 AAA22 **078.10** Auditory cortex-driven disinhibition of GABA_AR signaling in amygdala mediates fear renewal. Y. WU*. *Shanghai Jiao Tong Univ. Sch. of Med.*
- 3:00 AAA23 **078.11** Modality-specific innate fear neurons in basolateral amygdala. J. LIU*; L. LIN; D. V. WANG. *Drexel Univ. Col. of Med., East China Normal Univ., Drexel Univ.*
- 4:00 AAA24 **078.12** Contextual fear memory formation promotes PSD-95 phosphorylation and modulates AMPA subunits differentially between adult and juvenile rats. R. ZANCA*; S. SANAY; E. RODRIGUEZ; P. A. SERRANO; H. SHAIR. *Hunter College, CUNY, CUNY Grad. Ctr., New York State Psychiatric Inst.*
- 1:00 AAA25 **078.13** Noradrenergic signaling in the central nucleus of amygdala mediates learning independent behavioral fear expression. S. SOYA*; T. SAKURAI. *Univ. of Tsukuba, Tsukuba university, Tsukuba university.*
- 2:00 AAA26 **078.14** Social fear conditioning in differentially housed adolescent rats exposed to the escapable social interaction test. L. M. DAWUD*; E. C. LOETZ; K. POPPLETON; I. MAMAYAN; B. N. GREENWOOD; S. T. BLAND. *Univ. of Colorado Denver, Univ. of Colorado Denver.*
- 3:00 BBB1 **078.15** Naltrexone administration during extended fear conditioning prevents low pre-incubated fear in the fear incubation model. A. PAJSER*; C. FOSTER; A. WESTON; C. L. PICKENS. *Kansas State Univ.*
- 4:00 BBB2 **078.16 ▲** Optogenetic reactivation of socially-labeled cells modulates fear but has limited effects on conflict anxiety. K. AHUNA; V. GUTZEIT; A. CUNNINGHAM; M. O. WORONIECKA; M. ROONEY; T. SANTOS; C. A. DENNY; Z. R. DONALDSON*. *Univ. of Colorado Boulder, Weill Cornell Grad. Sch. of Med. Sci., Barnard Col., Columbia Univ., Univ. of Colorado, Boulder.*
- 1:00 BBB3 **078.17** Frequency specific tuning of prefrontal cortex to fear-related breathing regulates emotional expression. S. BAGUR*; J. M. LEFORT; M. M. LACROIX; G. DE LAVILLEON; C. HERRY; H. GEOFFROY; K. BENCHENANE. *ESPCI, MOBS Team, Brain Plasticity Unit, UMR CNRS ESPCI, Neurocentre Magendie.*
- 2:00 BBB4 **078.18** Control of anxiety-like behavior and fear learning by serotonergic circuits innervating the interpeduncular nucleus. I. YOU*; L. LIU; A. SACINO; M. UCHIGASHIMA; K. FUTAI; A. R. TAPPER. *Univ. of Massachusetts Med. Sch., MIT, Univ. of Hokkaido Grad. Sch. of Med.*
- 3:00 BBB5 **078.19** Social stress activates amygdala corticotropin releasing factor and brainstem enkephalinergic afferents to the rat locus coeruleus in adolescent rats depending on coping strategy. Y. SHI*; B. A. S. REYES; E. J. VAN BOCKSTAELE; X. ZHANG; S. LUZ; S. BHATNAGAR. *Col. of Medicine, Drexel Univ., Children's Hosp. of Philadelphia.*

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- 4:00 BBB6 **078.20** Behavioral and histological phenotypes of calsyntenin triple knock out mice. K. MORI*; M. KOEBIS; Y. KIYAMA; T. MANABE; A. AIBA; Y. IINO. *Univ. of Tokyo*.
- 1:00 BBB7 **078.21** Active defensive behavior driven by the Lateral Hypothalamus to the midbrain periaqueductal gray glutamatergic neuron activation. P. WEN*; L. XU; Y. QIU; X. ZHU; L. WANG; X. HE; L. YANG; J. WANG; Z. ZHANG; F. XU. *Wuhan Inst. of Physics and Mathematics, CAS, Col. of Life Science, Wuhan Univ., Wuhan Inst. of Physics and Mathematics, CAS*.
- 2:00 BBB8 **078.22** ● Predator odor induced 22-kHz ultrasonic vocalizations in rats: Effects on defensive behaviors in conspecifics upon replay. M. WÖHR*; M. BROSCHE; K. E. A. WERNECKE; M. WILLADSEN; M. FENDT. *Philipps-University of Marburg, Otto-von-Guericke Univ. Magdeburg*.
- 3:00 BBB9 **078.23** ▲ Intra-amygdaloid administration of the D₁ antagonist SCH23390 during exposure to a live predator and to a predator-associated context. E. N. LEVARIO RAMÍREZ*; M. CRESPO RAMÍREZ; K. FUXE; M. PÉREZ DE LA MORA. *UNAM, Karolinska Institutet*.
- 4:00 BBB10 **078.24** ▲ Does a decrease of excitation/inhibition balance in the infralimbic region of the prefrontal cortex influence anxiety behavior? L. BERG*; A. STAMBULACHIS; O. A. MASSECK. *Ruhr Univ. Bochum*.
- 1:00 BBB11 **078.25** Do α3-containing nicotinic acetylcholine receptors (nAChRs) modulate anxiety behavior? C. SMITH*; A. R. TAPPER; P. D. GARDNER. *Univ. of Massachusetts Med. Sch.*
- 2:00 BBB12 **078.26** Sex and threat certainty differentially modulate ultrasonic and locomotor behavioral expressions of fear and anxiety. J. O. TAYLOR; J. R. PETERSON; V. TASKOV; M. WHITTINGTON; B. VO; G. MONSON; S. LIPINSKA; E. NYAM-OCHIR; C. M. URBANO; B. G. COOPER*. *Utah Valley Univ., Univ. of Alaska Fairbanks, Texas Christian Univ.*
- 3:00 BBB13 **078.27** Activation of G protein-gated inwardly rectifying K⁺ channels in ventral hippocampus reduces anxiety-related behaviors. B. N. VO*; E. MARRON; K. WICKMAN. *Univ. of Minnesota*.
- 4:00 BBB14 **078.28** Opposing role of kappa opioid receptors in cold and heat responsivity. M. K. MADASU*; T. D. SHEAHAN; A. M. FOSHAGE; G. M. STORY; R. AL-HASANI. *Ctr. For Clinical Pharmacol., St Louis Col. of Pharm., Washington Univ. in St Louis*.
- 1:00 CCC1 **078.29** Freezing and shaking as distinct behavioural readouts of fear and anxiety. X. LEINEKUGEL*; M. CARREÑO-MUÑOZ; M. MEDRANO; M. MORALES NAVAS; M. BOMPART; F. MARTENS; P. FEUGAS; A. FRICK; M. GRANA; A. BEYELER. *INSERM U1215, Grupo de Inteligencia Computacional UPV/EHU*.
- 2:00 CCC2 **078.30** Negative life experiences contribute to racial differences in the neural response to threat. N. G. HARNETT*; M. D. WHEELOCK; K. H. WOOD; A. M. GOODMAN; S. MRUG; M. ELLIOTT; M. SCHUSTER; S. TORTOLERO EMERY; D. C. KNIGHT. *Univ. of Alabama at Birmingham, RAND Corporation, Boston Children's Hosp., Univ. of Texas Hlth. Sci. Ctr.*

POSTER**079. Behavioral Studies of Amphetamines****Theme G: Motivation and Emotion**

Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H

- 1:00 CCC3 **079.01** On the role of trait-anxiety in contributing to adolescent neuroplasticity in amphetamine-induced locomotor sensitization. C. A. CALHOUN; B. PLOTKIN; L. PINA; A. ALVES; S. DONALDSON*. *Univ. of Massachusetts Boston, UMass Boston*.
- 2:00 CCC4 **079.02** ADHD symptoms and prenatal metamphetamine exposure. A. OCHOZKOVA*; L. MIHALCIKOVA; R. SLAMBEROVA; A. YAMAMOTOVA. *Charles University, Third Fac. of Medicine, Dep. Third Fac. of Medicine, Charles Univ., Charles Univ. In Prague, Third Fac. of Med., Charles Univ, 3rd Fac Med.*
- 3:00 CCC5 **079.03** Effect of paternal methamphetamine exposure on development of rat offspring. L. MIHALCÍKOVÁ*; A. OCHOZKOVÁ; R. ŠLAMBEROVÁ. *Third Fac. of Medicine, Charles University, Pra.*
- 4:00 CCC6 **079.04** ▲ Maternal separation and social isolation: Factors that ease the development, extinction, and relapse of amphetamine-induced conditioned place preference in Wistar rats. L. MOLINA-ARCIA*; K. REYES-SANTIAGO; M. MENDEZ DIAZ; A. E. RUIZ-CONTRERAS; O. PROSPERO-GARCIA. *Univ. Nacional Autonoma de Mexico, Univ. Nacional Autonoma de Mexico Facultad de Medicina, Lab. Neurogenomica Cognitiva, Fac. Psicologia, UNAM, UNAM*.
- 1:00 CCC7 **079.05** Different oxytocin responses to acute methamphetamine treatment in juvenile female rats perinatally exposed to stress and/or methamphetamine administration. A. HOLUBOVÁ*; S. PONIŠT; J. JURCOVICOVÁ; R. ŠLAMBEROVÁ. *Charles University, Third Fac. of Med.*
- 2:00 CCC8 **079.06** The role of subcutaneous single injection in the effect of psychostimulant drugs and THC on the behavior of adulta male rats. R. SLAMBEROVA*; K. NOHEJLOVA; A. OCHOZKOVA; L. MIHALCIKOVA. *Charles University, Third Fac. of Med.*
- 3:00 CCC9 **079.07** ● A machine learning approach using EEG data to detect methamphetamine craving induced in a virtual reality environment. X. DING*; Y. LI; Y. QI; Y. BI; H. TANG; D. LI; Z. PENG. *Capital Med. Univ., Adai Technol. Co., Ltd., The Bureau of Shandong Rehabil.*
- 4:00 CCC10 **079.08** Methamphetamine self-administration in female Long Evans rats. A. DAIWILE*; S. JAYANTHI; R. PATEL; M. T. MCCOY; B. LADENHEIM; J. L. CADET. *Natl. Inst. On Drug Abuse*.
- 1:00 CCC11 **079.09** Enhanced methamphetamine-induced conditioned place preference in risk-taking rats. K. TAKAHASHI*; Y. ICHITANI; K. YAMADA. *Univ. of Tsukuba, Univ. Tsukuba*.
- 2:00 CCC12 **079.10** ▲ Impact of environmental familiarity on the rewarding response to methamphetamine. B. C. CORTES*; K. A. TRUJILLO. *California State University- San Marcos, California State Univ. San Marcos*.
- 3:00 CCC13 **079.11** Self-administration of entactogen psychostimulants under extended access conditions in female rats. J. D. NGUYEN*; S. VANDEWATER; Y. GRANT; S. KHOM; M. ROBERTO; M. A. TAFFE. *The Scripps Res. Inst.*

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- 4:00 CCC14 **079.12** Increasing number of CS extinction trials blocks context-specific sensitization in mice. A. S. RAUHUT*, A. L. STASIOR. *Dickinson Col., Dickinson Col.*
- 1:00 DDD1 **079.13** Neuroinflammation and amphetamine sensitization in the adolescent Long Evans rat. B. PLOTKIN*; C. A. CALHOUN; T. DONALDSON; L. PINA; A. ALVES. *Umass Boston, Univ. of Massachusetts Boston, Univ. of Massachusetts, Univ. of Massachusetts Boston.*
- 2:00 DDD2 **079.14** Mediation of central amygdala in acupuncture inhibition of methamphetamine-induced behavior in rats. H. KIM*; M. S. KIM; E. Y. JANG; D. H. KIM; K. M. SONG; Y. FAN; J. H. SHIN. *Daegu Haany Univ.*
- 3:00 DDD3 **079.15** Effect of acupuncture on methamphetamine-seeking behavior in rat mediation of group II mGluR. E. JANG*; K. SONG; M. KIM; H. JANG; S. CHANG; C. YANG; H. KIM. *Daegu Haany Univ., Daegu Haany Univ.*
- 4:00 DDD4 **079.16** Examination of a methamphetamine vaccine: Behavioral response in male rats. M. JAVADI PAYDAR*, M. E. OLSON; S. A. VANDEWATER; K. D. JANDA; M. A. TAFFE. *The Scripps Res. Inst., The Skaggs Inst.*
- 1:00 DDD5 **079.17** ▲ The effect of exercise on the cognitive consequences of methamphetamine abuse. H. R. JENKINS*; T. B. VU; B. R. FINE; A. N. FRICKS-GLEASON. *Regis Univ.*
- 2:00 DDD6 **079.18** Ketamine, but not MK-801, reduces methamphetamine-induced locomotor activity: Implications for treatment of addiction. C. CHAVEZ; A. ROCHA; K. A. TRUJILLO*. *California State Univ. San Marcos, California State Univ. San Marcos.*
- 3:00 DDD7 **079.19** Intravenous self-administration of MDMA and pentylenetetraenol dysregulates GABA and KOR-signaling in the central nucleus of the amygdala of female Wistar rats. S. KHOM*; J. D. NGUYEN; S. VANDEWATER; Y. GRANT; M. A. TAFFE; M. ROBERTO. *The Scripps Res. Inst.*
- 4:00 DDD8 **079.20** ▲ Inhibition of D1R expressing neurons in the dorsal striatum promotes meth addiction-like behavior. K. KHARIDIA; M. FANNON; R. J. OLIVER*, JR; C. MANDYAM. *VA San Diego.*
- 1:00 DDD9 **079.21** 5-HT_{2A/C} subtype and arginine-vasopressin V_{1a} receptors modulate rewarding, prosocial and anxiolytic effects induced by two synthetic phenethylamines in zebrafish. L. PONZONI*; D. BRAIDA; M. SALA. *CNR, Univ. degli Studi di Milano.*
- 2:00 DDD10 **079.22** Role of venlafaxine in relapse to methamphetamine seeking: Potential treatment option for drug dependence. Y. ALTHOBAITI*; A. H. ALMALKI. *Taif Univ., Taif Univ.*
- 3:00 DDD11 **079.23** Role of orexinergic system in methamphetamine-induced drug addiction. C. LEE*; G. PARK; J. JANG. *Sch. of Medicine, Keimyung Univ., Kyungpook Natl. Univ.*
- 4:00 DDD12 **079.24** The effects of a TSPO agonist (Ro5-4864) on cocaine and methamphetamine drug-primed and cue-reactivity in rats. G. F. GUERIN*; C. M. KELLER; S. M. HAROLD; A. MEAUX; L. HERNDON; K. BJORNSEN; G. LI; J. M. COOK; N. E. GOEDERS. *LSUHSC-S, Hobart and William Smith Colleges, Univ. of Wisconsin-Milwaukee.*
- 1:00 DDD13 **079.25** Evaluation of the potency and reinforcing efficacy of ring-substituted synthetic cathinones in rats. E. HARVEY*; K. CREEHAN; M. JAVADI-PAYDAR; J. NGUYEN; S. VANDEWATER; Y. GRANT; T. DICKERSON; M. TAFFE. *The Scripps Res. Inst., The Scripps Res. Inst.*
- 2:00 DDD14 **079.26** Serotonin 5-HT2C receptor modulation of compulsive and addictive behavior in female rhesus macaques. M. PEREZ DIAZ*; M. E. WILSON; L. L. HOWELL. *UCLA, Emory Univ.*
- POSTER**
- 080. Drugs of Abuse and Addiction: Cocaine Seeking and Reinstatement I**
- Theme G: Motivation and Emotion**
- Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H
- 1:00 DDD15 **080.01** Ceftriaxone attenuates cued cocaine-seeking after abstinence. L. A. KNACKSTEDT*, C. N. LOGAN; Y. PADOVAN-HERNANDEZ; A. R. BECHARD. *Univ. of Florida, Univ. of Florida, Univ. of Florida.*
- 2:00 DDD16 **080.02** Effects of nicotinamide on cocaine reinstatement. E. A. WILLIAMS*, K. J. REISSNER. *Univ. of North Carolina At Chapel Hill.*
- 3:00 DDD17 **080.03** Ceftriaxone increases surface mGlu2 expression in male and female rats. C. N. LOGAN*; P. U. HAMOR; M. SCHWENDT; L. A. KNACKSTEDT. *Univ. of Florida, Univ. of Florida.*
- 4:00 DDD18 **080.04** When to seek and when to stop: Changes in infralimbic cortical neuronal activity during the suppression of cocaine-seeking behavior. V. A. MULLER EWALD*, R. T. LALUMIERE. *Univ. of Iowa, Univ. of Iowa.*
- 1:00 DDD19 **080.05** ▲ Role of endocannabinoid signaling in the ventral tegmental area and nucleus accumbens shell in chronic electric footshock stress-induced escalation of cocaine intake in rats. R. SCHAPS*; J. R. MCREYNOLDS; C. P. WOLF; D. S. STARCK; C. J. HILLARD; J. R. MANTSCH. *Marquette Univ., Marquette Univ., Med. Col. of Wisconsin.*
- 2:00 DDD20 **080.06** ▲ Prelimbic cortical estrogen receptor contributions to 17 β -estradiol-potentiated reinstatement of cocaine seeking behavior in female rats. C. KONRATH*; E. M. DONCHECK; M. C. DEBAKER; G. T. LIDDIARD; L. YU; L. A. URBANIK; L. M. BARRON; J. J. TUSCHER; K. M. FRICK; M. C. HEARING; Q. LIU; C. J. HILLARD; J. R. MANTSCH. *Marquette Univ., Med. Col. of Wisconsin, Univ. of Wisconsin-Milwaukee.*
- 3:00 DDD21 **080.07** Glucocorticoid-endocannabinoid interactions in the prelimbic cortex mediate stress-potentiated reinstatement of cocaine seeking through increased activation of the cortico-accumbens pathway. J. R. MCREYNOLDS*; E. M. DONCHECK; P. J. GOTTSCHILD; G. LIDDIARD; C. KONRATH; T. STOLLENWERK; X. LIU; Q. LIU; C. J. HILLARD; J. R. MANTSCH. *Marquette Univ., Marquette Univ., Med. Col. of Wisconsin, Med. Col. of Wisconsin.*
- 4:00 DDD22 **080.08** Stress converges on prelimbic cortical cannabinoid type-1 receptor activation to potentiate cocaine-seeking reinstatement in both sexes: Characterization of sex differences and divergent responding. E. M. DONCHECK*; G. T. LIDDIARD; C. D. KONRATH; L. A. URBANIK; M. C. DEBAKER; X. LIU; L. YU; O. VRANJKOVIC; E. N. GRAF; J. R. MCREYNOLDS; Q. LIU; C. J. HILLARD; J. R. MANTSCH. *Marquette Univ., Med. Col. of Wisconsin.*

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1:00	DDD23 080.09 Augmented CRFR1-dependent regulation of a dopaminergic ventral tegmental area to prelimbic cortex projection establishes susceptibility to stress-induced cocaine seeking. L. A. URBANIK*; O. VRANKOVIC; E. VAN NEWENHIZEN; M. E. NORDNESS; J. M. BLACKTOP; J. MATHY; J. R. MCREYNOLDS; A. M. MILLER; E. M. DONCHECK; N. RADDATZ; T. M. KLOEHN; G. S. STINNETT; C. H. GERNDT; K. KETCHESIN; D. A. BAKER; A. F. SEASHOLTZ; J. R. MANTSCH. <i>Marquette Univ., Marquette Univ., Univ. of Michigan, Univ. of Michigan.</i>	4:00	EEE9 081.04 Resting-state dynamics as a cortical signature of anesthesia. L. UHRIG*, J. SITT; A. JACOB; J. TASSERIE; P. BARTTFELD; M. DUPONT; S. DEHAENE; B. JARRAYA. <i>INSERM, CEA Neurospin, Sainte-Anne Hosp., INSERM, U1127, ICM, Collège de France, Foch Hospital, Paris-Saclay Univ.</i>
2:00	DDD24 080.10 The role of aversion in cocaine addiction. M. EID*; D. PULLMANN; H. LI; Y. CHAO; K. JIMENEZ; T. C. JHOU. <i>Med. Univ. of South Carolina, Med. Univ. of South Carolina, Col. of Charleston.</i>	1:00	EEE10 081.05 Frontostriatal circuit, receptor and neural coding mechanisms underlying the cognition-improving vs. cognition-impairing actions of psychostimulants. R. C. SPENCER*; C. W. BERRIDGE. <i>Univ. of Wisconsin.</i>
3:00	EEE1 080.11 Neural substrates associated with reduction in expression of cocaine conditioned place preference by transdermal cannabidiol. G. E. WAGNER*; G. DE NESS; A. LAQUE; H. NEDELESCU; A. CARROLL; T. KERR; D. WATRY; M. W. BUCZYNSKI; N. SUTO; F. WEISS. <i>The Scripps Res. Inst., Virginia Polytechnic Inst. and State Universit.</i>	2:00	EEE11 081.06 Prefrontal cortex dynamics during sequential tasks using awake behaving nonhuman primate fMRI. N. YUSIF RODRIGUEZ*; T. M. DESROCHERS. <i>Brown Univ., Brown Univ.</i>
4:00	EEE2 080.12 A prefronto-habenular circuit involved in stress-induced reinstatement. V. MATHIS*; S. P. B. CALIGURI; C. FILLINGER; P. J. KENNY. <i>Dept. of Neurosci. at Mount Sinai, Dept. of Neurosci. Ichsan Sch. of Med. at Mount Sinai, ICAHN Sch. of Med. at Mount Sinai.</i>	3:00	EEE12 081.07 Measuring large-scale network activity during cognitive control in rodents. N. BUSCHER*; A. OJEDA; T. TANG; C. CHANG; S. HULYALKAR; J. MISHRA; D. RAMANATHAN. <i>UC San Diego, Mental Hlth. Services, VA San Diego Healthcare Syst., UC San Diego.</i>
1:00	EEE3 080.13 Chronic high exposure to cocaine results in degeneration of VTA dopaminergic neurons. K. VENKITESWARAN*; M. SUBRAMANIAN; T. CAYTON; A. KIM; P. S. GRIGSON; T. SUBRAMANIAN. <i>Penn State Col. of Med.</i>	4:00	EEE13 081.08 Testing burst coding models of working memory with spike trains from primate prefrontal cortex. D. LI*; C. CONSTANTINIDIS; J. D. MURRAY. <i>Yale Univ., Wake Forest Univ. Sch. of Med., Yale Univ.</i>
2:00	EEE4 080.14 Context-associated cocaine use during adolescence: Effect on context-induced reinstatement during adulthood. J. GERENA*; A. BAL; R. M. BUTLER; S. VARATHARAJAN; M. VERMA; A. A. ARGUELLO. <i>Michigan State Univ.</i>	1:00	EEE14 081.09 Representations and causal contributions of frontal cortical regions during a flexible decision-making task. M. PAGAN*; C. D. BRODY. <i>Princeton Univ., HHMI / Princeton Univ.</i>
3:00	EEE5 080.15 Neuronal ensembles molecular adaptations induced by incubation of cocaine craving. A. ANESIO*; T. S. YOKOYAMA; S. A. ENGI; F. C. CRUZ. <i>Federal Univ. of São Paulo.</i>	2:00	EEE15 081.10 Neural and ensemble underpinnings of medial prefrontal cortical population dynamics during flexible decision making and sleep. A. P. F. DOMANSKI; N. P. WHITELEY; M. W. JONES*. <i>Univ. of Bristol, Univ. of Bristol, Univ. of Bristol.</i>
		3:00	EEE16 081.11 Beta-Gamma rhythms control the balance between cognitive flexibility and predictability. A. BASTOS*; M. LUNDQVIST; E. K. MILLER. <i>MIT.</i>
		4:00	EEE17 081.12 Modeling of oscillatory gating for cognitive function. J. SHERFNEY*; S. ARDID; J. HASS; N. J. KOPELL; E. K. MILLER; M. E. HASSELMO. <i>Boston Univ., MIT, Boston Univ., Central Inst. of Mental Health, Med. Fac. Mannheim of Heidelberg Univ.</i>
		1:00	EEE18 081.13 Microcircuitry of performance monitoring: Laminar structure of visual and conflict monitoring in the supplementary eye field. S. P. ERRINGTON*; A. SAJAD; J. D. SCHALL. <i>Vanderbilt Univ.</i>
		2:00	EEE19 081.14 ▲ Living in the moment: How ACC ensembles accurately reflect the current reality rather than the recent past. R. M. FRANCIS*; R. A. WIRT; J. K. SEAMANS; J. M. HYMAN. <i>UNLV, UBC.</i>
		3:00	EEE20 081.15 Hyperglycemia induces altered hippocampal and anterior cingulate cortex oscillations. R. A. WIRT*; A. A. ORTIZ; N. L. KAPLAN; D. GOROKHOVSKAYA; S. HERNANADEZ; L. A. CREW; J. W. KINNEY; J. M. HYMAN. <i>Univ. of Nevada Las Vegas.</i>

POSTER**081. Animal Cognition and Behavior: Executive Function: Network Activity****Theme H: Cognition**

Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H

1:00	EEE6 081.01 Task representation & learning in prefrontal cortex & striatum as a dynamical system. C. D. MÁRTON*; D. DURSTEWITZ; S. SCHULTZ; B. B. AVERBECK. <i>Ctr. For Neurotechnology, Imperial Col. Londo, NIH/NIMH, Central Inst. of Mental Hlth.</i>
2:00	EEE7 081.02 Spatial and temporal complexity of mouse cortex electrical signalling. M. LIU; Y. LIANG; C. SONG; T. KNOPFEL*; C. ZHOU. <i>Hong Kong Baptist Univ., Imperial Col. London, Imperial Col. London.</i>
3:00	EEE8 081.03 Structured correlations of neuronal activity within and between regions of primate frontoparietal cortex. M. L. WASKOM*; B. PURCELL; R. KIANI. <i>New York Univ.</i>

* Indicated a real or perceived conflict of interest, see page 74 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

POSTER

- 082. Animal Cognition and Behavior: Learning and Memory: Hippocampal-Prefrontal Interactions**
- Theme H: Cognition**
- Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H
- 1:00 EEE21 **082.01** Lateral entorhinal cortex selectively routes mnemonic features of stimuli to the medial prefrontal cortex. X. YU*; J. JAROVI; K. TAKEHARA-NISHIUCHI. *Univ. of Toronto, Univ. of Toronto, Univ. of Toronto, Univ. of Toronto*.
- 2:00 EEE22 **082.02** Neural population dynamics in prefrontal cortex and hippocampus during learning of associations. Y. LIU*; S. L. BRINCAT; E. K. MILLER; M. E. HASSELMO. *Ctr. For Systems Neuroscience, Boston Univ., Boston Univ., MIT.*
- 3:00 EEE23 **082.03** Hippocampal-retrosplenial-prefrontal circuit dynamics in nonspatial associative memory in rats. S. TERADA*; S. FUJISAWA. *Columbia Univ., RIKEN Brain Sci. Inst.*
- 4:00 EEE24 **082.04** Role of hippocampal place cells and neurons in the anterior cingulate cortex in social learning of a reward-guided navigation task. X. MOU*; E. PATEL; P. SURESH; D. JI. *Baylor Col. of Med., Rice Univ., Johns Hopkins Univ.*
- 1:00 EEE25 **082.05** Diverse electrophysiological firing properties of ventral midline thalamic cells across the sleep-wake cycle of the rat. T. D. VIENA*; S. B. LINLEY; R. P. VERTES. *Florida Atlantic Univ., Florida Atlantic Univ., FAU/Ctr Complex Systems.*
- 2:00 EEE26 **082.06** Memory-trace replay in rat medial prefrontal cortex occurs in a substate of cortical UP state during slow wave sleep. L. KALVI; A. PONCE-ALVAREZ; S. MALEK; K. ALI; D. R. EUSTON; S. GRUEN; M. TATSUNO*. *Univ. Lethbridge, Univ. of Alberta, UNIVERSITAT POMPEU FABRA, Res. Ctr. Juelich, RWTH Aachen Univ.*
- 3:00 FFF1 **082.07** Task-related oscillatory interactions within the midline thalamic-hippocampal-prefrontal network. H. MEI*; N. LOGOTHETIS; O. ESCHENKO. *Max Planck Inst. for Biol. Cybernetics.*
- 4:00 FFF2 **082.08** Chemogenetic inactivation of nucleus reunions impairs behavioral flexibility in an odor texture attentional set shifting task. S. B. LINLEY*; A. K. P. ROJAS; M. E. GORORA; M. E. SCHREIBER; T. D. VIENA; T. A. ALLEN; R. P. VERTES. *Florida Atlantic Univ., Florida Atlantic Univ., Florida Atlantic Univ., Florida Intl. Univ., FAU/Ctr Complex Systems.*
- 1:00 FFF3 **082.09 ▲** The effect of inactivation of the ventral hippocampus (vHF) on spatial working memory in the rat. M. SCHREIBER*; A. C. ATHANASON; A. K. ROJAS; T. D. VIENA; S. B. LINLEY; T. A. ALLEN; R. P. VERTES. *Florida Atlantic Univ., Florida Atlantic Univ., Florida Intl. Univ., FAU/Ctr Complex Systems.*
- 2:00 FFF4 **082.10** Chemogenetic modulation of cholinergic neurons in the nucleus basalis magnocellularis rescues acetylcholine efflux in the prefrontal cortex in rats exposed to adolescent binge ethanol exposure. J. M. HALL*; L. M. SAVAGE, Ph.D. *Binghamton Univ.*
- 3:00 FFF5 **082.11** Chemogenetic enhancement of prefrontal activity sharpens the selectivity of prefrontal theta oscillations for the mnemonic value of events and facilitates their encoding. J. JAROVI*; J. VOLLE; X. YU; L. GUAN; K. TAKEHARA-NISHIUCHI. *Univ. of Toronto, Univ. Toronto, Univ. of Toronto.*

- 4:00 FFF6 **082.12** Sex differences in vulnerability to alcohol-related brain damage and its functional consequences. B. T. KIPP*; L. M. SAVAGE, Ph.D. *Binghamton Univ., Binghamton Univ. Dept. of Psychology.*

- 1:00 FFF7 **082.13** Binge-type alcohol exposure during adolescence alters septohippocampal functioning as rats age. P. TOLEDO NUNES*; G. M. FERNANDEZ; J. M. HALL; L. M. SAVAGE. *Binghamton Univ. - SUNY, St. Mary's Col. of Maryland.*

- 2:00 FFF8 **082.14** Pre - and postnatal arsenic exposure impairs the behavior, learning, and brain tissue morphology in rats. T. LORTKIPANIDZE*; T. BIKASHVILI; N. POCHKHIDZE; N. L. GOGICHAISHVILI. *Ilia State Univ., I. Beritashvili Ctr. of Exptl. Biomedicine.*

POSTER

- 083. Learning and Memory: Epigenetics**

Theme H: Cognition

Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H

- 1:00 FFF9 **083.01** Remote memory and cortical synaptic plasticity require neuronal CCCTC-binding factor (CTCF), a central regulator of epigenetic gene expression. H. KIM*; S. KIM; N. YU; K. SHIM; J. KIM; D. HAN; J. CHOI; S. LEE; D. CHOI; M. KIM; D. LEE; K. LEE; N. GALJART; Y. LEE; J. LEE; B. KAANG. *Seoul Natl. Univ., Interdisciplinary Program in Bioinformatics, Seoul Natl. Univ., Salk Inst. for Biol. Studies, Dept. of Anatomy, Kyungpook Natl. Universi, Dept. of Cell Biol. and Genetics, Erasmus MC, Seoul Natl. Univ. Col. of Med., Dept. of Life and Nanopharmaceutical Sciences, Dept. of Maxillofacial 20 Biomed. Engineering, Sch. of Dentistry, Kyung Hee Univ.*
- 2:00 FFF10 **083.02** Epigenetic control of PRKCI and PRKCZ genes transcription in rat neurons. A. BORODINOVA*; M. KUZNETSOVA; P. BALABAN. *Inst. of Higher Nervous Activity.*
- 3:00 FFF11 **083.03** The mechanism of learning memory disability in UTX knock out mouse model. L. CHEN*; M. LIU; W. LI. *Bio-X Institutes, Shanghai Jiao Tong Univ., Shanghai Jiaotong Univ., Shanghai Jiao Tong Univ.*
- 4:00 FFF12 **083.04** A novel role for the histone variant macroH2A in memory formation. K. NARKAJ*; G. STEFANELLI; M. A. BRIMBLE; F. RAMZAN; I. B. ZOVKIC. *Univ. of Toronto Mississauga, Univ. of Toronto Mississauga, St. Jude Children's Res. Hosp., Univ. of Toronto, Univ. of Toronto Mississauga.*
- 1:00 FFF13 **083.05** Tet1 is expressed as two isoforms with differing roles in the mammalian nervous system. G. A. KAAS*; J. WRIGHT; C. B. GREER; J. ZHU; K. S. CHRONISTER; A. Y. JIN; A. J. KENNEDY; J. D. SWEATT. *Vanderbilt Univ., Bates Col.*
- 2:00 FFF14 **083.06 ▲** Reducing tet2 in the ca1 of the hippocampus enhances spatial memory. K. ZENGELER*; X. ZHANG; B. MALACHOWSKY; A. J. KENNEDY. *Bates Col., Bates Col.*
- 3:00 FFF15 **083.07 ▲** Histone deacetylase inhibitors change methylation patterns and reorganize the chromatin architecture. L. CHEN*; T. H. SANDERS. *Vanderbilt Univ.*

* Indicates a real or perceived conflict of interest, see page 74 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

4:00	FFF16 083.08 The inhibition of HDAC induces differential effect on BDNF expression on weak and strong recognition memory. G. RAMIREZ MEJIA*; E. SOTO-REYES; F. BERMUDEZ-RATTONI. <i>Inst. de Fisiología Celular - UNAM, Inst. Nacional de Cancerología</i> .	4:00	GGG4 083.20 Bioorthogonal metabolic labelling of nascent RNA in neurons improves the sensitivity of transcriptome-wide profiling. E. L. ZAJACZKOWSKI*, Q. ZHAO; Z. ZHANG; X. LI; W. WEI; P. R. MARSHALL; L. J. LEIGHTON; S. NAINAR; C. FENG; R. C. SPITALE; T. W. BREDY. <i>Queensland Brain Inst., Univ. of California Irvine</i> .
1:00	FFF17 083.09 • Specific reprogramming of the memory-formation blocking gene Hdac2 with an antisense-oligonucleotide. C. B. GREER*; S. G. POPLAWSKI; K. A. GARBETT; R. L. MCMAHAN; H. B. KORDASIEWICZ; H. T. ZHAO; S. T. MOTLEY; D. J. ECKER; A. J. KENNEDY; T. P. MICHAEL; D. J. SWEATT. <i>Vanderbilt Univ., J. Craig Venter Inst., Ionis Pharmaceuticals, Ibis Biosci. an Abbott Co., Bates Col.</i>	1:00	GGG5 083.21 Epigenetic mechanisms linking diabetes and synaptic dysfunction and the role of physical exercise. J. WANG*; M. VARGHESE; W. ZHAO. <i>Icahn Sch. of Med. At Mount Sinai, James J. Peters Veterans Affairs Med. Ctr.</i>
2:00	FFF18 083.10 DNA methylation profiles underlie neuronal allocation dynamics in the hippocampus. S. ODELL; F. TAKI; R. J. CHEN; O. B. LEVINE; S. KLEIN; A. SHARMA; J. GAL TOTH; K. E. PLEIL; M. TOTH. <i>Weill Cornell Med. Col., Weill Cornell Med. Col., Weill Cornell Med. Col.</i>	2:00	GGG6 083.22 Bidirectional amelioration of object and spatial memory deficits by the lysine acetyltransferase PCAF in the 3xTG mouse model of Alzheimer's disease. S. D. CREIGHTON*; A. DESIMONE; K. H. JARDINE; M. ZMETANA; S. CASTELLANO; C. MILITE; G. SBARDELLA; B. D. WINTERS. <i>Univ. of Guelph, Univ. of Salerno</i> .
3:00	FFF19 083.11 Methylation dynamics of neuronal Fos gene expression. S. GOLEVA*; C. B. GREER; G. A. KAAS; J. D. SWEATT. <i>Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ. Sch. of Med.</i>	3:00	GGG7 083.23 Cell-type specific transcriptomic signatures induced by THC in the mouse adolescent brain. P. MONTILLA-PÉREZ*; A. IEMOLO; Q. MA; F. TELESE. <i>UCSD</i> .
4:00	FFF20 083.12 Consequences of histone variant overexpression in the mouse hippocampus. B. EISELE*; I. B. ZOVKIC; J. D. SWEATT. <i>Vanderbilt Univ., Univ. of Toronto Mississauga, Vanderbilt Univ. Sch. of Med.</i>	4:00	GGG8 083.24 The potential role of reelin signaling in cannabis-induced behavioral changes. A. IEMOLO*, F. TELESE. <i>UCSD Sch. of Med.</i>
1:00	FFF21 083.13 DNA methylation regulates neuronal intrinsic excitability through altered gene expression of small conductance calcium-gated (SK) channels. J. BROWN*; G. A. KAAS; C. B. GREER; J. WRIGHT; D. G. WINDER; J. D. SWEATT. <i>Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ. Sch. of Med.</i>	1:00	GGG9 083.25 The effects of cannabinoids on neuronal activity-dependent transcription in primary cortical neurons. E. FLORIO*; W. JUNNENG; F. TELESE. <i>Univ. of California San Diego</i> .
2:00	FFF22 083.14 Regulation of synaptic downscaling via dna methylation of arc. B. C. COLEMAN*; G. KAAS; D. SWEATT. <i>Vanderbilt Univ.</i>	2:00	GGG10 083.26 ▲ Localization of nuclear receptor corepressor complex in the adult mouse brain. I. RUSU*; A. IEMOLO; P. MONTILLA-PEREZ; F. TELESE. <i>Univ. of California San Diego</i> .
3:00	FFF23 083.15 Histone H3 lysine K4-trimethyl breadth changes in a contextual fear-conditioning paradigm. B. COLLINS*; C. B. GREER; J. D. SWEATT. <i>Vanderbilt Univ. Sch. of Med., Vanderbilt Univ. Sch. of Med.</i>		
4:00	FFF24 083.16 Profiling activity-dependent small non-coding RNA activity in the mouse brain. L. J. LEIGHTON*; W. WEI; J. EDSON; Q. ZHAO; J. WANG; T. W. BREDY. <i>Queensland Brain Inst.</i>		
1:00	GGG1 083.17 The accumulation of N6-methyl-2'-deoxyadenosine in DNA drives activity-induced gene expression and is required for the extinction of conditioned fear. T. W. BREDY*; X. LI; W. WEI; P. MARSHALL; Q. ZHAO; L. LEIGHTON; E. ZAJACZKOWSKI. <i>Queensland Brain Inst.</i>	1:00	GGG11 084.01 ▲ Olfactory function and insulin signalling in a rat model of T2DM and AD. K. Y. MANZI*; E. C. MCNAY. <i>State Univ. of New York At Albany</i> .
2:00	GGG2 083.18 Potential dual function of ADAR1 as an RNA editing enzyme and DNA binding protein in the activity-dependent regulation of gene expression and adaptive behaviour in the mouse. P. R. MARSHALL*; Q. ZHAO; X. LI; W. WEI; E. L. ZAJACZKOWSKI; L. LEIGHTON; T. BREDY. <i>Univ. of Queensland, Queensland Brain Inst., Queensland Brain Inst.</i>	2:00	GGG12 084.02 Molecular effectors of insulin's role in hippocampal memory processing across stages of memory. G. S. FITZGERALD*; L. P. MALLON; E. C. MCNAY. <i>Univ. At Albany</i> .
3:00	GGG3 083.19 Spatially distinct patterns of RNA modifications in neurons following fear extinction learning in mice. S. U. MADUGALLE*; X. LI; T. W. BREDY. <i>Queensland Brain Inst., Univ. of Queensland</i> .	3:00	GGG13 084.03 ▲ Investigation of hippocampal insulin levels during a cognitively demanding task. J. BATAILLE*; S. DOUGLASS; E. C. MCNAY. <i>Univ. At Albany, SUNY Univ. At Albany, Univ. At Albany</i> .
		4:00	GGG14 084.04 Attenuation of the cognitive and physical effects of recurrent hypoglycemia by medium chain triglyceride administration. S. DOUGLASS*; G. C. TAPAWAN; C. M. LEVINE; E. C. MCNAY. <i>Univ. At Albany, Univ. at Albany, Univ. At Albany</i> .
		1:00	GGG15 084.05 ▲ Parsing the impact of zinc vs. insulin on hippocampal memory processing. A. PICHE*; S. DOUGLASS; G. M. OSTRANDER; E. C. MCNAY. <i>State Univ. of New York at Albany</i> .
		2:00	GGG16 084.06 ▲ Estradiol treatment to attenuate the hippocampal impact of a high fat diabetogenic diet. L. MAITNER*; G. S. FITZGERALD; E. C. MCNAY. <i>State Univ. of New York At Albany</i> .

• Indicated a real or perceived conflict of interest, see page 74 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

3:00	GGG17 084.07 Hippocampal-specific insulin resistance elicits dendritic atrophy of dentate gyrus granule neurons. C. A. GRILLO*; H. B. COWAN; V. A. MACHT; J. L. WOODRUFF; F. Z. LOYO-ROSADO; L. P. REAGAN. <i>Univ. of South Carolina Sch. of Med., WJB Dorn VA Med. Ctr.</i>	1:00	GGG26 085.05 Dynamic causal modeling of repetition suppression of visual ERPs to unattended objects. G. STEFANICS*; D. SCHÖBI; I. CZIGLER; K. STEPHAN. <i>Univ. of Zurich and ETH Zurich, Translational Neuromodeling Unit (TNU), Inst. for Biomed. Engineering, Univ. of Zurich & ETH Zurich, Switzerland, Inst. of Cognitive Neurosci. and Psychology, Res. Ctr. for Natural Sciences, Hungarian Acad. of Sci., Translational Neuromodeling Unit, Univ. of Zurich and ETH Zurich.</i>
1:00	DP12/GGG18 084.08 (Dynamic Poster) Supraphysiological levels of oxygen exposure during the neonatal period impairs signaling pathways required for learning and memory. M. RAMANI*; L. L. MCMAHON; A. NAMASIVAYAM. <i>Univ. of Alabama at Birmingham, UAB, Univ. of Alabama at Birmingham.</i>	2:00	GGG27 085.06 The bright side of training in the dark: Audio-visual spatial recalibration in firefighters. I. TISSIERES*; G. LOQUET; J. ANKEN; C. WINDLER; S. CLARKE; S. CROTTAZ-HERBETTE. <i>CHUV, Ctr. Hospitalier Universitaire Vaudois, Aalborg University, Fac. of Med., CHUV, Ctr. Hospitalier Universitaire Vaudois.</i>
1:00	GGG19 084.09 ▲ Overcome the blood-brain barrier by the rational design of dodecyl creatine ester loaded nanoemulsion: A promising strategy for the treatment in creatine transporter disorder. G. ULLIO-GAMBOA; N. CAMUS; S. DÉZARD; A. KOKENGÉ; A. PRUVOST; F. TARAN; M. SKELTON; A. MABINDZO*. <i>CEA, CEA, Univ. of Cincinnati Col. of Medecine.</i>	3:00	HHH1 085.07 ▲ Spatial exploration through the world of Minecraft leads to improvements in hippocampus associated behaviors. C. M. HENNINGFIELD*; G. D. CLEMENSON; C. E. STARK. <i>Univ. of California, Irvine, Univ. of California Irvine.</i>
2:00	GGG20 084.10 Effects of caffeine and adrenaline administration singly and in combination on memory and mGlutR1a in male Wistar rats. A. O. IMAMFULANI*; B. V. OWOYELE. <i>Univ. of Ilorin.</i>	4:00	HHH2 085.08 Exploring the transfer of spatial information in a virtual representation of a real world environment. G. D. CLEMENSON*; C. E. STARK. <i>Univ. of California Irvine.</i>
3:00	GGG21 084.11 Glutamatergic deregulation in a metabolic syndrome murine model: Implications on NMDA receptors within lipid rafts and cognitive performance. P. SALCEDO-TELLO; E. S. GUTIÉRREZ-LÓPEZ; S. HERNÁNDEZ-RAMÍREZ; L. AYALA-GUERRERO; M. VELASCO; M. HIRIART; F. BERMÚDEZ-RATTONI; K. R. GUZMAN-RAMOS*. <i>Inst. de Fisiología Celular, UNAM, Univ. Autónoma Metropolitana, Univ. Autónoma Metropolitana.</i>	1:00	HHH3 085.09 Impact of representational overlap on learning-induced representational change. J. D. WAMMES*; K. A. NORMAN; N. B. TURK-BROWNE. <i>Yale Univ., Princeton Univ.</i>
2:00	POSTER	2:00	HHH4 085.10 Brain perfusion abnormalities in patients with persistent postural-perceptual dizziness. J. IM*; S. NA; H. S. JEONG; Y. CHUNG; I. SONG. <i>Incheon St. Mary's Hosp., Incheon St. Mary's Hosp., Incheon St. Mary's Hosp.</i>
3:00		3:00	HHH5 085.11 Strengthening spatial reasoning: Elucidating the neural mechanisms associated with mental rotation skill development. K. MOEN*; S. M. SALTZMANN; L. M. BURLEIGH; L. G. BUTLER; J. RAMANUJAM; A. S. COHEN; M. R. BECK; S. G. GREENING. <i>Louisiana State Univ., Louisiana State Univ., Louisiana State Univ.</i>
4:00		4:00	HHH6 085.12 Transfer of tactile perceptual learning scales with the spatial resolution of untrained sensory receptors. S. M. FRANK*; A. H. OTTO; L. FORSTER; K. HENSE; Y. SASAKI; P. U. TSE; M. W. GREENLEE; T. WATANABE. <i>Brown Univ., Univ. of Regensburg, Dartmouth Col.</i>
1:00		1:00	HHH7 085.13 Transcranial direct current stimulation and tonal perception in musicians and non-musicians. E. SOTO*; R. VEGA; C. ROMERO. <i>Benemerita Univ. Autonoma de Puebla, Benemerita Univ. Autonoma de Puebla.</i>
2:00		2:00	HHH8 085.14 LTP-like visual stimulation elicits task-dependent changes in the perception of orientation. A. MARZOLL*; I. CHAVVA; T. WATANABE. <i>Brown Univ.</i>
3:00		3:00	HHH9 085.15 Temporal alignment of cortical slow oscillations with heart rate bursts during sleep predicts perceptual performance. M. NAJI*; G. P. KRISHNAN; E. A. MCDEVITT; M. BAZHENOV; S. C. MEDNICK. <i>UC San Diego, Princeton Neurosci. Inst., Univ. of California, Irvine.</i>
4:00		4:00	HHH10 085.16 Direct comparison of rats, humans and reinforcement learning agents reveals evidence of predictive maps to navigate stochastic environments. W. J. DE COTHI*; E. GRIESBAUER; C. LACAUX; L. FLETCHER; C. NEWTON; R. GRIEVES; E. DUVELLE; S. RENAUDINEAU; D. A. BENDOR; R. SILVA; C. BARRY; H. J. SPIERS. <i>Univ. Col. London, Univ. Col. London, Brain and Spine Inst., Univ. of Cambridge, UCL.</i>

POSTER

085. Human Cognition and Behavior: Human Learning: Perceptual and Spatial Learning

Theme H: Cognition

Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H

- 1:00 GGG22 **085.01** Implicit acoustic sequence learning recruits the hippocampus. J. JABLONOWSKI*; P. TAESLER; Q. FU; M. ROSE. *Univ. Med. Ctr. Hamburg Eppendorf, Inst. of Psychology, Chinese Acad. of Sci.*
- 2:00 GGG23 **085.02** Human factors and cognitive ergonomics in pediatric robotic neurorehabilitation. A review of literature. S. ZAFFINA*, JR; S. RONGONI; F. GILARDI; D. CASASANTA; F. DE FALCO; V. CAMISA; G. DALMASSO; M. VINCI. *Bambino Gesù Children's Hosp.*
- 3:00 GGG24 **085.03** Neural representations of object-based space information in the human medial temporal lobe and prefrontal cortex. Z. BO*; Y. NAYA. *Peking Univ., IDG/McGovern Inst. for Brain Res. at Peking Univ., Ctr. for Life Sciences, Peking Univ., Interdisciplinary Inst. of Neurosci. and Technology, Zhejiang Univ.*
- 4:00 GGG25 **085.04** Associations between dietary carotenoids and hippocampal-dependent relational memory. C. N. CANNAVALE*; K. M. HASSEVOORT; K. M. HOURECKA; C. G. EDWARDS; S. V. THOMPSON; H. D. HOLSCHER; N. J. COHEN; N. A. KHAN. *Univ. of Illinois At Urbana-Champaign, The Beckman Inst. of Sci. and Technol., Univ. of Illinois at Urbana-Champaign.*

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* Indicates abstract's submitting author

1:00	HHH11 085.17 Implicit learning of bayesian priors in a perceptual decision-making task. B. J. KNOWLTON*; V. THAKUR; A. PERUGINI; M. A. BASSO. <i>UCLA, UCLA, UCLA</i> .	1:00	HHH23 085.29 ● Comprehensive online cognitive training in later adulthood: An online randomized controlled trial. N. NG*; E. CORDELL; R. J. SCHAFER. <i>Lumos Labs, Inc.</i>
2:00	HHH12 085.18 Learning predictive temporal structure under uncertainty. R. WANG*, M. A. GATES; I. PEREZ-POZUELO; Y. SHEN; P. TINO; A. WELCHMAN; Z. KOURTZI. <i>Chinese Acad. of Sci., Univ. of California, Berkeley, UC Berkeley- UCSF, University of Birmingham, Univ. of Cambridge</i> .		
3:00	HHH13 085.19 ▲ Spatial learners display decreased risk taking behavior in the Iowa Gambling Task. É. AUMONT; C. BLANCHETTE; V. D. BOHBOT; G. WEST*. <i>Univ. of Montreal, Douglas Mental Hlth. Univ. Inst.</i>		
4:00	HHH14 085.20 ▲ Deficits in mental rotation test (mrt-a) may be correlated to higher unified Parkinson's disease rating scale (updrs) scores in early onset idiopathic Parkinson's disease. B. MULLEN*; S. RAVI; M. P. SUBRAMANIAN; K. VENKITESWARAN; T. SUBRAMANIAN; P. ESLINGER; D. WAGNER. <i>Penn State Col. of Med., Pennsylvania State Univ. Col. of Med., Penn State Col. of Med., Penn State Milton S Hershey Med. Ctr., Penn State Col. of Med., Penn State Hershey Med. Ctr.</i>		
1:00	HHH15 085.21 Preference for navigation based on apparatus boundaries in a virtual Morris water task is associated with increased right frontal and parietal cortical activation. D. A. HAMILTON*; J. COHEN-GILBERT; E. OOT; A. SERAIKAS; M. RIESELBACH; L. D. NICKERSON; M. M. SILVERI; J. T. SNEIDER. <i>Univ. New Mexico, Harvard Med. Sch., Boston Univ. Sch. of Med., McLean Hosp.</i>	1:00	HHH24 086.01 Controlling unwanted memories: The medial septal pacemaker suppression hypothesis. D. APŠVALKA*; M. C. ANDERSON. <i>Univ. of Cambridge</i> .
2:00	HHH16 085.22 Threat-induced anxiety selectively impairs hippocampus-mediated spatial memory, but enhances the use of striatum-based navigation, in a virtual radial arm maze. J. GOODMAN*; J. E. DUNSMOOR. <i>Univ. of Texas at Austin</i> .	2:00	HHH25 086.02 The effects of physical activity and multi-day rTMS on brain network plasticity. J. J. HENDRIKSE*; J. P. COXON; N. ROGASCH; C. SUO; S. THOMPSON; R. DA COSTA; M. YÜCEL. <i>Monash Univ., Monash Univ.</i>
3:00	HHH17 085.23 Single-neuron coding of current and goal locations in the human medial temporal lobe. M. TSITSIKLIS*; J. MILLER; S. QASIM; S. A. SHETH; C. A. SCHEVON; E. H. SMITH; R. E. GROSS; C. S. INMAN; M. SPERLING; A. SHARAN; J. STEIN; S. DAS; R. GORNIAK; J. JACOBS. <i>Columbia Univ., Columbia Univ., Baylor Col. of Med., Columbia Univ., Columbia Univ., Emory Univ. Sch. Med., Thomas Jefferson Univ., Thomas Jefferson Univ., Hosp. of the Univ. of Pennsylvania, Hosp. of the Univ. of Pennsylvania, Thomas Jefferson Univ.</i>	3:00	HHH26 086.03 Reversal of the information processing hierarchy between perception and memory. J. LINDE DOMINGO*; M. S. TREDER; C. KERREN; M. TER WAL; F. ROUX; R. CHELVARAJAH; D. ROLLINGS; V. SAWLANI; B. STARESINA; S. HANSLMAYR; M. WIMBER. <i>Univ. of Birmingham, Univ. Hospitals, Birmingham NHS Fndn. Trust.</i>
4:00	HHH18 085.24 High frequency oscillations during spatial memory task. T. GEDANKIEN*; J. F. MILLER; J. JACOBS. <i>Columbia Univ.</i>	4:00	HHH27 086.04 Cognitive and mood disorders associated with high altitude in air crew member in Nigeria. M. A. ADEKILEKUN*; A. Y. GUILLAUME; O. O. OLUFEMI. <i>Cape Peninsula Univ. of Technol.</i>
1:00	HHH19 085.25 ●▲ Modeling path integration in large-scale space and with novel geometries. S. K. HAROOTONIAN*; E. M. ZISKIN; E. D. ERLENBACH; R. C. WILSON; A. D. EKSTROM. <i>Univ. of California Davis, Univ. of Arizona</i> .	1:00	HHH28 086.05 Temporal precision of narrative free recall impacts neural patterns in the default mode network. J. CHEN*; E. MUSZ. <i>Johns Hopkins Univ.</i>
2:00	HHH20 085.26 Do frontal human cortical theta oscillations during free ambulation code spatial distance, temporal interval, or both? M. LIANG*, M. J. STARRETT; A. D. EKSTROM. <i>Univ. of Arizona</i> .	2:00	HHH29 086.06 Electrophysiological signatures of event segmentation during movie viewing and recall. M. SILVA; C. BALDASSANO; L. FUENTEMILLA*. <i>Univ. de Barcelona, Princeton Univ., Univ. Autonoma De Barcelona</i> .
3:00	HHH21 085.27 Interactive exploration of sparse virtual environments: Brain-electric dynamics of the retrosplenial complex at salient moments of spatial thought. L. GEHRKE*, K. GRAMANN. <i>Berlin Inst. of Technol., Univ. of Technol., Univ. of California</i> .	3:00	HHH30 086.07 Hierarchical model of memory retrieval. M. KATKOV*; S. RECANATESI; M. NAIM; M. V. TSODYKS. <i>Weizmann Inst. of Sci., Univ. of Washington</i> .
4:00	HHH22 085.28 ● Transfer of learning: Analysis of a massive, online cognitive training dataset. R. J. SCHAFER*, N. NG; E. CORDELL. <i>Lumos Labs</i> .	4:00	HHH31 086.08 Competition between similar memories triggers a repulsion of their feature values. A. J. CHANALES*; B. A. KUHL. <i>NYU, Univ. of Oregon</i> .
1:00		1:00	HHH32 086.09 Category selectivity and sensory reinstatement in human neocortex. Y. Y. CHEN*; D. YOSHOR; B. L. FOSTER. <i>Baylor Col. of Med.</i>
2:00		2:00	HHH33 086.10 ▲ Recall dynamics of naturalistic stimuli and random word lists. P. C. FITZPATRICK*; A. C. HEUSSER; J. R. MANNING. <i>Dartmouth Col., Dartmouth Col.</i>
3:00		3:00	HHH34 086.11 Probing hippocampo-neocortical communication with direct electrical stimulation in humans. M. VAN DER PLAS*; F. ROUX; D. T. ROLLINGS; R. CHELVARAJAH; V. SAWLANI; S. HANSLMAYR. <i>Univ. of Birmingham, Univ. Hosp. Birmingham NHS Fndn. Trust.</i>
4:00		4:00	HHH35 086.12 Predicting sleep-dependent memory consolidation from EEG activity during initial encoding. D. DENIS*; R. STICKGOLD. <i>Ctr. for Sleep and Cognition, Ctr. For Sleep and Cognition</i> .
1:00		1:00	HHH36 086.13 The cortical locus of stimulus representations is influenced by the state of the memory system. N. M. LONG*; S. E. FAVILA; B. A. KUHL. <i>Univ. of Oregon, New York Univ., Univ. of Oregon</i> .

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- 2:00 HHH37 **086.14** Separation of items from their context observed via fMRI pattern analysis of item-method directed forgetting. Y. CHIU*; T. H. WANG; D. M. BECK; J. A. LEWIS-PEACOCK; L. SAHAKYAN. *Univ. of Illinois, Beckman Inst. for Advanced Sci. and Technol., Univ. of Texas At Austin.*
- 3:00 HHH38 **086.15** Event-related brain responses to lexical encoding exposures predicts subsequent false endorsement of orthographically related lures. N. R. GRIFFIN*; B. ASFAW; T. BRANS; D. MARQUEZ; S. WEYSER; C. YEE; D. M. SCHNYER. *The Univ. of Texas At Austin.*
- 4:00 HHH39 **086.16** High and low frequency stimulation have inverse effects on neuronal activity. U. R. MOHAN*; M. SPERLING; A. SHARAN; G. A. WORRELL; B. C. LEGA; B. C. JOBST; K. DAVIS; R. E. GROSS; S. A. SHETH; S. DAS; J. STEIN; R. GORNAIK; M. J. KAHANA; J. JACOBS. *Columbia Univ., Thomas Jefferson Univ. Hosp., Thomas Jefferson Univ. Hosp., Mayo Clin., UT Southwestern Med. Ctr., Dartmouth-Hitchcock Med. Ctr., Hosp. of the Univ. of Pennsylvania, Emory Univ. Sch. of Med., Baylor Col. of Med., Hosp. of the Univ. of Pennsylvania, Thomas Jefferson Univ. Hosp., Univ. of Pennsylvania.*
- 1:00 HHH40 **086.17** Presentation order at encoding is reflected in exemplar-specific reinstatement during word memory retrieval. E. A. WING*; B. R. GEIB; Z. A. MONGE; W. WANG; R. E. CABEZA. *Duke Univ., Duke Univ., Duke Univ.*
- 2:00 HHH41 **086.18** Changing memory via reconsolidation: A web-based intervention for reducing intrusive memories. S. V. ONYPER*; S. C. HENEGAN; R. J. MUSKIN; T. LAROBARDIERE. *St. Lawrence Univ.*
- 3:00 HHH42 **086.19** Memory strengthened by repeated labilization-reconsolidation process: A resting state EEG study. L. BAVASSI*; G. CAMPOS - ARTEAGA; I. PALACIOS - GARCÍA; E. RODRIGUEZ BALBOA; M. E. PEDREIRA. *Inst. De Fisiología, Biología Mol. Y Neur, Dept. de Física, FCEN, UBA, Pontificia. Univ. Católica de Chile, Lab. de Neurodinámica Básica y Aplicada, Escuela de Psicología, Inst. De Fisiología, Biología Mol. Y Neur.*
- 4:00 HHH43 **086.20** Neural allocation mechanisms of remote memories. I. DEL PINO*; S. HADZIBEGOVIC; L. ZHU; M. GINGER; O. NICOLE; B. BONTEMPI; A. FRICK. *Neurocentre Magendie, Inst. Maladie Neurodegenerative, Neurocentre Magendie INSERM U1215, CNRS, Univ. Bordeaux, UMR-CNRS 5293, Inst. of Neurodegenerative Diseases, CNRS UMR 5293.*

POSTER

- 087. Human Cognition and Behavior: Functional Mechanisms of Attention**
- Theme H: Cognition**
- Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H
- 1:00 HHH44 **087.01** Alpha band suppression and the maintenance of attention for the self-face. E. RODRÍGUEZ ALZUETA*; M. MELCON; O. JENSEN; A. CAPILLA. *Univ. Autonoma De Madrid, Univ. of Birmingham.*

- 2:00 HHH45 **087.02** Does vulnerability of cognitive impairments under ethanol and sleep deprivation share the same molecular basis in humans? D. ELMENHORST*; E. ELMENHORST; S. BENDEROTH; T. KROLL; A. BAUER; D. AESCHBACH. *Forschungszentrum Jülich, Rheinische Friedrich-Wilhelms-University Bonn, German Aerospace Ctr. (DLR), RWTH Aachen Univ., Forschungszentrum Jülich, Forschungszentrum Jülich, Heinrich-Heine-University, Harvard Med. Sch.*
- 3:00 HHH46 **087.03** Right intraparietal sulcus (rIPS) modulates the effect of irrelevant salience signals located outside the spatial attentional focus. S. BERTLEFF; G. R. FINK; R. WEIDNER*. *Res. Ctr. Juelich, Univ. Hosp. Cologne.*
- 4:00 HHH47 **087.04** Timing and binding: Temporal attention modulates illusory-figure perception via subjective arousals. T. KASAI*; S. MAKINAE; K. KITAJO; A. FUJI. *Hokkaido Univ., Hokkaido Univ., RIKEN Ctr. for Brain Sci.*
- 1:00 HHH48 **087.05** Representation of task episodes in human cortical networks. T. WEN*; D. J. MITCHELL; J. DUNCAN. *Univ. of Cambridge, MRC Cognition and Brain Sci. Unit, Med. Res. Council.*
- 2:00 HHH49 **087.06** Going offline: Spontaneous alternation between “online” and “offline” waking states. T. SUMMER; E. J. WAMSLEY*. *Univ. of Chicago, Furman Univ.*
- 3:00 HHH50 **087.07** Neural mechanisms of sustained attention are rhythmic. R. F. HELFRICH*; I. C. FIEBELKORN; S. M. SZCZEPANSKI; J. LIN; J. PARVIZI; R. T. KNIGHT; S. KASTNER. *Univ. of California Berkeley, Princeton Univ., Univ. of California, Irvine, Stanford Univ., Univ. of California Berkeley.*
- 4:00 HHH51 **087.08** Interactions between the superior colliculus and the lateral tegmental nucleus in the mouse. N. B. KOTHARI*; W. YOU; S. P. MYSORE. *Johns Hopkins Univ.*
- 1:00 HHH52 **087.09** Endogenous attention selectively modulates reaction time and N1 components to unseen stimuli in hemianopic patients. J. SANCHEZ LOPEZ*; C. A. PEDERSINI; S. SAVAZZI; C. A. MARZI. *Univ. of Verona.*
- 2:00 HHH53 **087.10** Attention modulates cerebral metabolism in the visual cortex. M. M. BRUCKMAIER*; P. PHAN; I. TACHTSIDIS; N. LAVIE. *Univ. Col. London, Univ. Col. London.*
- 3:00 HHH54 **087.11** Perceptual performance resulting from inattentional deafness is predicted by pre-stimulus phase relationship of neural oscillations recorded by electroencephalography in real-world situation. D. E. CALLAN*; T. VANDEBROUCK; F. DEHAIS. *Ctr. for Information and Neural Networks NICT, Inst. Supérieur de l’Aéronautique et de l’Espace (ISAE).*
- 4:00 HHH55 **087.12** Probing the neural mechanisms for distractor filtering and their history-contingent modulation by means of TMS. C. LEGA; O. FERRANTE; E. SANTANDREA*; F. MARINI; L. CATTANEO; L. CHELAZZI. *Univ. of Verona, Univ. of Nevada Reno.*
- 1:00 HHH56 **087.13** Modulation of parietal alpha power reflects contributions of pitch cues to auditory spatial selective attention. L. M. BONACCI*; B. SHINN-CUNNINGHAM. *Boston Univ., Boston Univ.*
- 2:00 HHH57 **087.14** Mapping the human attention spotlight with multifocal MEG. I. KURKI*; A. HYVÄRINEN; L. HENRIKSSON. *Univ. of Helsinki, Univ. Col. London, Univ. of Helsinki, Aalto Univ., Aalto Univ.*

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3:00	HHH58 087.15 Disruption of functional connectivity among subcortical arousal system and cortical network in temporal lobe epilepsy. R. LI*; D. LIU; L. WANG; D. LIU; H. CHEN; B. XIAO; L. FENG. <i>UESTC, Xiangya Hospital, Central South Univ., The Third Xiangya Hospital, Central South Univ., Xiangya Hospital, Central South Univ.</i>	1:00	III11 087.29 ▲ Does peripheral target dimension affect precision of saccade planning? A. N. SWANSON*; W. E. HUDDLESTON. <i>Univ. of Wisconsin - Milwaukee, Univ. of Wisconsin - Milwaukee.</i>
4:00	HHH59 087.16 Electrical stimulation over the posterior parietal cortex alters the distribution of attentional priority maps in human visual cortex. S. WANG*; S. ITTHIPURIPAT; B. CORREIA; G. WOODMAN. <i>Vanderbilt Univ.</i>	2:00	III12 087.30 Voxel-wise modeling of attention fields in the motor system. W. E. HUDDLESTON*; A. S. GREENBERG; J. MATHIS; E. A. DEYOE. <i>Univ. of Wisconsin - Milwaukee, Univ. of Wisconsin-Milwaukee, Med. Col. of Wisconsin.</i>
1:00	HHH60 087.17 Linking adaptive neural responses to behaviour using magnetoencephalography. A. K. ROBINSON*; A. N. RICH; A. WOOLGAR. <i>Macquarie Univ., ARC Ctr. of Excellence in Cognition and its Disorders (CCD), Macquarie Univ., Perception in Action Res. Ctr. (PARC), Macquarie Univ., The Univ. of Sydney, Cambridge Univ.</i>		
2:00	HHH61 087.18 Self-reported media use is associated with altered brain activity during sustained attention. S. LEMIRE-RODGER*; E. R. CONNELL; W. D. STEVENS; G. R. TURNER. <i>York Univ., York Univ., York Univ.</i>		
3:00	III1 087.19 Can meditation improve attention in older adults at risk for falls? S. FORD*; L. S. NAGAMATSU. <i>Western Univ., Western Univ.</i>	1:00	III13 088.01 Expansion microscopy using lipid and protein labels for multimodal structural and functional nanoresolution imaging of brain circuits. J. KANG; E. D. KARAGIANNIS*; T. SHIN; C. YU; E. COSTA; A. EMENARI; E. S. BOYDEN. <i>MIT.</i>
4:00	III2 087.20 The posterior parietal cortex mediates spatial bias reorienting during visual attention. S. BANERJEE*; S. BANERJEE*; S. BANERJEE*; S. GROVER; S. GANESH; S. DEVARAJAN. <i>Indian Inst. of Sci.</i>	2:00	III14 088.02 Expansion microscopy of <i>C. elegans</i> enables whole-organism <i>in situ</i> analysis with nanoscale spatial resolution. C. YU*; N. BARRY; K. D. PIATKEVICH; S. ASANO; G. HUYNH; A. KAZATSKAYA; I. NECHIPURENKO; E. CRONIN; I. SKVORTSOV; Z. TANVIR; S. W. FLAVELL; P. SENGUPTA; G. HASPEL; M. B. GOODMAN; E. S. BOYDEN. <i>MIT, MIT, Brandeis Univ., NJIT and Rutgers University-Newark, MIT, MIT, Stanford Univ., MIT.</i>
1:00	III3 087.21 Fear and loathing in visual search under stress. M. MACLEAN*; T. BULLOCK; T. SANTANDER; A. P. BOONE; G. N. OKAFOR; J. RAYMER; S. T. GRAFTON; M. B. MILLER; B. GIESBRECHT. <i>Univ. of California Santa Barbara, Univ. of California Santa Barbara, Univ. of California Santa Barbara.</i>	3:00	III15 088.03 Multiplexed expansion microscopy in clinical specimens of normal brain and gliomas. P. VALDES*; Y. ZHAO; C. C. TORRES; E. COSTA; K. SHAH; E. A. CHIOCCA; E. S. BOYDEN. <i>Harvard Med. School/Brigham and Women's Hospita, Carnegie Mellon, MIT, MIT, Brigham and Women's Hospital/Harvard Med. Sch.</i>
2:00	III4 087.22 Large-scale network interactions underlying internally directed attention. J. W. KAM*; J. J. LIN; A. SOLBAKK; T. ENDESTAD; P. G. LARSSON; R. T. KNIGHT. <i>Univ. of California Berkley, Univ. of California, Irvine, Univ. of Oslo, Oslo Univ. Hosp.</i>	4:00	III16 088.04 Multiplexed, targeted <i>in situ</i> sequencing of RNA in intact brain processed with expansion microscopy. A. SINHA*; A. T. WASSIE; S. ALON; D. GOODWIN; A. H. MARBLESTONE; F. CHEN; G. M. CHURCH; E. S. BOYDEN. <i>MIT, MIT, MIT Media Lab., Harvard Med. Sch.</i>
3:00	III5 087.23 Illusory contour neural coding in human cortex is modulated by selective attention. T. W. BULLOCK*; A. STROM; M. MACLEAN; B. GIESBRECHT. <i>Univ. of California, Univ. of California, Univ. of California.</i>	1:00	III17 088.05 Extracellular space labeling for connectomic analysis in mouse brain using expansion microscopy. A. EMENARI*; E. D. KARAGIANNIS; J. KANG; E. S. BOYDEN. <i>MIT.</i>
4:00	III6 087.24 How involuntary and voluntary attention interact: Examining neural biasing mechanisms during the cue-target interval. J. M. KEEFE*; V. S. STÖRMER. <i>Univ. of California San Diego.</i>	2:00	III18 088.06 Extracellular space labeling of the zebrafish brain using expansion microscopy. J. KANG*; E. HOSSEINI; E. D. KARAGIANNIS; A. EMENARI; T. SHIN; C. YU; E. JUNG; K. D. PIATKEVICH; E. S. BOYDEN. <i>MIT, Harvard Univ., MIT, MIT.</i>
1:00	III7 087.25 Abnormal patterns of alfa-band EEG asymmetry during preparatory orienting of attention in left spatial neglect. S. LASAPONARA; F. DORICCHI*. <i>Universita' di Roma la Sapienza - Dept. di Psicologia - Fondazione Santa Lucia IRCCS Roma.</i>	3:00	III19 088.07 ● <i>In situ</i> mapping of RNA at subcellular resolution using expansion sequencing (ExSeq) in intact brain tissue. D. GOODWIN*; S. ALON; F. CHEN; A. WASSIE; A. PAYNE; A. SINHA; H. SUK; E. DAUGHARTHY; P. REGINATO; N. PAK; Y. BANDO; K. MARRETT; A. KAJITA; R. WANG; P. W. TILLBERG; A. MARBLESTONE; G. CHURCH; E. S. BOYDEN. <i>MIT, ReadCoor, Toshiba Memory America, Inc., Fixstars Solutions, Inc, Janelia Res. Campus, Harvard Med. Sch.</i>
2:00	III8 087.26 Covert spatial attention speeds target individuation. J. J. FOSTER*; E. M. BSALES; E. AWH. <i>Univ. of Chicago.</i>	4:00	III20 088.08 Iterative direct expansion microscopy. D. SARKAR*; A. T. WASSIE; K. PIATKEVICH; T. TARR; A. TANG; T. BLANPIED; E. BOYDEN. <i>MIT, MIT, MIT, Univ. of Maryland.</i>
3:00	III9 087.27 Dissociating the effects of affective salience and signal probability on visual attention. M. JATIVA*; J. H. KRYKLYWY; S. HU; M. RANSOM; J. MARKOVIC; S. FAZELPOUR; R. M. TODD. <i>Univ. of British Columbia.</i>		
4:00	III10 087.28 Cortical dynamics of auditory attention during mind wandering. N. BARASCUD*; J. SACKUR; S. KOUIDER. <i>Ecole Normale Supérieure, École des Hautes Études en Sci. Sociales.</i>		

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- 1:00 III21 **088.09** Robust, millivolt-resolution, high-speed neural voltage imaging in multiple species. E. JUNG*, K. PIATKEVICH; C. STRAUB; C. LINGHU; D. PARK; H. SUK; D. HOCHBAUM; D. GOODWIN; E. PNEVMATIKAKIS; N. PAK; T. KAWASHIMA; C. YANG; J. RHOADES; O. SHEMESH; S. ASANO; Y. YOON; L. FREIFELD; J. SAULNIER; C. RIEGLER; F. ENGERT; T. E. HUGHES; M. DROBIZHEV; B. BALINT; M. AHRENS; S. FLAVELL; B. SABATINI; E. BOYDEN. *MIT, Harvard Med. Sch., Simons Fndn., Howard Hughes Med. Inst., Harvard Univ., Montana State Univ., Eotvos Univ.*
- 1:00 DP13/III22 **088.10** (Dynamic Poster) Precision calcium imaging of dense neural populations via a cell body-targeted calcium indicator. O. A. SHEMESH*; C. LINGHU; K. PIATKEVICH; D. GOODWIN; H. GRITTON; R. GAO; M. F. ROMANO; H. TSENG; S. BENSUSSEN; S. NARAYAN; C. YANG; L. FREIFELD; C. SICILIANO; I. GUPTA; N. PAK; Y. YOON; J. F. ULLMANN; Z. R. SHEINKOPF; S. ASANO; W. PARK; A. KEATING; J. REIMER; K. M. TYE; A. S. TOLIAS; X. HAN; M. B. AHRENS; E. S. BOYDEN. *MIT, Boston Univ., MIT, Boston Univ., HHMI- Janelia Res. Campus, MIT, MIT, Boston Children's Hosp. and Harvard Med. Sch., MIT, Baylor Col. of Med., MIT, Janelia Res. Campus / HHMI.*
- 3:00 III23 **088.11** Transcriptional RNA associated memory for molecular recording of neural activity. S. G. RODRIQUES*; L. M. CHEN; S. LIU; E. D. ZHONG; J. R. SCHERRER; E. S. BOYDEN; F. CHEN. *MIT, Broad Inst. of Harvard and MIT, MIT, MIT, MIT.*
- 4:00 III24 **088.12** Sparse decomposition light-field microscopy for high speed 3-D imaging of neuronal activity. Z. WANG*; Y. YOON; N. PAK; D. PARK; P. DAI; J. KANG; H. SUK; K. WANG; E. S. BOYDEN. *MIT, Univ. of Sci. and Technol. of China, MIT, MIT, MIT, Harvard Univ., MIT, Shanghai Inst. for Biol. Sciences, Chinese Acad. of Sci., Shanghai Inst. for Biol. Sciences, Chinese Acad. of Sci., Shanghai Inst. for Biol. Sciences, Chinese Acad. of Sci., Univ. of Chinese Acad. of Sci., MIT, MIT, MIT.*
- 1:00 III25 **088.13** High speed voltage imaging and optogenetic control of neural activity in living mouse brain. M. H. MURDOCK*; K. D. PIATKEVICH; S. BENSUSSEN; H. TSENG; D. GOODWIN; C. LINGHU; O. A. SHEMESH; S. SHROFF; E. JUNG; A. YANG; A. WASSIE; L. TSAI; X. HAN; E. S. BOYDEN. *MIT, Boston Univ.*
- 2:00 III26 **088.14** Effects of sleep deprivation on theory of visual attention (TVA) parameters in the mouse 5-choice serial reaction time task. C. M. FITZPATRICK*; D. P. D. WOLDBYE; U. GETHER; J. T. ANDREASEN. *Univ. of Copenhagen.*
- 3:00 III27 **088.15** PICK1 modulation of protein kinase A (PKA) activity. M. B. LEVER*; G. DI MOLFETTA; K. L. MADSEN. *Univ. of Copenhagen, Univ. of Copenhagen.*
- 4:00 III28 **088.16 ▲** Knock-in mice expressing disease-associated dopamine transporter mutations: A novel model for ADHD? L. K. KONRAD*; F. HERBOG; F. L. M. BERLIN; U. GETHER. *Univ. of Copenhagen.*

POSTER

- 089. Computation, Modeling, and Simulation: Cellular Models**
- Theme I: Techniques**
- Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H
- 1:00 III29 **089.01** Approximations for the firing rate dynamics of neurons modelled with dendrites and axon. R. P. GOWERS*; Y. TIMOFEEVA; M. J. RICHARDSON. *Univ. of Warwick, Univ. of Warwick.*
- 2:00 III30 **089.02** ● Deep brain stimulation of afferent axon terminals. K. L. BOWER*; C. C. MCINTYRE. *Case Western Reserve Univ.*
- 3:00 III31 **089.03** Interplay of activation kinetics and derivative conductance determines resonance properties in a neuron model with I_h current. R. D. PENA*; C. C. CEBALLOS; V. LIMA; A. C. ROQUE. *Univ. of Sao Paulo, Univ. of São Paulo, Univ. of Sao Paulo, Univ. de Sao Paulo.*
- 4:00 III32 **089.04** A general method to generate artificial spike train populations. S. ABBASI; S. MARAN; D. JAEGER*. *Hamedan Univ. of Technol., Emory Univ.*
- 1:00 III33 **089.05** Computational modeling of intrinsic cardiac neuron in a porcine model: Implication of the role of ion channels in generating action potential. S. SALAVATIAN*; M. LANKARANY; J. TOMPKINS; A. VINET; G. KEMBER; A. ARMOUR; M. VASEGH; J. ARDELL. *The Hosp. for Sick Children, UC Los Angeles, Univ. of Montreal, Dalhousie Univ.*
- 2:00 III34 **089.06** Generating all-active biophysical models for human and mouse neurons. A. NANDI*; A. BUCHIN; C. ANASTASSIOU. *Allen Inst. for Brain Sci., Univ. of British Columbia.*
- 3:00 III35 **089.07** Comparison between model and experiments: Features of the extracellular spike waveform vary with different cell types. Y. WEI*; X. JIA; A. NANDI; K. DAI; S. OLSEN; C. A. ANASTASSIOU. *Allen Inst. for Brain Sci.*
- 4:00 III36 **089.08** Features of the extracellular action potential vary with the cardiac cycle: Toward *in vivo* classification of cells in the human and macaque brain. C. P. MOSHER*; Y. WEI; J. KAMINSKI; M. E. YOUNG; P. H. RUDEBECK; A. MAMELAK; C. ANASTASSIOU; U. RUTISHAUSER. *Cedars-Sinai Med. Ctr., Allen Inst. for Brain Sci., Icahn Sch. of Med. at Mount Sinai, Univ. of British Columbia, Caltech.*
- 1:00 III37 **089.09** Methods for fitting compartmental models to neuronal data. R. BEN-SHALOM*; K. G. KIM; M. T. SIT; T. KIM; N. FONG; D. MAO; K. J. BENDER. *UCSF, UC Berkeley, UCSF.*
- 2:00 III38 **089.10** Modeling repertoire of activity patterns for *Drosophila* multimodal sensory neurons. N. MAKSYMCHUK*; D. N. COX; G. S. CYMBALYUK. *Georgia State Univ.*
- 3:00 III39 **089.11** Prosthetic brain repair possibilities using self assembly: A speculative approach and possible road map. A. C. PARKER*; K. YUE; R. LEE. *USC, USC.*
- 4:00 III40 **089.12** Computational model of an alpha motor neuron to study the progression of amyotrophic lateral sclerosis. D. E. COSTA MATOSO*; H. SANCHEZ FERNANDES; L. A. ELIAS. *Univ. of Campinas, Univ. of Campinas, Univ. of Campinas - UNICAMP.*

* Indicated a real or perceived conflict of interest, see page 74 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

1:00	III41 089.13 A modeling and experimental framework to understand and optimize ultrasound neuromodulation. T. LEMAIRE*; F. DEDOLA; F. P. ULLOA SEVERINO; A. CUTRONE; N. KUSTER; A. MAZZONI; V. TORRE; E. NEUFELD; S. MICERA. <i>Swiss Federal Inst. of Technol. Lausanne, Scuola Superiore Sant'Anna, Scuola Internazionale Superiore di Studi Avanzati, IT'IS Fndn., Swiss Federal Inst. of Technol. Zurich.</i>	2:00	III52 090.10 Effect of filter's cutoff frequencies and ICA on the amplitudes of somatosensory evoked potentials. M. NAVID*; I. K. NIAZI; D. LELIC; A. M. DREWES; H. HAAVIK. <i>Aalborg Univ. Hosp., Aalborg Univ., New Zealand Col. of Chiropractic, Auckland Univ. of Technol., Aalborg Univ.</i>
2:00	III42 089.14 Modeling the spatial inhomogeneous degradation of nitric oxide (NO) shows a key role of anatomically localized NO production. W. D. HASELDEN*; R. TEJA; P. J. DREW. <i>The Pennsylvania State Univ., Pennsylvania State Univ., Pennsylvania State Univ.</i>	1:00	DP14/III53 090.11 ● (Dynamic Poster) Low cost, high throughput EEG & ERP research with a sparse wearable system. G. MOFFAT*; N. PROULX; H. J. BANVILLE; C. AIMONE. <i>Interaxon.</i>
POSTER			
090.	Data Analysis and Statistics: Human Data: EEG, Electrophysiology, and DBS	4:00	III54 090.12 Relation of local field potentials and multi-unit activity during interictal epileptic activity. M. GLASTETTER*; E. LIZANA; A. SCHULZE-BONHAGE; T. BALL. <i>Univ. Med. Ctr.</i>
<i>Theme I: Techniques</i>			
Sat. 1:00 PM – San Diego Convention Center, SDCC Halls B-H			
1:00	III43 090.01 ● Remifentanil and nitrous oxide anesthesia produces a unique pattern of EEG activity during loss and recovery of response. S. L. EAGLEMAN*; C. DROVER; D. DROVER; N. OUELLETTE; B. MACIVER. <i>Stanford Univ., Univ. of Washington, Stanford Univ., Stanford Univ.</i>	1:00	III55 090.13 Modeling brain dynamic state changes with adaptive mixture independent component analysis. S. HSU*; L. PION-TONACHINI; J. A. PALMER; M. MIYAKOSHI; S. MAKEIG; T. JUNG. <i>Univ. of California San Diego, Osaka Univ.</i>
2:00	III44 090.02 ● Modulation analysis of evoked potentials related to auditory-visual integration. M. E. PFLIEGER*; L. GAO. <i>Cortech Solutions, Inc., San Diego State Univ.</i>	2:00	III56 090.14 A novel approach to enhance statistical power for regions of interest based analysis in eeg and meg data. F. MAMASHLI*; M. HAMALAINEN; T. KENET; S. KHAN. <i>Massachusetts Gen. Hosp., Harvard Med. Sch., Massachusetts Gen. Hosp, Massachusetts Gen. Hosp.</i>
3:00	III45 090.03 A framework for realistic simulation of EEG scalp signals using MRI-based forward models and biologically plausible models of neural signal and noise. E. BARZEGARAN*; P. J. KOHLER; A. M. NORCIA. <i>Stanford Univ.</i>	3:00	III57 090.15 Uncovering the low-dimensional structure of high-dimensional electrophysiological recordings in epilepsy. J. RAPELA*; T. PROIX; D. TODOROV; W. TRUCCOLO. <i>Brown Univ.</i>
4:00	III46 090.04 Controlling robot by electroencephalograms on recalling images of its movement. T. YAMANOI*; H. TAKAYANAGI; H. TOYOSHIMA; T. YAMAZAKI; M. SUGENO. <i>Hokkai-Gakuen Univ., Future Univ. Hakodate, Japan Tech. Software, Kyushu Inst. of Technol., Tokyo Inst. of Technol.</i>	4:00	III58 090.16 Improving data quality and noise assessment in EEG signals: Bootstrapped standard error as a general and principled method. A. X. STEWART*; S. J. LUCK. <i>Univ. of California, Davis.</i>
1:00	III47 090.05 Do seizures have a characteristic timescale for detection? L. SOUZA FRANCA*; M. C. WALKER; Y. WANG. <i>Univ. Col. London, Newcastle Univ.</i>	1:00	III59 090.17 A method to estimate the active site by the brain functional connectivity networks based on electroencephalograms during various facial expressions. A. WATANABE*; T. YAMAZAKI; I. NEMOTO. <i>Kyushu Inst. of Technol., Tokyo Denki Univ.</i>
2:00	III48 090.06 ●▲ A hidden Markov model for estimating burst suppression states. T. BAUM; S. CHAKRAVARTY*; J. AN; P. KAHALI; B. WESTOVER; E. N. BROWN. <i>Penn State Univ., MIT, MIT, Natl. Univ. of Singapore, Massachusetts Gen. Hosp., MIT, MIT.</i>	2:00	III60 090.18 Three distinct sets of connector hubs integrate human brain function. E. M. GORDON*; C. J. LYNCH; C. GRATTON; T. O. LAUMANN; A. W. GILMORE; D. J. GREENE; M. ORTEGA; A. L. NGUYEN; B. L. SCHLAGGAR; S. E. PETERSEN; N. U. F. DOSENBACK; S. M. NELSON. <i>Ctr. of Excellence for Res. on War Veterans, Georgetown Univ., Washington Univ. in St. Louis, Lab. of Brain and Cognition, NIMH/NIH, Washington Univ. Sch. of Med., Washington Univ, Sch. Med., Washington Univ. Sch. Med., Washington Univ. In St. Louis.</i>
3:00	III49 090.07 ● Opening the gate to continuous SSVEP-based BCIs. T. WILAIPRASITPORN*; X. DU; F. KOEGL; N. BANLUESOMBATKUL; P. MANOONPONG; T. YAGI. <i>Vidyasirimedhi Inst. of Sci. and Technol., Tokyo Inst. of Technol., Munich Sch. of Engin.</i>	3:00	III61 090.19 The convergence of quantitative EEG values over long sample times. G. J. MAY*; E. M. GORDON; L. ZAMBRANO-VAZQUEZ; H. WAHBEH; S. M. NELSON. <i>Ctr. of Excellence for Res. on War Veterans, Oregon Hlth. & Sci. Univ.</i>
4:00	III50 090.08 Universal spike classification. M. SAIF-UR-REHMAN*; R. LIENKÄMPER; Y. PARPALEY; T. GLASMACHERS; C. LIU; B. LEE; S. KELLIS; R. ANDERSEN; C. KLAES. <i>Ruhr Univ., Ruhr Univ., USC, Caltech.</i>	4:00	III62 090.20 Regression analysis of the resting tremor local field potentials in Parkinson's disease: Toward graded adaptive DBS control. L. YAO*; M. SHOARAN. <i>Cornell Univ.</i>
1:00	III51 090.09 Exploring mental state changes during hypnotherapy using adaptive mixture independent component analysis. Y. ZI*; S. HSU; Y. WU; T. JUNG. <i>Swartz Ctr. for Computat. Neuroscience, INST.</i>	1:00	III63 090.21 The brain simulation platform of the human brain project - v2.0: Building brain models in a collaborative environment. L. BOLOGNA*; C. A. LUPASCU; R. MIGLIORE; J. COURCOL; F. SCHUERMANN; A. P. DAIVISON; M. MIGLIORE. <i>Natl. Res. Council -Institute of Biophysics, EPFL - Blue Brain Project, Ctr. Nationale de la Recherche Scientifique (CNRS).</i>
2:00	2:00		
III64 090.22 Investigating the role of fiber tractography in DBS target localization. V. K. SRIVASTAVA; C. BOULAY*; A. J. SACHS. <i>Ottawa Hosp. Res. Inst.</i>			

• Indicated a real or perceived conflict of interest, see page 74 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

3:00	III65 090.23 Comparison of algorithm complexity when programming DBS systems with multi-objective particle swarm optimization. M. GOFTARI*; E. PEÑA; S. ZHANG; M. D. JOHNSON. <i>Univ. of Minnesota Twin Cities, Univ. of Minnesota Twin Cities, Univ. of Minnesota, Univ. of Minnesota.</i>	4:00	JJJ7 091.08 • Topological methods for modeling massive data in computational neuroscience and applications to networks in brain imaging, information in eye movement, communication of perceptual information in natural images, elucidation of features in neurodevelopment disorders, and attention: Local-to-global integration of information in nonlinear dynamical systems and spatiotemporal heterogeneous data. A. H. ASSADI*; A. ARDALAN; H. GAO; M. NELSON; E. QASEMI; Y. SONG; X. WANG; J. XUAN; E. DE LESTRANGE-ANGINIEUR; B. TRAVERS. <i>Univ. Wisconsin, Univ. of Wisconsin, Zhejiang Univ., Univ. of Wisconsin, Univ. of Wisconsin, Beijing No.8 High Sch., Univ. of Wisconsin, Univ. of Michigan, Hong Kong Polytechnic Univ., Univ. of Wisconsin.</i>
4:00	III66 090.24 Qualitative research and user-centered design of deep brain stimulation. Z. SUSKIN*. <i>Georgetown Univ. Sch. of Med., Harvard Med. Sch., Pellegrino Ctr. for Clin. Bioethics.</i>		
1:00	III67 090.25 ● Computational modeling for personalized and optimized deep and targeted temporal interference brain stimulation. A. M. N. CASSARA; E. NEUFELD*; E. S. BOYDEN; N. KUSTER; N. GROSSMAN. <i>IT'IS Fndn., IT'IS Fndn., MIT, ETH Zurich & IT'IS Fndn., Imperial Col. London.</i>	1:00	JJJ8 091.09 A state-based statistical model for characterizing the modulation of sensory cortical responses. K. NIKNAM*, A. AKBARIAN AGHDAM; B. NOUDOOST; N. NATEGH. <i>Univ. of Utah, Univ. of Utah.</i>
2:00	2:00	2:00	JJJ9 091.10 Speaker-independent auditory attention decoding without access to clean sources. Y. LUO*, J. O'SULLIVAN; J. L. HERRERO; A. D. MEHTA; N. MESGARANI. <i>Columbia Univ., Feinstein Inst. for Med. Res., Hofstra North Shore LIJ Sch. of Med.</i>
3:00	3:00	3:00	JJJ10 091.11 3D simulation of the structural and functional properties of the human sensory system: Auditory and visual system. M. EVREN*; V. EVREN; E. O. KOYLU. <i>Ege Univ., natural and applied sciences, Ege Univ., Ege Univ. Sch. Med.</i>
4:00	4:00	4:00	JJJ11 091.12 Development of Japanese eye typing system. I. MOTOYAMA*; T. UDA; M. YAMAZAKI; N. OKAMOTO; Y. KURODA; H. EDA. <i>Grad. Sch. For GPI, Orange Arch Inc., GRAND COEUR LAB LLC, Col. of Social Sciences, Ritsumeikan Univ., Kyoto Univ. of Educ., Phonics Innovations Co., Ltd.</i>
1:00	1:00	1:00	JJJ12 091.13 Development of mutual learning system for advanced educational research. - NIRS and GSR measurement during tangram puzzle -. M. YAMAZAKI*; N. OKAMOTO; Y. KURODA; H. EDA. <i>Grand Coeur Lab. LLC, Col. of Social Sciences, Ritsumeikan Univ., Kyoto Univ. of Educ., Grad. Sch. For GPI.</i>
2:00	2:00	2:00	JJJ13 091.14 Rotation and Translation accuracy of VIVE trackers. S. M. J. VAN DER VEEN; M. BORDELEAU; C. R. FRANCE; P. E. PIDCOE; J. S. THOMAS*. <i>Ohio Univ., Laval Univ., Virginia Commonwealth Univ.</i>
3:00	3:00	3:00	JJJ14 091.15 Automated video-based clustering of mouse posture reveals individualized behavioral dynamics. L. WILLMORE*; M. KISLIN; J. VERPEUT; T. J. PISANO; B. CHO; T. D. PEREIRA; D. E. ALDARONDO; S. RAVINDRANATH; M. MURTHY; J. SHAEVITZ; S. S. WANG. <i>Princeton Univ., Princeton Univ., Princeton Univ., Princeton Univ.</i>
4:00	4:00	4:00	JJJ15 091.16 Fast estimation of animal pose using deep neural networks. T. D. PEREIRA*; D. E. ALDARONDO; J. SHAEVITZ; M. MURTHY. <i>Princeton Univ., Princeton Univ., Princeton Univ., Princeton Univ.</i>
1:00	1:00	1:00	JJJ16 091.17 Rehabilitation stick can show the movement character and the outcome of trials. Y. SATO; H. EDA*; H. SAKAI. <i>Somic Ishikawa Inc, Grad. Sch. For GPI, Photonics Innovations Co. Ltd., Tokyo Univ. of Technol.</i>
2:00	2:00	2:00	JJJ17 091.18 Realistic biomechanical lower-limb model implemented for human-in-the-loop applications. T. MOON*; M. T. BOOTS; A. SOBINOV; S. YAKOVENKO. <i>West Virginia Univ., WVU Rockefeller Neurosci. Inst.</i>

• Indicated a real or perceived conflict of interest, see page 74 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

3:00 JJJ18 **091.19** The long term exposure to learning activity with strong sense of weak point affects the autonomic nerve activity. - Pilot study to elucidate the actual situation of dyslexia student at university -. A. KAWASAKI*; T. TAKAHASHI; Y. MATSUZAKI; H. TAKEUCHI; M. NAKAGAWA. *Tohoku Univ., Shinshu Univ., Tohoku Univ., Tohoku Univ., Intl. university of health and welfare hospital.*

4:00 JJJ19 **091.20** The difference of the involvement in visual attention lead to different results in the performance of the eye movement function. T. KAWADA*; A. KAWASAKI; T. TAKAHASHI. *Tohoku Univ., Shinshu Univ.*

* Indicated a real or perceived conflict of interest, see page 74 for details.

▲ Indicates a high school or undergraduate student presenter.

* Indicates abstract's submitting author

Conflict of Interest Statements

The following presenters, signified by a dot (•) in the program, indicated a real or perceived conflict of interest.
Presenters listed without a dot in the program had no financial relationships to disclose.

PRESENTATION NUMBER	STATEMENT	PRESENTATION NUMBER	STATEMENT
010.02	F. Macciardi: A. Employment/Salary (full or part-time); university of california.		
010.05	D.P. Hibar: A. Employment/Salary (full or part-time); Janssen R&D, LLC. D. Fees for Non-CME Services Received Directly from Commercial Interest or their Agents (e.g., speakers' bureaus); Janssen R&D, LLC.		
010.06	D.P. Hibar: A. Employment/Salary (full or part-time); Janssen R&D, LLC. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Janssen R&D, LLC.		
012.02	F. Dudek: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Dr. F. E. Dudek has received consulting fees and equipment discounts from and has equity interest in Epitel, Inc., the company that produced the miniature telemetry transmitters used in this study.		
012.05	M.L. Barker-Haliski: A. Employment/Salary (full or part-time); University of Washington. C. Kinoshita: A. Employment/Salary (full or part-time); University of Washington. H.S. White: A. Employment/Salary (full or part-time); University of Washington. R.S. Morrison: A. Employment/Salary (full or part-time); University of Washington.		
012.07	A. Zayachkivsky: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neurona Therapeutics. F. Dudek: C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Epitel, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Epitel, Inc. F. Consulting Fees (e.g., advisory boards); Epitel, Inc.		
014.03	T. Harrigan: Other; Tuve Part-time Sabbatical from JHUAPL.		
014.06	I. Garitaonandia: A. Employment/Salary (full or part-time); International Stem Cell Corporation. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); International Stem Cell Corporation. R. Gonzalez: A. Employment/Salary (full or part-time); International Stem Cell Corporation. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); International Stem Cell Corporation. G. Sherman: A. Employment/Salary (full or part-time); International Stem Cell Corporation. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); International Stem Cell Corporation. A. Noskov: A. Employment/Salary (full or part-time); International Stem Cell Corporation. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); International Stem Cell Corporation. D. Cardiff: A. Employment/Salary (full or part-time); International Stem Cell Corporation. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); International Stem Cell Corporation. T. Christiansen-Weber: A. Employment/Salary (full or part-time); International Stem Cell Corporation. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); International Stem Cell Corporation. A. Semechkin: A. Employment/Salary (full or part-time); International Stem Cell Corporation. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); International Stem Cell Corporation. G. Nair: B. Contracted Research/Research		
014.07			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.; International Stem Cell Corporation. A. Evans: 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.; International Stem Cell Corporation. R.A. Kern: A. Employment/Salary (full or part-time); International Stem Cell Corporation. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); International Stem Cell Corporation.
019.03			C.E. Moussa: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Dr. Moussa is amn inventor of an issued patent to use tyrosine kinase inhibitors as a treatment for neurodegenerative diseases, Georgetown University.
024.02SU			H. Banville: A. Employment/Salary (full or part-time); Interaxon. T. McNeely: A. Employment/Salary (full or part-time); Interaxon. N. Proulx: A. Employment/Salary (full or part-time); Interaxon Inc. G. Moffat: A. Employment/Salary (full or part-time); Interaxon Inc. G. King: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); KBD Group.
026.11SU			E. Cordell: A. Employment/Salary (full or part-time); Lumos Labs. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Lumos Labs. N. Ng: A. Employment/Salary (full or part-time); Lumos Labs. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Lumos Labs. R. Schafer: A. Employment/Salary (full or part-time); Lumos Labs. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Lumos Labs.
030.09			S. Ikezu: C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Plexxikon, Inc. A.A. Van Enoo: C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Plexxikon, Inc. H. Yeh: C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Plexxikon, Inc. T. Ikezu: C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Plexxikon, Inc.
030.14			M. Chiesa: A. Employment/Salary (full or part-time); NEUROCHLORE. D. Guimond: A. Employment/Salary (full or part-time); NEUROCHLORE. R. Tyzio: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NEUROCHLORE. N. Lozovaya: A. Employment/Salary (full or part-time); NEUROCHLORE. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NEUROCHLORE. N. Burnashev: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NEUROCHLORE. D.C. Ferrari: A. Employment/Salary (full or part-time); NEUROCHLORE. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NEUROCHLORE. Y. Ben-Ari: A. Employment/Salary (full or part-time); NEUROCHLORE. E. Ownership

PRESENTATION NUMBER	STATEMENT	PRESENTATION NUMBER	STATEMENT
	Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NEUROCHLORE.	039.04	W. Agnew-Svoboda: A. Employment/Salary (full or part-time); University of California, Riverside.
031.01	W.S. Messer: Other; Patents related to the use of muscarinic agonists. M.E. Ragozzino: Other; Patents related to the use of muscarinic agonists.	040.05	C. Fleming: A. Employment/Salary (full or part-time); Ncardia. D. Hess: A. Employment/Salary (full or part-time); Ncardia. M. Kennedy: A. Employment/Salary (full or part-time); Ncardia. T. Palm: A. Employment/Salary (full or part-time); Ncardia. G.C. Luerman: A. Employment/Salary (full or part-time); Ncardia.
031.02	M.E. Ragozzino: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Holds patent related to use of muscarinic agonists for the treatment of autism spectrum disorders. W.S. Messer: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Holds patent related to use of muscarinic agonists for the treatment of autism spectrum disorders.	040.12	S. Petrou: Other; Dr. Petrou reports commercial interests as Scientific Co-Founder of Praxis Precision Medicine, Scientific Founder of RogCon, and Advisory Board Member of Pairnomix.
031.16	D. Goldstein: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Pairnomix, Praxis. F. Consulting Fees (e.g., advisory boards); AstraZeneca.	042.16	A. Butt: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Gliagenesis Ltd.
031.23	D. Goldstein: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Pairnomix, Praxis. F. Consulting Fees (e.g., advisory boards); AstraZeneca. S.F. Traynelis: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NeurOp Inc. F. Consulting Fees (e.g., advisory boards); Sage Therapeutics.	042.19	S. Zhang: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Founder of BrainXell, Inc.
032.02	K. Kretschmannova: A. Employment/Salary (full or part-time); PsychoGenics Inc. J. Sanchez-Padilla: A. Employment/Salary (full or part-time); PsychoGenics Inc. S. Gelman: A. Employment/Salary (full or part-time); PsychoGenics Inc. J. Palma: A. Employment/Salary (full or part-time); PsychoGenics Inc. H. Fernandes: A. Employment/Salary (full or part-time); PsychoGenics Inc. G. Tombaugh: A. Employment/Salary (full or part-time); PsychoGenics Inc. M. Kwan: A. Employment/Salary (full or part-time); PsychoGenics Inc. J. Beltran: A. Employment/Salary (full or part-time); PsychoGenics Inc. A. Ghavami: A. Employment/Salary (full or part-time); PsychoGenics Inc. E. Leahy: A. Employment/Salary (full or part-time); PsychoGenics Inc.	042.29	C. Cali: A. Employment/Salary (full or part-time); King Abdullah University of Science and Technology.
032.15	D. Guimond: A. Employment/Salary (full or part-time); Neurochlore. C. Dumon: A. Employment/Salary (full or part-time); Neurochlore. R. Tyzio: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neurochlore. P. Bonifazi: F. Consulting Fees (e.g., advisory boards); Neurochlore. N. Lozovaya: A. Employment/Salary (full or part-time); Neurochlore. N. Burnashev: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neurochlore. D.C. Ferrari: A. Employment/Salary (full or part-time); Neurochlore. Y. Ben-Ari: A. Employment/Salary (full or part-time); Neurochlore.	043.10	B. Emery: A. Employment/Salary (full or part-time); Oregon Health and Science University.
033.09	L.P. Spear: 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.; P50AA017823-08.	044.03	A. Srivastava: A. Employment/Salary (full or part-time); Full, Jena University Hospital, Hans-Berger Department of Neurology, Jena.
035.04	G. Short: A. Employment/Salary (full or part-time); Flex Pharma. A. Brockman: 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.; Flex Pharma. R. Perni: 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.; Flex Pharma. W. McVicar: A. Employment/Salary (full or part-time); Flex Pharma.	044.13	T. Natori: A. Employment/Salary (full or part-time); Univ. Yamanashigakuin.
035.14	S. Tetenborg: A. Employment/Salary (full or part-time); Part-time.	045.01	S.M. Catalano: A. Employment/Salary (full or part-time); Cognition Therapeutics. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics, Inc. N.J. Izzo: A. Employment/Salary (full or part-time); Cognition Therapeutics, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics, Inc. K. Mozzoni: A. Employment/Salary (full or part-time); Cognition Therapeutics, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics, Inc. C. Rehak: A. Employment/Salary (full or part-time); Cognition Therapeutics, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics, Inc. M. Grundman: A. Employment/Salary (full or part-time); Cognition Therapeutics, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics, Inc.
		045.02	N.J. Izzo: A. Employment/Salary (full or part-time); Cognition Therapeutics. C. Silky: A. Employment/Salary (full or part-time); Cognition Therapeutics, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics, Inc. C. Rehak: A. Employment/Salary (full or part-time); Cognition Therapeutics, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics, Inc. K. Mozzoni: A. Employment/Salary (full or part-time); Cognition Therapeutics, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics, Inc. L. Waybright: A. Employment/Salary (full or part-time); Cognition Therapeutics, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics, Inc. R. Yurko: A. Employment/

PRESENTATION NUMBER	STATEMENT	PRESENTATION NUMBER	STATEMENT
	Salary (full or part-time); Cognition Therapeutics, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics, Inc. N. Knezovich : A. Employment/Salary (full or part-time); Cognition Therapeutics, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics, Inc. R. Martone : A. Employment/Salary (full or part-time); Cognition Therapeutics, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics, Inc. S. Catalano : A. Employment/Salary (full or part-time); Cognition Therapeutics, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics, Inc.		time); Novartis. C.A.F. von Arnim : C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Roche diagnostics, Biologische Heilmittel Heel, ViaMed. F. Consulting Fees (e.g., advisory boards); Nutricia. Other; Speaker honoraria: Nutricia, Lilly Germany, Desitin Arzneimittel, Biogen, Dr. Willmar Shwabe GmbH&Co.KG. M. Staufenbiel : A. Employment/Salary (full or part-time); Novartis. D. Thal : B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Janssen Pharmaceutical Companies. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Novartis, GE-Healthcare, Probiotdrug. F. Consulting Fees (e.g., advisory boards); GE Healthcare, Covance laboratories.
045.04	S. Martin : E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Co Founder NuvoNuro, Inventor on patent applications. J. Sahn : E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Co Founder NuvoNuro, Inventor on patent applications.	048.01	B. Mastis : A. Employment/Salary (full or part-time); Abbvie. R. Chang : A. Employment/Salary (full or part-time); Abbvie. K. Yanamandra : A. Employment/Salary (full or part-time); Abbvie. B. Desrosiers : A. Employment/Salary (full or part-time); Abbvie. T. Feldman : A. Employment/Salary (full or part-time); Abbvie. X. Langlois : A. Employment/Salary (full or part-time); Abbvie. T. Dellovade : A. Employment/Salary (full or part-time); Abbvie, Inc.
045.05	M. Singh : E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Provisional Patent filed on technology associated with the research. T. Nguyen : E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Provisional Patent filed on technology associated with the research. C. Su : E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Provisional Patent filed on technology associated with the research.	048.05	K. Van Kolen : A. Employment/Salary (full or part-time); Janssen R&D. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Janssen R&D. L. Delbroek : A. Employment/Salary (full or part-time); Janssen PRD. M. Vandermeeren : A. Employment/Salary (full or part-time); Janssen PRD. C. Theunis : A. Employment/Salary (full or part-time); Janssen PRD. M.H. Mercken : A. Employment/Salary (full or part-time); Janssen PRD.
046.04	W.C. Mobley : C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); UC San Diego. M. Maccecchini : A. Employment/Salary (full or part-time); QR Pharma, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); QR Pharma, Inc. X. Chen : B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; UC San Diego.	048.09	A.P. Wright : A. Employment/Salary (full or part-time); ADRx. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); ADRx. J. Scherrer : A. Employment/Salary (full or part-time); ADRx. G. Naumann : A. Employment/Salary (full or part-time); ADRx. M.I. Apostol : A. Employment/Salary (full or part-time); ADRx. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); ADRx.
046.06	J. Lee : A. Employment/Salary (full or part-time); Korea Brain Research Institute.	048.13	E.M. Sigurdsson : E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); EMS is an inventor on patents on tau immunotherapy and related diagnostics that are assigned to New York University. Some of this technology is licensed to and is being co-developed with H. Lundbeck A.
046.09	M.D. Spritzer : 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.; BioTherapeutic LLC.	048.15	M. Albino Matias : A. Employment/Salary (full or part-time); Janssen Pharmaceutica NV. L. Raeymaekers : A. Employment/Salary (full or part-time); Janssen Pharmaceutica NV. C. Wintmolders : A. Employment/Salary (full or part-time); Janssen Pharmaceutica NV.
046.16	M. Sawa : C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Ionis Pharmaceuticals. H. Zhao : A. Employment/Salary (full or part-time); Ionis Pharmaceuticals. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Stock holder of Ionis Pharmaceuticals. H. Kordasiewicz : A. Employment/Salary (full or part-time); Ionis Pharmaceuticals. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Stock holder of Ionis Pharmaceuticals. B. Fitzsimmons : A. Employment/Salary (full or part-time); Ionis Pharmaceuticals. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Stock holder of Ionis Pharmaceuticals. W.C. Mobley : C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Ionis Pharmaceuticals.	048.20	A. Bottelbergs : A. Employment/Salary (full or part-time); Janssen Pharmaceutica NV. W. Drinkenburg : A. Employment/Salary (full or part-time); Janssen Pharmaceutica NV. J.D. Pita-Almenar : A. Employment/Salary (full or part-time); Janssen Pharmaceutica NV.
047.12	J. Reichwald : A. Employment/Salary (full or part-time); Novartis. S. Rabe : A. Employment/Salary (full or part-	049.05	A.J. Carpinteiro Soares : 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.; Janssen Pharmaceutica. L. De Muynck : A. Employment/Salary (full or part-time); Janssen Pharmaceutica. D. Moechars : A. Employment/Salary (full or part-time); Janssen Pharmaceutica.
			M. Moreno-Rodríguez : E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); UPV/EHU. J. Martínez-Gardeazabal : E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property

PRESENTATION NUMBER	STATEMENT	PRESENTATION NUMBER	STATEMENT
	rights/patent holder, excluding diversified mutual funds); UPV/EHU. A. LLlorente-Ovejero: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); UPV/EHU. L. Lombardero: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); UPV/EHU. I. Manuel: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); UPV/EHU. R. Rodriguez-Puertas: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); UPV/EHU.		A. Employment/Salary (full or part-time); University of Wisconsin-Madison. C.A. Kelm-Nelson: A. Employment/Salary (full or part-time); University of Wisconsin-Madison.
049.06	M.J. Duncan: B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; research contract for this study, Merk & Company. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); drug (DORA-22), Merck & Company.	051.06	A. Jefferson: A. Employment/Salary (full or part-time); The Perron Institute for Neurological and Translational Science. F.L. Mastaglia: A. Employment/Salary (full or part-time); The Perron Institute for Neurological and Translational Science. R.S. Anderton: A. Employment/Salary (full or part-time); The University of Notre Dame, Australia.
049.10	A.Y. Brureau: A. Employment/Salary (full or part-time); Pharnext. N. Cholet: A. Employment/Salary (full or part-time); Pharnext. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Pharnext. J. Fouquier: A. Employment/Salary (full or part-time); Pharnext. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Pharnext. R. Hajj: A. Employment/Salary (full or part-time); Pharnext. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Pharnext. D. Cohen: A. Employment/Salary (full or part-time); Pharnext. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Pharnext.	051.15	A. Jefferson: A. Employment/Salary (full or part-time); The Perron Institute for Neurological and Translational Science. S. Ghosh: A. Employment/Salary (full or part-time); The Perron Institute for Neurological and Translational Science. F. Mastaglia: A. Employment/Salary (full or part-time); The Perron Institute for Neurological and Translational Science. R. Anderton: A. Employment/Salary (full or part-time); The Perron Institute for Neurological and Translational Science.
049.12	J. Royea: C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Vicore Pharma.	051.16	J. Vesper: F. Consulting Fees (e.g., advisory boards); Boston Scientific, Medtronic, St. Jude Medical.
049.19	K. Makioka: A. Employment/Salary (full or part-time); Probiodrug. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Probiodrug. M. Kleinschmidt: A. Employment/Salary (full or part-time); Probiodrug. J. Rahfeld: 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.; Probiodrug. I. Lues: 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.; Probiodrug. S. Schilling: 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.; Probiodrug. C.A. Lemere: 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.; Probiodrug.	051.21	C.R. Freed: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Share in patent for glycerol phenylbutyrate tp treat Parkinson's disease.
049.20	T.M. Smith: A. Employment/Salary (full or part-time); Med-Life Discoveries. W. Fallatah: C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Med-Life Discoveries LP. D. Jayasinghe: A. Employment/Salary (full or part-time); Med-Life Discoveries. S.A. Ritchie: A. Employment/Salary (full or part-time); Med-Life Discoveries. N. Braverman: C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Med-Life Discoveries LP.	051.23	K. Heilbron: A. Employment/Salary (full or part-time); 23andMe. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); 23andME. P. Fontanillas: A. Employment/Salary (full or part-time); 23andMe. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); 23andMe. B. Alipanahi: A. Employment/Salary (full or part-time); 23andMe. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); 23andMe. M. Nalls: A. Employment/Salary (full or part-time); National Institutes of Health. P. Cannon: A. Employment/Salary (full or part-time); 23andMe. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); 23andMe.
050.26	C.K. Broadfoot: A. Employment/Salary (full or part-time); University of Wisconsin-Madison. M.R. Ciucci:	052.16	B.M. Bader: A. Employment/Salary (full or part-time); NeuroProof GmbH. M. Segura Castell: A. Employment/Salary (full or part-time); NeuroProof GmbH. K. Juegelt: A. Employment/Salary (full or part-time); NeuroProof GmbH. M.L. Hendrickson: A. Employment/Salary (full or part-time); BrainXell. L. Schultz: A. Employment/Salary (full or part-time); NeuroProof GmbH. O.H. Schroeder: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NeuroProof GmbH.
		052.20	A. Lisberg: C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); GlaxoSmithKline. D. Merry: C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); GlaxoSmithKline.
		052.22	G. Srbuk Tomassy: A. Employment/Salary (full or part-time); Biogen. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Biogen. Y. Liu: A. Employment/Salary (full or part-time); Biogen. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Biogen. M. Zhang: A. Employment/Salary (full or part-time); Biogen. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Biogen. L. Sun: A. Employment/Salary (full or part-time); Biogen. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Biogen. Y. Luo: A. Employment/Salary (full or part-time); Biogen. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Biogen. C. Roberts: A. Employment/Salary (full or part-time); Biogen. E. Ownership Interest (stock, stock

PRESENTATION NUMBER	STATEMENT	PRESENTATION NUMBER	STATEMENT
053.09	options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Biogen. A.R. McCampbell: A. Employment/Salary (full or part-time); Biogen. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Biogen.	054.24	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.; Joan Agency for Medical Research and Development. K. Shindo: A. Employment/Salary (full or part-time); Shonan Keiiku Hospital. M. Yoneta: A. Employment/Salary (full or part-time); Keio University, Shonan Keiiku Hospital. K. Akaboshi: A. Employment/Salary (full or part-time); Shonan Keiiku Hospital. M. Liu: A. Employment/Salary (full or part-time); Keio University. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Japan Agency for Medical Research and Development.
053.18	J.M. Streicher: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Teleport Pharmaceuticals, LLC. M. Hay: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); ProNeurogen. M. Heien: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Teleport Pharmaceuticals, LLC. R. Polt: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Teleport Pharmaceuticals, LLC.	054.24	R.L. Webb: A. Employment/Salary (full or part-time); Aruna Biomedical. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Aruna Biomedical. S.L. Stice: A. Employment/Salary (full or part-time); Aruna Biomedical. 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.; Aruna Biomedical. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Aruna Biomedical.
053.20	A. Swaroop: A. Employment/Salary (full or part-time); Cepham, Inc. M. Bagchi: 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.; Cepham, Inc. D. Bagchi: 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.; Cepham, Inc.	055.08	S.H. Scott: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); BKIN Technologies, Ltd.
054.09	R. Krauss: A. Employment/Salary (full or part-time); Disarm Therapeutics. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Disarm Therapeutics. T.M. Engber: A. Employment/Salary (full or part-time); Disarm Therapeutics. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Disarm Therapeutics. R. Devraj: A. Employment/Salary (full or part-time); Disarm Therapeutics. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Disarm Therapeutics. T. Bosanac: A. Employment/Salary (full or part-time); Disarm Therapeutics. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Disarm Therapeutics. R. Hughes: A. Employment/Salary (full or part-time); Disarm Therapeutics. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Disarm Therapeutics.	056.23	A.M. Taylor: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); A.M.T. is an inventor of the microfluidic chamber/chip (US 7419822 B2) and is a member of Xona Microfluidics, LLC.
054.16	F. Kaneko: A. Employment/Salary (full or part-time); Keio University. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Japan Agency for Medical Research and Development, Grants-in-Aid for Scientific Research. K. Shindo: A. Employment/Salary (full or part-time); Shonan Keiiku Hospital. M. Yoneta: A. Employment/Salary (full or part-time); Keio University, Shonan Keiiku Hospital. M. Okawada: A. Employment/Salary (full or part-time); Keio University, Shonan Keiiku Hospital. K. Akaboshi: A. Employment/Salary (full or part-time); Shonan Keiiku Hospital. M. Liu: A. Employment/Salary (full or part-time); Keio University.	058.01	X. Xie: 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.; Afasci, Inc.
054.18	J.H. Griffin: F. Consulting Fees (e.g., advisory boards); ZZ Biotech LLC. B.V. Zlokovic: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); ZZ Biotech LLC.	058.06	L. Cornelison: 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.; electroCore. S. Woodman: 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.; electroCore. P.L. Durham: 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.; electroCore.
	M. Okawada: A. Employment/Salary (full or part-time); Keio University, Shonan Keiiku Hospital. F. Kaneko: A. Employment/Salary (full or part-time); Keio University, Shonan Keiiku Hospital. B. Contracted Research/Research	058.07	Y. Kurauchi: A. Employment/Salary (full or part-time); Kumamoto University. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; JSPS.
		062.06	F. Horak: A. Employment/Salary (full or part-time); APDM, Inc.
		063.13	S.E. Cooper: 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. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Medtronic.

PRESENTATION NUMBER	STATEMENT	PRESENTATION NUMBER	STATEMENT
065.03	N.G. Hatsopoulos: F. Consulting Fees (e.g., advisory boards); NGH serves as a consultant for Blackrock Microsystems, Inc., the company that provided the micro-electrode arrays for this study.	075.25	T. Deckersbach: 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.; Palatin Technologies. L. Sparks: 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.; Palatin Technologies. B.V. Gonzalez Cautela: 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.; Palatin Technologies. J.G. Pfaus: 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.; Palatin Technologies.
066.10	C. Ferris: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Animal Imaging Research.		
066.23	C.A. Gerson: 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.; Palatin Technologies. L. Sparks: 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.; Palatin Technologies. B.V. Gonzalez Cautela: 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.; Palatin Technologies. J.G. Pfaus: 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.; Palatin Technologies.		
066.24	J.M. Bravo: Other; UNIVERSIDAD AUTONOMA DE TLAXCALA.	076.14	P. Shirvalkar: F. Consulting Fees (e.g., advisory boards); Medtronic.
068.01	A. Terao: A. Employment/Salary (full or part-time); Tokai University. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Yamada Bee Company, Inc.	077.02	R.J. Davidson: Other; Founder, President and board member, Healthy Minds Innovations.
068.18	S.N. Framnes: A. Employment/Salary (full or part-time); Marquette University. D.M. Arble: A. Employment/Salary (full or part-time); Marquette University.	077.30	M.J. Schnitzer: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Inscopix, Inc. G. Scherrer: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Epiodyne, Inc.
072.01	T. Enomoto: A. Employment/Salary (full or part-time); Sumitomo Dainippon Pharma Co., Ltd. K. Nakamura: B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Research grant from Sumitomo Dainippon Pharma, Co., Ltd. K. Ikeda: A. Employment/Salary (full or part-time); Sumitomo Dainippon Pharma Co., Ltd.	078.22	M. Wöhr: F. Consulting Fees (e.g., advisory boards); MW is scientific advisor of Avisoft Bioacoustics.
072.09	M. Qiao: A. Employment/Salary (full or part-time); University of Calgary.	079.07	X. Ding: C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Adai Technology Co., Ltd. Y. Li: A. Employment/Salary (full or part-time); Adai Technology Co., Ltd. D. Li: A. Employment/Salary (full or part-time); Adai Technology Co., Ltd. Z. Peng: A. Employment/Salary (full or part-time); Adai Technology Co., Ltd.
072.18	A.G. Collins: 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.; Roche Pharmaceuticals. M.J. Frank: 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.; Roche Pharmaceuticals.	083.09	H.B. Kordasiewicz: A. Employment/Salary (full or part-time); Abbott. H.T. Zhao: A. Employment/Salary (full or part-time); Abbott. D.J. Ecker: A. Employment/Salary (full or part-time); Abbott.
073.11	J. Krystal: B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Pfizer, AstraZeneca. F. Consulting Fees (e.g., advisory boards); Bioasis, BioHaven Pharma, Pfizer, AstraZeneca.. J.D. Murray: F. Consulting Fees (e.g., advisory boards); BlackThorn Therapeutics. A. Anticevic: F. Consulting Fees (e.g., advisory boards); BlackThorn Therapeutics.	085.25	A.D. Ekstrom: A. Employment/Salary (full or part-time); University of California Davis.
074.07	A.A. Chiba: A. Employment/Salary (full or part-time); University of California, San Diego.	085.28	R.J. Schafer: A. Employment/Salary (full or part-time); Lumos Labs, Inc. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Lumos Labs, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Lumos Labs, Inc. N. Ng: A. Employment/Salary (full or part-time); Lumos Labs, Inc. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Lumos Labs, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Lumos Labs, Inc. E. Cordell: A. Employment/Salary (full or part-time); Lumos Labs, Inc. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Lumos Labs, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Lumos Labs, Inc.
075.07	J.P. Britt: A. Employment/Salary (full or part-time); McGill University.	085.29	N. Ng: A. Employment/Salary (full or part-time); Lumos Labs, Inc. E. Ownership Interest (stock, stock options,

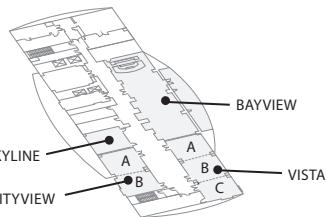
PRESENTATION NUMBER	STATEMENT	PRESENTATION NUMBER	STATEMENT
	royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Lumos Labs, Inc. E. Cordell : A. Employment/Salary (full or part-time); Lumos Labs, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Lumos Labs, Inc. R.J. Schafer : A. Employment/Salary (full or part-time); Lumos Labs, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Lumos Labs, Inc.		
088.07	E. Daugherty : E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); ReadCoor Inc. G. Church : E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); ReadCoor Inc.		
089.02	C.C. McIntyre : D. Fees for Non-CME Services Received Directly from Commercial Interest or their Agents (e.g., speakers' bureaus); BrainLab. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Surgical Information Sciences. F. Consulting Fees (e.g., advisory boards); Boston Scientific Neuromodulation, Kernel.		
090.01	D. Dровер : F. Consulting Fees (e.g., advisory boards); DD is a consultant for Masimo, Inc.		
090.02	M.E. Pflieger : A. Employment/Salary (full or part-time); Cortech Solutions, Inc. L. Gao : A. Employment/Salary (full or part-time); Cortech Solutions, Inc.		
090.06	E.N. Brown : D. Fees for Non-CME Services Received Directly from Commercial Interest or their Agents (e.g., speakers' bureaus); Masimo. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Masimo.		
090.07	T. Wilaiprasitporn : 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.; The Thailand Research Fund under Grant MRG6180028.		
090.11	G. Moffat : A. Employment/Salary (full or part-time); Interaxon Inc. N. Proulx : A. Employment/Salary (full or part-time); Interaxon. H.J. Banville : A. Employment/Salary (full or part-time); Interaxon. C. Aimone : A. Employment/ Salary (full or part-time); Interaxon. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Interaxon.		
090.25	A.M.N. Cassara : A. Employment/Salary (full or part-time); IT'IS Foundation. E. Neufeld : A. Employment/Salary (full or part-time); IT'IS Foundation, ZMT Zurich MedTech AG. 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.; SPARC Initiative (NIH), RESTORE project (EUROSTARS), NEUROMAN (CTI). E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Minority Shareholder ZMT. N. Kuster : A. Employment/Salary (full or part-time); IT'IS Foundation, ZMT Zurich MedTech AG, SPEAG. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Shareholder NFT, ZMT, SPEAG.		
091.08	A.H. Assadi : Other; Senior Author.		

Hotel Floor Plans

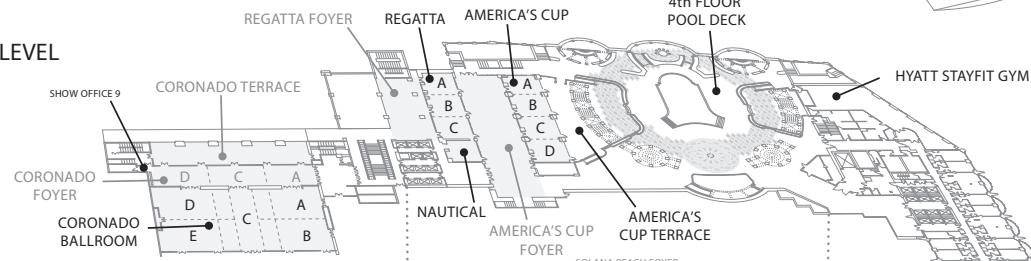
MANCHESTER GRAND HYATT

1 Market Pl
San Diego, CA 92101

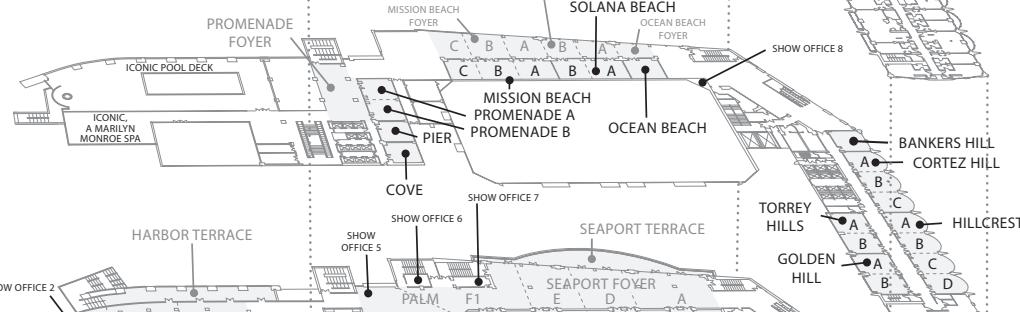
32ND LEVEL



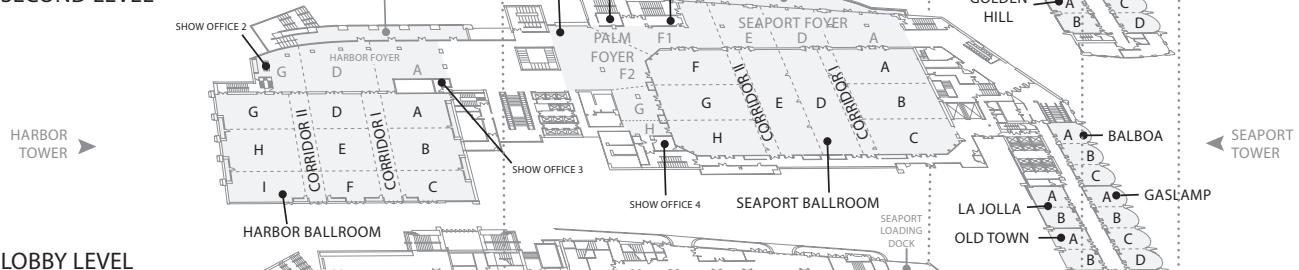
FOURTH LEVEL



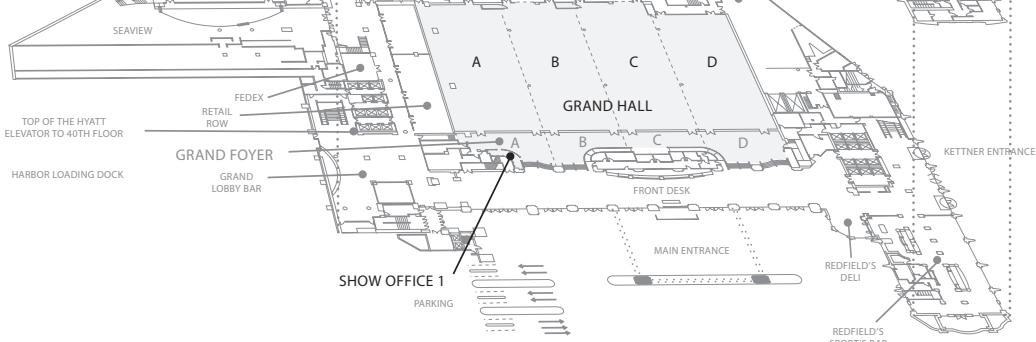
THIRD LEVEL



SECOND LEVEL



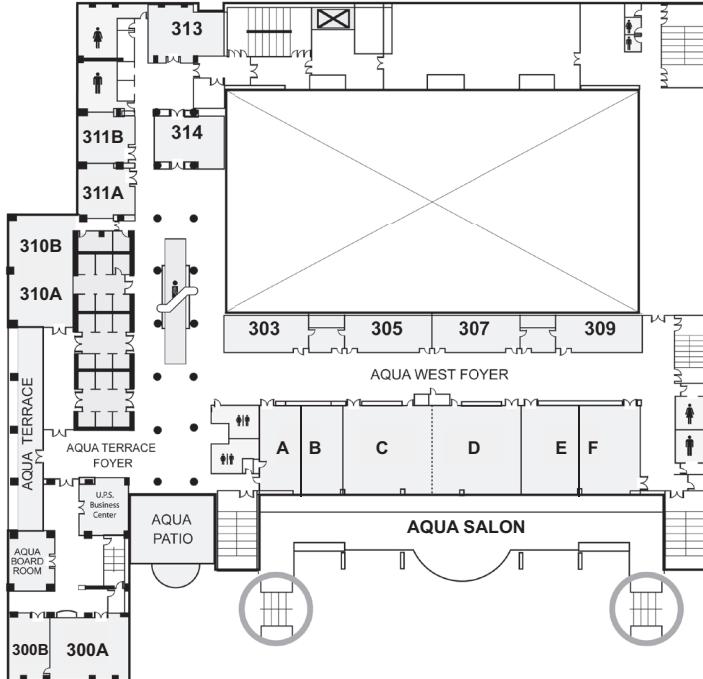
LOBBY LEVEL



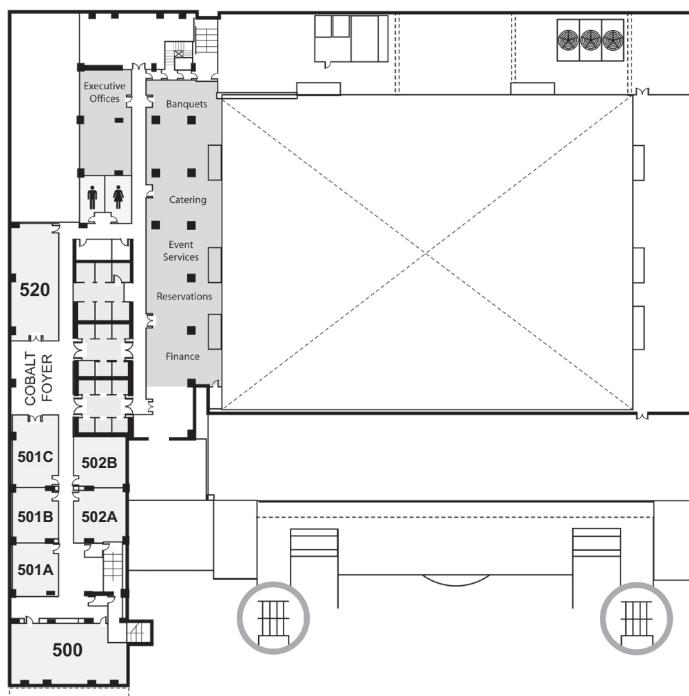
HILTON SAN DIEGO BAYFRONT

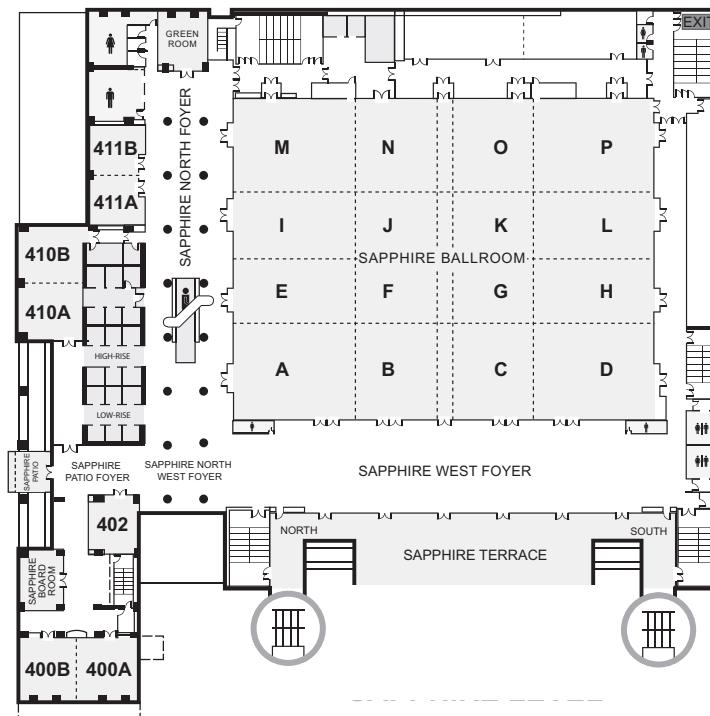
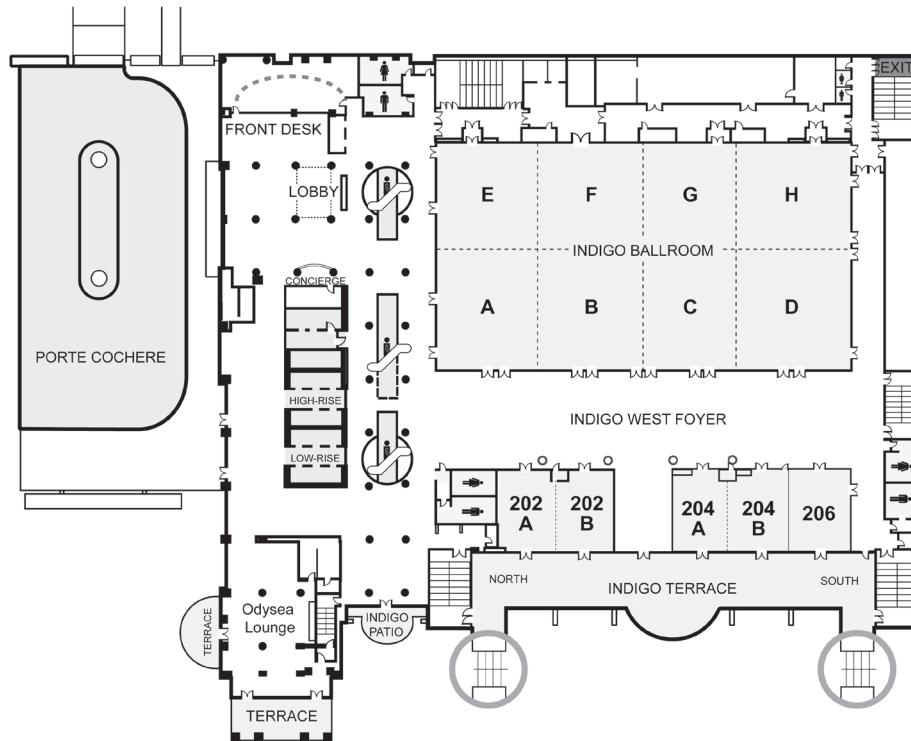
1 Park Blvd
San Diego, CA 92101

AQUA LEVEL



COBALT LEVEL





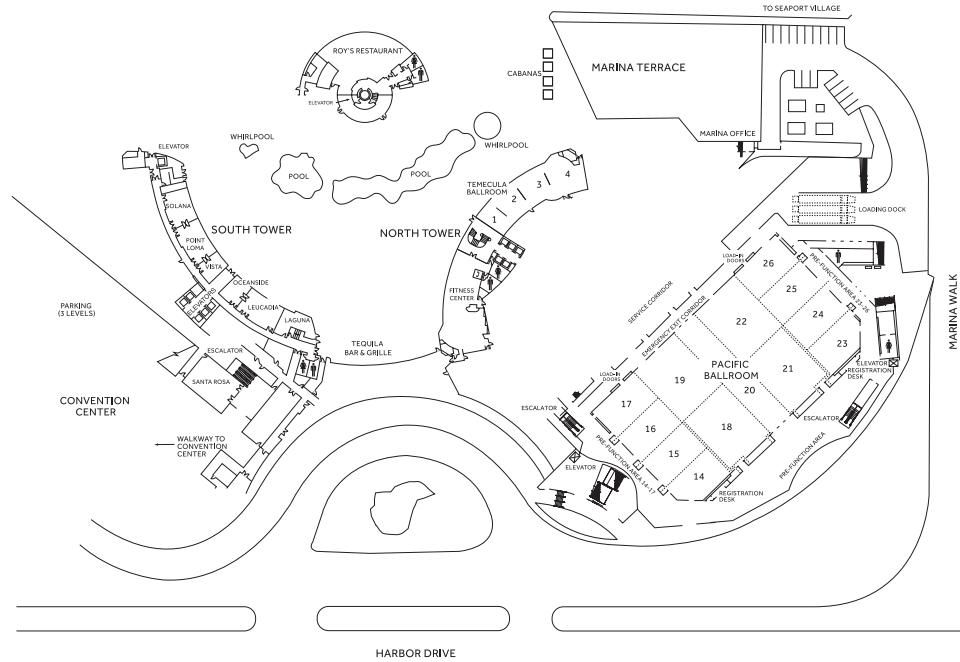
MARRIOTT MARQUIS SAN DIEGO MARINA

333 W Harbor Dr

San Diego, CA 92101

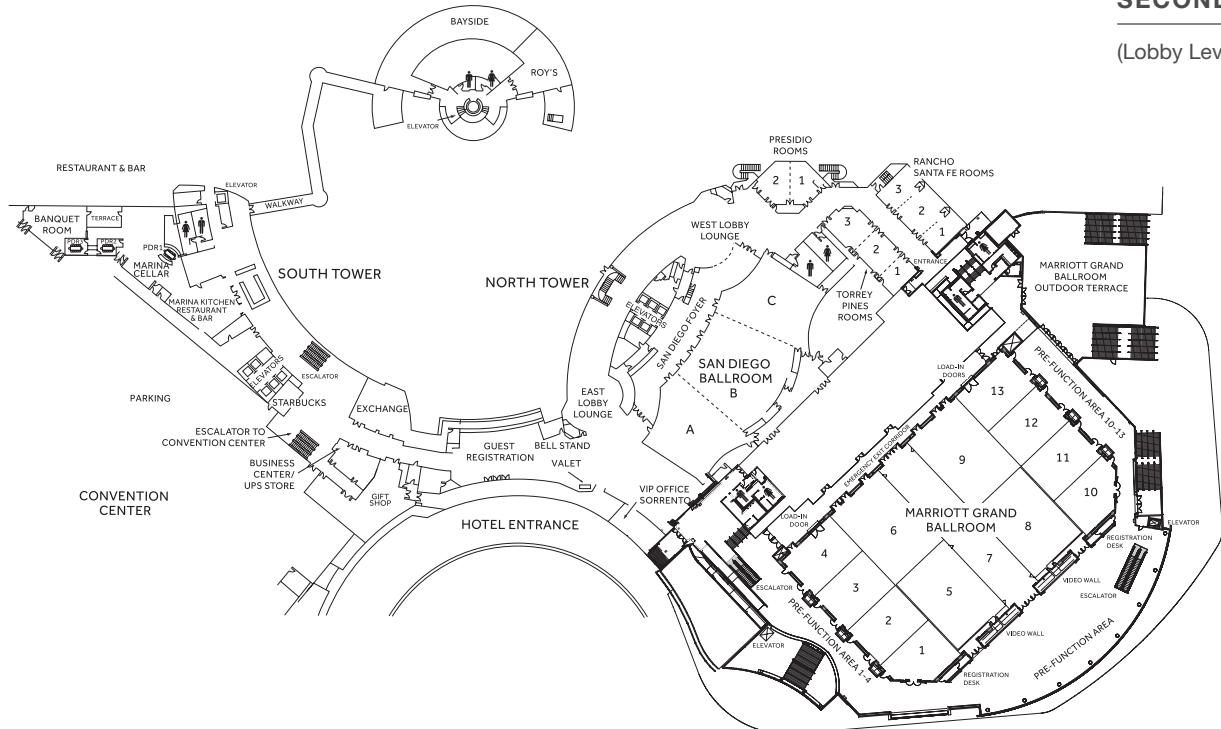
FIRST FLOOR

(Ground Level)



SECOND FLOOR

(Lobby Level)



SOUTH TOWER

Second Floor

Bayside

1st Floor

Laguna

Leucadia

Oceanside

Point Loma

Santa Rosa

Solana

Vista

3rd Floor

Balboa

Cardiff

Carlsbad

Del Mar

Encinitas

Marina Ballroom D-G

Miramar

Mission Hills

Palomar

4th Floor

Catalina

Coronado

Dana Point

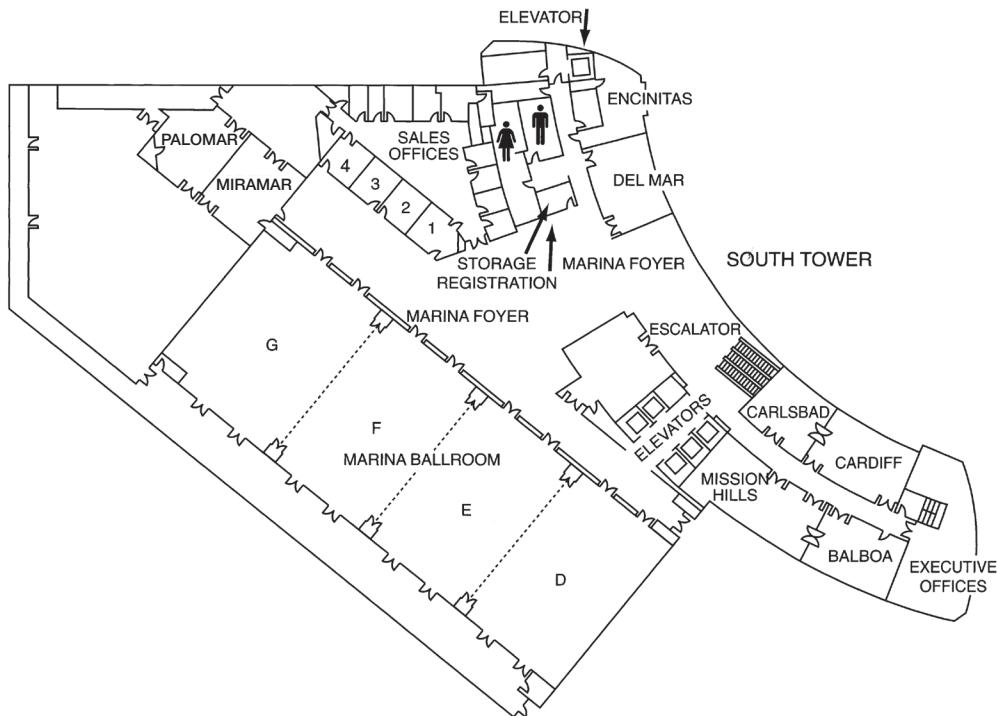
La Costa

La Jolla

La Mesa

Malibu

Newport Beach



NORTH TOWER

Lobby Level

Marriott Grand Ballroom 1-13

Presidio 1-2

Rancho Santa Fe 1-3

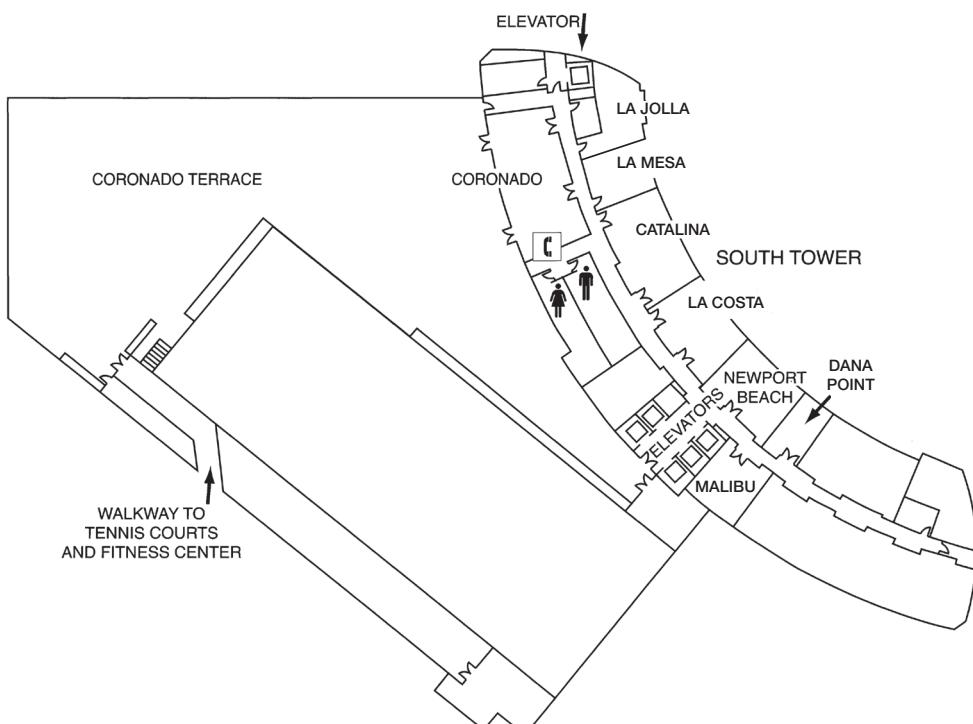
San Diego Ballrooms A-C

Torrey Pines 1-3

1st Floor

Pacific Ballroom 17-26

Temecula

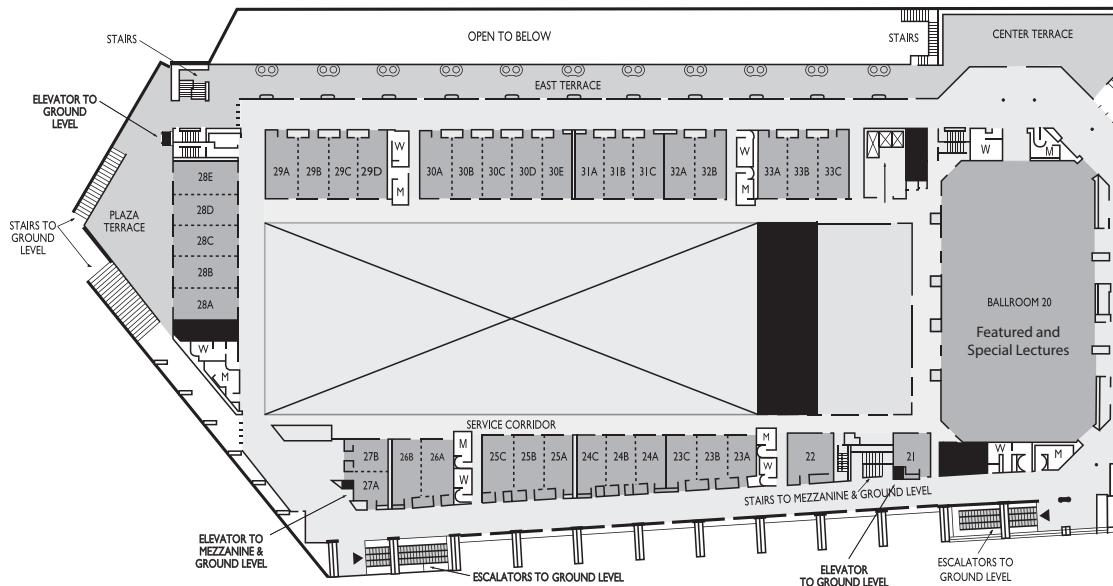


SAN DIEGO CONVENTION CENTER

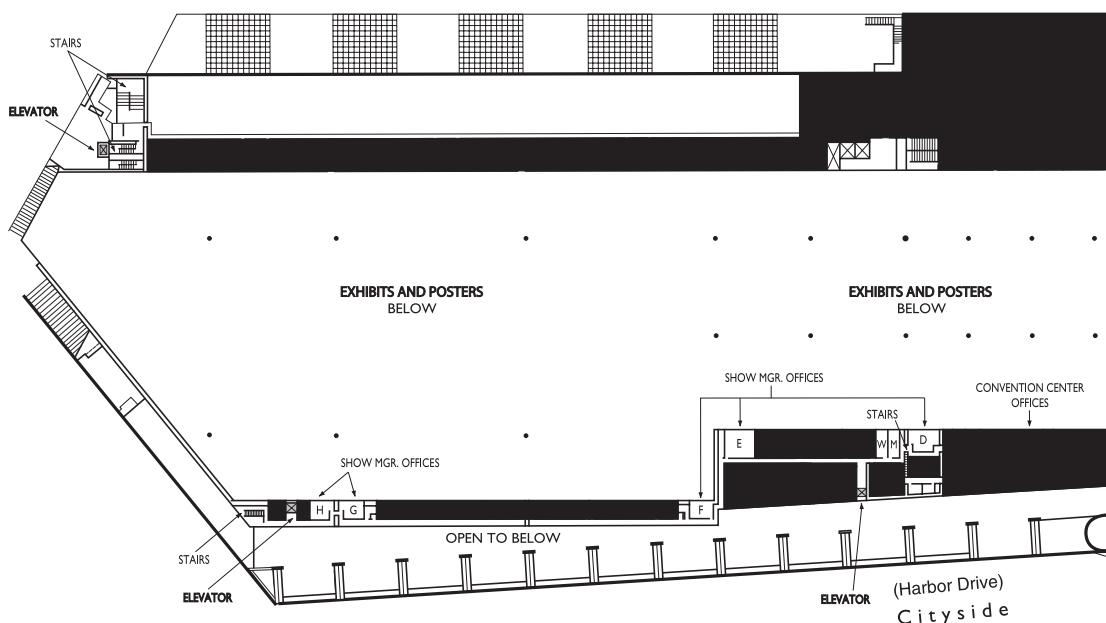
111 W Harbor Dr

San Diego, CA 92101

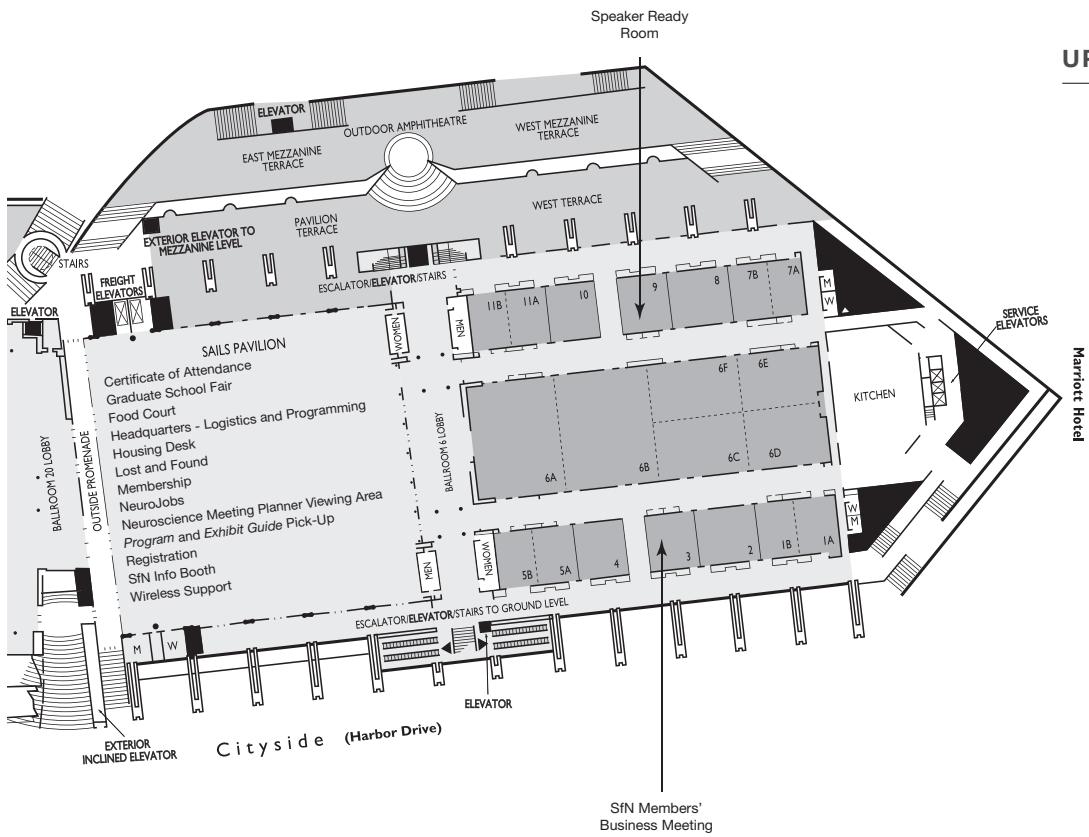
San Diego Bay



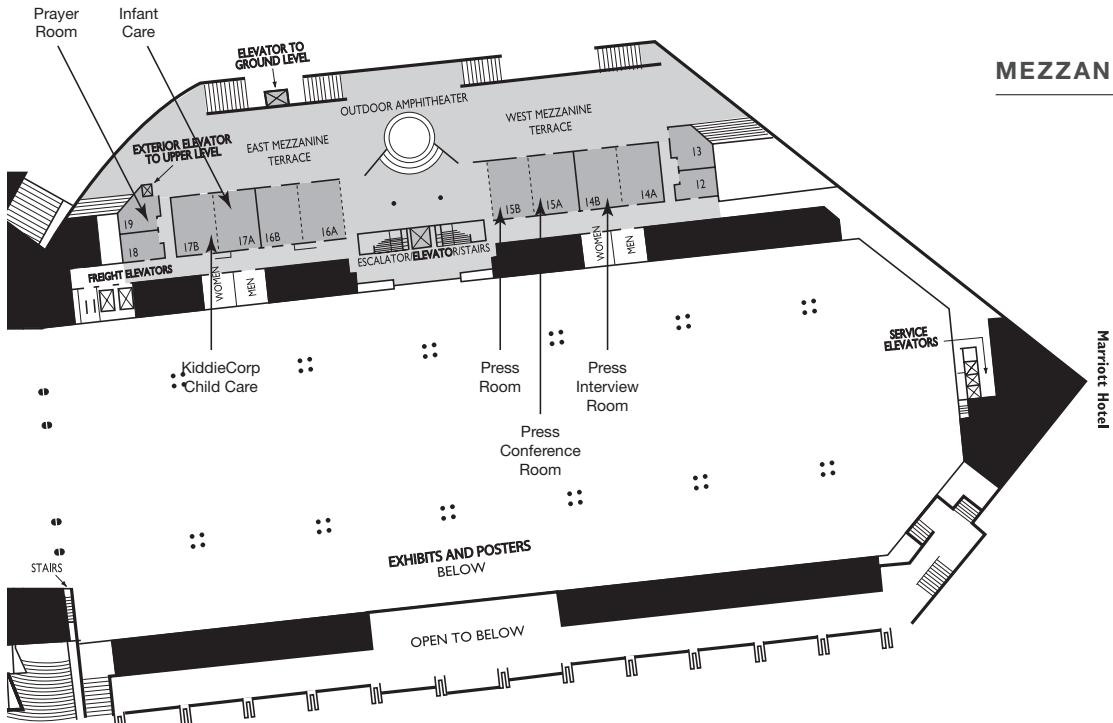
San Diego Bay



UPPER LEVEL



MEZZANINE LEVEL



Exhibits and Poster Sessions

Meeting Dates: November 3–7 | Exhibit Dates: November 4–7

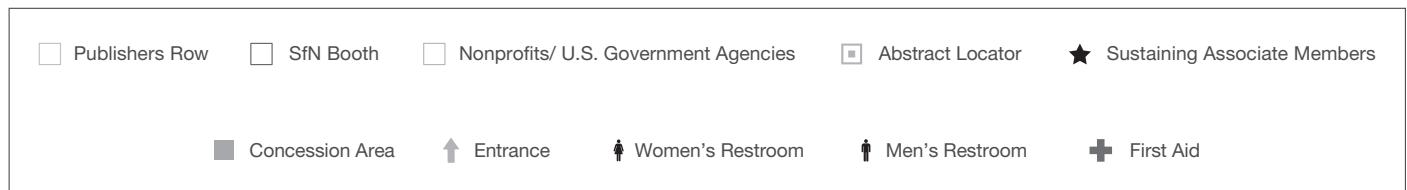
Note: Entrances will open at noon on Saturday and at 7 a.m. Sunday through Wednesday for poster presenter setup only. Poster sessions are open for all attendees at 1 p.m. on Saturday and 8 a.m. Sunday through Wednesday.

Floor plans subject to change. For current floor plan, visit SfN.org/exhibits.

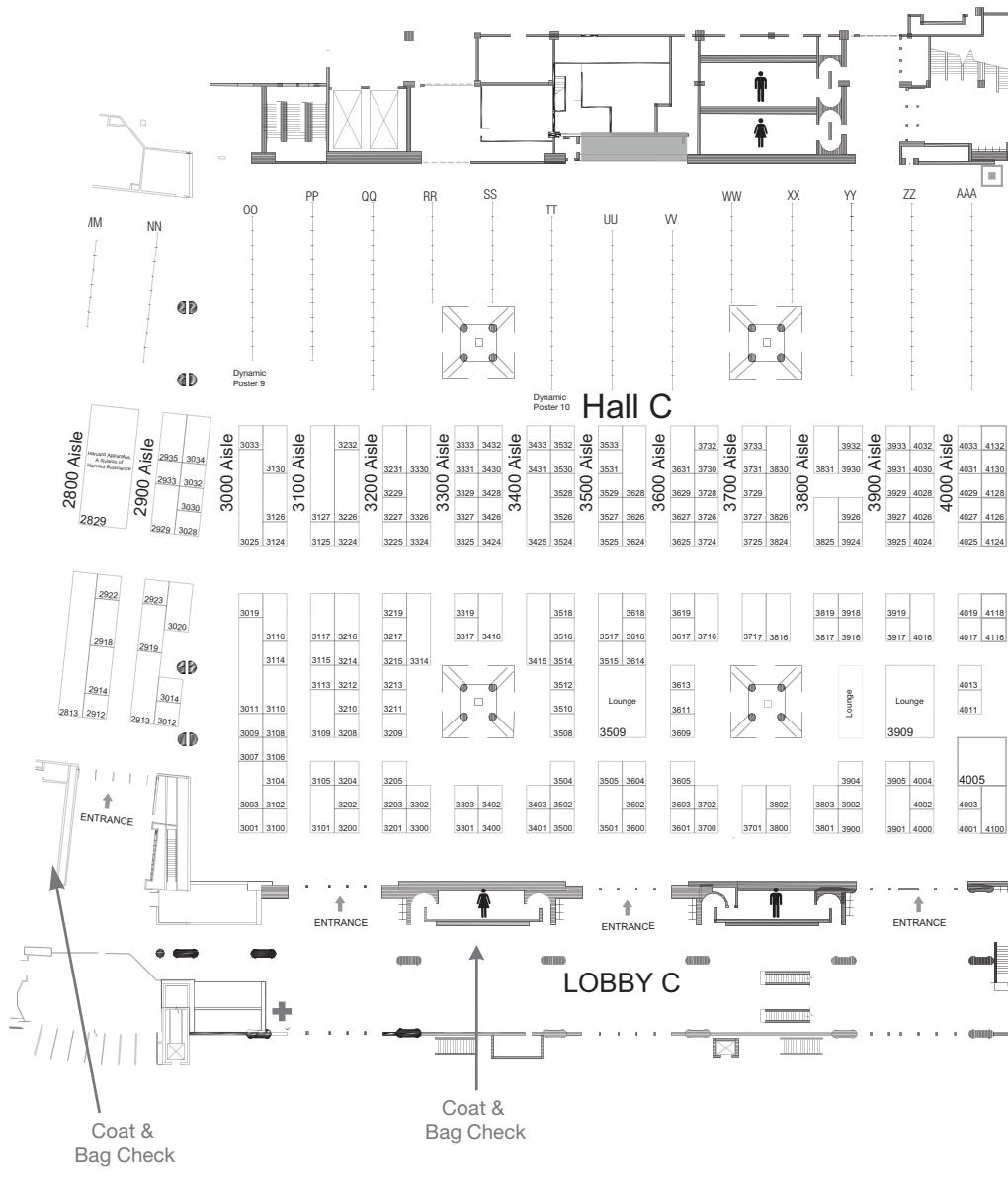


Hilton Bayfront





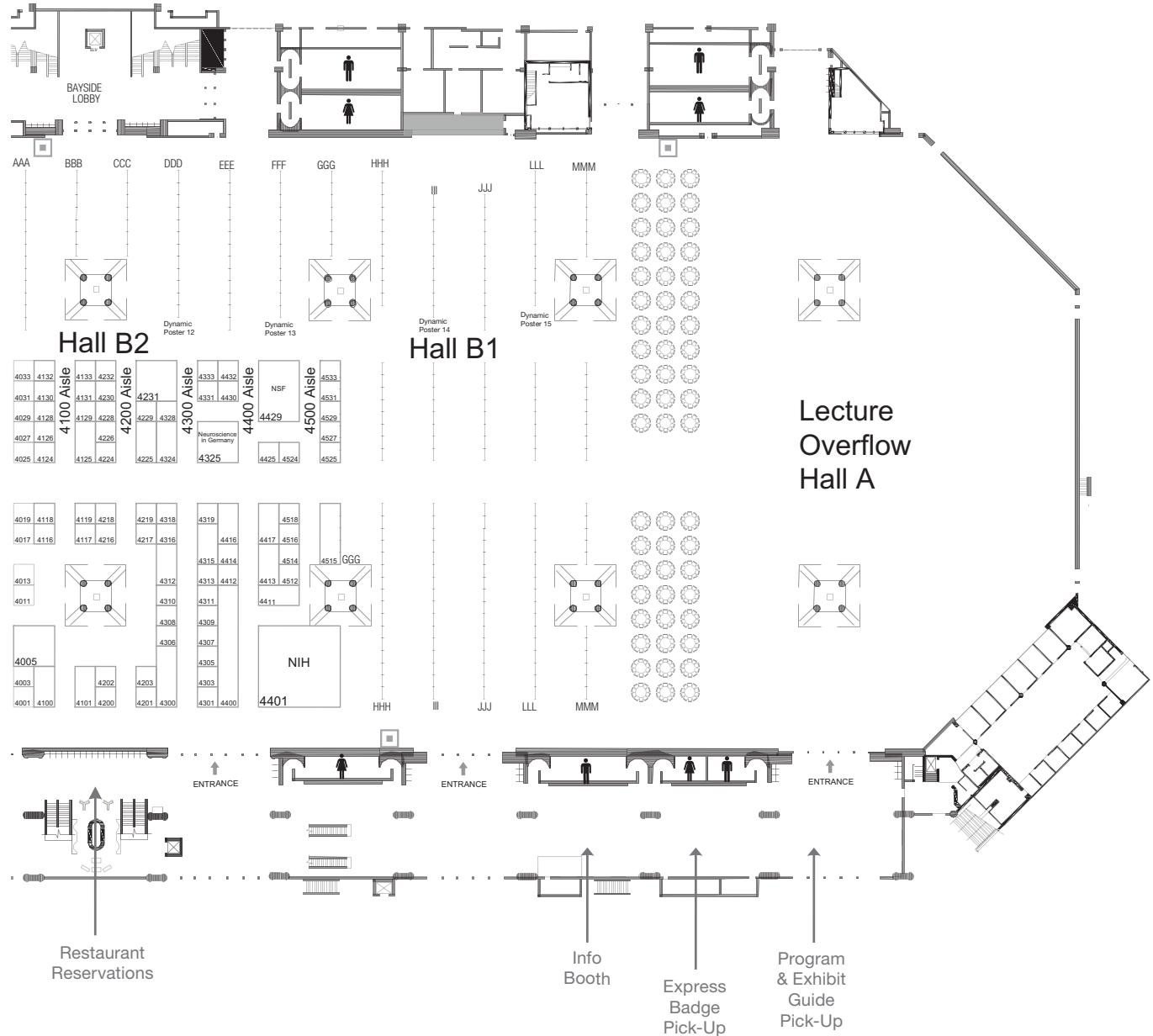
SAN DIEGO CONVENTION CENTER



Gaslamp District

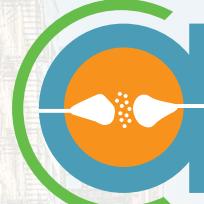
Publishers Row SfN Booth Nonprofits/ U.S. Government Agencies Abstract Locator Sustaining Associate Members

Concession Area ↑ Entrance ♂ Women's Restroom ♂ Men's Restroom + First Aid



**Marriott Marquis
San Diego Marina**





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